



ALLEN & MAJOR
ASSOCIATES, INC.



319 CHELSEA STREET
EAST BOSTON, MA
NOTICE OF INTENT

DATE PREPARED

September 3, 2019

APPLICANT:

MG2 Group LLC
50 Franklin Street, Suite 400
Boston, MA 02110

PREPARED BY:

Allen & Major Associates, Inc.
100 Commerce Way
Woburn, MA 01801

A&M PROJECT NO.: 2687-01

September 3, 2019

Amelia Croteau
Executive Secretary
Boston City Hall Room 709
Boston, MA 02201

RE: A&M Project #2687-01
319 Chelsea Street
Notice of Intent

Dear Ms. Croteau:

On behalf of the applicant, MG2 Group LLC, Allen & Major Associates, Inc. (A&M) is pleased to submit this Notice of Intent (NOI) to the Boston Conservation Commission for the redevelopment of the 319 Chelsea Street property. As required, this NOI is being filed under the Massachusetts Wetlands Protection Act and its implementing regulations 310 CMR 10.00.

Existing Conditions

The entire 319 Chelsea Street property consists of a single story brick building which formerly housed the Magrath Funeral Home. The existing building was constructed around 1925 and is currently unoccupied.

This NOI is being filed because a portion of the property is located within the Federal Emergency Management Agency (FEMA) Zone AE, and area of Special Flood Hazard Areas (SFHAS) with a base elevation determined of 10.0. In addition, the latest NHESP Priority & Estimated Habitat for Rare Species map for the site has been reviewed and there are no certified vernal pools, estimated or priority habitat within the area of work.

Proposed Project

In this NOI, the proposed project seeks to redevelop the site by razing the existing building, which is within the Special Flood Hazard Areas. The proponent will construct a new mixed use building with multi-family rental and retail space within the 100-Year Floodplain, with on-site parking and utilities. Approximately 42 parking spaces are provided beneath the building for residents and staff. The proposed project results in a decrease in the flood impact by reducing the area of building with the 100-Year Floodplain.

Enclosed are:

- 2 copies (one original & one copy) of the WPA Form 3
- 2 copies of plans (11"x17")
- 2 copies of USGS Quadrangle Map
- 2 copies of FEMA Flood Map
- 2 copies of Natural Heritage & Endangered Species Map
- 2 copies of Stormwater Report
- 2 copies of the project narrative
- 2 copies of an Abutters List, Affidavit of Service, and Abutter Notification
- 2 copies of the BPDA Climate Resiliency Checklist
- Electronic copy of all documents (to be sent by e-mail)

The NOI application includes:

- Project narrative
- WPA Form 3
- Exhibits (including a copy of a 8 ½" by 11" section of the USGS quadrangle)
- Abutter information
- Copies of the DEP filing fee checks

Fees

- A check in the amount of \$1,500 for the City of Boston NOI Application fee.
- A check in the amount of \$512.50 will be sent to the MA DEP for the State's share of the MA DEP NOI Application fee.

A copy of the entire NOI package has also been submitted to the DEP Northeast Regional Office. Allen & Major Associates, Inc. looks forward to discussing the project at the next public hearing. Please contact A&M to confirm the time and location of the public hearing. Thank you for your time and consideration. If you have any questions regarding this submittal please contact me at (781) 935-6889.

Very truly yours,

ALLEN & MAJOR ASSOCIATES, INC.



Michael A. Malynowski, PE
Senior Project Manager



ALLEN & MAJOR
ASSOCIATES, INC.

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(Submitted under separate cover)

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(Submitted under separate cover)

SECTION 1.0 – NARRATIVE & WPA FORM 3

Project Narrative

Introduction

On behalf of the applicant, MG2 Group LLC, Allen & Major Associates, Inc. (A&M) is pleased to submit this Notice of Intent (NOI) to the Boston Conservation Commission for the redevelopment of the 319 Chelsea Street property. As required, this NOI is being filed under the Massachusetts Wetlands Protection Act and its implementing regulations 310 CMR 10.00. The purpose of this NOI is to gain approval for work within the 100-year flood zone. The proposed project seeks to redevelop the site by razing the existing structure, which is within the 100-year flood zone, and constructing a new mixed use building with multi-family rental and retail space.

Existing Conditions

The entire 319 Chelsea Street property consists of a single story brick building which formerly housed the Magrath Funeral Home. The existing building was constructed around 1925 and is currently unoccupied.

Existing stormwater is collected via roof drains which discharge to the municipal drainage system. The proposed project includes stormwater systems that are in compliance with the MA DEP Stormwater Standards and an improvement over existing conditions.

Environmental Due Diligence

Additional due diligence was completed by consulting the latest Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) map dated March 16, 2016. A portion of property is within Zone AE (100-Year Floodplain) which is associated with the Boston Inner Harbor (See Figure 2 FEMA FIRM Map). The site is not located within any Areas of Critical Environmental Concern (ACEC).

NHESP Priority & Estimated Habitat

The Massachusetts Natural Heritage function available on maps.MassGIS.state.ma.us indicates that there are no Priority Habitats mapped within the property (See Figure 3 Habitats & Areas of Environmental Concerns).

Proposed Project

In this Notice of Intent (NOI), the proposed project seeks to redevelop the existing site by constructing a new mixed use building with apartments and retail. Some of the improvements include:

- 42 dedicated parking spaces for residents and staff
- Water, sewer, and other associated utilities
- Subsurface infiltration system
- Landscaped islands
- Streetscape Improvements

Regulatory Compliance with Wetlands Protection Act Regulations (310 CMR 10.00)

10.21: Land Subject to Coastal Storm Flowage

Land Subject to Coastal Storm Flowage is defined in 310 CMR Section 10.04 as land subject to any inundation caused by coastal storms up to and including that caused by the 100-year storm, surge of record or storm of record, whichever is greater. A portion of the property is land subject to coastal storm flowage, by the Boston Inner Harbor, because the current FEMA Flood Insurance Rate Map indicates a 100 year flood elevation of 10 feet (NAVD 88) in this area.

The flood impact resulting from the existing building within the 100 year flood zone covers an area of approximately 10,885 sf. The flood impact resulting from the proposed build covers an area of approximately 8,950 sf. A net reduction in flood zone impact of 1,935 sf of new or improved flood zone storage area. This information above was outlined in the Stormwater Report prepared by Columbia Design Group, LLC, dated September 4, 2019.

Proposed work includes the demolition of an existing building, construction of a new mixed use building, associated parking, and utilities. Site work will not impede the flood area and once completed, will increase flood storage volume.

The proposed work in the land subject to coastal storm flowage is outside of any areas found to be significant to the protection of wildlife habitat, as shown in Exhibit 3 (Priority & Estimated Habitats) and is not an area of critical environmental concern.

MA Stormwater Performance Standards

The site design includes analysis of the existing and proposed stormwater systems for compliance with the MA DEP Stormwater Standards. The Stormwater Report shows by means of narrative, calculations, and exhibits that there is no increase in peak rate of runoff from the site at each of the study points for all design storm events. The stormwater management system (SMS) incorporates structural and non-structural Best Management Practices to provide stormwater quality treatment and conveyance. See separate Stormwater Report for a detailed analysis of how the project meets the MA DEP Stormwater Standards.

Additionally, appropriate erosion controls will be installed prior to construction and an operation and maintenance plan has been developed. These erosion controls include the installation of wattles at the limit of work along the downgradient site borders and the construction of entrance apron pads at the main stie access point. Further information regarding erosion control measures and Operation & Maintenance can be found in the Stormwater Report by Columbia Design Group, LLC.

Narrative Conclusion

The applicant respectfully submits the proposed project for the review of the City of Boston Conservation Commission. The project will not disturb sensitive areas and has provided an increase in total flood storage for the 100-year storm and has met the MA Stormwater Performance Standards. Through careful site design, the adverse impacts have been minimized and the interests of the Massachusetts Wetlands Protection Act have been upheld.



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):

<u>319 Chelsea Street</u>	<u>East Boston</u>	<u>02128</u>
a. Street Address	b. City/Town	c. Zip Code
Latitude and Longitude:		
<u>42.377407</u>	<u>-71.029185</u>	
d. Latitude	e. Longitude	
<u>Parcel ID 0106899000</u>	<u>N/A</u>	
f. Assessors Map/Plat Number	g. Parcel /Lot Number	

2. Applicant:

<u>Jospeh</u>	<u>Donovan</u>	
a. First Name	b. Last Name	
<u>MG2 Group LLC</u>		
c. Organization		
<u>50 Franklin Street, Suite 400</u>		
d. Street Address		
<u>Boston</u>	<u>MA</u>	<u>02110</u>
e. City/Town	f. State	g. Zip Code
<u>617-412-3200</u>	<u>617-302-4869</u>	<u>inquiry@mg2group.com</u>
h. Phone Number	i. Fax Number	j. Email Address

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

<u>Chelsea Bremen LLC</u>		
c. Organization		
<u>50 Franklin Street Suite 400</u>		
d. Street Address		
<u>Boston</u>	<u>MA</u>	<u>02110</u>
e. City/Town	f. State	g. Zip Code
<u>h. Phone Number</u>	<u>i. Fax Number</u>	<u>j. Email address</u>

4. Representative (if any):

<u>Michael</u>	<u>Malynowski</u>	
a. First Name	b. Last Name	
<u>Allen & Major Associates, Inc.</u>		
c. Company		
<u>100 Commerce Way</u>		
d. Street Address		
<u>Woburn</u>	<u>MA</u>	<u>01801</u>
e. City/Town	f. State	g. Zip Code
<u>781-935-6889</u>	<u>781-935-2896</u>	<u>mmalynowski@allenmajor.com</u>
h. Phone Number	i. Fax Number	j. Email address

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

<u>\$1,050.00</u>	<u>\$512.50</u>	<u>\$537.50</u>
a. Total Fee Paid	b. State Fee Paid	c. City/Town Fee Paid



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Bureau of Resource Protection - Wetlands

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City/Town

A. General Information (continued)

6. General Project Description:

The project proposes the demolition of an existing building and the construction of a five story mixed use building with residential apartments plus retail on the first floor.

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

- 1. Single Family Home
- 2. Residential Subdivision
- 3. Commercial/Industrial
- 4. Dock/Pier
- 5. Utilities
- 6. Coastal engineering Structure
- 7. Agriculture (e.g., cranberries, forestry)
- 8. Transportation
- 9. 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 CMR10.24(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	b. Certificate # (if registered land)
53361	260
c. Book	d. Page Number

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

- 1. 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.
- 2. 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.



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Bureau of Resource Protection - Wetlands

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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	N/A	
	1. Name of Waterway (if available) - specify coastal or inland	

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: 0 square feet

4. Proposed alteration of the Riverfront Area:

<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
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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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	10,885	

	1. square feet	

4. 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. Project Involves Stream Crossings

_____	_____
a. number of new stream crossings	b. number of replacement stream crossings



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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

- 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.

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**

8/16/19
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*

- Percentage/acreage of property to be altered:

(a) within wetland Resource Area	<u>N/A</u> percentage/acreage
(b) outside Resource Area	<u>N/A</u> percentage/acreage

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

- 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 **
 - Project description (including description of impacts outside of wetland resource area & buffer zone)
 - 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.



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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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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.

Civil Site Plan, 319 Chelsea Street, East Boston, MA

a. Plan Title

Columbia Design Group, LLC

Peter Gammie

b. Prepared By

c. Signed and Stamped by

7/12/19

1" = 20'

d. Final Revision Date

e. Scale

N/A

2/25/19

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:

12

08-30-19

2. Municipal Check Number

3. Check date

13

08-30-19

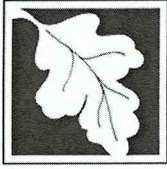
4. State Check Number

5. Check date

Chelsea Bremen, LLC

6. Payor name on check: First Name

7. Payor name on check: Last Name



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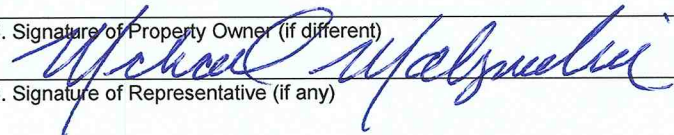
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:	
MassDEP File Number	
Document Transaction Number	
East Boston	
City/Town	

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.

	<u>8/22/19</u>
1. Signature of Applicant	2. Date
	<u>8/29/19</u>
3. Signature of Property Owner (if different)	4. Date
5. Signature of Representative (if any)	6. Date

For Conservation Commission:

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

For MassDEP:

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

Other:

If the applicant has checked the "yes" box in 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

B. Fees (continued)

Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
Category 3, b	1	\$1,050	\$1,050
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
Step 5/Total Project Fee:			\$1,050
Step 6/Fee Payments:			
Total Project Fee:			\$1,050
State share of filing Fee:			\$512.50
City/Town share of filing Fee:			\$537.50
			a. Total Fee from Step 5
			b. 1/2 Total Fee less \$12.50
			c. 1/2 Total Fee plus \$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.

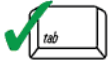
To MassDEP Regional Office (see Instructions): Send a copy of the Notice of Intent or Abbreviated Notice of Intent; a **copy** of this form; and a **copy** of the state fee payment. (E-filers of Notices of Intent may submit these electronically.)



Checklist for Stormwater Report

A. Introduction

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



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

The Stormwater Report must include:

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

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

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

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

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

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



Checklist for Stormwater Report

B. Stormwater Checklist and Certification

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

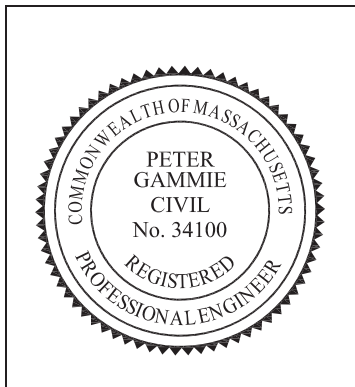
Note: Because stormwater requirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that the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

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

Registered Professional Engineer's Certification

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

Registered Professional Engineer Block and Signature



Peter Gammie

8-26-19

Signature and Date

Checklist

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

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



Checklist for Stormwater Report

Checklist (continued)

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

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

Standard 1: No New Untreated Discharges

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



Checklist for Stormwater Report

Checklist (continued)

Standard 2: Peak Rate Attenuation

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

Standard 3: Recharge

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

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



Checklist for Stormwater Report

Checklist (continued)

Standard 3: Recharge (continued)

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

Standard 4: Water Quality

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

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



Checklist for Stormwater Report

Checklist (continued)

Standard 4: Water Quality (continued)

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

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

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

Standard 6: Critical Areas

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



Checklist for Stormwater Report

Checklist (continued)

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

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

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

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

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



Checklist for Stormwater Report

Checklist (continued)

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

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

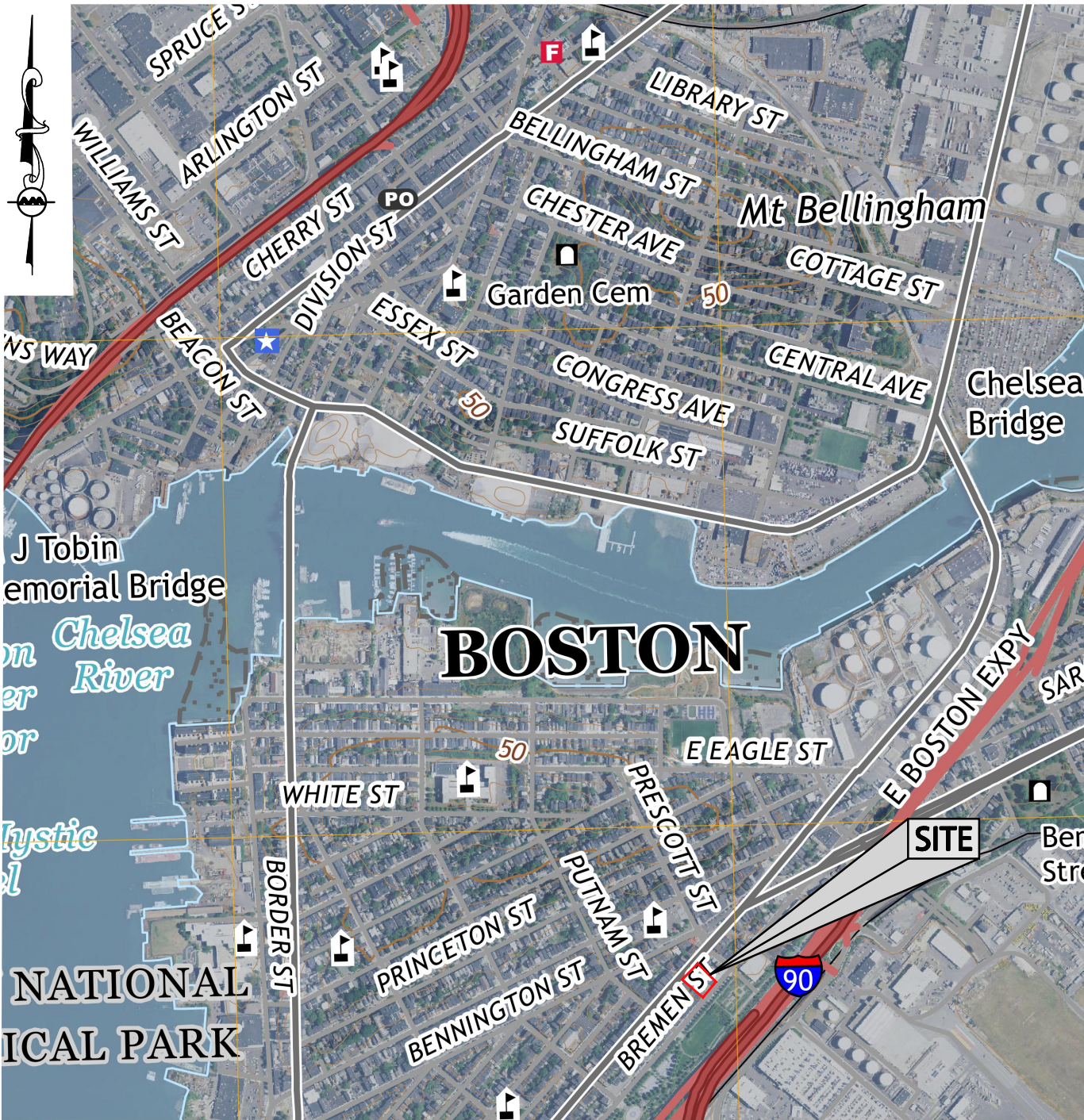
Standard 9: Operation and Maintenance Plan

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

Standard 10: Prohibition of Illicit Discharges

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

SECTION 2.0 – FIGURES



NOTE:
USGS BOSTON NORTH, MA 2018 QUADRANGLE MA

PREPARED BY:



**ALLEN & MAJOR
ASSOCIATES, INC.**

civil & structural engineers • land surveyors
environmental consultants • landscape architects

400 HARVEY ROAD
MANCHESTER, NH 03103
TEL: (603) 627-5500
FAX: (603) 627-5501

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PROJECT:

**319 CHESLEA STREET
EAST BOSTON, MA**

USGS QUADRANGLE MAP

PROJECT NO. 2687-01 DATE: 08-21-19

SCALE: 1" = 1000' DWG. NAME: FIGURES

DESIGNED BY: SM CHECKED BY: MAM

APPLICANT: MG2 GROUP LLC

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SHEET No.

FIG-1

R:\PROJECTS\2687-01\WP\PERMITTING\notice of intent - CONSERVATION COMMISSION\DATA\C-2687-01_FIGURES.DWG



**FLOOD INSURANCE RATE MAP
 CITY OF EAST BOSTON, MA SUFFOLK COUNTY
 COMMUNITY PANEL NUMBER 25025C 0019J, EFFECTIVE DATE MARCH 16, 2016**

R:\PROJECTS\2687-01\WP\PERMITTING\notice of intent - CONSERVATION COMMISSION\DATA\C-2687-01-FIGURES.DWG

PREPARED BY:



**ALLEN & MAJOR
 ASSOCIATES, INC.**

civil & structural engineers • land surveyors
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PROJECT:

**319 CHESLEA STREET
 EAST BOSTON, MA**

FLOOD INSURANCE RATE MAP

PROJECT NO. 2687-01 DATE: 08-21-19

SCALE: 1" = 500' DWG. NAME: FIGURES

DESIGNED BY: SM CHECKED BY: MAM

APPLICANT: MG2 GROUP LLC

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SHEET No.

FIG-2



- NHESP Priority Habitats of Rare Species
 -
- Outstanding Resource Waters
 - PUBLIC WATER SUPPLY CONTRIBUTOR
 - ORW FOR ACEC
 - ORW FOR BOTH WATER SUPPLY AND OTHER
- Areas of Critical Environmental Concern ACECs
 -
- BioMap2 Core Habitat Wetlands
 -
- NHESP Certified Vernal Pools
 -
- NHESP Estimated Habitats of Rare Wildlife
 -

NOTE:
INFORMATION FROM MassGIS OLIVER ONLINE MAPPING TOOL.

R:\PROJECTS\2687-01\WP\PERMITTING\notice of intent - CONSERVATION COMMISSION\DATA\C-2687-01-FIGURES.DWG



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PROJECT: 319 CHESLEA STREET EAST BOSTON, MA	NATURAL HERITAGE & ENDANGERED SPECIES	
	PROJECT NO. 2687-01	DATE: 08-21-19
	SCALE: 1" = 600'	DWG. NAME: FIGURES
	DESIGNED BY: SM	CHECKED BY: MAM

APPLICANT: MG2 GROUP LLC	SHEET No. FIG-3
<p><small>THIS DRAWING HAS BEEN PREPARED IN ELECTRONIC FORMAT. CLIENT/CLIENT'S REPRESENTATIVE OR CONSULTANT MAY BE PROVIDED COPIES OF DRAWINGS AND SPECIFICATIONS ON MAGNETIC MEDIA FOR HIS/HER INFORMATION AND USE FOR SPECIFIC APPLICATION TO THIS PROJECT. DUE TO THE POTENTIAL THAT THE MAGNETIC INFORMATION MAY BE MODIFIED UNINTENTIONALLY OR OTHERWISE, ALLEN & MAJOR ASSOCIATES, INC. MAY REMOVE ALL INDICATION OF THE DOCUMENT'S AUTHORSHIP ON THE MAGNETIC MEDIA. PRINTED REPRESENTATIONS OF THE DRAWINGS AND SPECIFICATIONS ISSUED SHALL BE THE ONLY RECORD COPIES OF ALLEN & MAJOR ASSOCIATES, INC.'S WORK PRODUCT.</small></p>	

SECTION 3.0 – ABUTTERS NOTIFICATIONS

Affidavit of Service

Under the Massachusetts Wetlands Protection Act

(to be submitted to the Massachusetts Department of
Environmental Protection and the Conservation Commission
when filing a Notice of Intent.)

I, **Michael Malynowski**, hereby certify under the pains and penalties of perjury that on or before **September 11, 2019** I gave notification to abutters in compliance with the second paragraph of Massachusetts General Laws Chapter 131, Section 40, and the **DEP Guide to Abutter Notification** dated April 8, 1994, in connection with the following matter:

A Notice of Intent filed under the Massachusetts Wetlands Protection Act by **MG2 Group LLC** with the **City of Boston** Conservation Commission dated **September 3, 2019**, for the property located at 319 Chelsea Street, City of Boston Parcel ID 0106899000.

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

Michael A. Malynowski, P.E.
Name

September 3, 2019
Date

NOTICE TO ABUTTERS

You are hereby notified that there will be a Public Hearing held by the Boston Conservation Commission. Plans for the proposal and the application are on file at the Conservation Department office, located at Boston City Hall, Room 709, Boston, MA 02201.

The site is located at: **319 Chelsea Street, East Boston, MA**

The name of the applicant is: **MG2 Group LLC**

Description of the proposed work: The project includes the demolition of the existing building and the construction of a 5 story mixed use building with residential rental and retail space. The project is subject to the review of the Conservation Commission because it is within the 100 year flood plain, as determined by the most recent FEMA Flood Insurance Rate Map. The applicant has therefore submitted a Notice of Intent for review and approval.

Information regarding the project can be obtained from either the Boston Conservation Commission;

Contact Name: Amelia Croteau, Executive Secretary
Mayor's Office of Environment, Energy and Open Space
Mailing Address: Boston City Hall - Room 709
Telephone Number: (617) 635-3850

Or the petitioner's representative:

Name of Representative: Allen & Major Associates, Inc. c/o Michael Malynowski
Mailing Address: 100 Commerce Way, Woburn, MA 01801
Telephone Number: 781-935-6889

The Hearing will be held on September 18, 2019 at 6pm on the 5th floor of City Hall. The purpose of the Hearing is to obtain testimony from the Petitioner and the Public regarding the proposed activity. Information regarding the time and date of the Public Hearing will also be published in *The Herald*.

PID	OWNER	ADDRESSEE	MLG_ADDRESS	MLG_CITYSTATE	MLG_ZIPCODE	LOC_ADDRESS	LOC_CITY	LOC_ZIPCODE
103921010	COMMONWEALTH OF MASS	COMMONWEALTH OF MASS	BREMEN	EAST BOSTON MA	2128	BREMEN ST	EAST BOSTON	2128
106894000	309 CHELSEA STREET	309 CHELSEA STREET	309 CHELSEA ST	EAST BOSTON MA	2128	309 CHELSEA ST	EAST BOSTON	2128
106894002	CHAU ROSE A	CHAU ROSE A	309 CHELSEA ST #1	EAST BOSTON MA	2128	309 CHELSEA ST #1	EAST BOSTON	2128
106894004	ERNST ALISON	ERNST ALISON	309 CHELSEA ST #2	EAST BOSTON MA	2128	309 CHELSEA ST #2	EAST BOSTON	2128
106894006	BERTKAU KEN S	BERTKAU KEN S	309 CHELSEA ST #3	EAST BOSTON MA	2128	309 CHELSEA ST #3	EAST BOSTON	2128
106895000	BASILE REALTY TRUST	BASILE REALTY TRUST	315 CHELSEA ST	EAST BOSTON MA	2128	311 CHELSEA ST	EAST BOSTON	2128
106896000	BASILE REALTY TRUST	BASILE REALTY TRUST	315 CHELSEA ST	EAST BOSTON MA	2128	313 CHELSEA ST	EAST BOSTON	2128
106897000	BASILE PALMA M TS	BASILE PALMA M TS	315 CHELSEA ST	EAST BOSTON MA	2128	315 CHELSEA ST	EAST BOSTON	2128
106899000	CHELSEA BREMEN LLC	CHELSEA BREMEN LLC	50 FRANKLIN ST #400	BOSTON MA	2110	319 327 CHELSEA ST	EAST BOSTON	2128
106900000	331 CHELSEA STREET LLC	331 CHELSEA STREET LLC	431 E 3RD ST #3	BOSTON MA	2127	331 CHELSEA ST	EAST BOSTON	2128
106901000	FALLAVOLLITA JEANNETTE	FALLAVOLLITA JEANNETTE	333 CHELSEA ST	E BOSTON MA	2128	333 CHELSEA ST	EAST BOSTON	2128
106902000	HUYNH LINNA	HUYNH LINNA	335 CHELSEA ST	EAST BOSTON MA	2128	335 CHELSEA ST	EAST BOSTON	2128
106903000	AGUILAR JOSE	AGUILAR JOSE	1 PARK LANE	BOSTON MA	2210	337 CHELSEA ST	EAST BOSTON	2128
106910000	ROBERTO LOUIE	ROBERTO LOUIE	282 BENNINGTON ST	EAST BOSTON MA	2128	350 BREMEN ST	EAST BOSTON	2128
106911000	ROBERTO LOUIE TS	ROBERTO LOUIE TS	282 BENNINGTON ST	EAST BOSTON MA	2128	348 BREMEN ST	EAST BOSTON	2128
106912000	ROBERTO LOUIE TS	ROBERTO LOUIE TS	282 BENNINGTON ST	EAST BOSTON MA	2128	BREMEN ST	EAST BOSTON	2128
106913000	LOGAN AUTOMOTIVE INC	LOGAN AUTOMOTIVE INC	344 BREMEN ST	E BOSTON MA	2128	BREMEN ST	EAST BOSTON	2128
106914000	LOGAN AUTOMOTIVE INC	LOGAN AUTOMOTIVE INC	344 BREMEN ST	E BOSTON MA	2128	344 BREMEN ST	EAST BOSTON	2128
106915000	IGLESIA BIBLICA FARO DE LUZ	IGLESIA BIBLICA FARO DE LUZ	332 BREMEN ST	E BOSTON MA	2128	332 BREMEN ST	EAST BOSTON	2128
106916000	CARDONE ANTONIO F TS	CARDONE ANTONIO F TS	22 BONAIR AV	WAKEFIELD MA	1880	328 BREMEN ST	EAST BOSTON	2128
106924000	PEREZ CONCEPCION	PEREZ CONCEPCION	24 HIGH ST	EVERETT MA	2149	354 CHELSEA ST	EAST BOSTON	2128
106925000	PEREZ CONCEPCION	PEREZ CONCEPCION	24 HIGH ST	EVERETT MA	2149	352 CHELSEA ST	EAST BOSTON	2128
106926000	THREE FORTY EIGHT CHELSEA	THREE FORTY EIGHT CHELSEA	50 FRANKLIN ST #400	BOSTON MA	2110	348 CHELSEA ST	EAST BOSTON	2128
106927000	THREE FORTY EIGHT CHELSEA	THREE FORTY EIGHT CHELSEA	1495 HANCOCK ST	QUINCY MA	2169	346 CHELSEA ST	EAST BOSTON	2128
106928000	DIVINCENTIS MARY A	DIVINCENTIS MARY A	344 CHELSEA	EAST BOSTON MA	2128	344 CHELSEA ST	EAST BOSTON	2128
106929000	YEPES HECTOR	YEPES HECTOR	1024 BENNINGTON ST	EAST BOSTON MA	2128	342 CHELSEA ST	EAST BOSTON	2128
106930000	MAGRATH REALTY LLC	MAGRATH REALTY LLC	1495 HANCOCK ST 4TH FL	QUINCY MA	2169	336 340 CHELSEA ST	EAST BOSTON	2128
106931000	MARTINEZ ALEJANDRA	MARTINEZ ALEJANDRA	334 CHELSEA ST	EAST BOSTON MA	2128	334 CHELSEA ST	EAST BOSTON	2128
106932000	SANCHEZ BERNARDO	SANCHEZ BERNARDO	332 CHELSEA ST	E BOSTON MA	2128	332 CHELSEA ST	EAST BOSTON	2128
106933000	EL VALLE PROPERTIES LLC	EL VALLE PROPERTIES LLC	716 BROADWAY	EVERETT MA	2149	330 CHELSEA ST	EAST BOSTON	2128

SECTION 4.0 – APPENDIX



Enter your transmittal number

X284203

Transmittal Number

Your unique Transmittal Number can be accessed online:

<http://www.mass.gov/eea/agencies/massdep/service/approvals/transmittal-form-for-payment.html>

Massachusetts Department of Environmental Protection

Transmittal Form for Permit Application and Payment

1. Please type or print. A separate Transmittal Form must be completed for each permit application.

2. Make your check payable to the Commonwealth of Massachusetts and mail it with a copy of this form to: MassDEP, P.O. Box 4062, Boston, MA 02211.

3. Three copies of this form will be needed.

Copy 1 - the original must accompany your permit application. Copy 2 must accompany your fee payment. Copy 3 should be retained for your records

4. Both fee-paying and exempt applicants must mail a copy of this transmittal form to:

MassDEP
P.O. Box 4062
Boston, MA
02211

* Note:
For BWSC Permits,
enter the LSP.

A. Permit Information

WPA Form 3

Wetlands

1. Permit Code: 4 to 7 character code from permit instructions

2. Name of Permit Category

Notice of Intent

3. Type of Project or Activity

B. Applicant Information – Firm or Individual

MG2 Group LLC

1. Name of Firm - Or, if party needing this approval is an individual enter name below:

Donovan

Joseph

2. Last Name of Individual

3. First Name of Individual

4. MI

50 Franklin Street

5. Street Address

Boston

MA

02110

617-412-3200

6. City/Town

7. State

8. Zip Code

9. Telephone #

10. Ext. #

Joseph Donovan

inquiry@mg2group.com

11. Contact Person

12. e-mail address

C. Facility, Site or Individual Requiring Approval

319 Chelsea Street

1. Name of Facility, Site Or Individual

319 Chelsea Street

2. Street Address

East Boston

MA

02128

N/A

3. City/Town

4. State

5. Zip Code

6. Telephone #

7. Ext. #

N/A

N/A

N/A

8. DEP Facility Number (if Known)

9. Federal I.D. Number (if Known)

10. BWSC Tracking # (if Known)

D. Application Prepared by (if different from Section B)*

Allen & Major Associates, Inc.

1. Name of Firm Or Individual

100 Commerce Way

2. Address

Woburn

MA

01801

781-935-6889

3. City/Town

4. State

5. Zip Code

6. Telephone #

7. Ext. #

Michael Malynowski

8. Contact Person

9. LSP Number (BWSC Permits only)

E. Permit - Project Coordination

1. Is this project subject to MEPA review? yes no

If yes, enter the project's EOE file number - assigned when an Environmental Notification Form is submitted to the MEPA unit:

N/A

EOEA File Number

F. Amount Due

Special Provisions:

1. Fee Exempt (city, town or municipal housing authority)(state agency if fee is \$100 or less).

There are no fee exemptions for BWSC permits, regardless of applicant status.

2. Hardship Request - payment extensions according to 310 CMR 4.04(3)(c).

3. Alternative Schedule Project (according to 310 CMR 4.05 and 4.10).

4. Homeowner (according to 310 CMR 4.02).

DEP Use Only

Permit No:

Rec'd Date:

Reviewer:

\$512.50

Check Number

Dollar Amount

Date

- d) All existing natural and man-made features including tree lines, rock outcrops, fence lines, foot paths, overhead and underground utilities, and drainage structures.
- e) Elevations of all natural and man-made drainage structures, waterways, and wetlands (as defined by the Wetlands Protection Act).
- f) All wetland resource areas including the 100-foot Buffer Zone, and flag numbers of all field delineated wetland resource areas.
- g) Base flood elevations of all natural and man-made waterways and water bodies as determined from the FEMA Flood Insurance Rate Maps and Flood Boundary and Floodway Maps. Where the floodplain of wetlands and water bodies have not been mapped by FEMA, hydrologic and calculations may be required, prepared by a registered professional engineer to determine the boundary of the 10 and 100-year floodplain. FEMA Flood Maps: <http://msc.fema.gov/portal>. Applicants should consider effective and pending FIRMs for planning purposes.
- h) Hydrologic calculations showing the full-flow capacity and velocity of all water courses, open and only sometimes closed channels, and storm drains flowing into, on and out of the property.
- i) Site plans shall be drawn at a scale of 1"=10', 1"=20', or 1" = 40'. **HOWEVER, plans may be reduced in size to allow for submission of 11" X 17" paper plans.** Additional plans with greater or lesser detail may also be required if such plans would provide valuable information to the Commission in its review. The Commission may request a plan at a different scale for large properties or unique circumstances.

4. Stormwater Management Report

The applicant must consult the Stormwater Management Standards found at 310 CMR 10.05(6)(k)-(q) of the Wetlands Regulations, which may be obtained from the Department's web site: <http://www.mass.gov/eea/docs/dep/service/regulations/310cmr10a.pdf>, to determine if a Stormwater Management Report for the project is required. The Stormwater Management Standards may be referenced at <http://www.mass.gov/eea/agencies/massdep/water/regulations/massachusetts-stormwater-handbook.html>. For projects that require a Stormwater Management Report, the applicant must also complete the Checklist for the Stormwater Report, and submit the list with the Notice of Intent. Stormwater management systems must also be reviewed and approved by the Boston Water and Sewer Commission.

*Applicants should note that there are Total Maximum Daily Load (TMDL) limitations for the Neponset River and Charles River watersheds for certain pollutants. Based upon the TMDL, specific stormwater Best Management Practices may need to be implemented for projects in those watersheds. For more information on TMDLs visit: <http://www.mass.gov/dep/water/resources/tmdls.htm>

5. Filing fees

The City of Boston Conservation Commission and the Massachusetts Department of Environmental Protection both require a fee for Notice of Intent processing (there is currently no fee for RDAs). Please **note the Commission does not accept the municipal portion of the State Fee**, and has its own fee structure requirements as follows:



Pursuant to the City of Boston Title 14 Section 450 requires the following fees payable to the City of Boston for Notice of Intent processing:

- \$25.00 for projects with the fair cost of \$1,000.00 or less.
- \$50.00 for projects with the fair cost of more than 1,000.00 but not more than \$50,000.00.
- \$75.00 for projects with a fair cost of more than 50,000.00 but not more than \$100,000.00.
- For projects with a fair cost of more than 100,000.00 the fee shall be .075% of the fair cost provided, however, **in no case shall the fee be more than \$1,500.00.**

MA Department of Environmental Protection - The state fee is based on the category of the proposed activity (described in 310 CMR 10.03(7)) and the resource area to be impacted by the activity. To calculate the filing fee, follow the instructions to the NOI Wetland Fee Transmittal Form (refer to <http://www.mass.gov/eea/agencies/massdep/water/approvals/wetlands-and-waterways-forms.html#6> for the DEP's specific instructions).

Note: The municipal portion of the state fee is not accepted by the City of Boston.

COMMISSION PUBLIC HEARINGS

Public meetings are typically held on the first and third Wednesday of each month at City Hall. During the public meeting, a public hearing is opened to review each Notice of Intent filing. After all public hearings have been closed, the Commission resumes the public meeting, during which Requests for Determination of Applicability, Requests for Certificates of Compliance, and other general business is reviewed.

Filings must be submitted a minimum of two weeks prior to each public meeting. The meeting and hearings provide an opportunity for abutters and the public to comment on proposed projects. The project proponent, their consultant and the property owner must be present. The current meeting schedule and agenda may be viewed at: Public notices for NOIs and RDA are published in the Boston Herald. Applicants (or their representatives when applicable) are billed for the publication fee.

Note: Make sure to check our website (boston.gov/conservation) for the most recent list of hearing dates and filing deadlines

CONTACT INFORMATION

If you have any questions or need assistance, please contact staff at:

Amelia Croteau
Executive Secretary
Boston City Hall Room 709
Boston, MA 02201
617-635-3850
cc@boston.gov

Nicholas Moreno
Assistant Conservation Agent
Boston City Hall Room 709
Boston, MA 02201
617-635-3850
cc@boston.gov



Grid Management LLC
50 Franklin Street Suite 400
Boston, MA 02110

Chelsea Bremen, LLC
Berkshire Bank
60 State St
Boston, MA 02109

12
Date: 08/30/2019

Pay to the order of: **CITY OF BOSTON**

This amount: **** ONE THOUSAND, FIVE HUNDRED AND 00/100 DOLLARS

\$1,500.00

City of Boston
1 City Hall Plaza
Boston, MA 02114



MEMO _____

⑈ 1 2 ⑈ ⑆ 2 1 1 8 7 1 6 9 1 ⑆ 1 8 9 5 3 1 6 6 4 ⑈

Date: 08/30/2019 Check #12 Account: Chelsea Bremen, LLC
Pay to: City of Boston

12

Property	Unit	Reference	Description	Amount
319 Chelsea - 319 Chelsea Street Bost...		083019150000	Permits & Fees	1,500.00
				1,500.00

DO NOT ACCEPT THIS CHECK UNLESS YOU CAN SEE AN ARTIFICIAL WATERMARK THAT APPEARS ON BACK OF CHECK WHEN HELD AT ANGLE. VERIFY AUTHENTICITY BY RUBBING RED "LS" LOGO BELOW.

Grid Management LLC
50 Franklin Street Suite 400
Boston, MA 02110

Chelsea Bremen, LLC
Berkshire Bank
60 State St
Boston, MA 02109

13
Date: 08/30/2019

Pay to the order of: **COMMONWEALTH OF MASSACHUSETTS**
This amount: **** FIVE HUNDRED TWELVE AND 50/100 DOLLARS

\$512.50

Commonwealth of Massachusetts

MEMO _____

[Handwritten Signature]
Rub Here
LS
Ink Disappears

⑈ 13 ⑈ ⑆ 211871691⑆ ⑆ 189531664⑈

Date: 08/30/2019 Check #13 Account: Chelsea Bremen, LLC
Pay to: Commonwealth of Massachusetts

13

Property	Unit	Reference	Description	Amount
319 Chelsea - 319 Chelsea Street Bost...		08301951250	Permits & Fees	512.50
				512.50

NOTE: Project filings should be prepared and submitted using the online [Climate Resiliency Checklist](#).

A.1 - Project Information

Project Name:	319-327 Chelsea Street		
Project Address:	319-327 Chelsea Street, East Boston		
Project Address Additional:			
Filing Type (<i>select</i>):	Conservation Commission Notice of Intent		
Filing Contact:	Cindy Lee	Embarc	617-765-8652 Clee@embarcsutdio.com
Is MEPA approval required:	No		

A.3 - Project Team

Owner / Developer:	Chelsea Bremen LLC		
Architect:	Embarc Studio		
Engineer:	Geotechnical Engineer: Geotechnical Partnership, Inc. Civil Engineer: Columbia Design Group Structural Engineer: Hayes & O'Neill MEFPF Engineers: Building Engineering Resources, Inc.		
Sustainability / LEED:	-		
Permitting:	Law Office of Richard C. Lynds		
Construction Management:	-		

A.3 - Project Description and Design Conditions

List the principal Building Uses:	Multi-family residential
List the First Floor Uses:	(1) Retail space on Brennen Street, Residential Lobby, (2) dwelling units on Chelsea Street, parking garage and utility rooms.
List any Critical Site Infrastructure and or Building Uses:	N/A

Site and Building:

Site Area:	16,800 SF	Building Area:	50,605 SF (includes Garage)
Building Height:	64 FT	Building Height:	5 Stories
Existing Site Elevation – Low:	9.26 FT NAVD88	Existing Site Elevation – High:	10.50 FT NAVD88
Proposed Site Elevation – Low:	9.26 FT NAVD88	Proposed Site Elevation – High:	10.50 FT NAVD88

Proposed First Floor Elevation:	11.08 FT NAVD88	Below grade levels:	0 Stories
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Article 37 Green Building:

LEED Version - Rating System :	N/A	LEED Certification:	No
Proposed LEED rating:	N/A	Proposed LEED point score:	N/A

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:	R30 c.i. at 1 st floor R49 at wood-framed upper floor	Exposed Floor:	R49
Foundation Wall:	R10 for 24" below	Slab Edge (at or below grade):	R10 to R20 c.i.

Vertical Above-grade Assemblies (%'s are of total vertical area and together should total 100%):

Area of Opaque Curtain Wall & Spandrel Assembly:	0 %	Wall & Spandrel Assembly Value:	N/A
Area of Framed & Insulated / Standard Wall:	84(%)	Wall Value	R20
Area of Vision Window:	11%	Window Glazing Assembly Value:	U factor = 0.30
		Window Glazing SHGC:	0.40 South/East/West 0.53 North at 1 st floor. Not required at wood-framed upper floor
Area of Doors:	5%	Door Assembly Value:	U factor = 0.77

Energy Loads and Performance

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

	ACCA Manual J Software		
Annual Electric:	+/- 418.7 kWh	Peak Electric:	+/- 98.0 kW
Annual Heating:	(MMbtu/hr)	Peak Heating:	443 MMbtu
Annual Cooling:	(Tons/hr)	Peak Cooling:	33.1 Tons
Energy Use - Below ASHRAE 90.1 - 2013:	%	Have the local utilities reviewed the building energy performance?:	No
Energy Use - Below Mass. Code:	%	Energy Use Intensity:	(kBtu/SF)

Back-up / Emergency Power System

Electrical Generation Output:	N/A	Number of Power Units:	
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System Type:

Fuel Source:

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

Electric:

Heating:

Cooling:

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

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

B.1 – GHG Emissions - Design Conditions

For this Filing - Annual Building GHG Emissions:

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

The building has been designed to meet or exceed 2015 IRC Table N1102.1.2 (R402.1.2) and Massachusetts Amendments. Each dwelling unit will be subjected to a Home Energy Rating System (HERS) assessment. In addition a high-performing, wood-framed building envelope with energy efficient fiberglass windows, ENERGY STAR rated appliances and LED lighting help to enhance building energy performance. A light-colored TPO roofing system reduces heat island effect. Native plants and street trees will be added where possible on site to reduce impervious surfaces and provide shading.

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

Operable windows allow residents the ability to turn off heating and cooling when the weather permits. Building has been designed with two “wings” to maximize window glass area and natural daylighting.

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

Active energy efficiency measures includes occupancy sensors and dimming for lighting control, high-performance HVAC equipment, Energy Star rated appliances, programmable thermostats. Stacked parking in the garage has the infrastructure to provide electric vehicle charging at every space.

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

There is no on-site renewable energy planned at this time.

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

There is no district scale emission reduction planned as part of this project.

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

A HERS rater is part of the team to ensure energy code compliance.

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):

None.

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:	7°F	Temperature Range - High:	91°F
Annual Heating Degree Days:	5,624	Annual Cooling Degree Days	937

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

Days - Above 90°:	10	Days – Above 100°:	0
Number of Heatwaves / Year:	2	Average Duration of Heatwave (Days):	3

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

A light colored roof is specified to reduce heat-island effect. Landscaping plan includes groundcover, shrubs and street trees for shades where none exist currently.

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:

Dwelling unit HVAC systems implement a 15% over-sizing factor of safety as permitted by ACCA for residential equipment sizing.

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:

None.

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

10 Year, 24 Hour Design Storm:

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

Currently there is no onsite stormwater mitigation and all stormwater runoff is directed off site. The site design proposes to install a subsurface infiltration system consisting of eighteen Stormtech SC740 chambers in a crushed stone bed below the garage slab. All roof runoff is collected and directed to this infiltration system, reducing runoff in excess of 1,455 cf.

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):

The proposed system is sized to accommodate requirements by Boston Water and Sewer Commission (BWSC). Additional crushed stone is provided under the parking garage slab, which will aid in accommodating future more significant rain events.

E – Sea Level Rise and Storms

Under any plausible greenhouse gas emissions scenario, sea levels 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 SFHA? What Zone:
Current FEMA SFHA Zone Base Flood Elevation:

Is any portion of the site in a BPDA Sea Level Rise - Flood Hazard Area?
Use the online [BPDA SLR-FHA Mapping Tool](#) to assess the susceptibility of the project site.

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 on the BPDA Sea Level Rise - Flood Hazard Area (SLR-FHA) map, which depicts a modeled 1% annual chance coastal flood event with 40 inches of sea level rise (SLR). Use the online [BPDA SLR-FHA Mapping Tool](#) to identify the highest Sea Level Rise - Base Flood Elevation for the site. The Sea Level Rise - Design Flood Elevation is determined by adding either 24” of freeboard for critical facilities and infrastructure and any ground floor residential units OR 12” of freeboard for other buildings and uses.

Sea Level Rise - Base Flood Elevation:	19.50 FT BCB (from BPDA Zoning Viewer)		
Sea Level Rise - Design Flood Elevation:	19.50 FT BCB	First Floor Elevation:	17.54 FT BCB (Base 10' NAVD88 + 6.46')
Site Elevations at Building:	16.50 FT BCB	Accessible Route Elevation:	16.76 FT BCB (Base 10' NAVD88 + 6.46')

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.:

Residential area are designed to be above the FIRM DFE, above the 100-year flood plain. Electrical transformer, electrical equipment and elevator machine room are also designed to be above DFE.

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.:

In addition to setting the residential areas 12” above DFE, drawings call for adjustable flood barriers at the Brennan Street lobby and retail doors and storefront to protect those glass area from flood surges.

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:

All living spaces is 12” above the DFE so as to provide shelter during flooding events.

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

The municipal roadway network would be utilized to provide rapid recovery after a weather event.

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.:

Future site design shall include raising elevation for living spaces and building infrastructure (such as transformer, elevator machine, other electrical distribution/equipment) to be as high as possible above SLR – DFL.

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

Future building adaptation strategies may be to ensure use of flood-proof material below SLR – DFL.

A pdf and word version of the Climate Resiliency Checklist is provided for informational use and off-line preparation of a project submission. **NOTE:** Project filings should be prepared and submitted using the online [Climate Resiliency Checklist](#).

For questions or comments about this checklist or Climate Change best practices, please contact: John.Dalzell@boston.gov



ALLEN & MAJOR
ASSOCIATES, INC.



View from Chelsea Street Facing south



View from Chelsea Street facing east



View from Bremen Street facing north



View from Bremen Street facing west



FEMA

NATIONAL FLOOD INSURANCE PROGRAM

ELEVATION CERTIFICATE

AND

INSTRUCTIONS

2015 EDITION

U.S. DEPARTMENT OF HOMELAND SECURITY
Federal Emergency Management Agency
National Flood Insurance Program

ELEVATION CERTIFICATE AND INSTRUCTIONS

Paperwork Reduction Act Notice

Public reporting burden for this data collection is estimated to average 3.75 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and submitting this form. You are not required to respond to this collection of information unless a valid OMB control number is displayed on this form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing the burden to: Information Collections Management, Department of Homeland Security, Federal Emergency Management Agency, 500 C Street SW, Washington, DC 20742, Paperwork Reduction Project (1660-0008). **NOTE: Do not send your completed form to this address.**

Privacy Act Statement

Authority: Title 44 CFR § 61.7 and 61.8.

Principal Purpose(s): This information is being collected for the primary purpose of estimating the risk premium rates necessary to provide flood insurance for new or substantially improved structures in designated Special Flood Hazard Areas.

Routine Use(s): The information on this form may be disclosed as generally permitted under 5 U.S.C. § 552a(b) of the Privacy Act of 1974, as amended. This includes using this information as necessary and authorized by the routine uses published in DHS/FEMA-003 – National Flood Insurance Program Files System or Records Notice 73 Fed. Reg. 77747 (December 19, 2008); DHS/FEMA/NFIP/LOMA-1 – National Flood Insurance Program (NFIP) Letter of Map Amendment (LOMA) System of Records Notice 71 Fed. Reg. 7990 (February 15, 2006); and upon written request, written consent, by agreement, or as required by law.

Disclosure: The disclosure of information on this form is voluntary; however, failure to provide the information requested may result in the inability to obtain flood insurance through the National Flood Insurance Program or the applicant may be subject to higher premium rates for flood insurance. Information will only be released as permitted by law.

Purpose of the Elevation Certificate

The Elevation Certificate is an important administrative tool of the National Flood Insurance Program (NFIP). It is to be used to provide elevation information necessary to ensure compliance with community floodplain management ordinances, to determine the proper insurance premium rate, and to support a request for a Letter of Map Amendment (LOMA) or Letter of Map Revision based on fill (LOMR-F).

The Elevation Certificate is required in order to properly rate Post-FIRM buildings, which are buildings constructed after publication of the Flood Insurance Rate Map (FIRM), located in flood insurance Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, and AR/AO. The Elevation Certificate is not required for Pre-FIRM buildings unless the building is being rated under the optional Post-FIRM flood insurance rules.

As part of the agreement for making flood insurance available in a community, the NFIP requires the community to adopt floodplain management regulations that specify minimum requirements for reducing flood losses. One such requirement is for the community to obtain the elevation of the lowest floor (including basement) of all new and substantially improved buildings, and maintain a record of such information. The Elevation Certificate provides a way for a community to document compliance with the community's floodplain management ordinance.

Use of this certificate does not provide a waiver of the flood insurance purchase requirement. Only a LOMA or LOMR-F from the Federal Emergency Management Agency (FEMA) can amend the FIRM and remove the Federal mandate for a lending institution to require the purchase of flood insurance. However, the lending institution has the option of requiring flood insurance even if a LOMA/LOMR-F has been issued by FEMA. The Elevation Certificate may be used to support a LOMA or LOMR-F request. Lowest floor and lowest adjacent grade elevations certified by a surveyor or engineer will be required if the certificate is used to support a LOMA or LOMR-F request. A LOMA or LOMR-F request must be submitted with either a completed FEMA MT-EZ or MT-1 package, whichever is appropriate.

This certificate is used only to certify building elevations. A separate certificate is required for floodproofing. Under the NFIP, non-residential buildings can be floodproofed up to or above the Base Flood Elevation (BFE). A floodproofed building is a building that has been designed and constructed to be watertight (substantially impermeable to floodwaters) below the BFE. Floodproofing of residential buildings is not permitted under the NFIP unless FEMA has granted the community an exception for residential floodproofed basements. The community must adopt standards for design and construction of floodproofed basements before FEMA will grant a basement exception. For both floodproofed non-residential buildings and residential floodproofed basements in communities that have been granted an exception by FEMA, a floodproofing certificate is required.

Additional guidance can be found in FEMA Publication 467-1, Floodplain Management Bulletin: Elevation Certificate, available on FEMA's website at <https://www.fema.gov/media-library/assets/documents/3539?id=1727>.

ELEVATION CERTIFICATE

Important: Follow the instructions on pages 1-9.

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

SECTION A – PROPERTY INFORMATION					FOR INSURANCE COMPANY USE	
A1. Building Owner's Name CHELSEA BREMEN LLC					Policy Number:	
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 319-327 CHELSEA STREET					Company NAIC Number:	
City BOSTON		State Massachusetts		ZIP Code 02128		
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) CITY OF BOSTON PARCEL ID:0106899000, DEED BOOK 59194, PAGE 193						
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) <u>NON-RESIDENTIAL</u>						
A5. Latitude/Longitude: Lat. <u>42°22'38.8" N</u> Long. <u>71°01'45.8" W</u> Horizontal Datum: <input type="checkbox"/> NAD 1927 <input checked="" type="checkbox"/> NAD 1983						
A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.						
A7. Building Diagram Number <u>1A</u>						
A8. For a building with a crawlspace or enclosure(s):						
a) Square footage of crawlspace or enclosure(s) _____ sq ft						
b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade _____						
c) Total net area of flood openings in A8.b _____ sq in						
d) Engineered flood openings? <input type="checkbox"/> Yes <input type="checkbox"/> No						
A9. For a building with an attached garage:						
a) Square footage of attached garage <u>6542.50</u> sq ft						
b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade <u>0</u>						
c) Total net area of flood openings in A9.b _____ sq in						
d) Engineered flood openings? <input type="checkbox"/> Yes <input type="checkbox"/> No						
SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION						
B1. NFIP Community Name & Community Number BOSTON, CITY OF, 250286				B2. County Name SUFFOLK		B3. State Massachusetts
B4. Map/Panel Number 25025C0019	B5. Suffix J	B6. FIRM Index Date	B7. FIRM Panel Effective/ Revised Date 03-16-2016	B8. Flood Zone(s) AE	B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth) 10	
B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9: <input type="checkbox"/> FIS Profile <input checked="" type="checkbox"/> FIRM <input type="checkbox"/> Community Determined <input type="checkbox"/> Other/Source: _____						
B11. Indicate elevation datum used for BFE in Item B9: <input type="checkbox"/> NGVD 1929 <input checked="" type="checkbox"/> NAVD 1988 <input type="checkbox"/> Other/Source: _____						
B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Designation Date: _____ <input type="checkbox"/> CBRS <input type="checkbox"/> OPA						

ELEVATION CERTIFICATE

OMB No. 1660-0008
Expiration Date: November 30, 2018

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE	
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 319-327 CHELSEA STREET			Policy Number:	
City BOSTON	State Massachusetts	ZIP Code 02128	Company NAIC Number	

SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

C1. Building elevations are based on: Construction Drawings* Building Under Construction* Finished Construction
 *A new Elevation Certificate will be required when construction of the building is complete.

C2. Elevations – Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, AR/AO.
 Complete Items C2.a–h below according to the building diagram specified in Item A7. In Puerto Rico only, enter meters.

Benchmark Utilized: GPS OBSERVATIONS Vertical Datum: NAVD88

Indicate elevation datum used for the elevations in items a) through h) below.

NGVD 1929 NAVD 1988 Other/Source: _____

Datum used for building elevations must be the same as that used for the BFE.

Check the measurement used.

- | | | | |
|---|-------|--|---------------------------------|
| a) Top of bottom floor (including basement, crawlspace, or enclosure floor) | 10.9 | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |
| b) Top of the next higher floor | _____ | <input type="checkbox"/> feet | <input type="checkbox"/> meters |
| c) Bottom of the lowest horizontal structural member (V Zones only) | _____ | <input type="checkbox"/> feet | <input type="checkbox"/> meters |
| d) Attached garage (top of slab) | 9.3 | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |
| e) Lowest elevation of machinery or equipment servicing the building
(Describe type of equipment and location in Comments) | 10.8 | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |
| f) Lowest adjacent (finished) grade next to building (LAG) | 8.9 | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |
| g) Highest adjacent (finished) grade next to building (HAG) | 11.0 | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |
| h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support | 8.9 | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |

SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information. I certify that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.

Were latitude and longitude in Section A provided by a licensed land surveyor? Yes No Check here if attachments.

Certifier's Name MARK J. GUERARD, JR.	License Number 51815
--	-------------------------

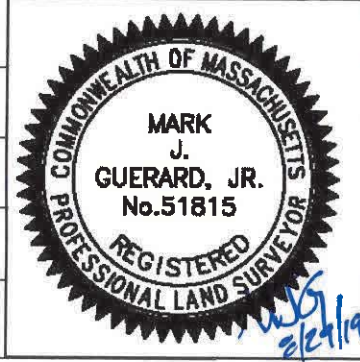
Title PROFESSIONAL LAND SURVEYOR

Company Name FELDMAN LAND SURVEYORS
--

Address 152 HAMPDEN STREET

City BOSTON	State Massachusetts	ZIP Code 02119
----------------	------------------------	-------------------

Signature 	Date 09-29-2019	Telephone (617) 708-8533	Ext.
---------------	--------------------	-----------------------------	------



Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

Comments (including type of equipment and location, per C2(e), if applicable)

ELEVATION CERTIFICATE

OMB No. 1660-0008
Expiration Date: November 30, 2018

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE	
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 319-327 CHELSEA STREET			Policy Number:	
City BOSTON	State Massachusetts	ZIP Code 02128	Company NAIC Number	

SECTION E – BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE)

For Zones AO and A (without BFE), complete Items E1–E5. If the Certificate is intended to support a LOMA or LOMR-F request, complete Sections A, B, and C. For Items E1–E4, use natural grade, if available. Check the measurement used. In Puerto Rico only, enter meters.

- E1. Provide elevation information for the following and check the appropriate boxes to show whether the elevation is above or below the highest adjacent grade (HAG) and the lowest adjacent grade (LAG).
- a) Top of bottom floor (including basement, crawlspace, or enclosure) is _____ feet meters above or below the HAG.
- b) Top of bottom floor (including basement, crawlspace, or enclosure) is _____ feet meters above or below the LAG.
- E2. For Building Diagrams 6–9 with permanent flood openings provided in Section A Items 8 and/or 9 (see pages 1–2 of Instructions), the next higher floor (elevation C2.b in the diagrams) of the building is _____ feet meters above or below the HAG.
- E3. Attached garage (top of slab) is _____ feet meters above or below the HAG.
- E4. Top of platform of machinery and/or equipment servicing the building is _____ feet meters above or below the HAG.
- E5. Zone AO only: If no flood depth number is available, is the top of the bottom floor elevated in accordance with the community's floodplain management ordinance? Yes No Unknown. The local official must certify this information in Section G.

SECTION F – PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION

The property owner or owner's authorized representative who completes Sections A, B, and E for Zone A (without a FEMA-issued or community-issued BFE) or Zone AO must sign here. The statements in Sections A, B, and E are correct to the best of my knowledge.

Property Owner or Owner's Authorized Representative's Name
MARK J. GUERARD, JR., PLS

Address 152 HAMPDEN STREET	City BOSTON	State Massachusetts	ZIP Code 02119
-------------------------------	----------------	------------------------	-------------------

Signature	Date 08-29-2019	Telephone (617) 708-8533
-----------	--------------------	-----------------------------

Comments

Check here if attachments.

ELEVATION CERTIFICATE

OMB No. 1660-0008
Expiration Date: November 30, 2018

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 319-327 CHELSEA STREET			Policy Number:
City BOSTON	State Massachusetts	ZIP Code 02128	Company NAIC Number

SECTION G – COMMUNITY INFORMATION (OPTIONAL)

The local official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Sections A, B, C (or E), and G of this Elevation Certificate. Complete the applicable item(s) and sign below. Check the measurement used in Items G8–G10. In Puerto Rico only, enter meters.

- G1. The information in Section C was taken from other documentation that has been signed and sealed by a licensed surveyor, engineer, or architect who is authorized by law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.)
- G2. A community official completed Section E for a building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.
- G3. The following information (Items G4–G10) is provided for community floodplain management purposes.

G4. Permit Number	G5. Date Permit Issued	G6. Date Certificate of Compliance/Occupancy Issued
-------------------	------------------------	---

G7. This permit has been issued for: New Construction Substantial Improvement

G8. Elevation of as-built lowest floor (including basement) of the building: _____ feet meters Datum _____

G9. BFE or (in Zone AO) depth of flooding at the building site: _____ feet meters Datum _____

G10. Community's design flood elevation: _____ feet meters Datum _____

Local Official's Name	Title
-----------------------	-------

Community Name	Telephone
----------------	-----------

Signature	Date
-----------	------

Comments (including type of equipment and location, per C2(e), if applicable)
A5. LATITUDE AND LONGITUDE OBTAINED FROM GOOGLE MAPS ON 08-29-2019
C2. ELEVATIONS BASED ON GPS OBSERVATIONS PERFORMED ON 10-26-2018

Check here if attachments.

BUILDING PHOTOGRAPHS

OMB No. 1660-0008
Expiration Date: November 30, 2018

ELEVATION CERTIFICATE

See Instructions for Item A6.

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 319-327 CHELSEA STREET			Policy Number:
City BOSTON	State Massachusetts	ZIP Code 02128	Company NAIC Number

If using the Elevation Certificate to obtain NFIP flood insurance, affix at least 2 building photographs below according to the instructions for Item A6. Identify all photographs with date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8. If submitting more photographs than will fit on this page, use the Continuation Page.



Photo One

Photo One Caption NORTH SIDE CHELSEA STREET 08-26-2019

Clear Photo One



Photo Two

Photo Two Caption NORTH SIDE CHELSEA STREET 08-26-2019

Clear Photo Two

ELEVATION CERTIFICATE

BUILDING PHOTOGRAPHS

Continuation Page

OMB No. 1660-0008
Expiration Date: November 30, 2018

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 319-327 CHELSEA STREET			Policy Number:
City BOSTON	State Massachusetts	ZIP Code 02128	Company NAIC Number

If submitting more photographs than will fit on the preceding page, affix the additional photographs below. Identify all photographs with: date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8.



Photo Three Caption **NORTH SIDE - CHELSEA STREET 08-26-2019** Clear Photo Three



Photo Four Caption **SOUTH SIDE - BREMEN STREET 08-26-2019** Clear Photo Four



CITY OF BOSTON

THE ENVIRONMENT DEPARTMENT

Boston City Hall, Room 709 • Boston, MA 02201 • 617/635-3850 • FAX: 617/635-3435

August 15, 2019

Richard C. Lynds
245 Sumner Street, Suite 110
East Boston, MA 02128

NOTICE OF DETERMINATION

Re: Application #20.148D2549
Review of proposed demolition of the existing structure at 319-327 Chelsea Street in East Boston, MA 02128

Dear Mr. Lynds,

The Boston Landmarks Commission staff have determined **the existing structure at 319-327 Chelsea Street in East Boston, MA 02128** is not significant under the criteria for determining significance in Section 85-5.3 (a-e) of the Demolition Delay Ordinance (Article 85, Chapter 665 of the Acts of 1956 as amended). No further review by the Boston Landmarks Commission under Article 85 is required. If you have any questions regarding this decision, please contact me at 617-635-3850.

Please provide a copy of this determination to Inspectional Services Department when applying for a demolition permit. Thank you for your cooperation in this matter.

Sincerely,

Todd Satter
Staff Architect
Boston Landmarks Commission

cc: Commissioner of Inspectional Services
Mayor's Office of Neighborhood Services

EMBARC

September 9, 2019

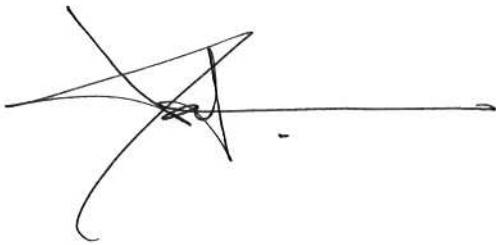
Boston Conservation Commission Chairperson
1 City Hall Square, Room 709
Boston, MA 02201

Re: Flood Design Affidavit, 319-327 Chelsea Street, East Boston

To Whom it May Concern:

This letter certifies that the proposed building at 319-327 Chelsea Street shall be designed in accordance with the flood-resistant construction sections of the Massachusetts State Building Code 780 CMR, 9th Edition. The proposed finish elevation for the dwelling units will provide 1'-0" of freeboard above the one-hundred (100) year flood plain elevation (Zone AE Base 10 NAVD88). There will be no basement or crawlspace below the first floor. Electrical distribution and the transformer will be located at elevation 1'-0" above Zone AE Base 10 NAVD88 or higher. The elevator machine room will be located on the upper floor.

Respectfully,



Dartagnan Brown | Architect
Principal





Chelsea Bremen LLC
50 Franklin Street Suite 400
Boston, MA 02110

September 5, 2019

Amelia Croteau
Executive Secretary
Boston City Hall Room 709
Boston, MA 02201

RE: Property located at 319 Chelsea Street – Boston, MA

To whom this may concern:

I am the Manager and resident agent of Chelsea Bremen LLC which is the owner of properties located at 319 Chelsea Street in Boston, Massachusetts. Please be advised that I am authorizing Allen & Major Associates, Inc. ("A&M") and MG2 Group LLC, its agents and necessary subconsultants to contact and otherwise make an application to the City of Boston and the Commonwealth of Massachusetts Department of Environmental Protection (MADEP) relative to the proposed property located at 319 Chelsea Street and further identified as City of Boston Parcel ID 0106899000. If you have any questions please contact my office.

Thank you,

A handwritten signature in black ink, appearing to read 'Joseph Donovan', written over a large, stylized circular flourish.

Joseph Donovan
Resident Agent
Chelsea Bremen LLC



William Francis Galvin
Secretary of the Commonwealth of Massachusetts



Corporations Division

Business Entity Summary

ID Number: 001263789

[Request certificate](#)

[New search](#)

Summary for: CHELSEA BREMEN, LLC

The exact name of the Domestic Limited Liability Company (LLC): CHELSEA BREMEN, LLC		
Entity type: Domestic Limited Liability Company (LLC)		
Identification Number: 001263789		
Date of Organization in Massachusetts: 03-08-2017		
Last date certain:		
The location or address where the records are maintained (A PO box is not a valid location or address):		
Address: 1495 HANCOCK STREET 4TH FLOOR		
City or town, State, Zip code, QUINCY, MA 02169 USA		
Country:		
The name and address of the Resident Agent:		
Name: JOSEPH DONOVAN		
Address: 50 FRANKLIN STREET SUITE 400		
City or town, State, Zip code, BOSTON, MA 02110 USA		
Country:		
The name and business address of each Manager:		
Title	Individual name	Address
MANAGER	JOSEPH DONOVAN	1495 HANCOCK STREET, 4TH FLOOR QUINCY, MA 02169 USA
In addition to the manager(s), the name and business address of the person(s) authorized to execute documents to be filed with the Corporations Division:		
Title	Individual name	Address
The name and business address of the person(s) authorized to execute, acknowledge, deliver, and record any recordable instrument purporting to affect an interest in real property:		
Title	Individual name	Address
REAL PROPERTY	JOSEPH DONOVAN	1495 HANCOCK STREET, 4TH FLOOR QUINCY,

Consent

Confidential Data

Merger Allowed

Manufacturing

View filings for this business entity:

- ALL FILINGS
- Annual Report
- Annual Report - Professional
- Articles of Entity Conversion
- Certificate of Amendment
- Certificate of Cancellation

[View filings](#)

Comments or notes associated with this business entity:

[New search](#)

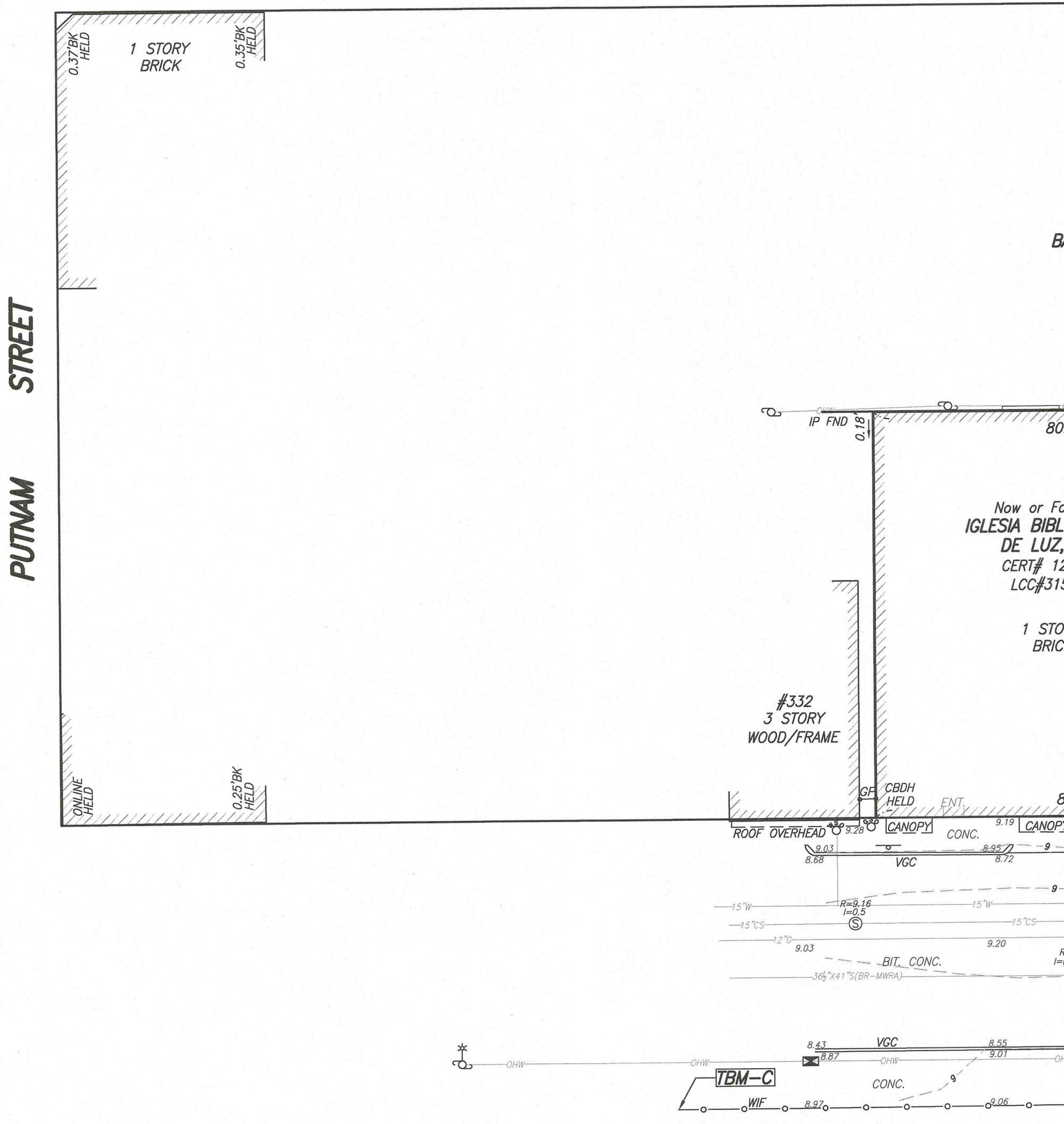
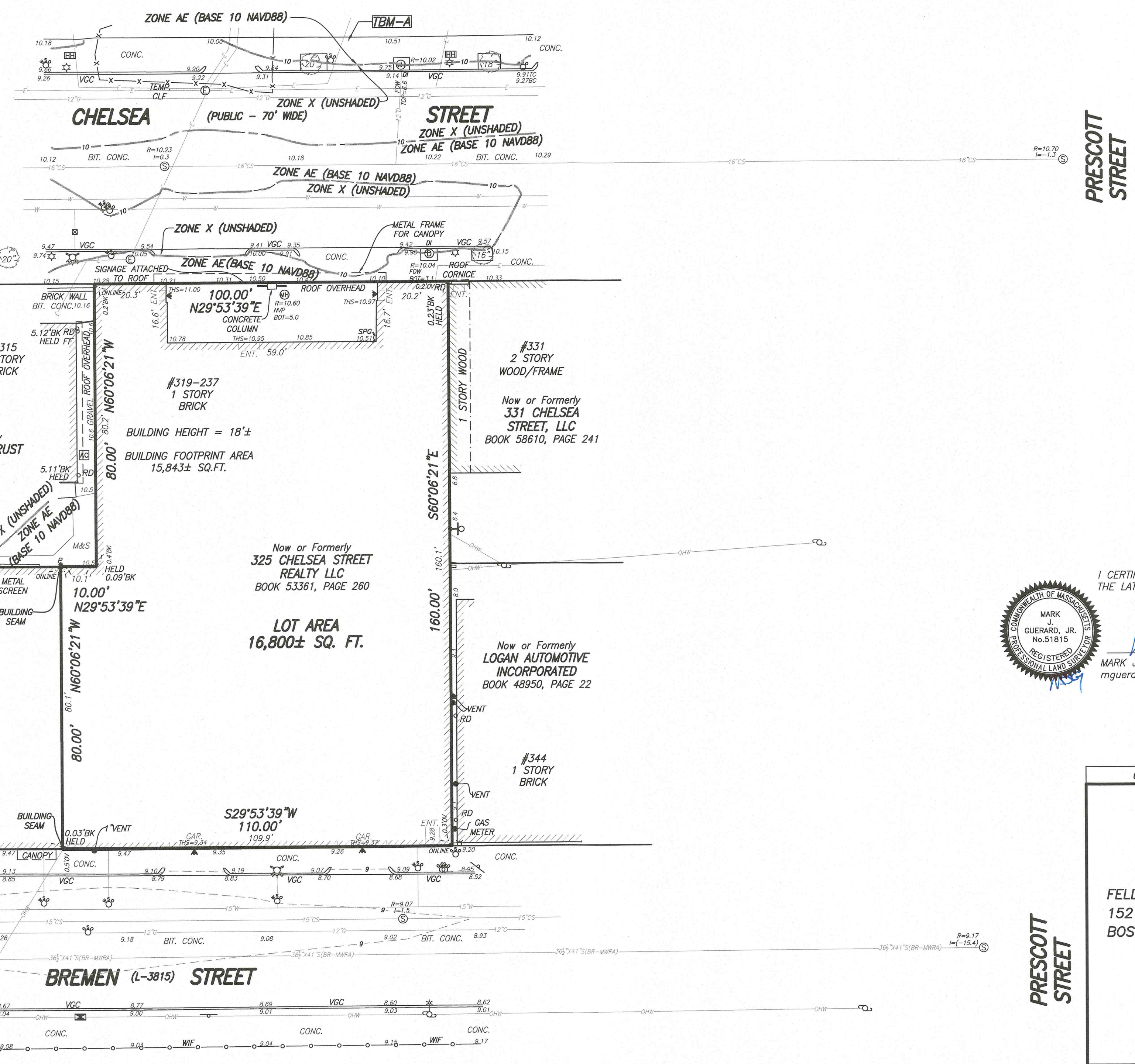
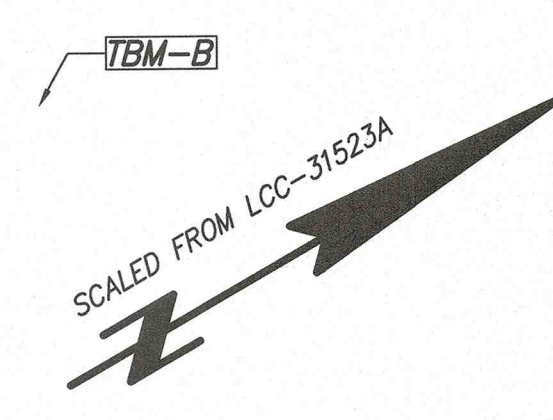
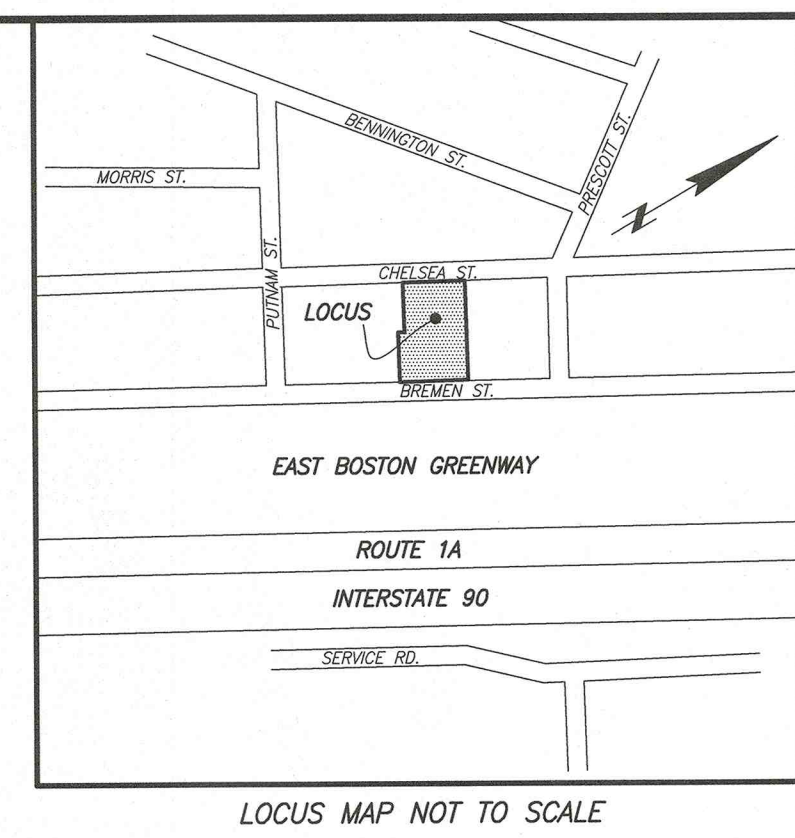
NOTES:

- ELEVATIONS DERIVED FROM GPS OBSERVATIONS MADE ON OCTOBER 29, 2018
 TEMPORARY BENCH MARKS SET:
 TBM-A: RIGHT OUTER CORNER OF LOWEST STONE STEP AT 342 CHELSEA STREET AS SHOWN ON PLAN HEREON. ELEVATION = 10.98
 TBM-B: LEFT OUTER CORNER OF LOWEST STONE STEP AT 328 CHELSEA STREET AS SHOWN ON PLAN HEREON. ELEVATION = 10.10
 TBM-C: BOLT ON FENCE POST BASE ACROSS FROM 326 BREMER STREET AS SHOWN ON PLAN HEREON. ELEVATION = 9.12
- ELEVATIONS REFER TO NORTH AMERICAN DATUM OF 1988 (NAVD88)
- CONTOUR INTERVAL EQUALS ONE (1) FOOT.
- BUILDING HEIGHT SHOWN HEREON IS CALCULATED FROM GRADE AT CHELSEA STREET AND THE HIGHEST POINT OF A FLAT ROOF. BY CITY OF BOSTON ZONING CODE, THE DEFINITION OF BUILDING HEIGHT IS FROM GRADE TO THE TOP OF THE HIGHEST ROOF BEAM. THIS WAS INACCESSIBLE AT TIME OF SURVEY. THEREFORE THE BUILDING HEIGHT BY DEFINITION WOULD BE LESS THAN THE HEIGHT SHOWN HEREON.
- THE PARCEL SHOWN HEREON LIES WITHIN A ZONE "X" (UNSHADED), AN AREA OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOOD, AND A ZONE "AE", WITH A BASE FLOOD ELEVATION 10 (NAVD88), AS SHOWN ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY (F.E.M.A) FLOOD INSURANCE RATE MAP (F.I.R.M.) FOR SUFFOLK COUNTY, MASSACHUSETTS, MAP NUMBER 25025C0019J, CITY OF BOSTON COMMUNITY NUMBER 250286, PANEL NUMBER 0019J, HAVING AN EFFECTIVE DATE OF MARCH 16, 2016.
- UTILITY INFORMATION SHOWN IS BASED ON BOTH A FIELD SURVEY AND PLANS OF RECORD. THE LOCATIONS OF UNDERGROUND PIPES AND CONDUITS HAVE BEEN DETERMINED FROM THE AFOREMENTIONED RECORD PLANS AND ARE APPROXIMATE ONLY. WE CANNOT ASSUME RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES THAT ARE OMITTED OR INACCURATELY SHOWN ON SAID RECORD PLANS, SINCE SUBSURFACE UTILITIES CANNOT BE VISIBLY VERIFIED. BEFORE PLANNING FUTURE CONNECTIONS, THE PROPER UTILITY ENGINEERING DEPARTMENT SHOULD BE CONSULTED AND THE ACTUAL LOCATION OF SUBSURFACE STRUCTURES SHOULD BE DETERMINED IN THE FIELD. CALL, TOLL FREE, THE DIG SAFE CALL CENTER AT 1-888-344-7233 SEVENTY-TWO HOURS PRIOR TO EXCAVATION.

LEGEND					
⊙	SEWER MANHOLE	BCB	BOSTON CITY BASE	X-X	CHAIN LINK FENCE
⊙	DRAIN MANHOLE	BIT	BITUMINOUS	□	WOOD FENCE
⊙	ELECTRIC MANHOLE	BK	BACK	C	CABLE TELEVISION
⊙	CABLE TV MANHOLE	(C)	CALCULATED	D	DRAIN
⊙	STEAM MANHOLE	CB	CONCRETE BOUND	E	ELECTRIC
⊙	MANHOLE	DH	DRILL HOLE	G	GAS
⊙	HYDRANT	DI	DRAIN INLET	OHW	OVERHEAD WIRES
⊙	BOSTON WATER VALVE	CLF	CHAIN LINK FENCE	S	SEWER
⊙	WATER GATE	CONC	CONCRETE	ST	STEAM
⊙	GAS GATE	ENT	ENTRANCE	T	TELEPHONE
⊙	CATCH BASIN	FW	FULL OF WATER	W	WATER
⊙	TRAFFIC CONTROL BOX	I=	INVERT ELEVATION	12"D(C)	PIPE SIZE AND MATERIAL
⊙	LIGHT POLE	INACC.	INACCESSIBLE	PVC	POLYVINYL CHLORIDE
⊙	ELECTRIC HANDHOLE	LPT	LEAD PLUG AND TACK	RCP	REINFORCED CONCRETE PIPE
⊙	BOLLARD	M&S	MULCH & SHRUBS		
⊙	SIGN	R=	RIM ELEVATION		
⊙	STAND PIPE	(R)	RECORD		
⊙	RD	OV	OVER		
⊙	ROOF DRAIN	SQ. FT.	SQUARE FEET		
⊙	GATE POST	TBM	TEMPORARY BENCH MARK		
⊙	SPIGOT	TT	TOP OF TRAP		
⊙	FLOOD LIGHT	THS	THRESHOLD ELEVATION		
⊙	FUEL FILL	NVP	NO VISIBLE PIPE		
⊙	POST	VGC	VERTICAL GRANITE CURB		
⊙	BOUND FOUND	WIF	WROUGHT IRON FENCE		
⊙	DRILL HOLE				
⊙	DECIDUOUS TREE				
⊙	UTILITY POLE				

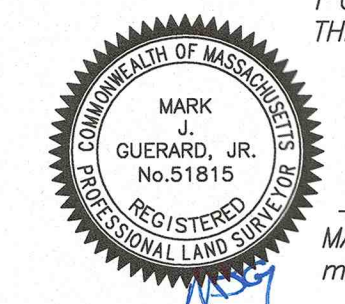
REFERENCES

- SUFFOLK COUNTY REGISTRY OF DEEDS
 PLAN 21 OF 2011
 PLAN 112 OF 2012
 PLAN 493 OF 2018
 PLAN BOOK 8619, PAGE 492
- MASSACHUSETTS LAND COURT
 LCC #31523-A
 LCC #32881-A
- CITY OF BOSTON ENGINEERING DEPARTMENT
 PLAN NO. L-3815



I CERTIFY THAT THIS PLAN IS BASED ON AN ACTUAL FIELD SURVEY AND THE LATEST RECORD PLANS, DEEDS AND CERTIFICATES OF TITLE.

MARK J. GUERARD, JR., PLS (MA# 51815) DATE 9/6/19
 mguerard@feldmansurveyors.com



09/09/2019 ELEVATIONS CONVERTED TO NAVD88

EXISTING CONDITIONS PLAN
 319-327 CHELSEA STREET
 BOSTON, MASS.

FELDMAN LAND SURVEYORS NOVEMBER 2, 2018
 152 HAMPDEN STREET PHONE: (617)357-9740
 BOSTON, MASS. 02119 www.feldmansurveyors.com

FELDMAN
 LAND SURVEYORS

SCALE: 1"=20'

RESEARCH MJG	FIELD CHIEF NG	PROJ MGR MJG	APPROVED MJG	SHEET NO. 1 OF 1
CALC JBD	CADD JBD	FIELD CHECKED	CRD FILE 16459	JOB NO. 16459
FILENAME: S:\PROJECTS\16400s\16459\DWG\SUBMITTED\16459-EX (2019-09-09).dwg				

NOTES:

- BENCH MARK INFORMATION: CITY OF BOSTON BENCH MARKS (BCB)

BENCH MARK USED:
CITY OF BOSTON BENCH MARK: RIGHT OUTER CORNER OF LOWEST STONE STEP AT 110 BENNINGTON STREET.
ELEVATION = 19.07

TEMPORARY BENCH MARKS SET:
TBM-A: RIGHT OUTER CORNER OF LOWEST STONE STEP AT 342 CHELSEA STREET AS SHOWN ON PLAN HEREON.
ELEVATION = 18.15

TBM-B: LEFT OUTER CORNER OF LOWEST STONE STEP AT 328 CHELSEA STREET AS SHOWN ON PLAN HEREON.
ELEVATION = 17.27

TBM-C: BOLT ON FENCE POST BASE ACROSS FROM 326 BREMER STREET AS SHOWN ON PLAN HEREON.
ELEVATION = 16.29
- ELEVATIONS REFER TO BOSTON CITY BASE (BCB)
- CONTOUR INTERVAL EQUALS ONE (1) FOOT.
- BUILDING HEIGHT SHOWN HEREON IS CALCULATED FROM GRADE AT CHELSEA STREET AND THE HIGHEST POINT OF A FLAT ROOF. BY CITY OF BOSTON ZONING CODE, THE DEFINITION OF BUILDING HEIGHT IS FROM GRADE TO THE TOP OF THE HIGHEST ROOF BEAM; THIS WAS INACCESSIBLE AT TIME OF SURVEY. THEREFORE THE BUILDING HEIGHT BY DEFINITION WOULD BE LESS THAN THE HEIGHT SHOWN HEREON.
- BY GRAPHIC PLOTTING ONLY, THE PARCEL SHOWN HEREON LIES WITHIN A ZONE "X" (UNSHADED), AN AREA OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOOD, AND A ZONE "AE", WITH A BASE FLOOD ELEVATION 10 (NAVD88), AS SHOWN ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY (F.E.M.A) FLOOD INSURANCE RATE MAP (F.I.R.M.) FOR SUFFOLK COUNTY, MASSACHUSETTS, MAP NUMBER 2502SC0019J, CITY OF BOSTON COMMUNITY NUMBER 250286, PANEL NUMBER 0019J, HAVING AN EFFECTIVE DATE OF MARCH 16, 2016.
- RELATIONSHIP OF DATUM PLANES WERE DETERMINED FROM COMPARING GPS OBSERVATIONS (OBTAINED 10/26/2018) WITH CITY OF BOSTON BENCH MARK INFORMATION DESCRIBED ABOVE.
- UTILITY INFORMATION SHOWN IS BASED ON BOTH A FIELD SURVEY AND PLANS OF RECORD. THE LOCATIONS OF UNDERGROUND PIPES AND CONDUITS HAVE BEEN DETERMINED FROM THE AFOREMENTIONED RECORD PLANS AND ARE APPROXIMATE ONLY. WE CANNOT ASSUME RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES THAT ARE OMITTED OR INACCURATELY SHOWN ON SAID RECORD PLANS, SINCE SUBSURFACE UTILITIES CANNOT BE VISIBLY VERIFIED. BEFORE PLANNING FUTURE CONNECTIONS, THE PROPER UTILITY ENGINEERING DEPARTMENT SHOULD BE CONSULTED AND THE ACTUAL LOCATION OF SUBSURFACE STRUCTURES SHOULD BE DETERMINED IN THE FIELD. CALL, TOLL FREE, THE DIG SAFE CALL CENTER AT 1-888-344-7233 SEVENTY-TWO HOURS PRIOR TO EXCAVATION.

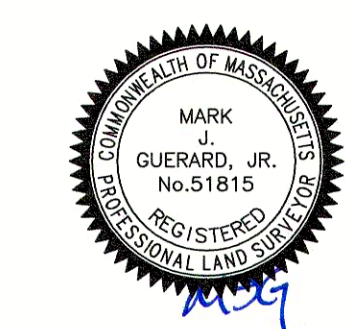
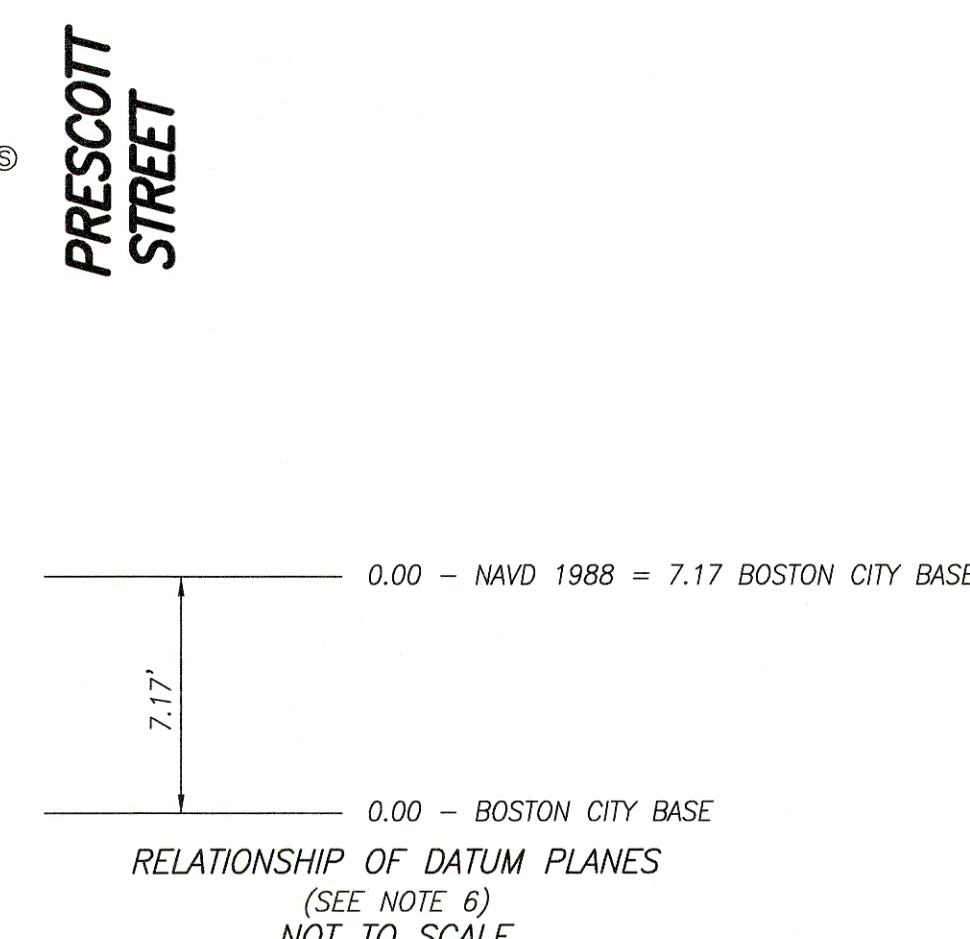
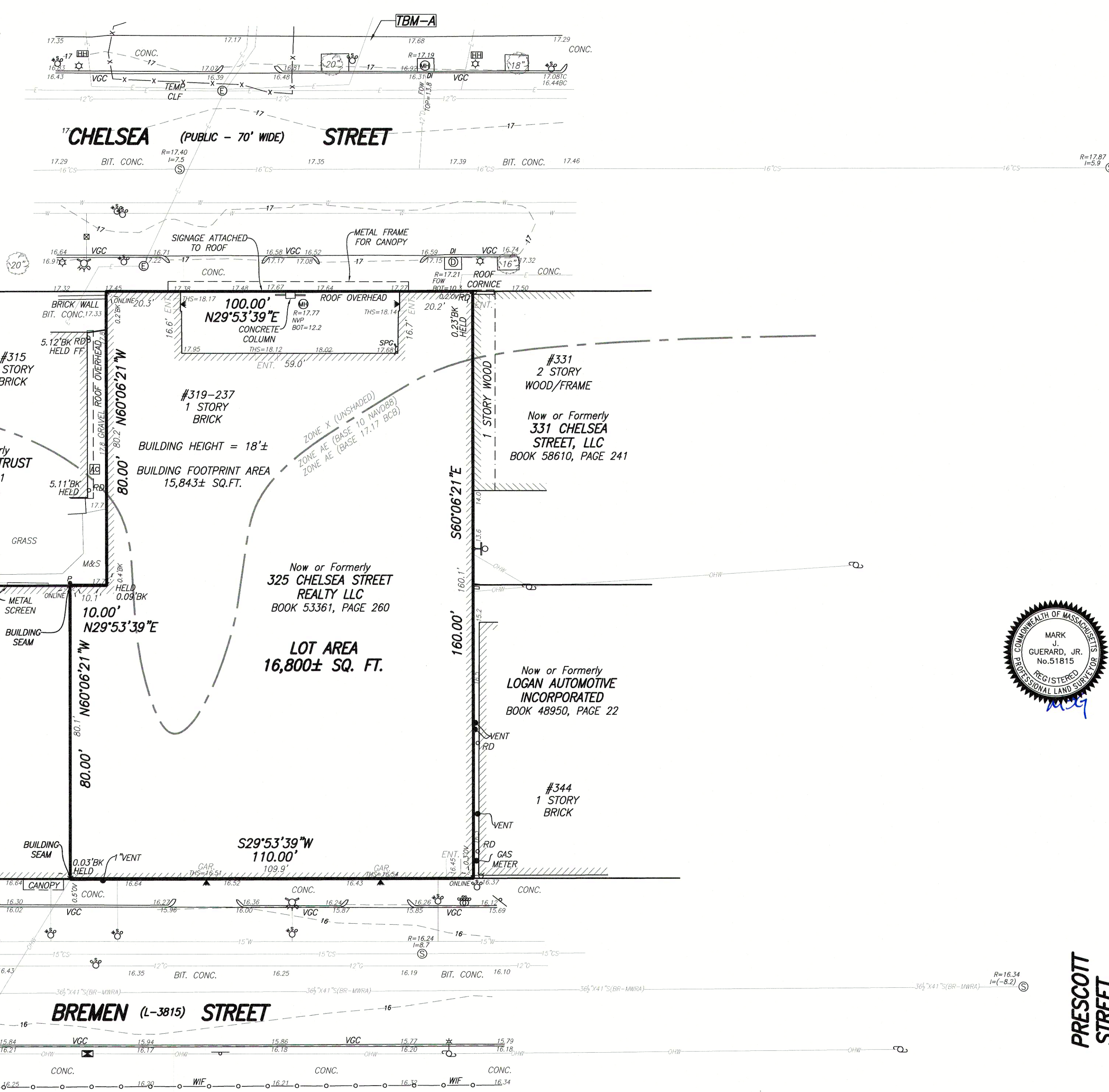
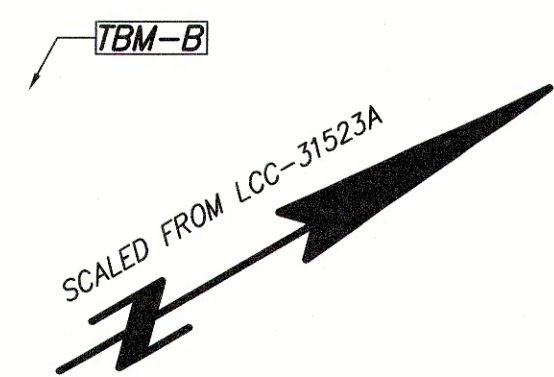
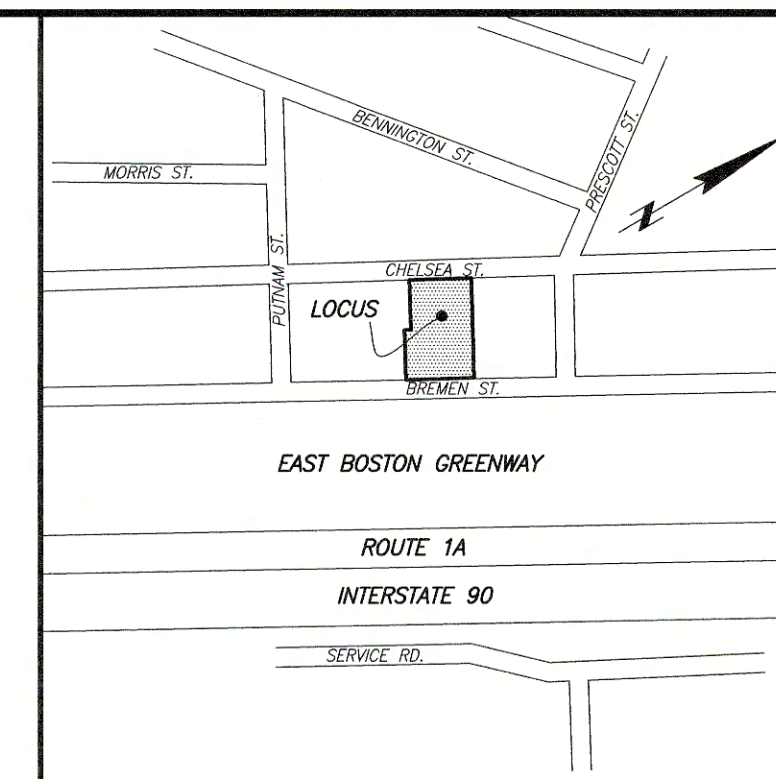
LEGEND					
⊙	SEWER MANHOLE	BCB	BOSTON CITY BASE	-X-X-	CHAIN LINK FENCE
⊖	DRAIN MANHOLE	BIT	BITUMINOUS	□	WOOD FENCE
⊕	ELECTRIC MANHOLE	BK	BACK	-C-	CABLE TELEVISION
⊗	CABLE TV MANHOLE	(C)	CALCULATED	-D-	DRAIN
⊙	STEAM MANHOLE	CB	CONCRETE BOUND	-E-	ELECTRIC
⊙	MANHOLE	DH	DRILL HOLE	-G-	GAS
⊙	HYDRANT	DI	DRAIN INLET	-OHW-	OVERHEAD WIRES
⊙	BOSTON WATER VALVE	CLF	CHAIN LINK FENCE	-S-	SEWER
⊙	WATER GATE	CONC	CONCRETE	-ST-	STEAM
⊙	GAS GATE	ENT	ENTRANCE	-T-	TELEPHONE
⊙	CATCH BASIN	FW	FULL OF WATER	-W-	WATER
⊙	TRAFFIC CONTROL BOX	I=	INVERT ELEVATION	12"D(C)	PIPE SIZE AND MATERIAL
⊙	LIGHT POLE	INACC	INACCESSIBLE	-PVC-	POLYVINYL CHLORIDE
⊙	ELECTRIC HANDHOLE	LPT	LEAD PLUG AND TACK	-RCP-	REINFORCED CONCRETE PIPE
⊙	BOLLARD	M&S	MULCH & SHRUBS		
⊙	SIGN	R=	RIM ELEVATION		
⊙	STAND PIPE	(R)	RECORD		
⊙	ROOF DRAIN	OV	OVER		
⊙	GATE POST	SQ. FT.	SQUARE FEET		
⊙	SPICOT	TBM	TEMPORARY BENCH MARK		
⊙	FLOOD LIGHT	TT	TOP OF TRAP		
⊙	FUEL FILL	THS	THRESHOLD ELEVATION		
⊙	POST	NVP	NO VISIBLE PIPE		
⊙	BOUND FOUND	VGC	VERTICAL GRANITE CURB		
⊙	DRILL HOLE	WIF	WROUGHT IRON FENCE		
⊙	DECIDUOUS TREE				
⊙	UTILITY POLE				

REFERENCES

SUFFOLK COUNTY REGISTRY OF DEEDS
 PLAN 21 OF 2011
 PLAN 112 OF 2012
 PLAN 493 OF 2018
 PLAN BOOK 8619, PAGE 492

MASSACHUSETTS LAND COURT
 LCC #31523-A
 LCC #32881-A

CITY OF BOSTON ENGINEERING DEPARTMENT
 PLAN NO. L-3815



I CERTIFY THAT THIS PLAN IS BASED ON AN ACTUAL FIELD SURVEY AND THE LATEST RECORD PLANS, DEEDS AND CERTIFICATES OF TITLE.

Mark J. Guerard, Jr.
 MARK J. GUERARD, JR., PLS (MA# 51815) DATE: June 28, 2019
 mguerard@feldmansurveyors.com

EXISTING CONDITIONS PLAN
319-327 CHELSEA STREET
BOSTON, MASS.

FELDMAN LAND SURVEYORS
 152 HAMPDEN STREET
 BOSTON, MASS. 02119

NOVEMBER 2, 2018
 PHONE: (617)357-9740
 www.feldmansurveyors.com

FELDMAN
 LAND SURVEYORS

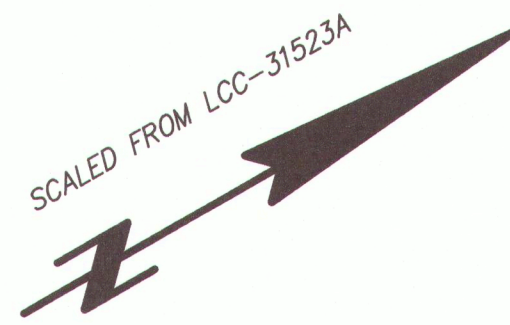
SCALE: 1"=20'

RESEARCH M/J	FIELD CHIEF NG	PROJ MGR M/J	APPROVED	SHEET NO. 1 OF 1
CALC JBD	CADD JBD	FIELD CHECKED	CRD FILE 16459	JOB NO. 16459

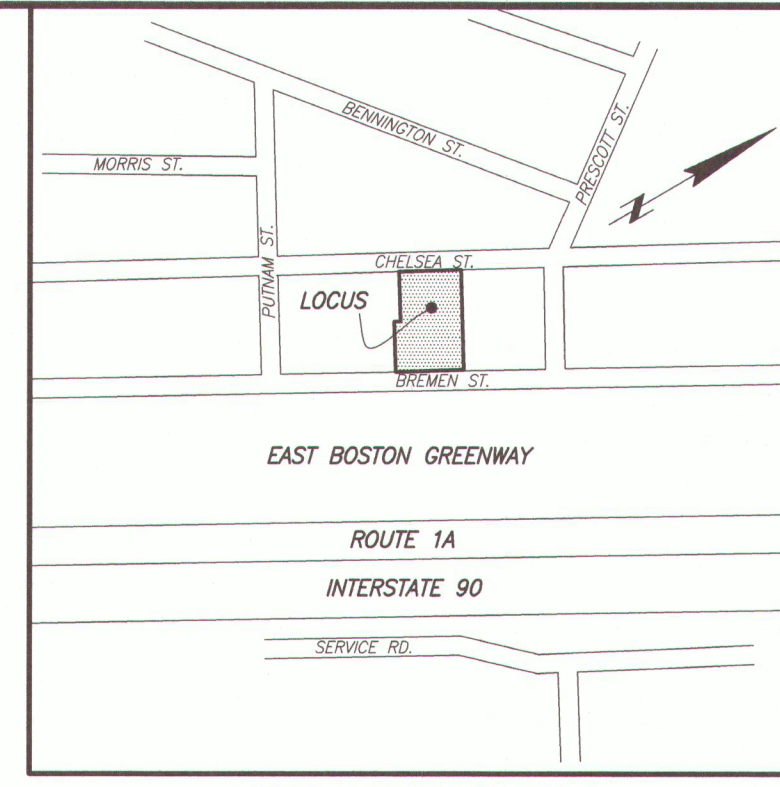
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PUTNAM STREET

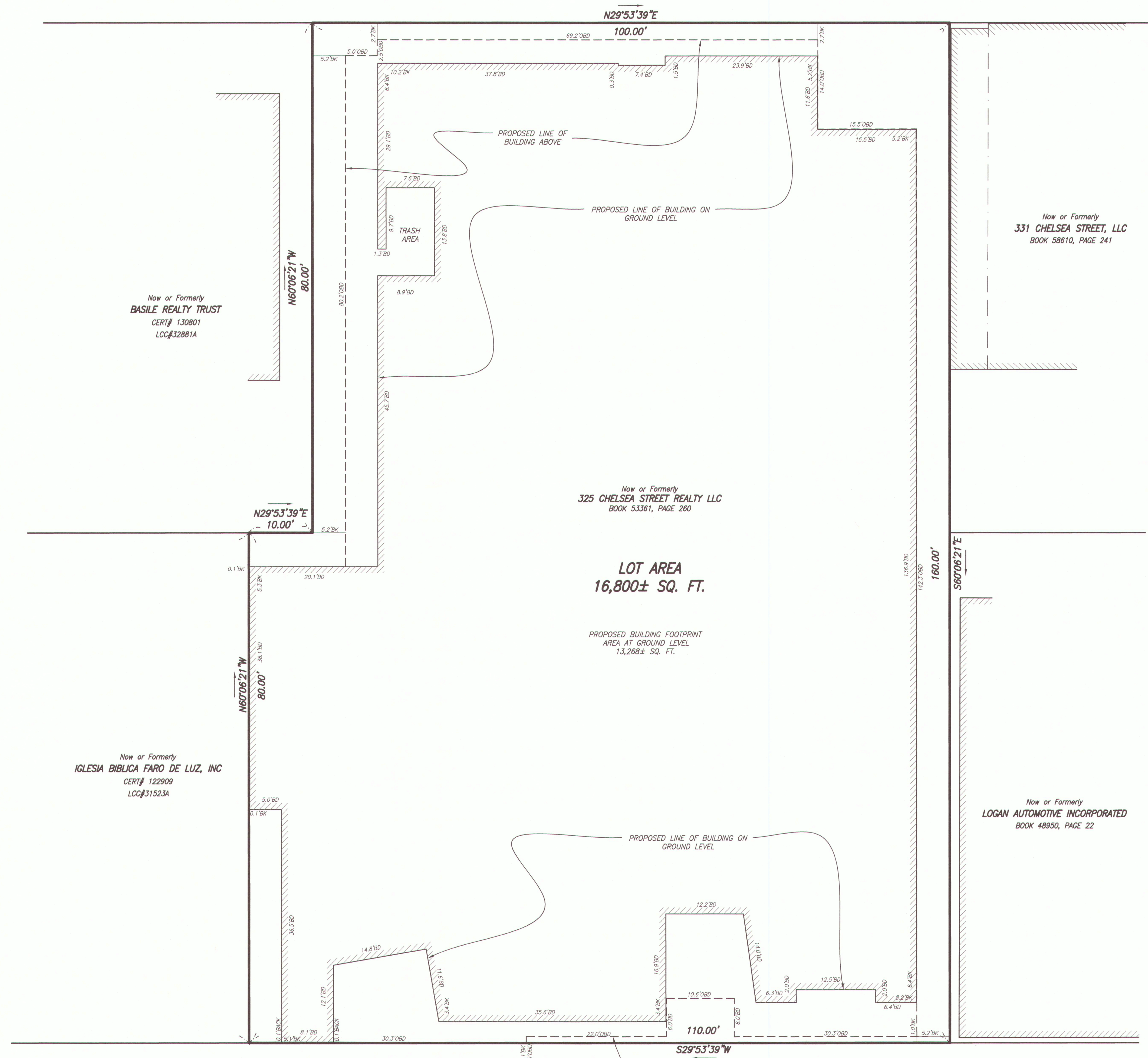
PRESCOTT STREET



CHELSEA (PUBLIC - 70' WIDE) STREET



LOCUS MAP NOT TO SCALE



Now or Formerly
BASILE REALTY TRUST
CERT# 130801
LCC#32881A

Now or Formerly
331 CHELSEA STREET, LLC
BOOK 58610, PAGE 241

Now or Formerly
325 CHELSEA STREET REALTY LLC
BOOK 53361, PAGE 280

LOT AREA
16,800± SQ. FT.

PROPOSED BUILDING FOOTPRINT
AREA AT GROUND LEVEL
13,268± SQ. FT.

Now or Formerly
IGLESIA BIBLICA FARO DE LUZ, INC
CERT# 122909
LCC#31523A

Now or Formerly
LOGAN AUTOMOTIVE INCORPORATED
BOOK 48950, PAGE 22

BREMEN (L-3801) (PUBLIC - 40' WIDE) STREET

NOTES:

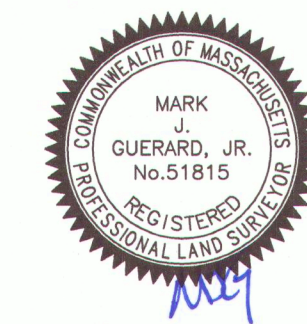
BUILDING DIMENSIONS AND LOCATION DERIVED FROM CAD FILE PREPARED BY EMBARC STUDIO, DATED JUNE 21, 2019.

REFERENCES

- SUFFOLK COUNTY REGISTRY OF DEEDS
 - PLAN 21 OF 2011
 - PLAN 112 OF 2012
 - PLAN 493 OF 2018
 - PLAN BOOK 8619, PAGE 492
- MASSACHUSETTS LAND COURT
 - LCC #31523-A
 - LCC #32881-A
- CITY OF BOSTON ENGINEERING DEPARTMENT
 - PLAN NO. L-3815
 - PLAN NO. L-3801

LEGEND

- BD BUILDING DIMENSION
- OB OVERHEAD BUILDING DIMENSION
- BK BACK
- LCC LAND COURT CASE
- OV OVER
- SQ. FT. SQUARE FEET



I CERTIFY THAT THIS PLAN IS BASED ON AN ACTUAL FIELD SURVEY AND THE LATEST RECORD PLANS, DEEDS AND CERTIFICATES OF TITLE.

MARK J. GUERARD, JR., PLS (MA# 51815) DATE 6/28/19
mguerard@feldmansurveyors.com

PLOT PLAN
319-327 CHELSEA STREET
BOSTON, MASS.

RESEARCH M/J FIELD CHIEF NG PROJ MGR M/J APPROVED M/J SHEET NO. 1 OF 1
CALC JBD CADD JBD FIELD CHECKED CRD FILE 16459 JOB NO. 16459

FELDMAN
LAND SURVEYORS

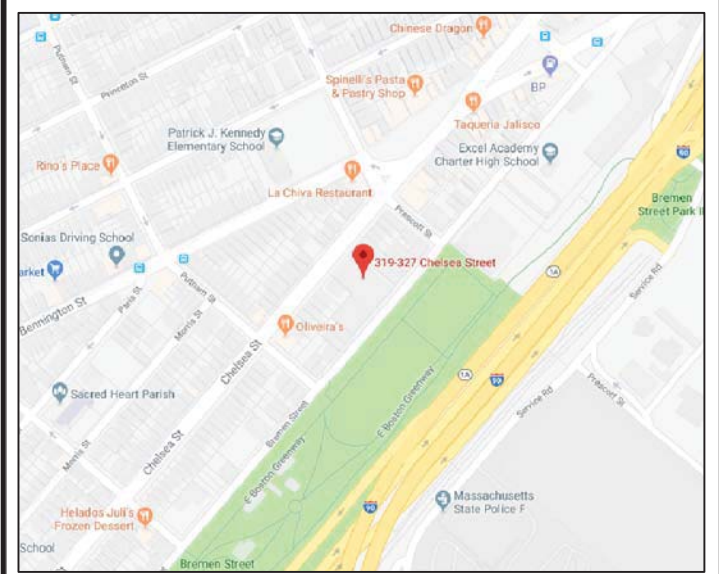
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JUNE 28, 2019
152 HAMPDEN STREET PHONE: (617)357-9740
BOSTON, MASS. 02119 www.feldmansurveyors.com

FILENAME: S:\PROJECTS\16400s\16459\DWG\16459-PP2.dwg

Civil Site Plan

319 Chelsea St.
East Boston, MA



ALL WATER, SEWER AND DRAIN SERVICE CONNECTIONS TO BOSTON WATER AND SEWER COMMISSION FACILITIES MUST BE PERFORMED BY A BONDED DRAIN LAYER LICENSED BY THE BOSTON WATER AND SEWER COMMISSION.

PEAK WATER DEMAND = 78 GPM
SEWER: 7,700 GPD (70 BED x 110 GPD)

MATERIALS:
DRAIN LINES SHALL BE 6" SDR35 w/ 2' MIN. COVER OVER PIPE. 1% SLOPE MIN.
SEWER SERVICE: 6" (SDR 35) 2% SLOPE MIN.
WATER: 4" DI CL (MINIMUM OF 5 FEET BELOW GRADE) ZINC COATED
FIRE: 8" DI CL (MINIMUM OF 5 FEET BELOW GRADE) ZINC COATED

INSPECTION CHECK LIST

- 4" DOMESTIC WATER INSPECTOR: DATE:
- 8" FIRE SERVICE INSPECTOR: DATE:
- CUT & CAP EXIST. WATER (1) INSPECTOR: DATE:
- CUT & CAP EXIST. WATER (2) INSPECTOR: DATE:
- 6" SEWER LATERAL INSPECTOR: DATE:
- SEWER DYE TEST INSPECTOR: DATE:
- SEWER MH INSPECTOR: DATE:
- 6" DRAIN LATERAL INSPECTOR: DATE:
- DRAIN DYE TEST INSPECTOR: DATE:
- INFILTRATION SYSTEM #1 INSPECTOR: DATE:
- MINI DMH INSPECTOR: DATE:
- OIL/GAS SEPARATOR INSPECTOR: DATE:
- FLOOR DRAINS (1 OF 5) INSPECTOR: DATE:
- CUT & CAP EX. SEWER INSPECTOR: DATE:

AS-BUILT PREPARATION FEE IS REQUIRED

REFERENCES:
SURVEY: Feldman Land Surveyors
ARCHITECT: Emma Shubin
APPLICANT: MG2 Group, Alaris Const. LLC, James McDonagh, 617-412-3200
60 Border Street, East Boston, MA 02128

No.	Date	Comment
#1	4-16-19	BWSC Comments
#2	7-12-19	Architectural Design Changes

Columbia Design Group, LLC

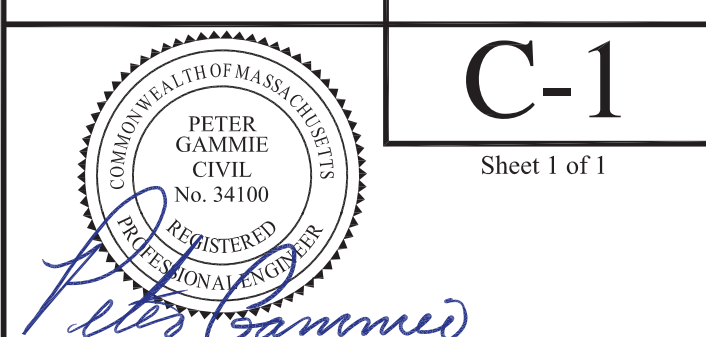
Consulting Engineers

14 Uplam Avenue
Boston, MA 02125
(T) 617.506.1474 (F) 617.507.7740

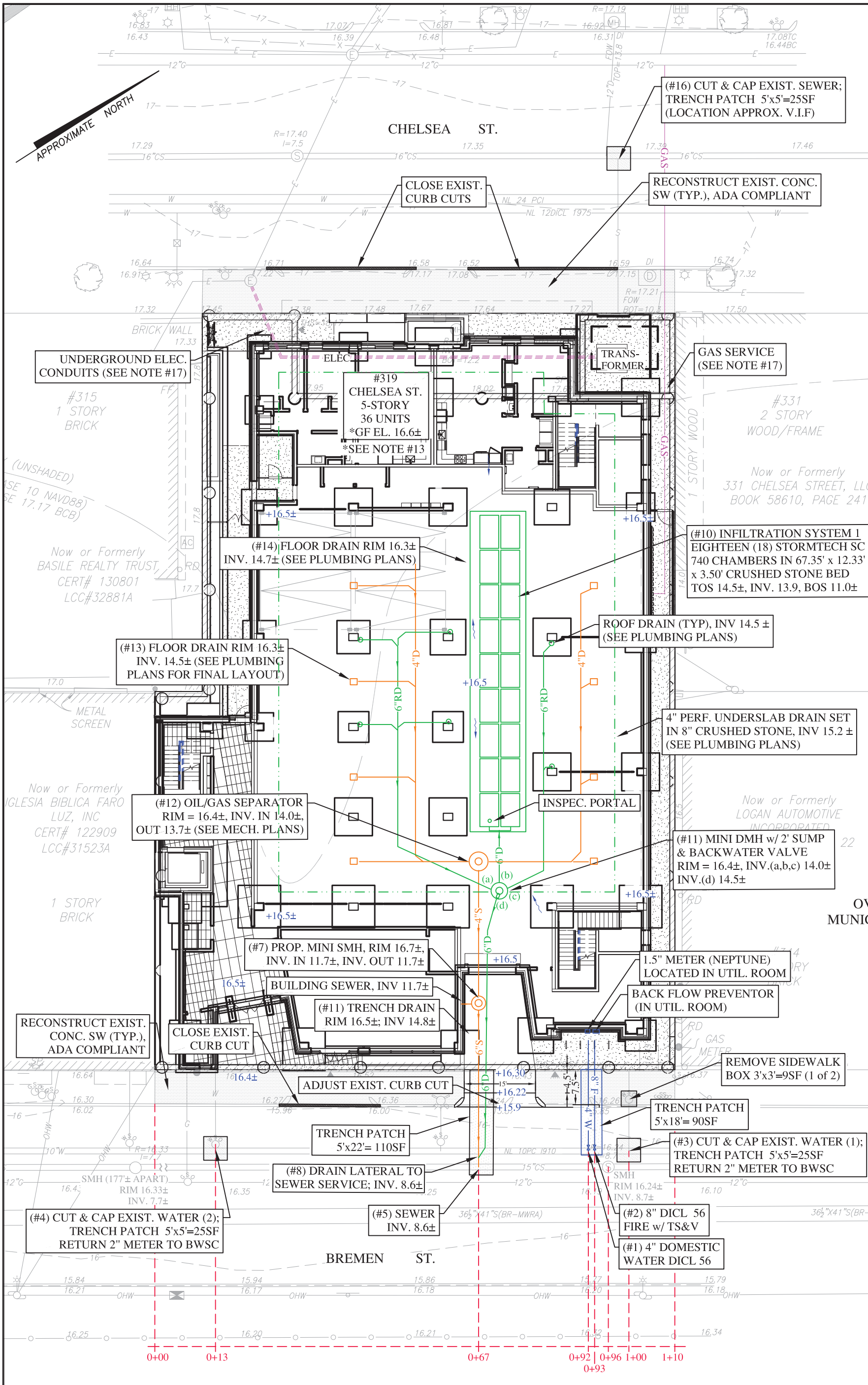
BWSC SITE PLAN #19097

Date: February 25, 2019 Scale: 1" = 20'

Project No.: 2018-179 Drawing by: PG



C-1
Sheet 1 of 1

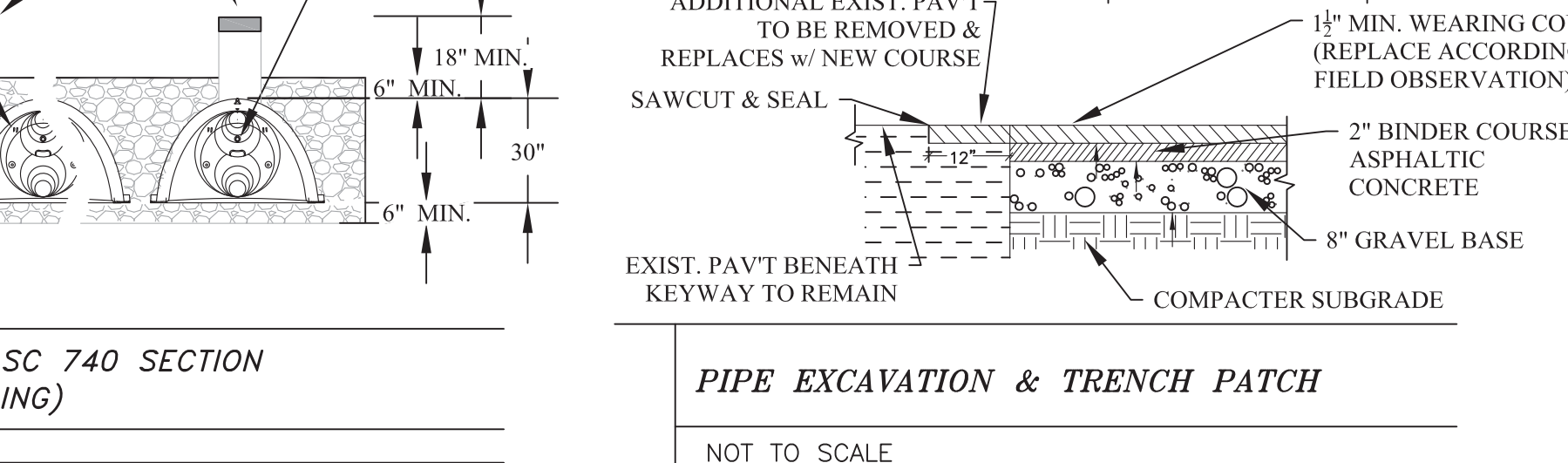
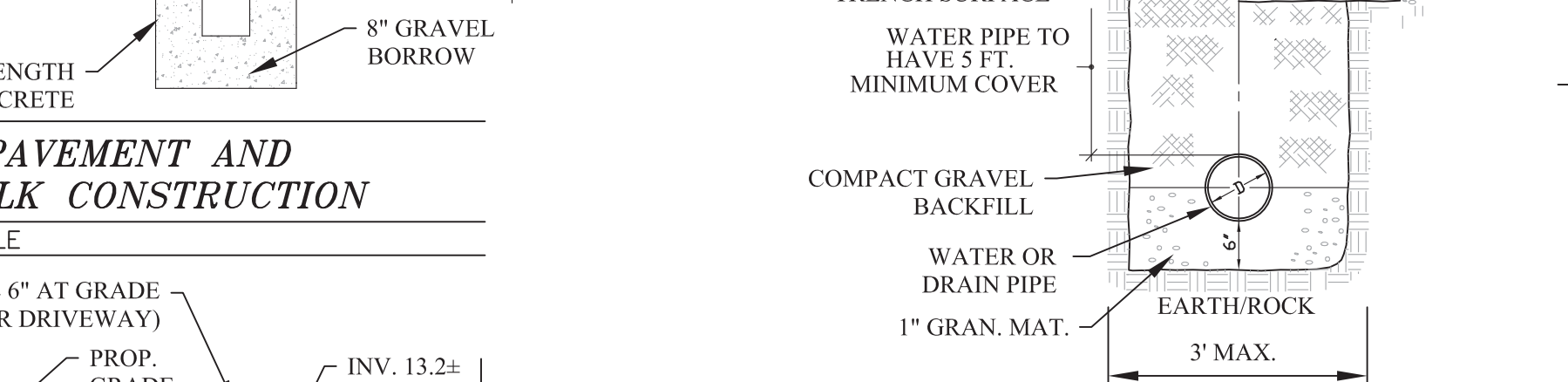
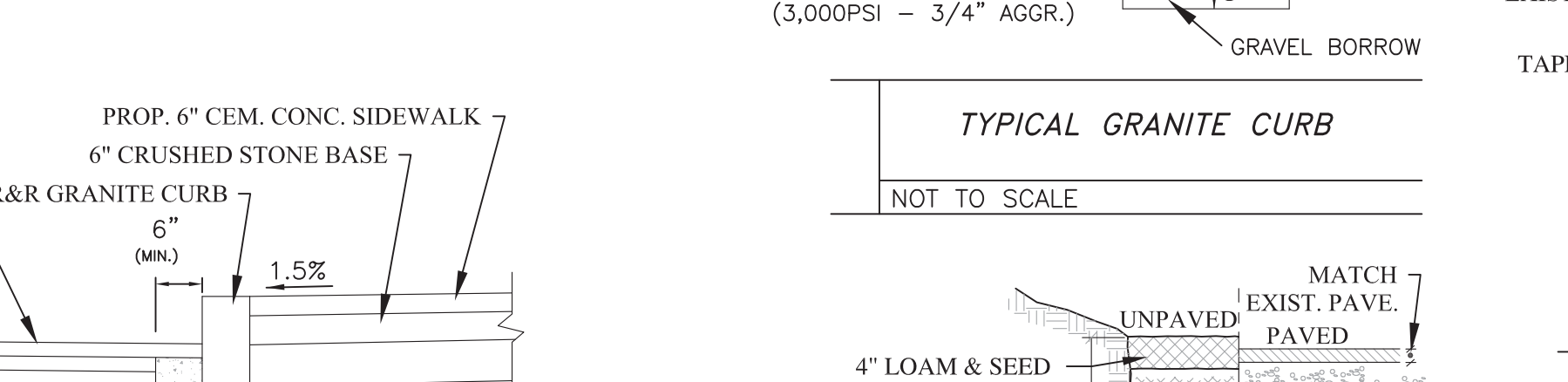
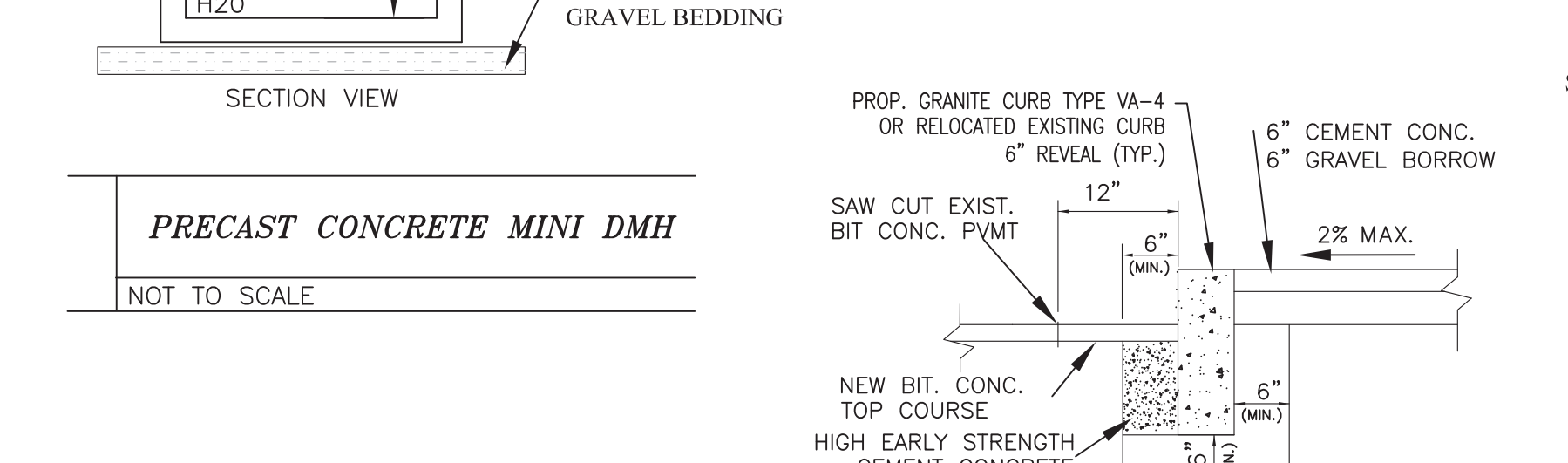
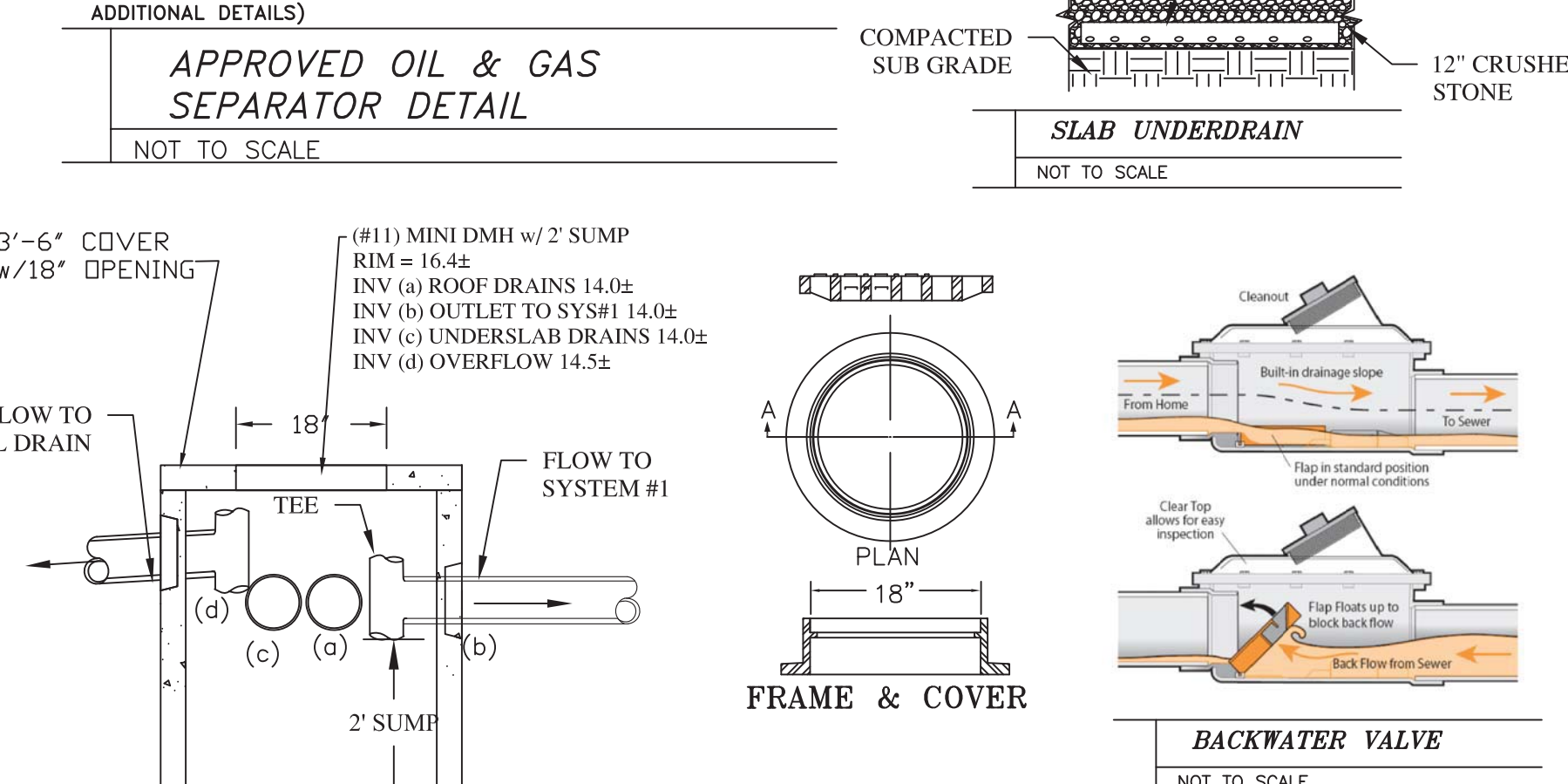
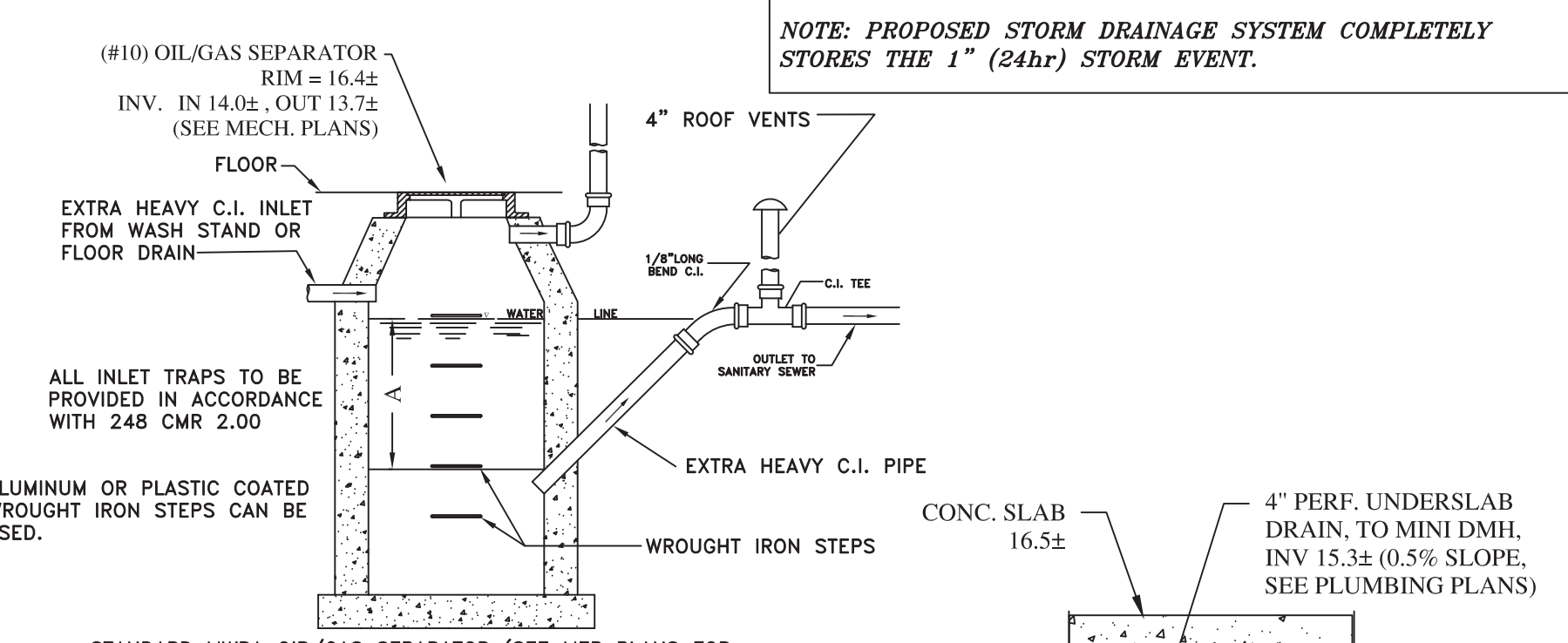


NOTE: IT IS VERY IMPORTANT THAT THE CONTRACTOR FIELD VERIFY EXISTING SITE GRADES, SEWER/RAIN UTILITY LOCATIONS AT THE MAINS AT THE START OF CONSTRUCTION. IF CONDITIONS DIFFER SIGNIFICANTLY FROM WHAT IS SHOWN, THE ENGINEER MUST BE NOTIFIED PRIOR TO THE INSTALLATION OF ANY OF THE SEWER OR DRAIN SYSTEMS.

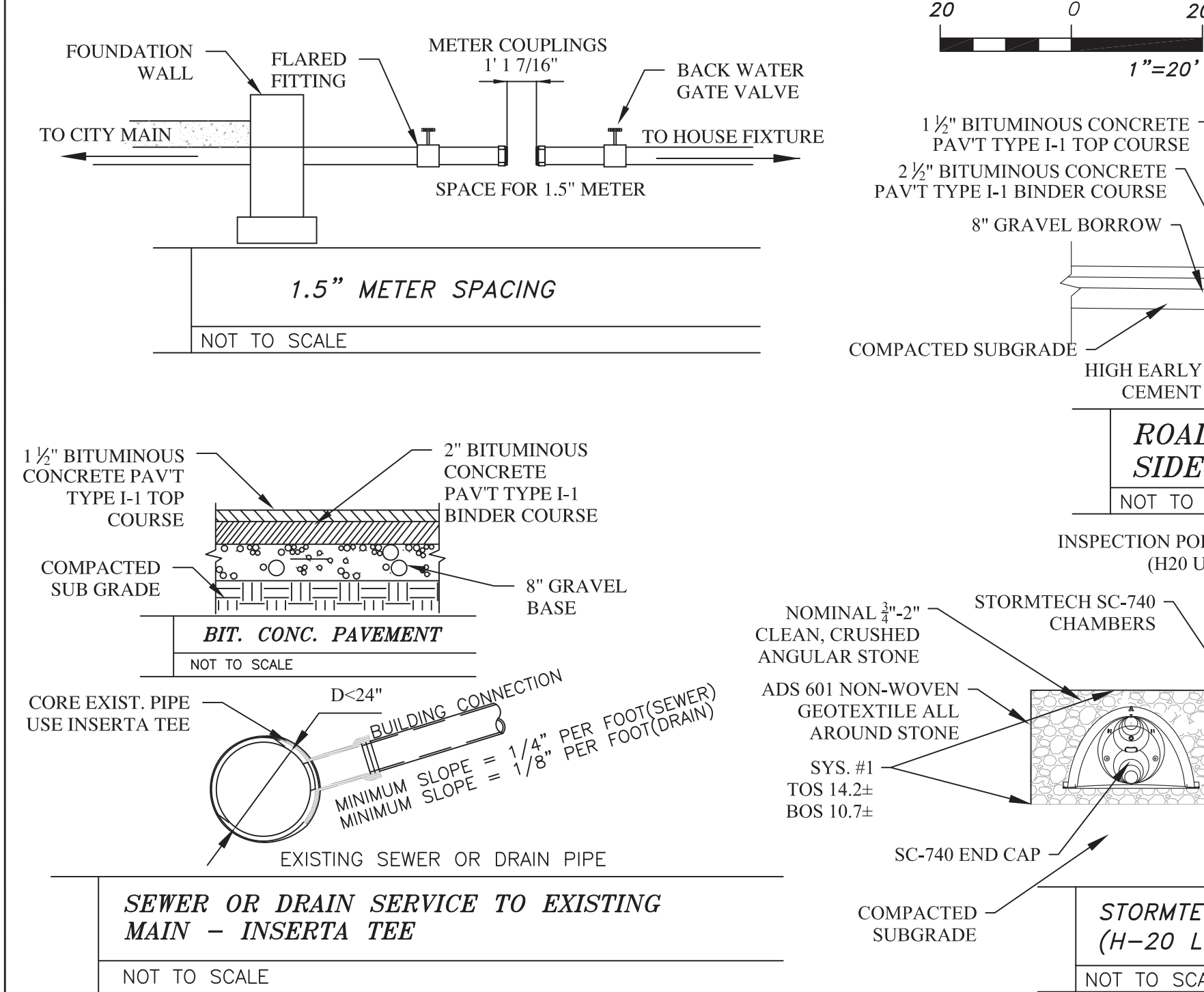
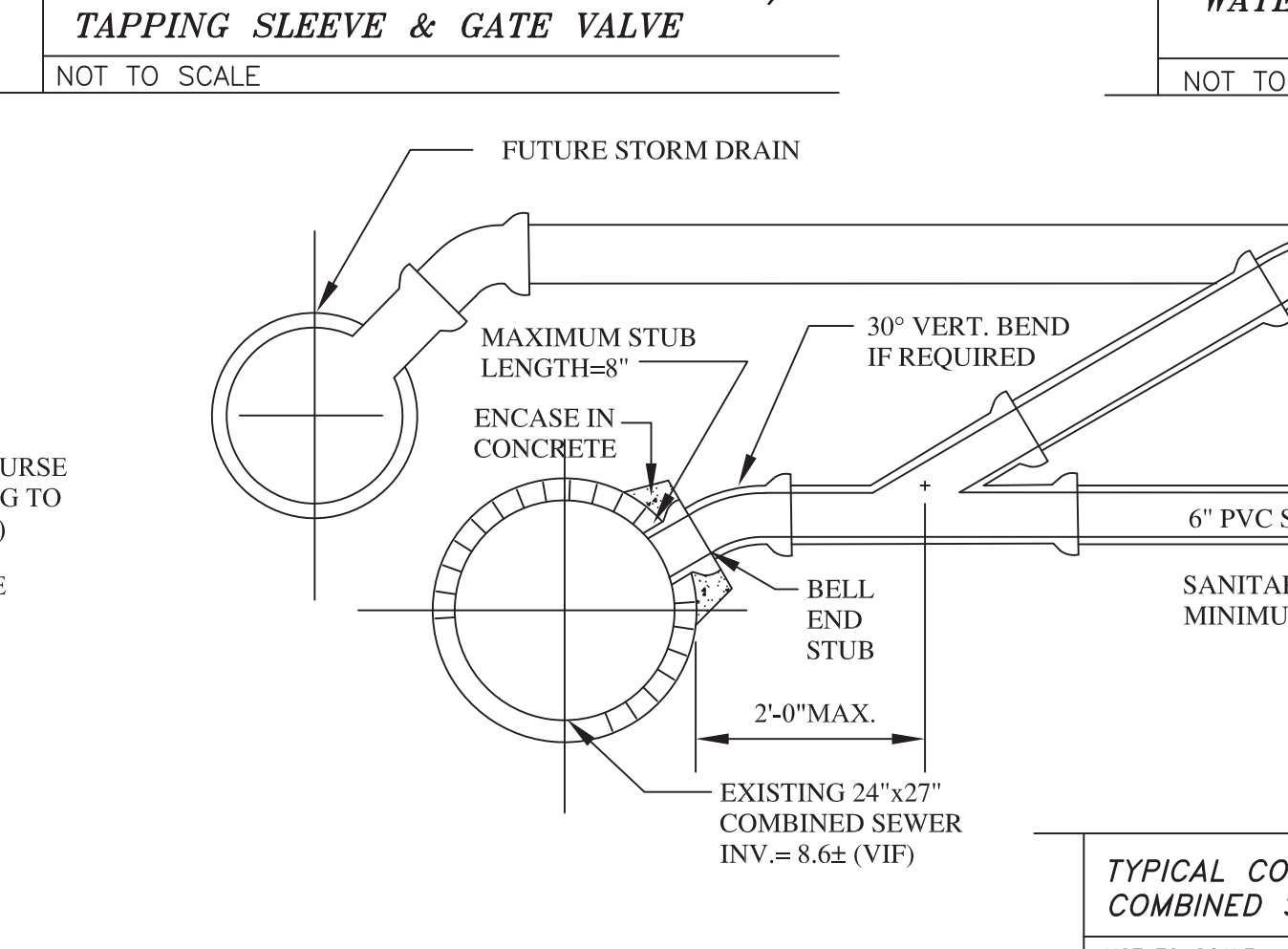
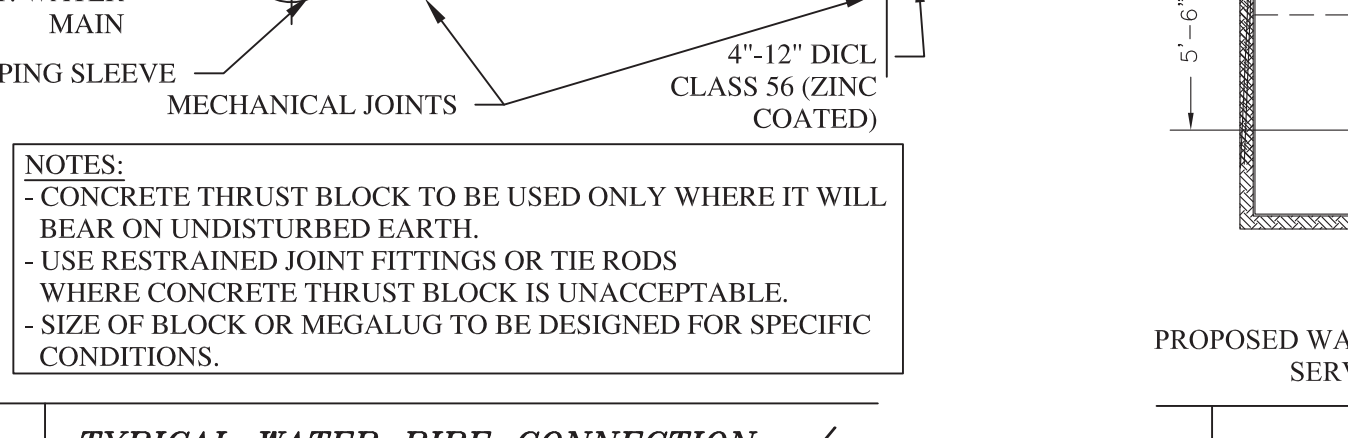
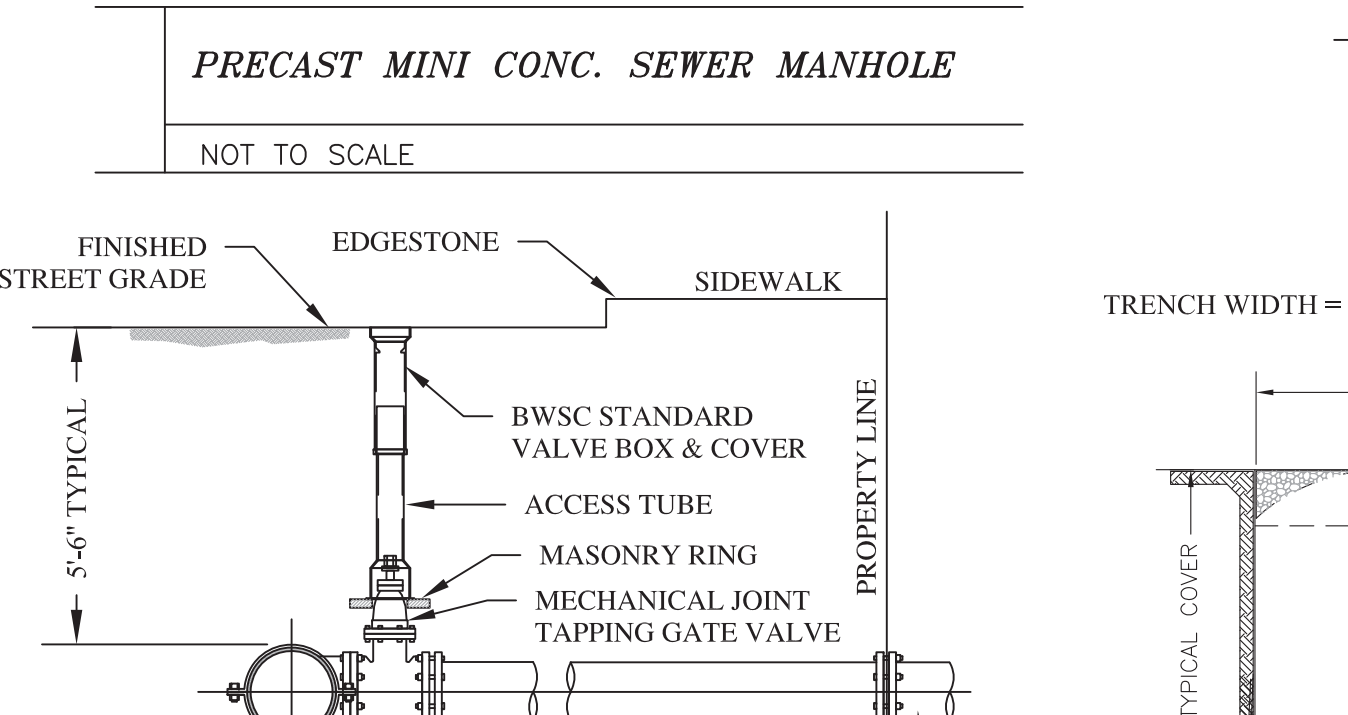
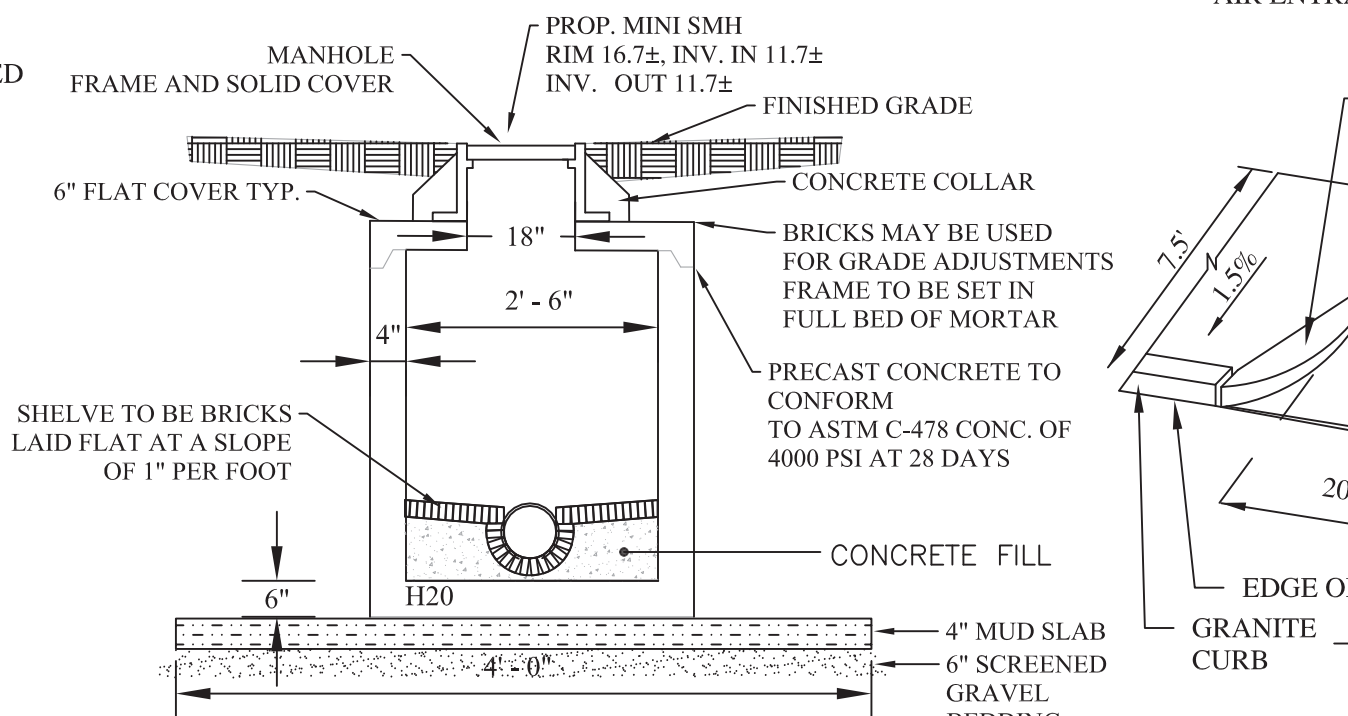
CONDO AGREEMENT: THE CONDO AGREEMENT SHALL PROVIDE LANGUAGE PERTAINING TO EACH UNIT OWNERS RIGHT TO HAVE ACCESS TO THE STORM DRAINAGE SYSTEM FOR MAINTENANCE AND REPAIRS.

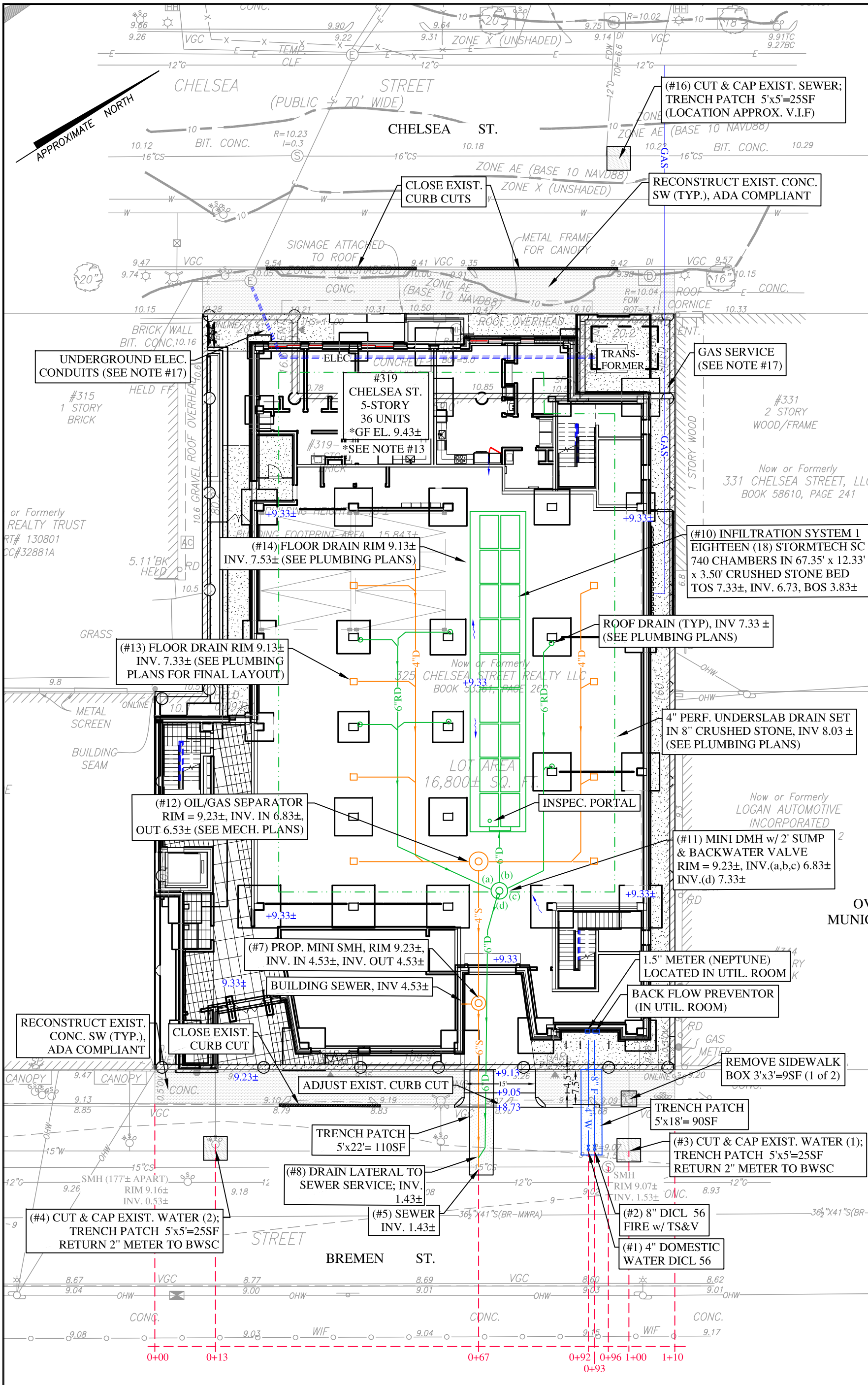
DRAINAGE CALCULATIONS & LAYOUT NOTES:
IMPERVIOUS SURFACES:
ENTIRE LOT: 16,800 SF (Roof area)
DESIGN STORMS: 1" - OVER IMPERVIOUS AREA STORAGE REQUIRED: (16,800x1"/12) = 1,400 CF
PROP. STORAGE: INFILTRATION SYSTEM #1
9 Chambers/Row = 67.35' Base Length
2 Rows Wide + 20.0' Side Stone x 2 = 12.33' Base Width
Chamber Height + 6.0' Cover = 3.50' Field Height
18 Chambers 30.0% Voids = 622.4 c of Stone Storage
Chamber Storage + Stone Storage = 1,455.0 c of Overall System Size = 67.35' x 12.33' x 3.50'
Chamber Storage + Stone Storage = 1,455 CF

NOTE: PROPOSED STORM DRAINAGE SYSTEM COMPLETELY STORES THE 1" (24hr) STORM EVENT.



- GENERAL NOTES**
- THIS PLAN HAS BEEN PREPARED FOR APPROVAL BY THE BWSC FOR THE PROPOSED WATER, FIRE SERVICE, SEWER SERVICE AND DRAIN SERVICES. FOR ADDITIONAL INFORMATION ABOUT THE PROPOSED BUILDING PLEASE SEE THE ARCHITECTURAL DRAWINGS.
 - THE APPLICANT FOR THIS PROPERTY IS: MG2 Group, Alaris Const. LLC, James McDonagh, 617-412-3200
60 Border Street, East Boston, MA 02128
 - ALL WORK SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF BWSC, DPW AND BTD
 - THE CONTRACTOR SHALL OBTAIN ALL PERMITS IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL CODES AND REGULATIONS PRIOR TO CONSTRUCTION.
 - THE LOCATION OF EXISTING UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL UTILITIES BEFORE COMMENCING WITH THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES TO EXISTING UTILITIES. ELEVATIONS SHOWN ON THIS PLAN ARE BASED ON RECORD INFORMATION.
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 - ALL EXISTING UTILITIES TO BE ABANDONED SHALL BE CUT AND CAPPED AT THE MAIN. THE CONTRACTOR IS RESPONSIBLE FOR INVESTIGATING AND VERIFYING THE LOCATION OF EACH EXISTING SERVICE CONNECTION, EVEN IF SAID LOCATION IS NOT SHOWN ON THIS PLAN.
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WARD-PARCEL: 01-0689900 LAND USE CODE: RC
WATER ACCOUNT: 318128000 Meter: 03020765

BOSTON WATER AND SEWER COMMISSION

Reviewed and approved as to proposed connections(s) to existing Water and Sewer facilities as shown, for Issue of Building Permit Only. Additional Permits must be obtained from BWSC prior to Connection to BWSV facilities. Site Plans are valid for a period of one (1) year from date of approval.

JOHN P. SULLIVAN, JR. P.E.
Chief Engineer

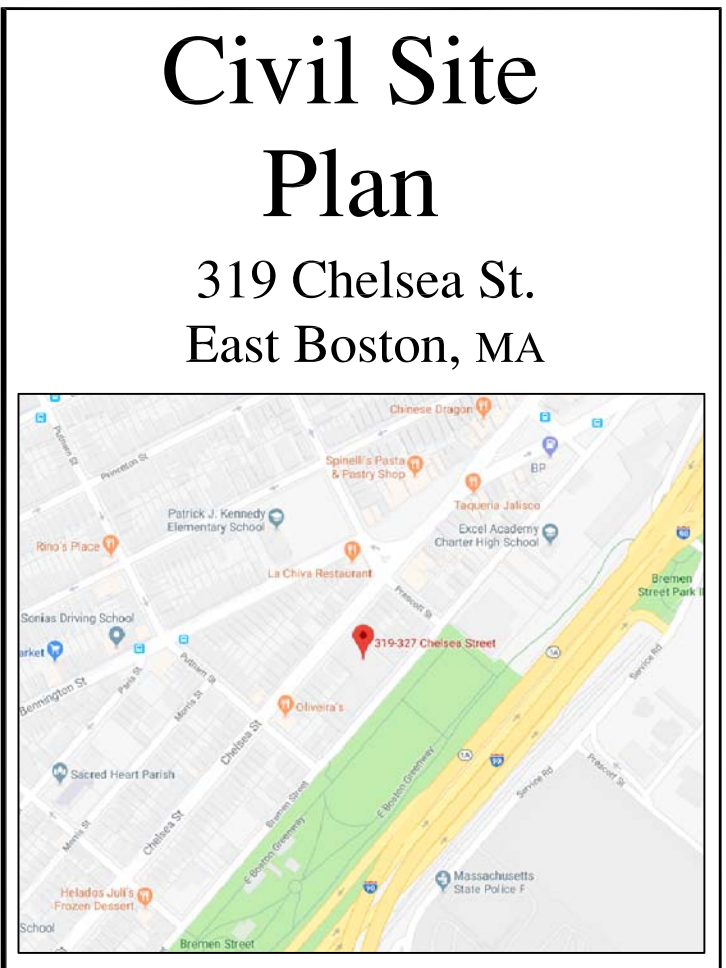
BOSTON WATER AND SEWER COMMISSION

Cross Connection
Approval: _____ Date: _____

Discharge Enforcement
Approval: _____ Date: _____

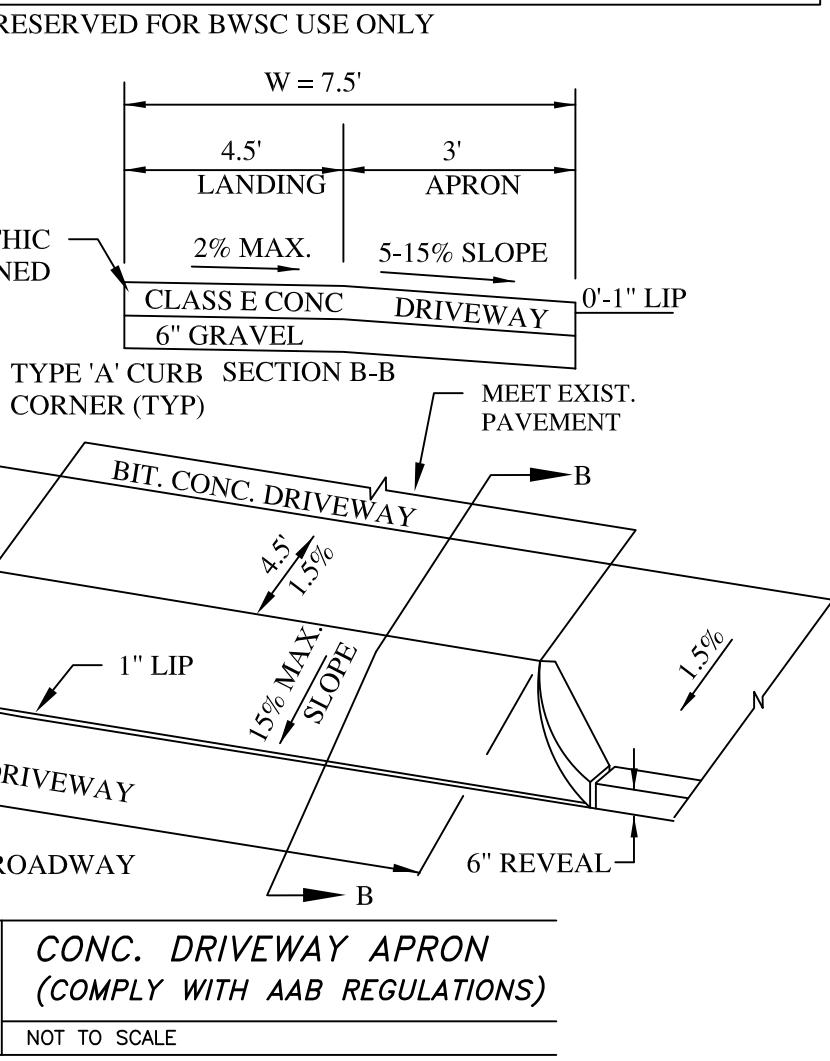
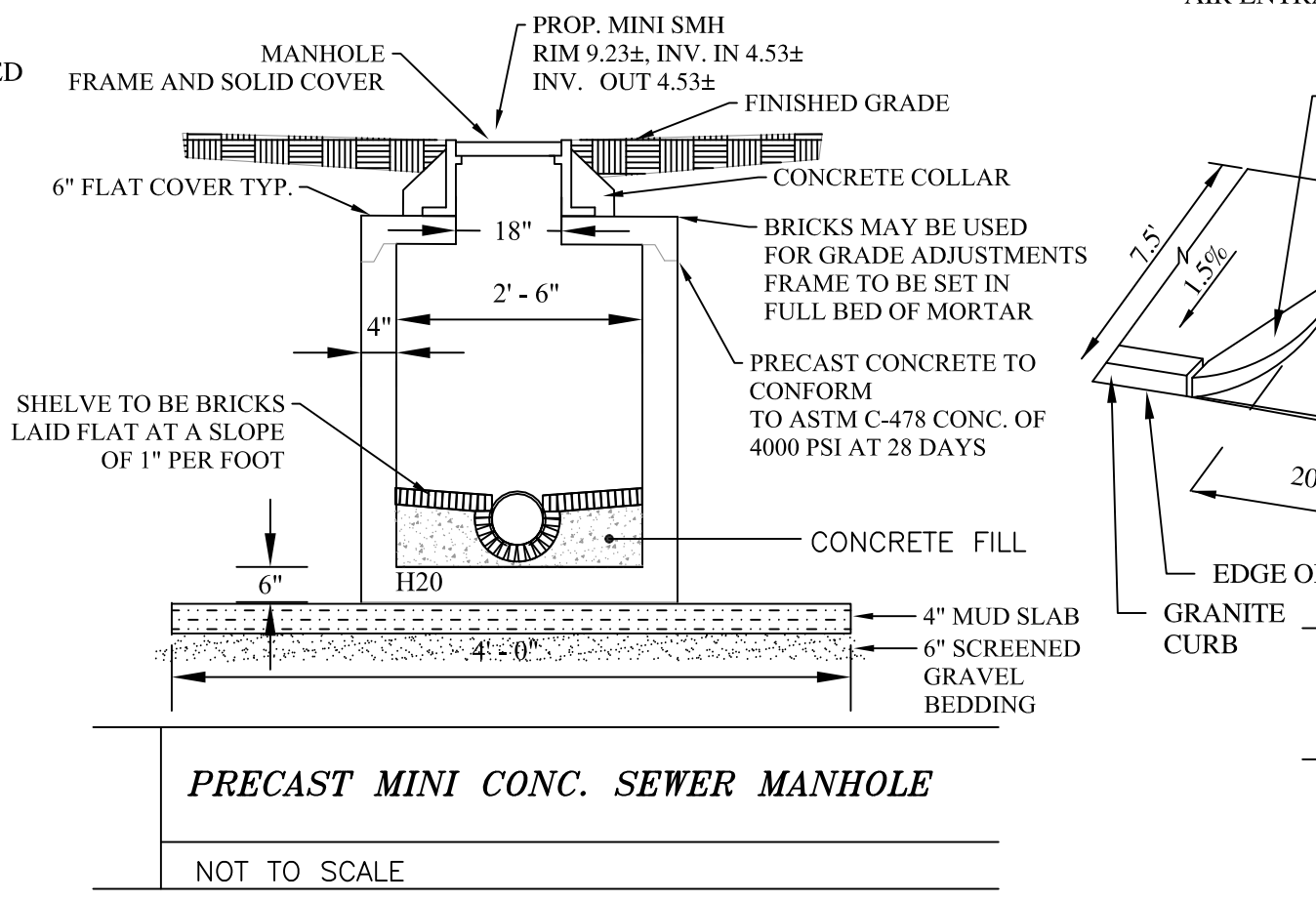
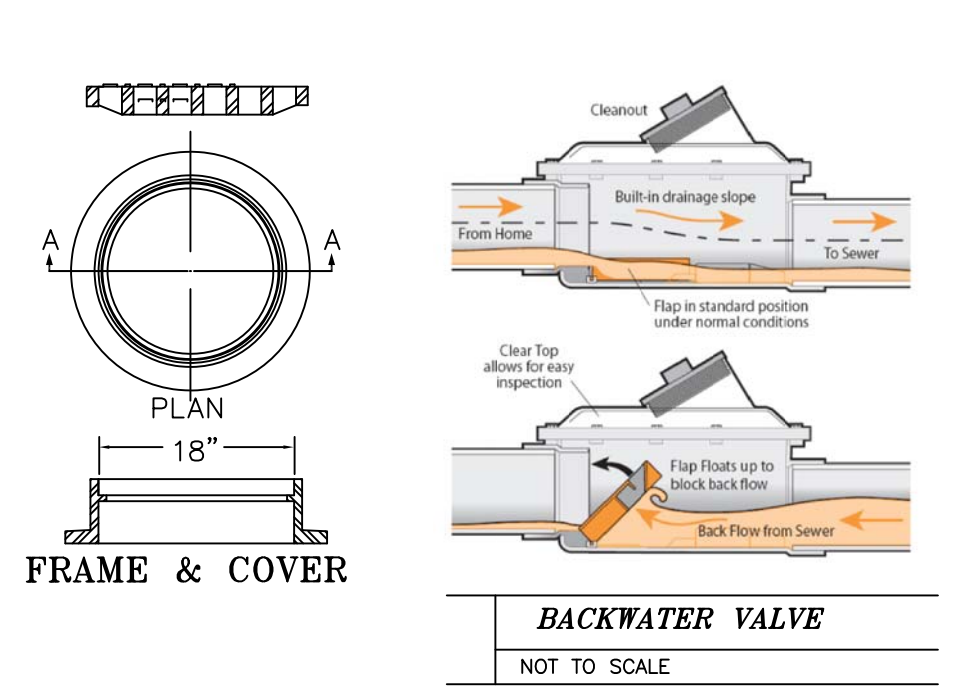
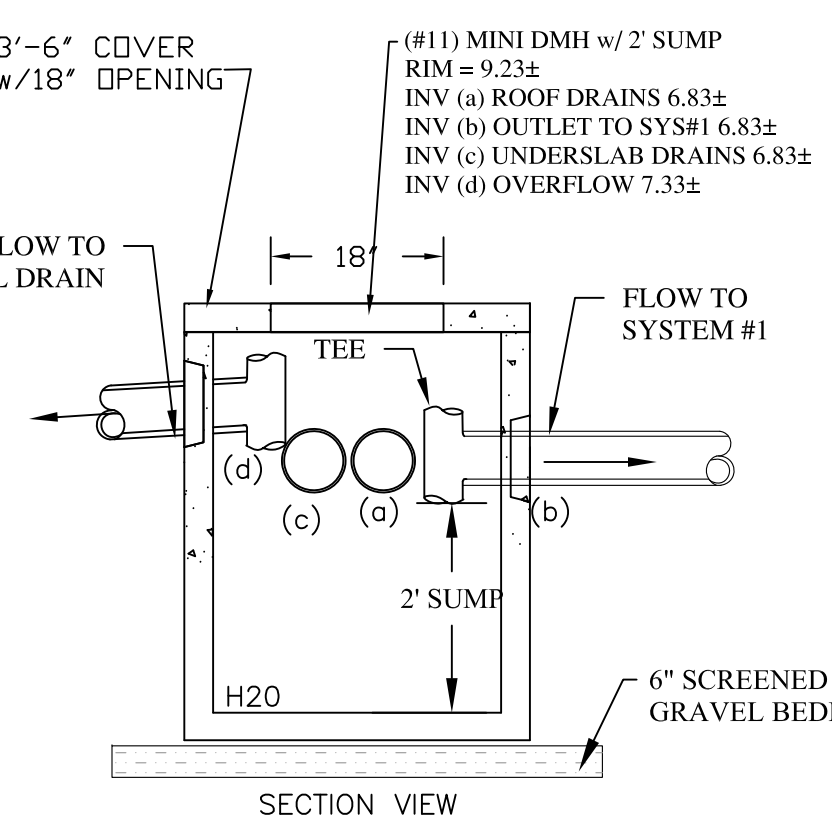
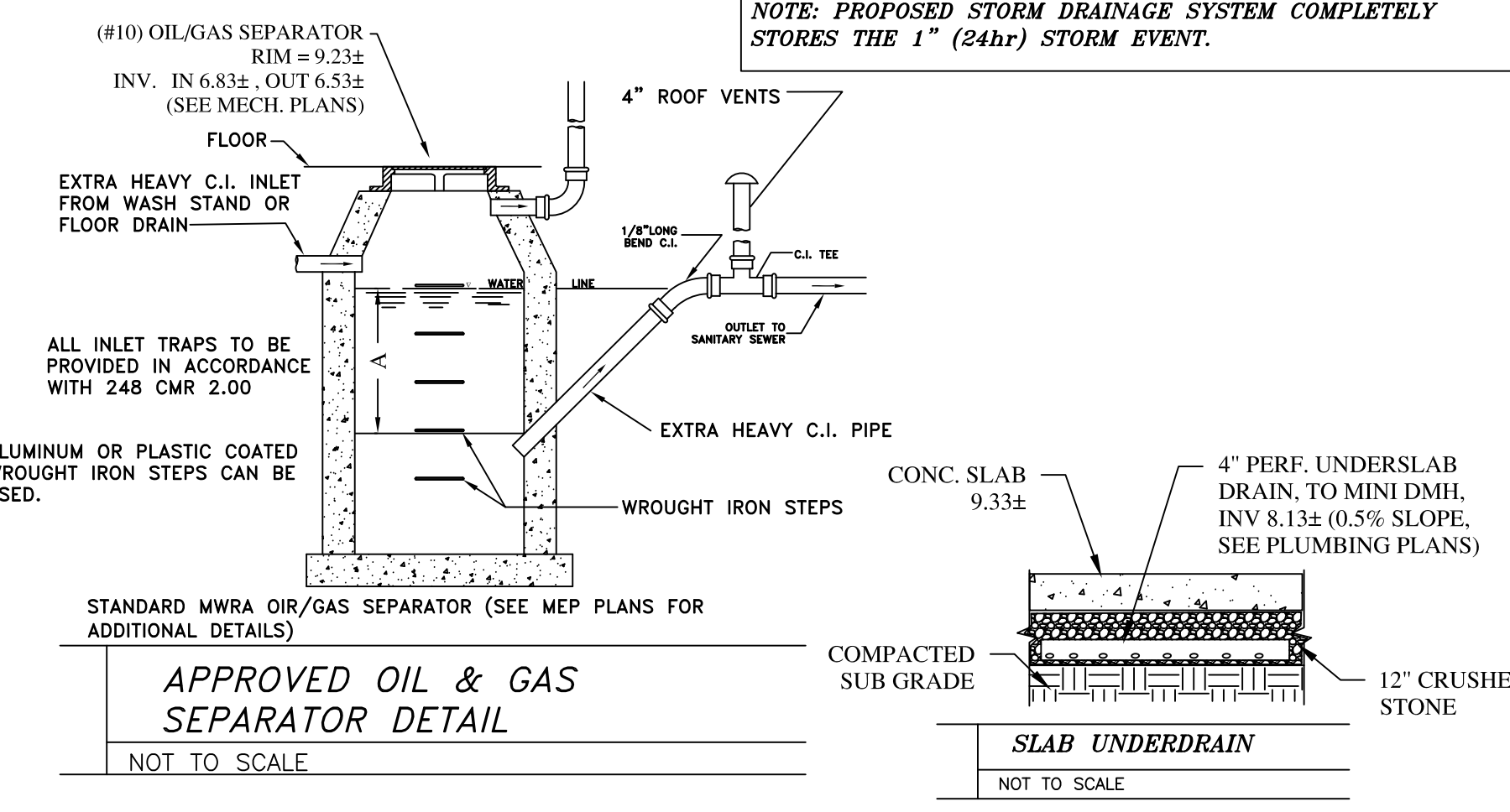
BOSTON WATER AND SEWER COMMISSION

Backwater Valve Installation
Approval: _____ Date: _____



ALL WATER, SEWER AND DRAIN SERVICE CONNECTIONS TO BOSTON WATER AND SEWER COMMISSION FACILITIES MUST BE PERFORMED BY A BONDED DRAIN LAYER LICENSED BY THE BOSTON WATER AND SEWER COMMISSION.

PEAK WATER DEMAND = 78 GPM
SEWER: 7,700 GPD (70 BED x 110 GPD)

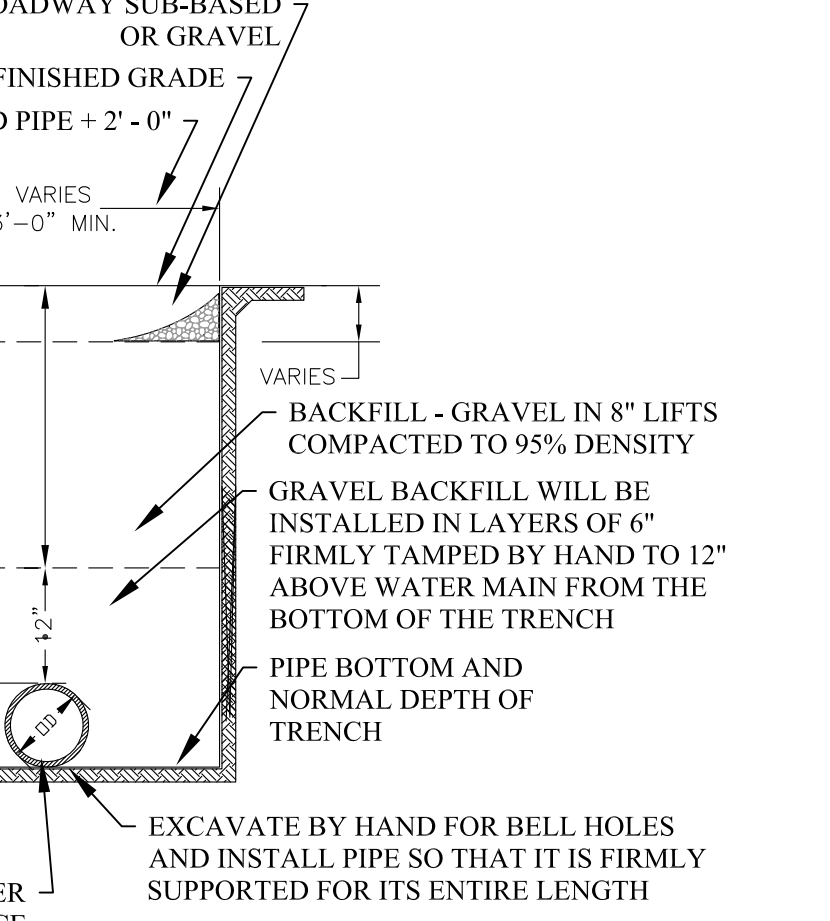
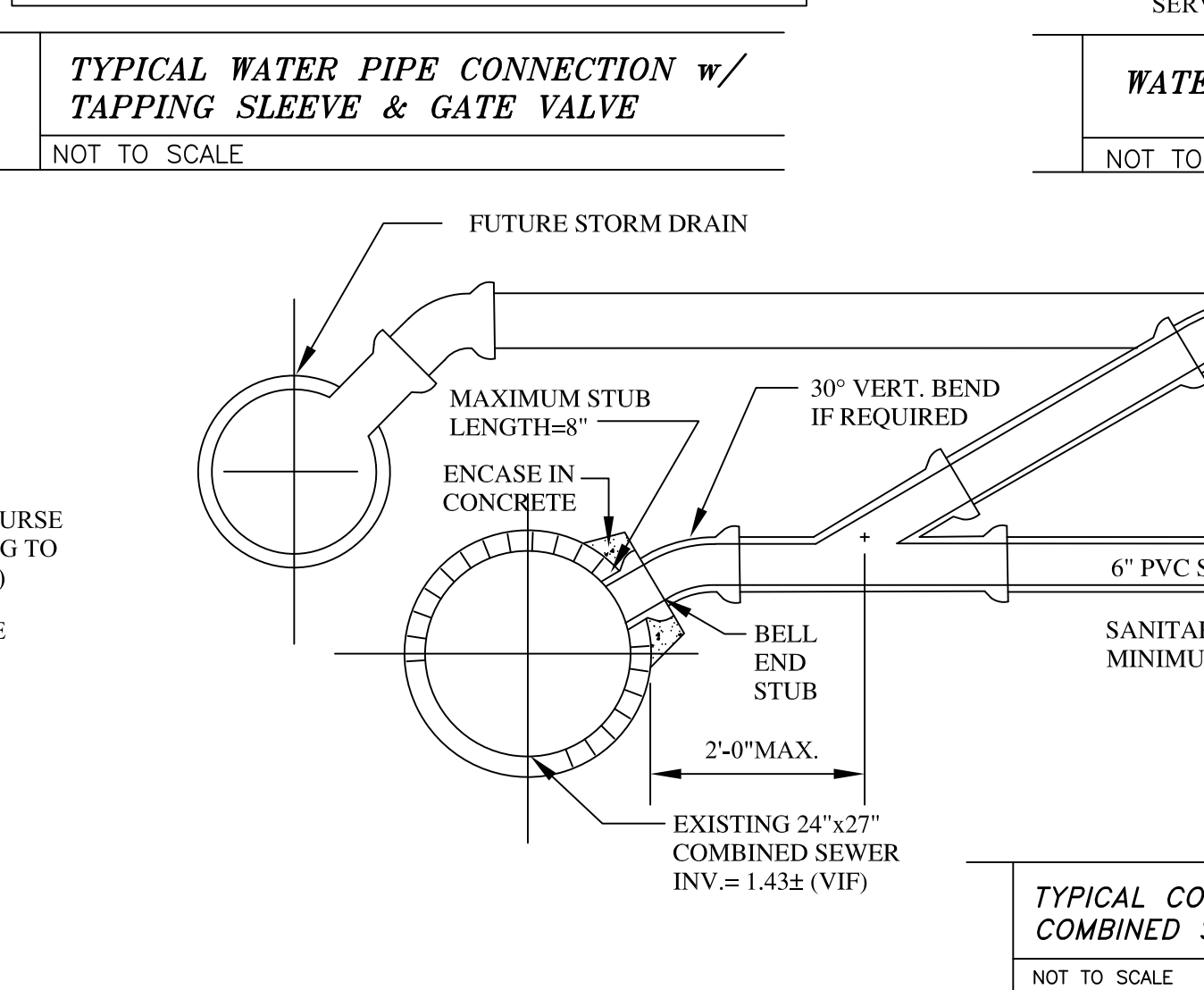
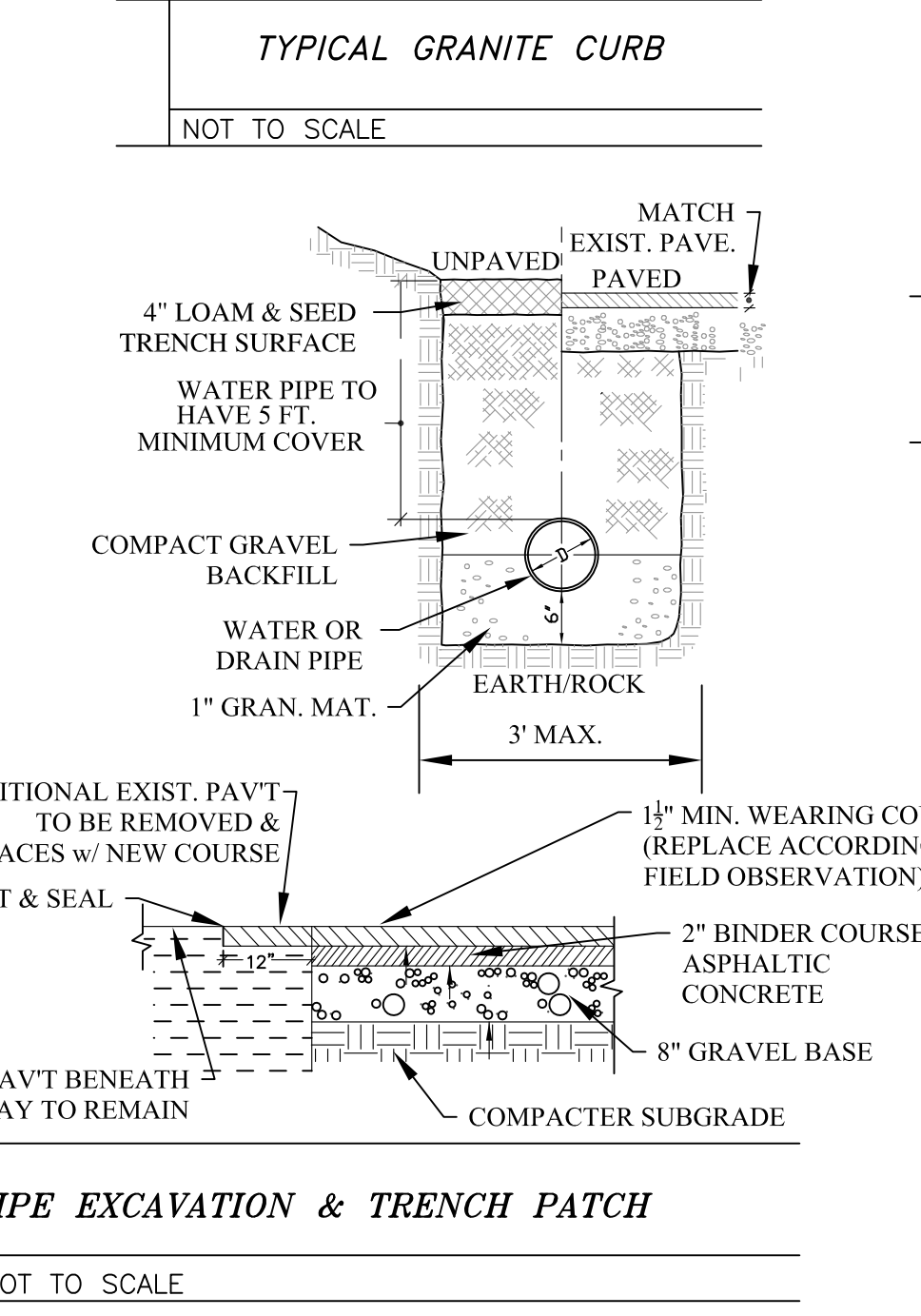
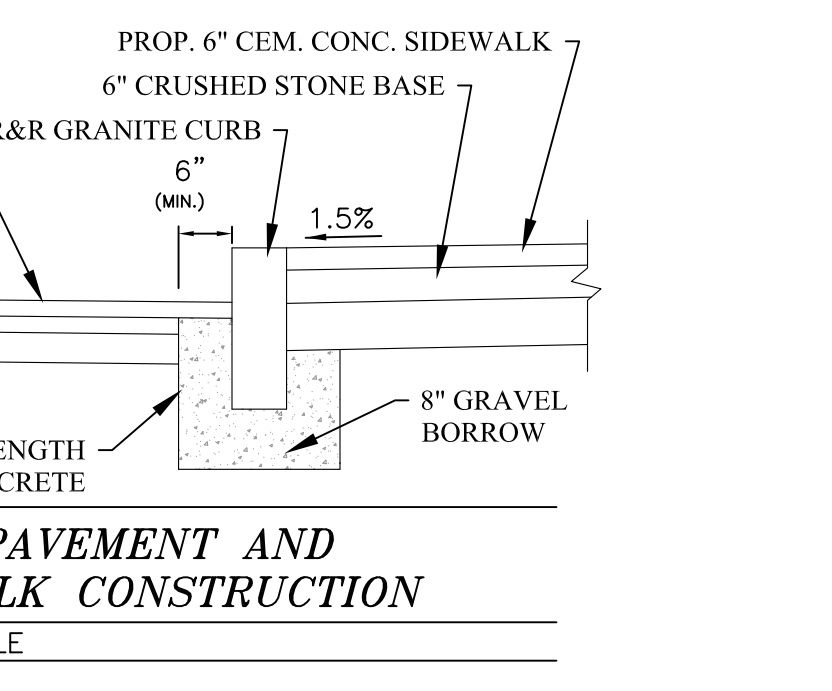
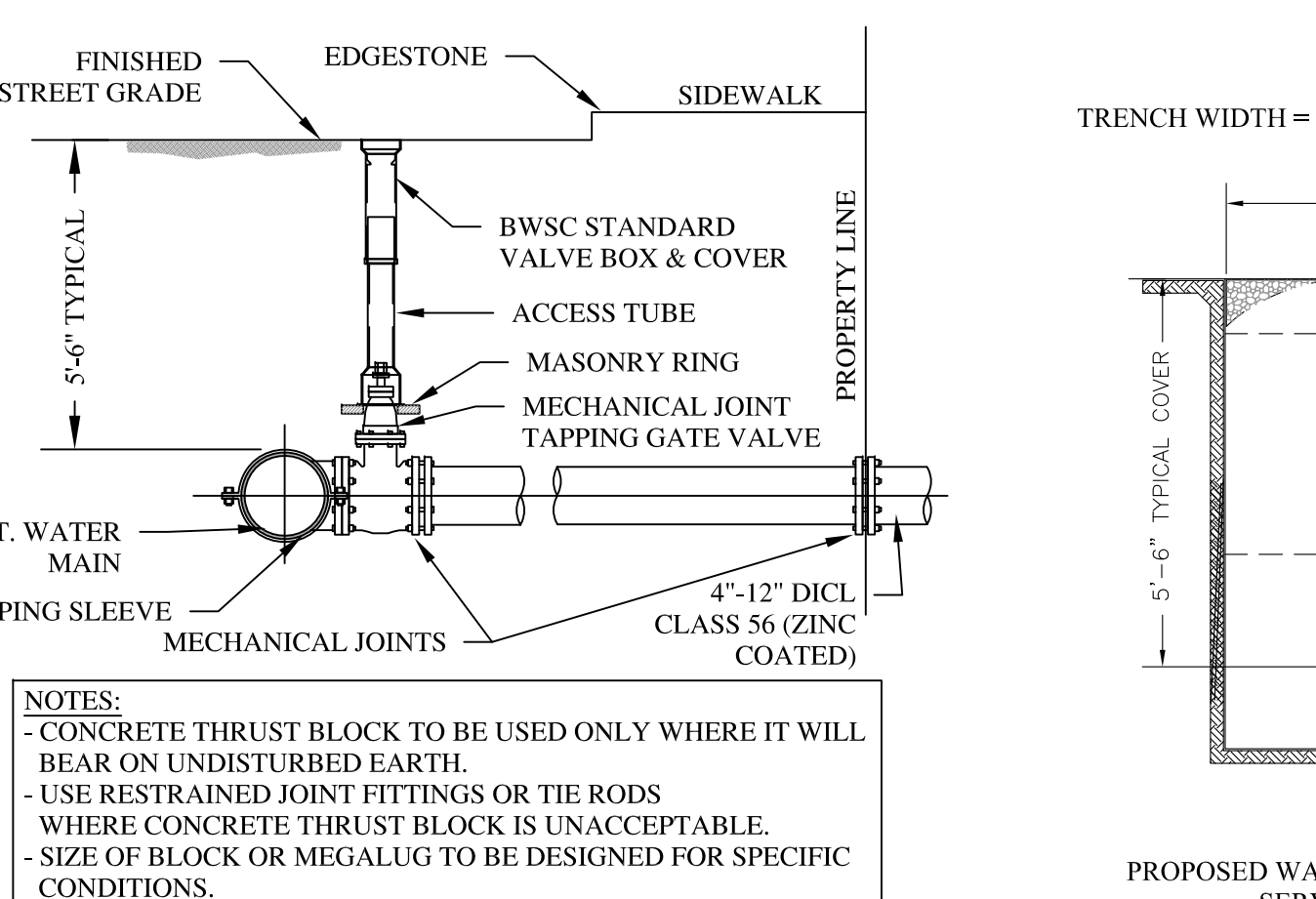
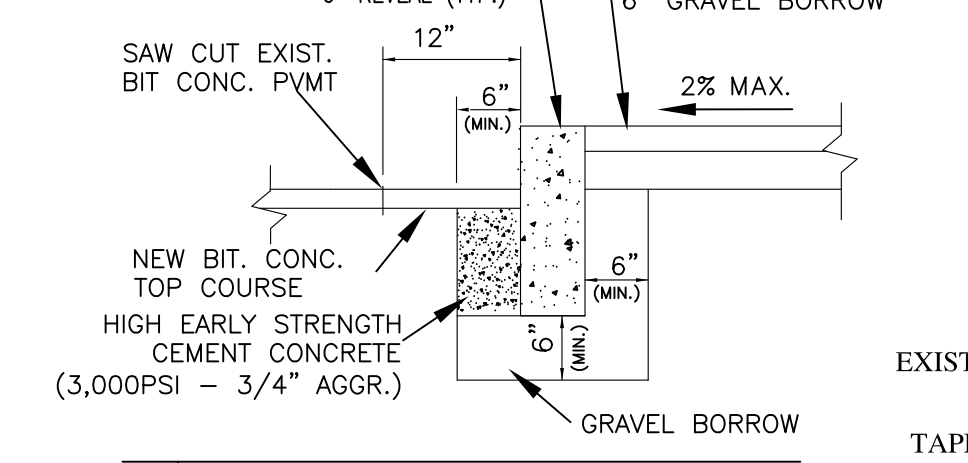
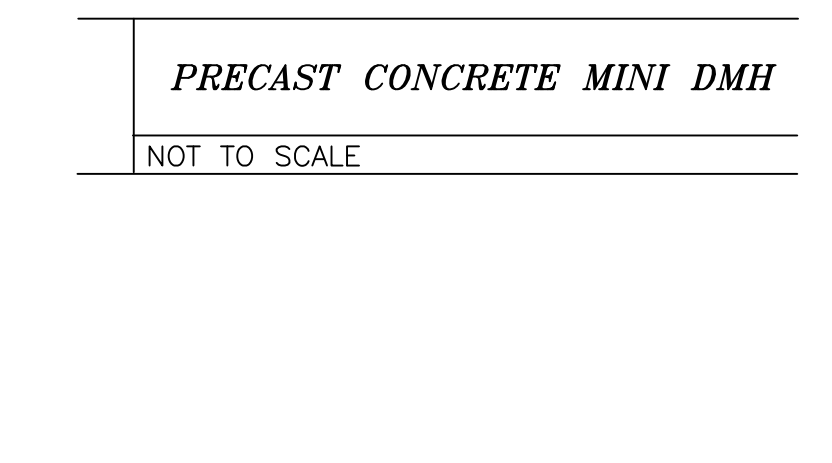
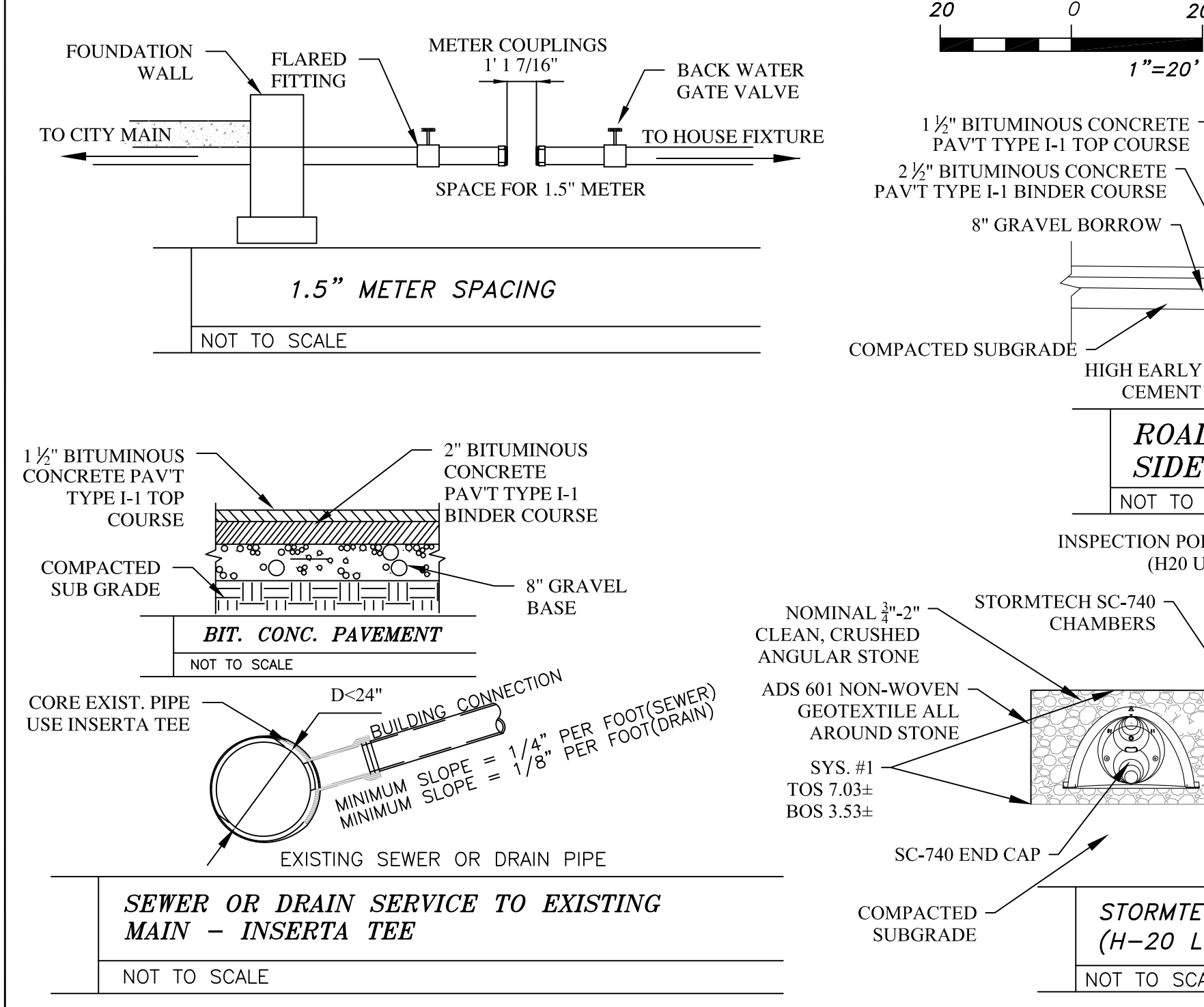


MATERIALS:
DRAIN LINES SHALL BE 6" SDR35 w/ 2' MIN. COVER OVER PIPE. 1% SLOPE MIN.
SEWER SERVICE: 6" (SDR 35) 2% SLOPE MIN.
WATER: 4" DI CL (MINIMUM OF 5 FEET BELOW GRADE) ZINC COATED
FIRE: 8" DI CL (MINIMUM OF 5 FEET BELOW GRADE) ZINC COATED

INSPECTION CHECK LIST

1. 4" DOMESTIC WATER	INSPECTOR: _____ DATE: _____
2. 8" FIRE SERVICE	INSPECTOR: _____ DATE: _____
3. CUT & CAP EXIST. WATER (1)	INSPECTOR: _____ DATE: _____
4. CUT & CAP EXIST. WATER (2)	INSPECTOR: _____ DATE: _____
5. 6" SEWER LATERAL	INSPECTOR: _____ DATE: _____
6. SEWER DYE TEST	INSPECTOR: _____ DATE: _____
7. SEWER MH	INSPECTOR: _____ DATE: _____
8. 6" DRAIN LATERAL	INSPECTOR: _____ DATE: _____
9. DRAIN DYE TEST	INSPECTOR: _____ DATE: _____
10. INFILTRATION SYSTEM #1	INSPECTOR: _____ DATE: _____
11. MINI DMH	INSPECTOR: _____ DATE: _____
12. OIL/GAS SEPARATOR	INSPECTOR: _____ DATE: _____
13. FLOOR DRAINS (1 OF 8)	INSPECTOR: _____ DATE: _____
14. CUT & CAP EX. SEWER	INSPECTOR: _____ DATE: _____

AS-BUILT PREPARATION FEE IS REQUIRED



REFERENCES:

SURVEY: Feldman Land Surveyors
ARCHITECT: EMMIE SHUBIN
APPLICANT: MG2 Group, Alaris Const. LLC, James McDonagh, 617-412-3200
60 Border Street, East Boston, MA 02128

No.	Date	Comment
#1	4-16-19	BWSC Comments
#2	7-12-19	Architectural Design Changes
#3	9-09-19	Datum change BCB to NAVD88

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Consulting Engineers

14 Uplam Avenue
Boston, MA 02125
(T) 617.506.1474 (F) 617.507.7740

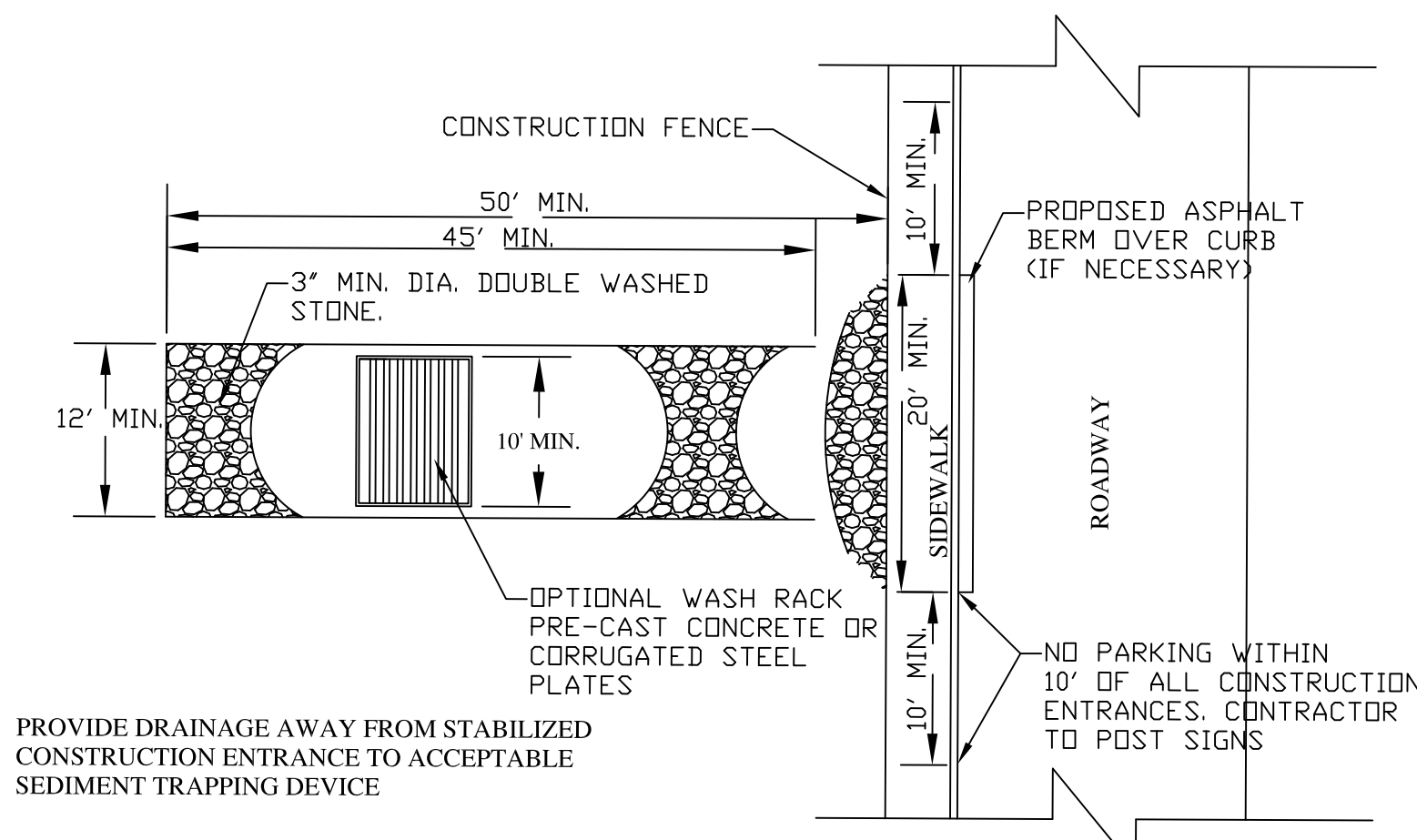
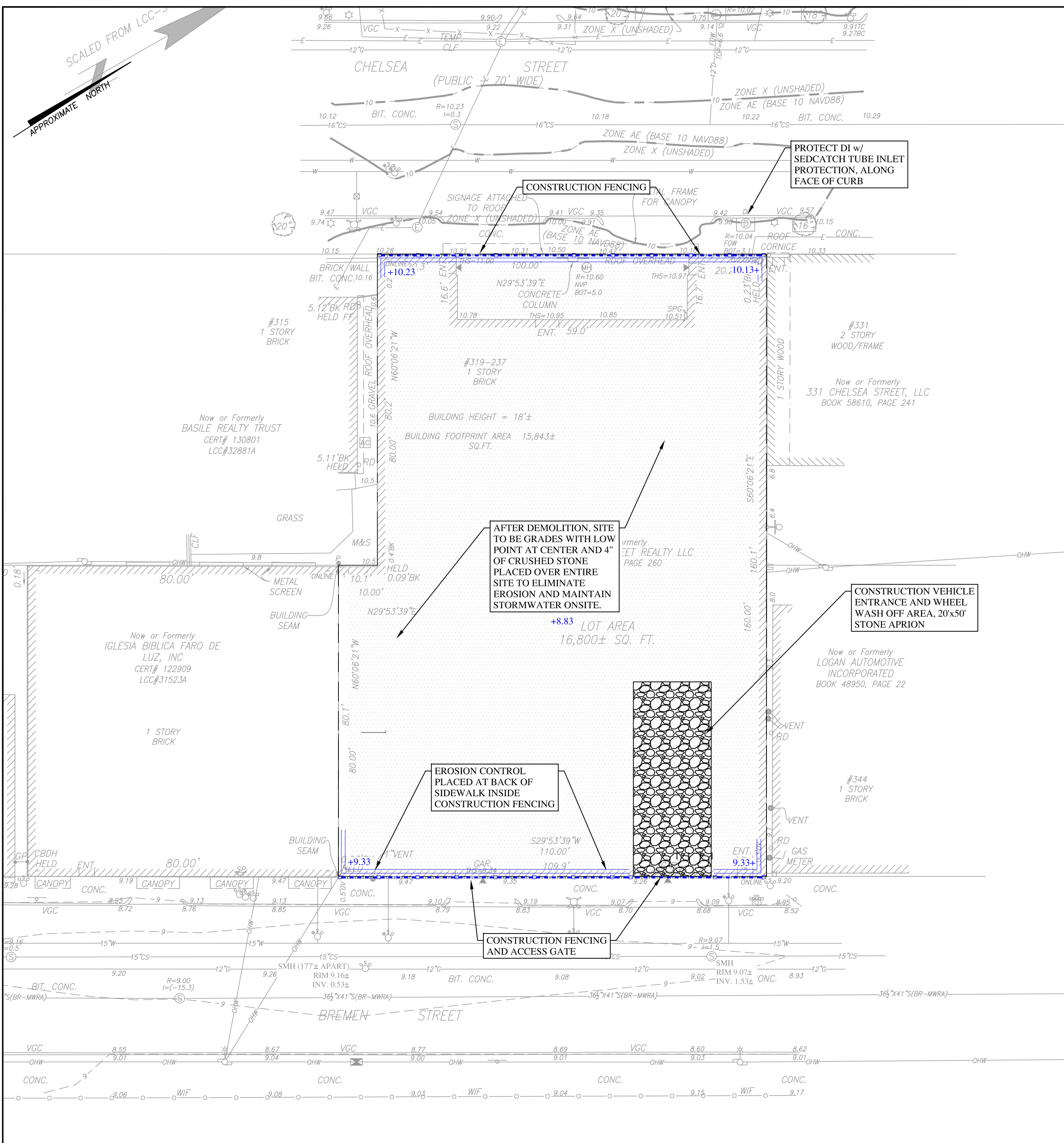
BWSC SITE PLAN #19097

Date: February 25, 2019 Scale: 1" = 20'

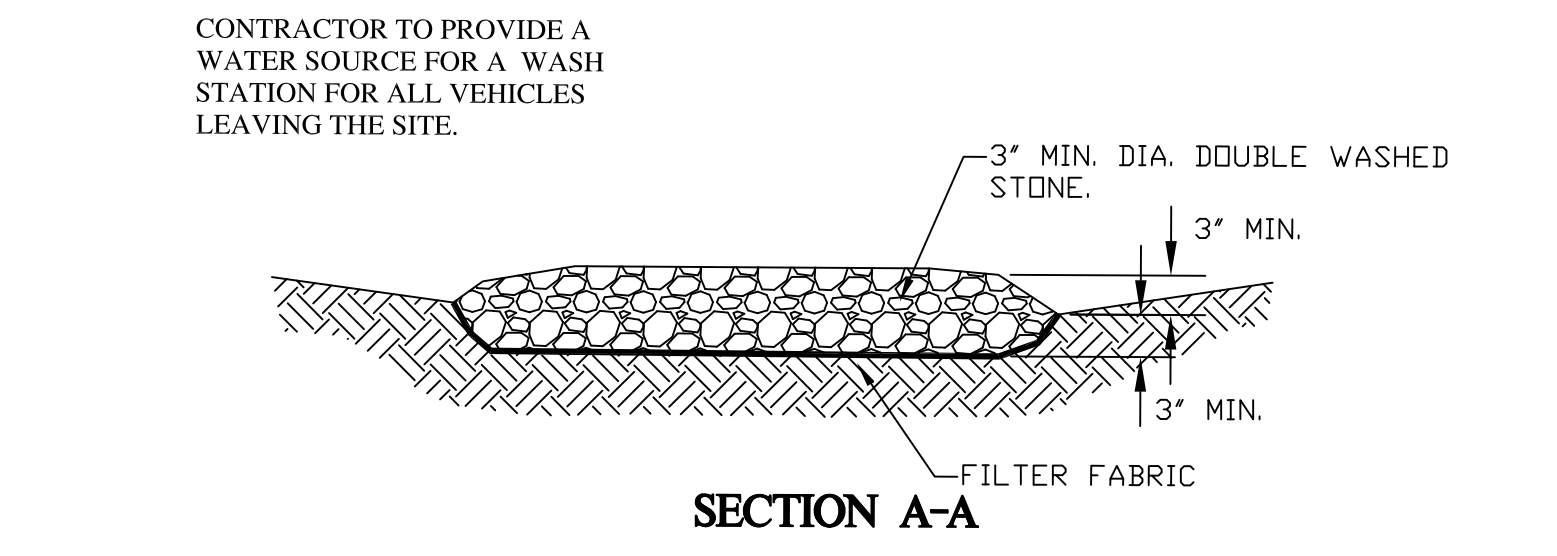
Project No.: 2018-179 Drawing by: PG

C-1
Sheet 1 of 1

Peter Gamme

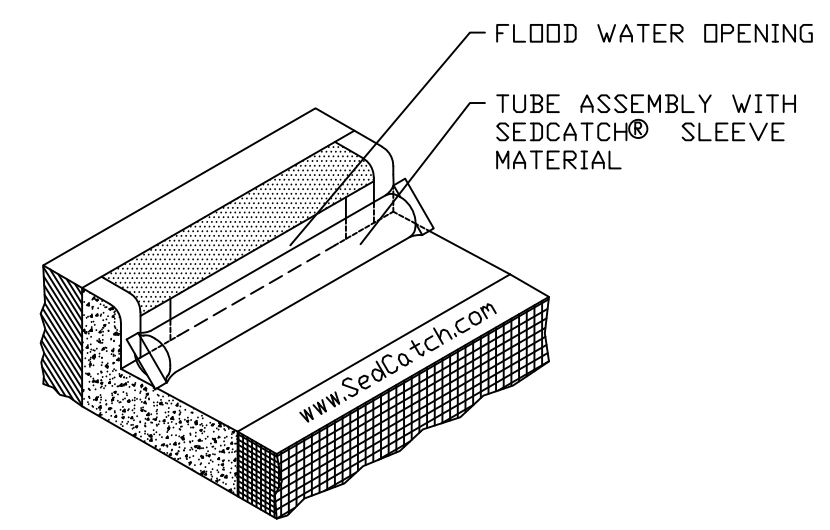


PLAN VIEW
NOT TO SCALE



SECTION A-A

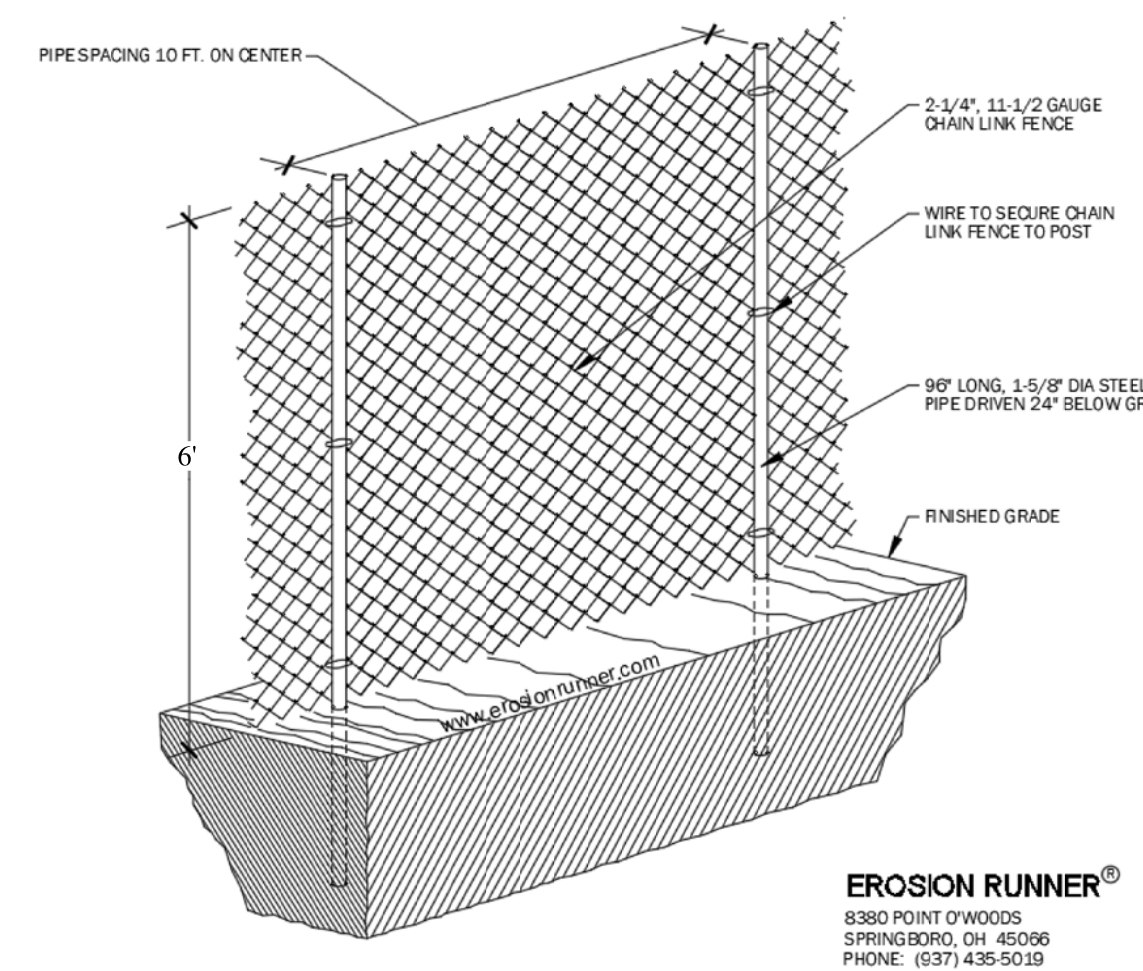
STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE



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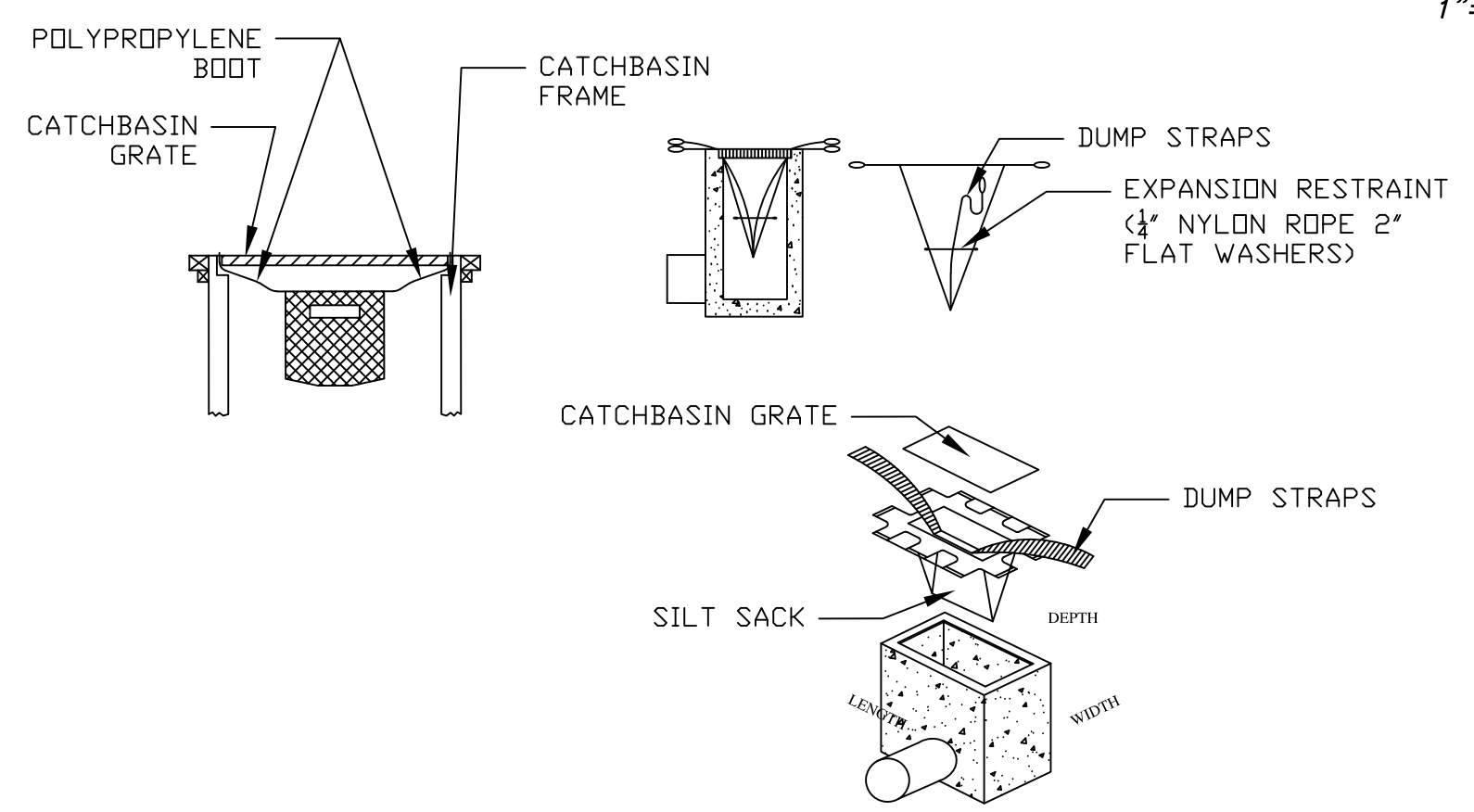
D.I. PROTECTION
NOT TO SCALE

- EROSION AND SEDIMENT CONTROL NOTES**
- PRIOR TO ANY LAND DISTURBANCE ACTIVITIES COMMENCING ON THE SITE, THE DEVELOPER SHALL PHYSICALLY MARK LIMITS OF NO LAND DISTURBANCE ON THE SITE WITH TAPE, SIGNS, OR ORANGE CONSTRUCTION FENCE, SO THAT WORKERS CAN SEE THE AREAS TO BE PROTECTED. THE PHYSICAL MARKERS SHALL REMAIN IN PLACE UNTIL A CERTIFICATE OF COMPLETION HAS BEEN ISSUED.
 - APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO SOIL DISTURBANCE. MEASURES SHALL BE TAKEN TO CONTROL EROSION WITHIN THE PROJECT AREA. SEDIMENT IN RUNOFF WATER SHALL BE TRAPPED AND RETAINED WITHIN THE PROJECT AREA.
 - MINIMIZE TOTAL AREA OF DISTURBANCE AND PROTECT NATURAL FEATURES AND SOIL.
 - THE CONTRACTOR SHALL SEQUENCE ALL ACTIVITIES TO MINIMIZE SIMULTANEOUS AREAS OF DISTURBANCE. MASS CLEARINGS AND GRADING OF THE ENTIRE SITE SHALL BE AVOIDED.
 - MINIMIZE SOIL EROSION AND CONTROL SEDIMENTATION DURING CONSTRUCTION.
 - DIVERT UNCONTAMINATED WATER AROUND DISTURBED AREAS.
 - INSTALL AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND GOOD ENGINEERING PRACTICES OR THE 2008 EPA'S CONSTRUCTION GENERAL PERMIT.
 - PROTECT AND MANAGE ON AND OFF-SITE MATERIAL STORAGE AREAS (OVERBURDEN AND STOCKPILES OF DIRT, BORROW AREAS, OR OTHER AREAS USED SOLELY BY THE PERMITTED PROJECT ARE CONSIDERED A PART OF THE PROJECT).
 - COMPLY WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS INCLUDING WASTE DISPOSAL, SANITARY SEWER OR SEPTIC SYSTEM REGULATIONS, AND AIR QUALITY REQUIREMENTS, INCLUDING DUST CONTROL.
 - SEDIMENT SHALL BE REMOVED ONCE THE VOLUME REACHES 1/4 TO 1/2 THE HEIGHT OF THE EROSION CONTROL DEVICE. SEDIMENT SHALL BE REMOVED FROM SILT FENCE PRIOR TO REACHING THE LOAD-BEARING CAPACITY OF THE SILT FENCE WHICH MAY BE LOWER THAN 1/4 TO 1/2 THE HEIGHT.
 - SEDIMENT FROM SEDIMENT TRAPS OR SEDIMENTATION PONDS SHALL BE REMOVED WHEN DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT.
 - BMPS TO BE USED FOR INFILTRATION AFTER CONSTRUCTION SHALL NOT BE USED AS BMPS DURING CONSTRUCTION UNLESS OTHERWISE APPROVED. MANY INFILTRATION TECHNOLOGIES ARE NOT DESIGNED TO HANDLE THE HIGH CONCENTRATIONS OF SEDIMENTS TYPICALLY FOUND IN CONSTRUCTION RUNOFF, AND THIS MUST BE PROTECTED FROM CONSTRUCTION RELATED SEDIMENT LOADINGS.
 - SOIL STOCKPILES MUST BE STABILIZED OR COVERED AT THE END OF EACH WORKDAY. STOCKPILE SIDE SLOPES SHALL NOT BE GREATER THAN 2:1. ALL STOCKPILES SHALL BE SURROUNDED BY SEDIMENT CONTROLS.
 - A TRACKING PAD OR OTHER APPROVED STABILIZATION METHOD SHALL BE CONSTRUCTED AT ALL ENTRANCE/EXIST POINTS OF THE SITE TO REDUCE THE AMOUNT OF SOIL CARRIED ONTO ROADWAYS AND OFF THE SITE.
 - ALL SLOPES STEEPER THAN 3:1 (H:V, 33.3%), AS WELL AS PERIMETER DIKES, SEDIMENT BASINS OR TRAPS, AND EMBANKMENTS MUST, UPON COMPLETION, BE IMMEDIATELY STABILIZED WITH SOIL, SEED AND ANCHORED STRAW MULCH, OR OTHER APPROVED STABILIZATION MEASURES. AREAS OUTSIDE OF THE PERIMETER SEDIMENT CONTROL SYSTEM MUST NOT BE DISTURBED.
 - TEMPORARY SEDIMENT TRAPPING DEVICES MUST NOT BE REMOVED UNTIL PERMANENT STABILIZATION IS ESTABLISHED IN ALL CONTRIBUTORY DRAINAGE AREAS.
 - ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED AFTER FINAL SITE STABILIZATION. DISTURBED SOIL AREAS RESULTING FROM THE REMOVAL OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED WITHIN 30 DAYS OF REMOVAL.
 - PROPERLY MANAGE ON-SITE CONSTRUCTION AND WASTE MATERIALS.
 - PREVENT OFF-SITE VEHICLE TRACKING OF SEDIMENTS.
 - DUST SHALL BE CONTROLLED AT THE SITE.
 - ALL PREVIOUSLY DISTURBED LAND SHALL BE STABILIZED BY APPROVED METHODS AFTER 14 DAYS IF LEFT UNDISTURBED. THIS INCLUDES STOCKPILES, CONSTRUCTION ENTRANCES, GRADED AREAS AND OTHER CONSTRUCTION ACTIVITY RELATED CLEARING.



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TEMP. CONST. FENCING
NOT TO SCALE
*OR APPROVED EQUIVALENT

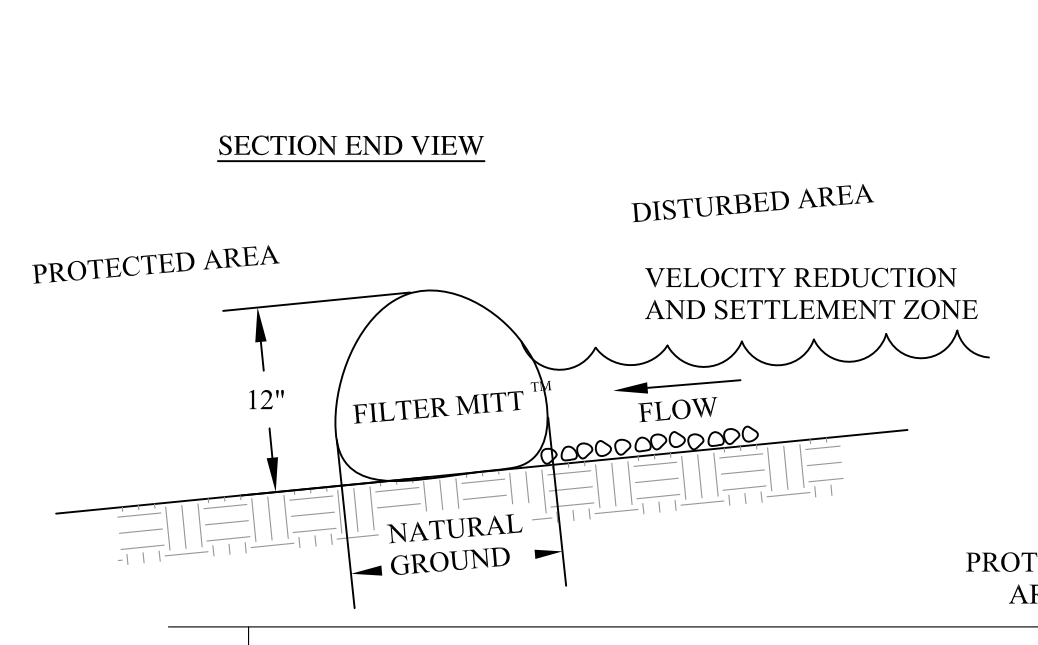


THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS SHEET, OVERLAND AND CONCENTRATED FLOWS (NOT GREATER THAN 1 CFS). THE METHOD CAN DRAIN FLAT AREA TO STEEP SLOPES. INLET CAPACITY WILL DECREASE WITH THIS METHOD AND CONTRACTOR SHALL EXPECT FLOODING TO OCCUR DURING HIGH FLOW EVENTS.

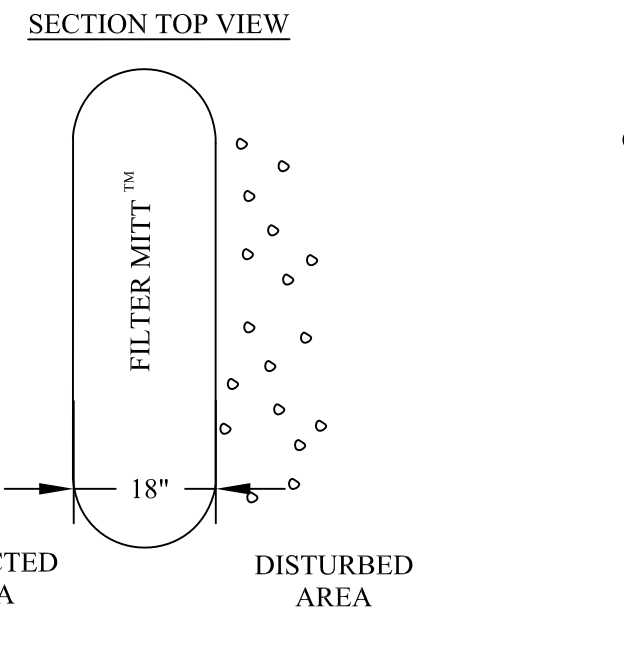
INSPECTION SCHEDULE SHALL COMPLY WITH THE 2008 EPA CONSTRUCTION GENERAL PERMIT

MAINTENANCE SHALL OCCUR WHEN NECESSARY. SILT SACKS SHALL BE CLEANED ONCE THE BAG IS FILLED HALF WAY WITH DEBRIS. CONTRACTOR SHALL REMOVE SILT SACK AND PLACE NEW UNIT. DO NOT EMPTY SILT SACK CONTENTS INTO THE CATCHBASIN.

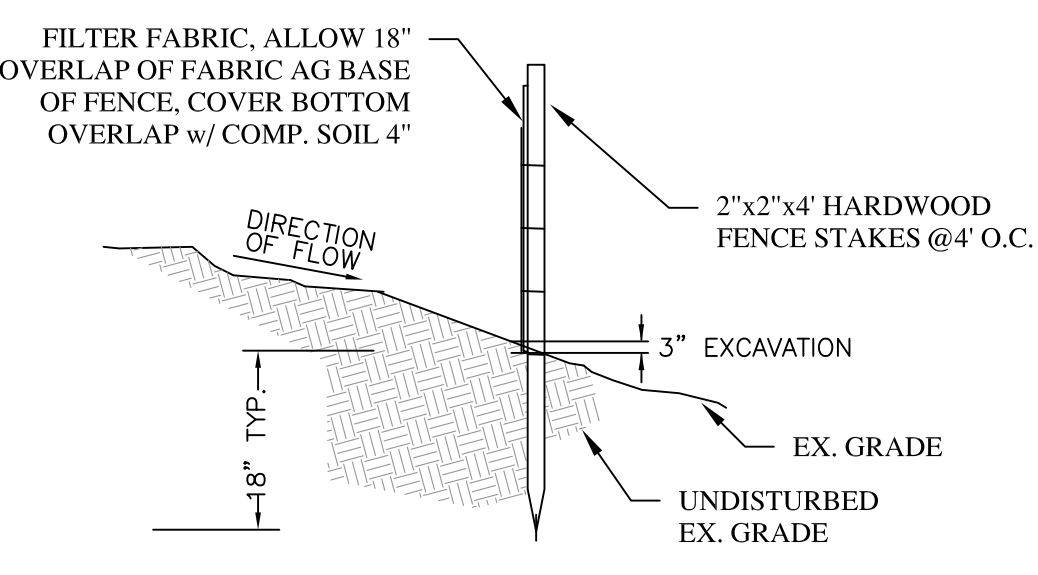
CATCH BASIN W/ SILT SACK INLET PROTECTION



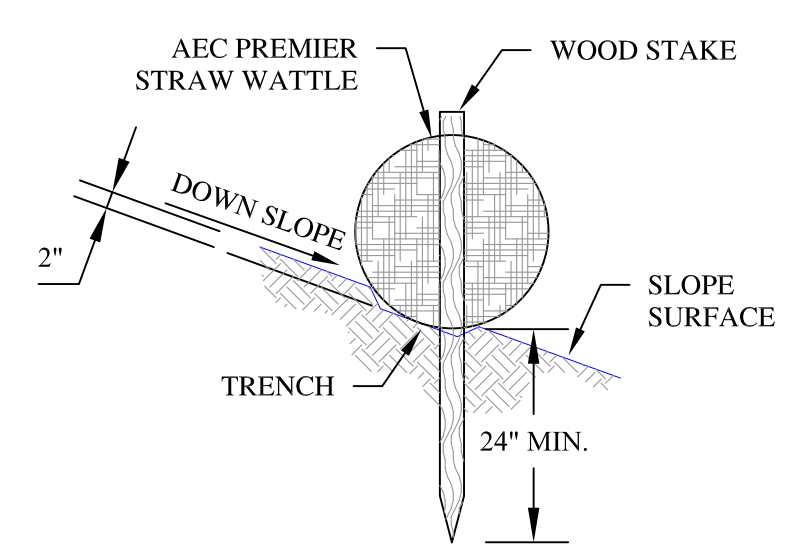
FILTER MITT (OR APPROVED EQUIVALENT)
NOT TO SCALE



FILTER MITT
NOT TO SCALE



SILT FENCE
NOT TO SCALE



STRAW WATTLE w/ WOOD STAKE
NOT TO SCALE

Erosion Control Plan

319 Chelsea St.
East Boston, MA

REFERENCES:
SURVEY: Feldman Land Surveyors
ARCHITECT: Embarec Studio
APPLICANT: MG3 Group, Alaris Const. LLC,
Ian Fox, 781-898-8024
60 Border Street, East Boston, MA 02128

No.	Date	Comment
#1	9-09-19	Datum change BCB to NAVD88

Columbia Design Group, LLC
Consulting Engineers
14 Upham Avenue
Boston, MA 02125
(T) 617.506.1474 (F) 617.507.7740

BWSC SITE PLAN #19097

Date: September 4, 2019 Scale: 1" = 20'

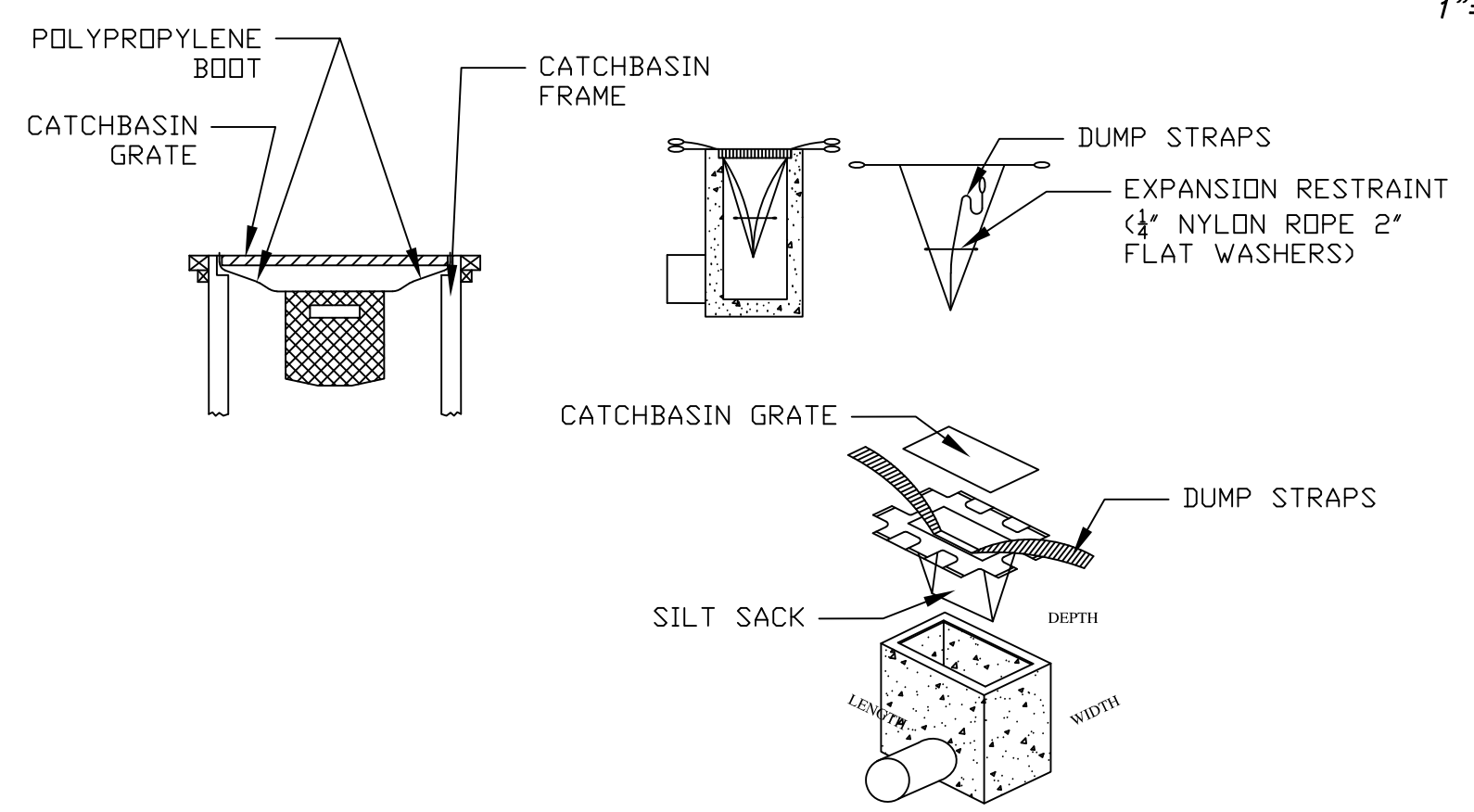
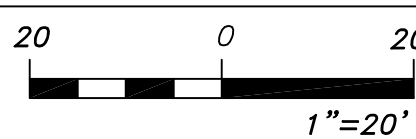
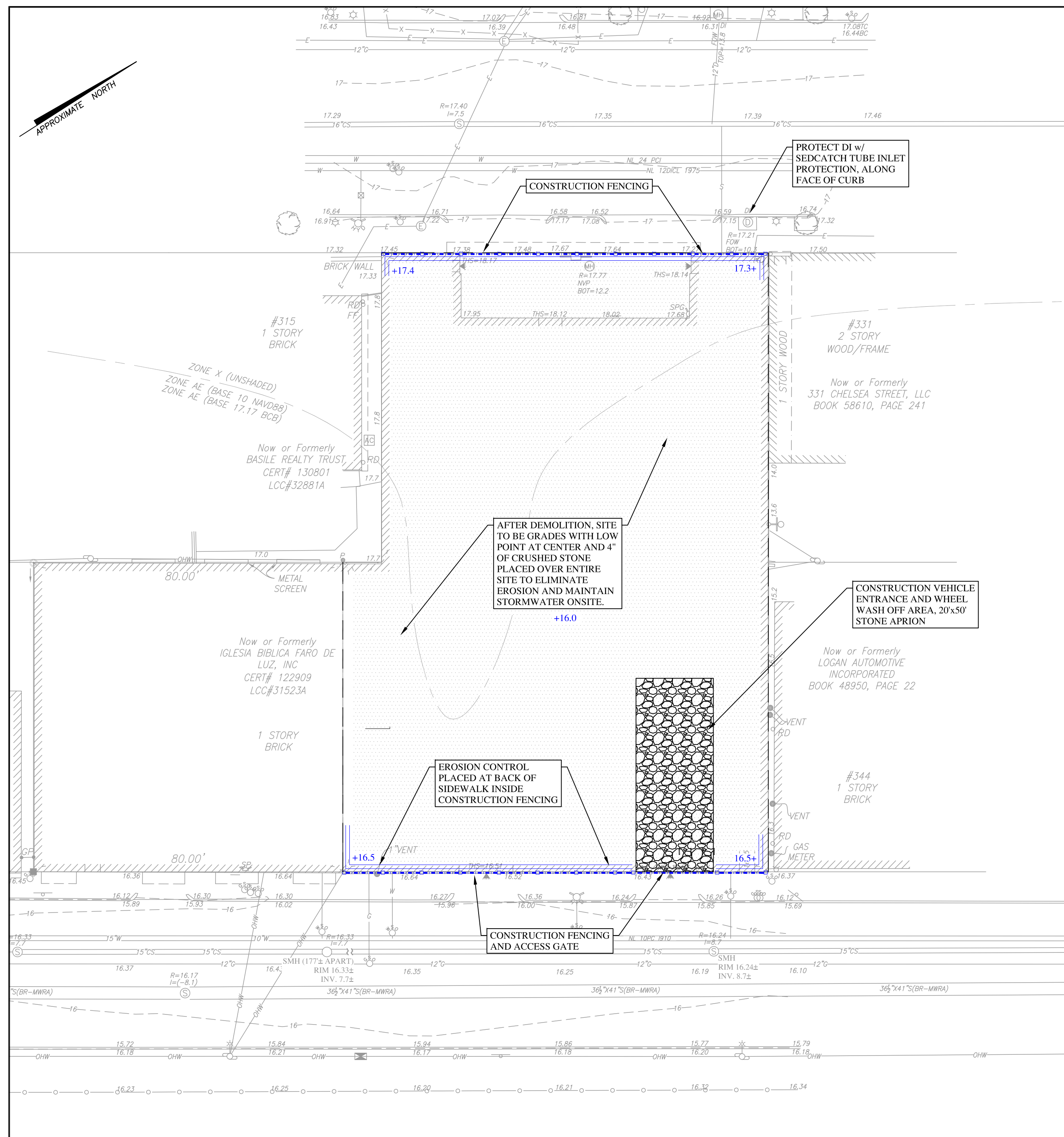
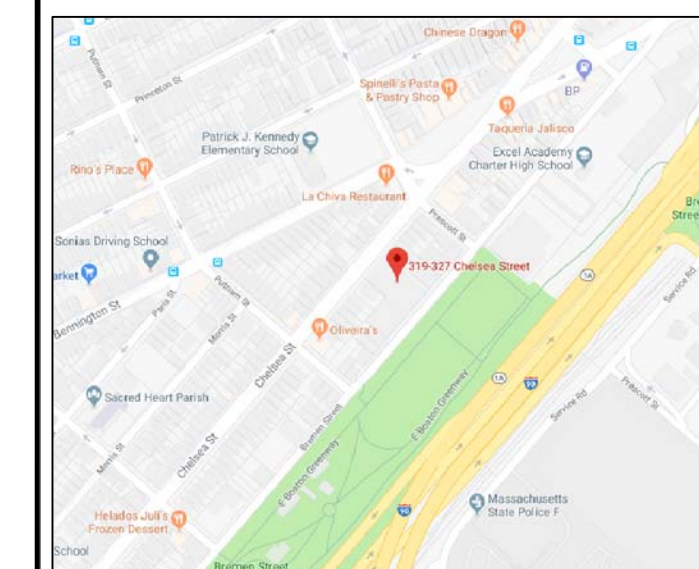
Project No.: 2018-179 Drawing by: PG

EC
Sheet 1 of 1

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Erosion Control Plan

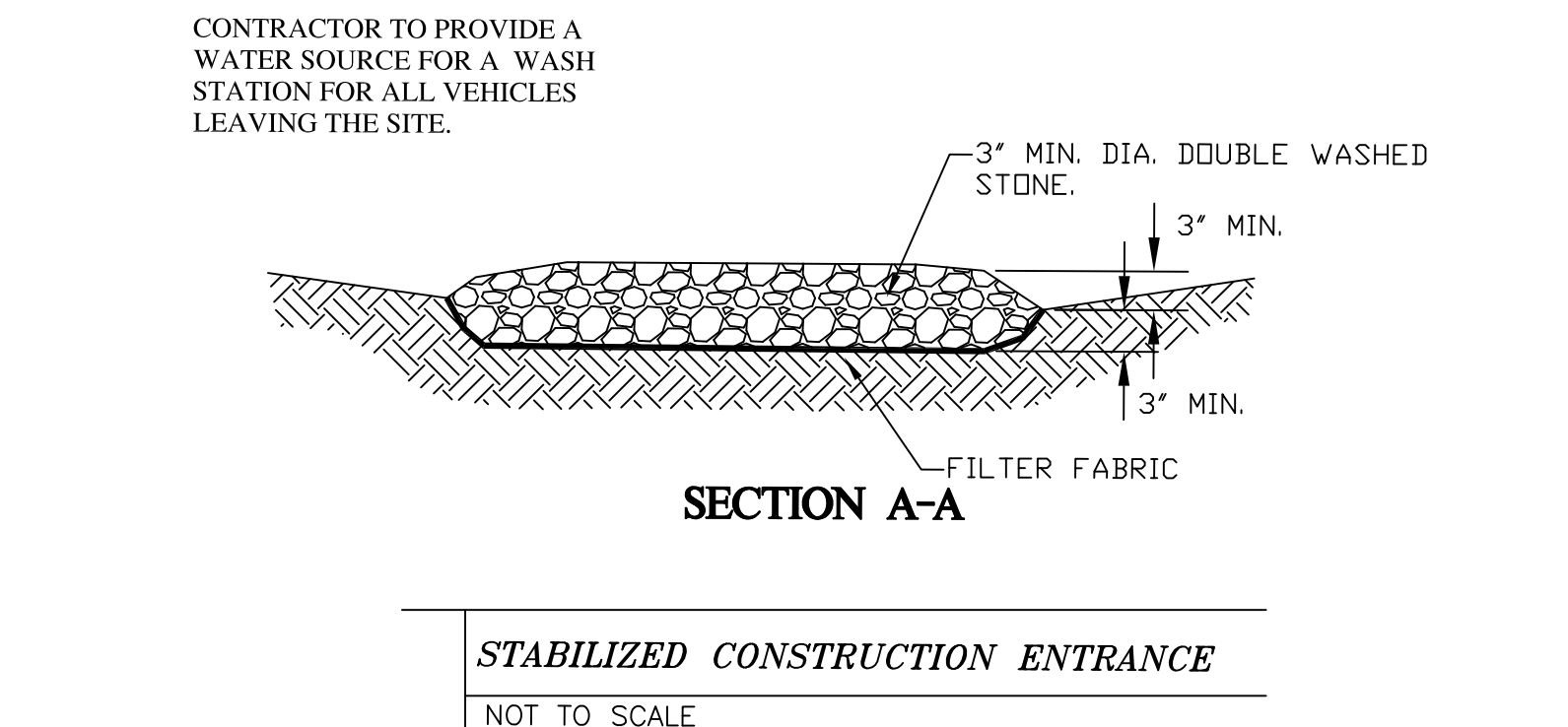
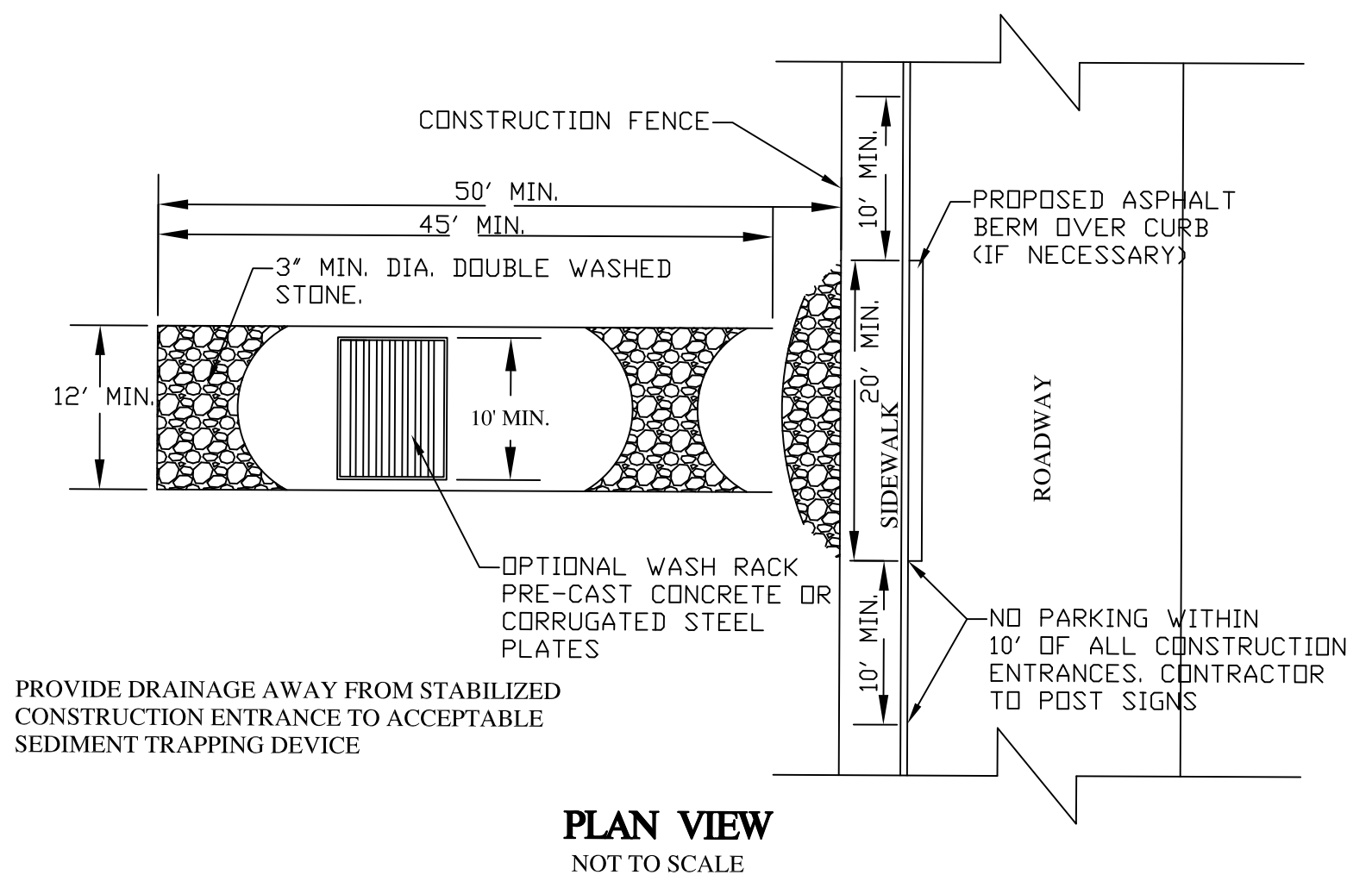
319 Chelsea St.
East Boston, MA



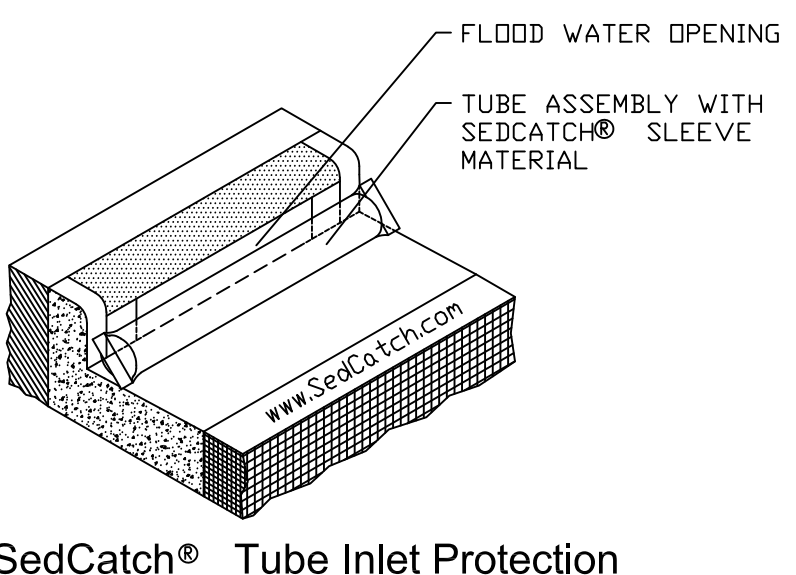
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CATCH BASIN W/ SILTY SACK INLET PROTECTION



STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE

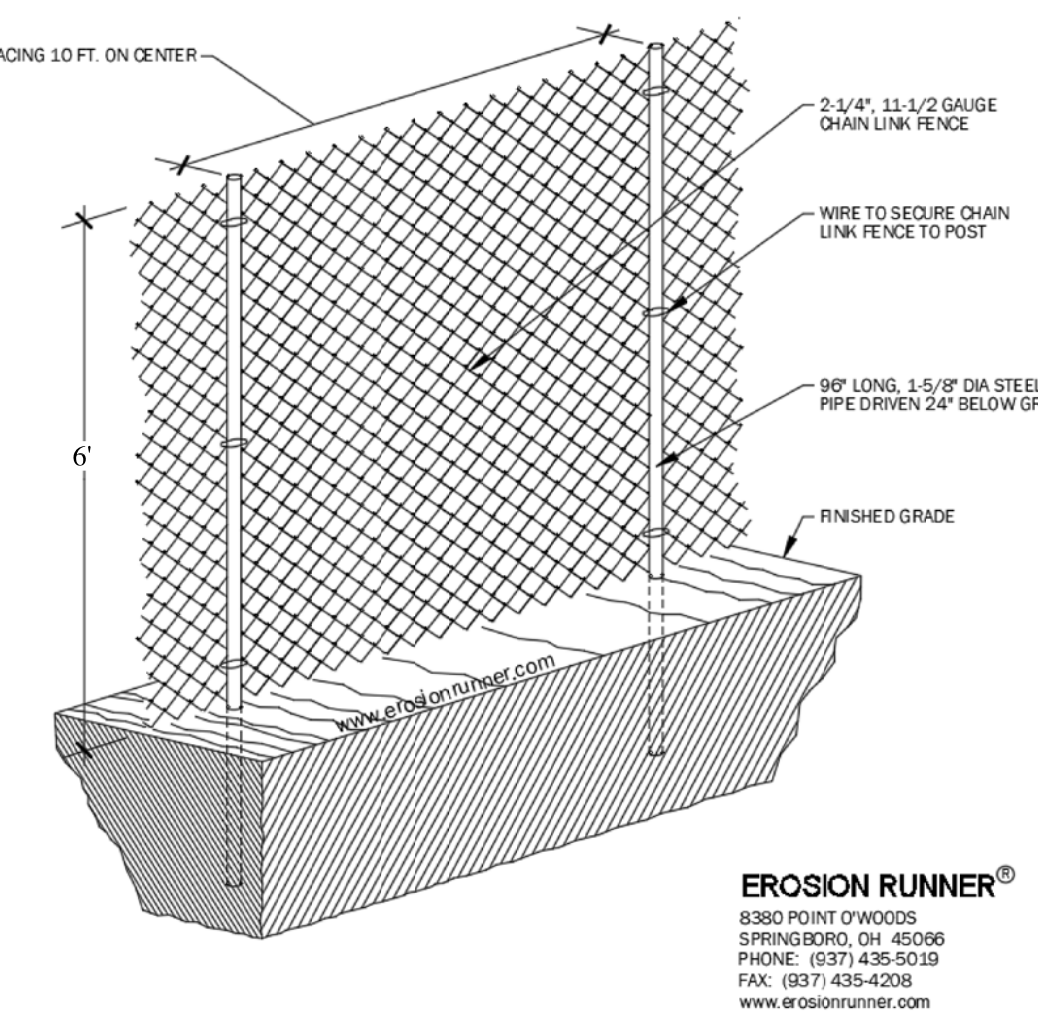


SedCatch® Tube Inlet Protection

D.I. PROTECTION
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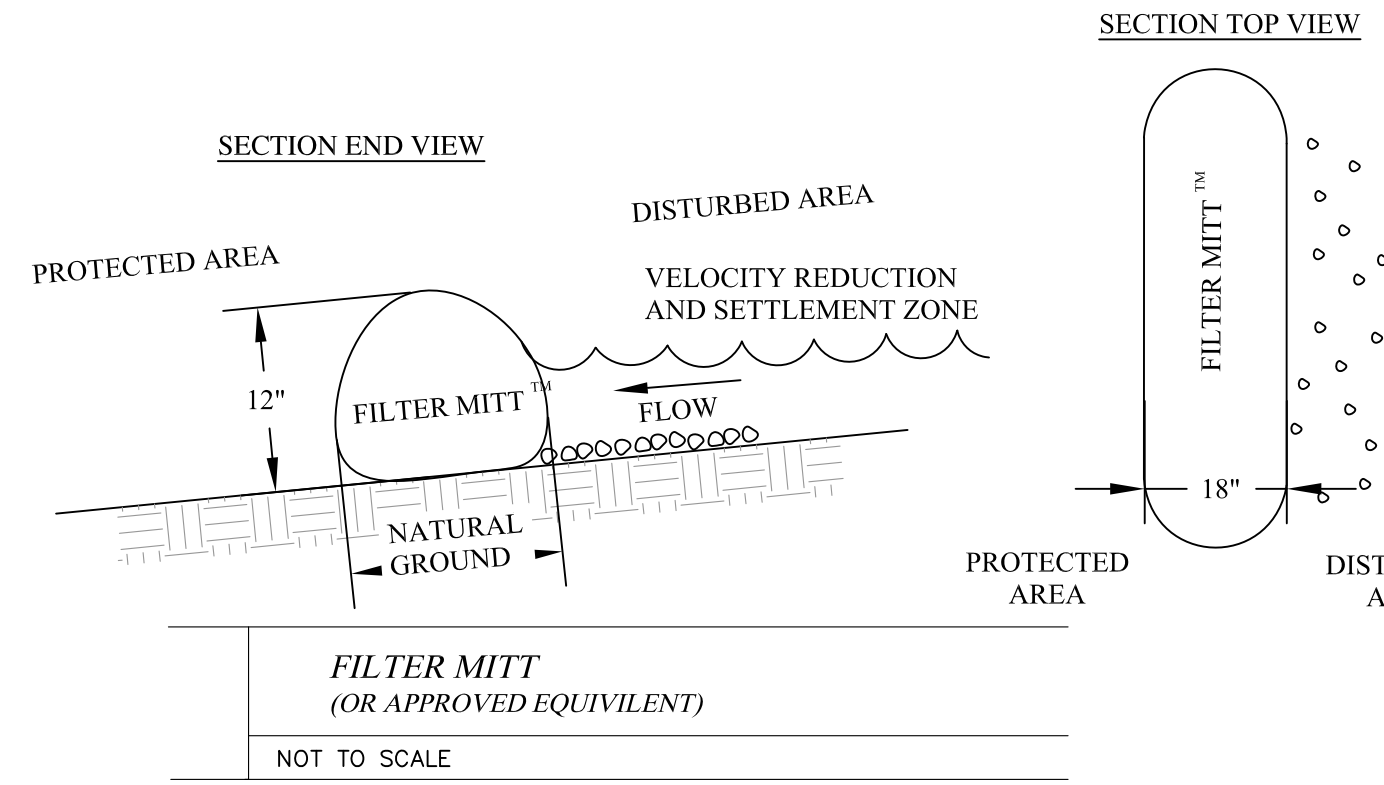
EROSION AND SEDIMENT CONTROL NOTES

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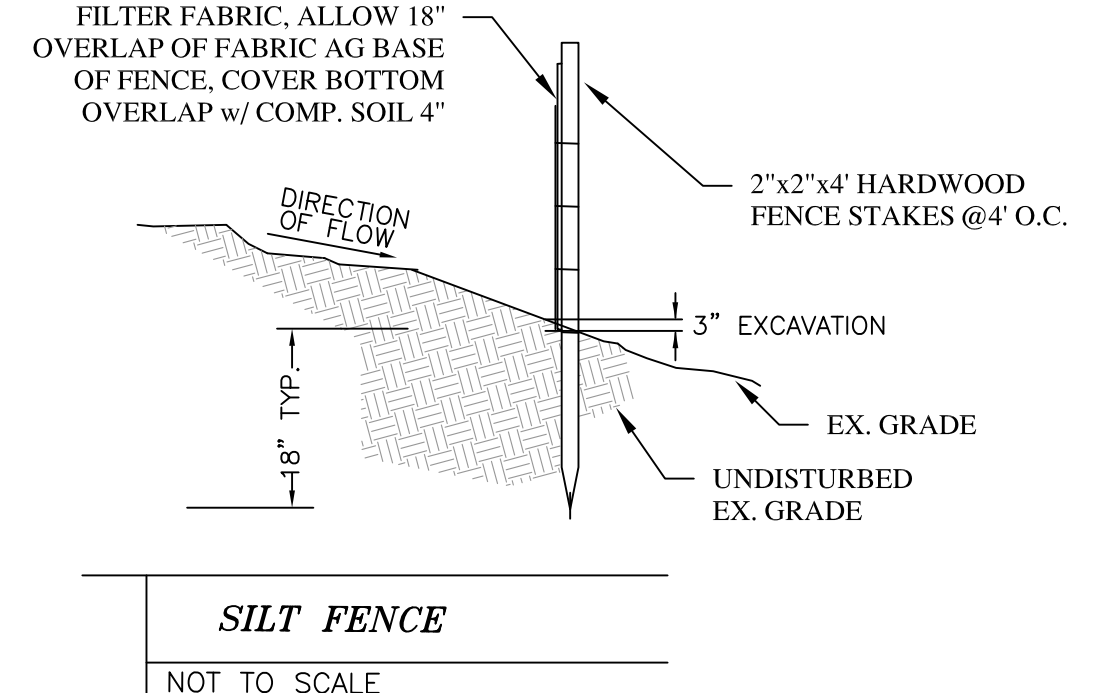


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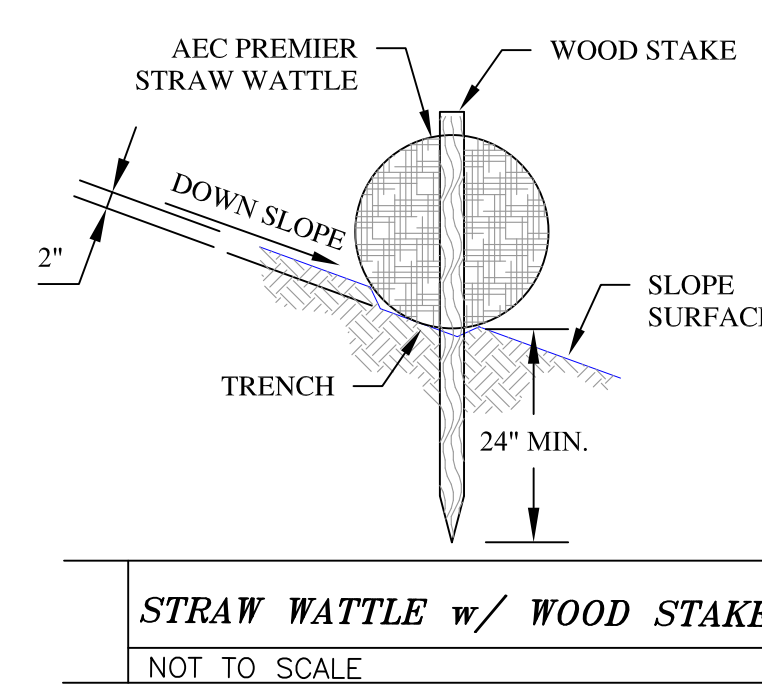
TEMP. CONST. FENCING
NOT TO SCALE
*OR APPROVED EQUIVALENT



FILTER MITT (OR APPROVED EQUIVALENT)
NOT TO SCALE



SILT FENCE
NOT TO SCALE



STRAW WATTLE w/ WOOD STAKE
NOT TO SCALE

REFERENCES:
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ARCHITECT: Embarec Studio
APPLICANT: MG3 Group, Alaris Const. LLC,
Ian Fox, 781-898-8024
60 Border Street, East Boston, MA 02128

No.	Date	Comment

Columbia Design Group, LLC
Consulting Engineers
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Boston, MA 02125
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BWSC SITE PLAN #19097

Date: September 4, 2019	Scale: 1" = 20'
Project No.: 2018-179	Drawing by: PG

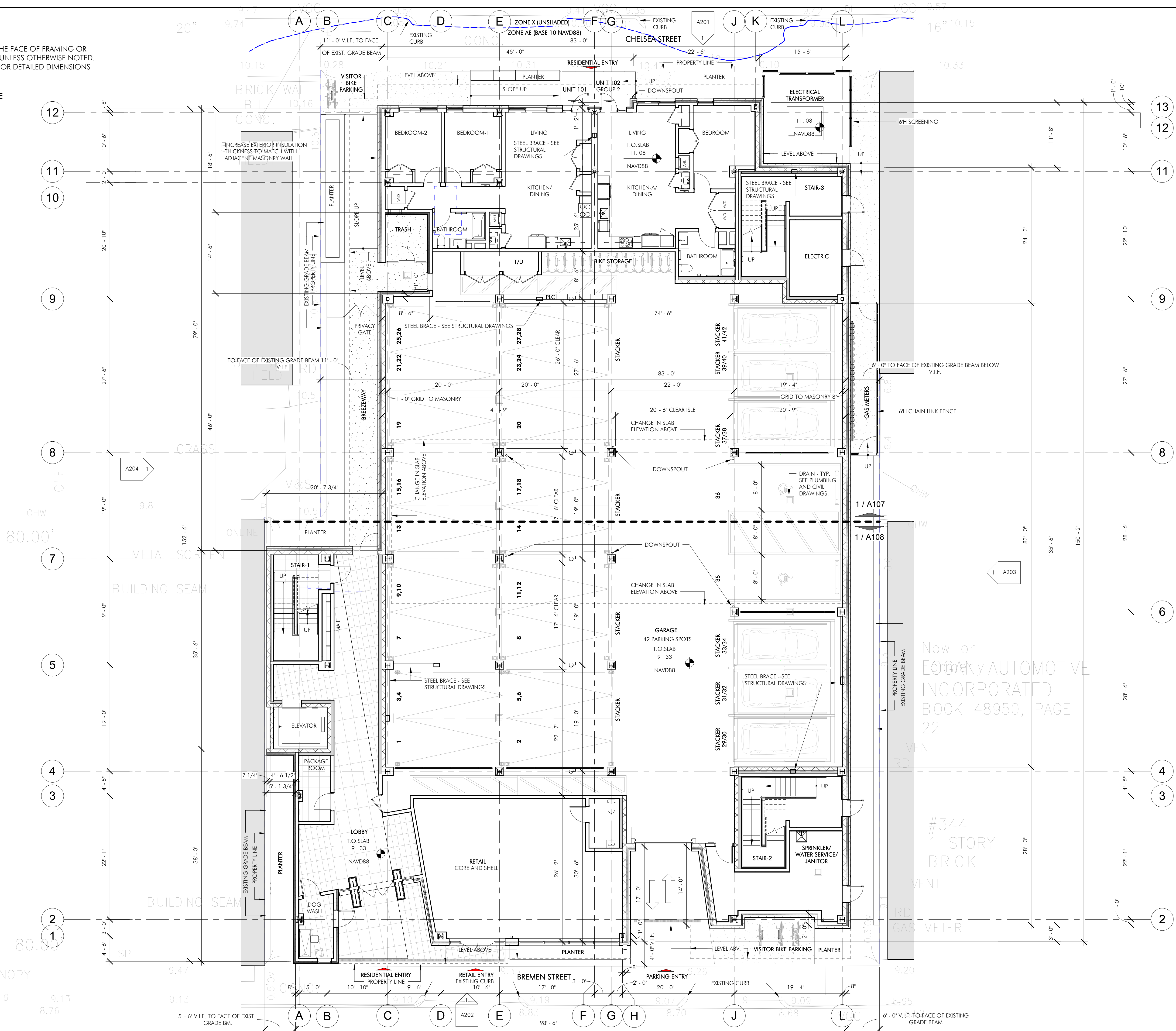
Professional Engineer Seal for Peter Gamme, No. 34100, State of Massachusetts. Includes the EC logo and 'Sheet 1 of 1'.

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FLOOR PLAN NOTES:

1. ALL EXTERIOR DIMENSIONS ARE TO THE FACE OF FRAMING OR CENTERLINE OF THE COMPONENTS UNLESS OTHERWISE NOTED.
2. REFER TO ENLARGED FLOOR PLANS FOR DETAILED DIMENSIONS AND LAYOUT DETAILS.

REFER TO GEOTECHNICAL REPORT FOR THE UNDERSLAB DRAINAGE REQUIREMENTS.



ARCHITECT
EMBARC

60 K STREET, 3RD FLOOR
BOSTON, MA 02127
O: 617.766.8330
www.embarcstudio.com

OWNER

CHELSEA BREMEN LLC
50 FRANKLIN ST., SUITE 400, BOSTON 02110

CONSULTANTS

SITE SURVEYOR
FELDMAN LAND SURVEYORS
152 HAMPDEN STREET
BOSTON, MA 02119
617.357.9740

CIVIL ENGINEER
COLUMBIA DESIGN GROUP
14 UPHAM AVE.
DORCHESTER, MA 02125
617.506.1474

STRUCTURAL ENGINEER
HAYES & O'NEILL STRUCTURAL ENGINEERS
51 MELCHER ST. FLOOR 1
BOSTON, MA 02210
617.938.3349

MEP/FP ENGINEERS
BUILDING ENGINEERING RESOURCES
66 MARK STREET
NORTH EASTON, MA 02356
508.230.0260

319 CHELSEA STREET
EAST BOSTON, MA 02128

ISSUED FOR CONSTRUCTION

REVISIONS

MARK	ISSUE	DATE

DRAWING INFORMATION

ISSUE: ISSUED FOR CONSTRUCTION
DATE: JUNE 28, 2019
PROJECT #: 18049
SCALE: As indicated

DRAWING TITLE

FIRST FLOOR PLAN

DRAWING NUMBER

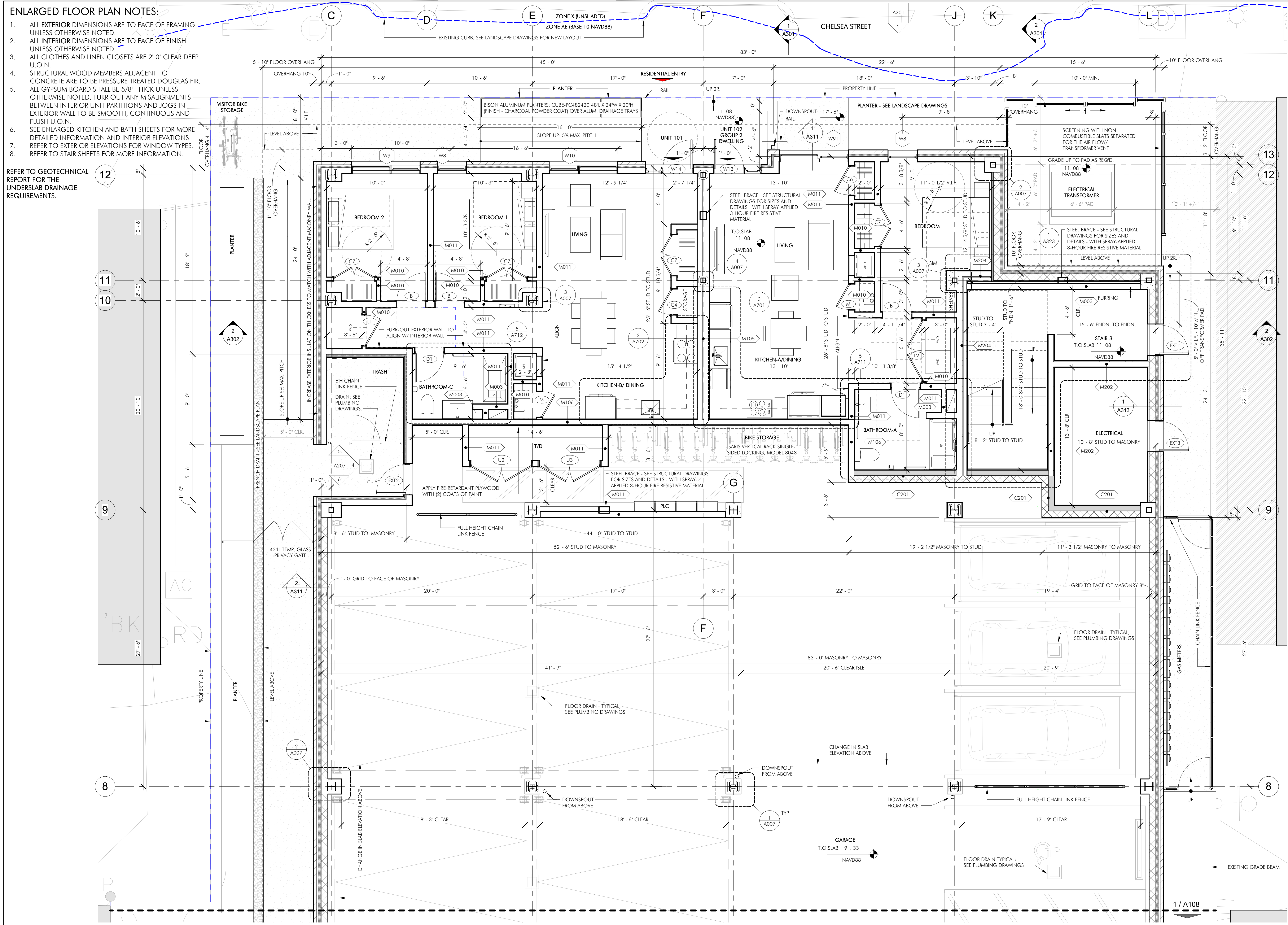
A101

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ENLARGED FLOOR PLAN NOTES:

1. ALL EXTERIOR DIMENSIONS ARE TO FACE OF FRAMING UNLESS OTHERWISE NOTED.
2. ALL INTERIOR DIMENSIONS ARE TO FACE OF FINISH UNLESS OTHERWISE NOTED.
3. ALL CLOTHES AND LINEN CLOSETS ARE 2'-0" CLEAR DEEP U.O.N.
4. STRUCTURAL WOOD MEMBERS ADJACENT TO CONCRETE ARE TO BE PRESSURE TREATED DOUGLAS FIR.
5. ALL GYPSUM BOARD SHALL BE 5/8" THICK UNLESS OTHERWISE NOTED. FURR OUT ANY MISALIGNMENTS BETWEEN INTERIOR UNIT PARTITIONS AND JOGS IN EXTERIOR WALL TO BE SMOOTH, CONTINUOUS AND FLUSH U.O.N.
6. SEE ENLARGED KITCHEN AND BATH SHEETS FOR MORE DETAILED INFORMATION AND INTERIOR ELEVATIONS.
7. REFER TO EXTERIOR ELEVATIONS FOR WINDOW TYPES.
8. REFER TO STAIR SHEETS FOR MORE INFORMATION.

REFER TO GEOTECHNICAL REPORT FOR THE UNDERSLAB DRAINAGE REQUIREMENTS.



ARCHITECT
EMBARC

60 K STREET, 3RD FLOOR
BOSTON, MA 02127
O: 617.766.8330
www.embarcstudio.com

OWNER
CHELSEA BREMEN LLC
50 FRANKLIN ST., SUITE 400, BOSTON 02110

CONSULTANTS
SITE SURVEYOR
FELDMAN LAND SURVEYORS
152 HAMPDEN STREET
BOSTON, MA 02119
617.357.9740

CIVIL ENGINEER
COLUMBIA DESIGN GROUP
14 UPHAM AVE.
DORCHESTER, MA 02125
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HAYES & O'NEILL STRUCTURAL ENGINEERS
51 MELCHER ST. FLOOR 1
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BUILDING ENGINEERING RESOURCES
66 MARK STREET
NORTH EASTON, MA 02356
508.230.0260

319 CHELSEA STREET
EAST BOSTON, MA 02128

ISSUED FOR CONSTRUCTION

REVISIONS

MARK	ISSUE	DATE

DRAWING INFORMATION

ISSUE: ISSUED FOR CONSTRUCTION
DATE: JUNE 28, 2019
PROJECT #: 18049
SCALE: 1/4" = 1'-0"

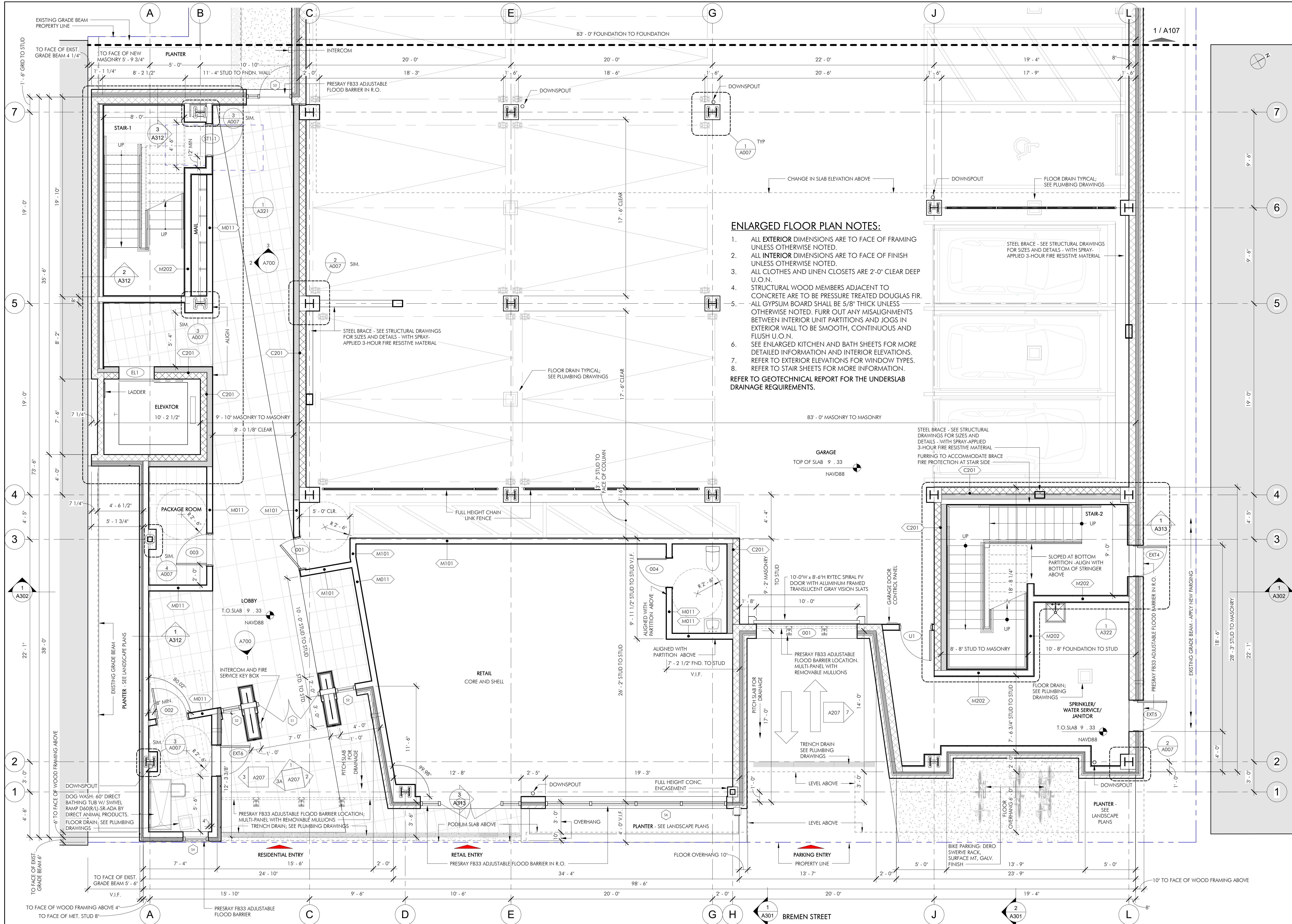
DRAWING TITLE

ENLARGED 1ST.FL.
CHELSEA ST.

DRAWING NUMBER

A107

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ENLARGED FLOOR PLAN NOTES:

1. ALL EXTERIOR DIMENSIONS ARE TO FACE OF FRAMING UNLESS OTHERWISE NOTED.
2. ALL INTERIOR DIMENSIONS ARE TO FACE OF FINISH UNLESS OTHERWISE NOTED.
3. ALL CLOTHES AND LINEN CLOSETS ARE 2'-0" CLEAR DEEP U.O.N.
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NORTH EASTON, MA 02356
508.230.0260

319 CHELSEA STREET
EAST BOSTON, MA 02128

ISSUED FOR CONSTRUCTION

REVISIONS

MARK	ISSUE	DATE

DRAWING INFORMATION

ISSUE: ISSUED FOR CONSTRUCTION
DATE: JUNE 28, 2019
PROJECT #: 18049
SCALE: 1/4" = 1'-0"

DRAWING TITLE

ENLARGED 1ST.FL.
BREMEN ST.

DRAWING NUMBER

A108

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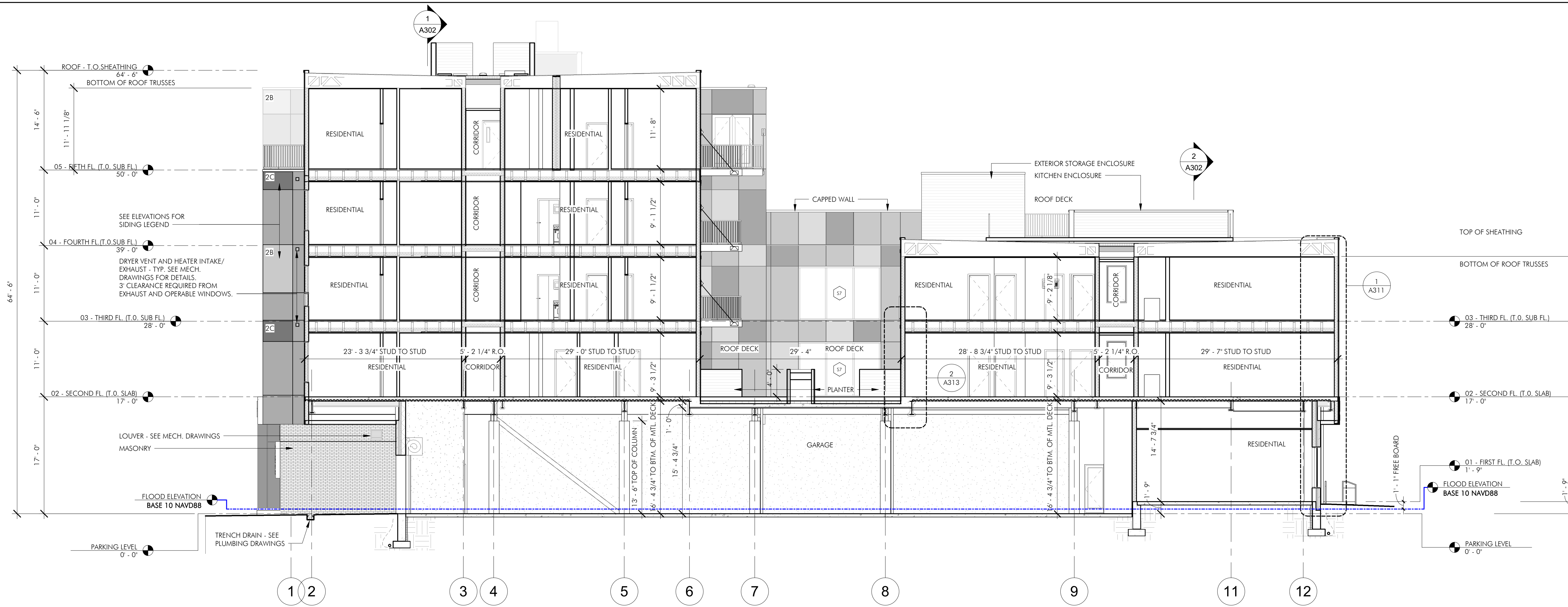
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MARK	ISSUE	DATE

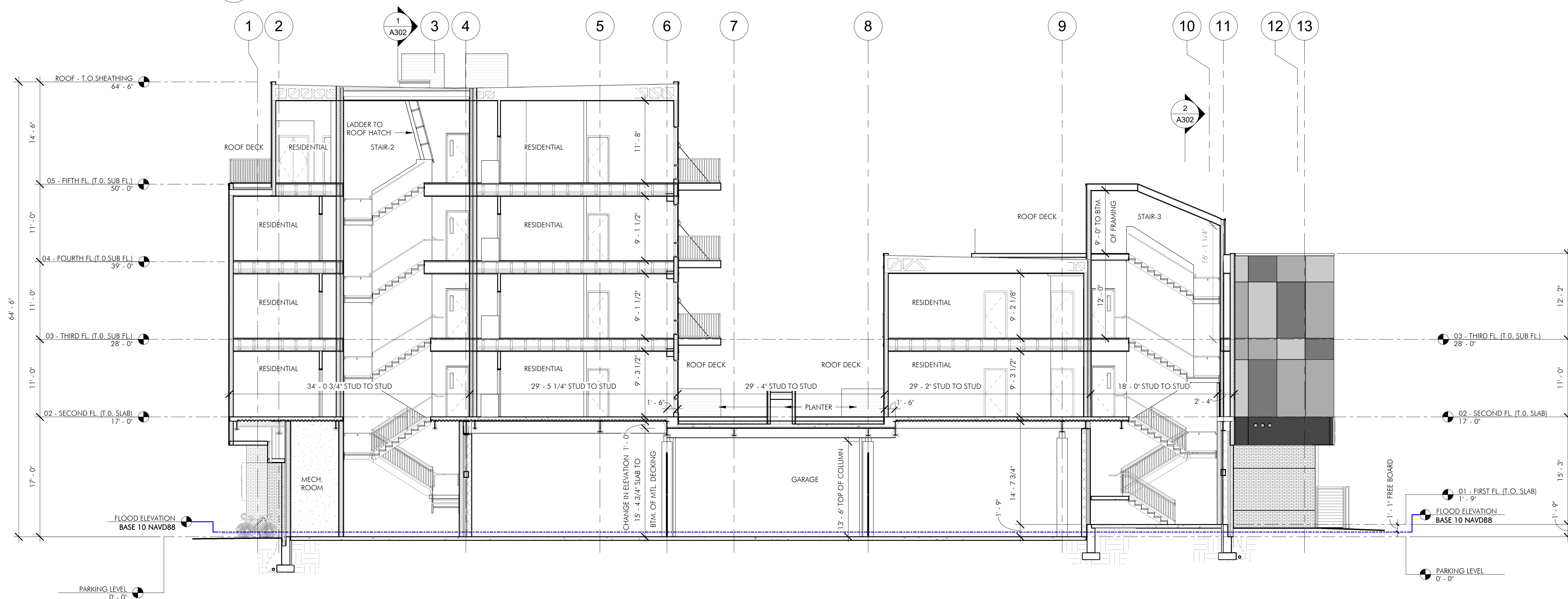
ISSUE:	ISSUED FOR CONSTRUCTION
DATE:	JUNE 28, 2019
PROJECT #:	18049
SCALE:	1/8" = 1'-0"

BUILDING SECTIONS

A301



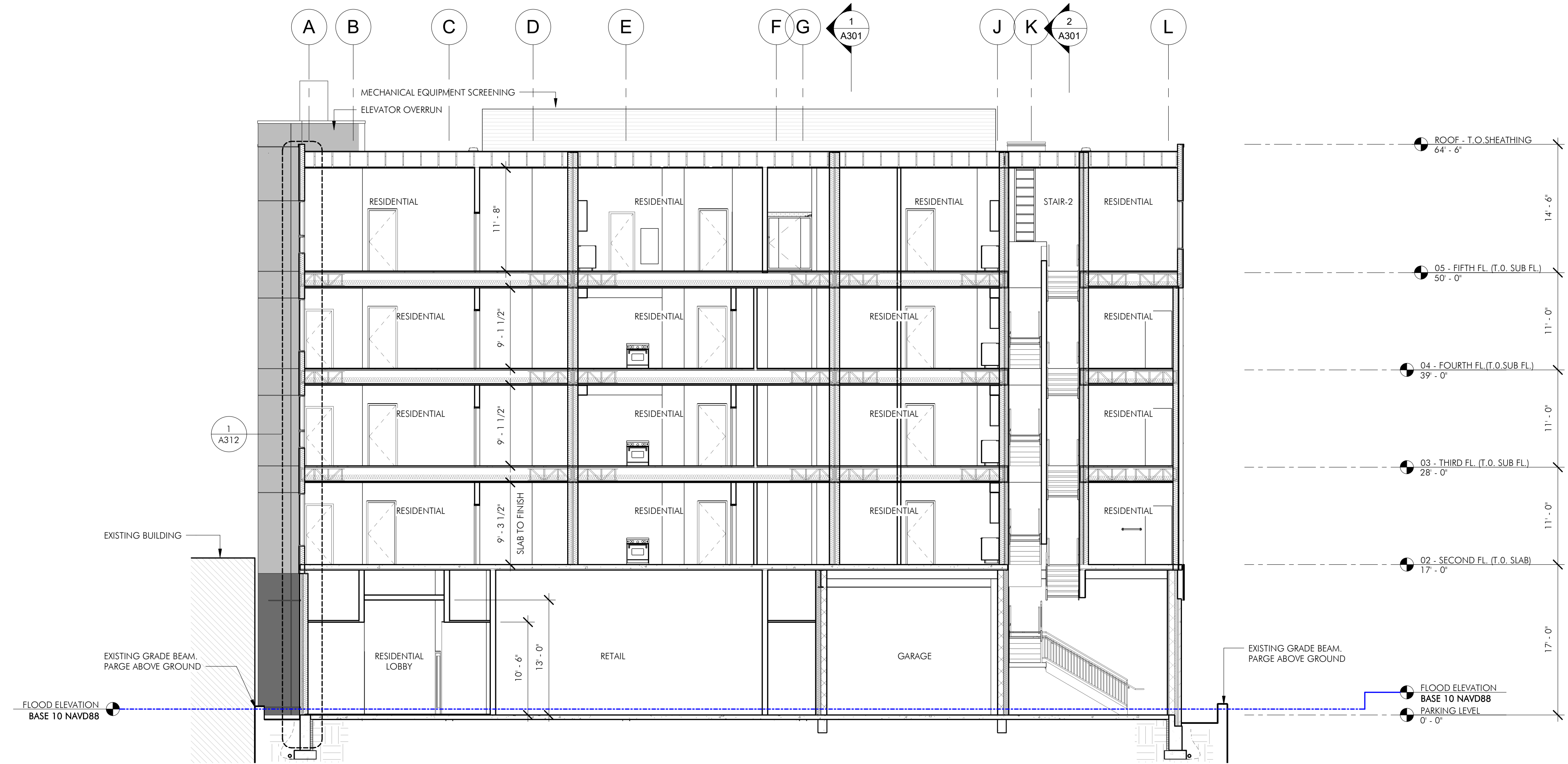
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1/8" = 1'-0"



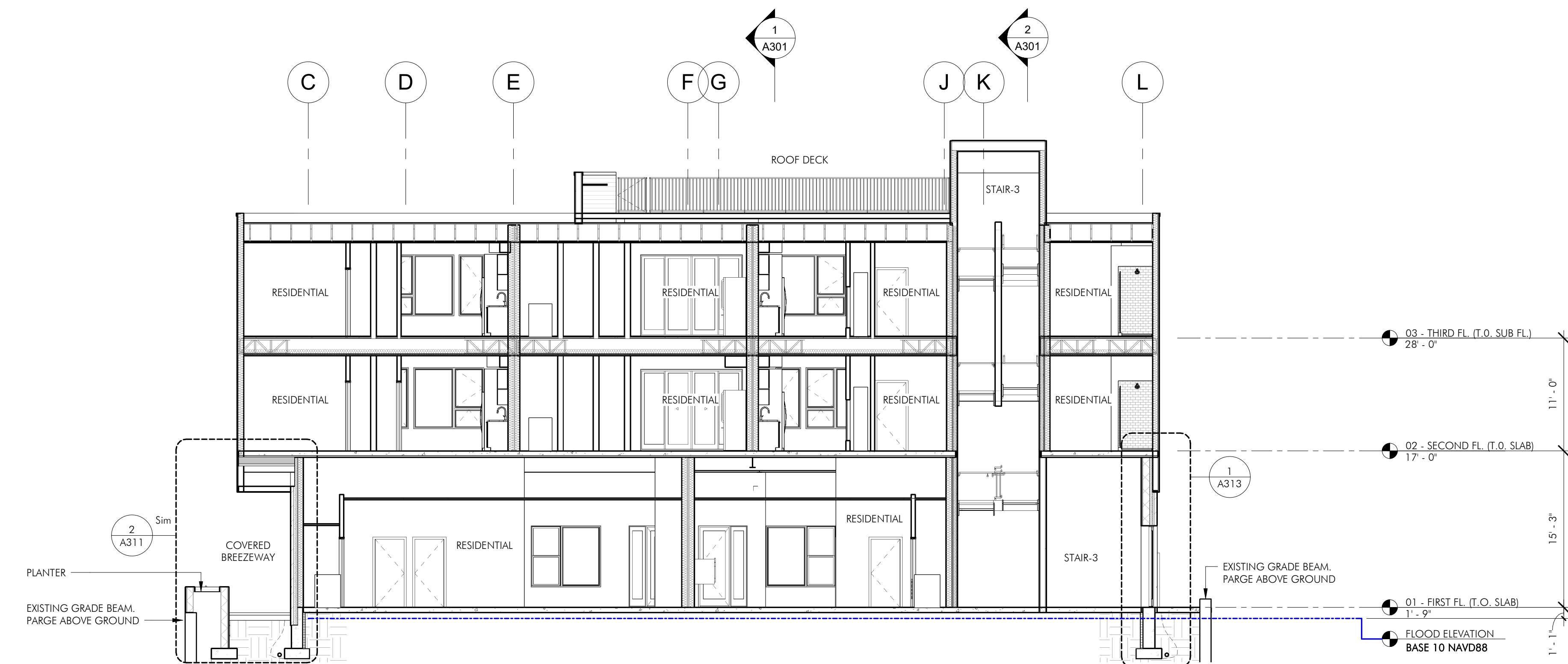
2 BUILDING SECTION 2 - BREMEN ST. / CHELSEA ST. WINGS
1/8" = 1'-0"

MARK	ISSUE	DATE

ISSUE:	ISSUED FOR CONSTRUCTION
DATE:	JUNE 28, 2019
PROJECT #:	18049
SCALE:	1/8" = 1'-0"



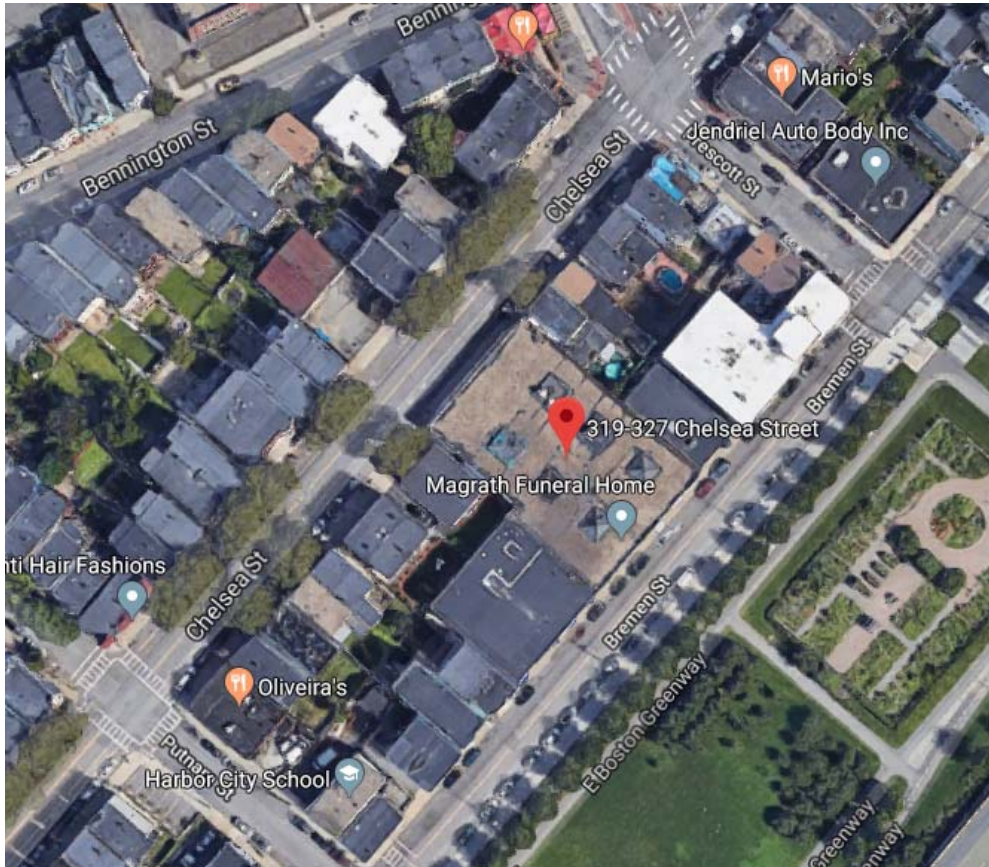
1 BUILDING SECTION 3 - BREMEN STREET WING
1/8" = 1'-0"



2 BUILDING SECTION 4 - CHELSEA STREET WING
1/8" = 1'-0"

Stormwater Report

For
319 Chelsea St., East Boston, MA



Applicant: MG2 Group
50 Franklin St., Suite 400
East Boston, MA 02127

September 4, 2019

By: Peter Gammie, P.E.
Columbia Design Group, LLC



14 Upham Avenue
Boston, MA 02125

W(617)506.1474
F(617)507.7740

Introduction

This report discusses the stormwater management system and analysis for the proposed redevelopment at 319 Chelsea St., East Boston, MA. It also contains documentation of compliance with the MassDEP Stormwater Standards, the Erosion and Sediment Control Report, and an Operations and Maintenance Plan.

The proposed redevelopment includes the razing of the existing commercial buildings and construction of a new multiunit residential and commercial facility with parking at grade below the building. The existing building covers the entire foot print of the lot, approximately 16,800 sf and is relatively flat on each side. Total disturbance is less than one acre, therefore the NPDES General Permit is not required.

Stormwater Management Report

The Site is approximate 0.39 acres and identified as Assessor's Ward 01 Parcel 01-06899000. The only disturbance outside the project site is the public sidewalk running in front and behind the facility which will be reconstructed. There is no known environmental resource other than a portion of the site being located within the 100 Year flood plain.

The topography is flat with existing buildings or paved surfaces on all sides. There are no existing pervious areas on the site. The proposed development will reduce impervious surfaces by approximately 480 sf. via planting beds. Similar to the existing condition however, the proposed building will cover most of the site. The proposed stormwater management for this site includes Best Management Practices that address the pre- versus post- development runoff volumes and peak flow, TSS removal and recharge to groundwater. The proposed stormwater management plan consists of a large infiltration system located below the parking garage (grade level) area. The HydroCAD model demonstrates a net decrease in both peak flow and volume for the 2, 10 and 25 year (24 hr) storm events.

During the interim period between demolition and prior to the construction of the new building when all exterior walls and footings are removed, the disturbed soil in those areas will be smoothed out and graded to maintain all stormwater onsite. As sections of the perimeter foundation walls are removed, sections of wattles will be staked in place to minimize the potential for migration of soil to run off the property. This configuration will minimize stormwater runoff, improve retention, and allow for infiltration of storm and flood waters.

Flood Storage

The flood impact resulting from the existing building within the 100 year flood zone covers an area of approximately 10,885 sf. The flood impact resulting from the proposed build covers an area of approximately 8,950 sf. A net reduction in flood zone impact of 1935 sf of new or improved flood zone storage area.

Soil Analysis

The Geotechnical report produced by Geotechnical Engineering Services for New England provided Boring data that indicated the top ten feet consist of Urban Fill, medium dense. The Norfolk and Suffolk Counties of Massachusetts lists this area as Urban Land, excavated and filled land over herbaceous organic material and/or alluvium marine deposits.

Stormwater Management System

The proposed stormwater management system consists of eighteen Stormtech SC 740 chambers embedded in a large crushed stone bed located just below the parking garage slab. In addition, the entire basement slab will have 8" (min) crushed stone below providing additional storage and opportunities for infiltration. Roof runoff is captured via roof drains and piped to a control structure (DMH) and then fed into the infiltration system. Excess runoff, once the system has reached capacity will discharge to the municipal combined sewer located in Bremen St. There will be very little surface runoff from the site going to either the sidewalk off of Chelsea St. or Bremen St. resulting in a significant decrease in runoff.

Design Point #1

Table 2 Volume of Discharge (cf)

Design Storm	Design Point 1	
	Pre-	Post-
2 year, 3.2"	4152	0
10 year, 4.7"	6246	0
100 year, 8.5"	11,559	2862*

Table 3 Peak Rate of Discharge (cfs)

Design Storm	Design Point 1	
	Pre-	Post-
2 year, 3.2"	1.21	0
10 year, 4.7"	1.78	0
100 year, 8.5"	3.24	2.81*

*Note this runoff goes into the CS

Erosion and Sediment Control Report

Elements of erosion control consist of wattles placed around the construction site, protection of the proposed infiltration systems during construction, truck wash-off area and street sweeping (See Civil Site Plan). In addition, the proposed development has taken into consideration:

- Minimize total area of disturbance and minimize unnecessary clearing and grading
- Estimates of the total area expected to be disturbed by excavation, grading, less than 40,000 SF
- All erosion control will be inspected and maintained on a daily basis
- All stockpiling of materials on site will be surrounded with erosion control barrier

Multiple erosion and sedimentation control devices will be implemented to prevent erosion during and after construction. The following erosion and sediment controls will be installed as necessary for this project:

- Initially, an erosion control barrier consisting of wattles will be installed at the limit of work along the down gradient site borders.
- Construction entrance apron pads will be constructed at the main site access to prevent the tracking of sediment on vehicle tires from transport onto adjacent streets.

Operation and Maintenance Plan

The Operations and Maintenance Plan is attached, see Appendix A

Documenting Compliance

The proposed stormwater management system complies with the ten standards of the Massachusetts Department of Environmental Protection (MassDEP) Stormwater Management Policy. This report was prepared under the direction of Peter Gammie, a Registered Professional Engineer (RPE) licensed to do business in the Commonwealth pursuant to MGL Chapter 112 Section 81R.

This section of the Stormwater Report includes the computations required to document compliance with the following standards:

- Standard 1 – No new untreated discharges.
- Standard 2 - Peak Rate Attenuation.
- Standard 3 - Recharge
- Standard 4 - Required Water Quality Volume.
- Standard 5 – 6: Computations used to demonstrate compliance with Standard 4.
- Standard 7: Computations demonstrating that peak rate attenuation, recharge, and water quality treatment is provided to maximum extent practicable
- Standard 8: Computations related to sizing of erosion and sediment controls
- Standard 9: Operation And Maintenance Plan
- Standard 10: Illicit Discharges to Drainage System

STANDARD 1. NO UNTREATED DISCHARGES

There are no new untreated discharges. Roof runoff is directed to infiltration system located below the parking garage slab on the first floor.

STANDARD 2. PEAK RATE ATTENUATION

As per DEP regulations, the stormwater analysis was developed for the 2-, 10-, and 100-year, 24-hour storm events. As noted above, there is no increase in the rate of runoff for any event. See HydroCad reports.

STANDARD 3. RECHARGE

The proposed on-site subsurface infiltration systems will increase recharge to groundwater.

Existing Soils Evaluation

Soil conditions from the Geotechnical report and NRCS indicate a Urban Land for which there is no soil classification. For the purpose of this study we have assigned soil type B, loam soil.

NRCS HYDROLOGIC SOIL TYPE	APPROX. SOIL TEXTURE	TARGET DEPTH FACTOR (F)
A	sand	0.6-inch
B	loam	0.35-inch

Recharge Target Depth by Hydrologic Soil Group

Rawls Rates

Texture Class	NRCS Hydrologic Soil Group (HSG)	Infiltration Rate Inches/Hour
Sand	A	8.27
Loamy Sand	A	2.41
Sandy Loam	B	1.02
Loam	B	0.52
Silt Loam	C	0.27
Sandy Clay Loam	C	0.17
Clay Loam	D	0.09
Silty Clay Loam	D	0.06
Sandy Clay	D	0.05
Silty Clay	D	0.04
Clay	D	0.02

Required Recharge Volume

Using the recharge requirements established by the DEP, the following calculations are provided:

$$Rv = F \times \text{impervious area}$$

Rv = Required Recharge Volume, expressed in Ft³, cubic yards, or acre-feet

F = Target Depth Factor associated with each Hydrologic Soil Group

Impervious Area = pavement area on site

This site: $Rv = 0.35 * 16800 \text{ sf} / 12 = 490 \text{ CF}$ *Required Recharge*

The DEP stormwater requirements include an analysis as to any negative impacts on where the recharge volume is directed. The recharge on this site, as an infiltration BMP measure, will not alter or cause changes to the hydrologic regime.

Proposed Recharge Volume

To comply with MassDEP, without taking into account the existing impervious area, the site requires a total recharge volume of 490 cubic feet. The proposed on-site infiltration system exceeds this volume as it provides approximately 1455 cubic feet (see HydroCad calculations). The site complies with the regulations relative to recharge to groundwater.

Drawdown within 72 hours

DEP Stormwater Handbook requires an analysis to show that the *Required Recharge Volume* will drain down in less than 72 hours in order to provide infiltration volume for subsequent rainfall events. To determine the ability to drawdown within 72 hours, we are using an infiltration rate of 1.02 in/hr (Rawls Rates), the storage volume, the bottom area and the “Static” method formula:

$$\begin{aligned} \text{Time}_{\text{drawdown}} &= \frac{Rv}{(K)(\text{Bottom Area})} \\ &= 490/(1.02\text{in/hr})(1\text{ft}/12\text{in})(830\text{ sf})=6.9\text{ hrs} \end{aligned}$$

Where:

Rv = Storage Volume

K = Saturated Hydraulic Conductivity For “Static” and “Simple Dynamic” Methods, use Rawls Rate (see Table 2.3.3).

Bottom Area = Bottom Area of Recharge Structure

The system will drain down in less than the required 72 hour maximum.

STANDARD 4. WATER QUALITY

The stormwater management design for this site complies with the required 80 percent total suspended solids (TSS) removal as the first inch of runoff is treated and infiltrated. All runoff from this site is roof runoff and considered clean.

STANDARD 5. LAND USES WITH HIGHER POTENTIAL POLLUTANT LOADS

This site is not a LUHPPL.

STANDARD 6. CRITICAL AREAS

The project site is not located within a Zone II or Interim Wellhead Protection area of a public water supply or any other critical area.

STANDARD 7. REDEVELOPMENT

This project is considered a redevelopment.

STANDARD 8. CONSTRUCTION PERIOD CONTROLS

A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan will be implemented generally as follows.

Narrative: Multiple erosion and sedimentation control devices will be implemented to prevent erosion during and after construction. The following erosion and sediment controls will be installed for this project:

- Initially, erosion control will be installed at the limit of work along the down gradient site borders.
- Construction entrance apron pads may be constructed at the main site access to prevent the tracking of sediment on vehicle tires from transport onto adjacent streets if this becomes an issue or problem.
- There are no, cut and fill slopes on site, so erosion is unlikely.

Construction Period Operation and Maintenance Plan: The O & M Plan provided will be modified accordingly and used during construction period.

Names of Persons or Entity Responsible for Plan Compliance: As part of the Submittal Process, the General Contractor shall submit the names of responsible parties.

Construction Period Pollution Prevention Measures: Erosion control measures as shown on the plan and/or as are standard practice shall be installed accordingly. Best Management Practices shall be implemented.

Drawings and specifications for erosion control BMPs: Contractor shall submit his plan for proposed sequencing of the work and the associated locations for diversion swales, erosion control dikes and berms, and/or temporary sedimentation basins.

Operation and Maintenance of Erosion and Sedimentation Controls: Contractor shall submit his plan for proposed sequencing of the work and the associated locations for diversion swales, erosion control dikes and berms, and temporary sedimentation basins.

STANDARD 9. OPERATION AND MAINTENANCE PLAN

A stormwater operation and maintenance plan is included in Appendix A.

STANDARD 10. PROHIBITION OF ILLICIT DISCHARGES

There are no illicit discharges. An Illicit Discharge Compliance Statement will be submitted.

Appendix 'A'

OPERATION AND MAINTENANCE PLAN/Long Term Pollution Prevention Plan

for

319 Chelsea St., East Boston, MA

The proponent/owner is responsible for the operation and maintenance of the proposed stormwater management system as follows:

Stormwater Management System Owners: _____

Party Responsible for the O & M: owner

Schedule for Implementation: see O & M Schedule

Plan Showing the location of all Stormwater BMPs: See Site Plan Titled – Civil Site Plan,

Estimated Budget: To be determined.

Log Form: See below.

Description of proposed O & M:

After construction and site is stabilized, the site will be inspected to assure that all exposed surfaces are clean of debris and that the surrounding walkways, alleys and streets adjacent to the project are clean.

The proposed infiltration system shall be inspected to determine if any excessive buildup of sediments is present. Inspections to be performed as noted in the following schedule. Removal of sediment, if required, to be performed by a maintenance company familiar with the system design.

Other site areas, including the overflow outlet, to be inspected to ensure proper function and any repairs implemented as needed and with the frequency shown in the schedule.

Accepted By: _____ Date:

Stormwater Management Operation and Maintenance Schedule

Property: _____

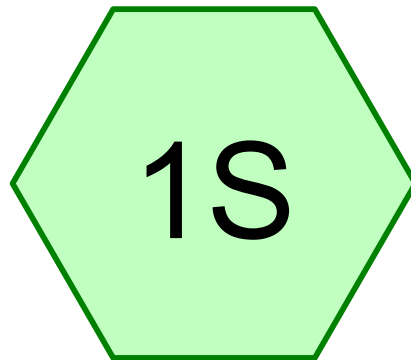
Date: _____

BMP	Frequency	Date Performed	Comments	Cleaning/ Repair Needed? Yes/No	Date of Cleaning/ Repair	Performed By
<u>Subsurface Infiltration System</u> Inspect for proper functioning	Once at the end of construction and then video inspected every 5 years.					
<u>Storm drain manholes and trench drains</u> Inspect for buildup of debris	Once at the end of construction and then inspected every year. Any debris or sediments removed					
<u>Roof Drains</u> Inspect for proper functioning Inspect for buildup of debris	Once at the end of construction and then every spring and fall. Roof area drains must be kept clear of ice and snow.					

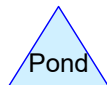
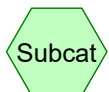
Appendix 'B'

HydroCad Calculations

Existing



Ex. Site Impervious
Area



Chelsea Street

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Page 2

Area Listing (selected nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
16,800	98	(1S)
16,800	98	TOTAL AREA

Chelsea Street

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Type III 24-hr 2 year Rainfall=3.20"

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Page 3

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Ex. Site Impervious Runoff Area=16,800 sf 100.00% Impervious Runoff Depth>2.97"
Tc=5.0 min CN=98 Runoff=1.21 cfs 4,152 cf

Total Runoff Area = 16,800 sf Runoff Volume = 4,152 cf Average Runoff Depth = 2.97"
0.00% Pervious = 0 sf 100.00% Impervious = 16,800 sf

Chelsea Street

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Type III 24-hr 2 year Rainfall=3.20"

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Page 4

Summary for Subcatchment 1S: Ex. Site Impervious Area

Runoff = 1.21 cfs @ 12.07 hrs, Volume= 4,152 cf, Depth> 2.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 year Rainfall=3.20"

Area (sf)	CN	Description
* 16,800	98	
16,800		100.00% Impervious Area

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

Chelsea Street

Type III 24-hr 10 year Rainfall=4.70"

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Page 5

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Ex. Site Impervious Runoff Area=16,800 sf 100.00% Impervious Runoff Depth>4.46"
Tc=5.0 min CN=98 Runoff=1.78 cfs 6,246 cf

Total Runoff Area = 16,800 sf Runoff Volume = 6,246 cf Average Runoff Depth = 4.46"
0.00% Pervious = 0 sf 100.00% Impervious = 16,800 sf

Chelsea Street

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Type III 24-hr 10 year Rainfall=4.70"

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Page 6

Summary for Subcatchment 1S: Ex. Site Impervious Area

Runoff = 1.78 cfs @ 12.07 hrs, Volume= 6,246 cf, Depth> 4.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 year Rainfall=4.70"

Area (sf)	CN	Description
* 16,800	98	
16,800		100.00% Impervious Area

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

Chelsea Street

Type III 24-hr 100 year Rainfall=8.50"

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Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Ex. Site Impervious Runoff Area=16,800 sf 100.00% Impervious Runoff Depth>8.26"
Tc=5.0 min CN=98 Runoff=3.24 cfs 11,559 cf

Total Runoff Area = 16,800 sf Runoff Volume = 11,559 cf Average Runoff Depth = 8.26"
0.00% Pervious = 0 sf 100.00% Impervious = 16,800 sf

Chelsea Street

Type III 24-hr 100 year Rainfall=8.50"

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Page 8

Summary for Subcatchment 1S: Ex. Site Impervious Area

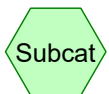
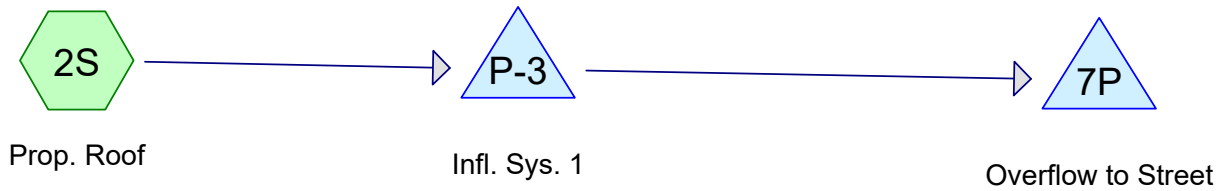
Runoff = 3.24 cfs @ 12.07 hrs, Volume= 11,559 cf, Depth> 8.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 year Rainfall=8.50"

Area (sf)	CN	Description
* 16,800	98	
16,800		100.00% Impervious Area

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

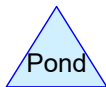
Proposed



Subcat



Reach



Pond



Link

Routing Diagram for Chelsea Street

Prepared by Columbia Design Group, Printed 8/26/2019
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Chelsea Street

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Page 2

Area Listing (selected nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
16,800	98	Prop. Roof (2S)
16,800	98	TOTAL AREA

Chelsea Street

Type III 24-hr 2 year Rainfall=3.20"

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Page 3

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 2S: Prop. Roof

Runoff Area=16,800 sf 100.00% Impervious Runoff Depth>2.97"
Tc=5.0 min CN=98 Runoff=1.21 cfs 4,152 cf

Pond 7P: Overflow to Street

Peak Elev=13.00' Storage=0 cf Inflow=0.00 cfs 0 cf
Outflow=0.00 cfs 0 cf

Pond P-3: Infl. Sys. 1

Peak Elev=14.50' Storage=1,455 cf Inflow=1.21 cfs 4,152 cf
Discarded=0.50 cfs 4,137 cf Primary=0.00 cfs 0 cf Outflow=0.50 cfs 4,137 cf

Total Runoff Area = 16,800 sf Runoff Volume = 4,152 cf Average Runoff Depth = 2.97"
0.00% Pervious = 0 sf 100.00% Impervious = 16,800 sf

Chelsea Street

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Type III 24-hr 2 year Rainfall=3.20"

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Summary for Subcatchment 2S: Prop. Roof

Runoff = 1.21 cfs @ 12.07 hrs, Volume= 4,152 cf, Depth > 2.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 year Rainfall=3.20"

Area (sf)	CN	Description
* 16,800	98	Prop. Roof
16,800		100.00% Impervious Area

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

Summary for Pond 7P: Overflow to Street

Inflow Area = 16,800 sf, 100.00% Impervious, Inflow Depth = 0.00" for 2 year event
 Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 13.00' @ 0.00 hrs Surf.Area= 10,000 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	13.00'	200,000 cf	100.00'W x 100.00'L x 20.00'H Street storage

Summary for Pond P-3: Infl. Sys. 1

Inflow Area = 16,800 sf, 100.00% Impervious, Inflow Depth > 2.97" for 2 year event
 Inflow = 1.21 cfs @ 12.07 hrs, Volume= 4,152 cf
 Outflow = 0.50 cfs @ 12.32 hrs, Volume= 4,137 cf, Atten= 59%, Lag= 14.8 min
 Discarded = 0.50 cfs @ 12.32 hrs, Volume= 4,137 cf
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 14.50' @ 12.30 hrs Surf.Area= 831 sf Storage= 1,455 cf

Plug-Flow detention time= 132.5 min calculated for 4,137 cf (100% of inflow)
 Center-of-Mass det. time= 130.0 min (885.2 - 755.1)

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Type III 24-hr 2 year Rainfall=3.20"

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Volume	Invert	Avail.Storage	Storage Description
#1A	11.00'	622 cf	12.33'W x 67.35'L x 3.50'H Field A 2,907 cf Overall - 833 cf Embedded = 2,075 cf x 30.0% Voids
#2A	11.50'	833 cf	ADS_StormTech SC-740 x 18 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 2 rows
#3	14.50'	1,407 cf	70.00'W x 100.00'L x 0.67'H 8" Crushed Stone Below Slab 4,690 cf Overall x 30.0% Voids
		2,862 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	11.00'	2.410 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 8.00'
#2	Primary	15.00'	6.0" Round Culvert L= 30.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 15.00' / 10.00' S= 0.1667 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf

Discarded OutFlow Max=0.10 cfs @ 12.32 hrs HW=14.50' (Free Discharge)

↑1=Exfiltration (Controls 0.10 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=11.00' (Free Discharge)

↑2=Culvert (Controls 0.00 cfs)

Chelsea Street

Type III 24-hr 10 year Rainfall=4.70"

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Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 2S: Prop. Roof

Runoff Area=16,800 sf 100.00% Impervious Runoff Depth>4.46"
Tc=5.0 min CN=98 Runoff=1.78 cfs 6,246 cf

Pond 7P: Overflow to Street

Peak Elev=13.00' Storage=0 cf Inflow=0.00 cfs 0 cf
Outflow=0.00 cfs 0 cf

Pond P-3: Infl. Sys. 1

Peak Elev=14.82' Storage=2,125 cf Inflow=1.78 cfs 6,246 cf
Discarded=0.51 cfs 6,212 cf Primary=0.00 cfs 0 cf Outflow=0.51 cfs 6,212 cf

Total Runoff Area = 16,800 sf Runoff Volume = 6,246 cf Average Runoff Depth = 4.46"
0.00% Pervious = 0 sf 100.00% Impervious = 16,800 sf

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Type III 24-hr 10 year Rainfall=4.70"

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Summary for Subcatchment 2S: Prop. Roof

Runoff = 1.78 cfs @ 12.07 hrs, Volume= 6,246 cf, Depth> 4.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 year Rainfall=4.70"

Area (sf)	CN	Description
* 16,800	98	Prop. Roof
16,800		100.00% Impervious Area

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

Summary for Pond 7P: Overflow to Street

Inflow Area = 16,800 sf, 100.00% Impervious, Inflow Depth = 0.00" for 10 year event
 Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 13.00' @ 0.00 hrs Surf.Area= 10,000 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	13.00'	200,000 cf	100.00'W x 100.00'L x 20.00'H Street storage

Summary for Pond P-3: Infl. Sys. 1

Inflow Area = 16,800 sf, 100.00% Impervious, Inflow Depth > 4.46" for 10 year event
 Inflow = 1.78 cfs @ 12.07 hrs, Volume= 6,246 cf
 Outflow = 0.51 cfs @ 12.39 hrs, Volume= 6,212 cf, Atten= 71%, Lag= 19.3 min
 Discarded = 0.51 cfs @ 12.39 hrs, Volume= 6,212 cf
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 14.82' @ 12.39 hrs Surf.Area= 7,831 sf Storage= 2,125 cf

Plug-Flow detention time= 114.5 min calculated for 6,212 cf (99% of inflow)
 Center-of-Mass det. time= 110.8 min (858.6 - 747.8)

Chelsea Street

Type III 24-hr 10 year Rainfall=4.70"

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Volume	Invert	Avail.Storage	Storage Description
#1A	11.00'	622 cf	12.33'W x 67.35'L x 3.50'H Field A 2,907 cf Overall - 833 cf Embedded = 2,075 cf x 30.0% Voids
#2A	11.50'	833 cf	ADS_StormTech SC-740 x 18 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 2 rows
#3	14.50'	1,407 cf	70.00'W x 100.00'L x 0.67'H 8" Crushed Stone Below Slab 4,690 cf Overall x 30.0% Voids
		2,862 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	11.00'	2.410 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 8.00'
#2	Primary	15.00'	6.0" Round Culvert L= 30.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 15.00' / 10.00' S= 0.1667 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf

Discarded OutFlow Max=0.51 cfs @ 12.39 hrs HW=14.82' (Free Discharge)

↑1=Exfiltration (Controls 0.51 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=11.00' (Free Discharge)

↑2=Culvert (Controls 0.00 cfs)

Chelsea Street

Type III 24-hr 100 year Rainfall=8.50"

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Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 2S: Prop. Roof

Runoff Area=16,800 sf 100.00% Impervious Runoff Depth>8.26"
Tc=5.0 min CN=98 Runoff=3.24 cfs 11,559 cf

Pond 7P: Overflow to Street

Peak Elev=13.20' Storage=2,002 cf Inflow=2.81 cfs 2,002 cf
Outflow=0.00 cfs 0 cf

Pond P-3: Infl. Sys. 1

Peak Elev=28.17' Storage=2,862 cf Inflow=3.24 cfs 11,559 cf
Discarded=1.52 cfs 9,975 cf Primary=2.81 cfs 2,002 cf Outflow=4.33 cfs 11,977 cf

Total Runoff Area = 16,800 sf Runoff Volume = 11,559 cf Average Runoff Depth = 8.26"
0.00% Pervious = 0 sf 100.00% Impervious = 16,800 sf

Chelsea Street

Type III 24-hr 100 year Rainfall=8.50"

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Summary for Subcatchment 2S: Prop. Roof

Runoff = 3.24 cfs @ 12.07 hrs, Volume= 11,559 cf, Depth> 8.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 year Rainfall=8.50"

Area (sf)	CN	Description
* 16,800	98	Prop. Roof
16,800		100.00% Impervious Area

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

Summary for Pond 7P: Overflow to Street

Inflow Area = 16,800 sf, 100.00% Impervious, Inflow Depth = 1.43" for 100 year event

Inflow = 2.81 cfs @ 12.12 hrs, Volume= 2,002 cf

Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 13.20' @ 13.00 hrs Surf.Area= 10,000 sf Storage= 2,002 cfPlug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	13.00'	200,000 cf	100.00'W x 100.00'L x 20.00'H Street storage

Summary for Pond P-3: Infl. Sys. 1

Inflow Area = 16,800 sf, 100.00% Impervious, Inflow Depth > 8.26" for 100 year event

Inflow = 3.24 cfs @ 12.07 hrs, Volume= 11,559 cf

Outflow = 4.33 cfs @ 12.12 hrs, Volume= 11,977 cf, Atten= 0%, Lag= 2.7 min

Discarded = 1.52 cfs @ 12.11 hrs, Volume= 9,975 cf

Primary = 2.81 cfs @ 12.12 hrs, Volume= 2,002 cf

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 28.17' @ 12.11 hrs Surf.Area= 7,831 sf Storage= 2,862 cfPlug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 63.9 min (803.1 - 739.2)

Chelsea Street

Type III 24-hr 100 year Rainfall=8.50"

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Volume	Invert	Avail.Storage	Storage Description
#1A	11.00'	622 cf	12.33'W x 67.35'L x 3.50'H Field A 2,907 cf Overall - 833 cf Embedded = 2,075 cf x 30.0% Voids
#2A	11.50'	833 cf	ADS_StormTech SC-740 x 18 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 2 rows
#3	14.50'	1,407 cf	70.00'W x 100.00'L x 0.67'H 8" Crushed Stone Below Slab 4,690 cf Overall x 30.0% Voids
		2,862 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	11.00'	2.410 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 8.00'
#2	Primary	15.00'	6.0" Round Culvert L= 30.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 15.00' / 10.00' S= 0.1667 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf

Discarded OutFlow Max=1.41 cfs @ 12.11 hrs HW=26.61' (Free Discharge)↑**1=Exfiltration** (Controls 1.41 cfs)**Primary OutFlow** Max=2.47 cfs @ 12.12 hrs HW=26.21' (Free Discharge)↑**2=Culvert** (Inlet Controls 2.47 cfs @ 12.58 fps)



Illicit Discharge Compliance Statement

Responsibility:

The Owner is responsible for ultimate compliance with all provisions of the Massachusetts Stormwater Management Policy, the USEPA NPDES Construction General Permit and responsible for identifying and eliminating illicit discharges (as defined by the USEPA).

OWNER NAME: MG2 Group
ADDRESS: 50 Franklin St., Suite 400, Boston, MA 02110
TEL. NUMBER: 617.412.3200 (Contact: Ryan Speaker)

Engineer's Compliance Statement:

To the best of my knowledge, the attached plans, computations and specifications meet the requirements of Standard 10 of the Massachusetts Stormwater Handbook regarding illicit discharges to the stormwater management system and that no detectable illicit discharges exist on the site. All documents and attachments were prepared under my direction and qualified personnel properly gathered and evaluated the information submitted, to the best of my knowledge.

Included with this statement are site plans, drawn to scale, that identify the location of systems for conveying stormwater on the site and show that these systems do not allow the entry of any illicit discharges into the stormwater management system. The plans also show any systems for conveying wastewater and/or groundwater on the site and show that there are no connections between the stormwater and wastewater systems.

For a redevelopment project, all actions taken to identify and remove illicit discharges, including without limitation, visual screening, dye or smoke testing, and the removal of any sources of illicit discharges to the stormwater management system are documented and included with this statement.

