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# Notice of Intent Application

Massachusetts Wetlands Protection Act (M.G.L. c.131 s.40)

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## The Chain Forge Hotel Boston, Massachusetts

*Submitted by:*

**CVPA Chain Forge, LLC**  
451 D Street – Suite 100  
Boston, MA 02210

*Submitted to:*

**Boston Conservation Commission**  
City of Boston Environment Department  
Boston City Hall, Room 805  
Boston, MA 02201

*Prepared by:*

**Epsilon Associates, Inc.**  
3 Mill & Main Place, Suite 250  
Maynard, MA 01754

*In Association with:*

**Bargmann Hendrie + Archetype, Inc.**  
**H.W. Moore Associates Inc.**



March 7, 2018

## Notice of Intent Application

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Massachusetts Wetlands Protection Act (M.G.L. c.131 s.40)

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Charlestown Navy Yard  
105 First Avenue**

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**March 7, 2018**

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## Conservation Commission Submittal Checklist

## **Checklist for Filing a Notice of Intent with Boston Conservation Commission**

In order for the Boston Conservation Commission to effectively process your Notice of Intent, BCC requests that you complete the checklist below and include it with your submission. If you should need assistance please contact Commission staff: 617-635-3850 ([cc@boston.gov](mailto:cc@boston.gov)).

To the Conservation Commission:

- Eight copies (a signed original and 7 copies) of a completed Notice of Intent (WPA Form 3)
- Eight copies of plans (reduced to 11" X 17") in their final form with engineer's stamp affixed** supporting calculations and other documentation necessary to completely describe the proposed work and mitigating measures. Plans must include existing conditions, the proposed project, erosion controls and mitigation measures, and all wetland resource areas and associated buffer zones.
- Eight copies of an 8 ½" x 11" section of** the USGS quadrangle map of the area, containing sufficient information for the Conservation Commission and the Department to locate the site of the work.
- (If applicable) Eight copies the Federal Emergency Management Agency Flood Insurance Rate Map for the project site. FEMA Flood Maps: <https://msc.fema.gov/portal>.
- Determination regarding the Natural Heritage and Endangered Species Program: Review Section C. Other Applicable Standards and Requirements of the Notice of Intent, page 4 of 8, pertaining to wildlife habitat. The Conservation Commission and the Natural Heritage & Endangered Species Program have the maps necessary to make this determination.
- (If applicable) Two hard copies and a digital copy of a Stormwater Report to document compliance with the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q), including associated drainage calculations for rooftops, parking lots, driveways, etc., for the required design storm events.
- Details of the stormwater management system, including: catch basins, oil separating tanks, detention basins, outfalls, sewer connections, etc.
- Any photographs related to the project representing the wetland resource areas.
- A project narrative describing the following: a brief overview of the entire project, the work proposed within wetland resource areas and/or buffer zones; how the performance standards specific to the wetland resource areas will be met; construction equipment and material involved; and measures to protect wetland resource areas and mitigate impacts.
- Electronic copies. Documents may be submitted via email, or via an email link to downloadable documents.**
- Abutter Notification, filed concurrently with the Notice of Intent.
- (If applicable) Completed BRA Climate Preparedness Questionnaire (for new buildings). This can be completed online at <http://www.bostonredevelopmentauthority.org/planning/planning-initiatives/climate-change-preparedness-and-resiliency>. Please print the pdf that you will receive via email after completion and include it in your submission.



To minimize the use of non-recyclable materials ***please do not include vinyl or plastic binders, bindings, folders or covers with the filing.*** Staples and binder clips are good choices.

**WPA Form 3 – Notice of Intent**

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# WPA Form 3 – Notice of Intent

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Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Boston

City/Town

## A. General Information (continued)

6. General Project Description:

Limited site improvements associated with factory building redevelopment into a hotel such as sidewalk and curb replacement, landscaping, utility trenching and infiltration system. See Attachment A -- Project Narrative.

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

9182

c. Book

b. Certificate # (if registered land)

149, 188

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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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.

Table with 3 columns: Resource Area, Size of Proposed Alteration, Proposed Replacement (if any). Rows include Bank, Bordering Vegetated Wetland, and Land Under Waterbodies and Waterways.

Table with 3 columns: Resource Area, Size of Proposed Alteration, Proposed Replacement (if any). Rows include Bordering Land Subject to Flooding and Isolated Land Subject to Flooding.

- f. Riverfront Area
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: square feet

4. Proposed alteration of the Riverfront Area:
a. total square feet b. square feet within 100 ft. c. square feet between 100 ft. and 200 ft.

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

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

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

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





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## 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	40,100	
	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 Notice of Intent – Required Actions (310 CMR 10.11).

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

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

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

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

- 2017 \_\_\_\_\_  
b. Date of map

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

- c. Submit Supplemental Information for Endangered Species Review\*

1.  Percentage/acreage of property to be altered:

(a) within wetland Resource Area \_\_\_\_\_  
percentage/acreage

(b) outside Resource Area \_\_\_\_\_  
percentage/acreage

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

2.  Project plans for entire project site, including wetland resource areas and areas outside of wetlands jurisdiction, showing existing and proposed conditions, existing and proposed tree/vegetation clearing line, and clearly demarcated limits of work \*\*

(a)  Project description (including description of impacts outside of wetland resource area & buffer zone)

(b)  Photographs representative of the site

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

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



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

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

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

- (d)  Vegetation cover type map of site
- (e)  Project plans showing Priority & Estimated Habitat boundaries
- (f) OR Check One of the Following

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

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

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

- 3. For coastal projects only, is any portion of the proposed project located below the mean high water line or in a fish run?
  - a.  Not applicable – project is in inland resource area only
  - b.  Yes  No

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

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

North Shore - Hull to New Hampshire border:

Division of Marine Fisheries -  
Southeast Marine Fisheries Station  
Attn: Environmental Reviewer  
1213 Purchase Street – 3rd Floor  
New Bedford, MA 02740-6694  
Email: [DMF.EnvReview-South@state.ma.us](mailto:DMF.EnvReview-South@state.ma.us)

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

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



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

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

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.

Chain Forge Hotel

a. Plan Title

H.W. Moore Associates, Inc.

TBD

b. Prepared By

c. Signed and Stamped by

March 6, 2018

1"=20'

d. Final Revision Date

e. Scale

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:

36279

2. Municipal Check Number

3/6/18

3. Check date

36278

4. State Check Number

3/6/18

5. Check date

Epsilon Associates, Inc.

6. Payor name on check: First Name

7. Payor name on check: Last Name



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## F. Signatures and Submittal Requirements

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

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

1. Signature of Applicant

3/6/18

2. Date

3. Signature of Property Owner (if different)

4. Date

3/6/18

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.

Attachment A

Project Narrative

# ATTACHMENT A – PROJECT NARRATIVE

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## 1.0 Introduction

On behalf of CVPA Chain Forge LLC (“Applicant”), Epsilon Associates, Inc. (“Epsilon”) is pleased to submit this Notice of Intent (NOI) to the Boston Conservation Commission (the “Commission”). This NOI has been prepared in accordance with the Massachusetts Wetlands Protection Act (MGL c. 131 §40 (the “Act”) and implementing Regulations (310 CMR 10.00) (the “Regulations”).

The work described herein involves redevelopment activities at the historic Chain Forge Building located at 105 First Avenue in Charlestown, Massachusetts (the “Project”). The Applicant proposes to redevelop the former factory building into a 230-room hotel. A portion of the proposed redevelopment activities involves work within the 100-year floodplain (Land Subject to Coastal Storm Flowage) under the Massachusetts Wetlands Protection Act Regulations (310 CMR 10.00). This NOI has been prepared and submitted in accordance with these regulations, and requests approval to construct the Project within locations subject to the jurisdiction of the Boston Conservation Commission.

## 2.0 Existing Conditions

The Project Site is comprised of an approximately 1.5-acre parcel of land located at 105 First Avenue within the Charlestown Navy Yard. The site is bounded by Ninth Street to the south, Thirteenth Street to the north, Second Avenue pedestrian walkway to the west and First Avenue to the east (see Figure 1– USGS Locus Map and Figure 2 - Aerial Locus Map in Attachment B). The existing Chain Forge Factory building is essentially three connected buildings totally 63,000 gross square feet. The brick-façade factory building was originally built in 1904 and has been vacant since the 1974 closure of the Boston Naval Shipyard and was conveyed to the Boston Redevelopment Authority in 1978. The site is entirely comprised of either building or paved areas.

The Site is located approximately 600 feet from Boston Harbor. Wetland resource areas on or proximate to the Project site are limited to Land Subject to Coastal Storm Flowage (elevation 10-feet NAVD 88 datum). No other resource areas are present (see Figure 3 – Coastal Resources Map in Attachment B and in Attachment F – Plan Drawings).

See below for additional information and also Attachment C for photos of existing site conditions.

### **2.1 *Land Subject to Coastal Storm Flowage***

Land Subject to Coastal Storm Flowage (LSCSF) is defined at 310 CMR 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. According to the updated Federal Emergency Management Agency Flood Insurance Rate Map



("FEMA-FIRM"), Community-Panel Numbers 25025C0018J and 25025C0081J), Effective Date March 16, 2016, there is a small area of the site designated as "Zone AE Area of 100-Year Flood" (Elevation 10 feet NAVD 88, 16.46 feet Boston City Base) within the southeast corner of the Project Site. An updated site survey indicates that the majority of the surrounding streets and sidewalks do fall within Zone AE. See Figure 4 in Attachment B and Attachment F for more information.

## **2.2** *Natural Heritage and Endangered Species Program Atlas*

No portion of the Project Site is located within areas mapped as Priority Habitat of Rare Species and Estimated Habitat of Rare Wildlife by the Natural Heritage and Endangered Species Program under the Massachusetts Endangered Species Act and the Massachusetts Wetlands Protection Act, respectively (Natural Heritage MassGIS, 2017). There are no mapped Potential Vernal Pools or Certified Vernal Pools within or proximate to the Project Site (See Figure 5 – NHESP Map in Attachment B).

## **3.0 Proposed Project**

This Project proposes the redevelopment of the former Chain Forge factory building into a 230-room hotel. The hotel entrance will be along First Avenue with a rear service area and access along Second Avenue. The ground floor of the hotel will be raised 18-inches over existing conditions, resulting in a ground floor that is above the flood zone at Elevation 10 feet NAVD 88 or 16.46 feet BCB. While the majority of the proposed Project involves interior building construction and modifications, some exterior work will also be completed along the façade and surrounding paved areas. This includes sidewalk and curb replacement, site utility work, re-pointing of the building façade, landscaping, re-paving and installation of new windows. There will be no increase in impervious surface at the Project site.

Site utility work consists of trenches for sewer line connections and new manholes. The proposed subsurface stormwater management infiltration system will also be installed proximate to the rear service entrance along the Second Avenue walkway. Also proximate to the rear service entrance, a new switch and transformer will be installed on concrete pads elevated out of the flood zone at elevation 17.5 feet Boston City Base).

### **3.1** *Proposed Stormwater Management*

The proposed stormwater management system will be designed to comply with Boston Water and Sewer Commission ("BWSC") requirements and the MassDEP stormwater management standards that were incorporated into the Wetlands Protection Act Regulations on January 2, 2008 [see 310 CMR 10.05(6)(k)]. Since the existing site already consists entirely of impervious cover, the proposed Project will not create additional impervious surface areas. However, the Project will reduce the amount of runoff from the site by 2,840 cubic feet during storm events.

Stormwater from the site, including roof drainage, currently discharges to the existing systems in the adjacent streets: a 12-inch drain in Ninth Street, a 36-inch drain in Second Avenue, and a 48-inch drain in First Avenue. These drains flow easterly toward Thirteenth Street and ultimately to Boston Harbor.

A portion of the rooftop runoff will be directed to a subsurface infiltration system installed at the rear of the building. This system will accommodate up to 2,840 cubic feet of volume and redirect it from entering Boston's stormwater management drain system. Any overflow will be directed to the municipal drain system. The post-redevelopment conditions will result in a reduction of site runoff. Please see Attachment F for the Site Plans and Stormwater Checklist.

#### **4.0 Environmental Mitigation, Compliance and Monitoring**

Ground disturbing activities are primarily limited to trenchwork, landscaping and the installation of the subsurface stormwater infiltration system. An erosion and sediment control program will minimize the risk of impacts to wetland resource areas associated with the Boston Harbor during construction of the Project. The program will incorporate BMPs specified in the guidelines developed by the MassDEP and the U.S. Environmental Protection Agency ("EPA"). The Stormwater Pollution Prevention Plan ("SWPPP") will be finalized prior to construction.

The site contractor will be responsible for inspecting the sediment and erosion controls on a regular basis to note any escape of sediments. Inspections will cover disturbed areas of the construction site that have not been finally stabilized, areas used for storage of materials that are exposed to precipitation, structural control measures, and locations where vehicles enter or exit the site.

##### **4.1 *Sedimentation and Erosion Controls***

Erosion and sediment control measures proposed for site preparation and development phases will include the following components:

###### *Catch Basin Inlet Protection*

During construction, drain inlets along First Avenue, Second Avenue, Thirteenth Street and Ninth Street will be protected from sediment inflow through the installation of "silt sacks". The catch basins will be inspected after each rainfall with any significant accumulations of silt or sediment being removed and properly disposed.

###### *Sediment Track-Out*

The adjacent roadways surrounding the project site will be swept regularly of sediment tracked onto roadways to reduce potential total suspended solids ("TSS") loading generated by construction vehicles traveling to and from the project site.

### *Soil Management*

Prior to construction, the contractor shall identify locations for soil stockpiles on-site for approval by the responsible engineer. Stockpiles that will be left for more than 14 days shall be protected by a perimeter of erosion controls (e.g. straw wattles) at the down gradient end and also will be covered by a plastic covering, temporary seeding, or equivalent BMP. Other areas of exposed soil will also be mulched or seeded within 7 days of grading if area will not be actively worked for greater than 14 days.

### *Dust Control*

Dust control will be implemented as needed and during windy conditions (forecasted or actual wind conditions of 20 mph or greater) while excavation work is occurring.

### *Siltation Barriers*

Siltation barriers composed of staked straw wattles may be necessary during trench work and infiltration system installation. All barriers will remain in place until disturbed areas are stabilized. An adequate stockpile of erosion control materials will be onsite at all times for emergency or routine replacement.

## **4.2            *Dewatering Protocols***

Although not anticipated due to depth of construction activities, should the need for dewatering arise during construction of the Project, groundwater will be pumped directly from the work area into portable fractionation tanks prior to discharge into the catch basin system. All discharges shall be free from visible floating, suspended and settleable solids that would impair the functions of a wetland resource area or degrade the chemical composition of the wetland resource area and the Boston Harbor receiving said water.

## **4.3            *Spill Prevention and Response Plan***

During construction, the contractor will follow these procedures to prevent and manage spills, if necessary:

- ◆ Manufacturer's recommended methods for spill cleanup will be clearly posted and site personnel will be made aware of the procedures and the location of the information and cleanup supplies.
- ◆ The Contractor shall provide a 55 gallon spill containment kit and maintain it onsite throughout the construction period.
- ◆ All spills will be cleaned up immediately after discovery.
- ◆ The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.

- ◆ Spills of toxic or hazardous materials, at or greater than reportable quantities, will be reported to the appropriate state or local government agency.
- ◆ The spill prevention plan will be adjusted to include measures to prevent this type of spill from reoccurring and how to clean up the spill if there is another one. A description of the spill, what caused it, and the cleanup measures will also be included.
- ◆ The Site Superintendent is the designated responsible party for day to day operations and spill clean-up procedures.

## 5.0 Conclusions

The information contained in this NOI describes the wetland resource areas located in the project area, the proposed construction activities and the effect of said work on the resource areas, and demonstrates that the work can be completed in accordance with the applicable performance standards for the affected resource areas. The Applicant therefore respectfully requests that the Boston Conservation Commission issue an Order of Conditions approving the project with appropriate conditions to protect the interests identified in M.G.L. c. 131 §40.

**Attachment B**

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Figures



USGS, MassGIS

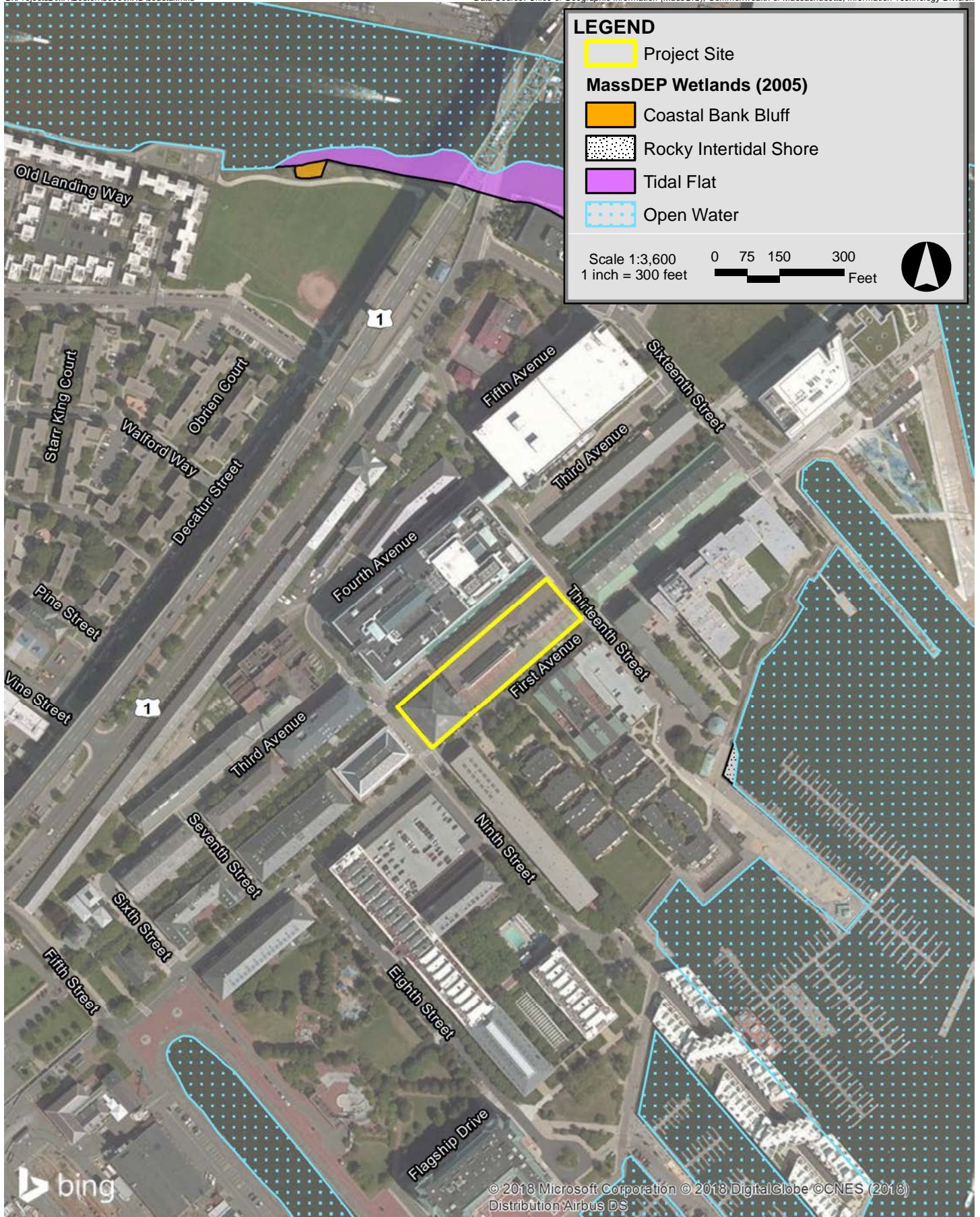
Chain Forge - 105 First Avenue Boston, Massachusetts



Figure 1  
USGS Locus Map

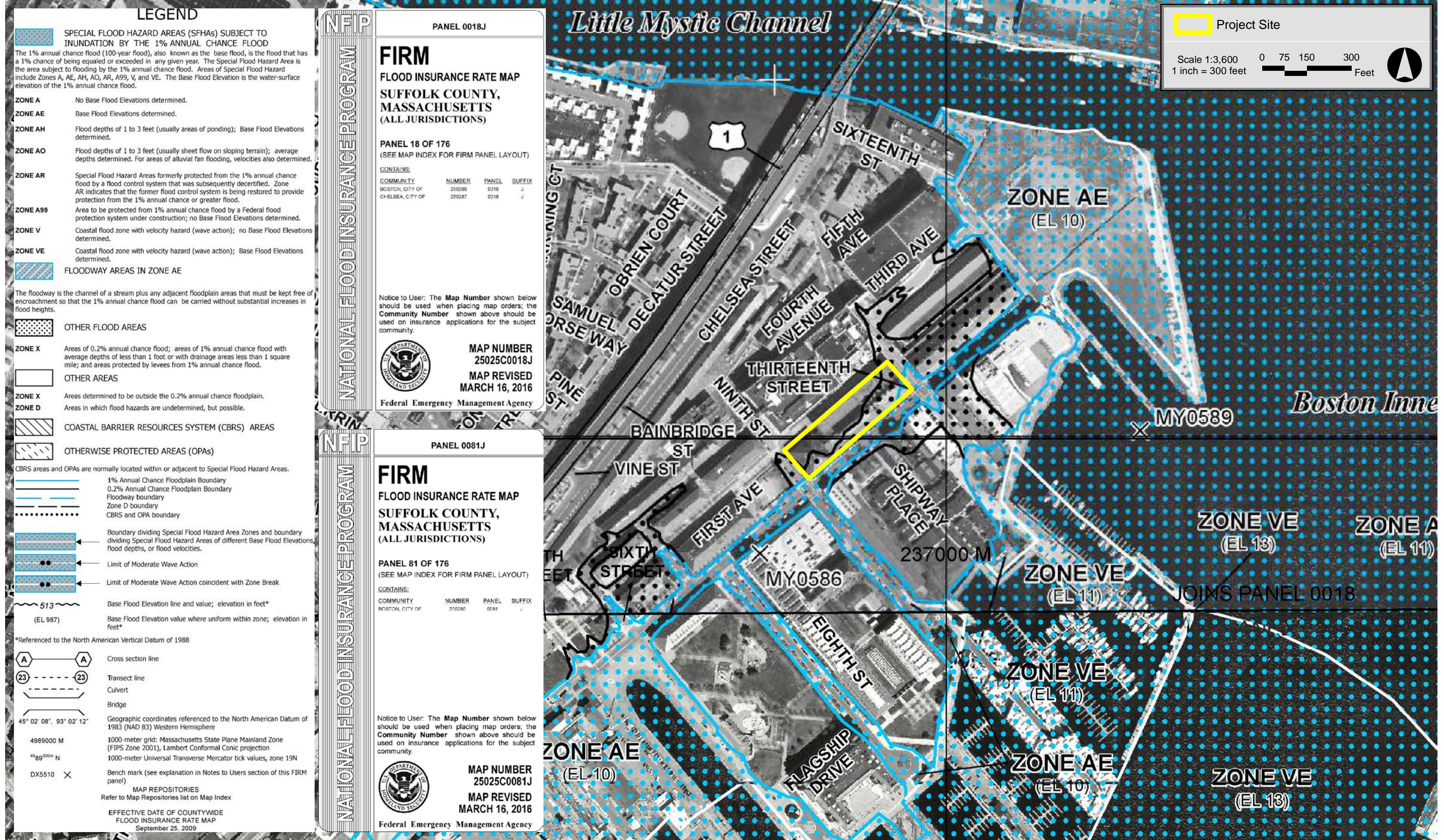


Chain Forge - 105 First Avenue Boston, Massachusetts

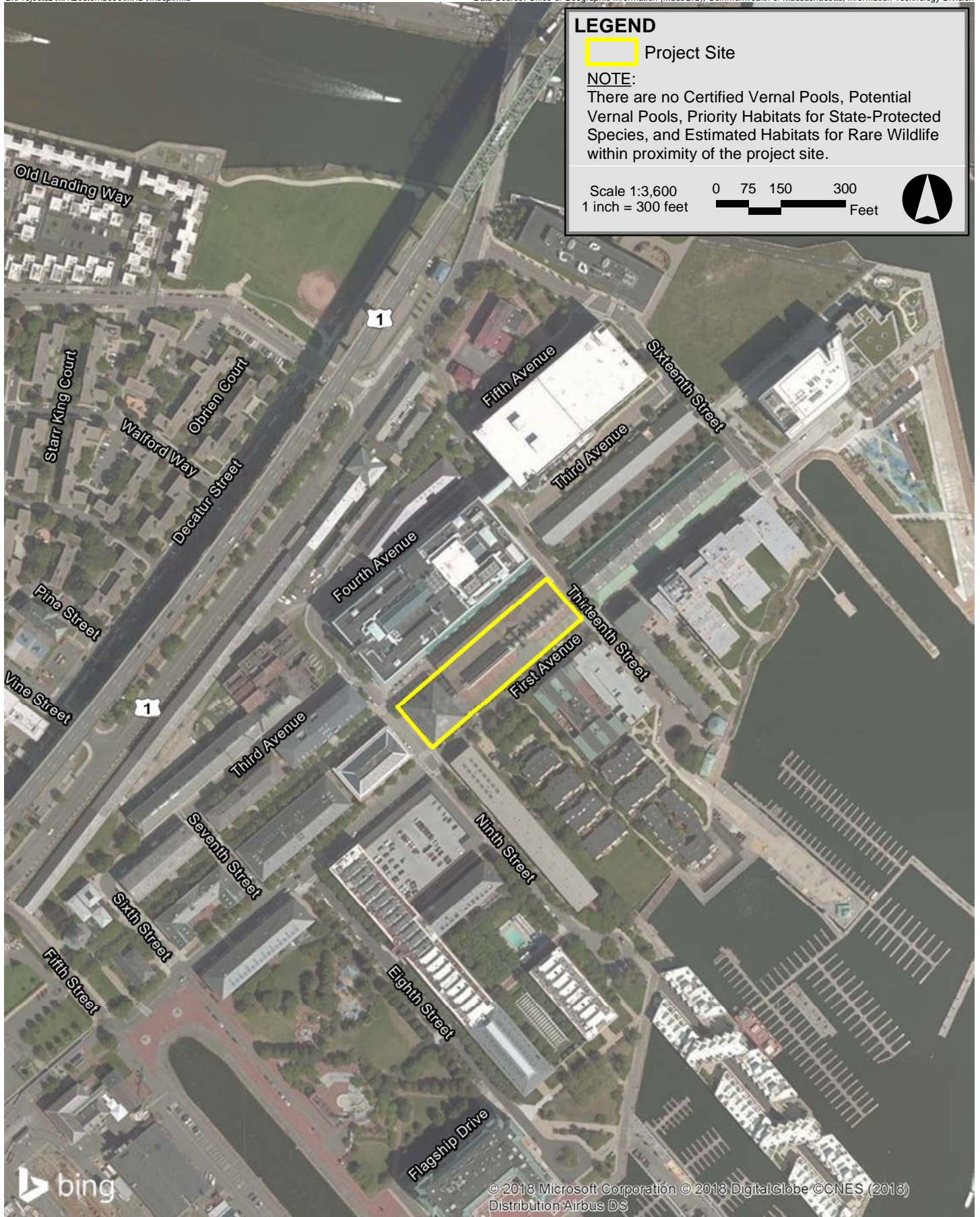


Chain Forge - 105 First Avenue Boston, Massachusetts





Chain Forge - 105 First Avenue Boston, Massachusetts



Chain Forge - 105 First Avenue Boston, Massachusetts

Attachment C

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Site Photographs



**Photo 1:** View facing west from the intersection of 1<sup>st</sup> Avenue and 13<sup>th</sup> Street.



**Photo 2:** View facing north west from 1<sup>st</sup> Avenue.

105 First Avenue, Boston, MA



**Photo 3:** View facing north from the intersection of 1<sup>st</sup> Avenue and 9<sup>th</sup> Street.



**Photo 4:** View facing northeast from 1<sup>st</sup> Avenue.

105 First Avenue, Boston, MA

**Attachment D**

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Filing Fee Information





**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
Cat 2J Limited work in LSCSF	1	500	\$500
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

**Step 5/Total Project Fee:** \_\_\_\_\_

**Step 6/Fee Payments:**

Total Project Fee:	<u>\$500.00</u>
State share of filing Fee:	a. Total Fee from Step 5 <u>\$237.50</u>
City/Town share of filing Fee:	b. 1/2 Total Fee <b>less</b> \$12.50 <u>\$1500.00 (Local fee)</u> c. 1/2 Total Fee <b>plus</b> \$12.50

**C. Submittal Requirements**

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

Department of Environmental Protection  
 Box 4062  
 Boston, MA 02211

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

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



EPSILON ASSOCIATES, INC.  
3 MILL & MAIN PLACE  
STE 260  
MAYNARD, MA 01754

Middlesex Savings Bank  
CONCORD, MA 01742  
531.7122/2113

36278

3/6/2018

PAY TO THE ORDER OF Commonwealth of Massachusetts

\$ \*\*237.50

Two Hundred Thirty-Seven and 50/100\*\*\*\*\* DOLLARS

Commonwealth of Massachusetts

PROTECTED AGAINST FRAUD

*T&V Only*

⑈036278⑈ ⑆211371227⑆ 800205855⑈

CASH ONLY IF ALL CheckLock™ SECURITY FEATURES LISTED ON BACK INDICATE NO TAMPERING OR COPYING

EPSILON ASSOCIATES, INC.  
3 MILL & MAIN PLACE  
STE 260  
MAYNARD, MA 01754

Middlesex Savings Bank  
CONCORD, MA 01742  
531.7122/2113

36279

3/6/2018

PAY TO THE ORDER OF City of Boston

\$ \*\*1,500.00

One Thousand Five Hundred and 00/100\*\*\*\*\* DOLLARS

City of Boston

PROTECTED AGAINST FRAUD

*T&V Only*

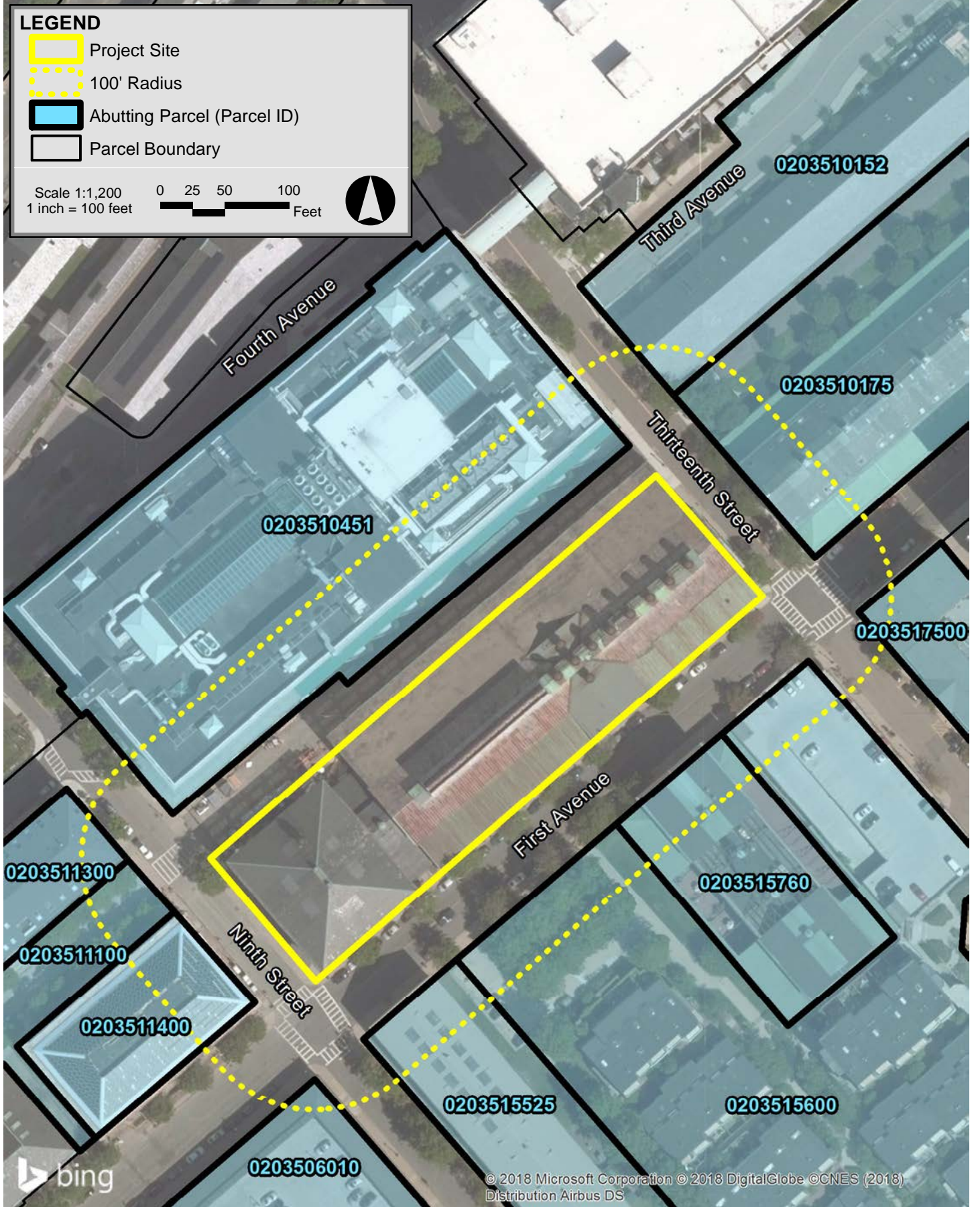
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**Attachment E**

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Abutter Notification Information



Chain Forge - 105 First Avenue Boston, Massachusetts

**NOTIFICATION TO ABUTTERS  
UNDER THE MASSACHUSETTS WETLAND PROTECTION ACT**

In accordance with the second paragraph of Massachusetts General Laws Chapter 131, Section 40, you are hereby notified of the following:

- A. The name of the applicant is **XX**.
- B. The applicant has filed a Notice of Intent application with the Boston Conservation Commission seeking an Order of Conditions which authorizes **XXX** subject to jurisdiction under the Massachusetts Wetlands Protection Act (General Laws Chapter 131, Section 40). Project activities will impact Land Subject to Coastal Storm Flowage.
- C. The address of the lot where the activity is proposed is **105 First Avenue**.
- D. Copies of the NOI and site plans may be examined or obtained for a fee from either the:
  - Copies of the Notice of Intent may be examined at the Copies of the NOI and site plans may be examined at the **Boston Conservation Commission office located at City Hall, Room 709 Monday through Friday 8:30 am to 5:30 pm. Please call for an appointment (617-635-3850). Please leave a message on the voice mail if no one is available to answer the phone.** Copy fees may be applicable.
  - Copies of the NOI and site plans may be obtained from the applicant's representative, **Epsilon Associates, Inc, by calling 978-897-7100 between the hours of 9:00 a.m. and 5:00 p.m., Monday through Friday.**
- E. Information regarding the time, date and place of the public hearing may also be obtained from the **Boston Conservation Commission by calling 617-635-3850 Monday through Friday 8:30 am to 5:30 pm. It is anticipated that a public hearing will be held on March 21, 2018 but please contact the Conservation Commission to confirm the meeting date, time and location.**

NOTE: Notice of the public hearing, including its date, time and place, will be published at least five (5) days in advance in the **Boston Herald**.

NOTE: Notice of the public hearing, including its date, time and place, will be posted in City Hall at least forty-eight (48) hours in advance.

NOTE: You also may contact the Conservation Commission or the Northeast Regional Department of Environmental Protection for more information about this application or the Wetlands Protection Act. To contact the Northeast Regional Department of Environmental Protection Office, call (978) 694-3200.

<b>PID_LONG</b>	<b>YEAR</b>	<b>PID</b>	<b>ZIPCODE</b>	<b>LU</b>
0203506010	2017	0203506010	02129	Condominium main
0203510152	2017	0203510152	02129	Tax-exempt
0203510175	2017	0203510175	02129	Condominium main
0203510451	2017	0203510451	02129	Tax-exempt
0203511100	2017	0203511100	02129	Tax-exempt
0203511300	2017	0203511300	02129	Tax-exempt
0203511400	2017	0203511400	02129	Condominium main
0203515525	2017	0203515525	02129	Residential 7 or more units
0203515600	2017	0203515600	02129	Condominium main
0203515760	2017	0203515760	02129	Residential 7 or more units
0203517500	2017	0203517500	02129	Condominium main

<b>OWNER</b>	<b>AV_LAND</b>	<b>AV_BLDG</b>	<b>AV_TOTAL</b>	<b>GROSS_TAX</b>	<b>LAND_SF</b>
THE PARRIS LANDING COND TRST	0	0	0	0.000000000000	230251
BOSTON REDEVELOPMENT AUTH	3136700	0	3136700	0.000000000000	52078
BASILICA LEASEHOLD	0	0	0	0.000000000000	93542
CONSTITUTION OFFICE PARK LE	39788700	152796300	192585000	0.000000000000	99974
BOSTON REDEVELOPMENT AUTH	1736000	0	1736000	0.000000000000	25688
YMCA OF GREATER BOSTON INC	4047800	3954200	8002000	0.000000000000	14762
STARBOARD LEASEHOLD	0	0	0	0.000000000000	15362
BUILDING 103 ASSOC LP	6701000	11239000	17940000	189984.600000000000	45474
SHIPWAYS CONDOMINIUM ASSN	0	0	0	0.000000000000	143926
BRICKLAYERS BUILDING 104 LLC	2014500	1365000	3379500	35838.910000000000	23289
CHARLESTOWN NAVY YARD	0	0	0	0.000000000000	28820

<b>LIVING_ARE</b>	<b>GIS_ID</b>	<b>FULL_ADDRE</b>
	0 0203506010	42 EIGHTH ST, 02129
	0 0203510152	75 THIRTEENTH ST, 02129
	0 0203510175	SIXTEENTH ST, 02129
704270	0203510451	THIRTEENTH ST, 02129
	0 0203511100	SEVENTH ST, 02129
106000	0203511300	150 THIRD AV, 02129
	0 0203511400	45 FIRST ST, 02129
81000	0203515525	NINTH ST, 02129
	0 0203515600	FIRST AV, 02129
59849	0203515760	FIRST AV, 02129
	0 0203517500	77 A-103 THIRTEENTH ST, 02129

**Affidavit of Service**  
**Under The Massachusetts Wetlands Protection Act**

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I, **Alyssa Jacobs**, hereby certify under the pains and penalties of perjury that on **March 7, 2018**, Epsilon Associates, Inc. gave notification to abutters in compliance with the second paragraph of Massachusetts General Laws Chapter 131, Section 40, the DEP Guide to Abutter Notification dated April 8, 1994 in connection with the following matter:

A **Notice of Intent** application was filed under the Massachusetts Wetland Protection Act by Chain Forge LLC on **March 7, 2018** for property located at **105 First Avenue** in Boston, MA.

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



Alyssa Jacobs, PWS  
Senior Consultant

March 7, 2018  
DATE



**Attachment F**

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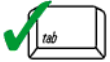
Site Plans and Stormwater Checklist Form



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

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

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

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

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

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



# Checklist for Stormwater Report

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## 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.

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### 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

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Signature and Date

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## 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

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## 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

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## 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 Field<sup>1</sup>
- Runoff from all impervious areas at the site discharging to the infiltration BMP.
- Runoff from all impervious areas at the site is *not* discharging to the infiltration BMP and calculations are provided showing that the drainage area contributing runoff to the infiltration BMPs is sufficient to generate the required recharge volume.
- Recharge BMPs have been sized to infiltrate the Required Recharge Volume.
- Recharge BMPs have been sized to infiltrate the Required Recharge Volume *only* to the maximum extent practicable for the following reason:
  - Site is comprised solely of C and D soils and/or bedrock at the land surface
  - M.G.L. c. 21E sites pursuant to 310 CMR 40.0000
  - Solid Waste Landfill pursuant to 310 CMR 19.000
  - Project is otherwise subject to Stormwater Management Standards only to the maximum extent practicable.
- Calculations showing that the infiltration BMPs will drain in 72 hours are provided.
- Property includes a M.G.L. c. 21E site or a solid waste landfill and a mounding analysis is included.

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



# Checklist for Stormwater Report

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## 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

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## 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

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## 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

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## 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.

# THE CHAIN FORGE HOTEL

## CHARLESTOWN, MA

### CONSERVATION COMMISSION FILING:

- EXISTING CONDITIONS PLAN (GEOD - Preliminary 10/02/2014)
- ALTA/NSPS LAND TITLE SURVEY (Feldman - Draft 02/22/2018)
- C100-UTILITY SITE PLAN-3845-S6
- C101-SITE LAYOUT PLAN-3845-S6
- C102-SEWER PROFILES
- C103-SITE DETAILS PLAN
- C104-SITE DETAILS PLAN
- C105-SITE DETAILS PLAN



ARCHITECT

**bh+a**

Bargmann Hendrie + Archetype, Inc.  
300 A Street  
Boston, MA 02210  
617 350-0450 Tel

PROJECT NAME

**The Chain Forge Hotel**

105 First Avenue  
Charlestown, MA 02109

CLIENT

**CV Properties**

451 D Street  
Boston MA 02210

PROJECT TEAM

**MEP/FP Engineer**  
AHA Consulting Engineers  
24 Hartwell Avenue, 3rd Floor  
Lexington, MA 02421  
(781) 372-3000

**Structural Engineer**  
McNamara Salvia  
101 Federal Street, 11th Floor  
Boston, MA 02110  
(617) 737-0040

**Civil Engineer**  
HW Moore Associates, Inc.  
112 Shawmut Ave.  
Boston, MA 02118  
(617) 357-8145

**Landscape Engineer**  
Kyle Zick Landscape Architecture  
36 Bromfield Street, Suite 202  
Boston, MA 02108  
(617) 451-1018

REVISIONS

1	
2	
3	
4	
5	DATE

DRAWING TITLE

**Cover Sheet**

DRAWING INFORMATION

March 6, 2018

DATE OF ISSUE

Conservation Commission

DESCRIPTION

SCALE DS DRAWN BY

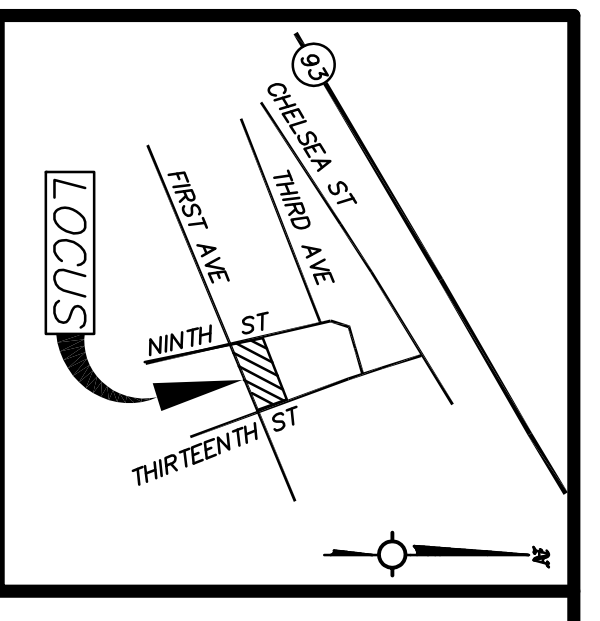
3183 PROJECT # 3183 Chain Forge\_Centr FILE NAME

DRAWING NUMBER

**A000**

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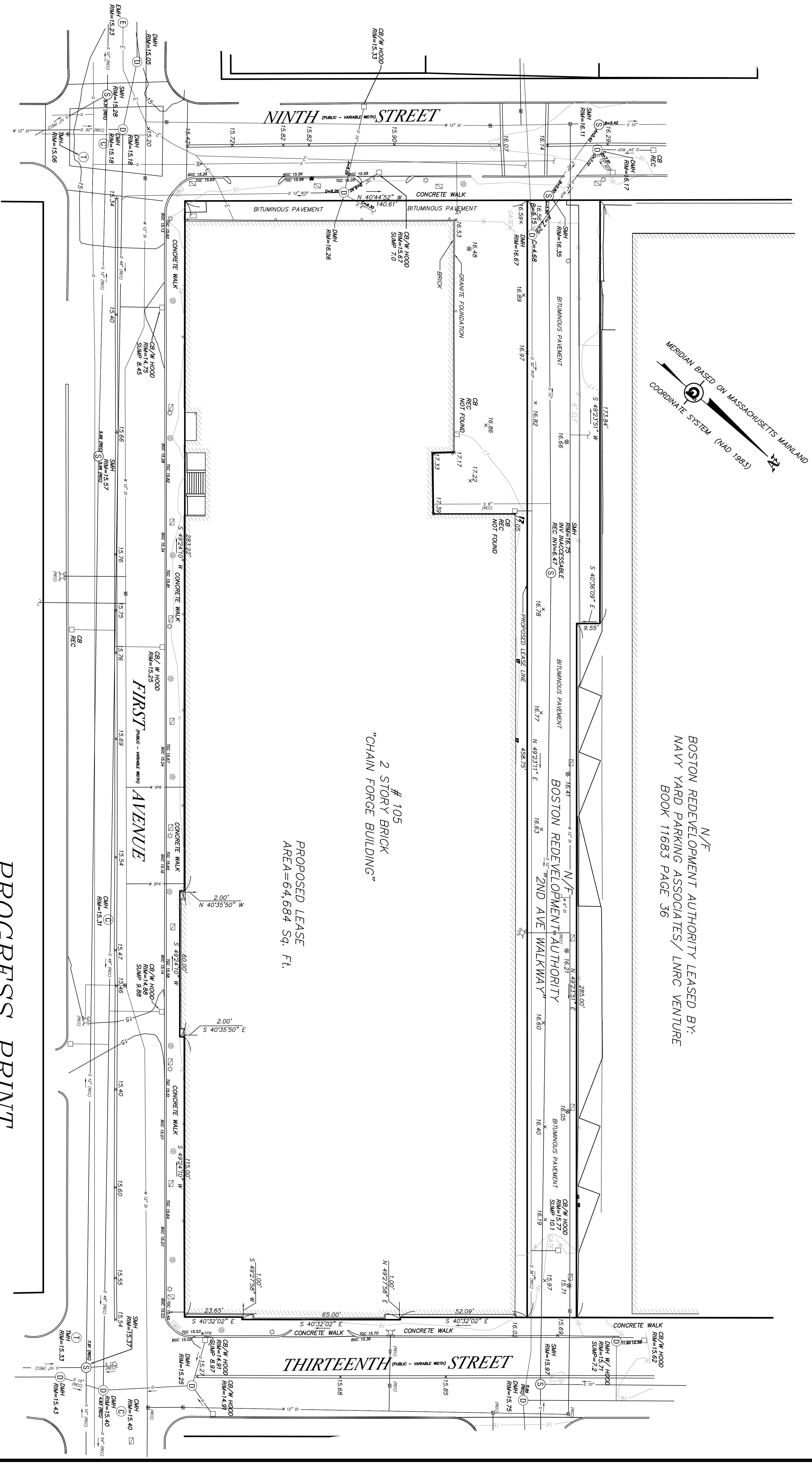




LOCUS MAP:  
NOT TO SCALE

LEGEND

- FLOW DIRECTION
- STONE BOUND
- DRAIN MANHOLE
- SEWER MANHOLE
- CATCH BASIN
- FIRE HYDRANT
- WATER GATE
- WATER SERVICE
- SEWER SERVICE
- GAS SERVICE
- GAS GATE
- SPOT GRADE
- BOLLARD
- ELECTRIC MANHOLE
- FIREBOX
- EXISTING LIGHT
- TELEPHONE MANHOLE
- SIGN
- ELECTRIC BOX
- DOWNSPOUT
- FIRE ALARM BOX
- HANDICAP RAMP
- HANDHOLE
- STORM DRAIN
- SANITARY SEWER
- WATER MAIN
- GAS MAIN
- UNDERGROUND ELECTRIC
- OVERHEAD WIRES
- 1" CONTOUR
- 5' CONTOUR
- DECIDUOUS TREE
- EXISTING MONUMENT
- DOUBLE YELLOW LINE
- VERTICAL GRANITE CURB 8802 7X76 WITH ELEVATIONS



MERIDIAN BASED ON MASSACHUSETTS MAINLAND  
COORDINATE SYSTEM (NAD 1983)

N/F  
BOSTON REDEVELOPMENT AUTHORITY LEASED BY:  
NAVY YARD PARKING ASSOCIATES/ LNRC VENTURE  
BOOK 11683 PAGE 36

# 105  
2 STORY BRICK  
"CHAIN FORGE BUILDING"

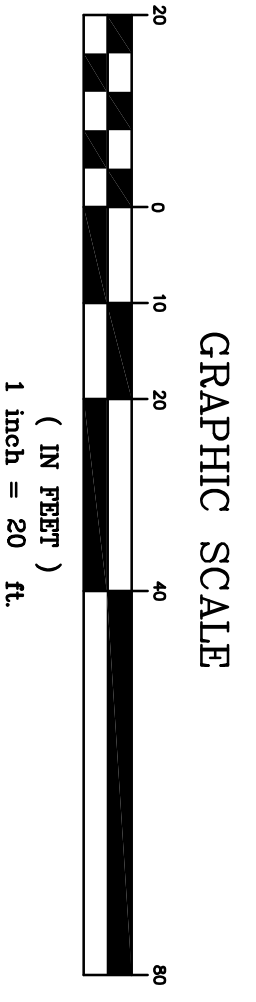
PROPOSED LEASE  
AREA=64,684 Sq. Ft.

PROGRESS PRINT

REFERENCES

BOOK	PAGE	DESCRIPTION
11683	36	BPA DEED FOR PARCEL 1 LEASE FOR ABUTTOR
8995	262	PARCEL 1 FIRST AVENUE LAYOUT
L 11334		THIRTEENTH STREET LAYOUT
L 11337		NINTH STREET LAYOUT
L 10776		

- NOTES:
1. THE TOPOGRAPHICAL AND BOUNDARY SURVEY SHOWN HEREON WAS OBTAINED FROM AN ACTUAL FIELD SURVEY CONDUCTED ON MAY 20, 2014 BY GEOD CONSULTING, INC.
  2. THE LOCATION OF ALL UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE AND ARE BASED UPON A FIELD SURVEY AND COMPILATION OF PLANS OF RECORD. GEOD CONSULTING, INC. DOES NOT WARRANT THE LOCATION OF ALL UTILITIES AS SHOWN. THE RECORD INFORMATION FROM THE GAS AND ELECTRIC COMPANIES WERE NOT RECEIVED AT THIS TIME. THE CONTRACTOR, PRIOR TO CONSTRUCTION, SHALL VERIFY THE LOCATION OF ALL UTILITIES AND CONTACT DIG SAFE AT 1-888-344-7233.
  3. THE ELEVATIONS SHOWN HEREON WERE BASED ON BOSTON CITY BASE DATUM.
  4. THE PURPOSE OF THIS PLAN IS TO PROVIDE A RECORD CONDITIONS PLAN CONSISTING OF OBSERVABLE SURFACE FEATURES AT THE TIME AND DATE OF THE FIELD SURVEY.



I CERTIFY THAT THIS SURVEY AND PLAN WERE PREPARED IN ACCORDANCE WITH THE PROCEDURAL AND TECHNICAL STANDARDS FOR THE PRACTICE OF LAND SURVEYING IN THE COMMONWEALTH OF MASSACHUSETTS.

LOCUS & RECORD OWNER:  
BOSTON REDEVELOPMENT AUTHORITY  
PROPOSED LEASE BY KAVANAGH ADVISORY GROUP LLC

LAND SURVEYOR  
PLS# 49930

DWG. No. 14668M

NO.	DATE	DESCRIPTION	BY	CHK'D.

EXISTING CONDITIONS PLAN  
LOCATED AT  
**105 FIRST AVENUE**  
CHARLESTOWN, MASSACHUSETTS

PREPARED FOR  
**KAVANAGH ADVISORY GROUP, LLC**  
DATE: OCTOBER 2, 2014

SCALE: 1" = 20'

GEOD CONSULTING  
ENGINEERING, TRANSPORTATION, SURVEYING  
24 Roy Avenue, Burlington, MA 01803  
Phone (781) 273-3434 Fax (781) 273-3430

SHEET No. 1 OF 1 PROJECT No. 14668M

**NOTES:**

- LOCATIONS AND ELEVATIONS OF UNDERGROUND PIPES AND CONDUITS HAVE BEEN DETERMINED FROM THE REFERENCED PLAN AND SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. H.W. MOORE ASSOCIATES, INC. ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES INACCURATELY SHOWN OR OMITTED BEFORE PLANNING FUTURE CONNECTIONS. THE PROPER UTILITY DEPARTMENT SHALL BE NOTIFIED AND THE ACTUAL LOCATIONS OF SUBSURFACE STRUCTURES SHALL BE VERIFIED IN THE FIELD. CALL THE BWSC (617)989-7000 AND DIG-SAFE CALL CENTER, (888)344-7233, 72 HOURS (3 WORKING DAYS) PRIOR TO EXCAVATION.
- ALL CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM TO BWSC REQUIREMENTS AND ALL OTHER APPLICABLE MUNICIPAL REGULATIONS.
- ALL DISTURBANCES WITHIN THE TRAVELED WAYS SHALL CONFORM TO CITY AND BWSC STANDARDS.
- THIS PLAN HAS BEEN PREPARED FOR APPROVAL OF THE WATER, DRAIN AND SEWER CONNECTIONS TO THE BWSC FACILITIES. IT IS UNDERSTOOD THAT THE RESPONSIBILITY OF OWNERSHIP AND MAINTENANCE OF THE SEWER CONNECTIONS ON PRIVATE PROPERTY AND/OR PRIVATE AND PUBLIC WAYS SHALL BE THE RESPONSIBILITY OF THE DEVELOPER AND/OR OWNERS. IT IS ALSO UNDERSTOOD THAT THE WATER CONNECTIONS ON PRIVATE PROPERTY INCLUDING PRIVATE WAYS ARE ALSO THE RESPONSIBILITY OF THE DEVELOPER AND/OR OWNERS, IF THE CONNECTIONS CROSS, OR ARE NEAR INDIVIDUAL PROPERTY LINES, 20. PROVISIONS MUST BE MADE TO ALLOW EACH OWNER TO MAINTAIN OR RECONSTRUCT THEIR RESPECTIVE CONNECTIONS. THIS FACT MUST BE INCORPORATED INTO ANY PURCHASE AND SALES AGREEMENT AND DEEDS RELATED TO THE TRANSFER OF OWNERSHIP OF THE PROPERTIES.
- THE PROPOSED BUILDING CONNECTIONS (BY PLUMBER) SHALL BE 10' OUTSIDE THE FOUNDATION WALL.
- SITE CONTRACTOR TO PROVIDE ALL EXCAVATION, INSTALLATION, BACK FILLING, PAVEMENT PATCHING, ETC. FOR THE INSTALLATION OF UNDERGROUND GAS, ELECTRIC, TELEPHONE, FIRE ALARM, WATER, SEWER, DRAIN AND SIMILAR SERVICES.
- IF EXISTING ABANDONED BWSC SERVICES ARE ENCOUNTERED THEY SHALL BE CUT AND CAPPED AT THE MAIN PER BWSC STANDARDS.
- THE SEWER GRAVITY PIPE SHALL BE POLYVINYL CHLORIDE (PVC) PIPE SDR 35 CONFORMING TO ASTM STANDARD SPECIFICATIONS D3034 UNLESS OTHERWISE NOTED.
- STORM DRAIN PIPES SHALL BE POLYVINYL CHLORIDE (PVC) PIPE SDR 35 CONFORMING TO ASTM STANDARD SPECIFICATIONS D3034.
- CONTRACTOR IS TO OBTAIN THE ROUGH CONSTRUCTION SIGN OFF DOCUMENT FROM THE CITY OF BOSTON INSPECTORIAL SERVICES DEPARTMENT PRIOR TO FILING A GENERAL SERVICES APPLICATION WITH BWSC.
- CONTRACTOR WILL BE RESPONSIBLE FOR PREPARING AS-BUILT PLANS IN ACCORDANCE WITH BWSC REQUIREMENTS.
- CONTRACTOR TO CONFIRM THE LOCATIONS AND INVERTS OF THE EXISTING UTILITIES IN THE STREET PRIOR TO THE INSTALLATION OF NEW SERVICE CONNECTIONS. SERVICES SHALL BE FIELD VERIFIED BEFORE BEGINNING CONSTRUCTION.
- ANY CONSTRUCTION DEWATERING SHALL EMPLOY MEASURES TO FILTER OUT SEDIMENT PRIOR TO ITS DISCHARGE AND SHALL CONFORM WITH BWSC REQUIREMENTS. CONTRACTOR TO SUBMIT A SKETCH OF THESE TO THE ARCHITECT FOR APPROVAL.

- CONTRACTOR TO EMPLOY MEASURES TO CONTROL DUST DURING CONSTRUCTION.
- RIM ELEVATIONS OF DRAINAGE STRUCTURES ARE APPROXIMATE. FINAL ELEVATIONS ARE TO BE SET FLUSH. ADJUST ALL OTHER RIM ELEVATIONS OF EXISTING MANHOLES, WATER GATES, GAS GATES AND OTHER UTILITIES TO FINISHED GRADE WITHIN LIMITS OF SITE WORK.
- THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE, FIRE ALARM AND OTHER PRIVATE COMPANIES, AS REQUIRED.
- COORDINATE CATV, TELEPHONE AND GAS INSTALLATION WITH THE UTILITY COMPANIES.
- LOCATIONS OF 'CUT & CAPS' FOR THE EXISTING BUILDINGS UTILITY SERVICES ARE APPROXIMATE ONLY. CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING SERVICES TO BE CUT & CAPPED PRIOR TO START OF WORK.
- FIRE AND DOMESTIC SERVICES SHALL BE DUCTILE IRON, MANUFACTURED IN ACCORDANCE WITH THE REQUIREMENTS OF ANSI/AWWA C151/A21.51 AND SHALL BE CLASS 56 JOINTS SHALL BE INSTALLED WITH MEGALUG MECHANICAL JOINTS OR EQUAL. DUE TO CORROSIVE SOILS IN THIS AREA, ALL NEW WATER PIPE SHALL BE ZINC COATED PER BWSC SPECIFICATIONS.
- SEE PLUMBING PLANS FOR ALL PIPE WORK WITHIN BUILDING.
- SEE ARCHITECTURAL PLANS FOR COMPONENTS OF EXISTING BUILDING TO BE DEMOLISHED AND/OR SALVAGED.
- THE RIM ELEVATIONS OF ALL UTILITY STRUCTURES WITHIN THE LIMITS OF WORK SHALL BE ADJUSTED TO FINISHED GRADE.
- CONTRACTOR TO SAWCUT EXISTING PAVEMENTS FOR PROPOSED UTILITY TRENCHES.

**REFERENCES:**

- EXISTING CONDITIONS, PROPERTY LINES, UTILITIES AND GRADES TAKEN FROM A PLAN TITLED 'EXISTING CONDITIONS PLAN LOCATED AT 105 FIRST AVENUE CHARLESTOWN, MASSACHUSETTS' DATED OCTOBER 2, 2014, PREPARED BY GEOD CONSULTING. THIS FILE WAS RECEIVED BY EMAIL ON SEPTEMBER 14, 2017 FROM BARGMANN HENDRIE + ARCHETYPE. THIS PLAN WAS ISSUED BY GEOD CONSULTING AS A "PROGRESS PRINT".
- PROPOSED BUILDING REHABILITATION PLANS TAKEN FROM A FILE NAMED A101 - First Floor.dwg RECEIVED BY EMAIL ON SEPTEMBER 14, 2017 FROM BARGMANN HENDRIE + ARCHETYPE.
- FEMA FLOOD ZONE LINE DELINEATING ZONE "X" AND ZONE "AE" HAS BEEN TAKEN FROM A DIGITAL FILE OF A PLAN TITLED 'ALTAN'S LAND TITLE SURVEY, 105 FIRST AVENUE, BOSTON, (CHARLESTOWN) MASS.' AND DATED APRIL 26, 2017 AND PREPARED BY FELDMAN LAND SURVEYORS OF BOSTON, MA. DIGITAL FILE RECEIVED ON FEBRUARY 22, 2018.

**STORMWATER INFILTRATION CALCULATIONS**

**DESIGN RUNOFF VOLUME:**

USE 1/2 INCH RAINFALL EVENT PER 9-20-2017 DISCUSSION WITH BWSC.  
PROPOSED LEASE AREA = 64,684 S.F.

RUNOFF VOLUME = 64,684 S.F. x 1/2"/12" = 2,695 C.F.

DESIGN VOLUME = 2,700 C.F.

**PROPOSED INFILTRATION SYSTEM STORAGE VOLUME**

USE 45 LEACHING GALLEYS WITH CRUSHED STONE

GALLEY VOLUME = (4x4x3) x 45 GALLEYS = 2,160 C.F.

STONE VOLUME = [(6x90x4) + (6x94x4) - 2,160 C.F.] x 0.3 VOIDS = 676.8 C.F.

TOTAL VOLUME PROVIDED = 2,160 C.F. + 676.8 C.F. = 2,836.8 C.F.

**STORMWATER STORAGE VOLUME = 2,836.8 C.F. > 2,700 C.F.**

**WATER METER INFORMATION**

EXISTING BWSC WATER ACCOUNT No. :

EXISTING WATER METER No. :

EXISTING WATER METER SIZE =

**ANTICIPATED SEWAGE FLOW**

HOTEL: 230 ROOMS x 110 GPD/ROOM = 25,300 GPD  
RESTAURANT: 400 SEATS x 35 GPD/SEAT = 14,000 GPD

**ANTICIPATED SEWAGE FLOW = 39,300 GPD**

**SERVICE CONNECTION TABLE**

ITEM	QTY	BWSC INSPECTOR/DATE
------	-----	---------------------

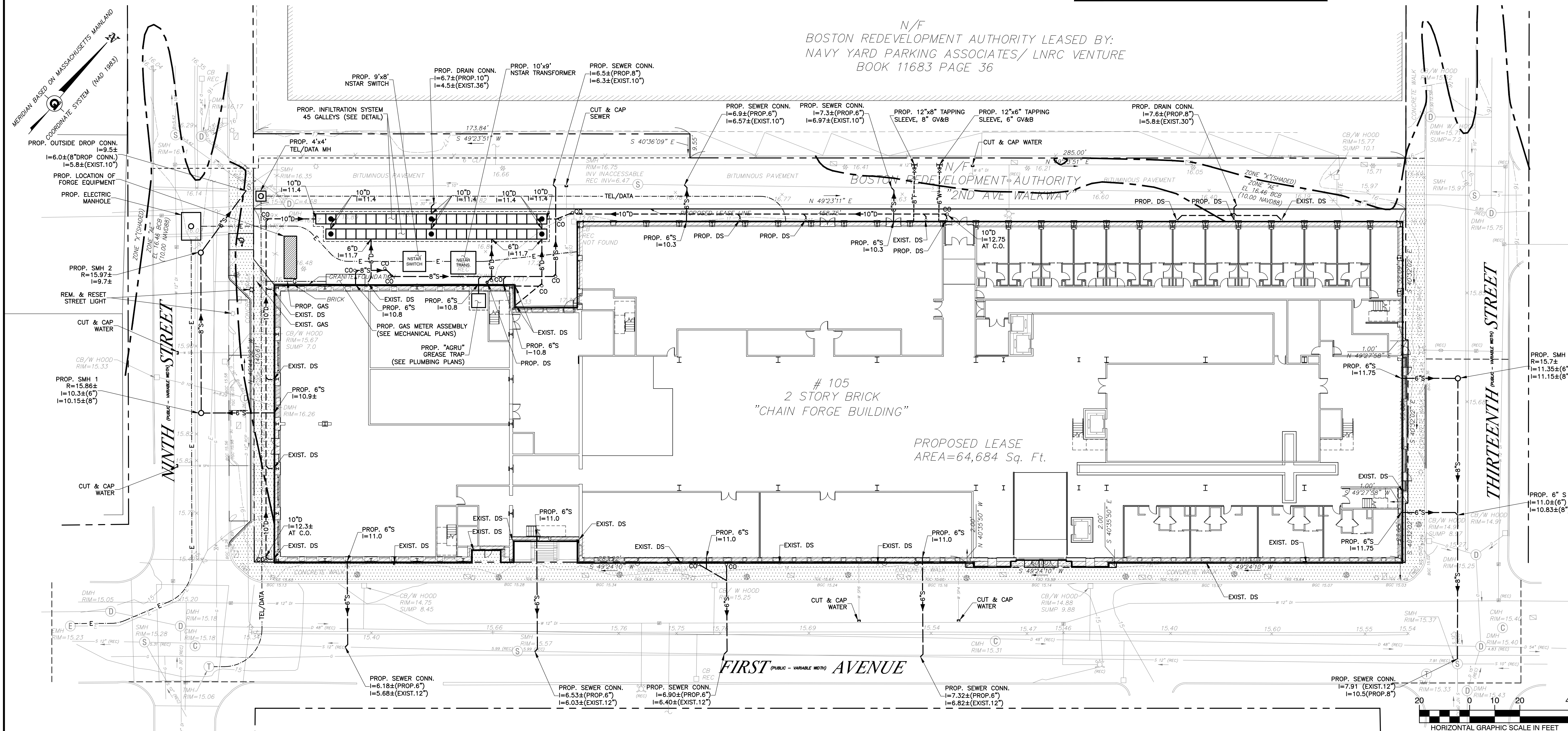
**SPECIAL CONDITIONS**

ITEM	BWSC INSPECTOR/DATE
AS-BUILT PLAN	
CONDITIONS LETTER	

**OWNER**  
BOSTON REDEVELOPMENT AUTHORITY  
ONE CITY HALL SQUARE  
BOSTON, MA 02201-1007

**APPLICANT**  
CV PROPERTIES  
451 D STREET  
BOSTON, MA 02210

LAND USE CODE: "C" - COMMERCIAL



N/F  
BOSTON REDEVELOPMENT AUTHORITY LEASED BY:  
NAVY YARD PARKING ASSOCIATES/ LNRC VENTURE  
BOOK 11683 PAGE 36

# 105  
2 STORY BRICK  
"CHAIN FORGE BUILDING"

PROPOSED LEASE  
AREA=64,684 Sq. Ft.

FIRST AVENUE

HORIZONTAL GRAPHIC SCALE IN FEET

**ARCHITECT**



Bargmann Hendrie + Archetype, Inc.  
300 A Street  
Boston, MA 02210  
617 350-0450 Tel

**PROJECT NAME**

**The Chain Forge Hotel**

105 First Avenue  
Charlestown, MA 02109

**CLIENT**

**CV Properties**

451 D Street  
Boston MA 02210

**PROJECT TEAM**

**MEP/FP Engineer**  
AHA Consulting Engineers  
24 Hartwell Avenue, 3rd Floor  
Lexington, MA 02421  
(781) 372-3000

**Structural Engineer**  
McNamara Salvia  
101 Federal Street, 11th Floor  
Boston, MA 02110  
(617) 737-0040

**Civil Engineer**  
HW Moore Associates, Inc.  
112 Shawmut Ave.  
Boston, MA 02118  
(617) 357-8145

**Landscape Engineer**  
Kyle Zick Landscape Architecture  
36 Bromfield Street, Suite 202  
Boston, MA 02108  
(617) 451-1018

**REVISIONS**

NO.	DATE	DESCRIPTION
1		
2		
3		
4		

**DRAWING TITLE**

**Utility Site Plan**

**DRAWING INFORMATION**

March 6, 2018	DATE OF ISSUE
NOI Submission	DESCRIPTION
1"=20'	SCALE
	DRAWN BY
	FILE NAME

**DRAWING NUMBER**

**C-100**

**BWSC#**

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REVISIONS

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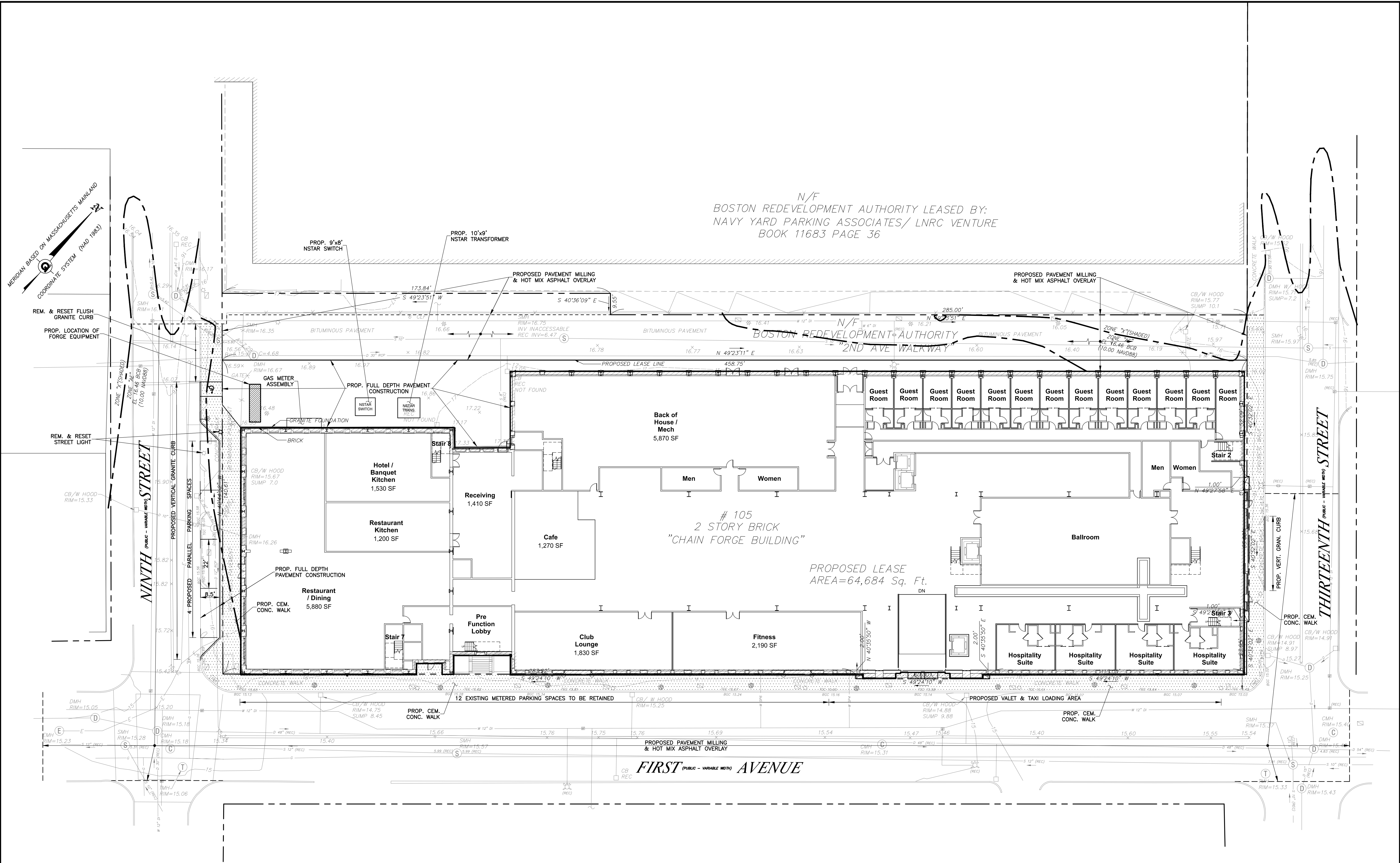
DATE

DRAWING TITLE  
**Site Layout Plan**

DRAWING INFORMATION

March 6, 2018	DATE OF ISSUE
NOI Submission	DESCRIPTION
1"=20'	SCALE
	DRAWN BY
	PROJECT #
	FILE NAME
	DRAWING NUMBER

**C-101**

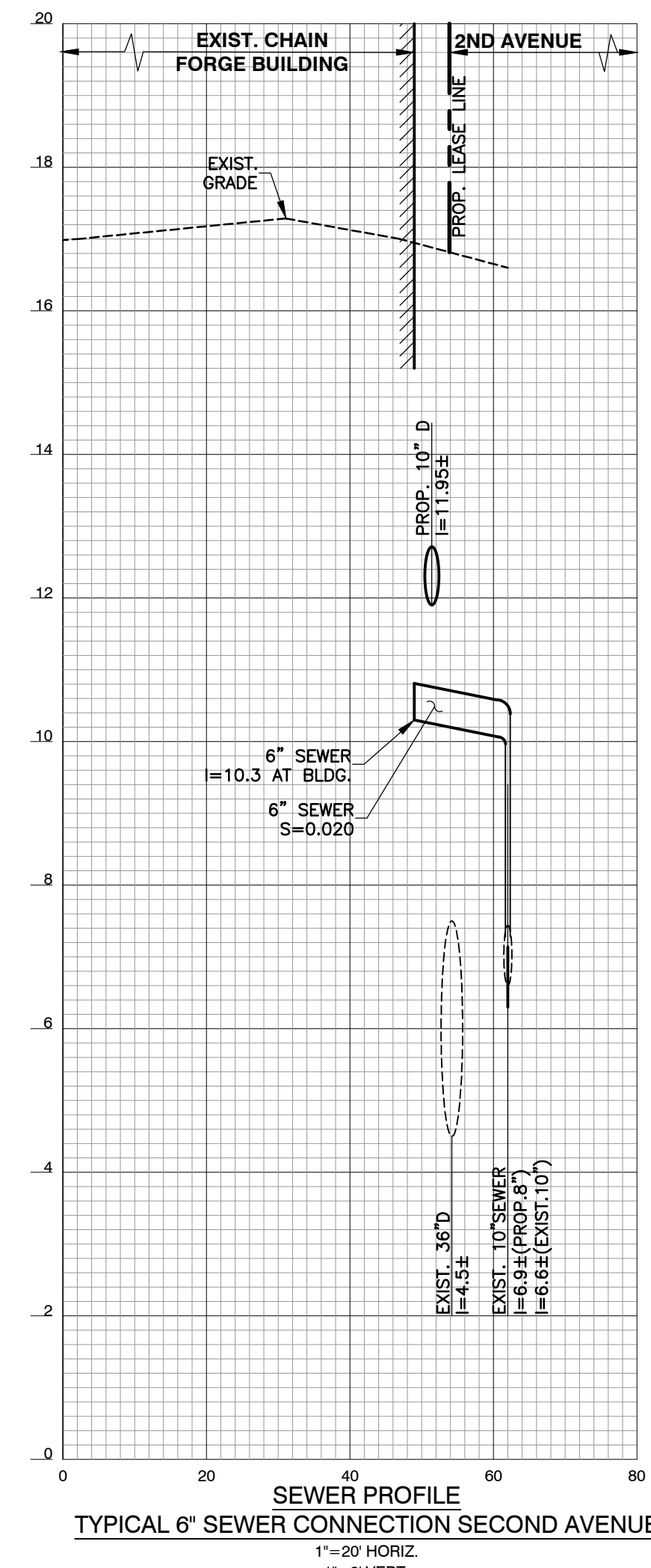
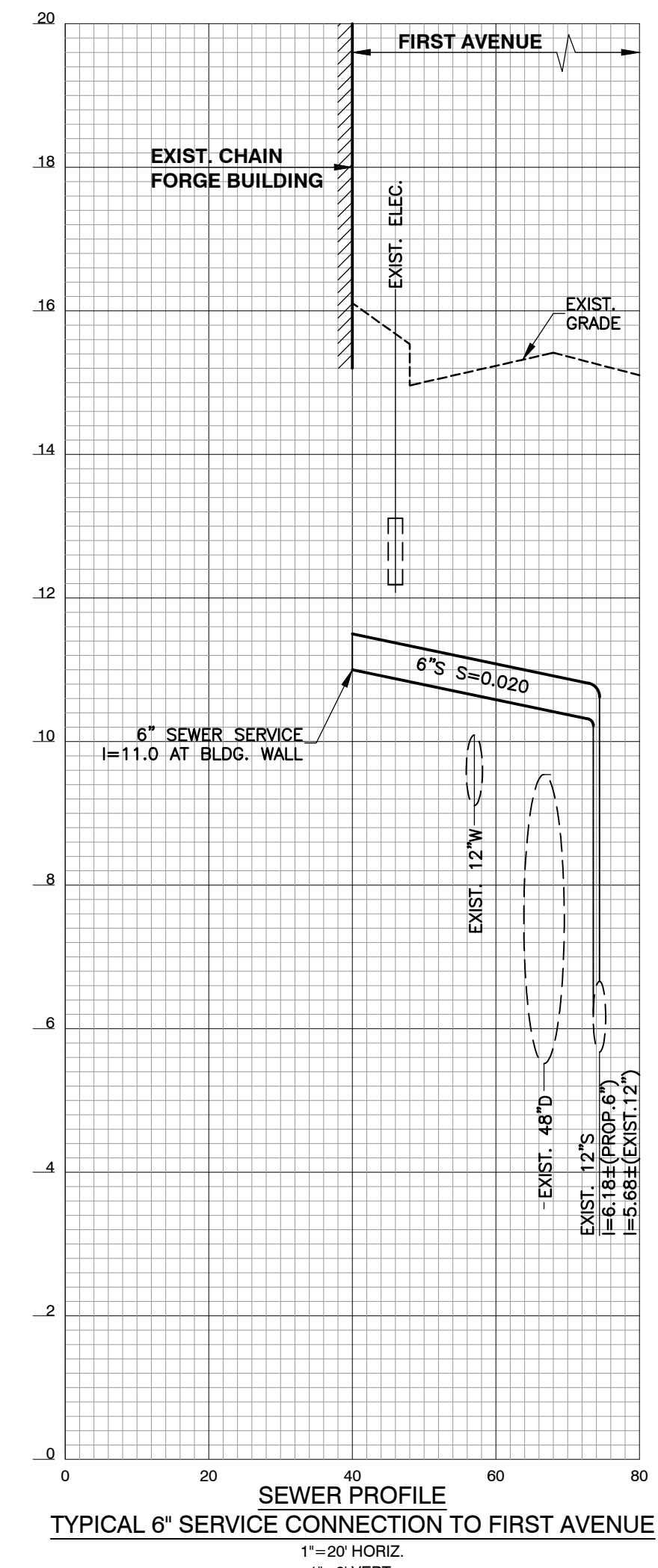
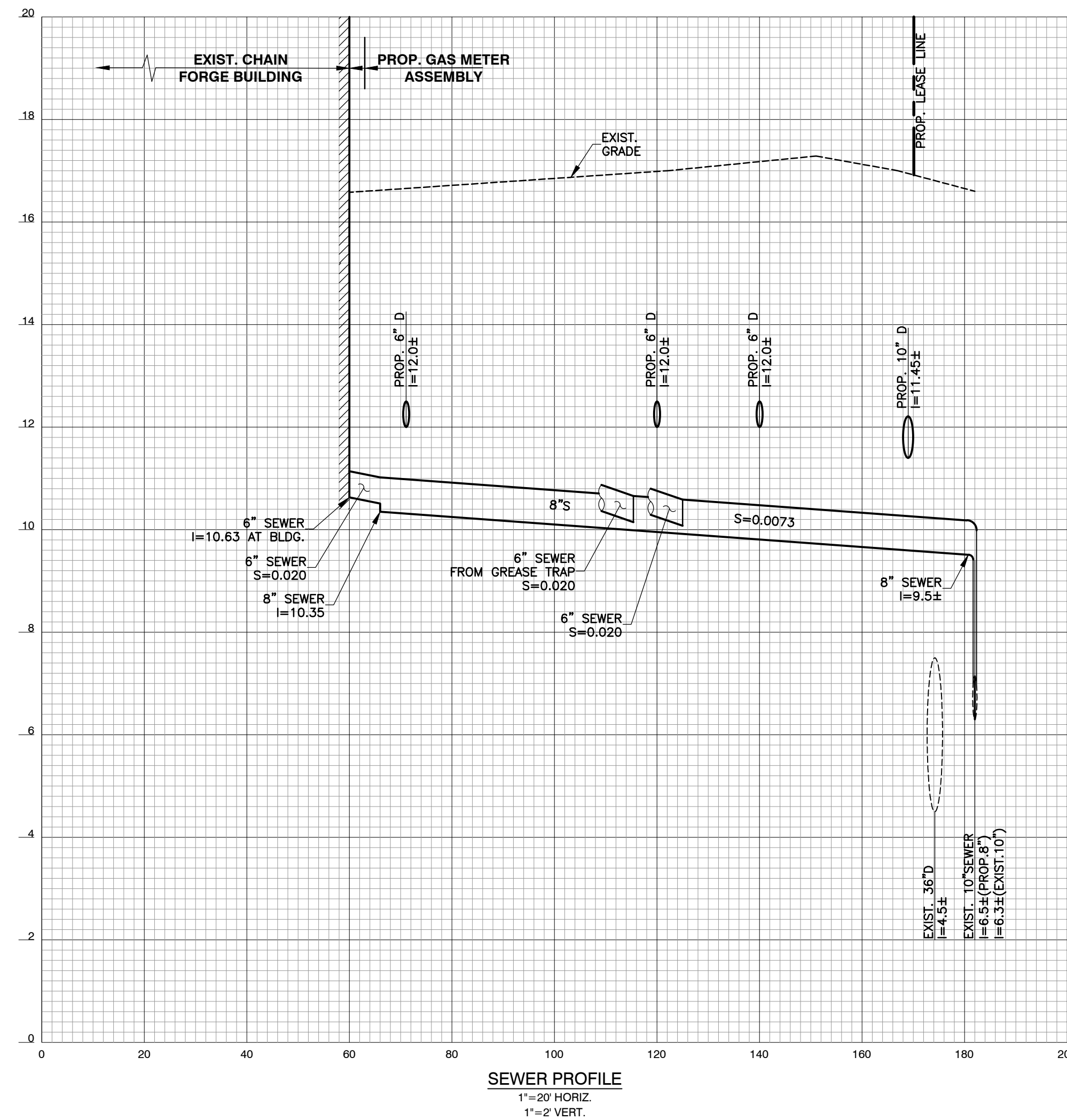
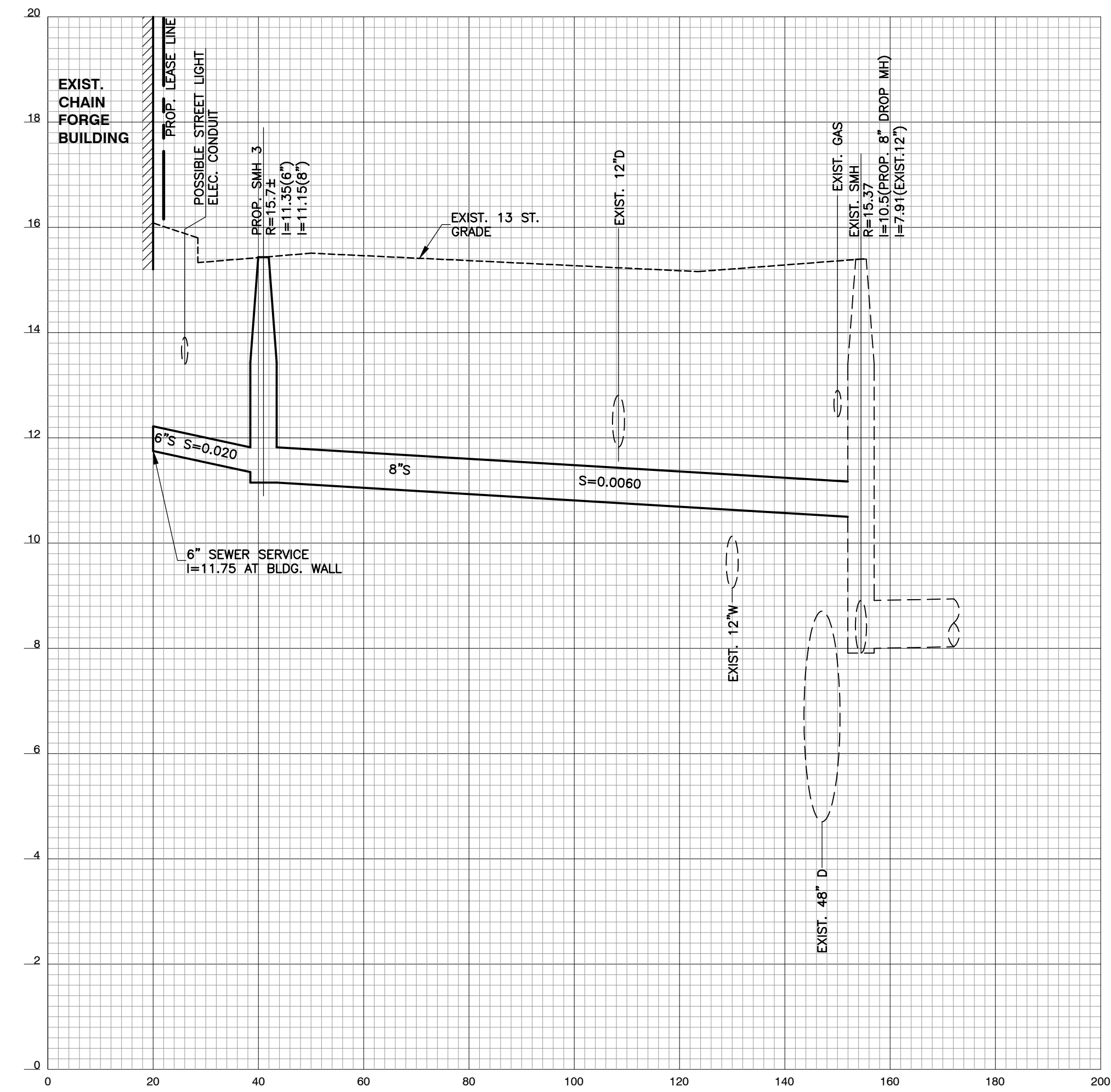
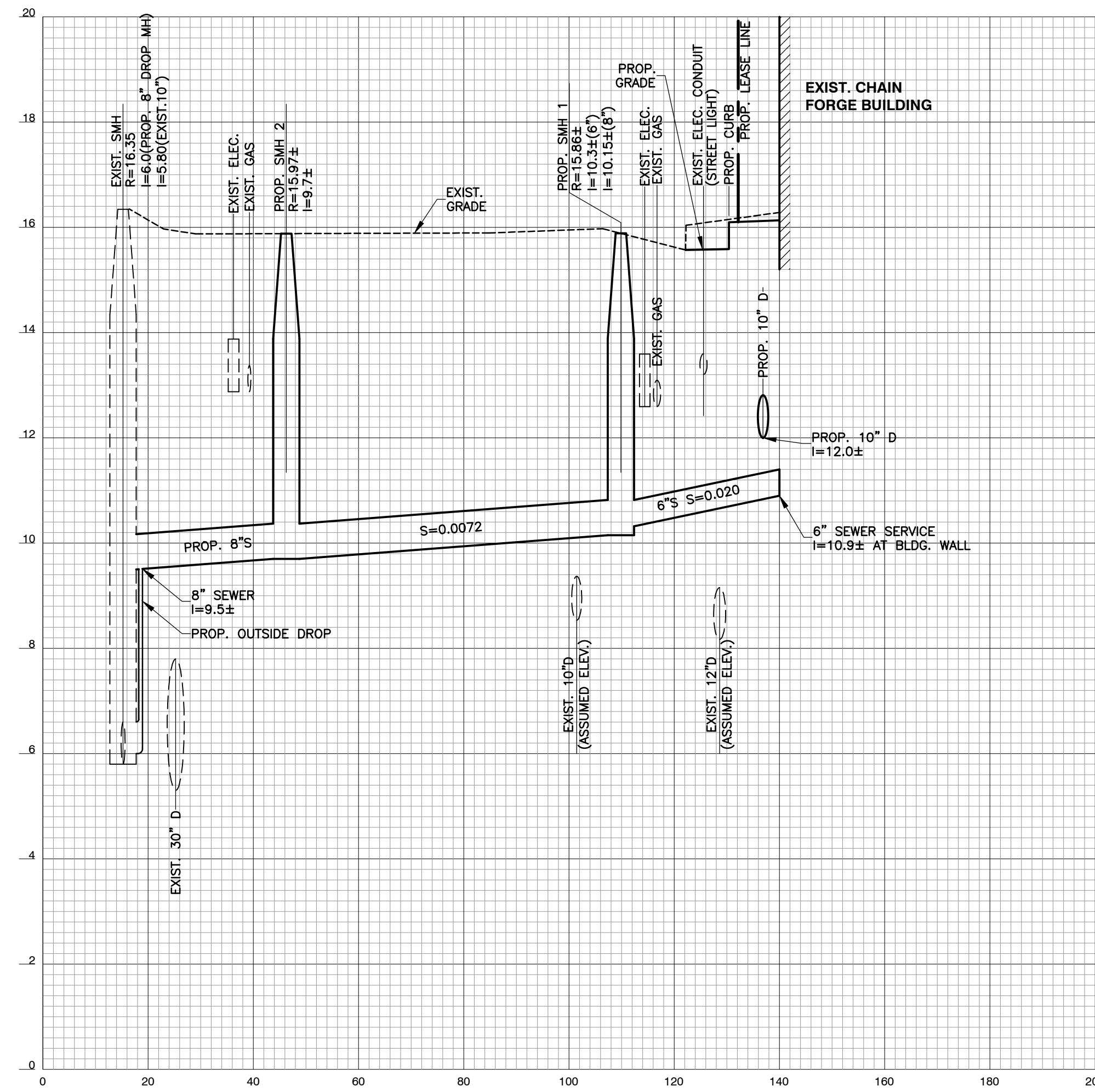


N/F  
 BOSTON REDEVELOPMENT AUTHORITY LEASED BY:  
 NAVY YARD PARKING ASSOCIATES/ LNRC VENTURE  
 BOOK 11683 PAGE 36

# 105  
 2 STORY BRICK  
 "CHAIN FORGE BUILDING"

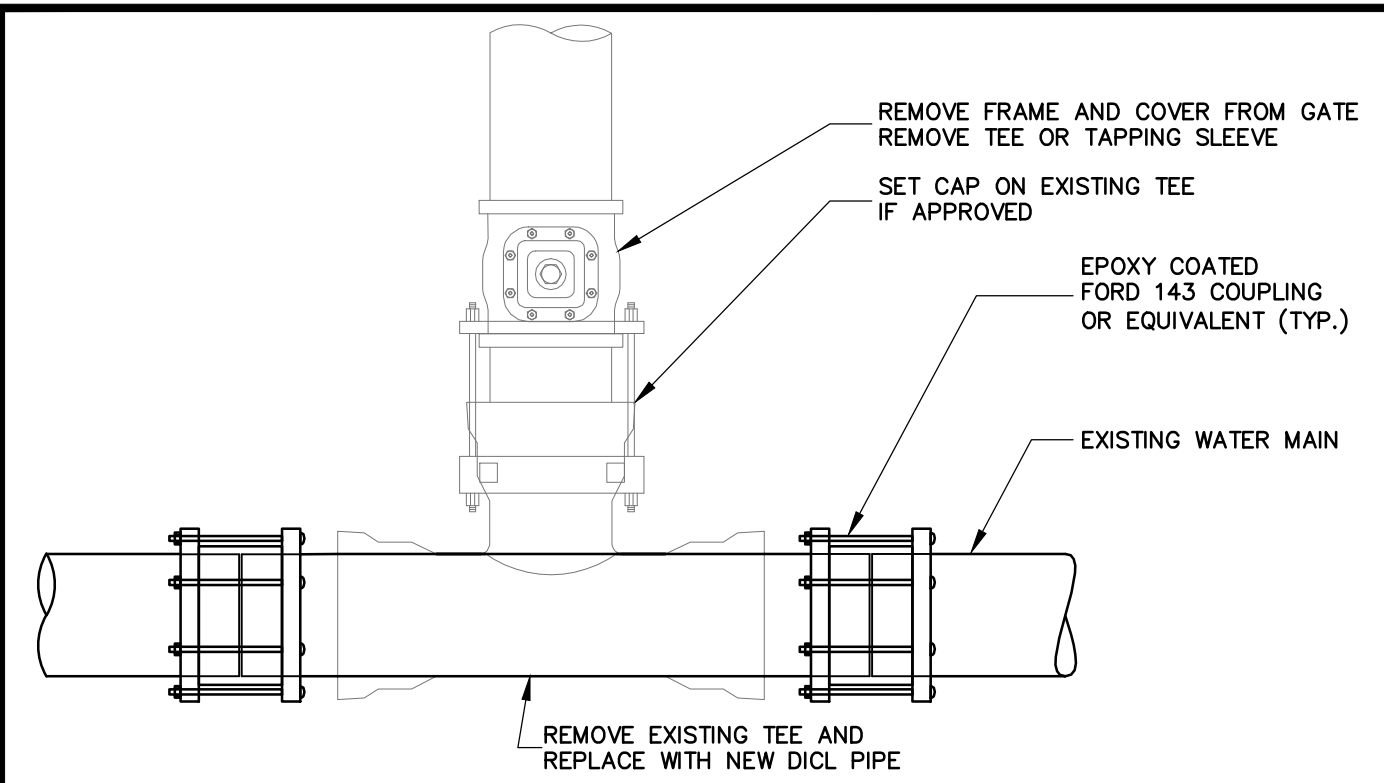
PROPOSED LEASE  
 AREA=64,684 Sq. Ft.

- REFERENCES:
- EXISTING CONDITIONS, PROPERTY LINES, UTILITIES AND GRADES TAKEN FROM A PLAN TITLED "EXISTING CONDITIONS PLAN LOCATED AT 105 FIRST AVENUE CHARLESTOWN, MASSACHUSETTS" DATED OCTOBER 2, 2014, PREPARED BY GEOD CONSULTING. THIS FILE WAS RECEIVED BY EMAIL ON SEPTEMBER 14, 2017 FROM BARGMANN HENDRIE + ARCHETYPE THIS PLAN WAS ISSUED BY GEOD CONSULTING AS A "PROGRESS PRINT".
  - PROPOSED BUILDING REHABILITATION PLANS TAKEN FROM A FILE NAMED A101 - First Floor.dwg RECEIVED BY EMAIL ON SEPTEMBER 14, 2017 FROM BARGMANN HENDRIE + ARCHETYPE.



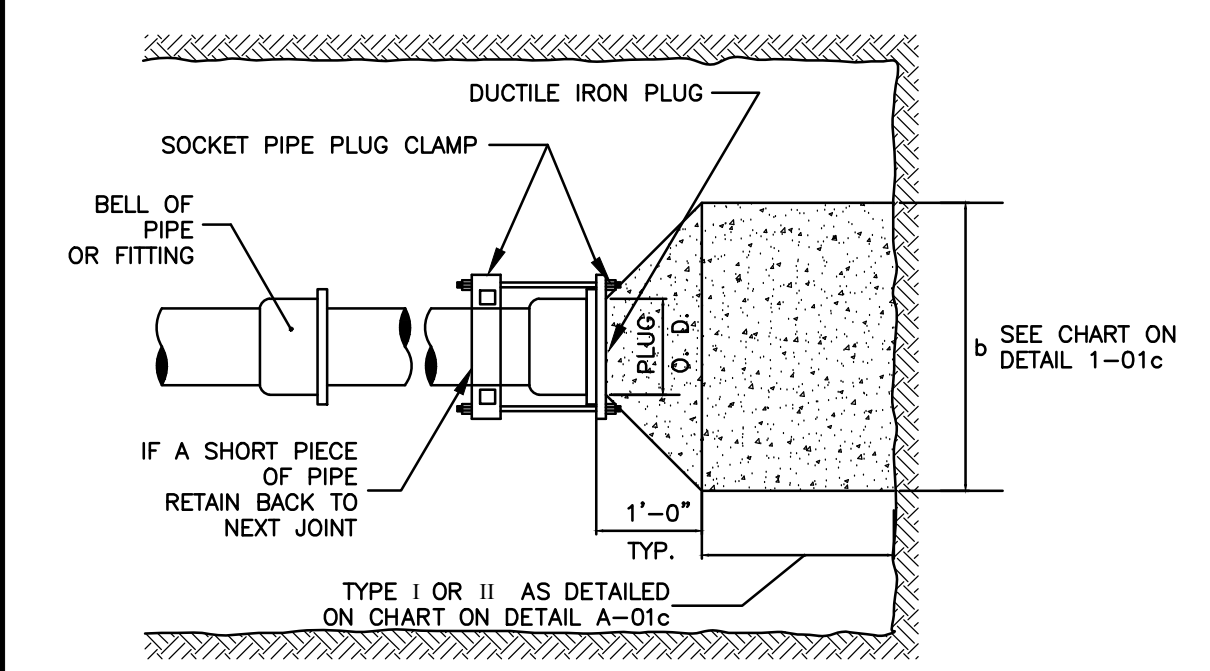
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	DATE

March 6, 2018	DATE OF ISSUE
NOI Submission	DESCRIPTION
1"=20'	SCALE
	DRAWN BY
	FILE NAME

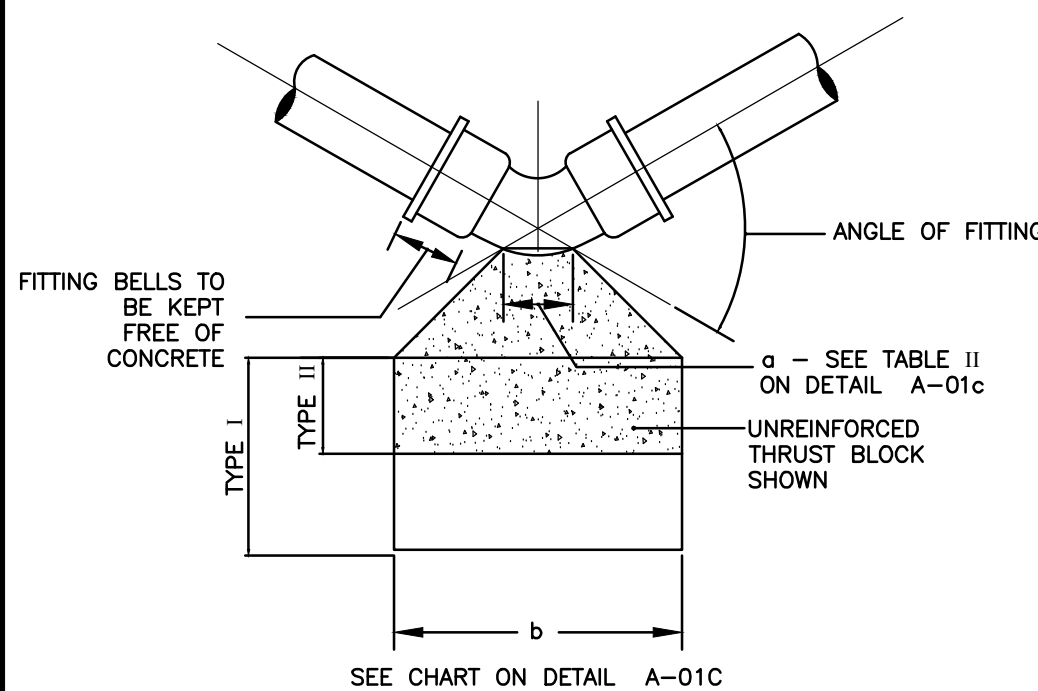


- NOTES:**
1. ALL WORK MUST BE PERFORMED BY A BWSC LICENSED AND BONDED CONTRACTOR.
  2. THIS PROCEDURE WILL INVOLVE A MAIN LINE SHUT DOWN THAT THE CONTRACTOR WILL COORDINATE WITH THE BWSC'S OPERATIONS DIVISION.
  3. WRITTEN NOTIFICATION OF ALL AFFECTED CUSTOMERS MUST BE PERFORMED BY THE CONTRACTOR.
  4. ALL WORK MUST BE PERMITTED BY BWSC AND ALL OTHER APPROPRIATE AGENCIES.
  5. ALL WORK MUST BE INSPECTED BY BWSC INSPECTOR OR DESIGNEE.

**BWSC #A-15  
DETAIL OF CUT AND CAP  
OF WATER CONNECTION 4" AND OVER  
(NOT TO SCALE)**

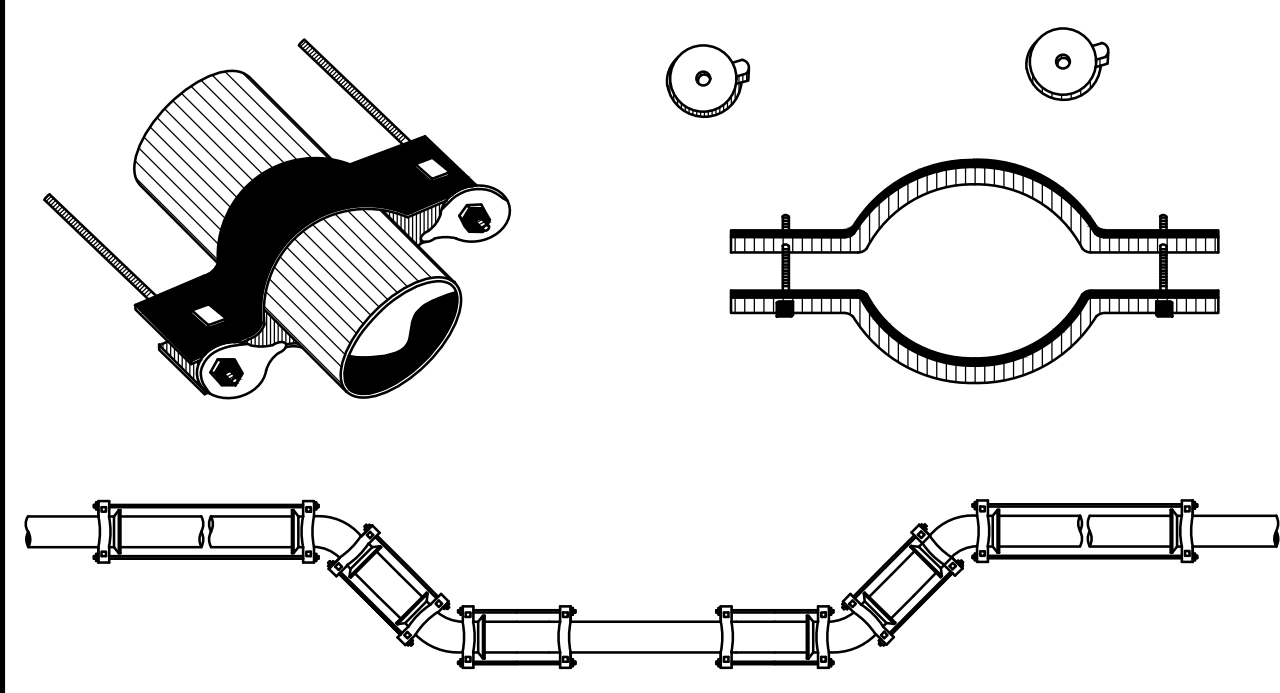


**PLAN - DEAD END**

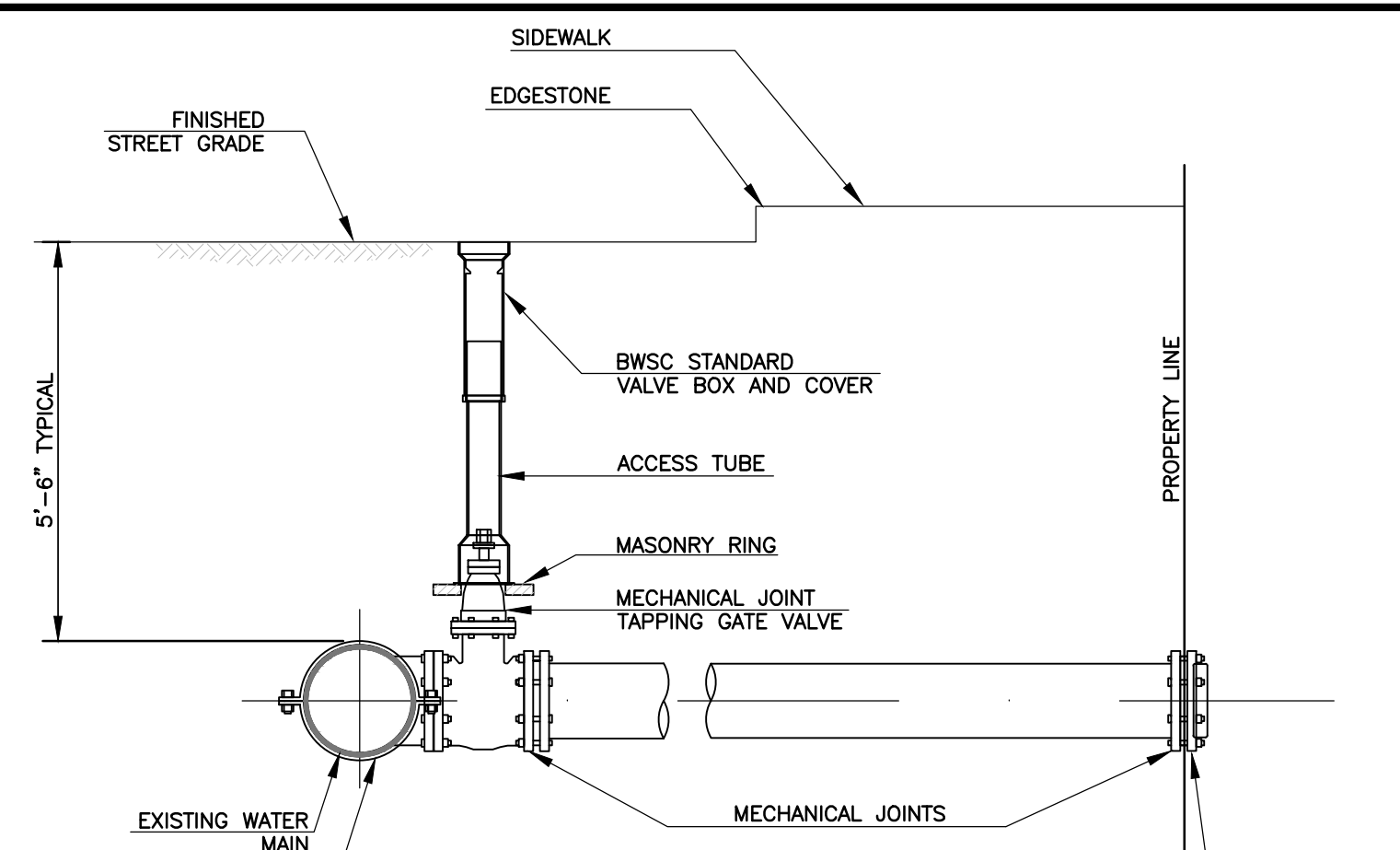


**PLAN - BEND**

**BWSC #A-01a  
THRUST BLOCK DETAILS  
(NOT TO SCALE)**

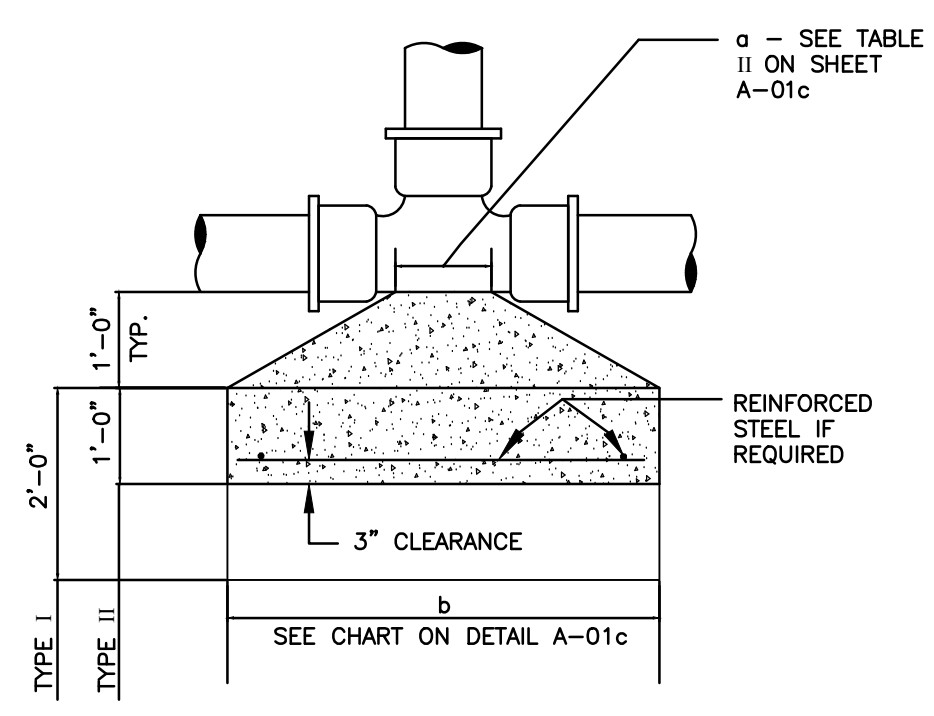


**BWSC #A-01e  
TYPICAL THRUST RESTRAINTS USING  
TIE RODS AND FRICTION CLAMPS  
(NOT TO SCALE)**

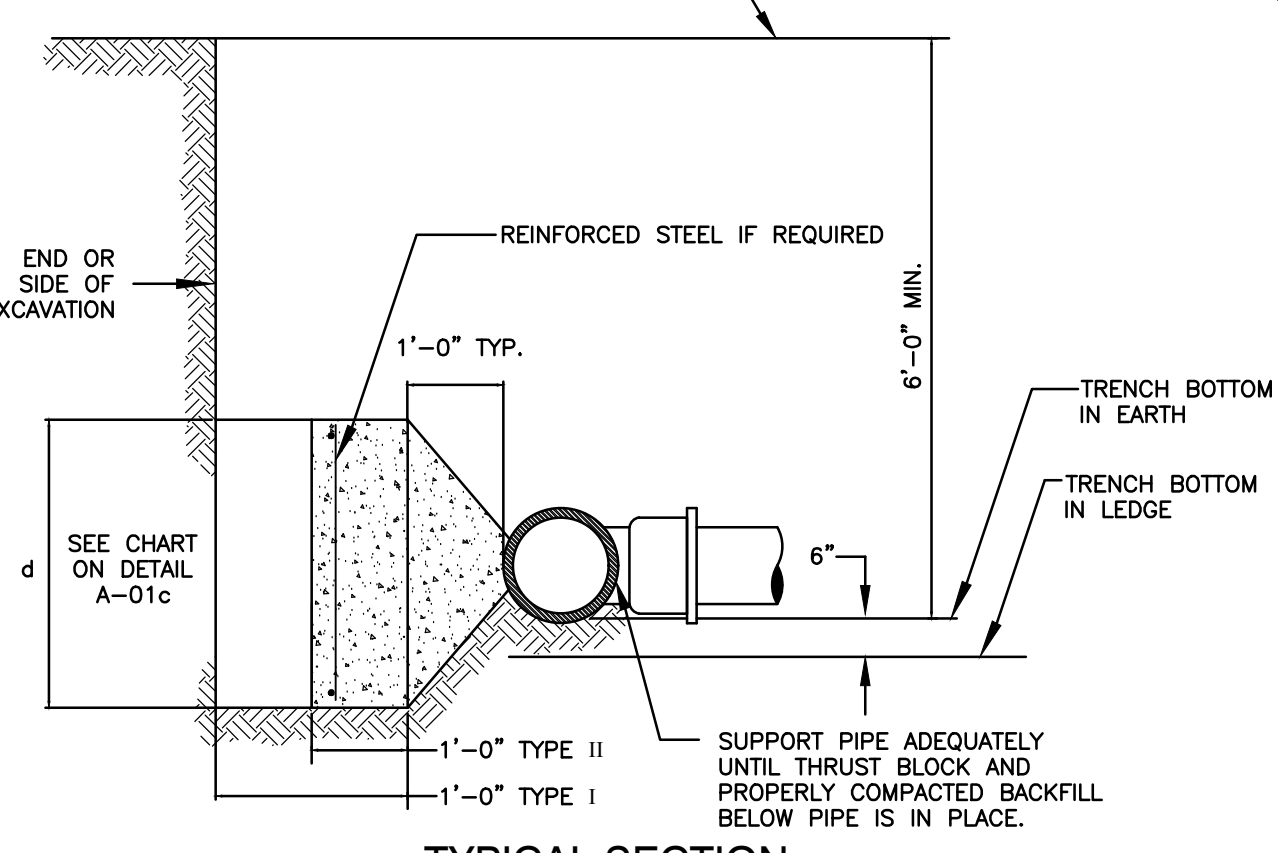


- NOTES:**
- CONCRETE THRUST BLOCK TO BE USED ONLY WHERE IT WILL BEAR ON UNDISTURBED EARTH.
  - USE RESTRAINED JOINT FITTINGS (MEGALUG OR APPROVED EQUAL) WHERE CONCRETE THRUST BLOCK IS UNACCEPTABLE.
  - SIZE OF BLOCK OR MEGALUG TO BE DESIGNED FOR SPECIFIC CONDITIONS.

**BWSC #A-09  
TYPICAL WATER PIPE CONNECTION  
WITH TAPPING SLEEVE AND GATE VALVE  
(NOT TO SCALE)**



**PLAN - TEE**

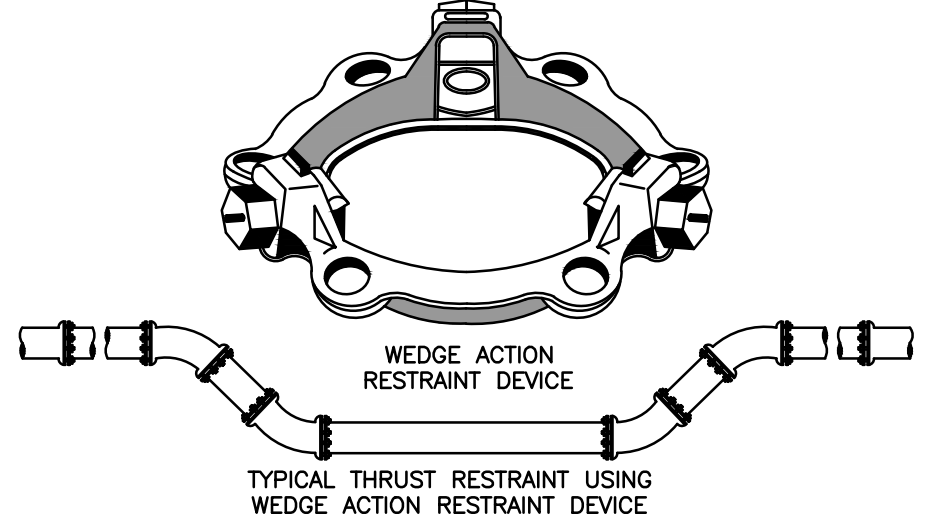


**TYPICAL SECTION  
(FOR TEES, BENDS & DEAD ENDS)**

**BWSC #A-01b  
THRUST BLOCK DETAILS  
(NOT TO SCALE)**

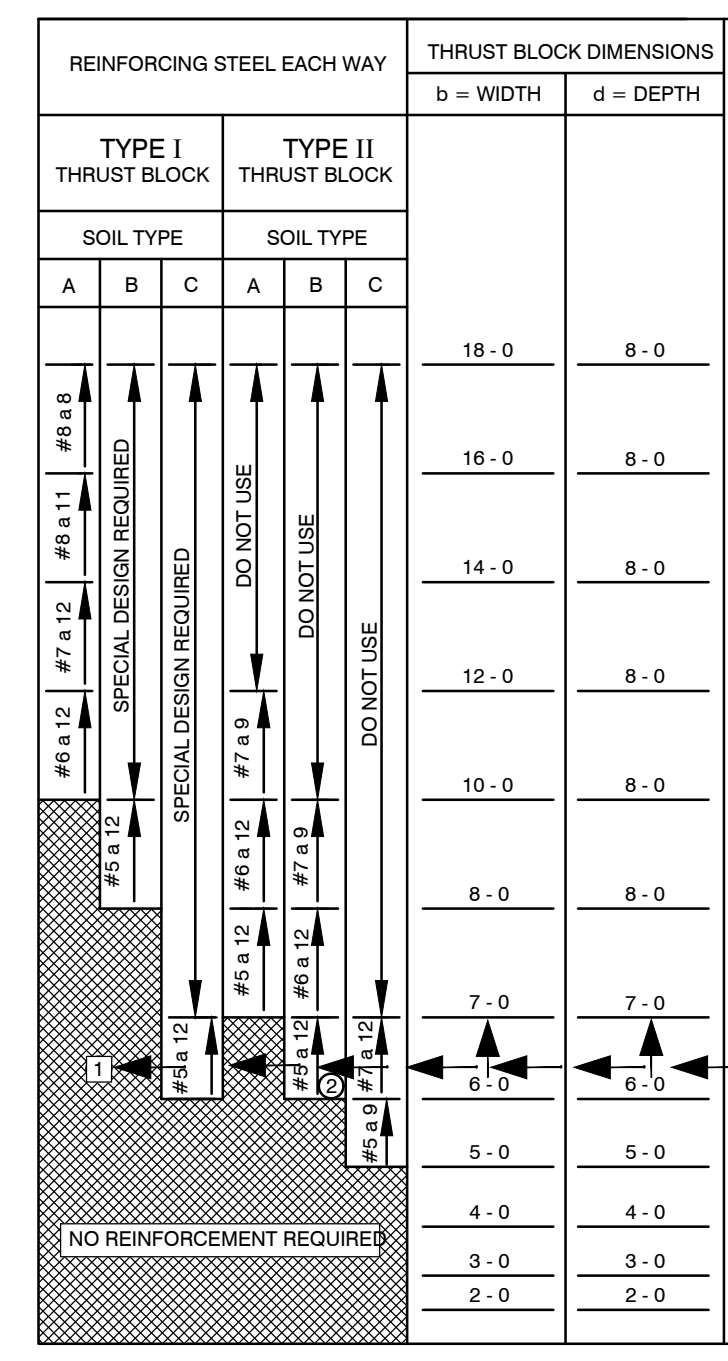
SCHEDULE OF TIE RODS		
PIPE SIZE	NUMBER OF RODS PER FITTING	DIAMETER OF RODS
4" - 12"	2	3/4"
16"	4	3/4"
20" - 24"	4	1 1/2"
36"	6	1 1/2"

1. DEVICES NEED TO BE PLACED BEYOND THE AREA OF RESTRAINTS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.



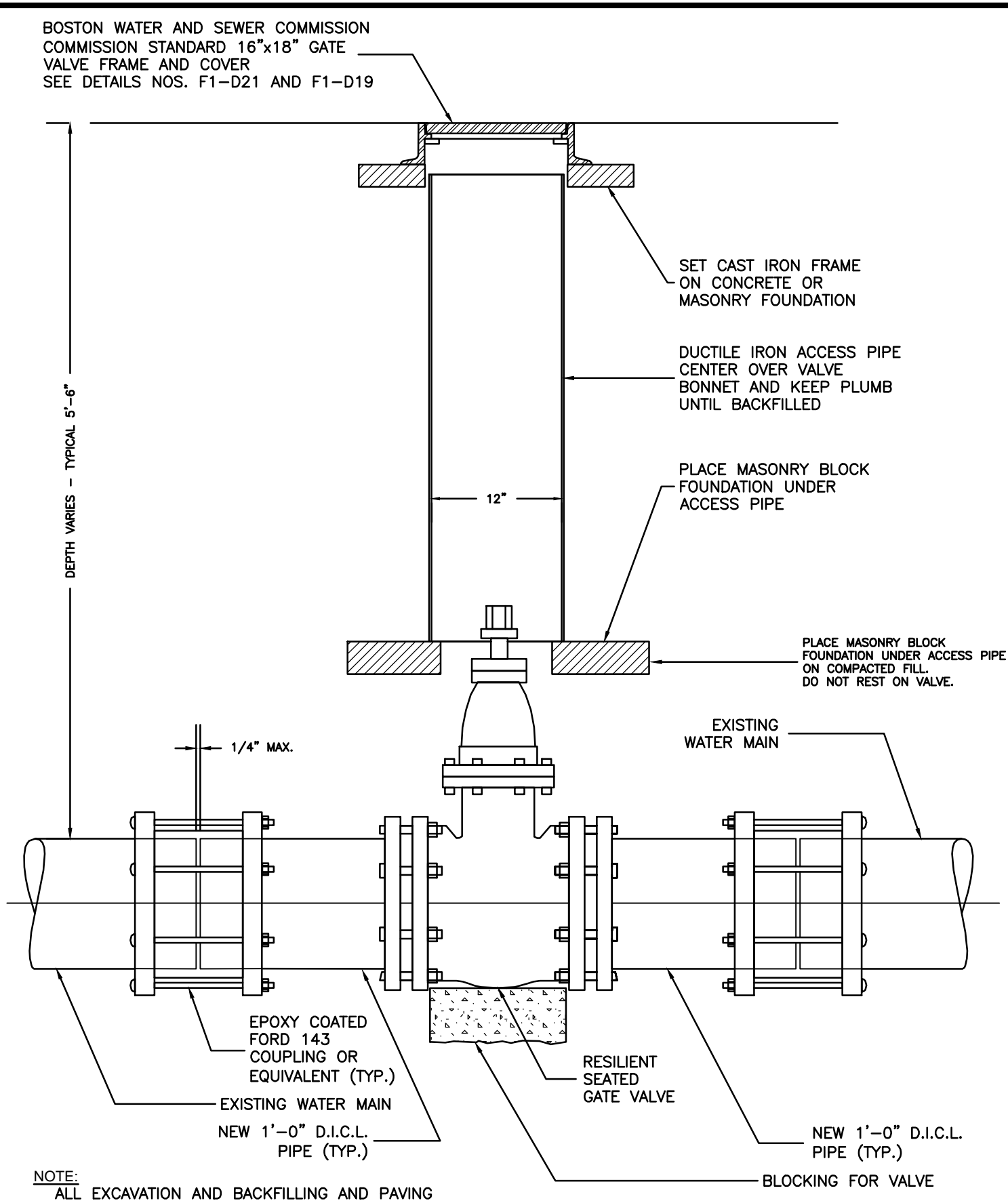
**BWSC #A-01f  
TYPICAL THRUST RESTRAINT  
WEDGE ACTION RESTRAINT  
TYPE JOINTS  
(NOT TO SCALE)**

TABLE II - "a" DIMENSION - FEET		
PIPE DIAMETER - INCHES	90° FITTING	OTHERS
6, 8, 10 & 12	1-6	1-0
16 & 20	2-0	1-6
24" - 30"	3-0	2-0



**NOTES:**

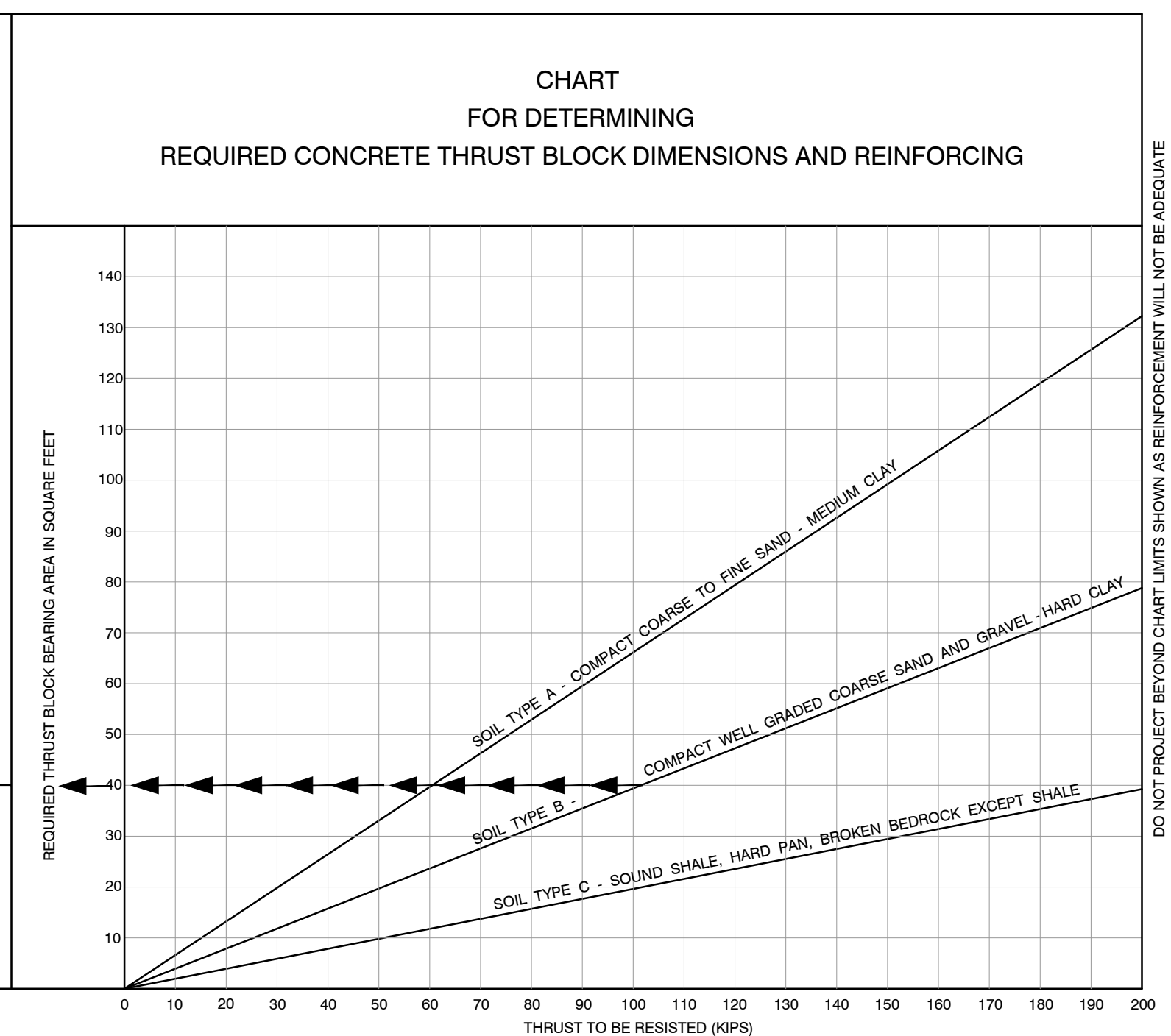
- ALL FITTINGS SHALL BE ANCHORED BY MECHANICAL MEANS OR BY CONCRETE THRUST BLOCKS, OR BOTH, IF REQUIRED BY THE BOSTON WATER AND SEWER COMMISSION OR AS NOTED ON THE CONTRACT PLANS.
- ALL EXPOSED METAL SHALL BE PAINTED OR COATED. CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRESS OF 3,000 P.S.I. AT 28 DAYS. REINFORCING STEEL SHALL BE A.S.T.M. A615 GRADE 40.
- WATER PRESSURE IN TABLE I INCLUDES WATER HAMMER ALLOWANCE.
- THE ACTUAL METHOD OF RESTRAINT MUST BE DETERMINED BY ACTUAL FIELD CONDITIONS. THESE ARE TYPICAL INSTALLATIONS TO BE USED AS A GUIDE TO THE DESIGNER.
- FINAL DESIGNS ARE SUBJECT TO REVIEW BY BOSTON WATER AND SEWER COMMISSION.



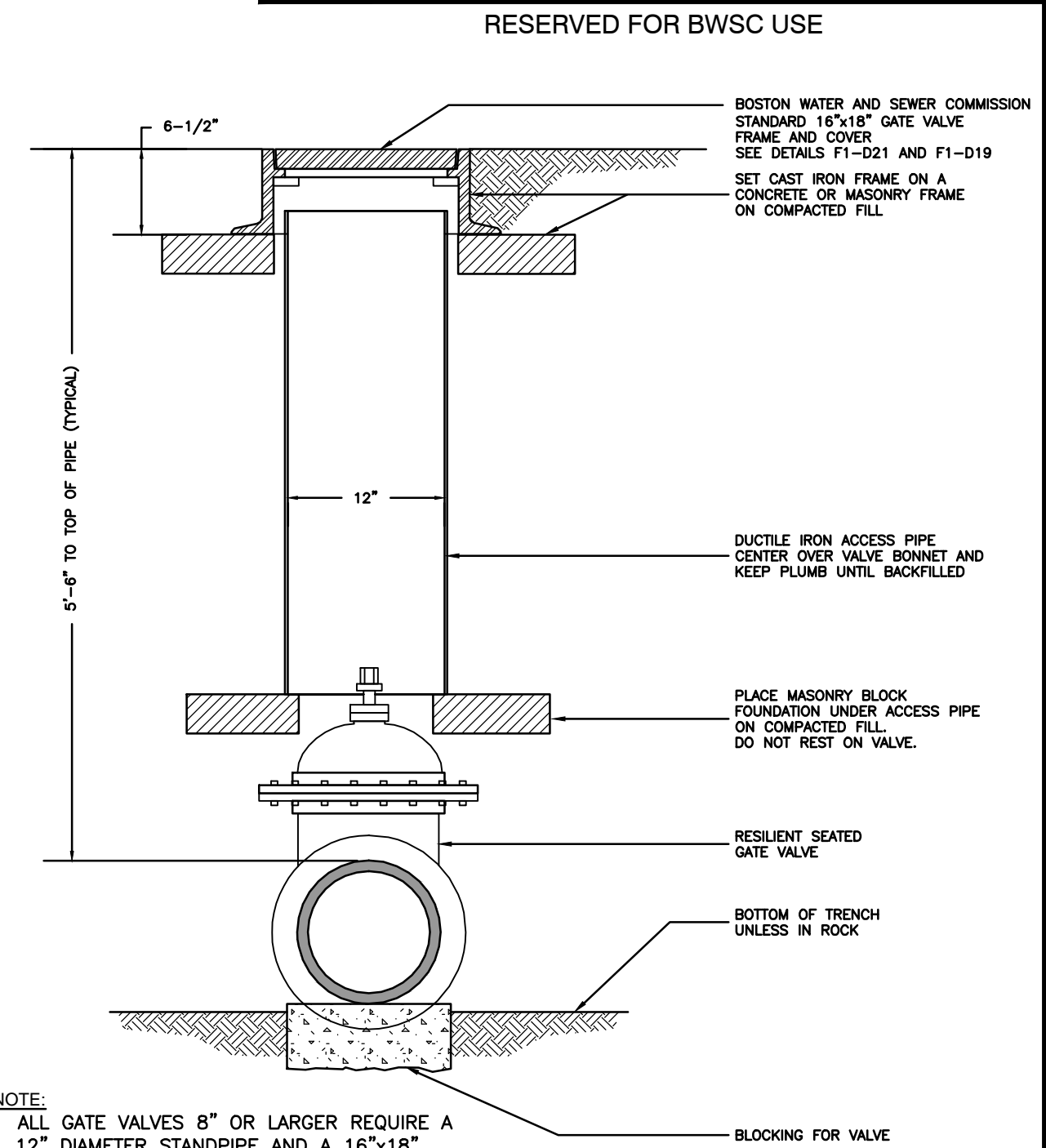
**Elevation View  
BWSC #A-19b  
TYPICAL GATE VALVE INSTALLATION  
ELEVATION VIEW  
(NOT TO SCALE)**

TABLE I - THRUST - KIPS (WATER PRESSURE = 200 P.S.I.)										
PIPE DIAMETER - INCHES	6	8	10	12	16	20	24	30	36	42
DEAD ENDS AND TEES	5.6	10	15.8	22.6	40.2	62.8	90.4	141.0	203.6	277.0
90°	7.9	14.2	22.4	32.0	56.8	88.8	127.7	190.0	288.0	392.0
67 1/2°	-	11.1	17.6	25.1	44.7	70.0	100.2	157.0	226.0	308.0
56 1/4°	-	-	14.9	21.2	37.9	59.2	85.1	133.0	192.0	261.0
45°	-	-	-	17.3	30.8	48.1	69.0	108.0	156.0	212.0
33 3/4°	-	-	-	13.1	23.3	36.5	52.5	82.0	118.0	161.0
22 1/2°	-	-	-	8.8	15.7	24.5	35.2	55.0	79.5	108.0

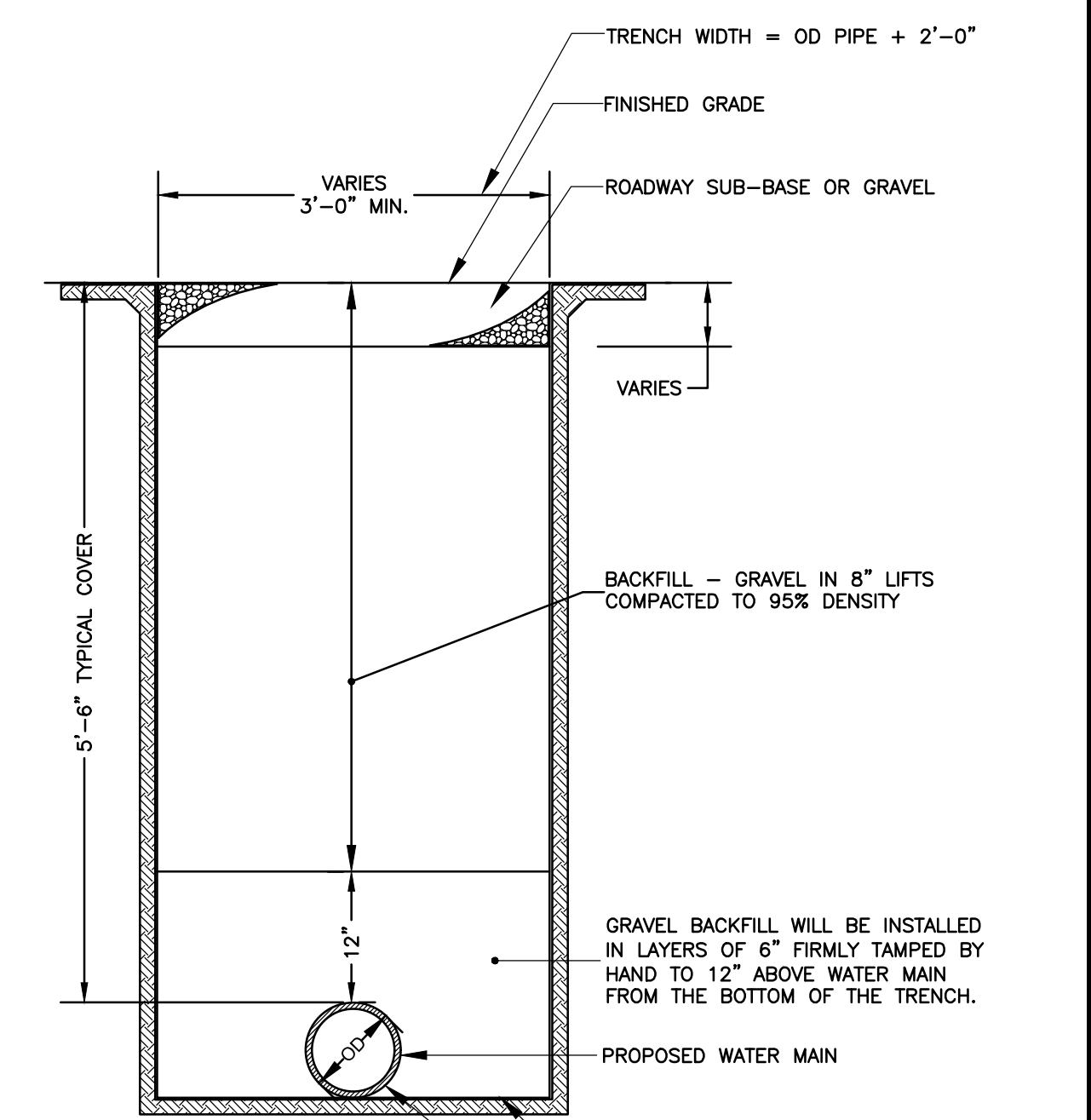
DESIGN THRUST BLOCKS OR OTHER SUITABLE ANCHORAGE TO SUIT ACTUAL CONDITIONS



**BWSC #A-01c  
THRUST BLOCK DIMENSIONS  
TABLE AND CHART  
(NOT TO SCALE)**



**Cross Section View  
BWSC #A-19a  
TYPICAL GATE VALVE INSTALLATION  
CROSS SECTION VIEW  
(NOT TO SCALE)**



**BWSC #A-05  
TYPICAL TRENCH DETAIL OF  
WATER MAIN IN FIRM GROUND  
(NOT TO SCALE)**

**ARCHITECT**  
**bh+a**  
Bargmann Hendrie + Archetype, Inc.  
300 A Street  
Boston, MA 02210  
617 350-0450 Tel

**PROJECT NAME**  
**The Chain Forge Hotel**  
105 First Avenue  
Charlestown, MA 02109

**CLIENT**  
**CV Properties**

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Boston MA 02210

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**REVISIONS**

NO.	DATE	DESCRIPTION
1		
2		
3		
4		

**DRAWING TITLE**  
**Site Details Plan**

**DRAWING INFORMATION**

March 6, 2018  
DATE OF ISSUE

NOI Submission DESCRIPTION

As Noted DRAWN BY

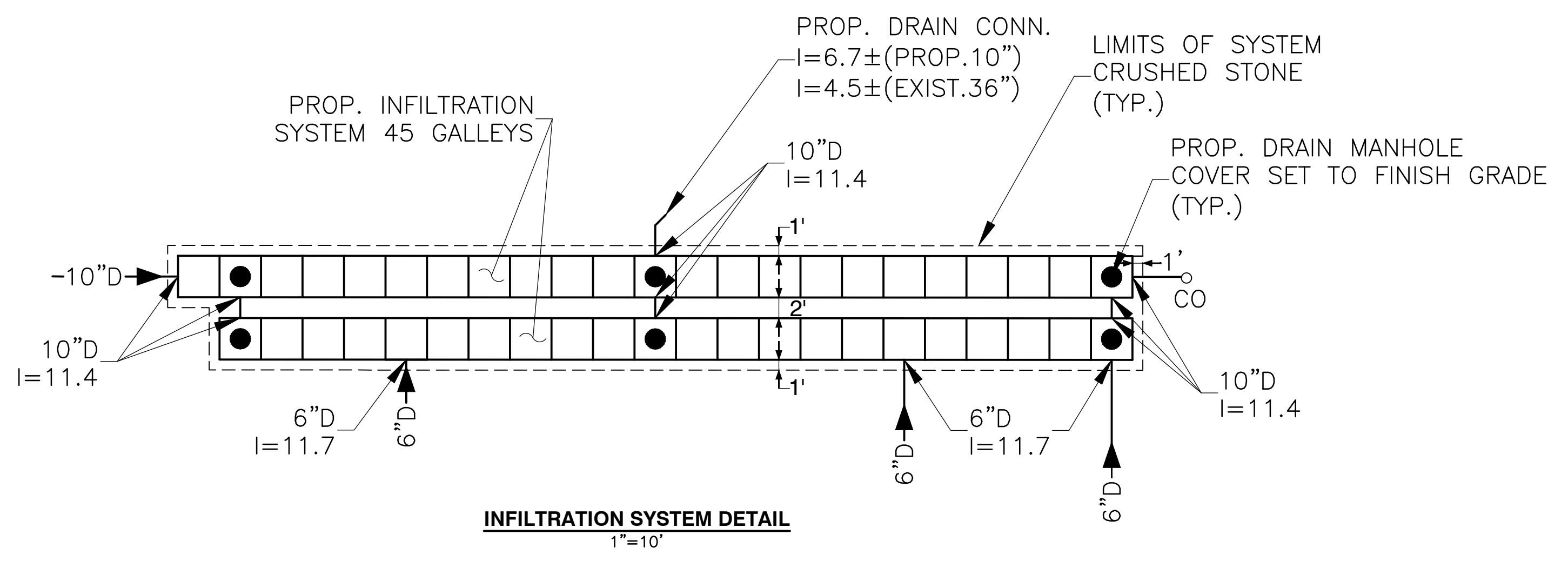
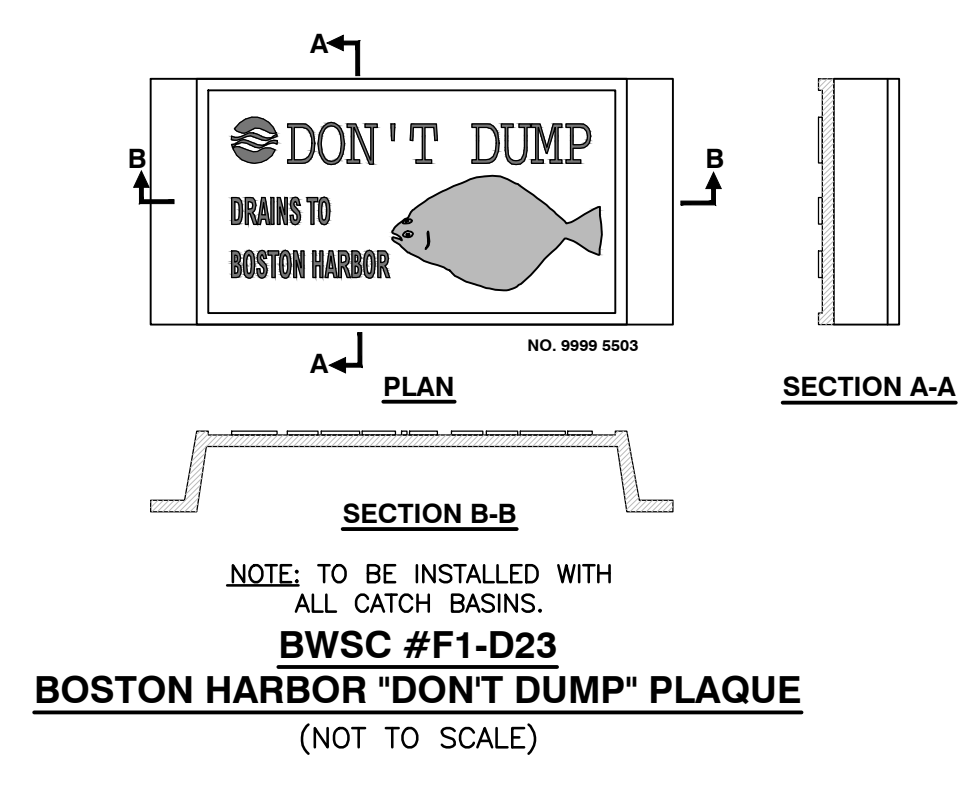
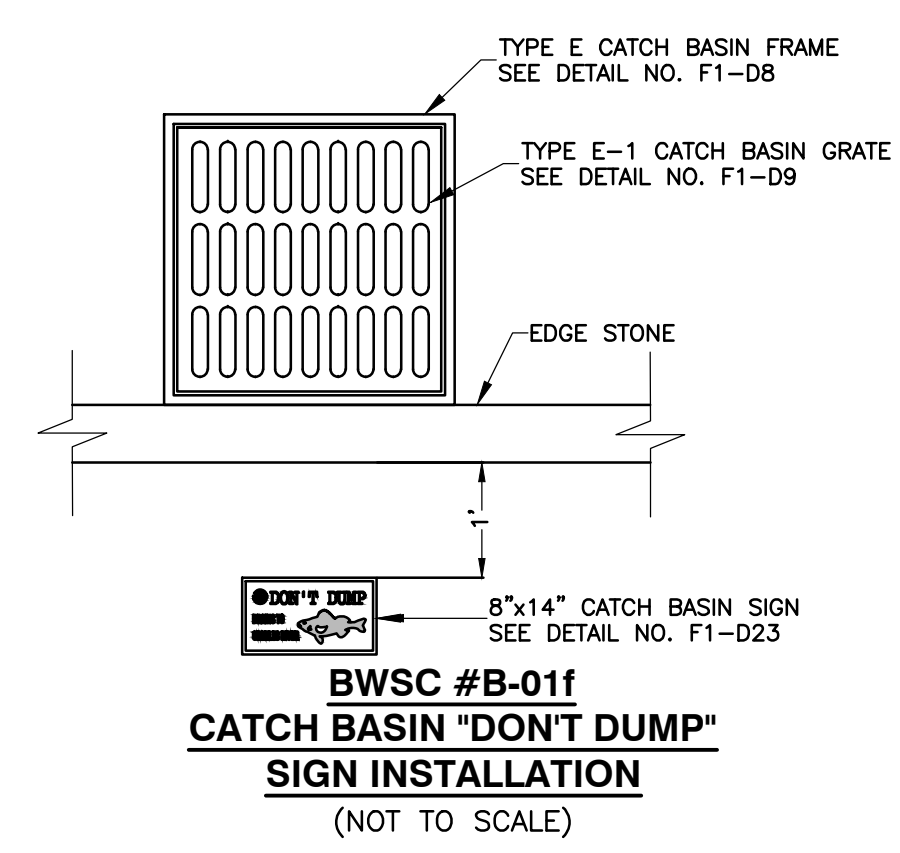
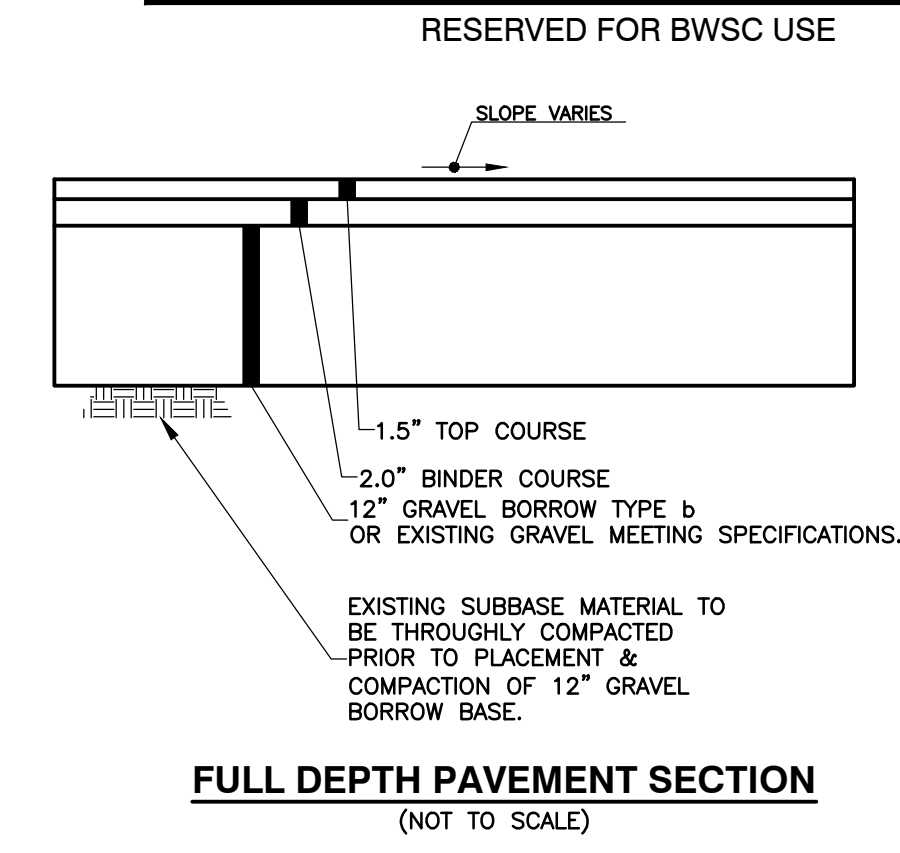
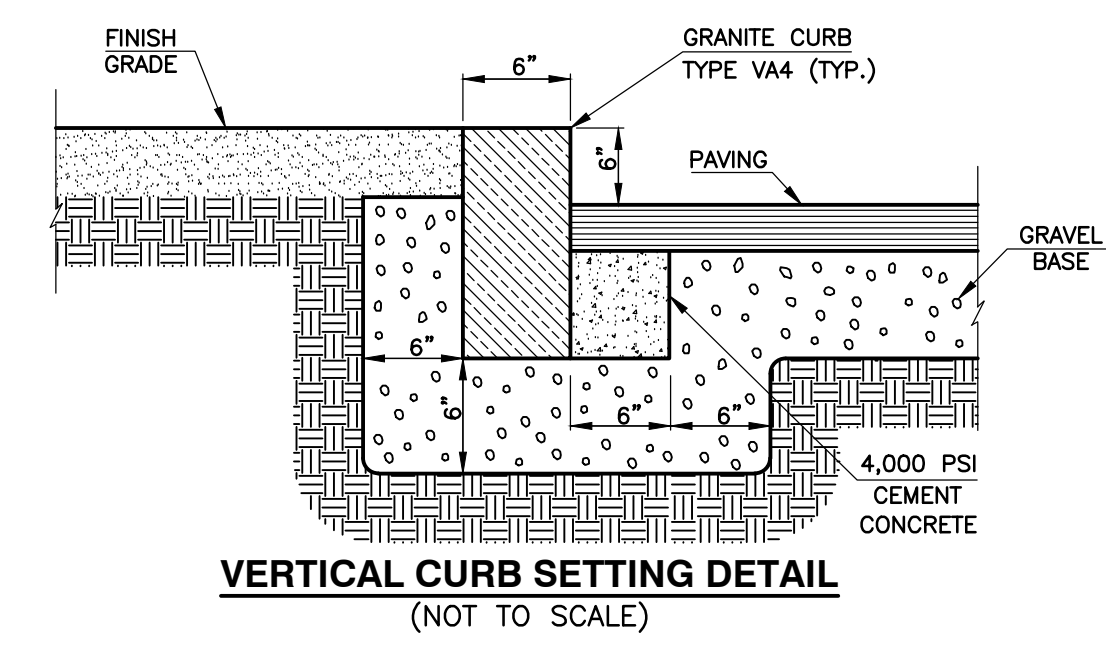
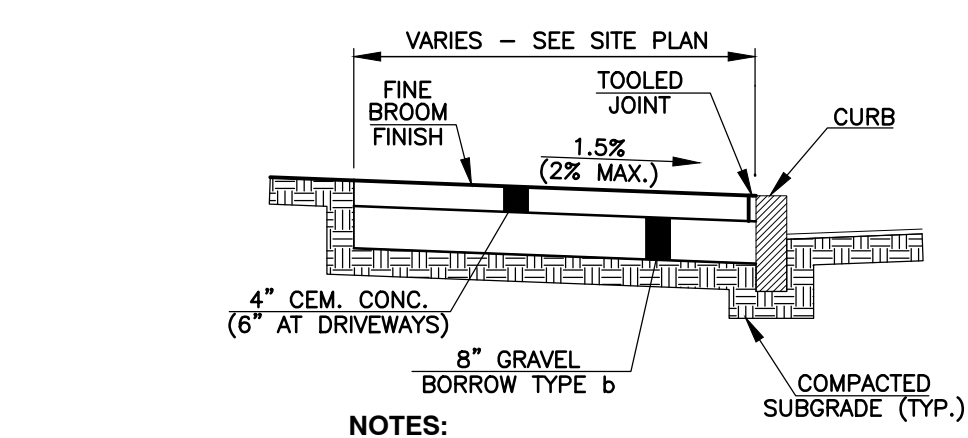
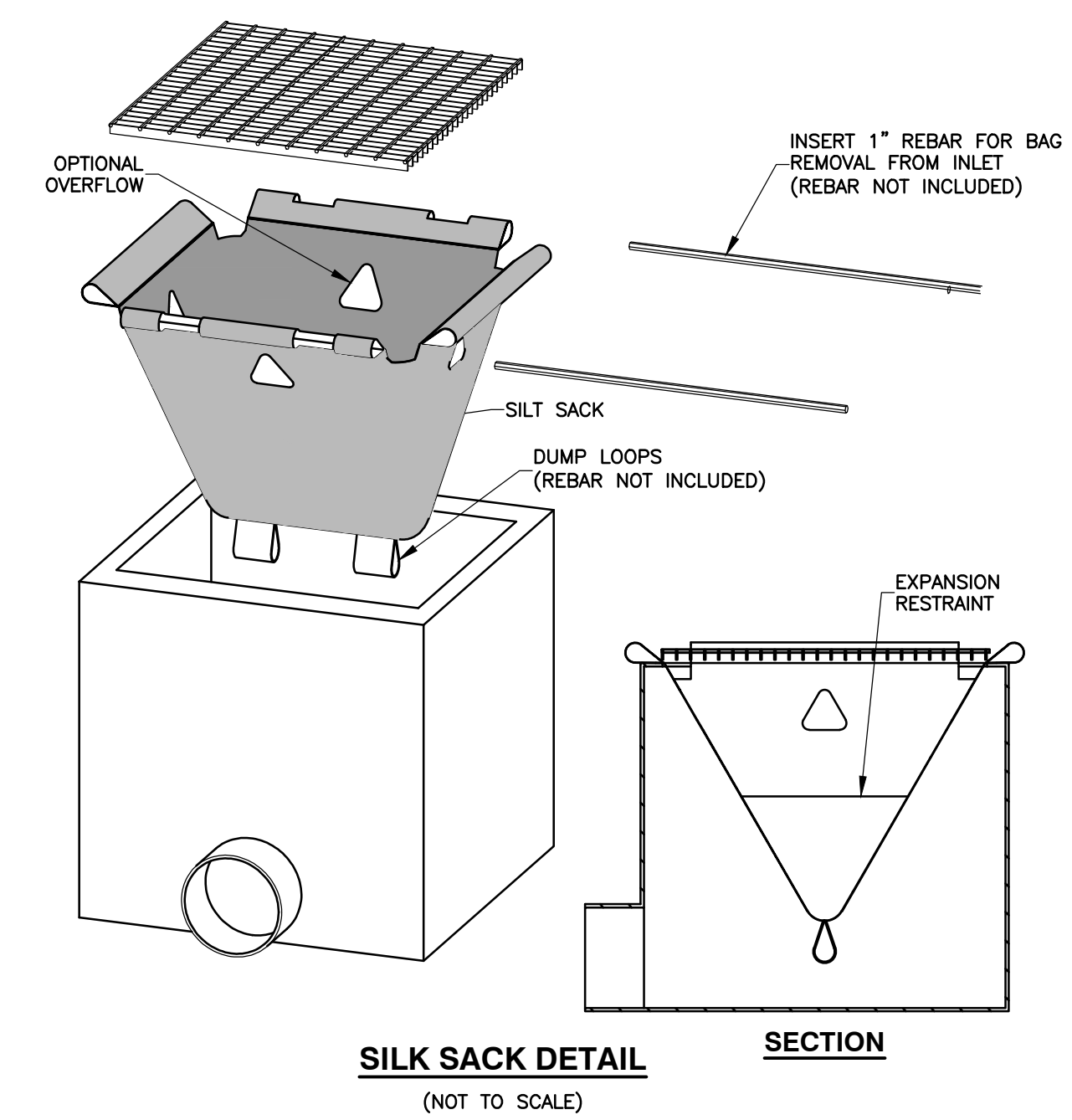
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**DRAWING NUMBER**

**C103**







**REVISIONS**

1	
2	
3	
4	

DATE

**DRAWING TITLE**  
**Site Details Plan**

**DRAWING INFORMATION**

March 6, 2018	DATE OF ISSUE
NOI Submission	DESCRIPTION
As Noted	DRAWN BY
SCALE	FILE NAME
PROJECT #	

**DRAWING NUMBER**

**C105**