



Fort Point Associates, Inc.

Urban Planning Environmental Consulting Project Permitting

A TETRA TECH COMPANY

October 19, 2022

Nick Moreno
Boston Conservation Commission
City Hall Plaza, Room 709
Boston, MA 02201

RE: DEP File No: 006-1613 Request for Certificate of Compliance
144 Addison Street, East Boston, Massachusetts

Dear Mr. Moreno,

On behalf of Addison Street Partners, LLC, please find enclosed a Request for Certificate of Compliance for the completed project at 144 Addison Street, East Boston, located in the Orient Heights neighborhood. The Order of Conditions was issued in November 2018 and received an extension to the Emergency Order issued in March 2020. This request is for the construction of two multifamily residential buildings, a publicly accessible greenspace, and other landscape improvements. All the improvements have been completed in accordance with the submitted plans as expressed in the enclosed engineer, owner compliance letter, and additional attachments.

The following conditions were not applicable to the project:

- General Condition #6: No Amended Order of Conditions was constituted.
- General Condition #14: There have been no changes to the plans identified in Condition #13.
- General Condition #17: No vegetated wetlands are located on-site and thus the wetland boundary markers were not required.
- General Condition #19k: The applicant did not apply for Low Impact Site Design Credit.
- Special Condition #67: No exterior trash receptacles were detailed on site plans.

If you have any questions or concerns, or need additional information, please contact me at (617)279-4388 or at kmoniz@fpa-inc.com.

Sincerely,

Katie T. Moniz, P.E., AICP, CFM
Director
Fort Point Associates, Inc

Cc: Molly Kelly, Gate Residential, a Redgate Company
Chris Hodney, PE, Nitsch Engineering
Jonathan Bonaccorsi, Dellbrook JKS

TABLE OF CONTENTS

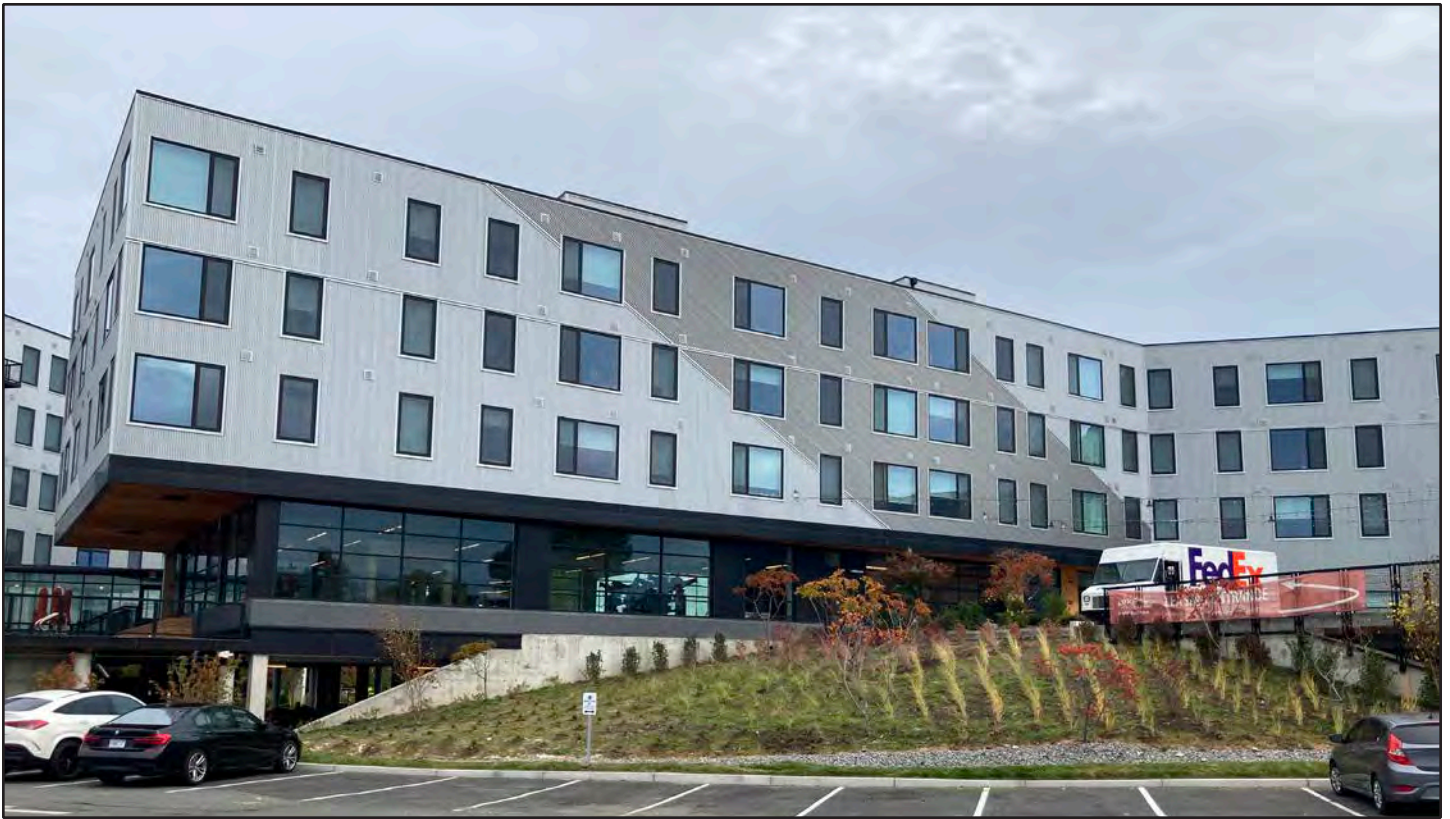
CONSTRUCTION COMPLETION PHOTOS (CONDITION #4).....	1
SOIL SUBMITTALS (CONDITION #7)	5
ORDER OF CONDITIONS (CONDITION #9)	36
WPA FORM 8A (CONDITION #12)	52
STORM WATER POLLUTION PREVENTION PLAN (CONDITION #19A).....	54
ENGINEER'S STATEMENT (CONDITION #19B - #19D).....	233
AS-BUILT PLANS (CONDITION #19B).....	234
ILLICIT DISCHARGE STATEMENT (CONDITION #19B)	239
POST-CONSTRUCTION BMPS PHOTOS (CONDITION #19B)	240
STORMWATER REPORT (CONDITION #19B)	242
OPERATION & MAINTENANCE PLAN (CONDITION #19D)	349
OWNER'S STATEMENT (CONDITION #19C, #19E-19), #26, #46, #51, #52, #64).....	356
BWSC APPROVED PLANS (CONDITION #43)	358
SNOW MANAGEMENT PLAN (CONDITION #45)	364
BWSC PLAQUE PHOTO (CONDITION #55)	367
ABUTTER NOTIFICATION MAP.....	368
ABUTTER NOTIFICATION LIST.....	369
AFFIDAVIT OF SERVICE	372
BABEL NOTICE.....	373
ABUTTER NOTIFICATION (ENGLISH)	375
ABUTTER NOTIFICATION (SPANISH)	376
CERTIFICATE OF AUTHENTICITY.....	378



Condition 4: Exterior Building Construction, October 2022



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Condition 4: Exterior Building Construction, October 2022



Condition 4: Exterior Building Construction, October 2022



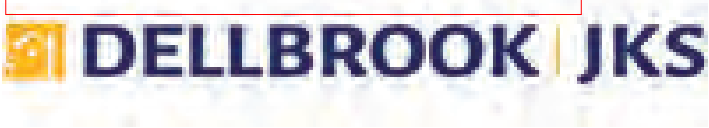
Condition 4: Exterior Building Construction, October 2022



Condition 4: Exterior Building Construction, October 2022



Condition 4: Exterior Building Construction, October 2022



Submittal #320513-1.0 320513 - Sand Based Structural Soil

Dellbrook | JKS
859 Willard Street
Quincy, Massachusetts 02169
Phone: (781) 380-1675
Fax: (781) 380-1676

Project: 10-19-0049 - Redgate 144 Addison
144 Addison St.
East Boston, Massachusetts 02128

Product Data: Structural Soil Components

REVISION:	0	SUBMITTAL MANAGER:	Joshua Levene (Dellbrook JKS)
STATUS:	Open	DATE CREATED:	01/27/2021
ISSUE DATE:		SPEC SECTION:	320513 - Sand Based Structural Soil
RESPONSIBLE CONTRACTOR:	R&S Landscaping	RECEIVED FROM:	Isabel Orlandino
RECEIVED DATE:	02/11/2021 3/8/21	SUBMIT BY:	03/6/2021
FINAL DUE DATE:	03/24/2021	LOCATION:	
		COST CODE:	
		TYPE:	Test Report

Copley Wolff Design Group
Landscape Architects & Planners
10 Post Office Square, Suite 1315
Boston, MA 02109

NO EXCEPTIONS TAKEN
 MAKE CORRECTIONS NOTED
 REVISE AND RESUBMIT
 REJECTED

This check is only for review of general conformance with the Design concept of the project and general compliance with the information given in the contract documents. Corrections or comments made on the shop drawings during this review do not relieve the Contractor from compliance with the requirements of the Drawings and specifications. The Contractor is responsible for confirming and correlating all quantities and dimensions selecting fabrication processes and techniques of construction coordinating their work with that of all other trades, and performing their work in a safe and satisfactory manner.

A. DESBONNET 3/17/2021
Signed _____ Date

ok|JKS), Benjamin Thomas (Arrowstreet Architects, Inc.)

ard (Dellbrook|JKS), Kevin Power (Dellbrook|JKS), Steve Perdue (Redgate), Patrick O'Keefe (Redgate), Molly Kelly (Redgate), Amy Korte (Arrowstreet Architects, Inc.), Molly Kelly (Redgate), z Bello (Gate Residential)

REVIEWED FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS
DELLBROOK | JKS
Kevin Power
 For the General Contractor

All dimensions and field conditions have been or will be verified prior to fabrication of the items described herein

Submittal No. 320513-1
 Subcontractor R&S
 Date 3/8/21

This submittal has been reviewed for compliance with Contract Documents

NAME	SENT DATE	DUE DATE	RETURNED DATE	RESPONSE	ATTACHMENTS	COMMENTS
ARROWSTREET					SBSS SIEVE DEC 20 .PDF SBSS NUT DEC 20.pdf L COMPOST DEC 20.pdf COARSE SAND USDA SIEVE DEC20.pdf BASE SOIL S SIEVE DEC 20.PDF BASE SOIL S NUT JAN 21.PDF Agra Compost 1-14-21.pdf	
			06/2021	Pending		
			24/2021	Pending		

ARROWSTREET

No Exceptions Taken
 Rejected
 Make Corrections Noted
 Make Corrections Noted, Resubmit For Record
 Make Corrections Noted, Resubmit Items Noted
 Actions Not Required

Corrections or comments made on this submittal do not relieve the contractor from compliance with the requirements of the contract documents. This review is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. The contractor is responsible for confirming and correlating all quantities and dimensions, for selecting fabrication processes and techniques of construction, for coordinating this work with that of other trades, and for performing this work in a safe and satisfactory manner.

DATE 03/17/2021 BY bthomas

DATE _____ COPIES TO _____

Particle Size Analysis - Comprehensive with 2mm Passing

Sample Information:

Sample ID: SBSS

Prepared For:

Chris Ierardi
Read Custom Soils
158 Tihonet Rd
Wareham, MA 02571

Order Number: 52225

Lab Number: X201125-104

Received: 11/20/2020

Reported: 12/10/2020

chris@readcustomsoils.com
781-828-6300

<u>USDA Size Fraction</u>			<u>Percent of Whole Sample Passing</u>			
<u>Main Fractions</u>	<u>Size (mm)</u>	<u>Percent</u>	<u>Size (mm)</u>	<u>Sieve #</u>	<u>Whole Sample % of Sample Passing</u>	<u>Finer Than 2mm % of Sample Passing</u>
Sand	0.05-2.0	92.7	2.00	#10	88.8	100.0
Silt	0.002-0.05	5.3	1.00	#18	80.6	90.8
Clay	<0.002	2.0	0.50	#35	55.3	62.3
			0.25	#60	21.8	24.6
<u>Sand Fractions</u>	<u>Size (mm)</u>	<u>Percent</u>	0.10	#140	8.0	9.1
Very Coarse	1.0-2.0	9.2	0.053	#270	6.5	7.3
Coarse	0.5-1.0	28.5	0.02	20 um	4.2	4.8
Medium	0.25-0.5	37.7	0.005	5 um	3.0	3.3
Fine	0.10-0.25	15.5	0.002	2 um	1.7	2.0
Very Fine	0.05-0.10	1.8				
<u>Silt Fractions</u>	<u>Size (mm)</u>	<u>Percent</u>				
Coarse	0.02-0.05	2.5				
Medium	0.005-0.02	1.4				
Fine	0.002-0.005	1.4				

USDA Textural Class: coarse sand

Gravel Content: (%) 11.2

Solvita Test Results

Job Name: Read Custom Soils - QA/QC**Date Received: 01/13/21****Date Reported: 01/14/21**

Solvita Maturity Test

Sample ID	CO ₂ (1-7)	NH ₃ (1-5)	Maturity Index
Agra Compost	6	5	6 "Curing" Compost

Solvita Maturity Rating of 6 = "Curing" compost, aeration requirement is reduced, management requirements reduced as well, mature enough for official uses.

Soil Test Report

Prepared For:

Chris Ierardi
Read Custom Soils
158 Tihonet Rd
Wareham, MA 02571

chris@readcustomsoils.com
781-828-6300

Sample Information:

Sample ID: Base Soil 5

Order Number: 52290

Lab Number: S201123-314

Area Sampled:

Received: 11/23/2020





Reported: 1/6/2021

Results

<i>Analysis</i>	<i>Value Found</i>	<i>Optimum Range</i>	<i>Analysis</i>	<i>Value Found</i>	<i>Optimum Range</i>
Soil pH (1:1, H ₂ O)	5.1		Cation Exch. Capacity, meq/100g	10.8	
Modified Morgan extractable, ppm			Exch. Acidity, meq/100g	9.1	
<i>Macronutrients</i>			Base Saturation, %		
Phosphorus (P)	1.9	4-14	Calcium Base Saturation	13	50-80
Potassium (K)	59	100-160	Magnesium Base Saturation	2	10-30
Calcium (Ca)	276	1000-1500	Potassium Base Saturation	1	2.0-7.0
Magnesium (Mg)	32	50-120	Scoop Density, g/cc	0.94	
Sulfur (S)	16.0	>10	Optional tests		
<i>Micronutrients *</i>			Soil Organic Matter (LOI), %	5.9	
Boron (B)	0.2	0.1-0.5	Soluble Salts (1:2), dS/m	0.16	<0.6
Manganese (Mn)	17.9	1.1-6.3	Nitrate-N (NO ₃ -N), ppm	34	
Zinc (Zn)	0.4	1.0-7.6			
Copper (Cu)	0.1	0.3-0.6			
Iron (Fe)	168.0	2.7-9.4			
Aluminum (Al)	309	<75			
Lead (Pb)	1.9	<22			

* Micronutrient deficiencies rarely occur in New England soils; therefore, an Optimum Range has never been defined. Values provided represent the normal range found in soils and are for reference only.

Soil Test Interpretation

Nutrient	Very Low	Low	Optimum	Above Optimum
Phosphorus (P):				
Potassium (K):				
Calcium (Ca):				
Magnesium (Mg):				

Recommendations for New Lawn Construction

Limestone (Target pH of 6.5)	Nitrogen, N	Phosphorus, P2O5	Potassium, K2O
175	2 - 4	2.5	3

Comments:

- Incorporate limestone thoroughly into the top 6 inches of soil.
- Your magnesium level is low. Dolomitic limestone is recommended.
- *Your nitrate level is currently above optimum. Please disregard nitrogen recommendation. No additional nitrogen is needed at this time.
- For instructions on converting nutrient recommendations to fertilizer applications in lawns, see Reference "Step-by-Step Fertilizer Guide for Lawns" (listed below).
- For best results, split the N, P2O5, and K2O recommendations above into three to four applications over the course of the growing season at six to eight week intervals, beginning in mid- to late-April.
- Many fertilizer sources and rates may be combined to provide acceptable turfgrass fertility.
- The lead level in this soil is less than 22 ppm, which falls below the listed optimum level. However, many variables affect this result, and safety thresholds vary by location and soil use. There is still a potential risk of lead exposure for soils used for growing food or as play areas for children. Our Total Sorbed Metals test provides an accurate measurement of soil lead. For more information about lead levels in soil, see the fact sheet entitled "Soil Lead: Testing, Interpretation, & Recommendations," listed under General References at the end of this report. ATTN: The Total Sorbed Metals Test is currently unavailable. We apologize for any inconvenience.

References:

Home Lawn and Garden Information	http://ag.umass.edu/resources/home-lawn-garden
Step-by-Step Fertilizer Guide for Lawns	http://ag.umass.edu/soil-plant-nutrient-testing-laboratory/fact-sheets/fertilizer-guide-for-lawns

Recommendations for Established Lawn

Limestone (Target pH of 6.5)	Nitrogen, N	Phosphorus, P2O5	Potassium, K2O
175	2 - 4	2	3

Comments:

- Do not topdress with more than 50 lb limestone per 1000 sq ft at one time. Split the above application between early spring and mid-autumn.
- Your magnesium level is low. Dolomitic limestone is recommended.
- *Your nitrate level is currently above optimum. Please disregard nitrogen recommendation. No additional nitrogen is needed at this time.
- For instructions on converting nutrient recommendations to fertilizer applications in lawns, see Reference "Step-by-Step Fertilizer Guide for Lawns" (listed below).
- For best results, split the N, P2O5, and K2O recommendations above into three to four applications over the course of the growing season at six to eight week intervals, beginning in mid- to late-April.
- Many fertilizer sources and rates may be combined to provide acceptable turfgrass fertility.
- The lead level in this soil is less than 22 ppm, which falls below the listed optimum level. However, many variables affect this result, and safety thresholds vary by location and soil use. There is still a potential risk of lead exposure for soils used for growing food or as play areas for children. Our Total Sorbed Metals test provides an accurate measurement of soil lead. For more information about lead levels in soil, see the fact sheet entitled "Soil Lead: Testing, Interpretation, & Recommendations," listed under General References at the end of this report. ATTN: The Total Sorbed Metals Test is currently unavailable. We apologize for any inconvenience.

References:

Home Lawn and Garden Information

<http://ag.umass.edu/resources/home-lawn-garden>

Step-by-Step Fertilizer Guide for Lawns

<http://ag.umass.edu/soil-plant-nutrient-testing-laboratory/fact-sheets/fertilizer-guide-for-lawns>

Recommendations for Deciduous Trees, Shrubs & Vines-Establishment

Limestone (Target pH of 6.0)	Nitrogen, N	Phosphorus, P2O5	Potassium, K2O
12.5	.1 - .2	0.25	0.25

Comments:

- *Your nitrate level is currently above optimum. Please disregard nitrogen recommendation. No additional nitrogen is needed at this time.
- *To supply Phosphorus, apply EITHER 2.1 lbs. Bone Meal (4-12-0) OR 0.6 lb. Triple Phosphate (0-45-0) per 100 square feet.
- *To supply Potassium, apply 0.4 lbs. Potash (0-0-60) per 100 square feet.
- For instructions on converting nutrient recommendations to fertilizer applications in home gardens and landscapes, see Reference "Step-by-Step Fertilizer Guide for Home Grounds and Gardening" (listed below).
- Use native soil to fill around the roots when planting. If the soil is light sand or heavy clay, mix in some peat moss or compost. Maintain a 2 to 4 inch organic mulch to help conserve moisture and improve soil conditions.
- The lead level in this soil is less than 22 ppm, which falls below the listed optimum level. However, many variables affect this result, and safety thresholds vary by location and soil use. There is still a potential risk of lead exposure for soils used for growing food or as play areas for children. Our Total Sorbed Metals test provides an accurate measurement of soil lead. For more information about lead levels in soil, see the fact sheet entitled "Soil Lead: Testing, Interpretation, & Recommendations," listed under General References at the end of this report. ATTN: The Total Sorbed Metals Test is currently unavailable. We apologize for any inconvenience.

References:

Home Lawn and Garden Information <http://ag.umass.edu/resources/home-lawn-garden>

Step-by-Step Fertilizer Guide for Home Grounds and Gardening <https://ag.umass.edu/SPNTL-4>

Recommendations for Deciduous Trees, Shrubs & Vines-Maintenance

Limestone (Target pH of 6.0)	Nitrogen, N	Phosphorus, P2O5	Potassium, K2O
12.5	.1 - .2	0.25	0.25

Comments:

-Do not topdress with more than 5 lb limestone per 100 sq ft at one time. Split the above application between early spring and mid-autumn.

*Your nitrate level is currently above optimum. Please disregard nitrogen recommendation. No additional nitrogen is needed at this time.

*To supply Phosphorus, apply EITHER 2.1 lbs. Bone Meal (4-12-0) OR 0.6 lb. Triple Phosphate (0-45-0) per 100 square feet.

*To supply Potassium, apply 0.4 lbs. Potash (0-0-60) per 100 square feet.

-For instructions on converting nutrient recommendations to fertilizer applications in home gardens and landscapes, see Reference "Step-by-Step Fertilizer Guide for Home Grounds and Gardening" (listed below).

-The lead level in this soil is less than 22 ppm, which falls below the listed optimum level. However, many variables affect this result, and safety thresholds vary by location and soil use. There is still a potential risk of lead exposure for soils used for growing food or as play areas for children. Our Total Sorbed Metals test provides an accurate measurement of soil lead. For more information about lead levels in soil, see the fact sheet entitled "Soil Lead: Testing, Interpretation, & Recommendations," listed under General References at the end of this report. ATTN: The Total Sorbed Metals Test is currently unavailable. We apologize for any inconvenience.

References:

Home Lawn and Garden Information <http://ag.umass.edu/resources/home-lawn-garden>

Step-by-Step Fertilizer Guide for Home Grounds and Gardening <https://ag.umass.edu/SPNTL-4>

General References:

Interpreting Your Soil Test Results <http://soiltest.umass.edu/fact-sheets/interpreting-your-soil-test-results>

Soil Lead: Testing, Interpretation & Recommendations <http://ag.umass.edu/soil-plant-nutrient-testing-laboratory/fact-sheets/soil-lead-fact-sheet>

For current information and order forms, please visit <http://soiltest.umass.edu/>

UMass Extension Nutrient Management <http://ag.umass.edu/agriculture-resources/nutrient-management>

Particle Size Analysis - Comprehensive with 2mm Passing

Sample Information:

Sample ID: Base Soil S

Prepared For:

Chris Ierardi
Read Custom Soils
158 Tihonet Rd
Wareham, MA 02571

Order Number: 52227

Lab Number: X201125-108

Received: 11/23/2020

Reported: 12/10/2020

chris@readcustomsoils.com
781-828-6300

<u>USDA Size Fraction</u>			<u>Percent of Whole Sample Passing</u>			
<u>Main Fractions</u>	<u>Size (mm)</u>	<u>Percent</u>	<u>Size (mm)</u>	<u>Sieve #</u>	<u>Whole Sample % of Sample Passing</u>	<u>Finer Than 2mm % of Sample Passing</u>
Sand	0.05-2.0	55.9	2.00	#10	87.6	100.0
Silt	0.002-0.05	35.1	1.00	#18	82.8	94.5
Clay	<0.002	9.0	0.50	#35	76.4	87.2
			0.25	#60	67.4	77.0
<u>Sand Fractions</u>	<u>Size (mm)</u>	<u>Percent</u>	0.10	#140	50.7	57.9
Very Coarse	1.0-2.0	5.5	0.053	#270	38.6	44.1
Coarse	0.5-1.0	7.3	0.02	20 um	18.7	21.4
Medium	0.25-0.5	10.2	0.005	5 um	10.1	11.5
Fine	0.10-0.25	19.1	0.002	2 um	7.9	9.0
Very Fine	0.05-0.10	13.8				
<u>Silt Fractions</u>	<u>Size (mm)</u>	<u>Percent</u>				
Coarse	0.02-0.05	22.8				
Medium	0.005-0.02	9.9				
Fine	0.002-0.005	2.5				

USDA Textural Class: fine sandy loam

Gravel Content: (%) 12.4

Particle Size Analysis - Comprehensive with 2mm Passing

Sample Information:

Sample ID: Coarse Sand

Prepared For:

Chris Ierardi
Read Custom Soils
158 Tihonet Rd
Wareham, MA 02571

Order Number: 51363

Lab Number: X201002-104

Received: 12/8/2020

Reported: 12/10/2020

chris@readcustomsoils.com
781-828-6300

<u>USDA Size Fraction</u>			<u>Percent of Whole Sample Passing</u>			
<u>Main Fractions</u>	<u>Size (mm)</u>	<u>Percent</u>	<u>Size (mm)</u>	<u>Sieve #</u>	<u>Whole Sample % of Sample Passing</u>	<u>Finer Than 2mm % of Sample Passing</u>
Sand	0.05-2.0	99.2	2.00	#10	86.7	100.0
Silt	0.002-0.05	0.2	1.00	#18	75.8	77.5
Clay	<0.002	0.5	0.50	#35	37.7	45.1
			0.25	#60	13.3	15.3
<u>Sand Fractions</u>	<u>Size (mm)</u>	<u>Percent</u>	0.10	#140	1.3	1.5
Very Coarse	1.0-2.0	12.5	0.053	#270	0.7	0.8
Coarse	0.5-1.0	32.4	0.02	20 um	0.6	0.6
Medium	0.25-0.5	39.7	0.005	5 um	0.6	0.6
Fine	0.10-0.25	13.9	0.002	2 um	0.4	0.5
Very Fine	0.05-0.10	0.7				
<u>Silt Fractions</u>	<u>Size (mm)</u>	<u>Percent</u>				
Coarse	0.02-0.05	0.1				
Medium	0.005-0.02	0.0				
Fine	0.002-0.005	0.1				

USDA Textural Class: coarse sand

Gravel Content: (%) 13.3



Analysis Report For:				Copy To:		
Christopher J Ierardi Read Custom Soils 158 Tihonet Rd Wareham MA 02571						
LAB ID:	SAMPLE ID:	REPORT DATE:	SAMPLE TYPE:	FEEDSTOCKS	COMPOSTING METHOD	COUNTY
C12718	Leaf Compost	12/10/2020	Finished Compost		Windrow	

COMPOST ANALYSIS REPORT

Compost Test 3A

Analyte	Results (As is basis)	Results (Dry weight basis)
pH	7.6	—
Soluble Salts (1:5 w:w)	0.89 mmhos/cm	—
Solids	45.1 %	—
Moisture	54.9 %	—
Organic Matter	19.2 %	42.4 %
Total Nitrogen (N)	0.6 %	1.4 %
Organic Nitrogen ¹	0.6 %	1.4 %
Ammonium N (NH ₄ -N)	< 2.2 mg/kg <i>or</i> < 0.0002 %	< 4.9 mg/kg <i>or</i> < 0.0005 %
Carbon (C)	10.6 %	23.6 %
Carbon:Nitrogen (C:N) Ratio	16.90	16.90
Phosphorus (as P ₂ O ₅) ²	0.14 %	0.31 %
Potassium (as K ₂ O) ²	0.21 %	0.47 %
Calcium (Ca)	0.47 %	1.04 %
Magnesium (Mg)	0.10 %	0.23 %
Particle size (< 9.5 mm)	96.48 %	—

¹See comments on back of report .

²To convert phosphorus (as P₂O₅) into elemental phosphorus (P), divide by 2.29. To convert potassium (as K₂O) into elemental potassium (K), divide by 1.20.

INTERPRETATION

pH	pH is a measure of active acidity in the feedstock or compost. The pH scale is 0 (acidic) to 14 (basic) with 7 being neutral. Most finished composts will have pH values in the range of 5.0 to 8.5. Ideal pH depends on compost use. A lower pH is preferred for certain ornamental plants while a neutral pH is suitable for most other applications. pH is not a measure of the total acidity or alkalinity and cannot be used to predict the effect of compost on soil pH.
Soluble Salts	Soluble salts are determined by measuring electrical conductivity (EC) in a 1:5 (compost:water, weight ratio) slurry. EC is related to the total soluble salts dissolved in the slurry and is measured in units of millimhos/cm (mmhos/cm). Compost soluble salt levels typically range from 1 to 10 mmhos/cm. High salinity may be toxic to plants. Ideal soluble salt levels will depend on the end use of the compost. Final compost blends with soil or container media/potting mixes should be tested for soluble salts.
% Solids, % Moisture	The ideal moisture content for composting will depend on the water holding capacity of the materials being composted. In general, high organic matter materials have a higher water holding capacity and a higher ideal moisture content. A typical starting compost mix will have an ideal % solids content of 35-55 % (65-45 % moisture). Finished compost should have a % solids content of 50-60 % (50-40 % moisture).
% Organic Matter	There is no ideal organic matter level for feedstocks or finished compost. Organic matter content will decrease during composting. The organic matter content (dry weight basis) of typical feedstocks and starting mixes will be greater than 60 % while that of finished compost will be in the range of 30-70 %. An organic matter content (dry weight basis) of 50-60 % is desirable for most compost uses.
Nitrogen : Total, Organic, Ammonium, and Nitrate	Total nitrogen (N) includes all forms of nitrogen: organic N, ammonium N ($\text{NH}_4\text{-N}$), and nitrate N ($\text{NO}_3\text{-N}$). Total N will normally range from less than 1 % to around 5 % (dry weight basis) in most feedstocks and from 0.5 to 2.5 % (dry weight basis) in finished composts. $\text{NO}_3\text{-N}$ (an optional test) is generally present in only low concentrations in immature composts, although it may increase as the compost matures. $\text{NH}_4\text{-N}$ levels may be high during initial stages of the composting process, but decrease as maturity increases. Organic N is determined by subtracting the inorganic N forms, $\text{NH}_4\text{-N}$ and $\text{NO}_3\text{-N}$, from total N. However, because $\text{NO}_3\text{-N}$ levels are generally very low, total nitrogen minus $\text{NH}_4\text{-N}$ provides a good estimate of organic N in most composts and is the value shown on the front of this report. In stable, finished composts, most of the N should be in the organic form. While $\text{NH}_4\text{-N}$ and $\text{NO}_3\text{-N}$ are immediately available to plants, organic N is only slowly available, approximately 10 to 20 % per year. However, mineralization or break-down of organic N into available inorganic forms depends on the C:N ratio (see below) as well as factors such as soil moisture and temperature.
Total Carbon	Total carbon (C) is a direct measurement of all organic and inorganic carbon in the compost sample. Unless the sample has a high pH (> 8.3) or is known to contain carbonates, essentially all carbon will be in the organic form. Compost organic matter typically contains around 54 % organic carbon by weight. The carbon content of individual feedstocks may vary from this ratio.
Carbon: Nitrogen Ratio	This is the ratio of total carbon (C) to total nitrogen (N) in the compost sample provided. C:N ratio may be used as an indicator of compost stability and N availability. Compost C:N ratio typically decreases during composting if the starting C:N ratio is > 25, but may increase if the starting C:N ratio is low (< 15) and N is lost during the composting process. Composts with high C:N ratios (> 30) will likely immobilize or tie-up N if applied to soil, while those with low C:N ratios (< 20) will mineralize or break-down organic N to inorganic (plant-available) N.
Phosphorus, Potassium	Phosphorus (P) and potassium (K) are plant macronutrients. Values reported are for total amounts given in the oxide forms (P_2O_5 and K_2O). These results provide an indication of the nutrient value of the compost sample. However, plant availability of total phosphorus and potassium in compost has not yet been established.
Nitrogen, Phosphorus, Potassium Balance	When compost is applied on the basis of nitrogen (N), most composts will have an excess of phosphorus (P) and potassium (K) relative to crop demand. These mineral elements and salts can accumulate to above optimum levels with repeated application. Growers using compost should regularly soil test to monitor P, K and salt accumulation and should consider using other nutrient sources or nitrogen fixing legumes in their crop rotation especially when P and K levels are above optimum.



Analysis Report For:				Copy To:		
Christopher J Ierardi Read Custom Soils 158 Tihonet Rd Wareham MA 02571						
LAB ID:	SAMPLE ID:	REPORT DATE:	SAMPLE TYPE:	FEEDSTOCKS	COMPOSTING METHOD	COUNTY
C12718	Leaf Compost	12/10/2020	Finished Compost		Windrow	

COMPOST ANALYSIS REPORT

EPA 503 Pollutants

Analyte	Results (As is Basis)	Results (Dry Weight Basis)	EPA SW 846 Method
Arsenic (As)	3.5 mg/kg	7.8 mg/kg	3050B + 6010
Cadmium (Cd)	0.3 mg/kg	0.6 mg/kg	3050B + 6010
Copper (Cu)	20.1 mg/kg	44.6 mg/kg	3050B + 6010
Lead (Pb)	35.3 mg/kg	78.2 mg/kg	3050B + 6010
Mercury (Hg)	0.051 mg/kg	0.113 mg/kg	7473
Molybdenum (Mo)	3.7 mg/kg	8.3 mg/kg	3050B + 6010
Nickel (Ni)	3.5 mg/kg	7.7 mg/kg	3050B + 6010
Selenium (Se)	< 1.1 mg/kg	< 2.5 mg/kg	3050B + 6010
Zinc (Zn)	71.4 mg/kg	158.1 mg/kg	3050B + 6010



Analysis Report For:				Copy To:		
Christopher J Ierardi Read Custom Soils 158 Tihonet Rd Wareham MA 02571						
LAB ID	SAMPLE ID	REPORT DATE	SAMPLE TYPE	FEEDSTOCKS	COMPOSTING METHOD	COUNTY
C12718	Leaf Compost	12/10/2020	Finished Compost		Windrow	

COMPOST BIOASSAY
Seedling Emergence and Relative Growth

TEST PARAMETERS	
Test Dates:	12/02/2020 to 12/10/2020
Seed Type:	Cucumber-Marketmore 76 Variety
Media Type: <i>(Control)</i>	Miracle Gro Moisture Control
Vermiculite:	NK Professional Grade

TEST RESULTS	
Emergence: (% of control)	100.00
Seedling Vigor: (%):	100.00

COMMENTS

INTERPRETATION

The bioassay test provides a screen for the presence of phytotoxins in compost based on seedling emergence and seedling vigor relative to a control. It provides an assessment of compost maturity although should not be used as a stand-alone indicator. The U.S. Compost Council Test Methods for the Examination of Composting and Compost provides the following Maturity Indicator Ratings based on this test.

Test Parameter	Maturity Indicator Rating ¹		
	Very Mature	Mature	Immature
Emergence %	> 90	80-90	< 80
Seedling Vigor %	> 95	80-95	< 80

¹Test Methods for the Examination of Composting and Composts (revised July 15, 2015)



Analysis Report For:				Copy To:		
Christopher J Ierardi Read Custom Soils 158 Tihonet Rd Wareham MA 02571						
LAB ID	SAMPLE ID	REPORT DATE	SAMPLE TYPE	FEEDSTOCKS	COMPOSTING METHOD	COUNTY
C12718	Leaf Compost	12/10/2020	Finished Compost		Windrow	

RESPIROMETRY
Carbon Dioxide (CO₂) Evolution Rate

TEST RESULTS	
mg CO₂-C/g solids/day:	0.3
mg CO₂-C/g organic matter/day:	0.5

INTERPRETATION

Respirometry (CO₂ evolution) provides a measurement of the relative microbial activity in a compost and can therefore be used as an estimate of compost stability. The interpretive index below assumes optimal conditions for microbial activity are present including temperature, moisture and nutrients, and that toxic components that would inhibit microbial respiration are absent.

Result ¹	Stability Rating ²	General Characteristics
< 1	Very stable	Well cured compost No continued decomposition No odors No potential for volatile fatty acid phytotoxicity
1-2	Stable	Moderately well cured compost Odor production not likely Limited potential for volatile fatty acid phytotoxicity Minimal to no impact on soil carbon and nitrogen dynamics
2-5	Moderately unstable, curing compost	Curing compost Odor production not likely Limited potential for volatile fatty acid phytotoxicity Minor impact on soil carbon & nitrogen dynamics
6-9	Unstable, raw compost	Active, uncured compost Minimal odor production Moderate to high potential for volatile fatty acid phytotoxicity Moderate potential for negative impact on soil carbon & nitrogen dynamics
10-11	Raw compost, raw organic products	Highly active, uncured compost Odor production likely High potential for volatile fatty acid phytotoxicity High potential for negative impact on soil carbon & soil nitrogen dynamics
>11	Raw feedstock, unstabilized material	Raw, extremely unstable material Odor production expected Probable volatile fatty acid phytotoxicity with most materials Negative impact on soil carbon & soil nitrogen dynamics expected

¹Units in mg CO₂-C/g organic matter/day

²Test Methods for the Examination of Composting and Composts (revised July 15, 2015)

Soil Test Report

Prepared For:

Chris Ierardi
Read Custom Soils
158 Tihonet Rd
Wareham, MA 02571

chris@readcustomsoils.com
781-828-6300

Sample Information:

Sample ID: SBSS

Order Number: 52188

Lab Number: S201118-105

Area Sampled:

Received: 11/18/2020





Reported: 12/9/2020

Results

<i>Analysis</i>	<i>Value Found</i>	<i>Optimum Range</i>	<i>Analysis</i>	<i>Value Found</i>	<i>Optimum Range</i>
Soil pH (1:1, H ₂ O)	7.0		Cation Exch. Capacity, meq/100g	3.1	
Modified Morgan extractable, ppm			Exch. Acidity, meq/100g	0.0	
<i>Macronutrients</i>			Base Saturation, %		
Phosphorus (P)	6.2	4-14	Calcium Base Saturation	74	50-80
Potassium (K)	118	100-160	Magnesium Base Saturation	16	10-30
Calcium (Ca)	464	1000-1500	Potassium Base Saturation	10	2.0-7.0
Magnesium (Mg)	63	50-120	Scoop Density, g/cc	1.41	
Sulfur (S)	6.2	>10	Optional tests		
<i>Micronutrients *</i>			Soil Organic Matter (LOI), %	2.5	
Boron (B)	0.2	0.1-0.5	Soluble Salts (1:2), dS/m	0.05	<0.6
Manganese (Mn)	1.8	1.1-6.3	Nitrate-N (NO ₃ -N), ppm	2	
Zinc (Zn)	1.3	1.0-7.6			
Copper (Cu)	0.1	0.3-0.6			
Iron (Fe)	4.2	2.7-9.4			
Aluminum (Al)	15	<75			
Lead (Pb)	0.8	<22			

* Micronutrient deficiencies rarely occur in New England soils; therefore, an Optimum Range has never been defined. Values provided represent the normal range found in soils and are for reference only.

Soil Test Interpretation

Nutrient	Very Low	Low	Optimum	Above Optimum
Phosphorus (P):				
Potassium (K):				
Calcium (Ca):				
Magnesium (Mg):				

Recommendations for Data only (no recommendations requested)

Comments:

-When pH is greater than 6.8, Cation Exchange Capacity (CEC) tends to be overestimated.
-The lead level in this soil is less than 22 ppm, which falls below the listed optimum level. However, many variables affect this result, and safety thresholds vary by location and soil use. There is still a potential risk of lead exposure for soils used for growing food or as play areas for children. Our Total Sorbed Metals test provides an accurate measurement of soil lead. For more information about lead levels in soil, see the fact sheet entitled "Soil Lead: Testing, Interpretation, & Recommendations," listed under General References at the end of this report. ATTN: The Total Sorbed Metals Test is currently unavailable. We apologize for any inconvenience.

General References:

Interpreting Your Soil Test Results

<http://soiltest.umass.edu/fact-sheets/interpreting-your-soil-test-results>

Soil Lead: Testing, Interpretation & Recommendations

<http://ag.umass.edu/soil-plant-nutrient-testing-laboratory/fact-sheets/soil-lead-fact-sheet>

For current information and order forms, please visit

<http://soiltest.umass.edu/>

UMass Extension Nutrient Management

<http://ag.umass.edu/agriculture-resources/nutrient-management>

Dellbrook | JKS
 859 Willard Street
 Quincy, Massachusetts 02169
 Phone: (781) 380-1675
 Fax: (781) 380-1676

Project: 10-19-0049 - Redgate 144 Addison
 144 Addison St.
 East Boston, Massachusetts 02128

Product Data: Sandy Soil Loam

REVISION:	0	SUBMITTA
STATUS:	Open	DATE CRE
ISSUE DATE:	03/4/2021	SPEC SEC
RESPONSIBLE CONTRACTOR:	R&S Landscaping	RECEIVED
RECEIVED DATE:	03/4/2021	SUBMIT B
FINAL DUE DATE:	03/5/2021 ← ADJUST FOR ACCURACY	LOCATION
		COST CO
		TYPE:
APPROVERS:	Kevin Power (Dellbrook JKS), Benjamin Thomas (Arrowstreet A	
BALL IN COURT:	Kevin Power (Dellbrook JKS)	
DISTRIBUTION:	Chris Wade (Dellbrook JKS), Kevin Power (Dellbrook JKS), Steve Perdue (Redgate), (Dellbrook JKS), Joshua Levene (Dellbrook JKS), Amy Korte (Arrowstreet Architects), Jonathan Bonaccorsi (Dellbrook JKS), Liz Bello (Gate Residential)	
DESCRIPTION:	Team, Please find attached the product data for Sandy Soil Loam, submittal 329000-4, for your Note: This loam is to be used for a majority of Thanks	

ARROWSTREET

- No Exceptions Taken
- Rejected
- Make Corrections Noted
- Make Corrections Noted, Resubmit For Record
- Make Corrections Noted, Resubmit Items Noted
- Actions Not Required

Corrections or comments made on this submittal do not relieve the contractor from compliance with the requirements of the contract documents. This review is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. The contractor is responsible for confirming and correlating all quantities and dimensions, for selecting fabrication processes and techniques of construction, for coordinating this work with that of other trades, and for performing this work in a safe and satisfactory manner.

DATE 03/08/2021 BY bthomas

**NO ACTION BY ARCH.
 SEE LA COMMENTS.
 PROVIDE ACCURATE DUE DATE**

SUBMITTAL WORKFLOW

NAME	SENT DATE	DUE DATE	RETURNED DATE	RESPONSE	ATTACHMENTS	COMMENTS
Kevin Power		03/04/2021		Pending		Copley Wolff Design Group Landscape Architects & Planners 10 Post Office Square, Suite 1315 Boston, MA 02109
Benjamin Thomas		03/05/2021		Pending		

REVIEWED FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS
DELLBROOK | JKS
Kevin Power
 For the General Contractor
 All dimensions and field conditions have been or will be verified prior to fabrication of the items described herein
 Submittal No. 329000-4
 Subcontractor R&S Landscaping
 Date 3/4/21
 This submittal has been reviewed for compliance with Contract Documents

**CWDG RESPONSE:
 1. SANDY LOAM SOIL IS APPROVED AS SHOWN.**

- NO EXCEPTIONS TAKEN
- MAKE CORRECTIONS NOTED
- REVISE AND RESUBMIT
- REJECTED

This check is only for review of general conformance with the Design concept of the project and general compliance with the information given in the contract documents. Corrections or comments made on the shop drawings during this review do not relieve the Contractor from compliance with the requirements of the Drawings and specifications. The Contractor is responsible for confirming and correlating at quantities and dimensions selecting fabrication processes and techniques of construction coordinating their work with that of all other trades, and performing their work in a safe and satisfactory manner.

BY _____
 Dellbrook | JKS

DATE _____
 Page 1 of 1

A. DESBONNET 3/5/2021
 Signed _____ Date _____



Client: Roberto Loam Project: QA/QC
 P&S Proj.#: Soils Date: 3/1/19
 Sampled by: Roberto Loam Analyst(s): MA/AC

Horticultural Soil Testing Report

Sample ID: Screened Loam 2

Mechanical Sieve Analysis

Sieve Size (US Standard Mesh)	% Passing based on whole sample	% Passing based on #10 (2mm) sieve	Specification Ranges (if provided)	
			Minimum	Maximum
10	87.5%	100.0%		
18	80.3%	91.7%		
35	66.7%	76.2%		
60	47.2%	53.9%		
140	28.9%	33.1%		
270	19.4%	22.2%		

Uniformity	Spec. Limit	USDA Textural Class Sandy Loam
D70/D20: 8.9		
D80/D30: 6.4		
% Gravel: 12.5%		

Additional Tests	Spec. Limit
pH:	5.8
Soluble Salts (mmhos/cm):	
Organic Matter:	4.2%

This report shall not be altered or reproduced without the express permission of Pine & Swallow Environmental. % Organic by loss on ignition. Gradation by washed sieve method. pH 1:1 (v:v) distilled water. Conductivity 1:2 (v:v) distilled water. © 2018 Pine & Swallow Environmental

Soil Test Report

Prepared For:

Chris Ierardi
Read Custom Soils
158 Tihonet Rd
Wareham, MA 02571

chris@readcustomsoils.com
781-828-6300

Sample Information:

Sample ID: Planting Soil

Order Number: 56940

Lab Number: S210907-104

Area Sampled:

Received: 9/7/2021

Reported: 9/15/2021

Results

<i>Analysis</i>	<i>Value Found</i>	<i>Optimum Range</i>	<i>Analysis</i>	<i>Value Found</i>	<i>Optimum Range</i>
Soil pH (1:1, H ₂ O)	6.6		Cation Exch. Capacity, meq/100g	8.7	
Modified Morgan extractable, ppm			Exch. Acidity, meq/100g	1.2	
<i>Macronutrients</i>			Base Saturation, %		
Phosphorus (P)	7.6	4-14	Calcium Base Saturation	64	50-80
Potassium (K)	312	100-160	Magnesium Base Saturation	13	10-30
Calcium (Ca)	1112	1000-1500	Potassium Base Saturation	9	2.0-7.0
Magnesium (Mg)	139	50-120	Scoop Density, g/cc	1.10	
Sulfur (S)	21.5	>10	Optional tests		
<i>Micronutrients *</i>			Soil Organic Matter (LOI), %	5.3	
Boron (B)	0.6	0.1-0.5	Soluble Salts (1:2), dS/m	0.33	<0.6
Manganese (Mn)	4.7	1.1-6.3	Nitrate-N (NO ₃ -N), ppm	19	
Zinc (Zn)	3.2	1.0-7.6			
Copper (Cu)	0.2	0.3-0.6			
Iron (Fe)	7.6	2.7-9.4			
Aluminum (Al)	37	<75			
Lead (Pb)	1.8	<22			

* Micronutrient deficiencies rarely occur in New England soils; therefore, an Optimum Range has never been defined. Values provided represent the normal range found in soils and are for reference only.

Soil Test Interpretation

Nutrient	Very Low	Low	Optimum	Above Optimum
Phosphorus (P):				
Potassium (K):				
Calcium (Ca):				
Magnesium (Mg):				

Recommendations for New Lawn Construction

Limestone (Target pH of 6.5)	Nitrogen, N	Phosphorus, P2O5	Potassium, K2O
0	2 - 4	0.5	0

Comments:

- For instructions on converting nutrient recommendations to fertilizer applications in lawns, see Reference "Step-by-Step Fertilizer Guide for Lawns" (listed below).
- Avoid over-fertilization. In addition to threatening water quality, excessive nutrient applications can compromise plant health and contribute to insect and disease problems. For details, see Reference "Corrective Measures and Management of Over-Fertilized Soils" (listed below).
- For best results, split the N, P2O5, and K2O recommendations above into three to four applications over the course of the growing season at six to eight week intervals, beginning in mid- to late-April.
- Many fertilizer sources and rates may be combined to provide acceptable turfgrass fertility.
- The lead level in this soil is less than 22 ppm, which falls below the listed optimum level. However, many variables affect this result, and safety thresholds vary by location and soil use. There is still a potential risk of lead exposure for soils used for growing food or as play areas for children. Our Total Sorbed Metals test provides an accurate measurement of soil lead. For more information about lead levels in soil, see the fact sheet entitled "Soil Lead: Testing, Interpretation, & Recommendations," listed under General References at the end of this report. ATTN: The Total Sorbed Metals Test is currently unavailable. We apologize for any inconvenience.

References:

Home Lawn and Garden Information	http://ag.umass.edu/resources/home-lawn-garden
Corrective Measures and Management of Over-Fertilized Soils	https://ag.umass.edu/SPNTL-13
Step-by-Step Fertilizer Guide for Lawns	http://ag.umass.edu/soil-plant-nutrient-testing-laboratory/fact-sheets/fertilizer-guide-for-lawns

Recommendations for Established Lawn

Limestone (Target pH of 6.5)	Nitrogen, N	Phosphorus, P2O5	Potassium, K2O
0	2 - 4	0.5	0

Comments:

- For instructions on converting nutrient recommendations to fertilizer applications in lawns, see Reference "Step-by-Step Fertilizer Guide for Lawns" (listed below).
- Avoid over-fertilization. In addition to threatening water quality, excessive nutrient applications can compromise plant health and contribute to insect and disease problems. For details, see Reference "Corrective Measures and Management of Over-Fertilized Soils" (listed below).
- For best results, split the N, P2O5, and K2O recommendations above into three to four applications over the course of the growing season at six to eight week intervals, beginning in mid- to late-April.
- Many fertilizer sources and rates may be combined to provide acceptable turfgrass fertility.
- The lead level in this soil is less than 22 ppm, which falls below the listed optimum level. However, many variables affect this result, and safety thresholds vary by location and soil use. There is still a potential risk of lead exposure for soils used for growing food or as play areas for children. Our Total Sorbed Metals test provides an accurate measurement of soil lead. For more information about lead levels in soil, see the fact sheet entitled "Soil Lead: Testing, Interpretation, & Recommendations," listed under General References at the end of this report. ATTN: The Total Sorbed Metals Test is currently unavailable. We apologize for any inconvenience.

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Corrective Measures and Management of Over-Fertilized Soils	https://ag.umass.edu/SPNTL-13
Step-by-Step Fertilizer Guide for Lawns	http://ag.umass.edu/soil-plant-nutrient-testing-laboratory/fact-sheets/fertilizer-guide-for-lawns

Recommendations for Deciduous Trees, Shrubs & Vines-Establishment

Limestone (Target pH of 6.0)	Nitrogen, N	Phosphorus, P2O5	Potassium, K2O
0	.1 - .2	0.1	0

Comments:

*To supply Nitrogen, apply EITHER 1 - 1.5 lbs. Dried Blood (12-0-0) OR 0.2 - 0.4 lbs. Urea (45-0-0) per 100 square feet. Application should be split between early spring and mid-June.

*To supply Phosphorus, apply EITHER 0.8 lbs. Bone Meal (4-12-0) OR 0.2 lb. Triple Phosphate (0-45-0) per 100 square feet.

*Soil test value for potassium is above optimum. Do not add additional potassium at this time.

-For instructions on converting nutrient recommendations to fertilizer applications in home gardens and landscapes, see Reference "Step-by-Step Fertilizer Guide for Home Grounds and Gardening" (listed below).

-Avoid over-fertilization. In addition to threatening water quality, excessive nutrient applications can compromise plant health and contribute to insect and disease problems. For details, see Reference "Corrective Measures and Management of Over-Fertilized Soils" (listed below).

-Use native soil to fill around the roots when planting. If the soil is light sand or heavy clay, mix in some peat moss or compost.

Maintain a 2 to 4 inch organic mulch to help conserve moisture and improve soil conditions.

-The lead level in this soil is less than 22 ppm, which falls below the listed optimum level. However, many variables affect this result, and safety thresholds vary by location and soil use. There is still a potential risk of lead exposure for soils used for growing food or as play areas for children. Our Total Sorbed Metals test provides an accurate measurement of soil lead. For more information about lead levels in soil, see the fact sheet entitled "Soil Lead: Testing, Interpretation, & Recommendations," listed under General References at the end of this report. ATTN: The Total Sorbed Metals Test is currently unavailable. We apologize for any inconvenience.

References:

Home Lawn and Garden Information

<http://ag.umass.edu/resources/home-lawn-garden>

Step-by-Step Fertilizer Guide for Home Grounds and Gardening

<https://ag.umass.edu/SPNTL-4>

Corrective Measures and Management of Over-Fertilized Soils

<https://ag.umass.edu/SPNTL-13>

Recommendations for Deciduous Trees, Shrubs & Vines-Maintenance

Limestone (Target pH of 6.0)	Nitrogen, N	Phosphorus, P2O5	Potassium, K2O
0	.1 - .2	0.1	0

Comments:

*To supply Nitrogen, apply EITHER 1 - 1.5 lbs. Dried Blood (12-0-0) OR 0.2 - 0.4 lbs. Urea (45-0-0) per 100 square feet. Application should be split between early spring and mid-June.

*To supply Phosphorus, apply EITHER 0.8 lbs. Bone Meal (4-12-0) OR 0.2 lb. Triple Phosphate (0-45-0) per 100 square feet.

*Soil test value for potassium is above optimum. Do not add additional potassium at this time.

-For instructions on converting nutrient recommendations to fertilizer applications in home gardens and landscapes, see Reference "Step-by-Step Fertilizer Guide for Home Grounds and Gardening" (listed below).

-Avoid over-fertilization. In addition to threatening water quality, excessive nutrient applications can compromise plant health and contribute to insect and disease problems. For details, see Reference "Corrective Measures and Management of Over-Fertilized Soils" (listed below).

-The lead level in this soil is less than 22 ppm, which falls below the listed optimum level. However, many variables affect this result, and safety thresholds vary by location and soil use. There is still a potential risk of lead exposure for soils used for growing food or as play areas for children. Our Total Sorbed Metals test provides an accurate measurement of soil lead. For more information about lead levels in soil, see the fact sheet entitled "Soil Lead: Testing, Interpretation, & Recommendations," listed under General References at the end of this report. ATTN: The Total Sorbed Metals Test is currently unavailable. We apologize for any inconvenience.

References:

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<http://ag.umass.edu/resources/home-lawn-garden>

Step-by-Step Fertilizer Guide for Home Grounds and Gardening

<https://ag.umass.edu/SPNTL-4>

Corrective Measures and Management of Over-Fertilized Soils

<https://ag.umass.edu/SPNTL-13>

Recommendations for Needleleaf Trees & Shrubs-Establishment

Limestone (Target pH of 6.0)	Nitrogen, N	Phosphorus, P2O5	Potassium, K2O
0	.1 - .2	0.05	0
lbs / 100 sq ft			

Comments:

*To supply Nitrogen, apply EITHER 1 - 1.5 lbs. Dried Blood (12-0-0) OR 0.2 - 0.4 lbs. Urea (45-0-0) per 100 square feet. Application should be split between early spring and mid-June.

*To supply Phosphorus, apply EITHER 0.4 lbs. Bone Meal (4-12-0) OR 0.1 lb. Triple Phosphate (0-45-0) per 100 square feet.

*Soil test value for potassium is above optimum. Do not add additional potassium at this time.

-For instructions on converting nutrient recommendations to fertilizer applications in home gardens and landscapes, see Reference "Step-by-Step Fertilizer Guide for Home Grounds and Gardening" (listed below).

-Avoid over-fertilization. In addition to threatening water quality, excessive nutrient applications can compromise plant health and contribute to insect and disease problems. For details, see Reference "Corrective Measures and Management of Over-Fertilized Soils" (listed below).

-Use native soil to fill around the roots when planting. If the soil is light sand or heavy clay, mix in some peat moss or compost.

Maintain a 2 to 4 inch organic mulch to help conserve moisture and improve soil conditions.

-The lead level in this soil is less than 22 ppm, which falls below the listed optimum level. However, many variables affect this result, and safety thresholds vary by location and soil use. There is still a potential risk of lead exposure for soils used for growing food or as play areas for children. Our Total Sorbed Metals test provides an accurate measurement of soil lead. For more information about lead levels in soil, see the fact sheet entitled "Soil Lead: Testing, Interpretation, & Recommendations," listed under General References at the end of this report. ATTN: The Total Sorbed Metals Test is currently unavailable. We apologize for any inconvenience.

References:

Home Lawn and Garden Information

<http://ag.umass.edu/resources/home-lawn-garden>

Step-by-Step Fertilizer Guide for Home Grounds and Gardening

<https://ag.umass.edu/SPNTL-4>

Corrective Measures and Management of Over-Fertilized Soils

<https://ag.umass.edu/SPNTL-13>

Recommendations for Needleleaf Trees & Shrubs-Maintenance

Limestone (Target pH of 6.0)	Nitrogen, N	Phosphorus, P2O5	Potassium, K2O
0	.1 - .2	0.05	0

Comments:

*To supply Nitrogen, apply EITHER 1 - 1.5 lbs. Dried Blood (12-0-0) OR 0.2 - 0.4 lbs. Urea (45-0-0) per 100 square feet. Application should be split between early spring and mid-June.

*To supply Phosphorus, apply EITHER 0.4 lbs. Bone Meal (4-12-0) OR 0.1 lb. Triple Phosphate (0-45-0) per 100 square feet.

*Soil test value for potassium is above optimum. Do not add additional potassium at this time.

-For instructions on converting nutrient recommendations to fertilizer applications in home gardens and landscapes, see Reference "Step-by-Step Fertilizer Guide for Home Grounds and Gardening" (listed below).

-Avoid over-fertilization. In addition to threatening water quality, excessive nutrient applications can compromise plant health and contribute to insect and disease problems. For details, see Reference "Corrective Measures and Management of Over-Fertilized Soils" (listed below).

-The lead level in this soil is less than 22 ppm, which falls below the listed optimum level. However, many variables affect this result, and safety thresholds vary by location and soil use. There is still a potential risk of lead exposure for soils used for growing food or as play areas for children. Our Total Sorbed Metals test provides an accurate measurement of soil lead. For more information about lead levels in soil, see the fact sheet entitled "Soil Lead: Testing, Interpretation, & Recommendations," listed under General References at the end of this report. ATTN: The Total Sorbed Metals Test is currently unavailable. We apologize for any inconvenience.

References:

Home Lawn and Garden Information

<http://ag.umass.edu/resources/home-lawn-garden>

Step-by-Step Fertilizer Guide for Home Grounds and Gardening

<https://ag.umass.edu/SPNTL-4>

Corrective Measures and Management of Over-Fertilized Soils

<https://ag.umass.edu/SPNTL-13>

Recommendations for Acid-loving Trees, Shrubs, & Groundcover-Establishment

Limestone (Target pH of 5.5)	Nitrogen, N	Phosphorus, P2O5	Potassium, K2O
0	.1 - .2	0.05	0

Comments:

*To supply Nitrogen, apply EITHER 1 - 1.5 lbs. Dried Blood (12-0-0) OR 0.2 - 0.4 lbs. Urea (45-0-0) per 100 square feet. Application should be split between early spring and mid-June.

*To supply Phosphorus, apply EITHER 0.4 lbs. Bone Meal (4-12-0) OR 0.1 lb. Triple Phosphate (0-45-0) per 100 square feet.

*Soil test value for potassium is above optimum. Do not add additional potassium at this time.

-For instructions on converting nutrient recommendations to fertilizer applications in home gardens and landscapes, see Reference "Step-by-Step Fertilizer Guide for Home Grounds and Gardening" (listed below).

-Avoid over-fertilization. In addition to threatening water quality, excessive nutrient applications can compromise plant health and contribute to insect and disease problems. For details, see Reference "Corrective Measures and Management of Over-Fertilized Soils" (listed below).

-Use native soil to fill around the roots when planting. If the soil is light sand or heavy clay, mix in some peat moss or compost.

Maintain a 2 to 4 inch organic mulch to help conserve moisture and improve soil conditions.

-The lead level in this soil is less than 22 ppm, which falls below the listed optimum level. However, many variables affect this result, and safety thresholds vary by location and soil use. There is still a potential risk of lead exposure for soils used for growing food or as play areas for children. Our Total Sorbed Metals test provides an accurate measurement of soil lead. For more information about lead levels in soil, see the fact sheet entitled "Soil Lead: Testing, Interpretation, & Recommendations," listed under General References at the end of this report. ATTN: The Total Sorbed Metals Test is currently unavailable. We apologize for any inconvenience.

References:

Home Lawn and Garden Information

<http://ag.umass.edu/resources/home-lawn-garden>

Step-by-Step Fertilizer Guide for Home Grounds and Gardening

<https://ag.umass.edu/SPNTL-4>

Corrective Measures and Management of Over-Fertilized Soils

<https://ag.umass.edu/SPNTL-13>

Recommendations for Acid-loving Trees, Shrubs, & Groundcover-Maintenance

Limestone (Target pH of 5.5)	Nitrogen, N	Phosphorus, P2O5	Potassium, K2O
0	.1 - .2	0.05	0

Comments:

*To supply Nitrogen, apply EITHER 1 - 1.5 lbs. Dried Blood (12-0-0) OR 0.2 - 0.4 lbs. Urea (45-0-0) per 100 square feet. Application should be split between early spring and mid-June.

*To supply Phosphorus, apply EITHER 0.4 lbs. Bone Meal (4-12-0) OR 0.1 lb. Triple Phosphate (0-45-0) per 100 square feet.

*Soil test value for potassium is above optimum. Do not add additional potassium at this time.

-For instructions on converting nutrient recommendations to fertilizer applications in home gardens and landscapes, see Reference "Step-by-Step Fertilizer Guide for Home Grounds and Gardening" (listed below).

-Avoid over-fertilization. In addition to threatening water quality, excessive nutrient applications can compromise plant health and contribute to insect and disease problems. For details, see Reference "Corrective Measures and Management of Over-Fertilized Soils" (listed below).

-The lead level in this soil is less than 22 ppm, which falls below the listed optimum level. However, many variables affect this result, and safety thresholds vary by location and soil use. There is still a potential risk of lead exposure for soils used for growing food or as play areas for children. Our Total Sorbed Metals test provides an accurate measurement of soil lead. For more information about lead levels in soil, see the fact sheet entitled "Soil Lead: Testing, Interpretation, & Recommendations," listed under General References at the end of this report. ATTN: The Total Sorbed Metals Test is currently unavailable. We apologize for any inconvenience.

References:

Home Lawn and Garden Information <http://ag.umass.edu/resources/home-lawn-garden>

Step-by-Step Fertilizer Guide for Home Grounds and Gardening <https://ag.umass.edu/SPNTL-4>

Corrective Measures and Management of Over-Fertilized Soils <https://ag.umass.edu/SPNTL-13>

General References:

Interpreting Your Soil Test Results <http://soiltest.umass.edu/fact-sheets/interpreting-your-soil-test-results>

Soil Lead: Testing, Interpretation & Recommendations <http://ag.umass.edu/soil-plant-nutrient-testing-laboratory/fact-sheets/soil-lead-fact-sheet>

For current information and order forms, please visit <http://soiltest.umass.edu/>

UMass Extension Nutrient Management <http://ag.umass.edu/agriculture-resources/nutrient-management>

Condition #9: Recorded Order of Conditions

Barcode
2018 00102477
Bk: 60454 Pg: 291 Page: 1 of 16
Recorded: 11/28/2018 11:29 AM
ATTEST: Stephen J. Murphy, Register
Suffolk County Registry of Deeds

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Form 5 - Order of Conditions
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
MassDEP File #:006-1613
eDEP Transaction #:1062687
City/Town:BOSTON

A. General Information

1. Conservation Commission BOSTON
 2. Issuance a. OOC b. Amended OOC

3. Applicant Details
 a. First Name DAMIAN b. Last Name SZARY
 c. Organization C/O GATE RESIDENTIAL
 d. Mailing Address 235 FRANKLIN STREET, 6TH FLOOR
 e. City/Town BOSTON f. State MA g. Zip Code 02110

4. Property Owner
 a. First Name _____ b. Last Name _____
 c. Organization _____
 d. Mailing Address _____
 e. City/Town _____ f. State _____ g. Zip Code _____

5. Project Location
 a. Street Address 144 ADDISON STREET c. Zip Code 02128
 b. City/Town BOSTON e. Parcel/Lot# 0100548100
 d. Assessors NA g. Longitude 71.01441W
 Map/Plat# _____
 f. Latitude 42.38569N

6. Property recorded at the Registry of Deed for:
 a. County _____ b. Certificate _____ c. Book 38586 d. Page 196

7. Dates
 a. Date NOI Filed : 9/25/2018 b. Date Public Hearing Closed: 10/3/2018 c. Date Of Issuance: 11/7/2018

8. Final Approved Plans and Other Documents
 a. Plan Title: SITE GRADING PLAN b. Plan Prepared by: NITSCH ENGINEERING c. Plan Signed/Stamped by: CHRISTOPHER DEAN HODNEY, P.E. d. Revised Final Date: September 19, 2018 e. Scale: 1" = 20'

B. Findings

1. Findings pursuant to the Massachusetts Wetlands Protection Act
Following the review of the the above-referenced Notice of Intent and based on the information provided in this application and presented at the public hearing, this Commission finds that the areas in which work is proposed is significant to the following interests of the Wetlands Protection Act.

Check all that apply:

a. <input type="checkbox"/> Public Water Supply	b. <input type="checkbox"/> Land Containing Shellfish	c. <input checked="" type="checkbox"/> Prevention of Pollution
d. <input type="checkbox"/> Private Water Supply	e. <input type="checkbox"/> Fisheries	f. <input type="checkbox"/> Protection of Wildlife Habitat
g. <input type="checkbox"/> Ground Water Supply	h. <input checked="" type="checkbox"/> Storm Damage Prevention	i. <input checked="" type="checkbox"/> Flood Control

2. Commission hereby finds the project, as proposed, is:

page 1 of 16

CARA PATULLO
Fort Point Associates, Inc.
31 State Street, 3rd Floor
Boston, MA 02416

Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

WPA Form 5 - Order of Conditions

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

Provided by MassDEP:
 MassDEP File #:006-1613
 eDEP Transaction #:1062687
 City/Town:BOSTON

Approved subject to:

- a. The following conditions which are necessary in accordance with the performance standards set forth in the wetlands regulations. This Commission orders that all work shall be performed in accordance with the Notice of Intent referenced above, the following General Conditions, and any other special conditions attached to this Order. To the extent that the following conditions modify or differ from the plans, specifications, or other proposals submitted with the Notice of Intent, these conditions shall control.

Denied because:

- b. The proposed work cannot be conditioned to meet the performance standards set forth in the wetland regulations. Therefore, work on this project may not go forward unless and until a new Notice of Intent is submitted which provides measures which are adequate to protect interests of the Act, and a final Order of Conditions is issued. **A description of the performance standards which the proposed work cannot meet is attached to this Order.**
- c. The information submitted by the applicant is not sufficient to describe the site, the work or the effect of the work on the interests identified in the Wetlands Protection Act. Therefore, work on this project may not go forward unless and until a revised Notice of Intent is submitted which provides sufficient information and includes measures which are adequate to protect the interests of the Act, and a final Order of Conditions is issued. **A description of the specific information which is lacking and why it is necessary is attached to this Order as per 310 CMR 10.05(6)(c).**

3. Buffer Zone Impacts: Shortest distance between limit of project disturbance and the wetland resource area specified in 310CMR10.02(1)(a). a. linear feet

Inland Resource Area Impacts:(For Approvals Only):

Resource Area	Proposed Alteration	Permitted Alteration	Proposed Replacement	Permitted Replacement
4. <input type="checkbox"/> Bank	<u> </u> a. linear feet	<u> </u> b. linear feet	<u> </u> c. linear feet	<u> </u> d. linear feet
5. <input type="checkbox"/> Bordering Vegetated Wetland	<u> </u> a. square feet	<u> </u> b. square feet	<u> </u> c. square feet	<u> </u> d. square feet
6. <input type="checkbox"/> Land under Waterbodies and Waterways	<u> </u> a. square feet	<u> </u> b. square feet	<u> </u> c. square feet	<u> </u> d. square feet
	<u> </u> e. c/y dredged	<u> </u> f. c/y dredged		
7. <input type="checkbox"/> Bordering Land Subject to Flooding	<u> </u> a. square feet	<u> </u> b. square feet	<u> </u> c. square feet	<u> </u> d. square feet
	Cubic Feet Flood Storage <u> </u> e. cubic feet	<u> </u> f. cubic feet	<u> </u> g. cubic feet	<u> </u> h. cubic feet
8. <input type="checkbox"/> Isolated Land Subject to Flooding	<u> </u> a. square feet	<u> </u> b. square feet		
	Cubic Feet Flood Storage <u> </u> c. cubic feet	<u> </u> d. cubic feet	<u> </u> e. cubic feet	<u> </u> f. cubic feet
9. <input type="checkbox"/> Riverfront Area	<u> </u>	<u> </u>		

Massachusetts Department of Environmental Protection
 Bureau of Resource Protection - Wetlands
WPA Form 5 - Order of Conditions
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
 MassDEP File #:006-1613
 eDEP Transaction #:1062687
 City/Town:BOSTON

Sq ft within 100 ft	a. total sq. feet	b. total sq. feet		
	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Sq ft between 100-200 ft	c. square feet	d. square feet	e. square feet	f. square feet
	<u> </u>	<u> </u>	<u> </u>	<u> </u>
	g. square feet	h. square feet	i. square feet	j. square feet
	<u> </u>	<u> </u>	<u> </u>	<u> </u>

Coastal Resource Area Impacts:		Proposed Alteration	Permitted Alteration	Proposed Replacement	Permitted Replacement
Resource Area					
10. <input type="checkbox"/> Designated Port Areas	Indicate size under Land Under the Ocean, below				
11. <input type="checkbox"/> Land Under the Ocean	a. square feet	b. square feet			
	<u> </u>	<u> </u>			
	c. c/y dredged	d. c/y dredged			
	<u> </u>	<u> </u>			
12. <input type="checkbox"/> Barrier Beaches	Indicate size under Coastal Beaches and/or Coastal Dunes below				
13. <input type="checkbox"/> Coastal Beaches	a. square feet	b. square feet	c. c/y nourishment	d. c/y nourishment	
	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
14. <input type="checkbox"/> Coastal Dunes	a. square feet	b. square feet	c. c/y nourishment	d. c/y nourishment	
	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
15. <input type="checkbox"/> Coastal Banks	a. linear feet	b. linear feet			
	<u> </u>	<u> </u>			
16. <input type="checkbox"/> Rocky Intertidal Shores	a. square feet	b. square feet			
	<u> </u>	<u> </u>			
17. <input type="checkbox"/> Salt Marshes	a. square feet	b. square feet	c. square feet	d. square feet	
	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
18. <input type="checkbox"/> Land Under Salt Ponds	a. square feet	b. square feet			
	<u> </u>	<u> </u>			
	c. c/y dredged	d. c/y dredged			
	<u> </u>	<u> </u>			
19. <input type="checkbox"/> Land Containing Shellfish	a. square feet	b. square feet	c. square feet	d. square feet	
	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
20. <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				
	c. c/y dredged	d. c/y dredged			
	<u> </u>	<u> </u>			
21. <input checked="" type="checkbox"/> Land Subject to Coastal Storm Flowage	133700				
	a. square feet	b. square feet			
	<u> </u>	<u> </u>			
22. <input type="checkbox"/> Restoration/Enhancement (For Approvals Only)					

Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

WPA Form 5 - Order of Conditions

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

Provided by MassDEP:
MassDEP File #:006-1613
eDEP Transaction #:1062687
City/Town:BOSTON

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.5.c & d or B.17.c & d above, please entered the additional amount here.

_____ a. square feet of BVW

_____ b. square feet of Salt Marsh

23.

Streams Crossing(s)

If the project involves Stream Crossings, please enter the number of new stream crossings/number of replacement stream crossings.

_____ a. number of new stream crossings

_____ b. number of replacement stream crossings

C. General Conditions Under Massachusetts Wetlands Protection Act

The following conditions are only applicable to Approved projects

1. Failure to comply with all conditions stated herein, and with all related statutes and other regulatory measures, shall be deemed cause to revoke or modify this Order.
2. The Order does not grant any property rights or any exclusive privileges; it does not authorize any injury to private property or invasion of private rights.
3. This Order does not relieve the permittee or any other person of the necessity of complying with all other applicable federal, state, or local statutes, ordinances, bylaws, or regulations.
4. The work authorized hereunder shall be completed within three years from the date of this Order unless either of the following apply:
 - a. the work is a maintenance dredging project as provided for in the Act; or
 - b. the time for completion has been extended to a specified date more than three years, but less than five years, from the date of issuance. If this Order is intended to be valid for more than three years, the extension date and the special circumstances warranting the extended time period are set forth as a special condition in this Order.
5. This Order may be extended by the issuing authority for one or more periods of up to three years each upon application to the issuing authority at least 30 days prior to the expiration date of the Order.
6. If this Order constitutes an Amended Order of Conditions, this Amended Order of Conditions does not exceed the issuance date of the original Final Order of Conditions.
7. Any fill used in connection with this project shall be clean fill. Any fill shall contain no trash, refuse, rubbish, or debris, including but not limited to lumber, bricks, plaster, wire, lath, paper, cardboard, pipe, tires, ashes, refrigerators, motor vehicles, or parts of any of the foregoing.
8. This Order is not final until all administrative appeal periods from this Order have elapsed, or if such an appeal has been taken, until all proceedings before the Department have been completed.
9. No work shall be undertaken until the Order has become final and then has been recorded in the Registry of Deeds or the Land Court for the district in which the land is located, within the chain of title of the affected property. In the case of recorded land, the Final Order shall also be noted in the Registry's Grantor Index under the name of the owner of the land upon which the proposed work is to be done. In the case of the registered land, the Final Order shall also be noted on the Land Court Certificate of Title of the owner of the land upon which the proposed work is done. The recording information shall be submitted to the Conservation Commission on the form at the end of this Order, which form must be stamped by the Registry of Deeds, prior to the commencement of work..
10. A sign shall be displayed at the site not less than two square feet or more than three square feet in size bearing the words,
" Massachusetts Department of Environmental Protection"

Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

WPA Form 5 - Order of Conditions

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

Provided by MassDEP:
MassDEP File #:006-1613
eDEP Transaction #:1062687
City/Town:BOSTON

[or "MassDEP"]

File Number : "006-1613"

11. Where the Department of Environmental Protection is requested to issue a Superseding Order, the Conservation Commission shall be a party to all agency proceedings and hearings before Mass DEP.
12. Upon completion of the work described herein, the applicant shall submit a Request for Certificate of Compliance (WPA Form 8A) to the Conservation Commission.
13. The work shall conform to the plans and special conditions referenced in this order.
14. Any change to the plans identified in Condition #13 above shall require the applicant to inquire of the Conservation Commission in writing whether the change is significant enough to require the filing of a new Notice of Intent.
15. The Agent or members of the Conservation Commission and the Department of Environmental Protection shall have the right to enter and inspect the area subject to this Order at reasonable hours to evaluate compliance with the conditions stated in this Order, and may require the submittal of any data deemed necessary by the Conservation Commission or Department for that evaluation.
16. This Order of Conditions shall apply to any successor in interest or successor in control of the property subject to this Order and to any contractor or other person performing work conditioned by this Order.
17. Prior to the start of work, and if the project involves work adjacent to a Bordering Vegetated Wetland, the boundary of the wetland in the vicinity of the proposed work area shall be marked by wooden stakes or flagging. Once in place, the wetland boundary markers shall be maintained until a Certificate of Compliance has been issued by the Conservation Commission.
18. All sedimentation barriers shall be maintained in good repair until all disturbed areas have been fully stabilized with vegetation or other means. At no time shall sediments be deposited in a wetland or water body. During construction, the applicant or his/her designee shall inspect the erosion controls on a daily basis and shall remove accumulated sediments as needed. The applicant shall immediately control any erosion problems that occur at the site and shall also immediately notify the Conservation Commission, which reserves the right to require additional erosion and/or damage prevention controls it may deem necessary. Sedimentation barriers shall serve as the limit of work unless another limit of work line has been approved by this Order.

NOTICE OF STORMWATER CONTROL AND MAINTENANCE REQUIREMENTS

19. The work associated with this Order (the "Project") is (1) is not (2) subject to the Massachusetts Stormwater Standards. If the work is subject to Stormwater Standards, then the project is subject to the following conditions:
 - a) All work, including site preparation, land disturbance, construction and redevelopment, shall be implemented in accordance with the construction period pollution prevention and erosion and sedimentation control plan and, if applicable, the Stormwater Pollution Prevention Plan required by the National Pollutant Discharge Elimination System Construction General Permit as required by Stormwater Standard 8. Construction period erosion, sedimentation and pollution control measures and best management practices (BMPs) shall remain in place until the site is fully stabilized.
 - b) No stormwater runoff may be discharged to the post-construction stormwater BMPs unless and until a Registered Professional Engineer provides a Certification that: *i.* all construction period BMPs have been removed or will be removed by a date certain specified in the Certification. For any construction period BMPs intended to be converted to post construction operation for stormwater attenuation, recharge, and/or treatment, the conversion is allowed by the MassDEP Stormwater Handbook BMP specifications and that the BMP has been properly cleaned or prepared for post construction operation, including removal of all construction period sediment trapped in inlet and outlet control structures; *ii.* as-built final construction BMP plans are included, signed and stamped by a Registered Professional Engineer, certifying the site is fully stabilized; *iii.* any illicit discharges to the stormwater management system have been removed, as per

Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

WPA Form 5 - Order of Conditions

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

Provided by MassDEP:
MassDEP File #:006-1613
eDEP Transaction #:1062687
City/Town:BOSTON

the requirements of Stormwater Standard 10; *iv.* all post-construction stormwater BMPs are installed in accordance with the plans (including all planting plans) approved by the issuing authority, and have been inspected to ensure that they are not damaged and that they are in proper working condition; *v.* any vegetation associated with post-construction BMPs is suitably established to withstand erosion.

- c) The landowner is responsible for BMP maintenance until the issuing authority is notified that another party has legally assumed responsibility for BMP maintenance. Prior to requesting a Certificate of Compliance, or Partial Certificate of Compliance, the responsible party (defined in General Condition 19(e)) shall execute and submit to the issuing authority an Operation and Maintenance Compliance Statement ("O&M Statement") for the Stormwater BMPs identifying the party responsible for implementing the stormwater BMP Operation and Maintenance Plan ("O&M Plan") and certifying the following: *i.*) the O&M Plan is complete and will be implemented upon receipt of the Certificate of Compliance, and *ii.*) the future responsible parties shall be notified in writing of their ongoing legal responsibility to operate and maintain the stormwater management BMPs and implement the Stormwater Pollution Prevention Plan.
- d) Post-construction pollution prevention and source control shall be implemented in accordance with the long-term pollution prevention plan section of the approved Stormwater Report and, if applicable, the Stormwater Pollution Prevention Plan required by the National Pollutant Discharge Elimination System Multi-Sector General Permit.
- e) Unless and until another party accepts responsibility, the landowner, or owner of any drainage easement, assumes responsibility for maintaining each BMP. To overcome this presumption, the landowner of the property must submit to the issuing authority a legally binding agreement of record, acceptable to the issuing authority, evidencing that another entity has accepted responsibility for maintaining the BMP, and that the proposed responsible party shall be treated as a permittee for purposes of implementing the requirements of Conditions 19(f) through 19(k) with respect to that BMP. Any failure of the proposed responsible party to implement the requirements of Conditions 19(f) through 19(k) with respect to that BMP shall be a violation of the Order of Conditions or Certificate of Compliance. In the case of stormwater BMPs that are serving more than one lot, the legally binding agreement shall also identify the lots that will be serviced by the stormwater BMPs. A plan and easement deed that grants the responsible party access to perform the required operation and maintenance must be submitted along with the legally binding agreement.
- f) The responsible party shall operate and maintain all stormwater BMPs in accordance with the design plans, the O&M Plan, and the requirements of the Massachusetts Stormwater Handbook.
- g) The responsible party shall:
 - 1. Maintain an operation and maintenance log for the last three (3) consecutive calendar years of inspections, repairs, maintenance and/or replacement of the stormwater management system or any part thereof, and disposal (for disposal the log shall indicate the type of material and the disposal location);
 - 2. Make the maintenance log available to MassDEP and the Conservation Commission ("Commission") upon request; and
 - 3. Allow members and agents of the MassDEP and the Commission to enter and inspect the site to evaluate and ensure that the responsible party is in compliance with the requirements for each BMP established in the O&M Plan approved by the issuing authority.
- h) All sediment or other contaminants removed from stormwater BMPs shall be disposed of in accordance with all applicable federal, state, and local laws and regulations.
- i) Illicit discharges to the stormwater management system as defined in 310 CMR 10.04 are prohibited.
- j) The stormwater management system approved in the Order of Conditions shall not be changed without the prior written approval of the issuing authority.
- k) Areas designated as qualifying pervious areas for the purpose of the Low Impact Site Design Credit (as

**Massachusetts Department of Environmental
Protection**

Bureau of Resource Protection - Wetlands

WPA Form 5 - Order of Conditions

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

Provided by MassDEP:
MassDEP File #:006-1613
eDEP Transaction #:1062687
City/Town:BOSTON

defined in the MassDEP Stormwater Handbook, Volume 3, Chapter 1, Low Impact Development Site Design Credits) shall not be altered without the prior written approval of the issuing authority.

- 1) Access for maintenance, repair, and/or replacement of BMPs shall not be withheld. Any fencing constructed around stormwater BMPs shall include access gates and shall be at least six inches above grade to allow for wildlife passage.

Special Conditions:
SEE ATTACHMENT

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Form 5 - Order of Conditions
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
MassDEP File #:006-1613
eDEP Transaction #:1062687
City/Town:BOSTON

D. Findings Under Municipal Wetlands Bylaw or Ordinance

1. Is a municipal wetlands bylaw or ordinance applicable? Yes No

2. The Conservation Commission hereby (check one that applies):

a. DENIES the proposed work which cannot be conditioned to meet the standards set forth in a municipal ordinance or bylaw specifically:

1. Municipal Ordinance or Bylaw _____

2. Citation _____

Therefore, work on this project may not go forward unless and until a revised Notice of Intent is submitted which provides measures which are adequate to meet these standards, and a final Order or Conditions is issued. Which are necessary to comply with a municipal ordinance or bylaw:

b. APPROVES the proposed work, subject to the following additional conditions.

1. Municipal Ordinance or Bylaw _____

2. Citation _____

3. The Commission orders that all work shall be performed in accordance with the following conditions and with the Notice of Intent referenced above. To the extent that the following conditions modify or differ from the plans, specifications, or other proposals submitted with the Notice of Intent, the conditions shall control.

The special conditions relating to municipal ordinance or bylaw are as follows:



Massachusetts Department of Environmental Protection
 Bureau of Resource Protection - Wetlands
WPA Form 5 – Order of Conditions
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
006-11613
 MassDEP File #

eDEP Transaction #
Boston
 City/Town

E. Signatures

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



This Order is valid for three years, unless otherwise specified as a special condition pursuant to General Conditions #4, from the date of issuance.

Please indicate the number of members who will sign this form.
 This Order must be signed by a majority of the Conservation Commission.

The Order must be mailed by certified mail (return receipt requested) or hand delivered to the applicant. A copy must be mailed, hand delivered or filed electronically at the same time with the appropriate MassDEP Regional Office.

11/7/2018
 1. Date of Issuance
5
 2. Number of Signers

Signatures:

Anne Hall
Michael W. Pappas

Alvin J. ...
John ...
Alice ...
Richard ...

by hand delivery on

by certified mail, return receipt requested, on

11/8/2018
 Date

Date

F. Appeals

The applicant, the owner, any person aggrieved by this Order, any owner of land abutting the land subject to this Order, or any ten residents of the city or town in which such land is located, are hereby notified of their right to request the appropriate MassDEP Regional Office to issue a Superseding Order of Conditions. The request must be made by certified mail or hand delivery to the Department, with the appropriate filing fee and a completed Request of Departmental Action Fee Transmittal Form, as provided in 310 CMR 10.03(7) within ten business days from the date of issuance of this Order. A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and to the applicant, if he/she is not the appellant.

Any appellants seeking to appeal the Department's Superseding Order associated with this appeal will be required to demonstrate prior participation in the review of this project. Previous participation in the permit proceeding means the submission of written information to the Conservation Commission prior to the close of the public hearing, requesting a Superseding Order, or providing written information to the Department prior to issuance of a Superseding Order.

The request shall state clearly and concisely the objections to the Order which is being appealed and how the Order does not contribute to the protection of the interests identified in the Massachusetts Wetlands Protection Act (M.G.L. c. 131, § 40), and is inconsistent with the wetlands regulations (310 CMR 10.00). To the extent that the Order is based on a municipal ordinance or bylaw, and not on the Massachusetts Wetlands Protection Act or regulations, the Department has no appellate jurisdiction.

Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

WPA Form 5 - Order of Conditions

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

Provided by MassDEP:
MassDEP File #:006-1613
eDEP Transaction #:1062687
City/Town:BOSTON

(M.G.L. c. 131, § 40), and is inconsistent with the wetlands regulations (310 CMR 10.00). To the extent that the Order is based on a municipal ordinance or bylaw, and not on the Massachusetts Wetlands Protection Act or regulations, the Department has no appellate jurisdiction.

G. Recording Information

This Order of Conditions must be recorded in the Registry of Deeds or the Land Court for the district in which the land is located, within the chain of title of the affected property. In the case of recorded land, the Final Order shall also be noted in the Registry's Grantor Index under the name of the owner of the land subject to the Order. In the case of registered land, this Order shall also be noted on the Land Court Certificate of Title of the owner of the land subject to the Order of Conditions. The recording information on this page shall be submitted to the Conservation Commission listed below.

BOSTON
Conservation Commission

Detach on dotted line, have stamped by the Registry of Deeds and submit to the Conservation Commission.

To: BOSTON
Conservation Commission

Please be advised that the Order of Conditions for the Project at:

144 ADDISON STREET
Project Location

006-1613
MassDEP File Number

Has been recorded at the Registry of Deeds of:

_____ Book Page
County

for:

_____ Property Owner

and has been noted in the chain of title of the affected property in:

_____ Page
Book

In accordance with the Order of Conditions issued on:

_____ Date

If recorded land, the instrument number identifying this transaction is:

_____ Instrument Number

If registered land, the document number identifying this transaction is:

_____ Document Number

**Massachusetts Department of Environmental
Protection**
Bureau of Resource Protection - Wetlands
WPA Form 5 - Order of Conditions
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
MassDEP File #:006-1613
eDEP Transaction #:1062687
City/Town:BOSTON

Signature of Applicant

Rev. 4/1/2010

October 3, 2018
Attachment – Special Conditions
Addison Street Partners LLC, Construction of a multi-family residential building and off street parking, 144
Addison Street
East Boston, Chelsea River (LSCSF)
DEP File No. 006-1613

20. The term "Applicant" as used in this Order of Conditions refers to the owner, any successor in interest or successor in control of the property referenced in the Notice of Intent, supporting documents and this Order of Conditions. The Commission must be notified in writing within 30 days of all transfers of title of any portion of property that take place prior to the issuance of the Certificate of Compliance.
21. The property that is the subject of this Order and upon which the project is located will be referred hereinafter as "the subject property" or the "project site".
22. A member of the Conservation Commission or its agent may enter and inspect the property and the activities that are the subjects of this Order of Conditions (OOC) at all reasonable times, with or without probable cause or prior notice, and until a Certificate of Compliance (COC) is issued, for the limited purpose of evaluating compliance with this OOC.
23. The Applicant is hereby instructed to review such conditions with all contractors and workers involved in on site operations prior to the commencement of construction on this project. Any contractors and workers arriving after construction commences must also be apprised of these conditions.
24. The Applicant must attach a copy of this Final Order of Conditions (hereinafter "the Order") to the contract documents associated with this project.
25. The Commission reserves the right to impose additional conditions or require the submittal of additional information as necessary to protect the interests of the Act.
26. Where relevant, all facilities and equipment will be continually operated and maintained so as to comply with the conditions and the Massachusetts Wetlands Protection Act (hereinafter "the Act"). The Applicant, owner, successor or assigns will be responsible for maintaining all on-site drainage structures and outfalls, assuring the lasting integrity of the surface cover on the site and site activities so as to prevent erosion, siltation, sedimentation, chemical contamination or other detrimental impact to the on-site and/or off-site wetland resource areas. This condition is a **maintenance** condition, and will not expire upon the issuance of a Certificate of Compliance.
27. A copy of the Order, including all referenced documents and plans, and all other subsequent approvals and directives issued by the Commission, must be available for inspection at the work area.
28. All project generated discharges, including stormwater, authorized by a NPDES permit, will be subject to the terms of the NPDES permit which is incorporated herein by reference pursuant to 310 CMR 10.03 (4). The Applicant must submit the NPDES permit to the Commission.
29. There may be no discharge or spillage of fuel, oil, or any other pollutant from this project into adjacent wetland resource areas. Any equipment used in any wetland resource area that uses fuel, oil or hydraulic fluid must be inspected daily for leakage. Any equipment that requires repair must be repaired outside of any wetland resource area. Any equipment that uses fuel, oil and/or hydraulic fluid must be staffed at all times while operational within wetland resource areas. Equipment must not be re-fueled within any wetland resource areas.
30. The Applicant and/or their contractor will develop a spill management plan for any hazardous materials that may be employed during work. Specifically, the Applicant should prepare to effectively deal with spillage of fuel or hydraulic fluids from equipment. A quick-absorbent material, such as "Speedy Dry" or equivalent, must be stored in a dry readily available area at the work site for use in the event petroleum-based fluids are spilled or leaked. The spent material should be containerized and disposed of properly.
31. The Applicant must inform the Commission of any violation of this Order and any other project related spill or accident that may impact wetland resource areas as soon as possible and at least by the end of the business day, and must take appropriate action to mitigate impacts from such spill or accident. The Applicant or site supervisor must notify the City of any emergency by calling Commission staff at 617-635-3850 from 9:00 AM - 5:00 PM, Monday - Friday and, at all other times, by calling the Mayor's

October 3, 2018
Attachment – Special Conditions
Addison Street Partners LLC, Construction of a multi-family residential building and off street parking, 144
Addison Street
East Boston, Chelsea River (LSCSF)
DEP File No. 006-1613

Office's 24-hour Hotline at 617-635-4500. On the date of the issuance of this Order, the appropriate contact is Amelia Croteau, Conservation Agent: cc@boston.gov

32. The Applicant must submit for Commission staff review and approval an Oil Spill Prevention, Control and Countermeasure Plan, which must specify the containment measures and notification protocol to be implemented should a fuel spill occur. The fuel tanks must also have a leak detection system. The plan should include the continued maintenance of emergency fuel booms at the facility. The approved plan will be incorporated into this Order by reference herein, and will not expire upon issuance of a Certificate of Compliance.
33. Anti-degradation provisions of the Massachusetts Surface Water Quality Standards protect all waters including wetlands. The contractor must take all steps necessary to assure that the proposed activities will be conducted in a manner which will avoid violations of said standards.
34. Any mitigation measures required by federal, state, or other local agencies that may impact wetlands resource areas must be submitted to Commission staff for review to determine what level of permitting or authorization will be necessary.
35. All project related correspondence and submittals to the Boston Conservation Commission regarding this Final Order must indicate the DEP File number: 006-1613.

Prior to Construction

36. Prior to construction start up, the Applicant must submit final plans stamped by a registered professional engineer to Commission staff. Commission staff will determine if there have been significant revisions made to the plans referenced in this Order that may require further Commission review.
37. In advance of construction start-up on any section of this project, the Applicant must notify the Commission and, at the request of the Commission, may arrange an on-site conference of representatives of the Commission, the contractor, the project engineer and the Applicant to ensure that all the conditions of this Order are understood. The Commission must be notified at least 48 hours in advance of the date upon which construction activities on the site are to proceed. All appropriate construction impact mitigation measures must be in place prior to initiation of work on the project site.
38. The Applicant and/or their contractor must provide to the Commission written notification of the name, title, address and telephone numbers of the person or persons designated by the project proponent to be responsible for compliance with the Order on site. An emergency telephone number must be provided in the event that action is required during non-working hours.
39. The project supervisor overseeing daily operations at the site must read this Order and sign a copy of each page, indicating that each condition has been read and understood. These signed pages must be submitted to Commission staff.
40. Before work at this site commences, the Applicant or their contractor must submit a final erosion and sediment control plan for review and approval by Commission staff. Final plans showing the points of discharge, wheel wash stations, sedimentation tanks and basins, oil separating equipment and other engineering structures should be provided to the Commission with a certified engineer's stamp and signature. To satisfy this condition the Applicant may submit a Storm Water Pollution Prevention Plan (SWPPP) required under the NPDES Construction General Permit for Storm Water Discharges for Construction Activities. The approved plan will be a condition of this Order by reference herein.
41. Prior to the commencement of construction and site clearing, an erosion and sediment control barrier must be installed along the limit of activity between all work areas and wetland resource areas. Hay bales or straw bales should be double staked (where possible) with bales butted against each other. If straw wattles or filter sox are used, they should be anchored in place. If specified, geotextile siltation fence should be installed no further than twelve (12) inches from the down-gradient side of

October 3, 2018
 Attachment – Special Conditions
 Addison Street Partners LLC, Construction of a multi-family residential building and off street parking, 144
 Addison Street
 East Boston, Chelsea River (LSCSF)
DEP File No. 006-1613

- the barrier. These barriers must be inspected daily and after significant rain events (greater than 0.5 inches of precipitation) and maintained as necessary, including the removal of accumulated sediments. The contractor will ensure that additional erosion and sediment control materials are available for immediate installation to replace those that are damaged or degraded. Erosion control measures should be removed upon completion of work and after disturbed areas are stabilized. The geotextile fence will constitute a limit-of-work line, beyond which no work or clearing of vegetation may occur.
42. The contractor must submit a construction materials and equipment staging plan 30 days prior to construction for Commission staff review and approval. Project related staging areas will be subject to all conditions herein. Staging areas located outside the project footprint, as indicated on the approved project plan of record, and within wetland resource areas and the buffer zone may be subject to further Commission review.
 43. The Applicant must submit to Commission staff notice of approval by the Boston Water and Sewer Commission (BWSC) of the plans for this project. Any modifications required by BWSC to the plans approved by this Order must be detailed in writing with this submittal so that Commission staff can determine if further conditions are required.
 44. The Applicant must design the stormwater drainage system to include infiltration of rooftop runoff and parking lot drainage or submit certification from a registered professional engineer that infiltration is not technically feasible. The revised plans or certification must be approved by the Boston Water and Sewer Commission and then submitted to Conservation Commission staff before construction commences.
 45. The Applicant must submit a construction and post-construction snow management plan for Commission staff review and approval. Snow from landside areas may not be plowed or otherwise deposited into the waters of Chelsea River or adjacent coastal beaches or banks. Snow must be stockpiled on paved surfaces that direct melted snow water to catch basins. Deicing material and sand must be stored and contained in areas that will not allow for their migration into wetland resource areas. Prior to April 1st, all sand and salt from winter application must be removed from the site. The approved snow management plan will be a perpetual maintenance condition that will not expire upon issuance of a Certificate of Compliance.

During Construction

46. The Applicant, owner, successor or assigns must regularly remove and dispose of debris on all wetland resources areas on the project site. This is a perpetual **maintenance** condition that will not expire upon issuance of a Certificate of Compliance.
47. The Applicant must maintain the project site free of trash and debris during any down time or hiatus in the project during the term of this Order.
48. The Applicant and/or their contractor must clean the work area at the end of each workday to prevent wind deposition of fugitive dust and accumulation of debris in the wetland resource areas. All stored excavate or fill must be contained with appropriate best management practices when not in use. Special attention should be given by the contractor to securing covers on stored excavate, fill, dumpsters and roll-off containers over the weekend or during down time.
49. Disposal of all construction materials, demolition debris and excess fill must be done in accordance with applicable federal, state, and local laws. Proof of proper disposal must be provided in the form of copies of bills of lading, disposal receipts or manifests to Commission staff upon request.
50. On-site discharge of untreated, decanted water from construction dewatering to resource areas is prohibited. If on-site discharge becomes necessary, the Applicant must submit a plan indicating dewatering methodology, water quality monitoring measures, and staging location of dewatering

October 3, 2018
Attachment – Special Conditions
Addison Street Partners LLC, Construction of a multi-family residential building and off street parking, 144
Addison Street
East Boston, Chelsea River (LSCSF)
DEP File No. 006-1613

equipment for Commission staff review and approval. Any approved dewatering must treat decanted water according to additional conditions deemed necessary by Commission staff.

51. The Applicant, owner, successor or assigns will ensure the cleanliness of all catch basins on the project site or affected by project related activity. Catch basins will be protected with hay bales and/ or silt sacks during the construction period. The proponent must inspect and, as necessary, clean all catch basins at least weekly during construction and more frequently after a significant rain event. Upon completion of the project, the inspection and cleaning of catch basins on the subject property must occur twice a year: once between March 1st and April 30th and once between November 1st and November 30th of each year, and more often if necessary. This **maintenance** condition is perpetual and will not expire upon issuance of a Certificate of Compliance.
52. The Applicant must provide the Commission with copies of the Operations and Maintenance Log for all stormwater BMP's on the subject site yearly. Copies must be provided for a minimum of three years after completion of construction and specify dates of inspections, repairs, replacement, maintenance and cleaning actions, and names of individuals or contractors conducting said maintenance.
53. Repair or replacement of stormwater infrastructure may not commence in advance of a forecasted rain event.
54. All sheet flow from areas where vehicles drive or park must be directed toward catch basins that meet Boston Water and Sewer Specifications.
55. Any new or reconstructed catch basins, or any new or replaced sections of sidewalk or pavement adjacent to surface drains on the project site, must have a permanent plaque within one foot of the structure that states "Don't Dump - Drains to Boston Harbor."
56. Trucks entering and leaving the site must have their loads completely covered in compliance with M.G.L. Chapter 85 § 36. Vehicles that accumulate soil or any unconsolidated material on their tires due to exposed ground conditions at the site must be thoroughly washed to avoid tracking of material onto the public way.
57. The contractor must have designated washout areas for concrete equipment that will be comprised of impermeable material and sized to contain project concrete wastes and wash water. Washout areas may not be located in the vicinity of storm drain inlets, stormwater conveyance, surface waters or wetlands.
58. There may be no parking of contractor or laborer vehicles in any resource area or associated buffer zone without proper stormwater controls or best management practices installed.
59. Construction activity will be confined within the limits of work as represented on the final plan of record. There may be no staging of construction materials, storage of construction equipment, clearing or disturbance to land beyond the limit of work.
60. There may be no overnight stockpiling or storage of construction material including unconsolidated material, piles, debris, petroleum products or hydraulic fluids (or equipment containing these products or fluids) within the buffer zone or 25 feet of the coastal bank. Erosion and sediment control containment measures must be installed and maintained between wetland resource areas and any stored construction materials or staged construction equipment. Under no circumstances may the project contractor store, stage or locate unconsolidated material or construction equipment not directly associated with the project and subject site within resource areas or the buffer zone. At the request of the Applicant, Commission staff may authorize construction lay-down areas within the 100 year flood plain for storage of equipment *during the construction period only*.
61. The Applicant or their contractor must keep a daily log summarizing all construction and demolition activities of this project on every day that such activity occurs, noting debris removal from resource areas and evaluations of measures employed to reduce impacts to the wetland resources. The

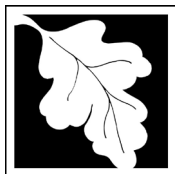
October 3, 2018
 Attachment – Special Conditions
 Addison Street Partners LLC, Construction of a multi-family residential building and off street parking, 144
 Addison Street
 East Boston, Chelsea River (LSCSF)
DEP File No. 006-1613

condition of all drainage, erosion controls and sedimentation structures must be noted in the daily log, as well as the performance of maintenance activities on such structures. The contractor must provide Commission staff with a draft construction inspection form prior to commencement of work on the project site. This log must be kept at the work area and made available upon demand by Commission staff.

62. All land-side areas disturbed during construction must be stabilized as soon as possible upon completion of construction. Loaming and seeding should occur within (5 - 30) days of final grading. Disturbed resource areas landward of the high water line and buffer zone mark should be secured by a biodegradable erosion control mats while vegetation establishes. Barren areas should be stabilized with a temporary cover of rye or other grass if work on the project is interrupted for more than 30 days. If the season is not appropriate for plant growth, then exposed surfaces may be stabilized by straw, snow fence, or other U.S. Natural Resources Conservation Service - recommended methods. The Applicant or their contractor will ensure a mature cover of vegetation is established on previously disturbed or exposed areas.
63. The contractor will conduct construction sequencing such that areas cleared of ground vegetation and earth materials are exposed for a minimum of time before they are covered, seeded, or otherwise stabilized to prevent erosion.
64. There may be no dumping of leaves, grass clippings, brush, fill or other debris into wetland resource areas. This condition is perpetual and will not expire upon issuance of a certificate of compliance.
65. All equipment and unconsolidated materials must be removed from areas subject to the 1% annual chance flood (100-year flood, Zone A) in advance of significant rainfall that will exceed the volume of a 2-year storm event.
66. All equipment and unconsolidated materials must be removed from the buffer zone and Land Subject to Coastal Storm Flowage (Special Flood Hazard Areas subject to inundation by the 1% annual chance flood) in advance of any forecasted coastal flooding event.

Additional Conditions

67. Exterior trash receptacles must be secured to the ground and must be covered or designed to prevent pollution of adjacent resource areas by vandalism or wind-blown litter. Trash receptacles will be emptied as needed and at least daily from Memorial Day to Columbus Day, and as needed and at least daily during all other months. This is a perpetual maintenance condition that will not expire upon issuance of a Certificate of Compliance.
68. Following the completion of state and local review processes, the Applicants must submit final design plans, including landscaping and signage details and any modifications or additions to the project, to Commission staff to determine if further Commission review is required.
69. Prior to construction, the Applicant must submit a landscaping plan for Commission Staff review and approval, detailing the use of native species within the resource area and their associated buffer zones. Said species must be listed as native in either "The Vascular Plants of Massachusetts: A County Checklist First Revision" or the USDA PLANTS Database.
70. In the interest of prevention of pollution and storm damage prevention, the Applicant should give consideration to future sea level rise over the design life of the project in determining the ground-level floor elevation for buildings, as well as the location of building mechanical equipment, utilities, storage areas for hazardous materials, underground garage portals, exhaust and ventilation infrastructure, and building entry points.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

DEP File Number:

WPA Form 8A – Request for Certificate of Compliance

006-1613

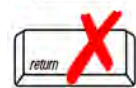
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by DEP

A. Project Information

Important:

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



Upon completion of the work authorized in an Order of Conditions, the property owner must request a Certificate of Compliance from the issuing authority stating that the work or portion of the work has been satisfactorily completed.

1. This request is being made by:

Katie Moniz

Name

31 State Street, 3rd Floor

Mailing Address

Boston

City/Town

MA

State

02109

Zip Code

617-279-4388

Phone Number

2. This request is in reference to work regulated by a final Order of Conditions issued to:

Damian Szary c/o Gate Residential

Applicant

Order: 11/7/2018 Extension: 3/4/2023

Dated

006-1613

DEP File Number

3. The project site is located at:

144 Addison Street

Street Address

Boston

City/Town

0100548100

Parcel/Lot Number

Assessors Map/Plat Number

4. The final Order of Conditions was recorded at the Registry of Deeds for:

Property Owner (if different)

Suffolk

County

38586

Book

196

Page

Certificate (if registered land)

5. This request is for certification that (check one):

the work regulated by the above-referenced Order of Conditions has been satisfactorily completed.

the following portions of the work regulated by the above-referenced Order of Conditions have been satisfactorily completed (use additional paper if necessary).

the above-referenced Order of Conditions has lapsed and is therefore no longer valid, and the work regulated by it was never started.



WPA Form 8A – Request for Certificate of Compliance

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

A. Project Information (cont.)

6. Did the Order of Conditions for this project, or the portion of the project subject to this request, contain an approval of any plans stamped by a registered professional engineer, architect, landscape architect, or land surveyor?

Yes

If yes, attach a written statement by such a professional certifying substantial compliance with the plans and describing what deviation, if any, exists from the plans approved in the Order.

No

B. Submittal Requirements

Requests for Certificates of Compliance should be directed to the issuing authority that issued the final Order of Conditions (OOC). If the project received an OOC from the Conservation Commission, submit this request to that Commission. If the project was issued a Superseding Order of Conditions or was the subject of an Adjudicatory Hearing Final Decision, submit this request to the appropriate DEP Regional Office (see <http://www.mass.gov/eea/agencies/massdep/about/contacts/find-the-massdep-regional-office-for-your-city-or-town.html>).

Stormwater Pollution Prevention Plan (SWPPP)

For Construction Activities At:

144 ADDISON STREET
East Boston, Massachusetts 02128

SWPPP Prepared For:

REDGATE REAL ESTATE ADVISORS

Lizabeth Bello
265 Franklin Street, 6th Floor
Boston, MA 02110
T: 617-609-7108
Lizabeth.bello@redgate-re.com

SWPPP Prepared By:

Nitsch Engineering

Chris Hodney, PE
2 Center Plaza
Boston, MA 02108
T: 617-338-0063
F: 617-338-6472

SWPPP Preparation Date:

12/04/2019

Estimated Project Dates:

Project Start Date: 02/10/2020
Project Completion Date: 04/12/2022



Contents

SECTION 1: CONTACT INFORMATION/RESPONSIBLE PARTIES 0

1.1 Operator(s) / Subcontractor(s) 0

1.2 Stormwater Team 2

SECTION 2: SITE EVALUATION, ASSESSMENT, AND PLANNING..... 3

2.1 Project/Site Information..... 3

2.2 Discharge Information 3

2.3 Nature of the Construction Activity 6

2.4 Sequence and Estimated Dates of Construction Activities 7

2.5 Allowable Non-Stormwater Discharges 8

2.6 Site Maps..... 9

SECTION 3: DOCUMENTATION OF COMPLIANCE WITH OTHER FEDERAL REQUIREMENTS10

3.1 Endangered Species Protection.....10

3.2 Historic Preservation11

3.3 Safe Drinking Water Act Underground Injection Control Requirements.....12

SECTION 4: EROSION AND SEDIMENT CONTROLS REQUIREMENTS13

4.1 Natural Buffers or Equivalent Sediment Controls13

4.3 Sediment Track-Out.....14

4.4 Stockpiled Sediment or Soil15

4.6 Minimize the Disturbance of Steep Slopes17

4.7 Preserve Native Topsoil18

4.8 Minimize Soil Compaction.....18

4.9 Storm Drain Inlets18

4.10 Minimize Erosion of Stormwater Conveyances19

4.12 Chemical Treatment.....19

4.13 Dewatering Practices19

4.14	Other Stormwater Controls	20
4.15	Site Stabilization	20
SECTION 5: POLLUTION PREVENTION STANDARDS		22
5.1	Potential Sources of Pollution	22
5.2	Spill Prevention and Response	24
5.3	Fueling and Maintenance of Equipment or Vehicles.....	24
5.4	Washing of Equipment and Vehicles.....	25
5.5	Storage, Handling, and Disposal of Construction Products, Materials, and Wastes	25
5.6	Washing of Applicators and Containers used for Paint, Concrete, or Other Materials	28
5.8	Other Pollution Prevention Practices.....	29
SECTION 6: INSPECTION AND CORRECTIVE ACTION		30
6.1	Inspection Personnel and Procedures.....	30
6.2	Corrective Action	31
6.3	Delegation of Authority.....	31
SECTION 7: TRAINING LOG		32
SECTION 8: CERTIFICATION AND NOTIFICATION.....		33
SWPPP ATTACHMENTS		34

SECTION 1: CONTACT INFORMATION/RESPONSIBLE PARTIES

1.1 Operator(s) / Subcontractor(s)

Operator(s):

Construction Manager Responsibilities:

Dellbrook JKS shall maintain the Stormwater Pollution Prevention Plan (SWPPP) documentation and will conduct and document self-inspections required under the 2017 Construction General Permit (CGP) once every 7 days and within 24 hours of a storm event 0.25" or greater. Dellbrook JKS will provide copies of inspections reports to the Owner's Representative within 24 hours following each inspection. Incidents of non-compliance will be immediately brought to the attention of the Owner's Representative. Dellbrook JKS shall be responsible for maintaining compliance with the SWPPP, including all requirements in the CGP and will maintain erosion and sediment control Best Management Practices (BMPs) in all areas of the site under its day-to-day control.

Dellbrook JKS shall file a Notice of Intent (NOI) to be covered by the CGP and obtain coverage by the Environmental Protection Agency (EPA) before beginning construction at the project. Permit coverage will be maintained throughout the project. Dellbrook JKS shall not file a Notice of Termination (NOT) until all disturbed areas of the site under its day-to-day control have been fully stabilized with permanent erosion controls that satisfy the final stabilization requirements in the CGP or have met another criteria of the NOT. Dellbrook JKS will maintain a clean site and construction trash and debris will be picked up and disposed of properly by the end of each day.

Each Operator is responsible for advising employees and subcontractors working on this project of the requirements in the CGP and SWPPP. Particular emphasis should be placed on ensuring that employees and subcontractors do not damage BMPs and maintain compliance with the CGP.

Construction Manager Contact Information:

Dellbrook JKS
Jonathan Bonaccorsi, Project Manager
One Adams Place, 859 Willard Street
Quincy, MA 02169
T: 781-380-1604
Email address: JBonaccorsi@dellbrookjks.com

Owner's Representative Responsibilities:

Redgate Real Estate Advisors shall provide general oversight of the project including review of the SWPPP and any amendments, inspection reports, and corrective actions. Redgate Real Estate Advisors shall file a NOI to be covered by the CGP and obtain coverage by the EPA before beginning construction at the project. Permit coverage will be maintained throughout the project. Redgate Real Estate Advisors shall not file a notice of Termination until all disturbed areas of the site have been fully stabilized with permanent erosion controls that satisfy the final stabilization requirements in the CGP. Redgate Real Estate Advisors will coordinate with Dellbrook JKS to maintain a clean site so that trash and debris will be picked up and disposed of properly by the end of the day.

Each Operator is responsible for advising employees and subcontractors working on this project of the requirements in the CGP and SWPPP. Particular emphasis should be placed on ensuring that employees and subcontractors do not damage BMPs and maintain compliance with the CGP.

Redgate Real Estate Advisors
Steve Perdue, Senior Vice President
265 Franklin Street, 6th Floor
Boston, Ma 02110
T: 617-904-7016
Email Address: steve.perdue@redgate-re.com

Site Contractor:

D&M Civil Inc.
Doug Church, Superintendent
30 Log Bridge Rd Suite 102
Middletown, MA 01949
978-739-4414
Dchurch@dm-civil.com

Emergency 24-Hour Contact:

Doug Church, Superintendent
978-739-4414
Dchurch@dm-civil.com

1.2 Stormwater Team

Construction Manager: Dellbrook JKS

Stormwater Role/Responsibility: Responsible for overseeing the development of the SWPPP, modifications and updates to the SWPPP, and for compliance with the requirements in the CGP (e.g., installing and maintaining stormwater controls, conducting site inspections, picking up trash, taking corrective actions where required, etc.).

Contact:

Jonathan Bonaccorsi

T: 781-380-1604

Email address: JBonaccorsi@dellbrookjks.com

I, Jonathan Bonaccorsi, have read the CGP and Understand the Applicable Requirements

Yes

Date: 3/1/2020

Site Contractor: D&M Civil, Inc

Stormwater Role/Responsibility: Responsible for compliance with the requirements in this permit (e.g., installing and maintaining stormwater controls, conducting site inspections, taking corrective actions where required, etc.).

Contact:

Doug Church, Superintendent

978-739-4414

Dchurch@dm-civil.com

Refer to the Subcontractor Certifications/Agreements in Attachment G.

SECTION 2: SITE EVALUATION, ASSESSMENT, AND PLANNING

2.1 Project/Site Information

Project Name and Address

Project/Site Name: 144 Addison Street
Project Street/Location: 144 Addison Street
City/Town: Boston
State: Massachusetts
ZIP Code: 02128
County or Similar Subdivision: Suffolk County

Project Latitude/Longitude

Latitude: 1. 42.385638° Longitude: 1. -71.014185°

Method for determining latitude/longitude:

USGS topographic map GPS
 Other (please specify): Google Maps

Horizontal Reference Datum:

NAD 27 NAD 83 WGS 84

If you used a U.S.G.S topographic map, what was the scale? _____

Additional Project Information

Is the project/site located on Indian country lands, or located on a property of religious or cultural significance to an Indian tribe? Yes No

Are you applying for permit coverage as a "federal operator" as defined in Appendix A of the CGP?
 Yes No

Will there be demolition of any structure built or renovated before January 1, 1980?
 Yes No

If yes, do any of the structures being demolished have at least 10,000 square feet of floor space?
 Yes No

Was pre-development land use used for agriculture (see Appendix A of the CGP for definition of "agricultural land")?
 Yes No

Type of Construction Site (check all that apply): Single-Family Residential
 Multi-Family Residential Commercial Industrial Institutional Highway or Road
 Utility Other _____

2.2 Discharge Information

Does your project/site discharge stormwater into a Municipal Separate Storm Sewer System (MS4)?

Yes No

Are there any surface waters that are located within 50 feet of your construction disturbances?

Yes No

Table 1 – Names of Receiving Waters

Name(s) of the first surface water that receives stormwater directly from your site and/or from the MS4 (note: multiple rows provided where your site has more than one point of discharge that flows to different surface waters)
001. Chelsea River
002.
003.

Table 2 – Impaired Waters / TMDLs (Answer the following for each surface water listed in Table 1 above)

	Is this surface water listed as "impaired" on the CWA303(d) list?	If you answered yes, then answer the following:			
		What pollutant(s) are causing the impairment?	Has a TMDL been completed?	Title of the TMDL document	Pollutant(s) for which there is a TMDL
001.	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Ammonia, Debris/Floatables/Trash, Dissolved Oxygen, Fecal Coliform, PCB in Fish Tissue, Petroleum Hydrocarbons, Sediment Screening Value, Taste and Odor, Turbidity	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	2014 Waterbody Report for Chelsea River	Debris/Floatables/Trash
002.	<input type="checkbox"/> YES <input type="checkbox"/> NO				
003.	<input type="checkbox"/> YES <input type="checkbox"/> NO				

Table 3 – Tier 2, 2.5, or 3 Waters (Answer the following for each surface water listed in Table 1 above)

	Is this surface water designated as a Tier 2, Tier 2.5, or Tier 3 water?	If you answered yes, specify which Tier (2, 2.5, or 3) the surface water is designated as?
001.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
002.	<input type="checkbox"/> YES <input type="checkbox"/> NO	
003.	<input type="checkbox"/> YES <input type="checkbox"/> NO	

2.3 Nature of the Construction Activity

General Description of Project

Provide a general description of the construction project:

The site is located at 144 Addison Street in East Boston, Massachusetts and consists of an existing asphalt parking lot and a small guard shack. The Project includes the construction of two new residential buildings with parking beneath, and the following site improvements:

1. Construction of a new access driveway on the southeastern edge of the site to serve the new parking garage and the abutting properties on Saratoga Street;
2. Construction of new water, sewer, and storm drainage utilities;
3. Construction of new electrical, telecom, and gas utilities;
4. Construction of new sidewalks and walkways that provide for pedestrian connections through the site;
5. Construction of a new stormwater management system, including a closed drainage system and a subsurface infiltration system.

Size of Construction Project

Size of Property: 3.3 acres

Total Area of Construction Disturbances: 4.2 acres

Maximum Area to be Disturbed at Any One Time: 4.2 acres

Construction Support Activities

Construction support is provided and managed by Dellbrook JKS. We will be on site full time during construction operations with trailers, temp toilets, dumpsters, etc.

Contact Information for Construction Support Activity:

Name: Jonathan Bonaccorsi

Telephone: 7813.316.6317

Email: jbonaccorsi@dellbrookjks.com

Address and/or Latitude and Longitude:

Business Hours

M-F 7am-4p.m.

2.4 Sequence and Estimated Dates of Construction Activities

Phase I: South wing

- Turn over the south wing building and central courtyard. Includes 92 units, amenity spaces within south wing, and the central courtyard
- Schedule: 2/10/2020 – 11/24/2021
- Area Disturbed During Phase: 4.2 acres
- We will install the typical straw waddles around the full perimeter of the site, install silt salts in all of the area drain on the site and immediately next to the site. We will monitor/inspect after every significant rain event and replace as needed

2.5 Allowable Non-Stormwater Discharges

List of Allowable Non-Stormwater Discharges Present at the Site

Type of Allowable Non-Stormwater Discharge	Likely to be Present at Your Site?
Discharges from emergency fire-fighting activities	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
Fire hydrant flushings	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
Landscape irrigation	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
Waters used to wash vehicles and equipment, provided that there is no discharge of soaps, solvents, or detergents used for such purposes	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
Water used to control dust	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
Potable water including uncontaminated water line flushings	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
External building washdown, provided soaps, solvents, and detergents are not used, and external surfaces do not contain hazardous substances (as defined in Appendix A of the CGP) (e.g., paint or caulk containing polychlorinated biphenyls (PCBs))	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
Pavement wash waters, provided spills or leaks of toxic or hazardous substances have not occurred (unless all spill material has been removed) and where soaps, solvents, and detergents are not used.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
Uncontaminated air conditioning or compressor condensate	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
Uncontaminated, non-turbid discharges of ground water or spring water	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
Foundation or footing drains where flows are not contaminated with process materials such as solvents or contaminated groundwater	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
Construction dewatering water discharged in accordance with Part 2.4 of the CGP	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO

Note: You are prohibited from directing pavement wash waters directly into any water of the U.S., storm drain inlet, or stormwater conveyance, unless the conveyance is connected to a sediment basin, sediment trap, or similarly effective control.

2.6 Site Maps

Site Maps must include the following:

- a) Boundaries of the property. The map(s) in the SWPPP must show the overall boundary of the property.
- b) Locations where construction activities will occur. The map(s) in the SWPPP must show the locations where construction activities will occur, including
 - i. Locations where earth-disturbing activities will occur (note any phasing), including any demolition activities;
 - ii. Approximate slopes before and after major grading activities (note any steep slopes);
 - iii. Locations where sediment, soil, or other construction materials will be stockpiled;
 - iv. Any water of the U.S. crossings;
 - v. Designated points where vehicles will exit onto paved roads;
 - vi. Locations of structures and other impervious surfaces upon completion of construction; and
 - vii. Locations of onsite and off-site construction support activity areas covered by the permit (see Part 1.2.1.c).
- c) Locations of all waters of the U.S. within and one mile downstream of the site's discharge point. Also identify if any are listed as impaired, or are identified as a Tier 2, Tier 2.5, or Tier 3 water.
- d) Areas of federally listed critical habitats within the site and/or at discharge locations.
- e) Type and extent of pre-construction cover on the site (e.g., vegetative cover, forest, pasture, pavement, structures).
- f) Drainage patterns of stormwater and authorized non-stormwater before and after major grading activities.
- g) Stormwater and authorized non-stormwater discharge locations. The permit requires the site map to show information pertaining to discharge locations including:
 - i. Locations where stormwater and/or authorized non-stormwater will be discharges to storm drain inlets; and
 - ii. Locations where stormwater and/or authorized non-stormwater will be discharged directly to waters of the U.S.
- h) Locations of all potential pollutant-generating activities identified in Part 7.2.3.g. The permit requires identification in the site map of all potential pollutant-generating activities identified in Part 7.2.3.g.
- i) Locations of stormwater controls, including natural buffer areas and any shared controls utilized to comply with this permit. The permit requires identification on the site map of the location of stormwater control measures.
- j) Locations where polymers, flocculants, or other treatment chemicals will be used and stored. The permit requires identification on the site map of the locations where polymers, flocculants, or other treatment chemicals will be used and stored.

Refer to Attachment A for site maps.

SECTION 3: DOCUMENTATION OF COMPLIANCE WITH OTHER FEDERAL REQUIREMENTS

3.1 *Endangered Species Protection*

Eligibility Criterion

Under which criterion listed in Appendix D of the CGP are you eligible for coverage under this permit?

A **B** **C** **D** **E**

For reference purposes, the eligibility criteria listed in Appendix D of the CGP are as follows:

Criterion A. No federally-listed threatened or endangered species or their designated critical habitat(s) are likely to occur in your site's "action area" as defined in Appendix A of the CGP.

Criterion B. The construction site's discharges and discharge-related activities were already addressed in another operator's valid certification of eligibility for your action area under eligibility Criterion A, C, D, E, or F and there is no reason to believe that federally-listed species or federally-designated critical habitat not considered in the prior certification may be present or located in the "action area". To certify your eligibility under this Criterion, there must be no lapse of NPDES permit coverage in the other operator's certification. By certifying eligibility under this Criterion, you agree to comply with any effluent limitations or conditions upon which the other operator's certification was based. You must include in your NOI the tracking number from the other operator's notification of authorization under this permit. If your certification is based on another operator's certification under Criterion C, you must provide EPA with the relevant supporting information required of existing dischargers in Criterion C in your NOI form.

Criterion C. Federally-listed threatened or endangered species or their designated critical habitat(s) are likely to occur in or near your site's "action area," and your site's discharges and discharge-related activities are not likely to adversely affect listed threatened or endangered species or critical habitat. This determination may include consideration of any stormwater controls and/or management practices you will adopt to ensure that your discharges and discharge-related activities are not likely to adversely affect listed species and critical habitat. To make this certification, you must include the following in your NOI: 1) any federally listed species and/or designated habitat located in your "action area"; and 2) the distance between your site and the listed species or designated critical habitat (in miles). You must also include a copy of your site map with your NOI.

Criterion D. Coordination between you and the Services has been concluded. The coordination must have addressed the effects of your site's discharges and discharge-related activities on federally-listed threatened or endangered species and federally-designated critical habitat, and must have resulted in a written concurrence from the relevant Service(s) that your site's discharges and discharge-related activities are not likely to adversely affect listed species or critical habitat. You must include copies of the correspondence between yourself and the Services in your SWPPP and your NOI.

Criterion E. Consultation between a Federal Agency and the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service under section 7 of the ESA has been concluded. The consultation must have addressed the effects of the construction site's discharges and discharge-related activities on federally-listed threatened or endangered species and federally-designated critical habitat. The result of this consultation must be either:

- i. a biological opinion that concludes that the action in question (taking into account the effects of your site's discharges and discharge-related activities) is not likely to jeopardize the continued existence of listed species, nor the destruction or adverse modification of critical habitat; or
- ii. written concurrence from the applicable Service(s) with a finding that the site's discharges and discharge-related activities are not likely to adversely affect federally-listed species or federally-designated habitat.

You must include copies of the correspondence between yourself and the Services in your SWPPP and your NOI.

Criterion F. Your construction activities are authorized through the issuance of a permit under section 10 of the ESA, and this authorization addresses the effects of the site's discharges and discharge-related activities on federally-listed species and federally-designated critical habitat. You must include copies of the correspondence between yourself and the Services in your SWPPP and your NOI.

For criterion A, indicate the basis for your determination that no federally-listed threatened or endangered species or their designated critical habitat(s) are likely to occur in your site's action area (as defined in Appendix A of the CGP). Check the applicable source of information you relied upon:

- Specific communication with staff of the U.S. Fish & Wildlife Service or National Marine Fisheries Service.
- Publicly available species list.
- Other source: NHESP data layer (August 2017 or as amended) from MassGIS, U.S. Fish and Wildlife online system Information for Planning and Conservation (IPaC) – Refer to Attachment K.

3.2 *Historic Preservation*

Appendix E (of the CGP), Step 1

Do you plan on installing any of the following stormwater controls at your site? Check all that apply below, and proceed to Appendix E, Step 2.

- Dike
- Berm
- Catch Basin
- Pond
- Stormwater Conveyance Channel (e.g., ditch, trench, perimeter drain, swale, etc.)
- Culvert
- Other type of ground-disturbing stormwater control: Area Drains, Trench Drains, Water Quality Structures, Outlet Control Structures, Subsurface Infiltration Systems, Drain Manholes

If you will not be installing any ground-disturbing stormwater controls, no further documentation is required for Section 3.2.

Appendix E, Step 2

If you answered yes in Step 1, have prior cultural resource surveys or other evaluations determined that historic properties do not exist, or that prior disturbances at the site have precluded the existence of historic properties? YES NO

Refer to Attachment L

3.3 Safe Drinking Water Act Underground Injection Control Requirements

Do you plan to install any of the following controls? Check all that apply below.

- Infiltration trenches (if stormwater is directed to any bored, drilled, driven shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system);
- Commercially manufactured pre-cast or pre-built proprietary subsurface detention vaults, chambers, or other devices designed to capture and infiltrate stormwater flow; and
- Drywells, seepage pits, or improved sinkholes (if stormwater is directed to any bored, drilled, driven shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system)

SECTION 4: EROSION AND SEDIMENT CONTROLS REQUIREMENTS

Section 4 of this document describes the stormwater controls that will be implemented throughout construction. The operator must install and maintain all stormwater controls in compliance with Parts 2.2 and 2.3 of the CGP. The operator must install stormwater controls by the time construction activity in any given portion of the site begins.

The stormwater controls shall be designed and installed in accordance with good engineering practices and applicable design specifications. Specifications titled "312500- Erosion and Sedimentation Controls," dated 10/04/19 and prepared by Nitsch Engineering and details titled "Erosion Details," dated 10/04/19 and prepared by Nitsch Engineering have been provided to the contractor under separate cover.

4.1 Natural Buffers or Equivalent Sediment Controls

Buffer Compliance Alternatives

Are there any surface waters within 50 feet of your project's earth disturbances? YES NO

(Note: If no, no further documentation is required for Part 4.1 in the SWPPP Template. Continue to Part 4.2.)

4.2 Perimeter Controls

General

The site will be enclosed by a temporary construction fence as shown on the Erosion and Sedimentation Control Plan in Attachment A. Construction gates will be located at the entrance to the site as shown on the Erosion and Sedimentation Control Plan and all entrances will have stabilized construction entrances. All gates and entrances to the site will be secured during non-working hours. The areas of the site that will receive pollutant discharges will be surrounded by a Specific Perimeter Control listed below as shown on the Erosion and Sedimentation Control Plan in Attachment A. Sediment tracked offsite must be removed by the end of the same workday.

Specific Perimeter Controls

Perimeter Control # 1

- BMP Description: Silt Fence.
- Installation Schedule: Prior to the Start of Construction.
- Inspection Schedule: Once every 7 days and within 24 hours of a storm event 0.25" or greater.
- Maintenance: Ensure that all stormwater controls remain in effective condition as described in part 2.1.4 of the CGP. Remove any sediment before it has accumulated to one-half of the above-ground height of any perimeter control.
- Responsible Staff: Construction Manager and Site Contractor(s).

Perimeter Control # 2

- BMP Description: Silt Fence with Wattles.
- Installation Schedule: Prior to the Start of Construction.
- Inspection Schedule: Once every 7 days and within 24 hours of a storm event 0.25" or greater.
- Maintenance: Ensure that all stormwater controls remain in effective condition as described in part 2.1.4 of the CGP. Remove any sediment before it has accumulated to one-half of the above-ground height of any perimeter control.
- Responsible Staff: Construction Manager and Site Contractor(s).

Perimeter Control # 3

- BMP Description: Super Silt Fence.
- Installation Schedule: Prior to the Start of Construction.
- Inspection Schedule: Once every 7 days and within 24 hours of a storm event 0.25" or greater.
- Maintenance: Ensure that all stormwater controls remain in effective condition as described in part 2.1.4 of the CGP. Remove any sediment before it has accumulated to one-half of the above-ground height of any perimeter control.
- Responsible Staff: Construction Manager and Site Contractor(s).

Perimeter Control # 4

- BMP Description: Wattles.
- Installation Schedule: Prior to the Start of Construction.
- Inspection Schedule: Once every 7 days and within 24 hours of a storm event 0.25" or greater.
- Maintenance: Ensure that all stormwater controls remain in effective condition as described in part 2.1.4 of the CGP. Remove any sediment before it has accumulated to one-half of the above-ground height of any perimeter control.
- Responsible Staff: Construction Manager and Site Contractor(s).

Perimeter Control # 5

- BMP Description: Silt Fence with Straw Bales.
- Installation Schedule: Prior to the Start of Construction and/or immediately after stockpile is established.
- Inspection Schedule: Once every 7 days and within 24 hours of a storm event 0.25" or greater.
- Maintenance: Ensure that all stormwater controls remain in effective condition as described in part 2.1.4 of the CGP. Remove any sediment before it has accumulated to one-half of the above-ground height of any perimeter control.
- Responsible Staff: Construction Manager and Site Contractor(s).

4.3 Sediment Track-Out

General

Gates will be located as shown on the Erosion and Sedimentation Control Plan in Attachment A to allow for construction vehicle access. Construction access points will have a stabilized construction entrance station or wheel wash station to minimize the track-out of sediment onto off-site streets, other paved areas, and sidewalks from vehicles exiting the construction site. Where sediment has been tracked out from your site onto paved roads, sidewalks, or other paved areas outside of your site, remove the deposited sediment by the end of the same business day in which the track-out occurs or by the end of the next business day if track-out occurs on a non-business day. Remove the track-out by sweeping, shoveling, or vacuuming these surfaces, or by using other similarly effective means of sediment removal. You are prohibited from hosing or sweeping tracked out sediment into any stormwater conveyance, storm drain inlet, or water of the U.S.

Specific Track-Out Controls

Track-Out Control # 1

- BMP Description: Street Sweeping.
- Installation Schedule: Start of construction.

- Inspection Schedule: The areas adjacent to the site should be inspected daily to determine if street sweeping is required.
- Responsible Staff: Construction Manager and Site Contractor(s).

Track-Out Control # 2

- BMP Description: Stabilized Construction Entrance.
- Installation Schedule: Start of construction.
- Inspection Schedule: Once every 7 days and within 24 hours of a storm event 0.25" or greater.
- Maintenance: Ensure that all stormwater controls remain in effective condition as described in part 2.1.4 of the CGP.
- Responsible Staff: Construction Manager and Site Contractor(s).

Track-Out Control # 3

- BMP Description: Wheel Wash Station.
- Installation Schedule: Start of construction.
- Inspection Schedule: Once every 7 days and within 24 hours of a storm event 0.25" or greater.
- Maintenance: Ensure that all stormwater controls remain in effective condition as described in part 2.1.4 of the CGP(s).
The operator must provide an effective means of minimizing the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other types of wash waters. The operator must ensure there is no discharge of soaps, solvents, or detergents in equipment and vehicle wash water. For storage of soaps, detergents, or solvents, the operator shall provide either a cover to minimize the exposure of these detergents to precipitation and to stormwater, or a similarly effective means designed to minimize discharge of pollutants from these areas.
- Responsible Staff: Construction Manager and Site Contractor.

4.4 Stockpiled Sediment or Soil

General

All soil stockpiles will be located outside of any natural buffers and away from existing and proposed catch basins and area drains and outside of proposed infiltration system footprints. A sediment barrier shall be installed along all downgradient perimeter areas. Examples of sediment barriers include silt fence, super silt fence, or wattles.

You are prohibited from hosing down or sweeping soil or sediment accumulated on pavement or other impervious surfaces into any stormwater conveyance, storm drain inlet, or water of the U.S.

For stockpiles that will be unused for 14 or more days, a cover such as a tarp or blown straw shall be provided or temporary stabilization should be provided (consistent with Part 2.2.14 of the CGP).

Specific Stockpile Controls

Stockpile Control # 1

- BMP Description: Silt Fence.
- Installation Schedule: Immediately after stockpile is established.
- Inspection Schedule: Once every 7 days and within 24 hours of a storm event 0.25" or greater.
- Maintenance: Ensure that all stormwater controls remain in effective condition as described in part 2.1.4 of the CGP.

- Responsible Staff: Remove any sediment before it has accumulated to one-half of the above-ground height of any perimeter control.
Construction Manager and Site Contractor(s).

Stockpile Control # 2

- BMP Description: Wattles.
- Installation Schedule: Immediately after stockpile is established.
- Inspection Schedule: Once every 7 days and within 24 hours of a storm event 0.25" or greater.
- Maintenance: Ensure that all stormwater controls remain in effective condition as described in part 2.1.4 of the CGP.
Remove any sediment before it has accumulated to one-half of the above-ground height of any perimeter control.
- Responsible Staff: Construction Manager and Site Contractor(s).

Stockpile Control # 3

- BMP Description: Tarp.
- Installation Schedule: When stockpile will remain inactive for 14 or more calendar days.
- Inspection Schedule: Once every 7 days and within 24 hours of a storm event 0.25" or greater.
- Maintenance: Ensure that all stormwater controls remain in effective condition as described in part 2.1.4 of the CGP.
Remove any sediment before it has accumulated to one-half of the above-ground height of any perimeter control.
- Responsible Staff: Construction Manager and Site Contractor(s).

Stockpile Control # 4

- BMP Description: Straw Bales.
- Installation Schedule: Immediately after stockpile is established.
- Inspection Schedule: Once every 7 days and within 24 hours of a storm event 0.25" or greater.
- Maintenance: Ensure that all stormwater controls remain in effective condition as described in part 2.1.4 of the CGP.
Remove any sediment before it has accumulated to one-half of the above-ground height of any perimeter control.
- Responsible Staff: Construction Manager and Site Contractor(s).

Stockpile Control # 5

- BMP Description: Blown Straw.
- Installation Schedule: When stockpile will remain inactive for 14 or more calendar days.
- Inspection Schedule: Once every 7 days and within 24 hours of a storm event 0.25" or greater.
- Maintenance: Ensure that all stormwater controls remain in effective condition as described in part 2.1.4 of the CGP.
Remove any sediment before it has accumulated to one-half of the above-ground height of any perimeter control.
- Responsible Staff: Construction Manager and Site Contractor(s).

Stockpile Control # 6

- BMP Description: Hydroseeding.
- Installation Schedule: When stockpile will remain inactive for 14 or more calendar days.

- Inspection Schedule: Once every 7 days and within 24 hours of a storm event 0.25" or greater.
- Maintenance: Ensure that all stormwater controls remain in effective condition as described in part 2.1.4 of the CGP. Remove any sediment before it has accumulated to one-half of the above-ground height of any perimeter control.
- Responsible Staff: Construction Manager and Site Contractor(s).

4.5 Minimize Dust

General

Disturbed land will be temporarily stabilized as required by the CGP. Dust will be minimized using measures including sprinkling/irrigation, vegetative cover, mulch, and/or stone. Stockpiles will be handled in accordance with section 4.4 of the SWPPP.

Earth-disturbing activities are considered temporarily ceased when work will not resume for a period of 14 or more calendar days. Stabilization shall be initiated when earth-disturbing activities are temporarily or permanently ceased. Stabilization activities shall be complete within 7 calendar days after the initiation of soil stabilization measures.

Specific Dust Controls

Dust Control # 1

- BMP Description: Sprinkling/Irrigation.
- Installation Schedule: As needed throughout earthwork activities as determined by the site contractor and construction manager.
- Inspection Schedule: Once every 7 days and within 24 hours of a storm event 0.25" or greater.
- Maintenance: Ensure that all stormwater controls remain in effective condition as described in part 2.1.4 of the CGP.
- Responsible Staff: Construction Manager and Site Contractor(s).

Dust Control # 2

- BMP Description: Straw or Mulch.
- Installation Schedule: As needed throughout earthwork activities as determined by the site contractor and construction manager. When disturbed land will remain inactive for 14 or more calendar days.
- Inspection Schedule: Once every 7 days and within 24 hours of a storm event 0.25" or greater.
- Maintenance: Ensure that all stormwater controls remain in effective condition as described in part 2.1.4 of the CGP.
- Responsible Staff: Construction Manager and Site Contractor(s).

4.6 Minimize the Disturbance of Steep Slopes

General

Steep slopes are defined as slopes of 15% or greater in grade. No steep slopes are proposed as part of this project. The EPA notes that the requirement to minimize disturbances to steep slopes does not apply to the creation of stockpiles.

4.7 Preserve Native Topsoil

Onsite native topsoil shall be preserved, unless infeasible. Preserving native topsoil is not required where the intended function of a specific area of the site dictates that the topsoil be disturbed or removed.

Stockpiling topsoil at off-site locations or transferring topsoil to other locations is an example of a way to preserve naïve topsoil.

The contractor shall perform construction sequencing such that earth materials are exposed for a minimum of time before they are covered, seeded, or otherwise stabilized.

4.8 Minimize Soil Compaction

General

In areas where infiltration practices will be installed or areas of the site where final vegetative stabilization will occur, soil compaction shall be minimized. This includes restricting vehicle access and equipment use.

Areas used for post-construction infiltration shall be constructed after all ground surfaces are fully stabilized when feasible. If proposed infiltration areas are constructed prior to the site being fully stabilized, additional erosion controls shall be installed. All stockpiled and material storage areas shall be located outside of the areas proposed for post-construction infiltration.

Areas of post-construction landscaping shall be constructed after all ground surface are fully stabilized. If proposed landscaped areas are constructed prior to the site being fully stabilized, additional erosion controls shall be installed. All soil stockpiles and material storage areas shall be located outside of the areas proposed for post-construction landscaping where feasible. Where this is not feasible, use techniques that rehabilitate and condition the soils as necessary to support vegetative growth prior to planting.

4.9 Storm Drain Inlets

General

All existing and proposed storm drain inlets affected by construction activities should be protected using an Inlet Sediment Filter as shown on the Erosion and Sedimentation Control Plan provided in Attachment A.

Clean or remove and replace the protection measures as sediment accumulates, the filter becomes clogged, and/or performance is compromised. Where there is evidence of sediment accumulation adjacent to the inlet protection measure, remove the deposited sediment by the end of the same business day in which it is found or by the end of the following business day if removal by the same business day is not feasible.

Specific Storm Drain Inlet Controls

Storm Drain Inlet Control # 1

- | | |
|--------------------------|--|
| • BMP Description: | Inlet Sediment Filter. |
| • Installation Schedule: | Prior to the Start of Construction. |
| • Inspection Schedule: | Once every 7 days and within 24 hours of a storm event 0.25" or greater. |
| • Maintenance: | Ensure that all stormwater controls remain in effective condition as described in part 2.1.4 of the CGP. |
| • Responsible Staff: | Construction Manager and Site Contractor(s). |

Storm Drain Inlet Control # 2

- BMP Description: Inlet Protection with Gravel.
- Installation Schedule: Prior to the Start of Construction .
- Inspection Schedule: Once every 7 days and within 24 hours of a storm event 0.25" or greater.
- Maintenance: Ensure that all stormwater controls remain in effective condition as described in part 2.1.4 of the CGP.
- Responsible Staff: Construction Manager and Site Contractor(s).

Storm Drain Inlet Control # 3

- BMP Description: Inlet Protection with Block and Gravel.
- Installation Schedule: Prior to the Start of Construction.
- Inspection Schedule: Once every 7 days and within 24 hours of a storm event 0.25" or greater.
- Maintenance: Ensure that all stormwater controls remain in effective condition as described in part 2.1.4 of the CGP.
- Responsible Staff: Construction Manager and Site Contractor(s).

4.10 Minimize Erosion of Stormwater Conveyances

There are no proposed stormwater conveyance channels associated with this project.

4.11 Sediment Basins

There are no proposed sediment basins associated with this project.

4.12 Chemical Treatment

There are no proposed chemical treatments associated with this project.

4.13 Dewatering Practices

If dewatering is expected to occur on site, dewatering will occur in a way that minimizes the discharge of pollutants in ground water or accumulated stormwater that is removed from excavations, trenches, foundations, vaults, or other similar points of accumulation. Dewatering water shall be treated in compliance with Section 2.4 of the CGP and water with visible floating solids or foam may not be discharged.

Any applicable permits shall be obtained from local permitting authorities.

Dewatering Control # 1

- BMP Description: Sediment basin or Sediment Trap.
- Installation Schedule: Start of construction of stormwater conveyance channel.
- Inspection Schedule: Once every 7 days and within 24 hours of a storm event 0.25" or greater.
- Maintenance: Ensure that all stormwater controls remain in effective condition as described in part 2.1.4 of the CGP.
- Responsible Staff: Construction Manager and Site Contractor(s).

Dewatering Control # 2

- BMP Description: Sediment socks.

- Installation Schedule: Start of construction of stormwater conveyance channel.
- Inspection Schedule: Once every 7 days and within 24 hours of a storm event 0.25" or greater.
- Maintenance: Ensure that all stormwater controls remain in effective condition as described in part 2.1.4 of the CGP.
- Responsible Staff: Construction Manager and Site Contractor(s).

Dewatering Control # 3

- BMP Description: Dewatering Tanks.
- Installation Schedule: Start of construction of stormwater conveyance channel.
- Inspection Schedule: Once every 7 days and within 24 hours of a storm event 0.25" or greater and as required by the manufacturer.
- Maintenance: Ensure that all stormwater controls remain in effective condition as described in part 2.1.4 of the CGP.
- Responsible Staff: Construction Manager and Site Contractor(s).

Dewatering Control # 4

- BMP Description: Filtration Systems.
- Installation Schedule: Start of construction of stormwater conveyance channel.
- Inspection Schedule: Once every 7 days and within 24 hours of a storm event 0.25" or greater and as required by the manufacturer.
- Maintenance: Ensure that all stormwater controls remain in effective condition as described in part 2.1.4 of the CGP.
- Responsible Staff: Construction Manager and Site Contractor(s).

4.14 Other Stormwater Controls

Any changes in construction activity that include means of stormwater control not included in this document will be identified, the SWPPP will be amended, and the appropriate erosion and sedimentation controls will be implemented.

4.15 Site Stabilization

Initiate the installation of stabilization measures immediately in any areas of exposed soil where construction activities have permanently ceased or will be temporarily inactive for 14 or more calendar days. Complete the installation of stabilization measures as soon as practicable, but no later than 7 calendar days after stabilization has been initiated.

Site Stabilization Practice #1

- Vegetative Non-Vegetative
 Temporary Permanent

- BMP Description: Soil Stabilization Mat.
- Installation Schedule: As/if required.
- Maintenance and Inspection: Once every 7 days and within 24 hours of a storm event 0.25" or greater.
- Responsible Staff: Construction Manager and Site Contractor(s).

Site Stabilization Practice #2

- Vegetative* *Non-Vegetative*
 Temporary *Permanent*

- BMP Description: Temporary Seeding.
- Installation Schedule: As/if required.
- Maintenance and Inspection: Once every 7 days and within 24 hours of a storm event 0.25" or greater.
- Responsible Staff: Construction Manager and Site Contractor(s).

SECTION 5: POLLUTION PREVENTION STANDARDS

5.1 *Potential Sources of Pollution*

Potential sources of sediment to stormwater runoff:

- Stockpiles and construction staging
- Clearing and grubbing operations
- Grading and site excavation
- Topsoil stripping
- Landscape operations
- Soil tracking offsite from construction vehicles
- Runoff from unstabilized areas
- Construction debris

Potential pollutants and sources, other than sediment, to stormwater runoff:

- Combined Staging Area – fueling activities, equipment maintenance, sanitary facilities, and hazardous waste storage
- Materials Storage Area – building materials, solvents, adhesives, paving materials, paints, aggregates, trash, etc.
- Construction Activity-paving, curb installation, concrete pouring, and building construction

Staging areas are shown on the Erosion and Sedimentation Control Plan provided in Attachment A.

Construction Site Pollutants

Pollutant-Generating Activity	Pollutants or Pollutant Constituents (that could be discharged if exposed to stormwater)	Location on Site (or reference SWPPP site map where this is shown)
Pesticides (insecticides, fungicides, herbicides, rodenticides)	Chlorinated hydrocarbons, organophosphates, carbonates, arsenic	Herbicides used for noxious weed control
Fertilizers	Nitrogen, phosphorous	Newly seeded areas
Plaster	Calcium sulphate, calcium carbonate, sulfuric acid	Building construction
Cleaning Solvents	Perchloroethylene, methylene chloride, trichloroethylene, petroleum distillates	No equipment cleaning allowed in project limits
Asphalt	Oil, petroleum distillates	Streets and parking lots
Concrete	Limestone, sand pH, chromium	Curb and gutter, sidewalk, building construction
Glue, Adhesives	Polymers, epoxies	Building construction
Paints	Metal oxides, Stoddard solvent, talc, calcium carbonate, arsenic	Building construction
Curing compounds	Naphtha	Curb and gutter, building construction
Wood preservatives	Stoddard solvent, petroleum distillates, arsenic, copper, chromium	Timber pads, bracing, building construction
Hydraulic Oils/fluids	Mineral oil	Leaks/broken hoses from equipment
Gasoline	Benzene, ethyl benzene, toluene, xylene, MTBE	Secondary containment/staging area
Diesel Fuel	Petroleum distillate, oil & grease, naphthalene, xylenes	Secondary containment/staging area
Kerosene	Coal oil, petroleum distillates	Secondary containment/staging area
Antifreeze/coolant	Ethylene glycol, propylene glycol, heavy metals (copper, lead, zinc)	Leaks or broken hoses from equipment
Sanitary toilets	Bacteria, parasites, and viruses	Staging area

5.2 *Spill Prevention and Response*

BMP Description: Spill kit, vehicle washing, silt sack catch basin protection, silt fence

Installation Schedule: Start of construction activity

Maintenance and Inspection: Minimum weekly & as necessary

Responsible Staff: Construction Manager and Site Contractor

- Major vehicle maintenance onsite is prohibited
- Re-fueling of vehicles within 25 feet of a drainage structure is prohibited
- Spill kit shall be kept onsite consisting of:
 - Gloves
 - Absorbent mats
 - Drip pan

Spill Prevention and Control Plan

- Refer to contractor's Spill Plan.
- Manufacturers' recommended spill control methods will be posted onsite and site personnel will be made aware of the requirements.
- Cleanup supplies will be kept onsite in a materials storage area. This equipment will include: goggles, brooms, dustpans, mops, rags, gloves, oil absorbent, sawdust, plastic and metal trash cans, and other materials and supplies specifically designated for cleanup.
- All spills will be immediately cleaned up after discovery.
- The spill area will be well ventilated.
- Cleanup personnel will wear suitable protective clothing.
- Spills of toxic and/or hazardous material will be reported to state, local, and Federal authorities, as required by law. Spills shall also be reported immediately to the owner.
- A spill incident report will be filed detailing the amount and extent of the spill, material(s) involved, and effectiveness of the cleanup. This report will be on file at the Construction Manager/Site Contractor office, as well as kept onsite in the field office. A copy shall also be filed with the Hazard Communication Coordinator (HCC). Dellbrook JKS has a safety department that will get involved if there was an event on site that required the spill management program to take effect.

The Construction Manager/Site Contractor will designate someone onsite that will serve as the Spill Cleanup Coordinator. At least two other personnel will be designated as alternate spill coordinators. All spill control personnel will be trained in spill prevention, control, and cleanup. The names of the responsible personnel will be posted at the jobsite office of the Construction Manager/ Site Contractor.

5.3 *Fueling and Maintenance of Equipment or Vehicles*

General

Minor vehicle and equipment emergency maintenance can be performed onsite away from drainage structures. Major vehicle and equipment maintenance must be performed offsite. Equipment/vehicle storage areas and any onsite fuel tanks will be inspected weekly and after storm events. Equipment and vehicles will be inspected for leaks, equipment damage, and other service problems on each day of use. Any leaks will be repaired immediately or the equipment/vehicle will be removed from the site.

Minor vehicle and equipment emergency maintenance shall occur when a vehicle cannot be safely removed from the site. The vehicle should be repaired so it can be taken off-site so that the rest of the maintenance can occur.

Major vehicle maintenance onsite is prohibited. Re-fueling or maintenance of vehicles within 25 feet of a drainage structure shall be prohibited. Drip pans, drip cloths, or absorbent pads should be used when replacing spent fluids. The fluids should be collect and stored prior to being disposed of offsite.

Specific Pollution Prevention Practice #1

- BMP Description: Spill Kit.
- Installation Schedule: Onsite throughout construction.
- Responsible Staff: Construction Manager and Site Contractor.

Specific Pollution Prevention Practice #1

- BMP Description: Drip Pans, Drip Cloths, Absorbent Pads.
- Installation Schedule: Onsite throughout construction.
- Responsible Staff: Construction Manager and Site Contractor.

5.4 Washing of Equipment and Vehicles

General

Vehicle and equipment washout areas shall be constructed by the contractor so that no untreated water enters the storm drain system. Soaps, detergents, or solvents must be stored in a way to prevent these detergents from coming into contact with rainwater, or a similarly effective means designed to prevent the discharge of pollutants from these areas.

Specific Pollution Prevention Practices

Pollution Prevention Practice # 1

- BMP Description: Designated vehicle/equipment washing areas
- Installation Schedule: Start of construction.
- Inspection Schedule: Once every 7 days and within 24 hours of a storm event 0.25" or greater.
- Responsible Staff: Construction Manager and Site Contractor

Pollution Prevention Practice # 2

- BMP Description: Spill kit, vehicle washing, straw bale catch basin protection, silt fence
- Installation Schedule: Start of construction activity
- Inspection Schedule: Once every 7 days and within 24 hours of a storm event 0.25" or greater.
- Responsible Staff: Construction Manager and Site Contractor

5.5 Storage, Handling, and Disposal of Construction Products, Materials, and Wastes

5.5.1 Building Products

General

The contractor will recycle all construction materials possible. For materials that cannot be recycled, solid waste will be disposed of in accordance with DEP Regulations for Solid Waste Facilities, 310 CMR 10.00.

Any building materials required to be stored onsite will be stored at a combined staging and materials storage area as shown on the CMP. Larger items will be elevated by appropriate methods to minimize contact with runoff. The storage area will be inspected weekly and after storm events. It will be kept clean, organized, and equipped with appropriate cleaning supplies.

Building product usage shall follow the following good housekeeping BMPs:

- The Responsible Staff: Construction Manager or Site Contractor representative will inspect daily for inspection of the work area to ensure proper management of waste materials.
- Store only enough material onsite required for that job as to satisfy current construction needs.
- Store required materials in tightly lidded containers under cover.
- Store materials in original containers with clearly legible labels.
- Separate and store materials apart from each other.
- Do not mix materials unless specifically in accordance with manufacturers' recommendations.
- Use all products from a container before disposing of the container.
- Follow manufacturers' instructions for handling, storage, and disposing of all materials.
- All materials shall be stored in an area to prevent the discharge of pollutants from building products.

Specific Pollution Prevention Practices

Pollution Prevention Practice # 1

- BMP Description: Perimeter Protection control around Stockpiles.
- Installation Schedule: Start of construction/ Immediately after stockpile is established.
- Inspection Schedule: Once every 7 days and within 24 hours of a storm event 0.25" or greater.
- Maintenance: Ensure that all stormwater controls remain in effective condition as described in part 2.1.4 of the CGP. Remove any sediment before it has accumulated to one-half of the above-ground height of any perimeter control.
- Responsible Staff: Construction Manager and Site Contractor(s).

5.5.2 Pesticides, Herbicides, Insecticides, Fertilizers, and Landscape Materials

- In storage areas, provide either (1) cover to minimize the exposure of these chemicals to precipitation and to stormwater or (2) a similarly effective means designed to minimize the discharge of pollutants from these areas.
- Comply with all application and disposal requirements included on the registered pesticide, herbicide, insecticide, and fertilizer label.

5.5.3 Diesel Fuel, Oil, Hydraulic Fluids, Other Petroleum Products, and Other Chemicals

General

- Only skilled personnel in a designated area will perform fueling of vehicles onsite.
- Vehicles used onsite will be monitored for fuel and oil leaks.
- Vehicles used onsite will be maintained in good working order.
- Asphalt substances will be applied in accordance with manufacturers' recommendations.
- The use of petroleum products as a release agent for asphalt transport trucks is prohibited.
- Vehicle fueling will only be done in vehicle fueling areas located by the contractor. See section 5.3 of the SWPPP.
- The contractor shall be responsible for locating the fuel storage and re-fueling area onsite to minimize disturbance to construction activities and site area.
- Construction equipment not in active use for 5 minutes or more will be turned off.

5.5.4 Hazardous or Toxic Waste

(Note: Examples include paints, solvents, petroleum-based products, wood preservatives, additives, curing compounds, acids.)

General

- Keep products in their original containers.
- Original container labels should be clearly visible.
- Material safety data sheets will be kept onsite and be available.
- Follow all state, local, and Federal regulations regarding the handling, use, storage, and disposal of hazardous material.

Paints:

- All paint containers will be tightly sealed when not in use.
- Remove excess paint in original labeled containers from the jobsite.
- Paint will not be disposed of onsite. Remove excess paint material from the site and legally dispose of.
- Paint shall not be disposed of in the storm drain system.

5.5.5 Construction and Domestic Waste

General

The contractor will manage domestic waste onsite. The contractor will provide waste containers of sufficient size and number to contain construction and domestic wastes. The waste container lids will be kept closed when not in use and lids will be closed at the end of the business day for those containers that are actively used throughout the day. For waste containers that do not have lids, provide either a cover or a similarly effective means designed to minimize discharge of pollutants. Clean up immediately if containers overflow.

Pollution Prevention Practice # 1

- BMP Description: Dumpster.
- Installation Schedule: Start of construction.
- Maintenance and Inspection: Weekly and covered daily.
- Responsible Staff: Construction Manager and Site Contractor(s).

Pollution Prevention Practice # 2

- BMP Description: Litter/debris pick-up.
- Installation Schedule: Start of construction.
- Maintenance and Inspection: Daily.
- Responsible Staff: Construction Manager and Site Contractor(s).

5.5.6 Sanitary Waste

All sanitary waste portable toilets shall be positioned so that they are secure and will not be tipped or knocked over, and located away from any stormwater inlets or conveyances.

Pollution Prevention Practice # 1

- BMP Description: Porta John.
- Installation Schedule: Start of construction.
- Maintenance and Inspection: As manufacturer requires.
- Responsible Staff: Construction Manager and Site Contractor(s).

5.6 Washing of Applicators and Containers used for Paint, Concrete, or Other Materials

General

Washing of applicators and containers used for paint, concrete, or other materials shall follow the following good housekeeping BMPs:

- An effective means of eliminating the discharge of water from the washout and cleanout of stucco, paint, concrete, form release oils, curing compounds, and other construction materials.
- All washwater must be directed into a leak-proof container or leak-proof pit. The container or pit must be designed so that no overflows can occur due to inadequate sizing or precipitation.
- Washout and cleanout wastes should be handled as follows:
 - Do not dump liquid wastes into storm sewers.
 - Dispose of liquid wastes in accordance with applicable requirements.
 - Remove and dispose of hardened concrete waste consistent with the handling of other construction wastes.
- Locate any washout or cleanout activities as far away as possible from surface waters and stormwater inlets or conveyances, and to the extent practicable, designate areas to be used for these activities and conduct such activities only in these areas.

Pollution Prevention Practice # 1

- BMP Description: Designated applicator and container washing areas.
- Installation Schedule: Start of construction.
- Maintenance and Inspection: Daily.
- Responsible Staff: Construction Manager and Site Contractor(s).

5.7 Fertilizers

General

If fertilizer is required onsite, installation will follow the following guidelines:

- Fertilizers will be used at the application rates called for in the specifications for the project.
- Once applied, fertilizer will be worked into the soil to minimize wash off from irrigation and stormwater.
- Fertilizer will be stored under cover.
- The contents of partially used fertilizer bags will be transferred to re-sealable, watertight containers clearly labeled with their contents.
- Avoid applying before heavy rains.
- Never apply to frozen ground.
- Never apply to stormwater conveyance channels with flowing water.

5.8 Other Pollution Prevention Practices

Any changes in construction activity that produce other allowable non-stormwater discharges will be identified, the SWPPP will be amended and the appropriate erosion and sedimentation controls will be implemented.

Control # 1

- BMP Description: storm tide gate replacement at channel
- Installation Schedule: start of construction
- Inspection Schedule: inspect bi weekly at low tide that it is operational
- Maintenance: Ensure that all stormwater controls remain in effective condition as decribed in part 2.1.4 of the CGP.
- Responsible Staff: Construction Manager and Site Contractor(s).

SECTION 6: INSPECTION AND CORRECTIVE ACTION

6.1 *Inspection Personnel and Procedures*

Personnel Responsible for Inspections

Dellbrook JKS
Jonathan Bonaccorsi

D&M Civil Inc
Doug Church

(Note: All personnel conducting inspections must be considered a “qualified person.” CGP Part 4.1.1 clarifies that a “qualified person” is a person knowledgeable in the principles and practices of erosion and sediment controls and pollution prevention, who possesses the skills to assess conditions at the construction site that could impact stormwater quality, and the skills to assess the effectiveness of any stormwater controls selected and installed to meet the requirements of this permit.)

Inspection Schedule

Specific Inspection Frequency

The contractor shall inspect and maintain erosion control measures, and remove sediment therefrom, once every 7 days and within 24 hours of a storm event 0.25” or greater.

Rain Gauge Location:
Boston Logan Airport

Reductions in Inspection Frequency (if applicable):

Inspection frequency may be reduced to twice per month (no more than 14 days apart) for the first month in areas of the site where the stabilization steps outlined in Parts 2.2.14 of the CGP have been completed. After the first month, inspection frequency may be reduced to once per month. If construction activity resumes in this portion of the site at a later date, the inspection frequency immediately increases to that required in Parts 4.2 and 4.3 as applicable. You must document the beginning and ending dates of this period in the SWPPP.

Inspection frequency may be reduced to once per month and within 24 hours of the occurrence of a storm event of 0.25 inches or greater if the project is located in an arid, semi-arid, or drought-stricken area and construction is occurring during the seasonally dry period or a period in which drought is predicted to occur. If this inspection frequency is followed, you must document the beginning and ending dates of this period in the SWPPP.

Inspections can be temporarily suspended under the following conditions:

- Earth-disturbing activity is suspended due to frozen condition;
- Runoff is unlikely due to continuous frozen conditions that are likely to continue at the site for at least three months based on historic seasonal averaged. **If unexpected weather conditions make discharges likely, the operators must immediately resume the regular inspection schedule;**
- Land disturbances have been suspended; and
- All disturbed areas of the site have been stabilized in accordance with Part 2.2.14a of the CGP.

Inspection frequency may be reduced to once per month under the following conditions:

- The operator is still conducting earth disturbing activities under frozen conditions;
- Runoff is unlikely due to continuous frozen conditions that are likely to continue at the site for at least three months based on historic seasonal averages. **If unexpected weather conditions make discharges likely, the operator must immediately resume the regular inspection schedule;** and
- Except for areas in which the operator is conducting earth-disturbing activities, disturbed areas of the site have been stabilized in accordance with Part 2.2.14a of the CGP.

Inspection Report Forms

Copies of inspection reports are in Attachment D.

6.2 Corrective Action

Personnel Responsible for Corrective Actions

Jonathan Bonaccorsi, Dellbrook JKS

Doug Church, D&M Civil Inc

Corrective Action Forms

A copy of the Corrective Action Form is in Attachment E.

6.3 Delegation of Authority

Duly Authorized Representative(s) or Position(s):

Dellbrook JKS

Jonathan Bonaccorsi

Project Manager

One Adams Place, 859 Willard Street

Quincy, MA 02169

781-380-1604

Email address: JBonaccorsi@dellbrookjks.com

SECTION 8: CERTIFICATION AND NOTIFICATION

Operator – Steve Perdue

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

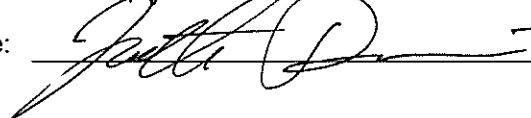
Name: Steve Perdue Title: Executive Vice President

Signature:  Date: 6/29/22

Operator – Jonathan Bonaccorsi

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: Jonathan Bonaccorsi Title: Project Manager

Signature:  Date: 3/1/2020

SWPPP ATTACHMENTS

Attachment A – Site Maps

Attachment B – 2017 Construction General Permit

Attachment C – NOI and EPA Authorization Email

Attachment D – Inspection Form

Attachment E – Corrective Action Form

Attachment F – SWPPP Amendment Log

Attachment G – Subcontractor Certifications/Agreements

Attachment H – Grading and Stabilization Activities Log

Attachment I – SWPPP Training Log

Attachment J – Delegation of Authority Form

Attachment K – Endangered Species Documentation

Attachment L – Historic Preservation Documentation

Attachment M – Rainfall Gauge

Attachment N – Order of Conditions

Attachment A – Site Maps

Site Locus Map

USGS Locus Map

Erosion and Sedimentation Control Plans

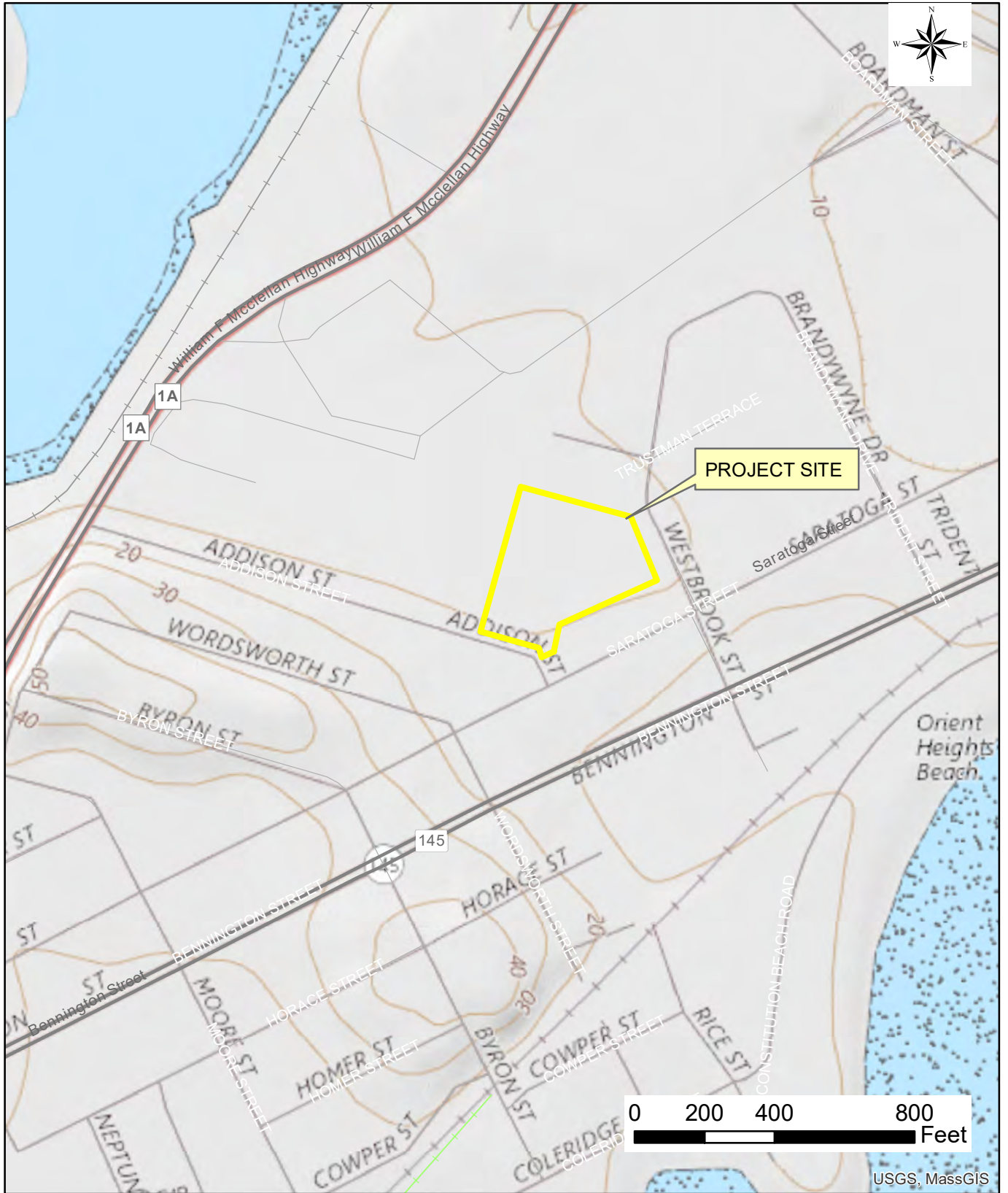
See attached CMP prepared by HSH 1/29/2020 approved by City of Boston



SITE LOCUS MAP
 ADDISON STREET
 BOSTON, MASSACHUSETTS

Data Source: MassGIS
 Nitsch Project #12433





USGS LOCUS MAP
ADDISON STREET
BOSTON, MASSACHUSETTS

Data Source: MassGIS
 Nitsch Project #12433





Construction Management Plan

144 Addison Street

East Boston, MA 02128

Prepared for

Boston Transportation Department

Developer

144 Addison Street, LLC

Construction Manager

Dellbrook | JKS

Prepared by

Howard Stein Hudson

Date

January 29, 2020



Handwritten signature and date: 1/29/2020





General Information

On behalf of 144 Addison Street, LLC (The Developer) and Dellbrook | JKS (The Contractor), in collaboration with Howard Stein Hudson (HSH), the attached Construction Management Plan (CMP) has been developed for review and approval by the Boston Transportation Department (BTD). This CMP includes the following:

- Written agreement describing construction activities;
- Construction Management Plans, *dated January 29, 2020*, and;
- Construction Schedule.

Developer: 144 Addison Street, LLC c/o Redgate
Steve Perdue
265 Franklin Street, 6th Floor
Boston, MA 02110
617-877-5740
steve.perdue@redgate-re.com

Contractor: Dellbrook | JKS
Jonathan Bonaccorsi
One Adams Place
859 Willard Street, Quincy, MA 02169
781-380-1604
jbonaccorsi@dellbrookjks.com

Project Description

The proposed project multi-family residential development is located on an existing parking lot at 144 Addison Street in East Boston. Construction consist of approximately 230 housing units across the two proposed buildings designed to optimize the basin-shaped site with minimal impact on the neighbors. 169 surface level parking spaces. The South building is three stories at street level and terraces up to five stories moving northwards. The North Building is a five-story structure with parking on the ground floor.



Construction Phasing and Scheduling

To minimize impacts on the surrounding roadway network and to provide a safe pedestrian environment, it is expected that construction would occur in seven overall phases:

- 1) Site Preparation and Mobilization
- 2) Excavation and Support of Excavation
- 3) Concrete Foundation Installation
- 4) Structure Erection
- 5) Exterior Façade and Interior Fit-Out
- 6) Hardscaping
- 7) Restoration and Final Conditions

WORK HOURS

Work Period	Time Period	Delivery Hours
Typical (Monday – Friday)	7:00 AM – 7:00 PM	9:00 AM – 4:00 PM
Saturday (by permit only)	7:00 AM – 7:00 PM	9:00 AM – 4:00 PM

It is expected that the overall construction duration should last approximately 24 months. If night work or weekend work becomes necessary, approval shall be obtained from BTM, Inspection Services Department (ISD), and the Office of Neighborhood Services (ONS).

Phase I: Site Preparation and Mobilization (ref. CMP-005)

DURATION: 14 WEEKS (DECEMBER 2019 – MARCH 2020)

Phase I involves the following:

- Partially demolish existing fence and install new fence on the west and south sides of the site;
- Install 30-foot swing gate and field office in the northwest corner;
- Install concrete barriers and overhead protection for pedestrian path on Addison Street;
- Construct temporary asphalt ramps.



To provide a safe working environment, the site will be surrounded by existing fence on the north and east sides and proposed 6-foot high, cored-in-place chain link fence on the south and west sides. The fence along the south end of the site will extend to the northern edge of Addison Street and the fence along the west side of the site will extend west into the existing parking lot to provide a sufficient work zone.

The existing sidewalk along Addison Street will be closed and pedestrians will be rerouted into a 4.5-foot-wide pedestrian path facilitated by temporary concrete barriers MASH TL-2 in the existing parking area along Addison Street. Two ADA compliant asphalt wheelchair ramps and pedestrian overhead protection will be installed along Addison Street, which will remain for the duration of construction.

All material deliveries will occur within the site limits and will be staged such that a clear path can be maintained for on-site truck mobility. Trucks will enter and exit the site via a 30-foot swing gate, Gate A, staged at the northwestern corner of the site. Existing gates are staged on the eastern side of the site leading to a driveway accessing a residential area. The existing gates will be used for emergency access only.

Appropriate BTM and MUTCD compliant signage will be installed to warn pedestrians of construction activities. Gate A is located in the rear most area of a private parking lot where there is limited vehicular access and no pedestrian traffic, thus, no police detail officers will be required at the construction gate.

Phase II: Excavation & Support of Excavation (ref. CMP-007)

DURATION: 8 WEEKS (MARCH 2020 – APRIL 2020)

Phase II involves installing support of excavation and excavating the site to subsurface level. The construction fencing, construction gates, signage, and staging area will remain from phase I.

To optimize the site utilization, excavation will occur within the building footprint and will start on the south side working north for the south building and east to west for the north building so all materials can be contained on-site and the hauled off onto the McClellan Driveway. Shoring will take place on the southern third of the site due to the elevation change between the parking lot and Addison Street.

Trucks will continue to enter and exit the site via a 30-foot swing gate, Gate A, staged at the northeastern corner of the site and the existing gates will be maintained for emergency access only.



Phase III: Concrete Foundation Installation (ref. CMP-008)

DURATION: 16 WEEKS (MARCH 2020 – JUNE 2020)

Phase III involves forming and pouring the concrete foundation. To complete this phase, a concrete pumper and other supporting equipment will be used. All staging including construction fencing, construction gates, signage, and staging area will remain from phase II.

Trucks will continue to enter and exit the site via a 30-foot swing gate, Gate A.

Phase IV: Structure Erection (ref. CMP-009)

DURATION: 28 WEEKS (MAY 2020 – NOVEMBER 2020)

Phase IV involves the construction of the building's structure. To complete this phase, a mobile crane, material delivery trucks and other supporting equipment will be used. The construction fencing, construction gate, signage and staging area will remain from phase III. A material laydown area will be staged adjacent to the field office in the northwestern corner and mobile cranes will be staged around the building footprint and material picks will occur within the staging area. Trucks will continue to access the site via Gate A.

Phase V: Exterior Façade & Interior Fit-Out (ref. CMP-010)

DURATION: 36 WEEKS (NOVEMBER 2020 – OCTOBER 2021)

Phase V involves the installation of the building's exterior façade and the interior fit-out features. Swing scaffolding, boom and scissor lifts, delivery trucks and other supporting equipment will be used to complete this phase of construction. The construction fence, gate, signage and staging area will remain from phase IV.

The walkway connecting the north and south buildings will be constructed following the construction of the building structure. Once constructed, there will be limited truck access to the courtyard between the two structures. Trucks will continue to access the site via Gate A.

Phase VI: Hardscaping (ref. CMP-011)

DURATION: 12 WEEKS (AUGUST 2021 – NOVEMBER 2021)

Phase VI involves installation of all on-site hardscaping, landscaping, curbing and sidewalks. Material delivery trucks and other supporting equipment will be required to complete this phase. The setup from phase V will remain. However, the material laydown area will be removed to allow for the planting of trees. Trucks will continue to access the site via Gate A.



Upon the completion of construction any disturbed curb, sidewalk, signage, light poles etc. will be restored to their existing condition or to the final condition approved by the City of Boston as show in the Final Condition plan. All temporary signage, including parking restrictions and warning signs will be removed and stacked.

Overall Schedule

Key construction activities and approximate time periods are summarized below and on the attached CMP.

Phase	Time Period	Duration
Site Preparation and Mobilization	December 2019 – March 2020	14 weeks
Excavation and Support of Excavation	March 2020 – April 2020	8 weeks
Concrete Foundation Installation	March 2020 – June 2020	16 weeks
Structure Erection	May 2020 – November 2020	28 weeks
Exterior Façade and Interior Fit-Out	November 2020 – October 2021	36 weeks
Hardscaping	August 2021 – November 2021	12 weeks
Restoration and Final Conditions	November 2021	

Street Occupancies

The street occupancies are limited to Addison Street. Throughout the duration of construction, street occupancies will be affected by the following construction equipment.

- Construction Fencing
- Temporary Concrete Barrier MASH TL-2
- Pedestrian Overhead Protection
- Pedestrian Detour Signage
- Vehicle Guide Signage

Pre-Construction

Dellbrook | JKS will meet with the City of Boston Building Department & City Officials to review construction procedures and to finalize all details of this CMP plan prior to any work beginning on-site. Two weeks prior to mobilization of any subcontractor the Project Manager and onsite Foreman are required to attend a preconstruction meeting. At this meeting the subcontractor's personnel



review, along with other topics, these key project specific items to ensure a successful project for all trades. These key specifics are as follows:

- 1) Subcontractor orientation of the project (work hours, truck routes, parking etc.)
- 2) Specific scope of work is reviewed for content and execution.
- 3) The project schedule is reviewed for complete acceptance and understanding of expectations and project phasing logic.
- 4) Safety and housekeeping requirements.

Perimeter Protection/Public Safety

Dellbrook | JKS will work to ensure the staging areas minimize impact to pedestrian and vehicular flow. Secure fencing and barricades will be used to isolate construction areas from pedestrian traffic around the site. In addition, sidewalk areas and walkways near construction activities will be well marked to protect pedestrians and ensure their safety. Proper signage as required by BTM will be installed and regularly updated as site conditions change during the construction process.

Construction procedures will be designed to meet all Occupational Safety and Health Administration (OSHA) safety standards for specific site construction activities.

Safety on Site

All subcontractors working on site shall provide and maintain all safety measures, procedures, and documentation as required by governing agencies. The jobsite will be enclosed by temporary fencing. Dellbrook | JKS will meet with City Officials to review the proposed traffic management plan to ensure acceptance and compliance with local jurisdiction. Prior to the start of work by any subcontractor a Hazardous Risk Assessment Plan is reviewed. During this review all potential hazardous work requirements and the safety plans required to mitigate these risks are confirmed. Construction procedures will be designed to meet all Occupational Safety and Health Administration (OSHA) safety standards for specific site construction activities. With the support of Dellbrook | JKS, all subcontractors will implement and manage their own Health and Safety program for the project. All site personnel will be subject to follow the safety orientation and identification guidelines and processes established by Dellbrook | JKS.

Access to the site for emergency vehicles will be maintained at all times with a dedicated and marked point of access. All other site points of access will be maintained for a secondary access as needed.



The proposed site logistic and traffic plans are designed to isolate the construction while providing safe access for pedestrians and automobiles during normal day to day activities and emergencies.

Signage and Distribution of Information

Signage will direct pedestrians around the site as well as direct truck traffic and deliveries. Proper signage will be placed at every corner of the site as well as in those areas that may be confusing to pedestrians and automobile traffic. Construction and regulatory signage shall be provided as shown on the CMP.

The construction site shall have a sign installed that shall list the name of construction company/general contractor, and their contact information including the phone number. This sign shall be clearly visible to enable the public to call with any questions or concerns.

Abutter and Agency Coordination

Dellbrook | JKS recognizes the challenges of building construction in an urban setting and the importance of responding to the needs of adjacent businesses and residents. The abutting properties shall be informed of the scheduled start of construction, and will be updated on the development during its construction as needed.

As appropriate, Dellbrook | JKS has coordinated construction activities with the City of Boston and other on-going construction projects in the area to help minimize the impacts to the community.

NFPA 241 Construction Fire Safety Plan

As construction continues in the City of Boston, fire hazards and safety have become a greater issue. As such, NFPA 241 Construction Fire Safety Plans are now required to be submitted to the Boston Fire Department prior to construction. As appropriate, Dellbrook | JKS will submit NFPA 241 plans to the Boston Fire Department.

Material Handling/Construction Waste

Dellbrook | JKS will take an active role regarding the processing and recycling of construction waste and will have in-place a Construction Waste Management Plan (CWMP) for the project. The CWMP will require Dellbrook | JKS to contract with a licensed waste hauler that has off-site sorting



capabilities. All construction debris will be taken off site by the waste hauler, sorted as either recycled debris or waste debris and sent to the proper recycling center or waste facility. Construction debris shall be wetted and covered to minimize air born dust particles.

During site development activities, it is anticipated that on-site refueling of machinery will be required. The site contractor will obtain the necessary onsite refueling permit prior to commencing site development activities. Fuel will likely be needed for temporary heat on the interior of the buildings and/or the exterior façade and the appropriate permits/inspections will be obtained from the plumbing inspector and fire department.

Dumpster Location and Loading

Dumpsters will be located within the construction staging area. Dumpsters will be secured with odor and dust control measures and will have proper Fire Department permits. Dumpster pick-ups to be done during normal construction hours and will avoid peak traffic periods.

Loading and unloading of the dumpsters will take place with-in the proposed fence areas.

Emergency Vehicle Access

Access to the site for emergency vehicles will be maintained at all times. The proposed staging plan is designed to isolate the construction while providing safe access for pedestrians and automobiles during normal day to day activities and emergencies.

All construction material delivery trucks will be loaded and unloaded inside the construction fence throughout the course of the project. Trucks and equipment will follow the designated truck route and be staged at the designated areas on the CMP.

Utility Connections

There will be multiple utility connections on this project, most utilities will be located onsite, but some may affect Addison Street. All utility connections will require coordination with each respective utility company and the City of Boston Engineering Department and Boston Water and Sewer Commission. Road closures and street opening permits will be submitted for approval accordingly prior to the start of each task. All right-of-way utility work will conform to the City of Boston's utility standards and moratorium dates respectfully and as indicated per City of Boston.



Truck Movements During Construction

Trucks are needed for material removal and delivery from and to the site as the project proceeds. Truck traffic related to this construction site shall vary considerably throughout the construction period.

The impact of construction trucks in the evening peak hour is expected to be insignificant because all deliveries will be restricted to off-peak hours (9:00am – 4:00pm). Any deliveries that need to be completed outside that time period will need direct approval from BTM prior to deliveries.

Development is expected to generate an average of 6 trucks per day for a majority of the construction during with the peak being 14 trucks per day for concrete deliveries.

Truck activity is expected to be uniformly distributed throughout the work day. Thus, an anticipated average of 6 trucks per day to the site translates to approximately 1 truck per hour if distributed over an eight-hour work day.

Trucks coming to and from the site are required to use major arterial roadways or highways and not local streets. The selection of proposed truck routes is based on the following criteria:

- Minimizing truck activity in the residential neighborhoods;
- Designating specific roads where trucks are permitted; and
- Providing access to and from the major arteries (e.g. Interstate 93, 90)

A detailed Truck Routing Plan is shown on Sheet 14 and the individual truck maneuvers for entering and exiting the site are shown on Sheet 13 of the attached CMP.

Construction Employee Trip Generation

The project has access to public transportation and most workers will use one of the many transit options. The site is convenient to the MBTA's Blue Line and numerous bus stops. The contractor will also provide sufficient and secure storage areas for workers' equipment to facilitate use of the public transportation. Given the high cost of parking, it is unlikely that all the workers will choose to drive alone, many workers, in order to save money, will be likely to carpool. In addition to these factors, construction workers generally travel before the morning peak hour further lessening the impact that these workers will have on the adjacent street network during the morning and evening peak hours.



Construction Worker and Staff Parking

On-site parking by construction workers is not allowed. Any personal vehicles will be restricted from parking at or around the construction site so as to reduce the impact to residential parking. Due to the proximity of public transit systems, employees will be encouraged to use the MBTA as well as carpooling incentives.

Street Cleaning

Street cleaning will take place daily or as required (see dust control and snow removal sections below for more information).

Dust Control

Construction activities generate fugitive dust that will result in localized increases in airborne particulate levels. To reduce emissions of fugitive dust and minimize impacts on the local environment, strictly enforced mitigation measures will be employed, including:

- Wetting agents will be used regularly to control and suppress dust that may come from construction activities.
- Trucks used for the transportation of construction debris will be covered before exiting the project site.
- Streets and sidewalks will be cleaned regularly using mechanical street sweepers to minimize accumulations.
- Trucks tires shall be hosed down prior to entering public streets.

Snow Removal

Dellbrook | JKS shall be responsible for removing snow from all public sidewalk affected by their work. This will be done daily and continuously to ensure that all sidewalks are clear of snow and ice. Under no condition will the removed snow be disposed of on public property.



Rodent Control

The City of Boston has declared that the infestation of rodents in the City is a serious problem. In order to control this infestation, the City enforces the requirements established under the Massachusetts State Sanitary Code, Chapter 11, 105 CMR 410.550 and the State Building Code, Section 108.6. Policy Number 87-4 (City of Boston) established that extermination of rodents shall be required for issuance of permits for demolition, excavation, foundation and basement rehabilitation.

Dellbrook | JKS will implement a rodent control program to be administered by a licensed pest control contractor. Rodent control measures will be in-place prior to, during, and following construction activities. The program will include performance of extermination and control procedures on a bi-weekly basis, and the placement of tamper resistant bait boxes around the perimeter of the site.

Noise and Odor Control

A significant effort will be made to minimize the noise impact of the Project's construction activities. Mitigation measures to be undertaken will include:

- Using mufflers on equipment and ongoing maintenance of intake and exhaust mufflers.
- Use of low sulfur fuels.
- Using less noisy specific construction operations and techniques where feasible (e.g., mixing concrete off-site instead of on-site.)
- Scheduling equipment operations to keep average levels low, to synchronize noisiest operations with times of highest ambient levels, and to maintain relatively uniform noise levels.
- Turning off idling equipment.
- Utilize saw-cutting methods in lieu of jack hammering where feasible.
- Use of mobile cranes for structure erection will reduce street noise associated with truck-mounted equipment, where practical. Possible off hours loading only of the project to reduce traffic during the day. All off hour work will be per City of Boston requirements and permitted as required. ISD, BTM, and the Office of Neighborhood Services (ONS) will be notified of all off-hour work.



On-site Dewatering

Site dewatering is expected to be limited and will be in accordance with the applicable stormwater pollution prevention plan (SWPPP) or National Pollutant Discharge Elimination System (NPDES) requirements for sedimentation control. Groundwater levels will be monitored during the construction process.

Emergency Contacts

A 24-hour emergency contact list will be provided to all parties involved in the project prior to start of construction and maintained throughout construction.

144 Addison Street, LLC

Contact: Steve Perdue 617-877-5740

Dellbrook|JKS

Contact: Jonathan Bonaccorsi 781-380-1604

Special Conditions

- Community Outreach: Dellbrook | JKS and ownership will provide notices and updates on progress and upcoming expectations for the construction activities. At all times during construction activity there will management staff on-site and available for assistance. Proper 24-hour emergency contacts and information will be provided.
- Dellbrook | JKS will replace, in kind, any pavement markings, signage, loop detectors, and/or other traffic signal control equipment damaged as part of construction activities.
- All local, state and federal laws governing the work will be strictly adhered to at all times.



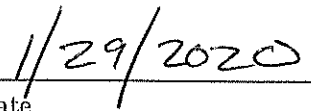
Signatures and Approvals

Submitted By:

Jonathan Bonaccorsi
Dellbrook | JKS



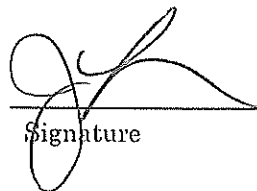
Signature



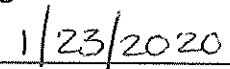
Date

Approved By:

Ed Hesford
Boston Transportation Department

 For Ed Hesford

Signature



Date

BOSTON TRANSPORTATION DEPARTMENT

CONSTRUCTION MANAGEMENT PLAN

FOR

144 ADDISON STREET

BOSTON, MA

INDEX

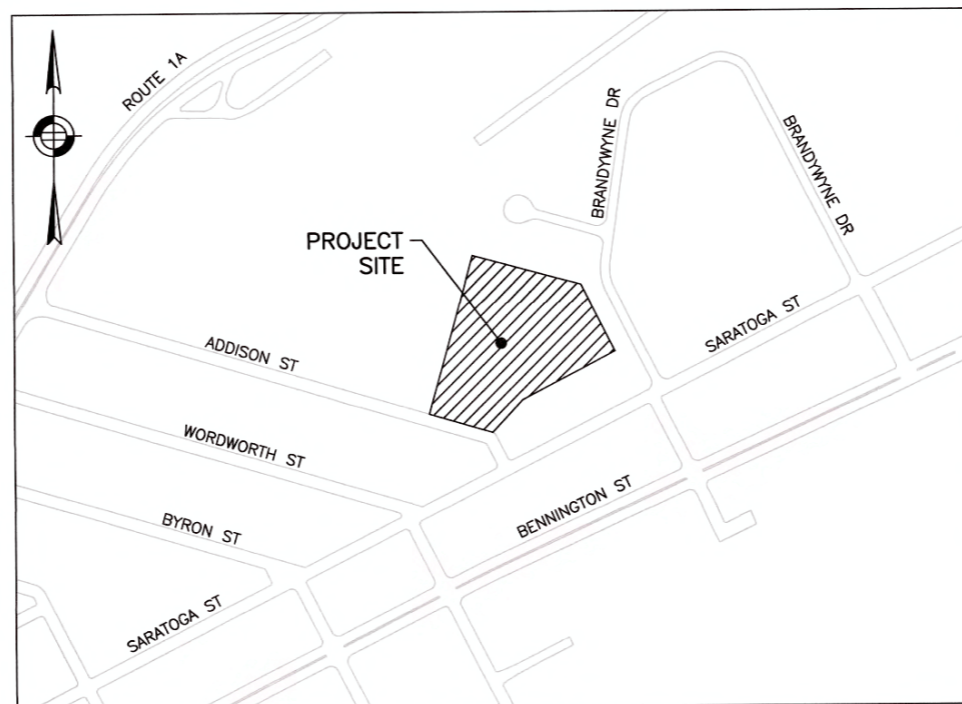
DWG. NO.	SHEET NO.	PLAN TITLE
CMP-001	1	COVER SHEET
CMP-002	2	GENERAL NOTES, LEGEND, AND SCHEDULE
CMP-003	3	TEMPORARY TRAFFIC CONTROL DEVICES
CMP-004	4	EXISTING CONDITIONS
CMP-005	5	SITE PREPARATION AND MOBILIZATION
CMP-006	6	UTILITY INSTALLATION
CMP-007	7	EXCAVATION AND SUPPORT OF EXCAVATION
CMP-008	8	CONCRETE FOUNDATION INSTALLATION
CMP-009	9	STRUCTURE ERECTION
CMP-010	10	EXTERIOR FACADE AND INTERIOR FIT-OUT
CMP-011	11	HARDSCAPING
CMP-012	12	RESTORATION AND FINAL CONDITIONS
CMP-013	13	TRUCK TURNING MANEUVERS
CMP-014	14	TRUCK ROUTING
CMP-015	15	SIGN SUMMARY

THIS PLAN DEPICTS IN SCHEMATIC FORM, THE ELEMENTS OF AN APPROACH TO THE LAYOUT AND PLANNING OF THE WORK DURING THE PROGRESS OF THE CONSTRUCTION OPERATIONS.

THIS PLAN CONTAINS NO EXPRESS OR IMPLIED REPRESENTATIONS AS TO THE CONSTRUCTABILITY OF ANY ASPECT OF THE WORK. THE CONSTRUCTION CONTRACTOR REMAINS EXCLUSIVELY RESPONSIBLE FOR THE PLANNING, MEANS, METHODS, SEQUENCES, PROCEDURES AND EXECUTION OF THE WORK, AND FOR THE PROPER AND TIMELY IMPLEMENTATION OF ALL INCIDENTAL AND/OR REQUIRED SAFETY PRECAUTIONS AND PROGRAMS.

NOTHING IN THIS PLAN SHALL RELIEVE, OR OTHERWISE DIMINISH THE RESPONSIBILITY OF THE CONTRACTOR FOR THIS EXCLUSIVE RESPONSIBILITY.

THE PREPARER OF THIS PLAN HAS NO ROLE IN THE OVERSIGHT OR OTHERWISE IN THE IMPLEMENTATION OF THIS PLAN.



LOCUS PLAN

SCALE: 1"=250' (APPROXIMATE)

ALL WORK SHALL CONFORM TO THESE PLANS, THE BOSTON TRANSPORTATION DEPARTMENT STANDARDS AND SPECIFICATIONS, THE 1988 MASSACHUSETTS HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES (ENGLISH EDITION); THE SUPPLEMENTAL SPECIFICATIONS (ENGLISH EDITION), DATED MARCH 1, 2019; THE 2017 CONSTRUCTION STANDARDS; THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (MUTCD) WITH LATEST REVISIONS; THE 1990 STANDARD DRAWINGS FOR SIGNS AND SUPPORTS; THE 1968 STANDARD DRAWINGS FOR TRAFFIC SIGNALS AND HIGHWAY LIGHTING; AND THE AMERICAN STANDARD FOR NURSERY STOCK CURRENT EDITION (ANSI Z-60.1-2004). WHERE CONFLICTS EXIST, THE BOSTON TRANSPORTATION DEPARTMENT STANDARDS AND SPECIFICATIONS SHALL GOVERN.

ISSUED FOR CONSTRUCTION

HOWARD STEIN HUDSON
 11 Beacon Street, Suite 1010
 Boston, MA 02108
 www.hshassoc.com



REDGATE
DELLBROOK JKS



DESIGNED BY K. MARTIN
 DRAWN BY D. SCHULTZ
 CHECKED BY K. MARTIN
 APPROVED BY R. BURGESS

CITY OF BOSTON TRANSPORTATION DEPARTMENT
 ENGINEERING DIVISION
 CONSTRUCTION MANAGEMENT PLAN

144 ADDISON STREET
COVER SHEET

BOSTON

AREA: 1
 DISTRICT: 1

DATE: JAN 29, 2020
 DRAWING NO. CMP-001
 SHEET 1 OF 15

GENERAL NOTES

- THESE PLANS ARE NOT INTENDED TO LIMIT THE CONTRACTORS RIGHT TO SCHEDULE THE WORK BUT TO OUTLINE ONE WAY OF PROGRESSING. THE CONTRACTOR IS EXPECTED TO USE KNOWLEDGE AND EXPERIENCE TO PERFORM THE WORK IN THE MOST SAFE AND EFFICIENT MANNER IN COMPLIANCE WITH THE DRAWINGS AND SPECIFICATIONS AND MEETING THE REQUIREMENTS OF THE CITY OF BOSTON.
- CONTRACTOR SHALL SUBMIT FOR APPROVAL BY THE CITY, CONSTRUCTION MANAGEMENT PLANS FOR ANY WORK OUTSIDE OF THE WORK ZONES INDICATED IN THESE DRAWINGS.
- ALTERNATIVE PHASING OR MODIFICATIONS TO ANY ASPECT OF THE CONSTRUCTION MANAGEMENT PLANS AND THE CONSTRUCTION STAGING PLANS WILL BE SUBJECT TO REVIEW FOR ACCEPTANCE BY THE CITY PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR SHALL BEAR ALL COSTS ASSOCIATED WITH THE SUBMISSION AND REVIEW OF ALTERNATIVE CONSTRUCTION MANAGEMENT PLANS AND CONSTRUCTION STAGING PLANS, INCLUDING PRESENTATION TO THE CITY AND THE NEIGHBORHOOD IF NEEDED, VEHICULAR AND PEDESTRIAN TRAFFIC MODELING, LEVEL OF SERVICE (LOS) ANALYSES, AND OTHER ASSOCIATED EFFORTS. ALTERNATIVE CONSTRUCTION MANAGEMENT AND CONSTRUCTION STAGING PLANS SHALL NOT CAUSE AN INTERFERENCE WITH ADJACENT CONTRACTS OR DELAY THE SCHEDULE OR INCREASE THE COST OF THIS OR ANY ADJACENT CONTRACTS. LEVEL OF SERVICE ANALYSIS SHALL BE DEFINED BY THE "HIGHWAY CAPACITY MANUAL."
- THE CONSTRUCTION MANAGEMENT PLANS REQUIRE THAT SPECIFIC SIDEWALK WIDTHS BE MAINTAINED DURING THE VARIOUS STAGES OF CONSTRUCTION TO FACILITATE ACCEPTABLE PEDESTRIAN LEVEL OF SERVICE (LOS) MOVEMENTS ALONG TRAVEL WAYS TO AND FROM ABUTTING BUILDING AND BUSINESSES WITHIN THE PROJECT LIMITS. THE MINIMUM SIDEWALK WIDTHS SHOWN ON THE TRAFFIC MANAGEMENT PLANS ARE BASED ON ENGINEERING ANALYSIS AND ARE LOCATED ON THE PLANS AROUND TEMPORARY FIXED BARRICADED WORK ZONES AT SITE SPECIFIC POINTS OF CONSTRUCTION. THE SIDEWALK WIDTHS SHOWN ON THE CONSTRUCTION MANAGEMENT PLANS SHALL NOT BE DEVIATED FROM WITHOUT THE PERMISSION OF THE CITY. WHEN SPECIFIC DIMENSIONS ARE NOT SHOWN, THE CONTRACTOR SHALL MAINTAIN A MINIMUM 4-FOOT PASSAGE.
 - CONTRACTOR SHALL PROVIDE AND MAINTAIN A TEMPORARY PEDESTRIAN ROUTE ACCESSIBLE TO DISABLED PERSONS AROUND BLOCKAGES TO AN EXISTING PEDESTRIAN ROUTE (E.G., SIDEWALKS, CROSSWALKS, PEDESTRIAN CURB RAMPS, ETC.). BLOCKAGES INCLUDE, BUT ARE NOT LIMITED TO, CONSTRUCTION WORK, EXCAVATIONS, EQUIPMENT AND VEHICLES, TEMPORARY WATER AND UTILITY LINES.
 - SIDEWALK AREAS SHALL REMAIN OPEN AND FREE FROM SAFETY CONTROL DEVICES AND CONSTRUCTION DEBRIS THROUGHOUT THE DURATION OF THE CONSTRUCTION. PEDESTRIAN DETOURING SHALL NOT OCCUR UNLESS APPROVED BY THE CITY.
- CONTRACTOR SHALL SECURE WORK AREAS TO ENSURE PUBLIC SAFETY AND CONVENIENCE. THIS SHALL INCLUDE ENSURING THAT ALL EXCAVATIONS ARE PROTECTED AT ALL TIMES.
- ALL CONSTRUCTION SIGNING, DRUMS, BARRICADES AND OTHER DEVICES SHALL CONFORM WITH THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AS AMENDED AND BOSTON TRANSPORTATION DEPARTMENT SIGN STANDARDS.
- ALL TRAFFIC CONTROL DEVICES SHALL BE INSTALLED ALONG THE ROADWAY IN ORDER WITH THE FLOW OF TRAFFIC. SIMILARLY, ALL DEVICES SHALL BE REMOVED IN ORDER AGAINST THE FLOW OF TRAFFIC.
- CHANNELIZATION WILL BE ACCOMPLISHED THROUGH THE USE OF RELECTORIZED PLASTIC DRUMS OR APPROVED EQUAL IN ACCORDANCE WITH THE MUTCD.
- CONTRACTOR SHALL COORDINATE WITH THE CITY TO ACCOMMODATE ACCESS NEEDS OF ABUTTING PROPERTIES NOT SPECIFIED IN THE PLANS.
- CONTRACTOR SHALL MAINTAIN EMERGENCY PASSAGE AT ALL TIMES TO BUILDINGS WITHIN THE PROJECT LIMITS. CONTRACTOR SHALL MAINTAIN 24-HOUR EMERGENCY VEHICLE ACCESS TO AND THROUGH CONSTRUCTION AREAS.
- CONTRACTOR SHALL PROVIDE POLICE DETAIL OFFICERS DURING WORK HOURS FOR TRAFFIC CONTROL AS STIPULATED IN THE CITY OF BOSTON MUNICIPAL CODE (CHAPTER 11, SECTION 6.9).
- CONTRACTOR SHALL USE STATE POLICE DETAIL OFFICERS ON DCR ROADWAYS.
- SAFETY SIGNS PROPOSED FOR LOCATIONS OTHER THAN ERECTED ON TEMPORARY BARRICADES MAY BE ERECTED ON EXISTING LIGHTPOLES, SIGN POSTS, AND OTHER EXISTING FEATURES AS APPROVED BY THE CITY.
- LOCATIONS OF SIGNS SHOWN ARE APPROXIMATE. EXACT LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR IN THE FIELD. THE CONTRACTOR SHALL ENSURE THAT SIGNS ARE PLACED SO MAXIMUM VISIBILITY IS OBTAINED.
- EXISTING SIGNAGE WHICH CONFLICTS WITH PROPOSED SIGNING SHALL BE REMOVED AND STACKED OR COVERED AS DETERMINED BY THE CITY. IF NECESSARY, AT THE END OF CONSTRUCTION THE CONTRACTOR SHALL RESTORE THE SIGNAGE TO ORIGINAL.
- THE BOSTON POLICE, FIRE, AND TRANSPORTATION DEPARTMENTS SHALL BE ADVISED OF THE SCHEDULE OF CONSTRUCTION AS WELL AS OF ANY DETOURS OR ALTERNATE ROUTES.
- CONTRACTOR SHALL NOT REMOVE PARKING METER HEADS AND SHALL COORDINATE WITH CITY OF BOSTON FOR THEIR REMOVAL.

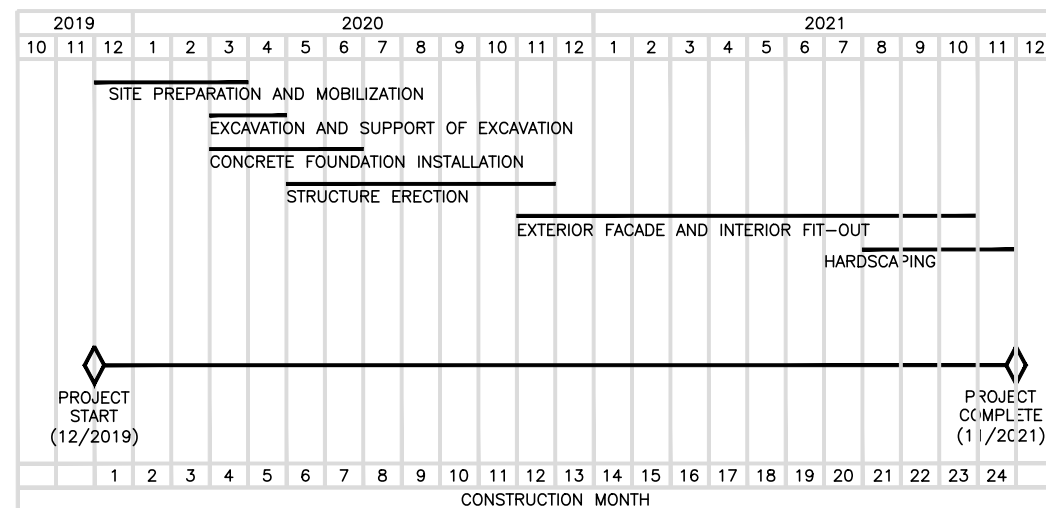
- WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR AND THE INFORMATION FURNISHED TO THE CITY FOR RESOLUTION OF THE CONFLICT.
- THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF ELECTRIC, TELEPHONE, AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES AT NO ADDITIONAL COST TO THE CITY. IF THE CONTRACTOR ADJUSTS UTILITY COVERS IT SHALL BE DEEMED PART OF THE WORK AND THERE WILL BE NO ADDITIONAL COMPENSATION.
- ALL UTILITY COMPANIES, PUBLIC AND PRIVATE, MUST BE NOTIFIED, INCLUDING THOSE IN CONTROL OF UTILITIES NOT SHOWN ON THIS PLAN, (SEE CHAPTER 370, ACTS OF 1963, MASSACHUSETTS) PRIOR TO EXCAVATING, BLASTING, INSTALLING, BACKFILLING GRADING, PAVEMENT RESTORATION, OR REPAVING.
- THE ACCURACY AND COMPLETENESS OF UNDERGROUND UTILITIES ARE NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION, SIZE, TYPE, ETC. OF ALL UNDERGROUND UTILITIES THAT MAY BE AFFECTED BY THE WORK. AT LEAST 72 HOURS BEFORE DIGGING BEGINS, THE CONTRACTOR IS REQUIRED TO CALL DIG SAFE AT (888)344-7233. ALL CITY OWNED UTILITY STRUCTURES WITHIN AREAS AFFECTED BY THE WORK SHALL BE ADJUSTED TO NEW LINE AND GRADE AS DIRECTED BY THE ENGINEER. ANY UTILITY POLES AND/OR GUY POLES WITHIN AREAS AFFECTED BY THE WORK SHALL BE REMOVED AND RESET BY THE RESPECTIVE UTILITY COMPANY. ALTERATIONS TO UTILITIES NOT OWNED BY THE CITY SHALL BE MADE BY THE RESPECTIVE UTILITY OWNERS.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR CONSTRUCTION MANAGEMENT EFFORTS OUTSIDE OF THE SITE PLANS AND TO COMPLY WITH CONDITIONS OUTLINED WITHIN THE PLANS AND SPECIFICATIONS USING APPROVED METHODS.
- AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS, INCLUDING STAGING AREAS, SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR IS HEREBY NOTIFIED THAT ADDITIONAL WORK WITHIN THE PROJECT LIMITS MAY BE PERFORMED BY OTHERS.
- THE CONTRACTOR SHALL FIELD VERIFY CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL VERIFY PROPERTY LIMITS PRIOR TO CONSTRUCTION AND PLACE ANY TEMPORARY OR NEW EQUIPMENT WITHIN THE PROJECT LIMITS OR THE CITY OF BOSTON'S RIGHT OF WAY.
- PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT FOR REVIEW A DETAILED SCHEDULE OF OPERATIONS IN ADDITION TO OTHER CONTRACT REQUIREMENTS TO THE BOSTON TRANSPORTATION DEPARTMENT AND PUBLIC WORKS DEPARTMENT.

- ANY WORK ASSOCIATED WITH THIS CONSTRUCTION MANAGEMENT PLAN SHALL BE PERFORMED IN ACCORDANCE WITH THE BOSTON PUBLIC WORKS DEPARTMENT STANDARD SPECIFICATIONS AND DRAWINGS BTD STANDARD SPECIFICATIONS AND DRAWINGS; THE PLANS AND THE SPECIAL PROVISIONS. WHERE CONFLICTS EXIST, THE BTD AND BPWD SPECIFICATIONS SHALL GOVERN.
- NO EXISTING PUBLIC UTILITY STRUCTURES SHALL BE ABANDONED AND/OR DISMANTLED WITHOUT AUTHORIZATION FROM THE CITY.
- THE CONTRACTOR SHALL DISPOSE OF ALL WASTE MATERIAL IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS AT HIS OWN EXPENSE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ADEQUATE STREET LIGHTING ADJACENT TO THE PROJECT, FOR THE DURATION OF THE PROJECT, AS APPROVED BY THE CITY. CONTRACTOR SHALL ENSURE THAT STREET LIGHTING SERVICE WILL NOT BE INTERRUPTED AND THAT STREET LIGHTING WILL BE OPERATIONAL AT THE END OF EACH WORKDAY.
- ALL PAVEMENT MARKINGS IN PLACE FOR 6 MONTHS OR MORE SHALL BE THERMOPLASTIC, OR APPROVED EQUAL, AND MEET BTD SPECIFICATIONS. IF NECESSARY, AT THE END OF CONSTRUCTION THE CONTRACTOR SHALL RESTORE THE PAVEMENT MARKINGS TO ORIGINAL.
- THE CONTRACTOR SHALL ERADICATE EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH PROPOSED PAVEMENT MARKINGS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ANY TRAFFIC SIGNAL EQUIPMENT, LOOP DETECTORS, PAVEMENT MARKINGS, AND SIGNAGE DAMAGED OR TEMPORARILY REMOVED DURING CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING ANY WEIGHT RESTRICTIONS ON AREA BRIDGES AND TO INSURE THAT TRAFFIC DOES NOT EXCEED WEIGHT RESTRICTIONS IF BRIDGES ARE USED.
- AT CROSSWALK LOCATIONS AND OTHER LOCATIONS WHERE PEDESTRIAN AND/OR VEHICLE SIGHT LINES MAY BE IMPACTED BY CONSTRUCTION FENCING, THE CONTRACTOR SHALL NOT INSTALL SCREEN THAT MAY DIMINISH SIGHT LINES.
- THE PARKING METERS SHALL BE REMOVED IN ACCORDANCE WITH BTD'S "RULES FOR WORK THAT INVOLVES BTD PARKING METER AND MULTI-SPACE PARKING KIOSK REMOVAL GUIDELINES."
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE AND STACK ALL TEMPORARY SIGNAGE INCLUDING PARKING RESTRICTIONS, DETOUR ROUTES, AND WARNING SIGNS UTILIZED DURING CONSTRUCTION.
- ALL EXISTING PAVEMENT MARKINGS TO BE REMOVED SHALL BE REMOVED BY MECHANICAL MEANS ONLY.

CMP LEGEND

	SIGN
	CONSTRUCTION GATE
	ROLLING GATE
	PERMANENT CHAIN LINK FENCE
	MOVEABLE CHAIN LINK FENCE
	CONSTRUCTION DRUM
	CONSTRUCTION CONE
	TRAFFIC FLOW
	PEDESTRIAN FLOW
	POLICE DETAIL
	SIGNALIZED INTERSECTION
	PORTABLE PRECAST CONCRETE BARRIER
	CHAIN LINK FENCE ON CONCRETE BARRIER
	PORTABLE PRECAST CONCRETE BARRIER WITH HANDRAIL
	TAPERED END BARRIER
	IMPACT ATTENUATOR
	WATER-FILLED TEMPORARY BARRIER
	TEMPORARY WHEELCHAIR RAMP (SIDE APRONS)
	TEMPORARY PARALLEL WHEELCHAIR RAMP
	TEMPORARY PERPENDICULAR WHEELCHAIR RAMP
	BUILDING ACCESS POINTS

BAR SCHEDULE



ISSUED FOR CONSTRUCTION



CITY OF BOSTON TRANSPORTATION DEPARTMENT
ENGINEERING DIVISION
CONSTRUCTION MANAGEMENT PLAN

144 ADDISON STREET
GENERAL NOTES, LEGEND & SCHEDULE

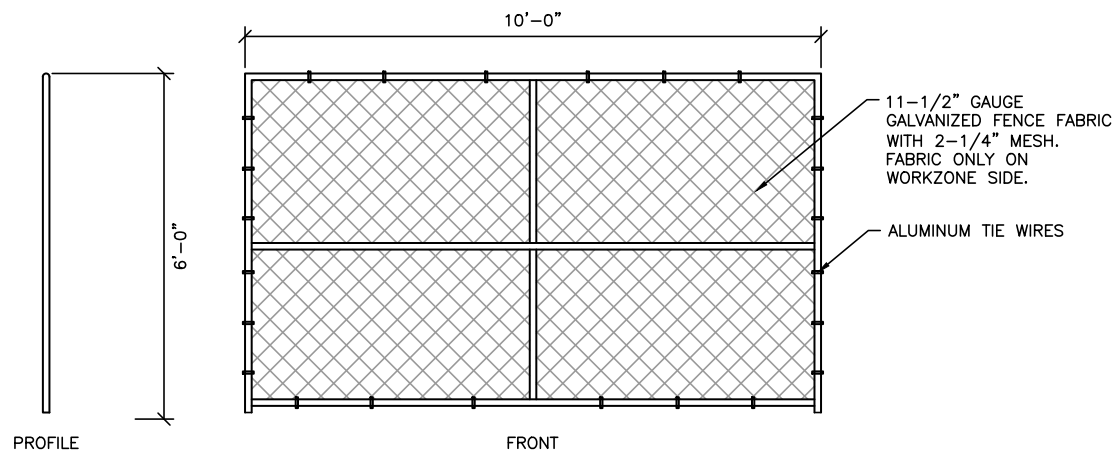
BOSTON

DESIGNED BY K. MARTIN
DRAWN BY D. SCHULTZ
CHECKED BY K. MARTIN
APPROVED BY R. BURGESS

AREA: 1
DISTRICT: 1

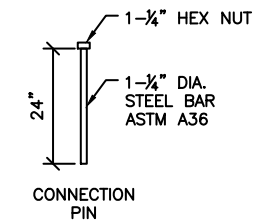
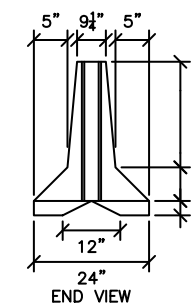
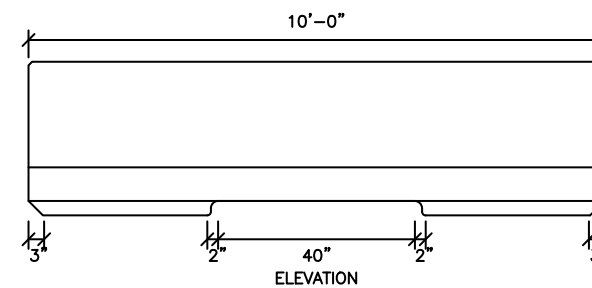
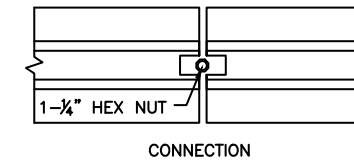
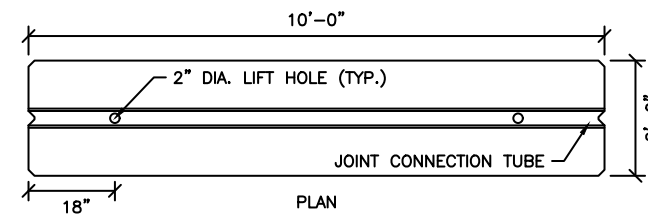
DATE: JAN 29, 2020
DRAWING NO. CMP-002
SHEET 2 OF 15



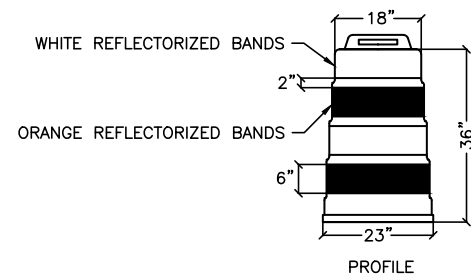


NOTE:
POSTS SHALL BE CORED INTO THE PAVEMENT.

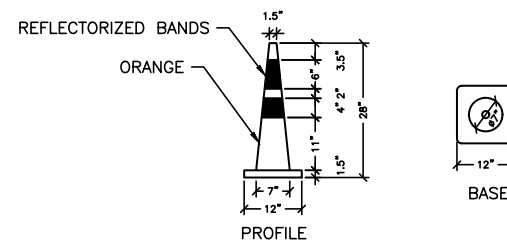
72" CHAIN LINK FENCE



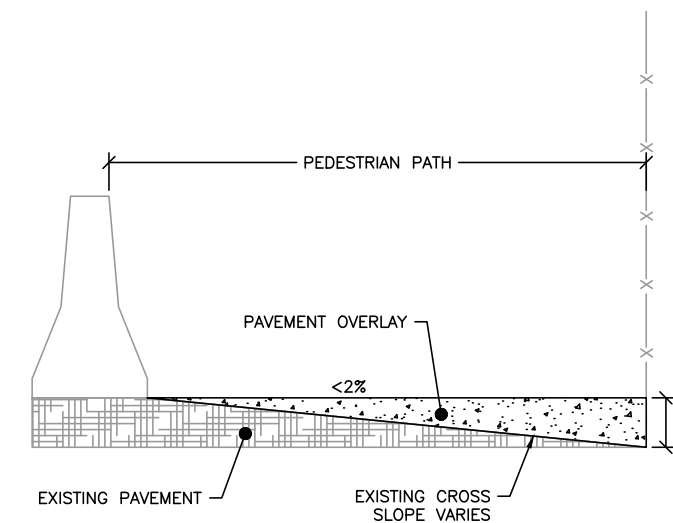
**TEMPORARY CONCRETE BARRIER
MASH TL-2**



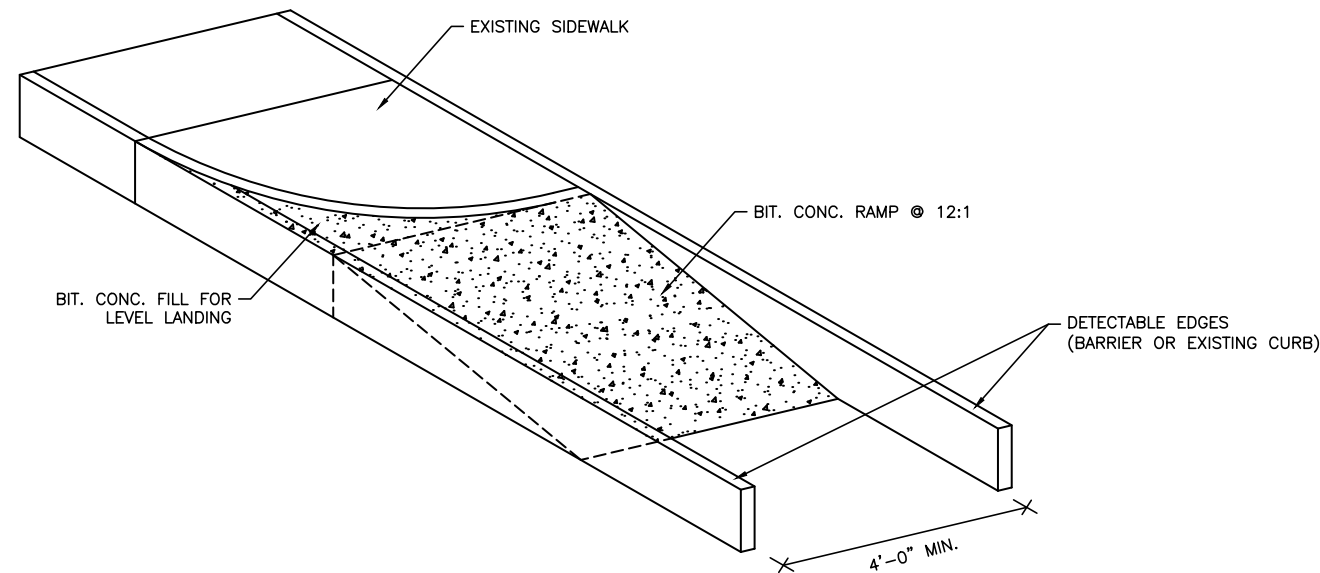
REFLECTORIZED DRUM



28" REFLECTORIZED TRAFFIC CONE



**ADA COMPLIANT PEDESTRIAN PATH
(NOT TO SCALE)**



**TEMPORARY WHEELCHAIR RAMP
(SIDEWALK EXTENSION)**



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CHECKED BY K. MARTIN
APPROVED BY R. BURGESS



ISSUED FOR CONSTRUCTION

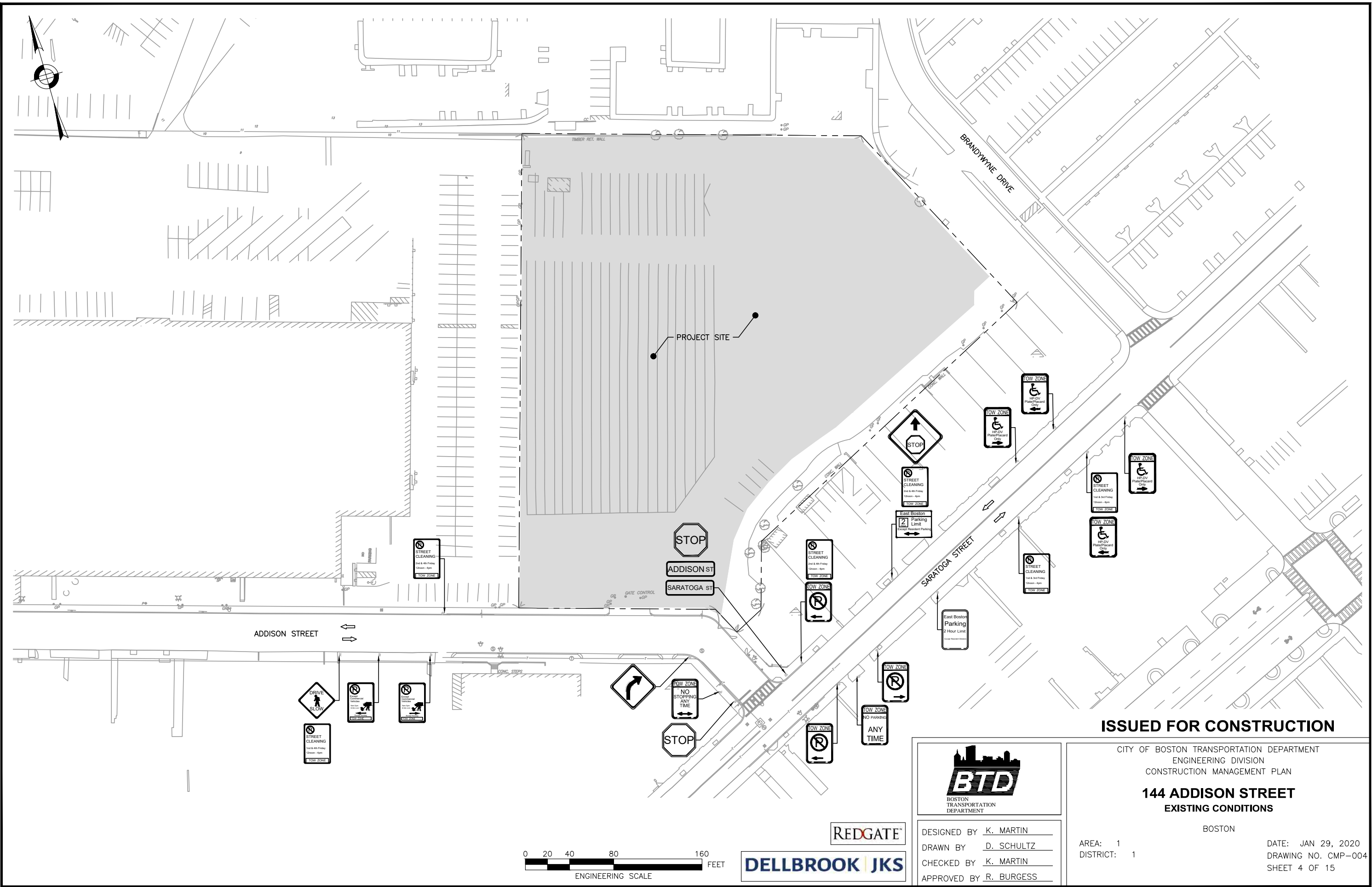
CITY OF BOSTON TRANSPORTATION DEPARTMENT
ENGINEERING DIVISION
CONSTRUCTION MANAGEMENT PLAN

**144 ADDISON STREET
TEMPORARY TRAFFIC CONTROL DEVICES**

BOSTON

AREA: 1
DISTRICT: 1

DATE: JAN 29, 2020
DRAWING NO. CMP-003
SHEET 3 OF 15



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CITY OF BOSTON TRANSPORTATION DEPARTMENT
 ENGINEERING DIVISION
 CONSTRUCTION MANAGEMENT PLAN

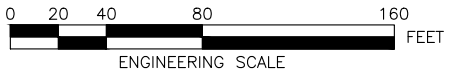
**144 ADDISON STREET
 EXISTING CONDITIONS**

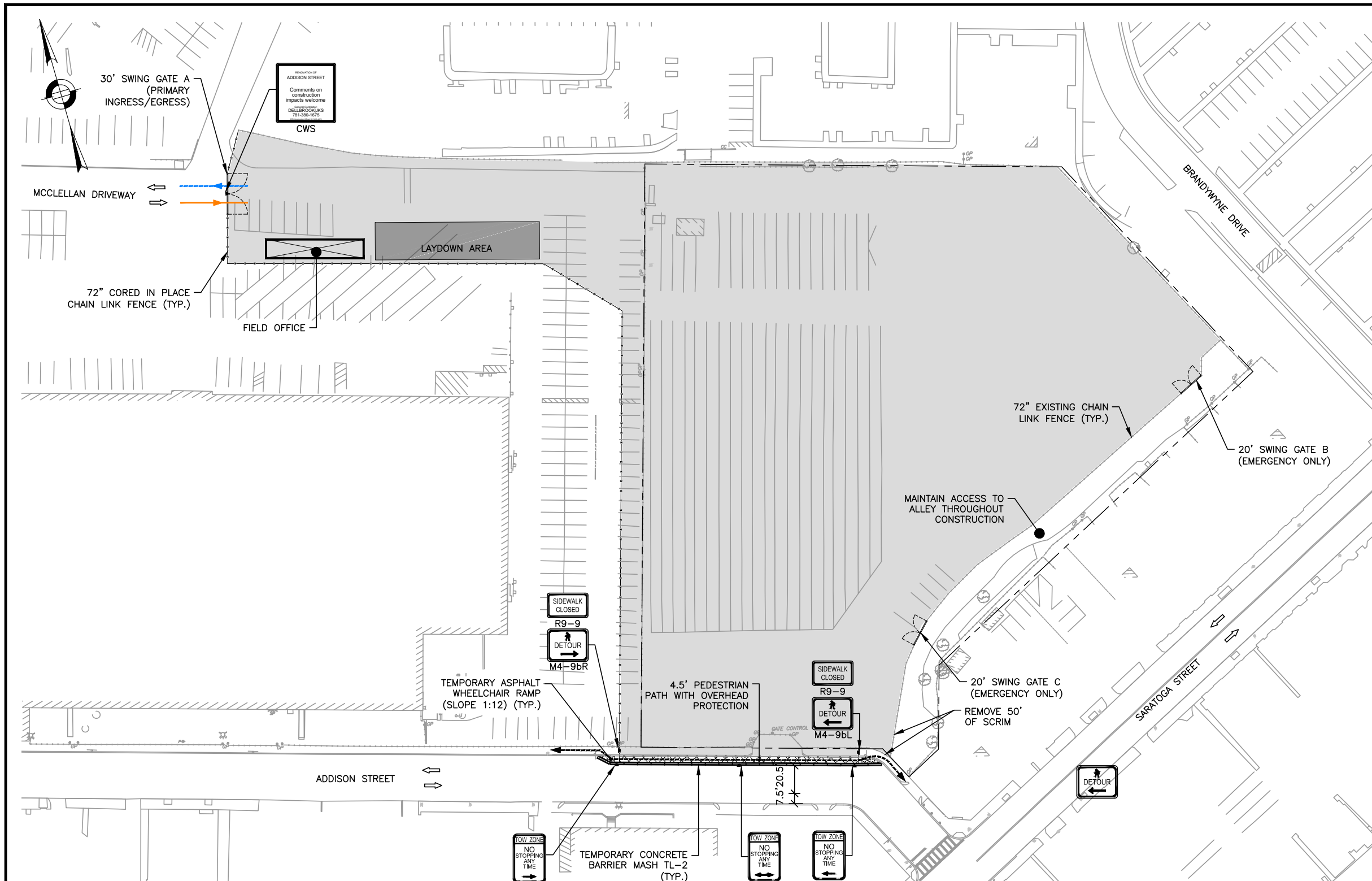
BOSTON

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AREA: 1
 DISTRICT: 1

DATE: JAN 29, 2020
 DRAWING NO. CMP-004
 SHEET 4 OF 15





- WORK TO BE COMPLETED:**
1. ERECT SITE FENCE, PEDESTRIAN FACILITIES, AND SIGNAGE.
 2. REMOVE LIGHT POSTS AND SIGNAGE ALONG THE SITE FRONTAGES.
- NOTES:**
1. SEE SHEET 13 -- DETAILS 1-2 FOR TRUCK TURNING MANEUVERS.

DURATION
DECEMBER 2019 - MARCH 2020
(14 WEEKS)



ISSUED FOR CONSTRUCTION



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 ENGINEERING DIVISION
 CONSTRUCTION MANAGEMENT PLAN

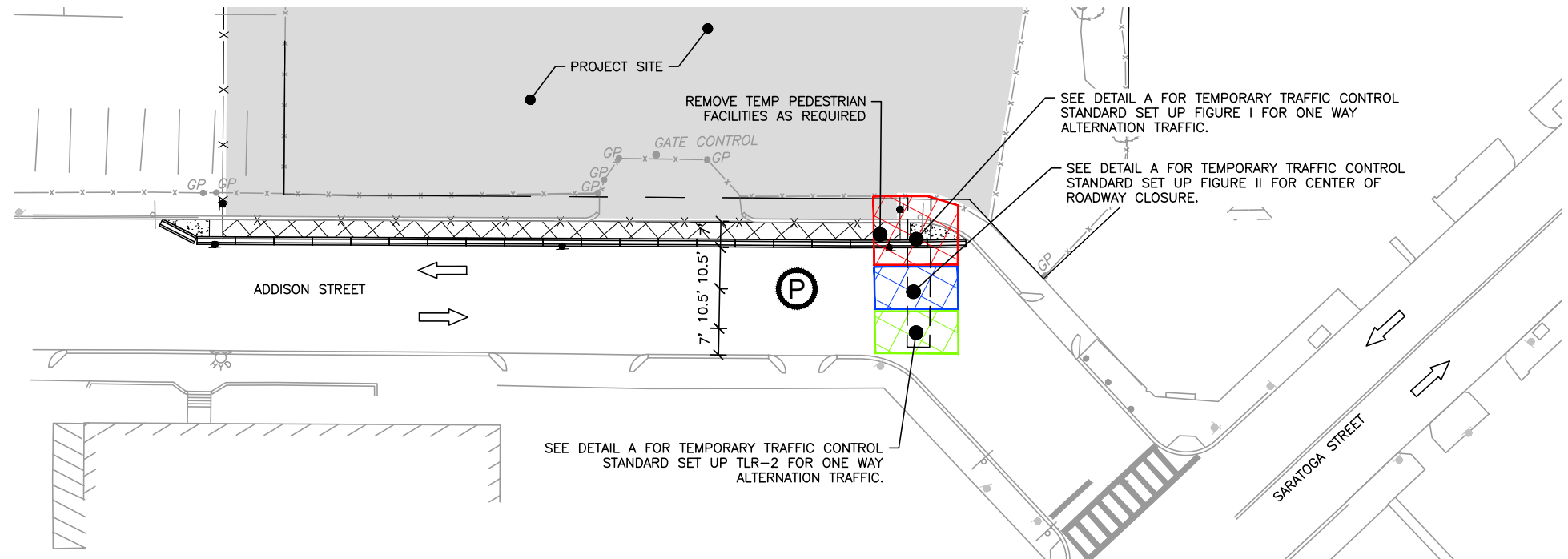
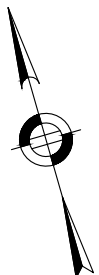
144 ADDISON STREET
SITE PREPARATION AND MOBILIZATION

BOSTON

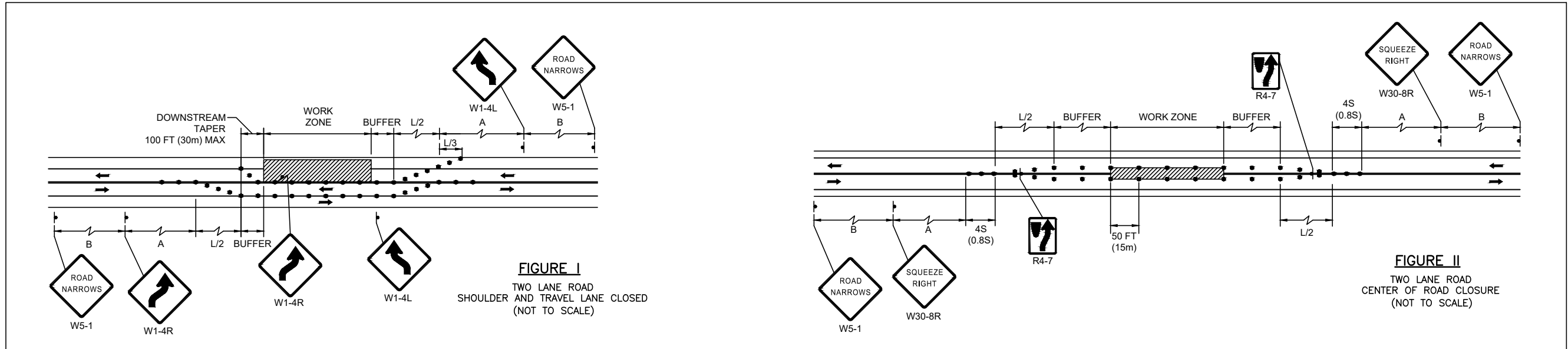
AREA: 1
 DISTRICT: 1

DATE: JAN 29, 2020
 DRAWING NO. CMP-005
 SHEET 5 OF 15





- WORK TO BE COMPLETED:**
1. INSTALL PROPOSED ROADWAY UTILITIES ON ADDISON STREET.
- NOTES:**
1. CONTRACTOR TO MAINTAIN A 5' PEDESTRIAN PATH THROUGHOUT CONSTRUCTION.
 2. WORK TO BE COMPLETED DURING OFF-PEAK HOURS (9:30AM - 3:30PM). UPON COMPLETION OF EACH WORK PERIOD, THE UTILITY TRENCHES SHALL BE STEEL-PLATED AND THE LANES SHALL BE REOPENED AT THE END OF EACH DAY. IF WORK OCCURS DURING THE WINTER MORATORIUM, UTILITY TRENCHES SHALL BE BACKFILLED, COMPACTED AND PAVED WITH HOT MIX ASPHALT AT THE END OF EACH DAY. STEEL PLATES SHALL NOT BE USED DURING THE WINTER MORATORIUM.
 3. A POLICE DETAIL OFFICER SHALL BE PRESENT TO FACILITATE VEHICULAR AND PEDESTRIAN TRAFFIC.
 4. THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF 11-FOOT TRAVELS LANES THROUGHOUT CONSTRUCTION.



FORMULAS FOR DETERMINING TAPER LENGTHS

SPEED LIMIT (S)	TAPER LENGTH L (FT)
40 MPH OR LESS	$L = \frac{WS^2}{60}$
45 MPH OR MORE	$L = WS$

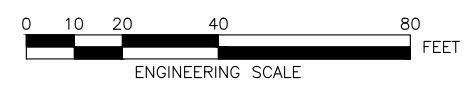
SOURCE: TABLE 6C-4 2009 MUTCD
 WHERE: L = TAPER LENGTH IN FEET
 W = WIDTH OF OFFSET IN FEET
 S = POSTED SPEED LIMIT, OR OFF-PEAK 85TH-PERCENTILE SPEED PRIOR TO WORK STARTING, OR THE ANTICIPATED OPERATING SPEED IN MPH

TAPER LENGTH CRITERIA FOR TEMPORARY TRAFFIC CONTROL ZONES

TYPE OF TAPER	TAPER LENGTH
MERGING TAPER	AT LEAST L
SHIFTING TAPER	AT LEAST 0.5L
SHOULDER TAPER	AT LEAST 0.33L
ONE-LANE, TWO-WAY TRAFFIC TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM
DOWNSTREAM TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM

NOTE: USE TABLE 6C-4 SHOWN BELOW TO CALCULATE L
 SOURCE: TABLE 6C-3 2009 MUTCD

DETAIL A



DURATION
APRIL 2020
(2 WEEKS)



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 CHECKED BY K. MARTIN
 APPROVED BY R. BURGESS

ISSUED FOR CONSTRUCTION

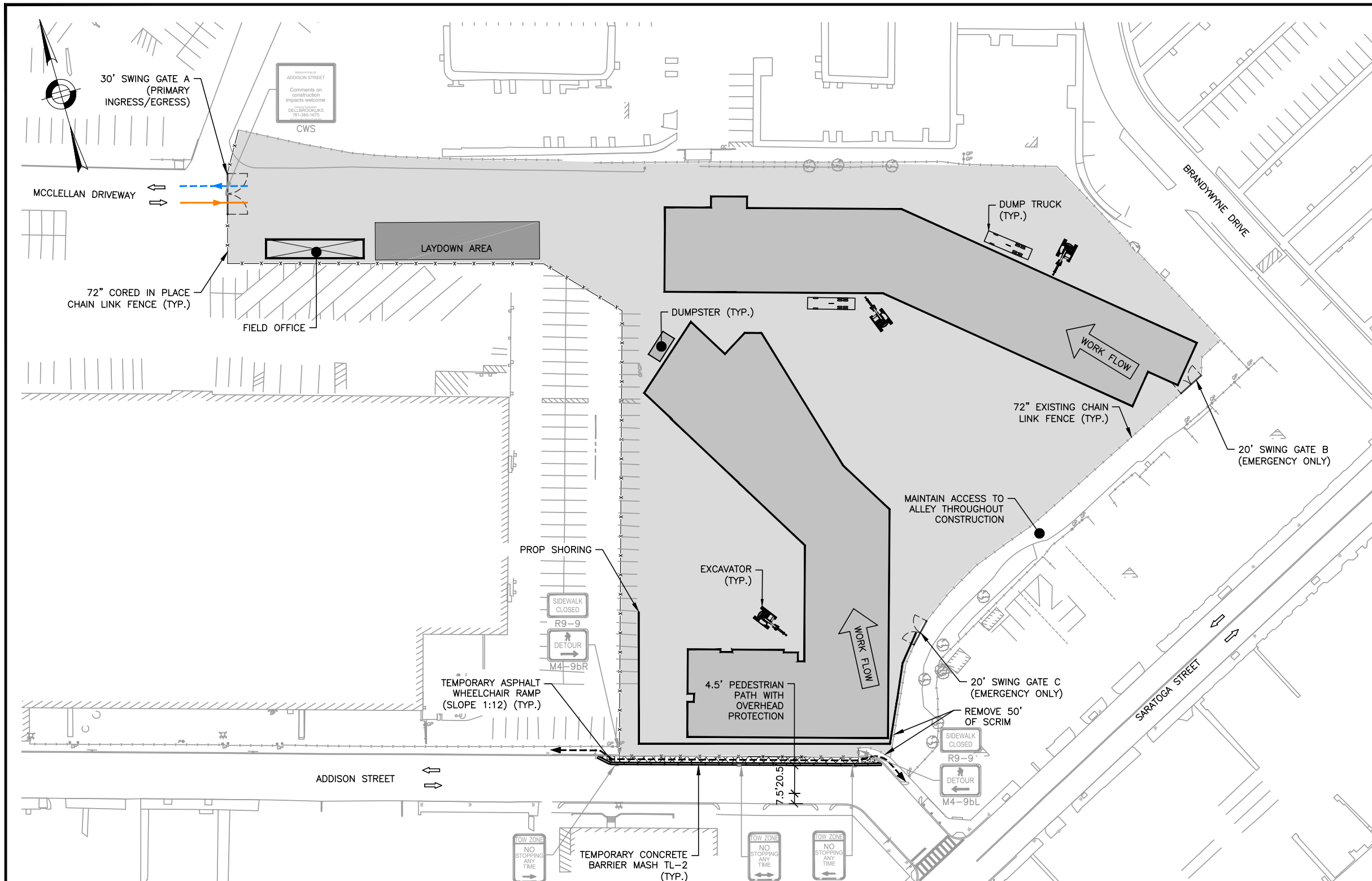
CITY OF BOSTON TRANSPORTATION DEPARTMENT
 ENGINEERING DIVISION
 CONSTRUCTION MANAGEMENT PLAN

144 ADDISON STREET
UTILITY INSTALLATION

BOSTON

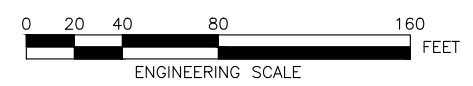
AREA: 1
 DISTRICT: 1

DATE: JAN 29, 2020
 DRAWING NO. CMP-006
 SHEET 6 OF 15



- WORK TO BE COMPLETED:**
1. EXCAVATE TO SUBGRADE.
 2. INSTALL SUPPORT OF EXCAVATION FOR PARKING ON GROUND FLOOR.
- NOTES:**
1. SEE SHEET 13 - DETAILS 1-2 FOR TRUCK TURNING MANEUVERS.

DURATION
MARCH 2020 - APRIL 2020
(8 WEEKS)



ISSUED FOR CONSTRUCTION



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 ENGINEERING DIVISION
 CONSTRUCTION MANAGEMENT PLAN

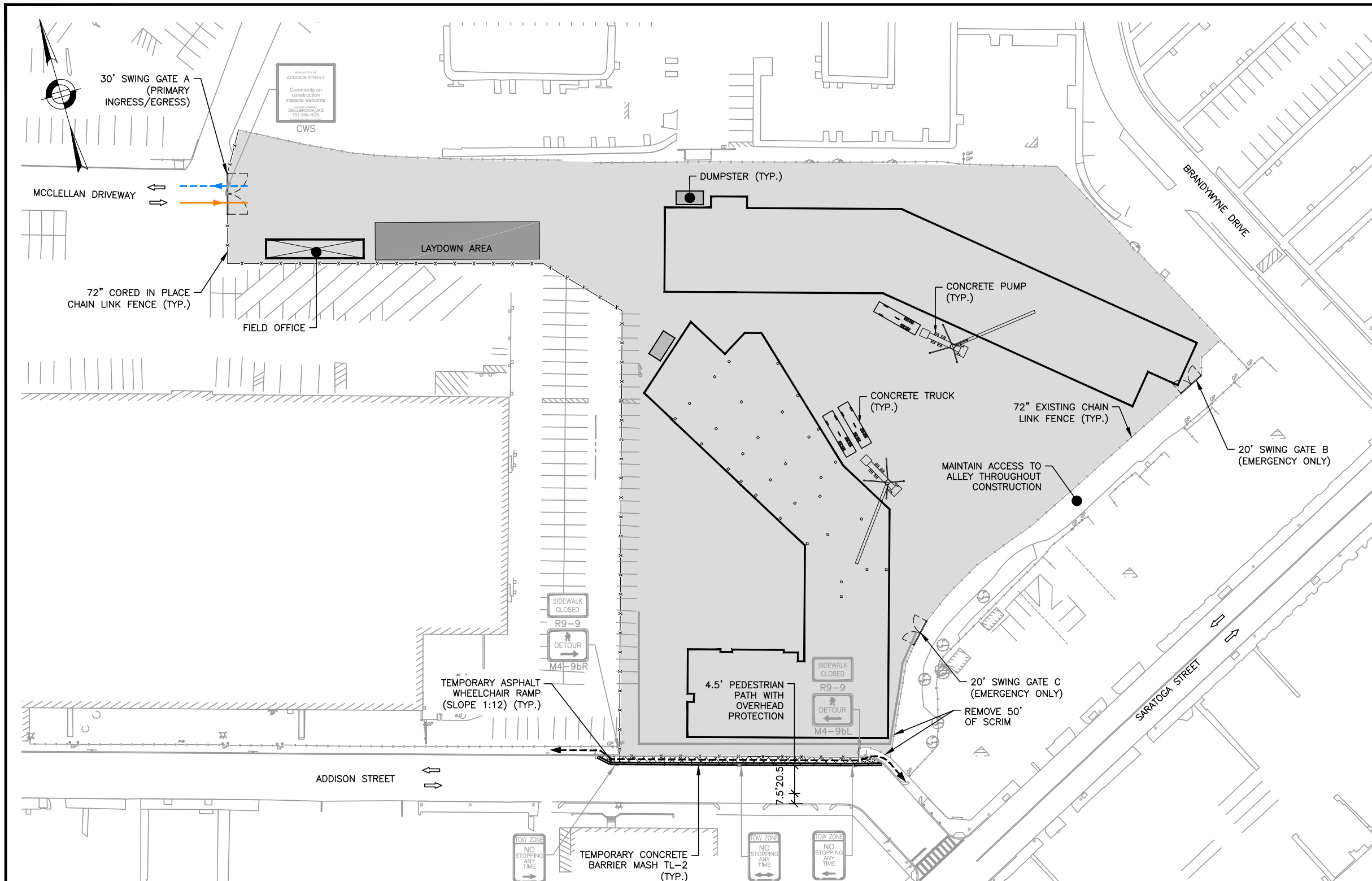
144 ADDISON STREET
EXCAVATION AND SUPPORT OF EXCAVATION

BOSTON

AREA: 1
 DISTRICT: 1

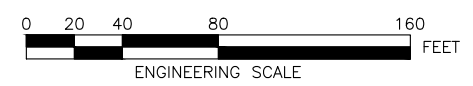
DATE: JAN 29, 2020
 DRAWING NO. CMP-007
 SHEET 7 OF 15





- WORK TO BE COMPLETED:**
- FORM AND POUR THE COLUMN FOOTINGS AND BUILDING FOUNDATION.
- NOTES:**
- SEE SHEET 13 - DETAILS 1-2 FOR TRUCK TURNING MANEUVERS.

DURATION
MARCH 2020 - JUNE 2020
(16 WEEKS)



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REDGATE
DELLBROOK | JKS

ISSUED FOR CONSTRUCTION

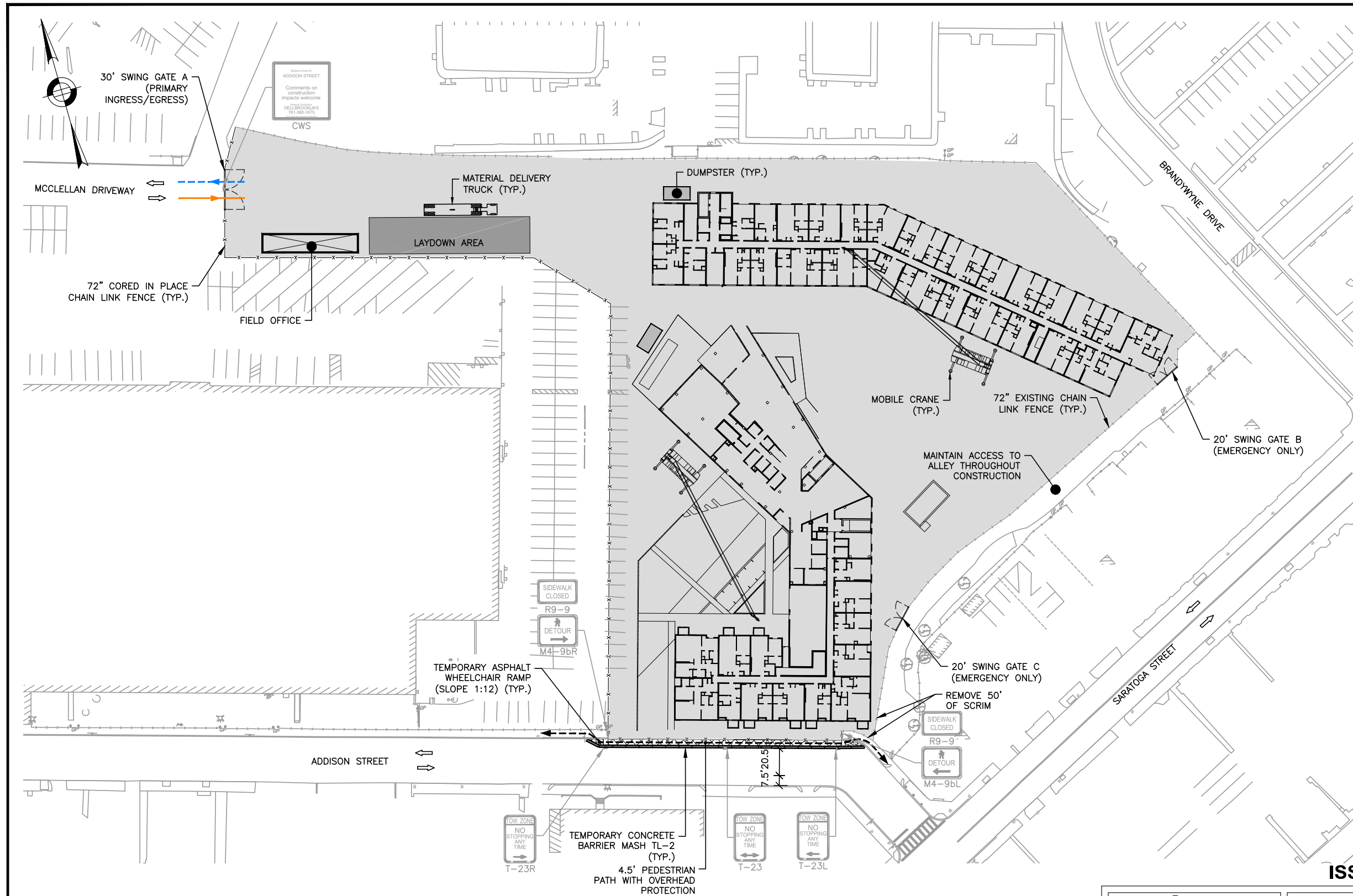
CITY OF BOSTON TRANSPORTATION DEPARTMENT
 ENGINEERING DIVISION
 CONSTRUCTION MANAGEMENT PLAN

144 ADDISON STREET
CONCRETE FOUNDATION INSTALLATION

BOSTON

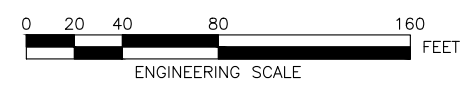
AREA: 1
 DISTRICT: 1

DATE: JAN 29, 2020
 DRAWING NO. CMP-008
 SHEET 8 OF 15



- WORK TO BE COMPLETED:**
1. INSTALL STEEL AND DECK FOR BUILDING'S STRUCTURE.
- NOTES:**
1. SEE SHEET 13 - DETAILS 1-2 FOR TRUCK TURNING MANEUVERS.

DURATION
MAY 2020 - NOVEMBER 2020
(28 WEEKS)



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 CHECKED BY K. MARTIN
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CITY OF BOSTON TRANSPORTATION DEPARTMENT
 ENGINEERING DIVISION
 CONSTRUCTION MANAGEMENT PLAN

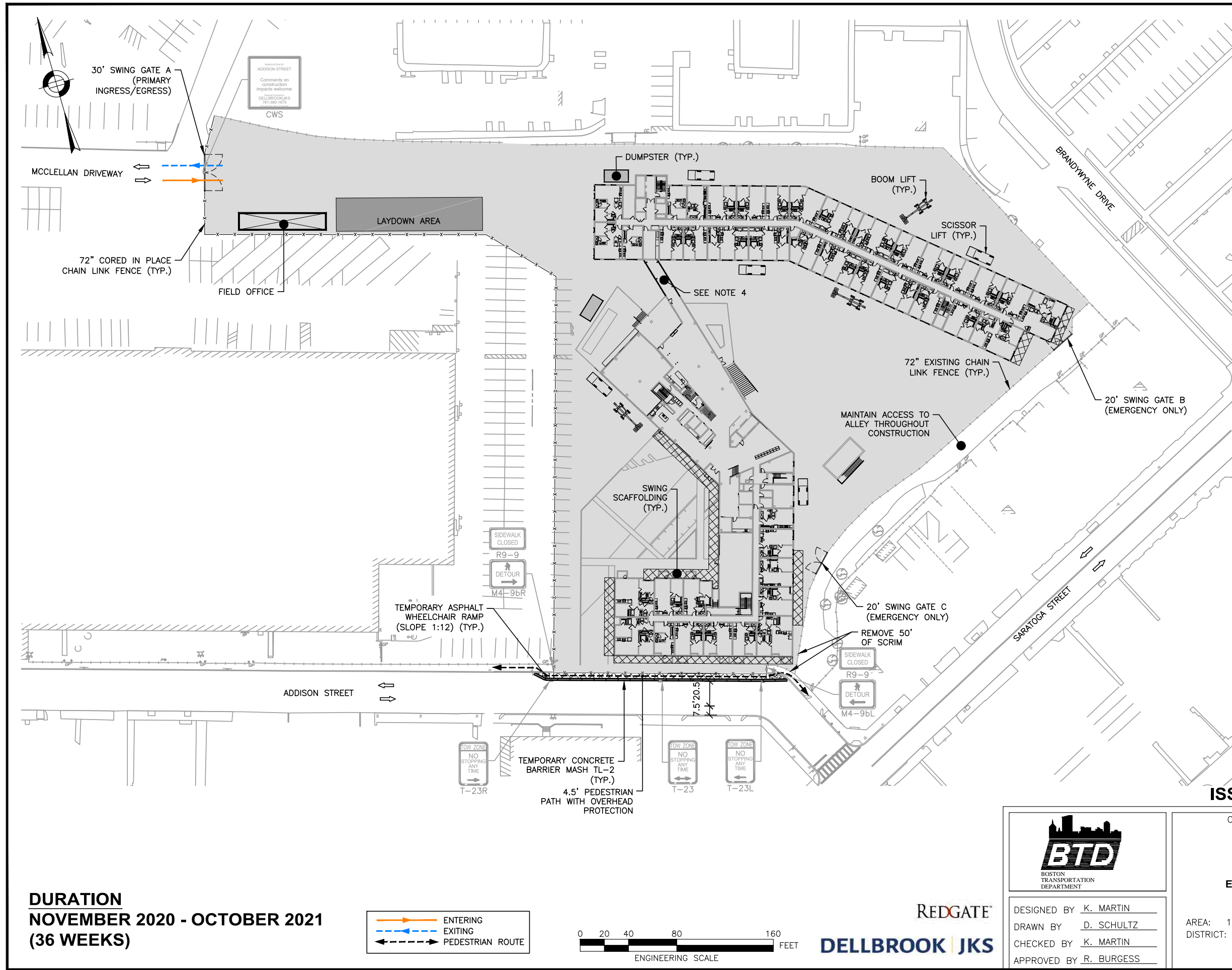
144 ADDISON STREET
STRUCTURE ERECTION

BOSTON

AREA: 1
 DISTRICT: 1

DATE: JAN 29, 2020
 DRAWING NO. CMP-009
 SHEET 9 OF 15

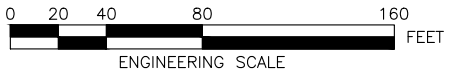




- WORK TO BE COMPLETED:**
1. ERECT ALL SWING SCAFFOLDING.
 2. ERECT BUILDING FACADE.
 3. INSTALL ALL INTERIOR FEATURES.
 4. INSTALL WALKWAY BETWEEN BUILDINGS.
- NOTES:**
1. SEE SHEET 13 - DETAILS 1-2 FOR TRUCK TURNING MANEUVERS.

ISSUED FOR CONSTRUCTION

DURATION
NOVEMBER 2020 - OCTOBER 2021
(36 WEEKS)



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 ENGINEERING DIVISION
 CONSTRUCTION MANAGEMENT PLAN

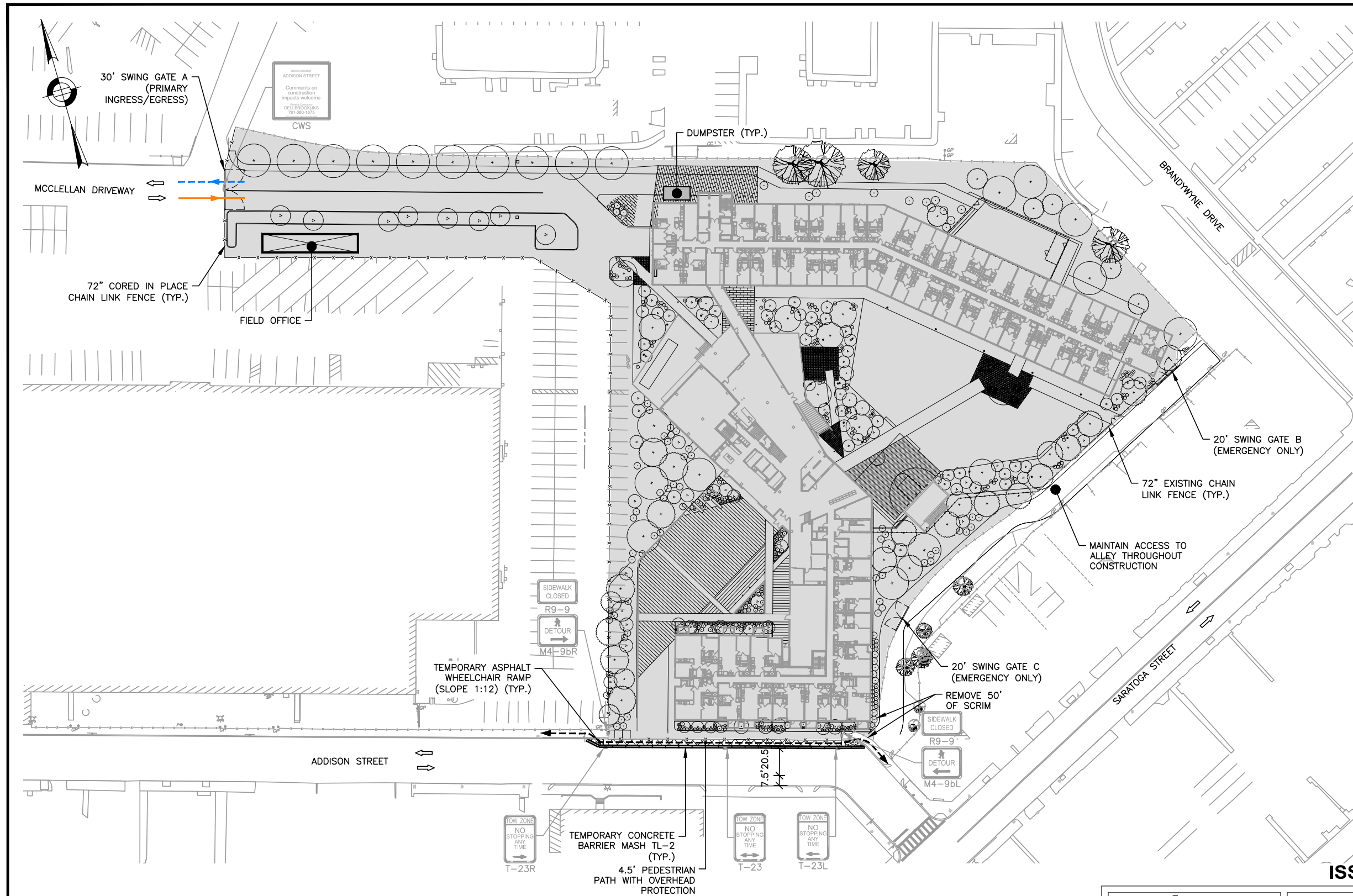
144 ADDISON STREET
EXTERIOR FACADE AND INTERIOR FIT-OUT

BOSTON

AREA: 1
 DISTRICT: 1

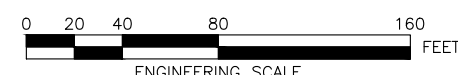
DATE: JAN 29, 2020
 DRAWING NO. CMP-010
 SHEET 10 OF 15





- WORK TO BE COMPLETED:**
1. INSTALL THE BUILDING'S HARDSCAPING AND LANDSCAPING FEATURES.
- NOTES:**
1. SEE SHEET 17 - DETAILS 1-4 FOR TRUCK TURNING MANEUVERS.

DURATION
AUGUST 2021 - NOVEMBER 2021
(12 WEEKS)



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 CHECKED BY K. MARTIN
 APPROVED BY R. BURGESS

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CITY OF BOSTON TRANSPORTATION DEPARTMENT
 ENGINEERING DIVISION
 CONSTRUCTION MANAGEMENT PLAN

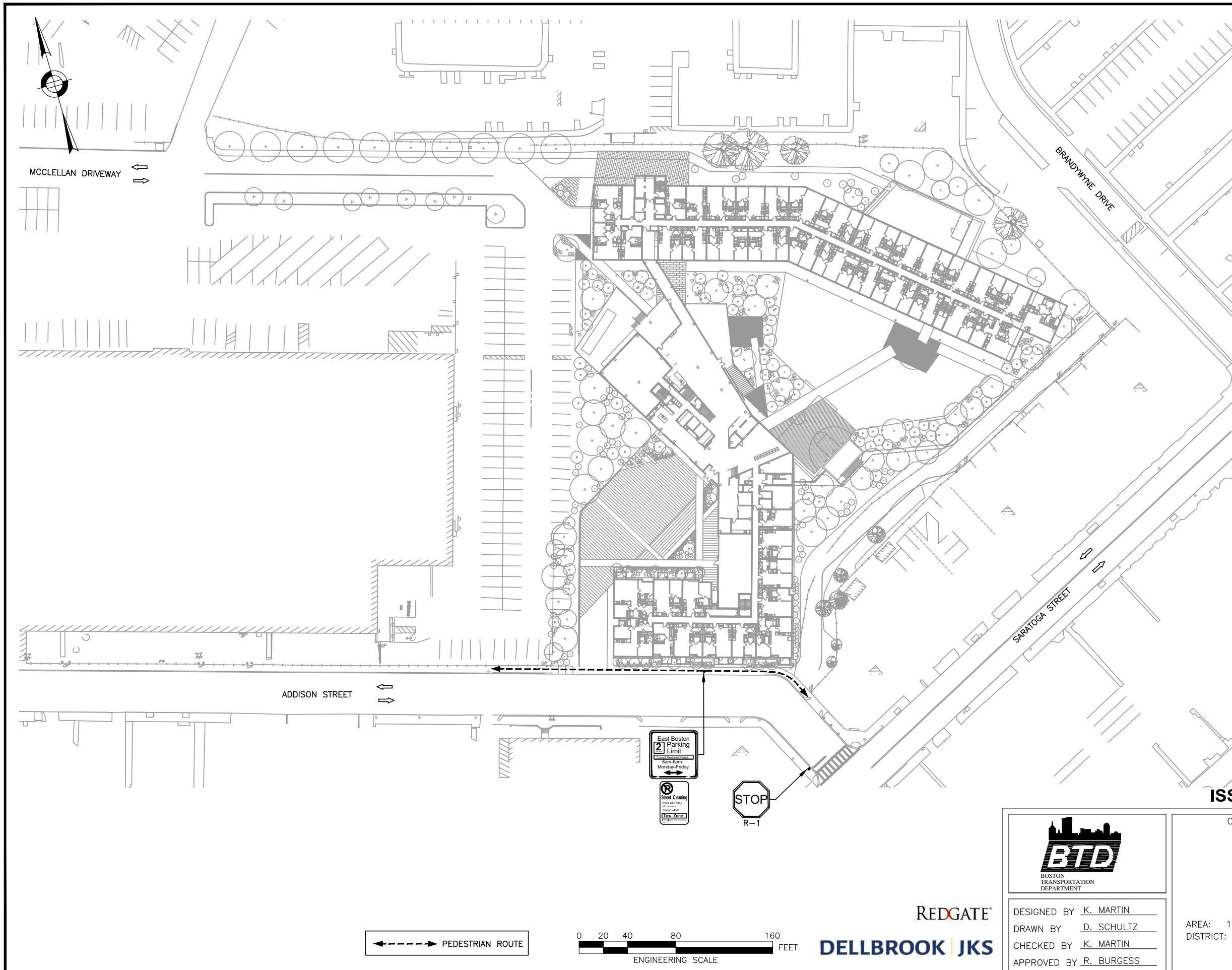
144 ADDISON STREET
HARDSCAPING

BOSTON

AREA: 1
 DISTRICT: 1

DATE: JAN 29, 2020
 DRAWING NO. CMP-011
 SHEET 11 OF 15





NOTES:

1. UPON COMPLETION OF CONSTRUCTION:
 - 1.1. RESTORE ANY DISTURBED LIGHT POSTS, SIGNAGE, CURB, SIDEWALK, AND PAVEMENT MARKINGS.
 - 1.2. REMOVE AND STACK ANY TEMPORARY SIGNAGE INCLUDING PARKING RESTRICTIONS AND WARNING SIGNS UTILIZED DURING CONSTRUCTION.
2. ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC.
3. FINAL CONDITIONS PLAN IS BASED ON THE TAPA PLAN SUBMITTED TO BTD IN OCTOBER 2019.

ISSUED FOR CONSTRUCTION



CITY OF BOSTON TRANSPORTATION DEPARTMENT
ENGINEERING DIVISION
CONSTRUCTION MANAGEMENT PLAN

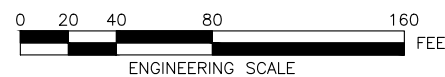
**144 ADDISON STREET
RESTORATION AND FINAL CONDITIONS**

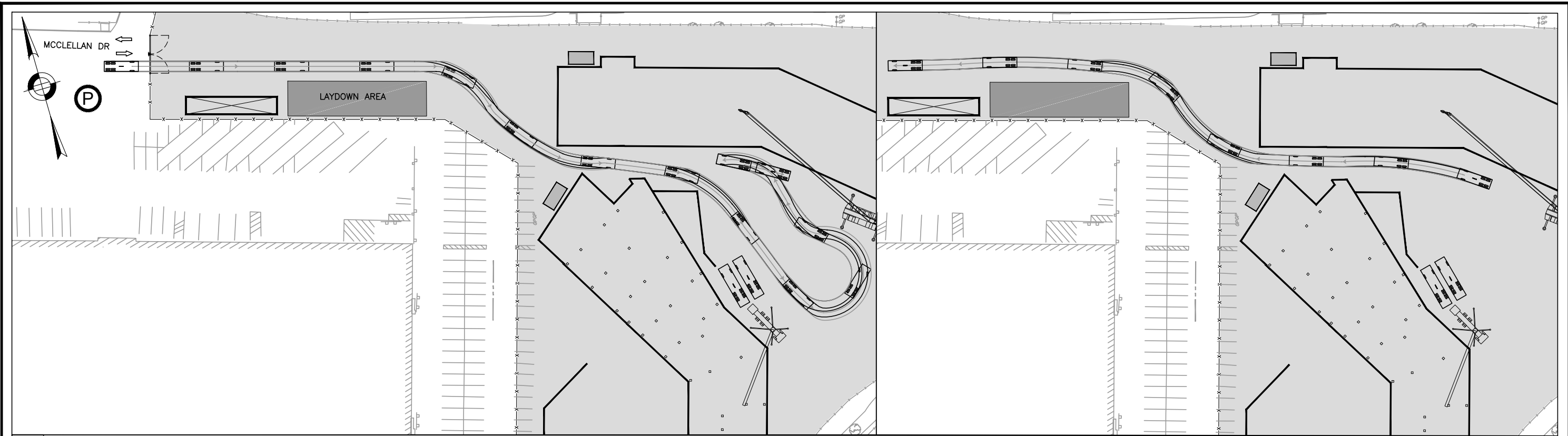
BOSTON

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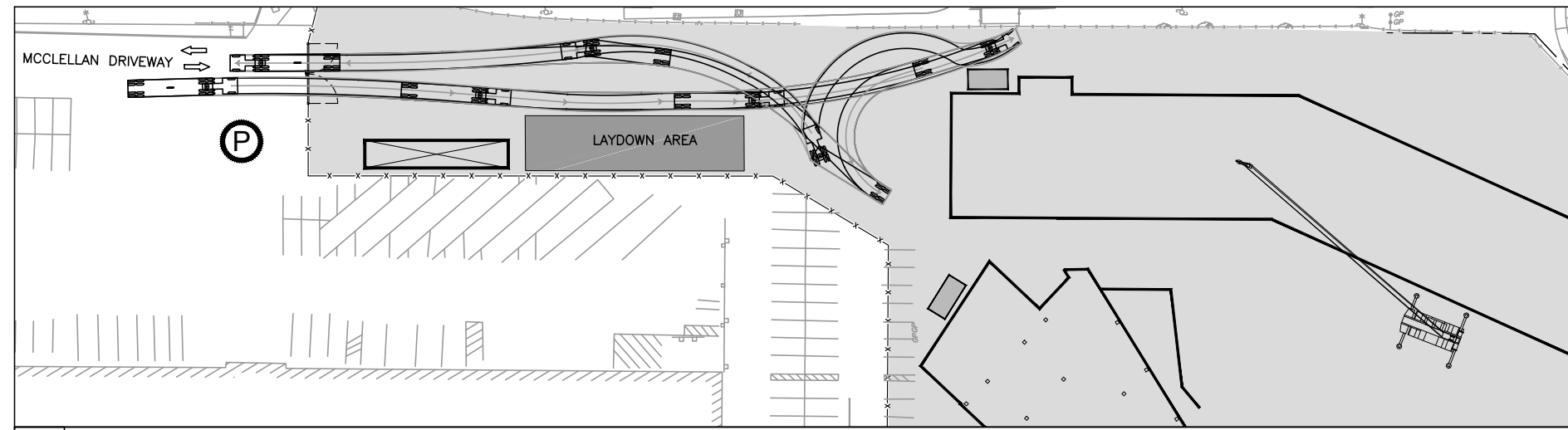
AREA: 1
DISTRICT: 1

DATE: JAN 29, 2020
DRAWING NO. CMP-012
SHEET 12 OF 15





1 INGRESS AND EGRESS
CONCRETE DELIVERY – CONCRETE TRUCK



2 INGRESS AND TURN AROUND
MATERIAL DELIVERY – WB-50

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CITY OF BOSTON TRANSPORTATION DEPARTMENT
ENGINEERING DIVISION
CONSTRUCTION MANAGEMENT PLAN

**144 ADDISON STREET
TRUCK TURNING MANEUVERS**

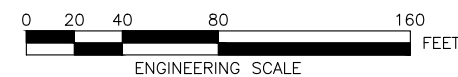
BOSTON

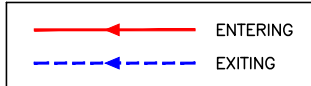
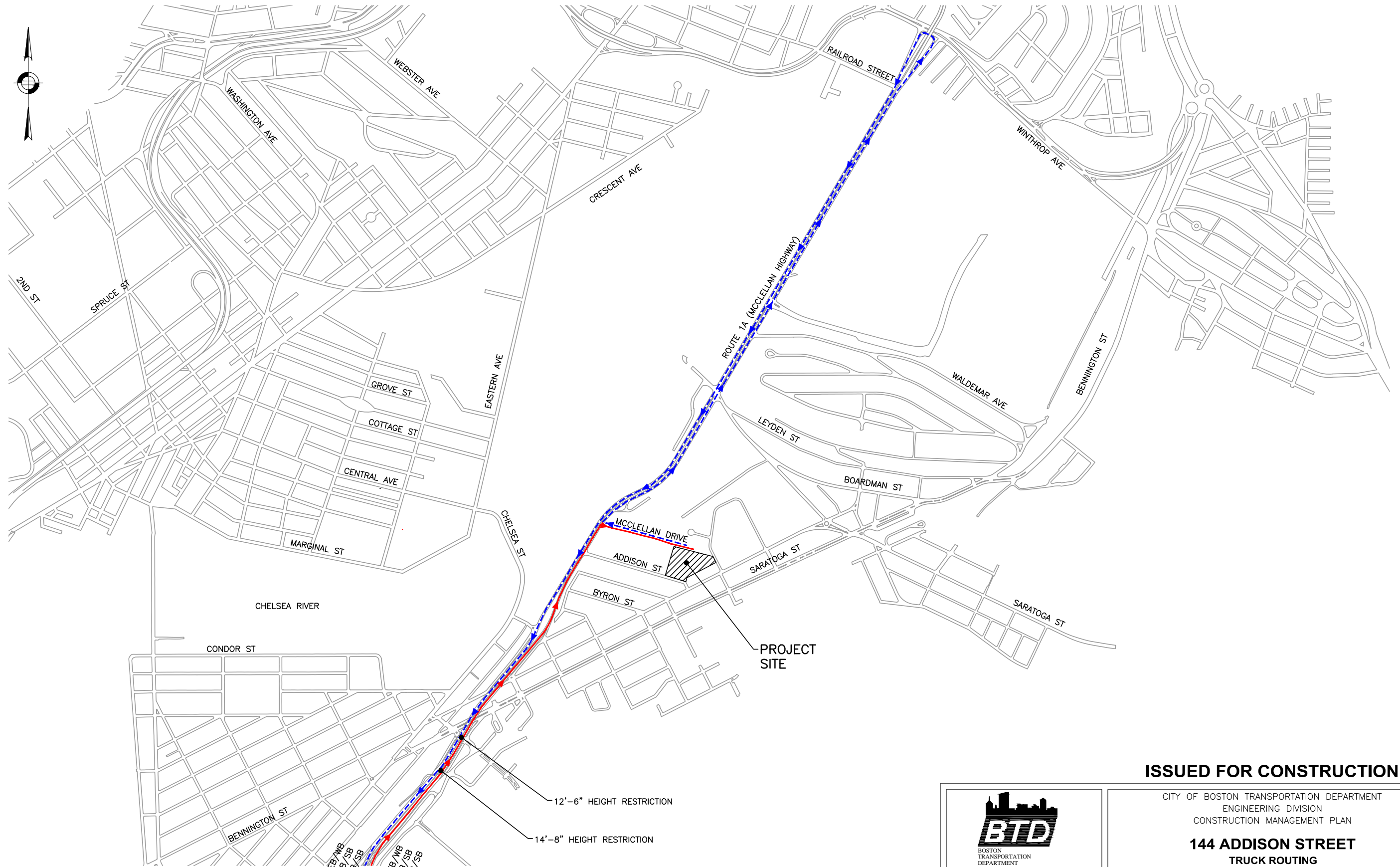


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AREA: 1
DISTRICT: 1

DATE: JAN 29, 2020
DRAWING NO. CMP-013
SHEET 13 OF 15



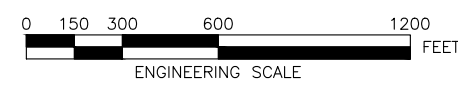


To:
I-90 EB/MB
I-95 NB/SB
I-93 NB/SB

From:
I-90 EB/MB
I-95 NB/SB
I-93 NB/SB

12'-6" HEIGHT RESTRICTION

14'-8" HEIGHT RESTRICTION



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ENGINEERING DIVISION
CONSTRUCTION MANAGEMENT PLAN

144 ADDISON STREET TRUCK ROUTING

BOSTON










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CHECKED BY K. MARTIN
APPROVED BY R. BURGESS

AREA: 1
DISTRICT: 1

DATE: JAN 29, 2020
DRAWING NO. CMP-014
SHEET 14 OF 15

TEMPORARY SIGN SUMMARY

IDENTIFICATION NUMBER	SIZE OF SIGN (INCHES)		UNIT AREA SF	TEXT	TEXT DIMENSIONS	NUMBER OF SIGNS REQUIRED	COLOR	POST SIZE AND NUMBER REQUIRED PER SIGN		AREA IN SQUARE FEET
	WIDTH	HEIGHT								
CWS	18"	18"	2.25		SEE BOSTON TRANSPORTATION DEPARTMENT STANDARD DETAIL	1	SEE BOSTON TRANSPORTATION DEPARTMENT STANDARD DETAIL	BTD SPEC. MOUNT ON MAST ARM/POST		2.25
T-23	12"	18"	1.50			1				1.50
T-23L	12"	18"	1.50			1				1.50
T-23R	12"	18"	1.50			1				1.50
M4-9BL	30"	24"	5.00		SEE THE MUTCD STANDARD DETAIL	1	SEE MUTCD STANDARD DETAIL	MUTCD SPEC. MOUNT ON MAST ARM/POST		5.00
M4-9BR	30"	24"	5.00			1				5.00
R9-9	30"	18"	3.75			2				7.50

ISSUED FOR CONSTRUCTION



CITY OF BOSTON TRANSPORTATION DEPARTMENT
ENGINEERING DIVISION
CONSTRUCTION MANAGEMENT PLAN

**144 ADDISON STREET
SIGN SUMMARY**

BOSTON

DESIGNED BY K. MARTIN
DRAWN BY D. SCHULTZ
CHECKED BY K. MARTIN
APPROVED BY R. BURGESS

AREA: 1
DISTRICT: 1

DATE: JAN 29, 2020
DRAWING NO. CMP-015
SHEET 15 OF 15



Attachment B – 2017 Construction General Permit

National Pollutant Discharge Elimination System
General Permit for Discharges from
Construction Activities

In compliance with the provisions of the Clean Water Act, 33 U.S.C. §1251 et. seq., (hereafter CWA), as amended by the Water Quality Act of 1987, P.L. 100-4, "**operators**" of construction activities (defined in Appendix A) that meet the requirements of Part 1.1 of this National Pollutant Discharge Elimination System (NPDES) general permit, are authorized to discharge pollutants in accordance with the effluent limitations and conditions set forth herein. Permit coverage is required from the "**commencement of construction activities**" (see Appendix A) until one of the conditions for terminating CGP coverage has been met (see Part 8.2).

This permit becomes effective on February 16, 2017.

This permit and the authorization to discharge expire at 11:59pm, February 16, 2022.

Signed and issued this 11th day of January 2017

Deborah Szaro,
Acting Regional Administrator, EPA Region 1

Signed and issued this 11th day of January 2017

William K. Honker, P.E.,
Director, Water Division, EPA Region 6

Signed and issued this 11th day of January 2017

Javier Laureano, Ph.D.,
Director, Clean Water Division, EPA Region 2

Signed and issued this 11th day of January 2017

Karen Flournoy,
Director, Water, Wetlands, and Pesticides Division,
EPA Region 7

Signed and issued this 11th day of January 2017

Jose C. Font,
Acting Director, Caribbean Environmental
Protection Division, EPA Region 2.

Signed and issued this 11th day of January 2017

Darcy O'Connor,
Assistant Regional Administrator, Office of Water
Protection, EPA Region 8

Signed and issued this 11th day of January 2017

Dominique Lueckenhoff,
Acting Director, Water Protection Division, EPA
Region 3

Signed and issued this 11th day of January 2017

Kristin Gullatt
Deputy Director, Water Division, EPA Region 9

Signed and issued this 11th day of January 2017

César A. Zapata,
Deputy Director, Water Protection Division, EPA
Region 4

Signed and issued this 11th day of January 2017

Daniel D. Opalski,
Director, Office of Water and Watersheds, EPA
Region 10

Signed and issued this 11th day of January 2017

Christopher Korleski,
Director, Water Division, EPA Region 5

CONTENTS

1 How to Obtain Coverage Under the Construction General Permit (CGP) 1

 1.1 Eligibility Conditions 1

 1.2 Types of Discharges Authorized 2

 1.3 Prohibited Discharges 4

 1.4 Submitting your Notice of Intent (NOI) 4

 1.5 Requirement to Post a Notice of Your Permit Coverage 6

2 Technology-Based Effluent Limitations 6

 2.1 General Stormwater Control Design, Installation, and Maintenance Requirements 7

 2.2 Erosion and Sediment Control Requirements 8

 2.3 Pollution Prevention Requirements 14

 2.4 Construction Dewatering Requirements 18

3 Water Quality-Based Effluent Limitations 18

 3.1 General Effluent Limitation to Meet Applicable Water Quality Standards 18

 3.2 Discharge Limitations for Sites Discharging to Sensitive Waters 19

4 Site Inspection Requirements 20

 4.1 Person(s) Responsible for Inspecting Site 20

 4.2 Frequency of Inspections 20

 4.3 Increase in Inspection Frequency for Sites Discharging to Sensitive Waters 20

 4.4 Reductions in Inspection Frequency 21

 4.5 Areas that MUST Be Inspected 22

 4.6 Requirements for Inspections 22

 4.7 Inspection Report 23

 4.8 Inspections By EPA 23

5 Corrective Actions 24

 5.1 Conditions Triggering Corrective Action 24

 5.2 Corrective Action Deadlines 24

 5.3 Corrective Action Required by EPA 25

 5.4 Corrective Action Report 25

6 Staff Training Requirements 25

7 Stormwater Pollution Prevention Plan (SWPPP) 26

 7.1 General Requirements 26

 7.2 SWPPP Contents 26

 7.3 On-Site Availability of Your SWPPP 32

 7.4 SWPPP Modifications 33

8 How to Terminate Coverage 33

8.1 Minimum Information Required in NOT 33

8.2 Conditions for Terminating CGP Coverage 34

8.3 How to Submit Your NOT 34

8.4 Deadline for Submitting the NOT 34

8.5 Effective Date of Termination of Coverage 35

9 Permit Conditions Applicable to Specific States, Indian Country Lands, or Territories 35

Appendix A: Definitions and Acronyms A-1

Appendix B: Permit Areas Eligible for Coverage and EPA Regional Addresses B-1

Appendix C: Small Construction Waivers and Instructions C-1

Appendix D: Eligibility Procedures Relating to Threatened & Endangered Species Protection. D-1

Appendix E: Historic Property Screening Process E-1

Appendix F: List of Tier 3, Tier 2, and Tier 2.5 Waters F-1

Appendix G: Buffer Requirements G-1

Appendix H: 2-Year, 24-Hour Storm Frequencies H-1

Appendix I: Standard Permit Conditions I-1

Appendix J: Notice of Intent (NOI) Form and Instructions J-1

Appendix K: Notice of Termination (NOT) Form and Instructions K-1

Appendix L: Suggested Format for Request for Chemical Treatment L-1

1 HOW TO OBTAIN COVERAGE UNDER THE CONSTRUCTION GENERAL PERMIT (CGP)

To be covered under this permit, you must meet the eligibility conditions and follow the requirements for obtaining permit coverage in this Part.

1.1 ELIGIBILITY CONDITIONS

1.1.1 **You are an “operator”** of a construction site for which discharges will be covered under this permit. For the purposes of this permit and in the context of stormwater discharges associated with construction activity, an “operator” is any party associated with a construction project that meets either of the following two criteria:

- a. The party has operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications (*e.g., in most cases this is the owner of the site*); or
- b. The party has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit conditions (*e.g., they are authorized to direct workers at a site to carry out activities required by the permit; in most cases this is the general contractor (as defined in Appendix A) of the project*).

Where there are multiple operators associated with the same project, all operators must obtain permit coverage.¹ Subcontractors generally are not considered operators for the purposes of this permit.

1.1.2 **Your site’s construction activities:**

- a. Will disturb one or more acres of land, or will disturb less than one acre of land but are part of a common plan of development or sale that will ultimately disturb one or more acres of land; or
- b. Have been designated by EPA as needing permit coverage under 40 CFR 122.26(a)(1)(v) or 40 CFR 122.26(b)(15)(ii);

1.1.3 Your site is located in an area where EPA is the permitting authority (see Appendix B);

1.1.4 Discharges from your site are not:

- a. Already covered by a different NPDES permit for the same discharge; or
- b. In the process of having coverage under a different NPDES permit for the same discharge denied, terminated, or revoked.^{2, 3}

1.1.5 You are able to demonstrate that you meet one of the criteria listed in Appendix D with respect to the protection of species that are federally listed as endangered or threatened under the Endangered Species Act (ESA) and federally designated critical habitat;

¹ If the operator of a “construction support activity” (see Part 1.2.1c) is different than the operator of the main site, that operator must also obtain permit coverage. See Part 7.1 for clarification on the sharing of liability between and among operators on the same site and for conditions that apply to developing a SWPPP for multiple operators associated with the same site.

² Parts 1.1.4a and 1.1.4b do not include sites currently covered under the 2012 CGP that are in the process of obtaining coverage under this permit, nor sites covered under this permit that are transferring coverage to a different operator.

³ Notwithstanding a site being made ineligible for coverage under this permit because it falls under the description of Parts 1.1.4a or 1.1.4b, above, EPA may waive the applicable eligibility requirement after specific review if it determines that coverage under this permit is appropriate.

- 1.1.6 You have completed the screening process in Appendix E relating to the protection of historic properties; and
- 1.1.7 You have complied with all requirements in Part 9 imposed by the applicable state, Indian tribe, or territory in which your construction activities and/or discharge will occur.
- 1.1.8 For “new sources” (as defined in Appendix A) only:
- a. EPA has not, prior to authorization under this permit, determined that discharges from your site will cause, have the reasonable potential to cause, or contribute to an excursion above any applicable water quality standard. Where such a determination is made prior to authorization, EPA may notify you that an individual permit application is necessary. However, EPA may authorize your coverage under this permit after you have included appropriate controls and implementation procedures designed to bring your discharge into compliance with this permit, specifically the requirement to meet water quality standards. In the absence of information demonstrating otherwise, EPA expects that compliance with the requirements of this permit, including the requirements applicable to such discharges in Part 3, will result in discharges that will not cause, have the reasonable potential to cause, or contribute to an excursion above any applicable water quality standard.
 - b. Discharges from your site to a Tier 2, Tier 2.5, or Tier 3 water⁴ will not lower the water quality of the applicable water. In the absence of information demonstrating otherwise, EPA expects that compliance with the requirements of this permit, including the requirements applicable to such discharges in Part 3.2, will result in discharges that will not lower the water quality of such waters.
- 1.1.9 If you plan to add “cationic treatment chemicals” (as defined in Appendix A) to stormwater and/or authorized non-stormwater prior to discharge, you may not submit your Notice of Intent (NOI) unless and until you notify your applicable EPA Regional Office (see Appendix L) in advance and the EPA Regional Office authorizes coverage under this permit after you have included appropriate controls and implementation procedures designed to ensure that your use of cationic treatment chemicals will not lead to discharges that cause an exceedance of water quality standards.
- 1.2 TYPES OF DISCHARGES AUTHORIZED⁵
- 1.2.1 The following stormwater discharges are authorized under this permit provided that appropriate stormwater controls are designed, installed, and maintained (see Parts 2 and 3):
- a. Stormwater discharges, including stormwater runoff, snowmelt runoff, and surface runoff and drainage, associated with construction activity under 40 CFR 122.26(b)(14) or 122.26(b)(15)(i);

⁴ Note: Your site will be considered to discharge to a Tier 2, Tier 2.5, or Tier 3 water if the first water to which you discharge is identified by a state, tribe, or EPA as a Tier 2, Tier 2.5, or Tier 3 water. For discharges that enter a storm sewer system prior to discharge, the first water of the U.S. to which you discharge is the waterbody that receives the stormwater discharge from the storm sewer system. See list of Tier 2, Tier 2.5, and Tier 3 waters in Appendix F.

⁵ See “Discharge” as defined in Appendix A. Note: Any discharges not expressly authorized in this permit cannot become authorized or shielded from liability under CWA section 402(k) by disclosure to EPA, state, or local authorities after issuance of this permit via any means, including the Notice of Intent (NOI) to be covered by the permit, the SWPPP, or during an inspection.

- b. Stormwater discharges designated by EPA as needing a permit under 40 CFR 122.26(a)(1)(v) or 122.26(b)(15)(ii);
 - c. Stormwater discharges from construction support activities (e.g., concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, borrow areas) provided that:
 - i. The support activity is directly related to the construction site required to have permit coverage for stormwater discharges;
 - ii. The support activity is not a commercial operation, nor does it serve multiple unrelated construction sites;
 - iii. The support activity does not continue to operate beyond the completion of the construction activity at the site it supports; and
 - iv. Stormwater controls are implemented in accordance with Part 2 and Part 3 for discharges from the support activity areas.
 - d. Stormwater discharges from earth-disturbing activities associated with the construction of staging areas and the construction of access roads conducted prior to active mining.
- 1.2.2 The following non-stormwater discharges associated with your construction activity are authorized under this permit provided that, with the exception of water used to control dust and to irrigate vegetation in stabilized areas, these discharges are not routed to areas of exposed soil on your site and you comply with any applicable requirements for these discharges in Parts 2 and 3:
- a. Discharges from emergency fire-fighting activities;
 - b. Fire hydrant flushings;
 - c. Landscape irrigation;
 - d. Water used to wash vehicles and equipment, provided that there is no discharge of soaps, solvents, or detergents used for such purposes;
 - e. Water used to control dust;
 - f. Potable water including uncontaminated water line flushings;
 - g. External building washdown, provided soaps, solvents, and detergents are not used, and external surfaces do not contain hazardous substances (as defined in Appendix A) (e.g., paint or caulk containing polychlorinated biphenyls (PCBs));
 - h. Pavement wash waters, provided spills or leaks of toxic or hazardous substances have not occurred (unless all spill material has been removed) and where soaps, solvents, and detergents are not used. You are prohibited from directing pavement wash waters directly into any water of the U.S., storm drain inlet, or stormwater conveyance, unless the conveyance is connected to a sediment basin, sediment trap, or similarly effective control;
 - i. Uncontaminated air conditioning or compressor condensate;
 - j. Uncontaminated, non-turbid discharges of ground water or spring water;
 - k. Foundation or footing drains where flows are not contaminated with process materials such as solvents or contaminated ground water; and
 - l. Construction dewatering water discharged in accordance with Part 2.4.

1.2.3 Also authorized under this permit are discharges of stormwater listed above in Part 1.2.1, or authorized non-stormwater discharges listed above in Part 1.2.2, commingled with a discharge authorized by a different NPDES permit and/or a discharge that does not require NPDES permit authorization.

1.3 PROHIBITED DISCHARGES⁶

1.3.1 Wastewater from washout of concrete, unless managed by an appropriate control as described in Part 2.3.4;

1.3.2 Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials;

1.3.3 Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance;

1.3.4 Soaps, solvents, or detergents used in vehicle and equipment washing or external building washdown; and

1.3.5 Toxic or hazardous substances from a spill or other release.

To prevent the above-listed prohibited non-stormwater discharges, operators must comply with the applicable pollution prevention requirements in Part 2.3.

1.4 SUBMITTING YOUR NOTICE OF INTENT (NOI)

All "operators" (as defined in Appendix A) associated with your construction site, who meet the Part 1.1 eligibility requirements, and who seek coverage under this permit, must submit to EPA a complete and accurate NOI in accordance with the deadlines in Table 1 prior to commencing construction activities.

Exception: If you are conducting construction activities in response to a public emergency (e.g., *mud slides, earthquake, extreme flooding conditions, widespread disruption in essential public services*), and the related work requires immediate authorization to avoid imminent endangerment to human health, public safety, or the environment, or to reestablish essential public services, you may discharge on the condition that a complete and accurate NOI is submitted within 30 calendar days after commencing construction activities (see Table 1) establishing that you are eligible for coverage under this permit. You must also provide documentation in your Stormwater Pollution Prevention Plan (SWPPP) to substantiate the occurrence of the public emergency.

1.4.1 Prerequisite for Submitting Your NOI

You must develop a SWPPP consistent with Part 7 before submitting your NOI for coverage under this permit.

1.4.2 How to Submit Your NOI

You must use EPA's NPDES eReporting Tool (NeT) to electronically prepare and submit your NOI for coverage under the 2017 CGP, unless you received a waiver from your EPA Regional Office.

To access NeT, go to <https://www.epa.gov/npdes/stormwater-discharges-construction-activities#ereporting>.

⁶ EPA includes these prohibited non-stormwater discharges here as a reminder to the operator that the only non-stormwater discharges authorized by this permit are at Part 1.2.2. Any unauthorized non-stormwater discharges must be covered under an individual permit or alternative general permit.

Waivers from electronic reporting may be granted based on one of the following conditions:

- a. If your operational headquarters is physically located in a geographic area (i.e., ZIP code or census tract) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission; or
- b. If you have limitations regarding available computer access or computer capability.

If the EPA Regional Office grants you approval to use a paper NOI, and you elect to use it, you must complete the form in Appendix J.

1.4.3 Deadlines for Submitting Your NOI and Your Official Date of Permit Coverage

Table 1 provides the deadlines for submitting your NOI and the official start date of your permit coverage, which differ depending on when you commence construction activities.

Table 1 NOI Submittal Deadlines and Official Start Date for Permit Coverage.

Type of Operator	NOI Submittal Deadline ⁷	Permit Authorization Date ⁸
Operator of a new site (i.e., a site where construction activities commence on or after February 16, 2017)	At least 14 calendar days before commencing construction activities.	14 calendar days after EPA notifies you that it has received a complete NOI, unless EPA notifies you that your authorization is delayed or denied.
Operator of an existing site (i.e., a site with 2012 CGP coverage where construction activities commenced prior to February 16, 2017)	No later than May 17, 2017.	
New operator of a permitted site (i.e., an operator that through transfer of ownership and/or operation replaces the operator of an already permitted construction site that is either a "new site" or an "existing site")	At least 14 calendar days before the date the transfer to the new operator will take place.	
Operator of an "emergency-related project" (i.e., a project initiated in response to a public emergency (e.g., mud slides, earthquake, extreme flooding conditions, disruption in essential public services), for which the related work requires immediate authorization to avoid imminent endangerment to human health or the environment, or to reestablish essential public services)	No later than 30 calendar days after commencing construction activities.	You are considered provisionally covered under the terms and conditions of this permit immediately, and fully covered 14 calendar days after EPA notifies you that it has received a complete NOI, unless EPA notifies you that your authorization is delayed or denied.

⁷ If you miss the deadline to submit your NOI, any and all discharges from your construction activities will continue to be unauthorized under the CWA until they are covered by this or a different NPDES permit. EPA may take enforcement action for any unpermitted discharges that occur between the commencement of construction activities and discharge authorization.

⁸ Discharges are not authorized if your NOI is incomplete or inaccurate or if you are not eligible for permit coverage.

1.4.4 Modifying your NOI

If after submitting your NOI you need to correct or update any fields, you may do so by **submitting a "Change NOI" form using NeT**. Waivers from electronic reporting may be granted as specified in Part 1.4.1. If the EPA Regional Office has granted you approval to submit a paper NOI modification, you may indicate any NOI changes on the same NOI form in Appendix J.

When there is a change to the site's operator, the new operator must submit a new NOI, and the previous operator must submit a Notice of Termination (NOT) form as specified in Part 8.3.

1.4.5 Your Official End Date of Permit Coverage

Once covered under this permit, your coverage will last until the date that:

- a. You terminate permit coverage consistent with Part 8; or
- b. You receive permit coverage under a different NPDES permit or a reissued or replacement version of this permit after expiring on February 16, 2022; or
- c. You fail to submit an NOI for coverage under a revised or replacement version of this permit before the deadline for existing construction sites where construction activities continue after this permit has expired.

1.5 REQUIREMENT TO POST A NOTICE OF YOUR PERMIT COVERAGE

You must post a sign or other notice of your permit coverage at a safe, publicly accessible location in close proximity to the construction site. The notice must be located so that it is visible from the public road that is nearest to the active part of the construction site, and it must use a font large enough to be readily viewed from a public right-of-way.⁹ At a minimum, the notice must include:

- a. The NPDES ID (*i.e.*, *permit tracking number assigned to your NOI*);
- b. A contact name and phone number for obtaining additional construction site information;
- c. The Uniform Resource Locator (URL) for the SWPPP (if available), or the following statement: "If you would like to obtain a copy of the Stormwater Pollution Prevention Plan (SWPPP) for this site, contact the EPA Regional Office at [*include the appropriate CGP Regional Office contact information found at <https://www.epa.gov/npdes/contact-us-stormwater#regional>*];" and
- d. The following statement "**If you observe indicators of stormwater pollutants in the discharge or in the receiving waterbody, contact the EPA through the following website: <https://www.epa.gov/enforcement/report-environmental-violations>.**"

2 TECHNOLOGY-BASED EFFLUENT LIMITATIONS

You must comply with the following technology-based effluent limitations in this Part for all authorized discharges.¹⁰

⁹ If the active part of the construction site is not visible from a public road, then place the notice of permit coverage in a position that is visible from the nearest public road and as close as possible to the construction site.

¹⁰ For each of the effluent limits in Part 2, as applicable to your site, you must include in your SWPPP (1) a

2.1 GENERAL STORMWATER CONTROL DESIGN, INSTALLATION, AND MAINTENANCE REQUIREMENTS

You must design, install, and maintain stormwater controls required in Parts 2.2 and 2.3 to minimize the discharge of pollutants in stormwater from construction activities. To meet this requirement, you must:

- 2.1.1 Account for the following factors in designing your stormwater controls:
 - a. The expected amount, frequency, intensity, and duration of precipitation;
 - b. The nature of stormwater runoff and run-on at the site, including factors such as expected flow from impervious surfaces, slopes, and site drainage features. You must design stormwater controls to control stormwater volume, velocity, and peak flow rates to minimize discharges of pollutants in stormwater and to minimize channel and streambank erosion and scour in the immediate vicinity of discharge points; and
 - c. The soil type and range of soil particle sizes expected to be present on the site.
- 2.1.2 Design and install all stormwater controls in accordance with good engineering practices, including applicable design specifications.¹¹
- 2.1.3 Complete installation of stormwater controls by the time each phase of construction activities has begun.
 - a. By the time construction activity in any given portion of the site begins, install and make operational any downgradient sediment controls (*e.g., buffers, perimeter controls, exit point controls, storm drain inlet protection*) that control discharges from the initial site clearing, grading, excavating, and other earth-disturbing activities.¹²
 - b. Following the installation of these initial controls, install and make operational all stormwater controls needed to control discharges prior to subsequent earth-disturbing activities.
- 2.1.4 Ensure that all stormwater controls are maintained and remain in effective operating condition during permit coverage and are protected from activities that would reduce their effectiveness.
 - a. Comply with any specific maintenance requirements for the stormwater controls listed in this permit, as well as any recommended by the manufacturer.¹³

description of the specific control(s) to be implemented to meet the effluent limit; (2) any applicable design specifications; (3) routine maintenance specifications; and (4) the projected schedule for its (their) installation/implementation. See Part 7.2.6.

¹¹ Design specifications may be found in manufacturer specifications and/or in applicable erosion and sediment control manuals or ordinances. Any departures from such specifications must reflect good engineering practices and must be explained in your SWPPP. You must also comply with any additional design and installation requirements specified for the effluent limits in Parts 2.2 and 2.3.

¹² Note that the requirement to install stormwater controls prior to each phase of construction activities for the site does not apply to the earth disturbance associated with the actual installation of these controls. Operators should take all reasonable actions to minimize the discharges of pollutants during the installation of stormwater controls.

¹³ Any departures from such maintenance recommendations made by the manufacturer must reflect good engineering practices and must be explained in your SWPPP.

- b. If at any time you find that a stormwater control needs routine maintenance, you must immediately initiate the needed maintenance work, and complete such work by the close of the next business day.
- c. If at any time you find that a stormwater control needs repair or replacement, you must comply with the corrective action requirements in Part 5.

2.2 EROSION AND SEDIMENT CONTROL REQUIREMENTS

You must implement erosion and sediment controls in accordance with the following requirements to minimize the discharge of pollutants in stormwater from construction activities.

2.2.1 Provide and maintain natural buffers and/or equivalent erosion and sediment controls when **a water of the U.S. is located within 50 feet of the site's earth disturbances**.

- a. Compliance Alternatives. For any discharges to waters of the U.S. located within 50 feet of your site's earth disturbances, you must comply with one of the following alternatives:
 - i. Provide and maintain a 50-foot undisturbed natural buffer; or
 - ii. Provide and maintain an undisturbed natural buffer that is less than 50 feet and is supplemented by erosion and sediment controls that achieve, in combination, the sediment load reduction equivalent to a 50-foot undisturbed natural buffer; or
 - iii. If infeasible to provide and maintain an undisturbed natural buffer of any size, implement erosion and sediment controls to achieve the sediment load reduction equivalent to a 50-foot undisturbed natural buffer.

See Appendix G, Part G.2 for additional conditions applicable to each compliance alternative.

- b. Exceptions. See Appendix G, Part G.2 for exceptions to the compliance alternatives.

2.2.2 Direct stormwater to vegetated areas and maximize stormwater infiltration and filtering to reduce pollutant discharges, unless infeasible.

2.2.3 Install sediment controls along any perimeter areas of the site that will receive pollutant discharges.¹⁴

- a. Remove sediment before it has accumulated to one-half of the above-ground height of any perimeter control.
- b. Exception. For areas at "linear construction sites" (as defined in Appendix A) where perimeter controls are infeasible (*e.g., due to a limited or restricted right-of-way*), implement other practices as necessary to minimize pollutant discharges to perimeter areas of the site.

2.2.4 Minimize sediment track-out.

- a. Restrict vehicle use to properly designated exit points;
- b. Use appropriate stabilization techniques¹⁵ at all points that exit onto paved roads.

¹⁴ Examples of perimeter controls include filter berms, silt fences, vegetative strips, and temporary diversion dikes.

¹⁵ Examples of appropriate stabilization techniques include the use of aggregate stone with an underlying geotextile or non-woven filter fabric, and turf mats.

- i. Exception: Stabilization is not required for exit points at linear utility construction sites that are used only episodically and for very short durations over the life of the project, provided other exit point controls¹⁶ are implemented to minimize sediment track-out;
 - c. Implement additional track-out controls¹⁷ as necessary to ensure that sediment removal occurs prior to vehicle exit; and
 - d. Where sediment has been tracked-out from your site onto paved roads, sidewalks, or other paved areas outside of your site, remove the deposited sediment by the end of the same business day in which the track-out occurs or by the end of the next business day if track-out occurs on a non-business day. Remove the track-out by sweeping, shoveling, or vacuuming these surfaces, or by using other similarly effective means of sediment removal. You are prohibited from hosing or sweeping tracked-out sediment into any stormwater conveyance, storm drain inlet, or water of the U.S.¹⁸
- 2.2.5 Manage stockpiles or land clearing debris piles composed, in whole or in part, of sediment and/or soil:
- a. Locate the piles outside of any natural buffers established under Part 2.2.1 and away from any stormwater conveyances, drain inlets, and areas where stormwater flow is concentrated;
 - b. Install a sediment barrier along all downgradient perimeter areas;¹⁹
 - c. For piles that will be unused for 14 or more days, provide cover²⁰ or appropriate temporary stabilization (consistent with Part 2.2.14);
 - d. You are prohibited from hosing down or sweeping soil or sediment accumulated on pavement or other impervious surfaces into any stormwater conveyance, storm drain inlet, or water of the U.S.
- 2.2.6 Minimize dust. On areas of exposed soil, minimize the generation of dust through the appropriate application of water or other dust suppression techniques.
- 2.2.7 Minimize steep slope disturbances. **Minimize the disturbance of "steep slopes"** (as defined in Appendix A).

¹⁶ Examples of other exit point controls include preventing the use of exit points during wet periods; minimizing exit point use by keeping vehicles on site to the extent possible; limiting exit point size to the width needed for vehicle and equipment usage; using scarifying and compaction techniques on the soil; and avoiding establishing exit points in environmentally sensitive areas (e.g., karst areas; steep slopes).

¹⁷ Examples of additional track-out controls include the use of wheel washing, rumble strips, and rattle plates.

¹⁸ Fine grains that remain visible (*i.e.*, *staining*) on the surfaces of off-site streets, other paved areas, and sidewalks after you have implemented sediment removal practices are not a violation of Part 2.2.4.

¹⁹ Examples of sediment barriers include berms, dikes, fiber rolls, silt fences, sandbags, gravel bags, or straw bale.

²⁰ Examples of cover include tarps, blown straw and hydroseeding.

- 2.2.8 Preserve native topsoil, unless infeasible.²¹
- 2.2.9 Minimize soil compaction.²² In areas of your site where final vegetative stabilization will occur or where infiltration practices will be installed:
- a. Restrict vehicle and equipment use in these locations to avoid soil compaction; and
 - b. Before seeding or planting areas of exposed soil that have been compacted, use techniques that rehabilitate and condition the soils as necessary to support vegetative growth.
- 2.2.10 Protect storm drain inlets.
- a. Install inlet protection measures that remove sediment from discharges prior to entry into any storm drain inlet that carries stormwater flow from your site to a water of the U.S., provided you have authority to access the storm drain inlet;²³ and
 - b. Clean, or remove and replace, the protection measures as sediment accumulates, the filter becomes clogged, and/or performance is compromised. Where there is evidence of sediment accumulation adjacent to the inlet protection measure, remove the deposited sediment by the end of the same business day in which it is found or by the end of the following business day if removal by the same business day is not feasible.
- 2.2.11 Minimize erosion of stormwater conveyance channels and their embankments, outlets, adjacent streambanks, slopes, and downstream waters. Use erosion controls and velocity dissipation devices²⁴ within and along the length of any stormwater conveyance channel and at any outlet to slow down runoff to minimize erosion.
- 2.2.12 If you install a sediment basin or similar impoundment:
- a. Situate the basin or impoundment outside of any water of the U.S. and any natural buffers established under Part 2.2.1;
 - b. Design the basin or impoundment to avoid collecting water from wetlands;
 - c. Design the basin or impoundment to provide storage for either:
 - i. The calculated volume of runoff from a 2-year, 24-hour storm (see Appendix H); or
 - ii. 3,600 cubic feet per acre drained.

²¹ Stockpiling topsoil at off-site locations, or transferring topsoil to other locations, is an example of a practice that is consistent with the requirements in Part 2.2.8. Preserving native topsoil is not required where the intended function of a specific area of the site dictates that the topsoil be disturbed or removed. For example, some sites may be designed to be highly impervious after construction, and therefore little or no vegetation is intended to remain, or may not have space to stockpile native topsoil on site for later use, in which case, it may not be feasible to preserve topsoil.

²² Minimizing soil compaction is not required where the intended function of a specific area of the site dictates that it be compacted.

²³ Inlet protection measures can be removed in the event of flood conditions or to prevent erosion.

²⁴ Examples of velocity dissipation devices include check dams, sediment traps, riprap, and grouted riprap at outlets.

- d. Utilize outlet structures that withdraw water from the surface of the sediment basin or similar impoundment, unless infeasible;²⁵
- e. Use erosion controls and velocity dissipation devices to prevent erosion at inlets and outlets; and
- f. Remove accumulated sediment to maintain at least one-half of the design capacity and conduct all other appropriate maintenance to ensure the basin or impoundment remains in effective operating condition.

2.2.13 If using treatment chemicals (e.g., polymers, flocculants, coagulants):

- a. Use conventional erosion and sediment controls before and after the application of treatment chemicals. Chemicals may only be applied where treated stormwater is directed to a sediment control (e.g., sediment basin, perimeter control) before discharge.
- b. Select appropriate treatment chemicals. Chemicals must be appropriately suited to the types of soils likely to be exposed during construction and present in the discharges being treated (i.e., the expected turbidity, pH, and flow rate of stormwater flowing into the chemical treatment system or area).
- c. Minimize discharge risk from stored chemicals. Store all treatment chemicals in leak-proof containers that are kept under storm-resistant cover and surrounded by secondary containment structures (e.g., spill berms, decks, spill containment pallets), or provide equivalent measures designed and maintained to minimize the potential discharge of treatment chemicals in stormwater or by any other means (e.g., storing chemicals in a covered area, having a spill kit available on site and ensuring personnel are available to respond expeditiously in the event of a leak or spill).
- d. Comply with state/local requirements. Comply with applicable state and local requirements regarding the use of treatment chemicals.
- e. Use chemicals in accordance with good engineering practices and specifications of the chemical provider/supplier. Use treatment chemicals and chemical treatment systems in accordance with good engineering practices, and with dosing specifications and sediment removal design specifications provided by the provider/supplier of the applicable chemicals, or document in your SWPPP specific departures from these specifications and how they reflect good engineering practice.
- f. Ensure proper training. Ensure that all persons who handle and use treatment chemicals at the construction site are provided with appropriate, product-specific training. Among other things, the training must cover proper dosing requirements.
- g. Perform additional measures specified by the EPA Regional Office for the authorized use of cationic chemicals. If you have been authorized to use cationic chemicals at your site pursuant to Part 1.1.9, you must perform all additional measures as conditioned by your authorization to ensure that the use of such chemicals will not cause an exceedance of water quality standards.

²⁵ The circumstances in which it is infeasible to design outlet structures in this manner are rare. Exceptions may include areas with extended cold weather, where using surface outlets may not be feasible during certain time periods (although they must be used during other periods). If you determine that it is infeasible to meet this requirement, you must provide documentation in your SWPPP to support your determination, including the specific conditions or time periods when this exception will apply.

2.2.14 Stabilize exposed portions of the site. Implement and maintain stabilization measures (e.g., seeding protected by erosion controls until vegetation is established, sodding, mulching, erosion control blankets, hydromulch, gravel) that minimize erosion from exposed portions of the site in accordance with Parts 2.2.14a and 2.2.14b.

a. Stabilization Deadlines:²⁶

Total Amount of Land Disturbance Occurring At Any One Time ²⁷	Deadline
<p>i. Five acres or less (≤5.0)</p> <p>Note: this includes sites disturbing more than five acres (>5.0) total over the course of a project, but that limit disturbance at any one time (i.e., phase the disturbance) to five acres or less (≤5.0)</p>	<ul style="list-style-type: none"> • Initiate the installation of stabilization measures immediately²⁸ in any areas of exposed soil where construction activities have permanently ceased or will be temporarily inactive for 14 or more calendar days;²⁹ and • Complete the installation of stabilization measures as soon as practicable, but no later than 14 calendar days after stabilization has been initiated.³⁰

²⁶ EPA may determine, based on an inspection carried out under Part 4.8 and corrective actions required under Part 5.3, that the level of sediment discharge on the site makes it necessary to require a faster schedule for completing stabilization. For instance, if sediment discharges from an area of exposed soil that is required to be stabilized are compromising the performance of existing stormwater controls, EPA may require stabilization to correct this problem.

²⁷ Limiting disturbances to five (5) acres or less at any one time means that at no time during the project do the cumulative earth disturbances exceed five (5) acres. The following examples would qualify as limiting disturbances at any one time to five (5) acres or less:

1. The total area of disturbance for a project is five (5) acres or less.
2. The total area of disturbance for a project will exceed five (5) acres, but the operator ensures that no more than five (5) acres will be disturbed at any one time through implementation of stabilization measures. In this way, site stabilization can be used to “free up” land that can be disturbed without exceeding the five (5)-acre cap to qualify for the 14-day stabilization deadline. For instance, if an operator completes stabilization of two (2) acres of land on a five (5)-acre disturbance, then two (2) additional acres could be disturbed while still qualifying for the longer 14-day stabilization deadline.

²⁸ The following are examples of activities that would constitute the immediate initiation of stabilization:

1. Prepping the soil for vegetative or non-vegetative stabilization as long as seeding, planting, and/or installation of non-vegetative stabilization products takes place as soon as practicable, but no later than one (1) calendar day of completing soil preparation;
2. Applying mulch or other non-vegetative product to the exposed area;
3. Seeding or planting the exposed area;
4. Starting any of the activities in # 1 – 3 on a portion of the entire area that will be stabilized; and
5. Finalizing arrangements to have stabilization product fully installed in compliance with the deadlines for completing stabilization.

²⁹ The requirement to initiate stabilization immediately is triggered as soon as you know that construction work on a portion of the site is temporarily ceased and will not resume for 14 or more days, or as soon as you know that construction work is permanently ceased. In the context of this provision, “immediately” means as soon as practicable, but no later than the end of the next business day, following the day when the construction activities have temporarily or permanently ceased.

³⁰ If vegetative stabilization measures are being implemented, stabilization is considered “installed” when all activities necessary to seed or plant the area are completed. If non-vegetative stabilization measures are being implemented, stabilization is considered “installed” when all such measures are implemented or applied.

<p>ii. More than five acres (>5.0)</p>	<ul style="list-style-type: none"> • Initiate the installation of stabilization measures immediately³¹ in any areas of exposed soil where construction activities have permanently ceased or will be temporarily inactive for 14 or more calendar days;³² and • Complete the installation of stabilization measures as soon as practicable, but no later than seven (7) calendar days after stabilization has been initiated.³³
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iii. Exceptions:

- (a) Arid, semi-arid, and drought-stricken areas (as defined in Appendix A). If it is the seasonally dry period or a period in which drought is occurring, and vegetative stabilization measures are being used:
 - (i) Immediately initiate and, within 14 calendar days of a temporary or permanent cessation of work in any portion of your site, complete the installation of temporary non-vegetative stabilization measures to the extent necessary to prevent erosion;
 - (ii) As soon as practicable, given conditions or circumstances on the site, complete all activities necessary to seed or plant the area to be stabilized; and
 - (iii) If construction is occurring during the seasonally dry period, indicate in your SWPPP the beginning and ending dates of the seasonally dry period and your site conditions. Also include the schedule you will follow for initiating and completing vegetative stabilization.
- (b) Operators that are affected by unforeseen circumstances³⁴ that delay the initiation and/or completion of vegetative stabilization:
 - (i) Immediately initiate and, within 14 calendar days, complete the installation of temporary non-vegetative stabilization measures to prevent erosion;
 - (ii) Complete all soil conditioning, seeding, watering or irrigation installation, mulching, and other required activities related to the planting and initial establishment of vegetation as soon as conditions or circumstances allow it on your site; and
 - (iii) Document in the SWPPP the circumstances that prevent you from meeting the deadlines in Part 2.2.14a and the schedule you will follow for initiating and completing stabilization.
- (c) Discharges to a sediment- or nutrient-impaired water or to a water that is identified by your state, tribe, or EPA as Tier 2, Tier 2.5, or Tier 3 for antidegradation purposes. Complete stabilization as soon as

³¹ See footnote 27

³² See footnote 28

³³ See footnote 29

³⁴ Examples include problems with the supply of seed stock or with the availability of specialized equipment and unsuitability of soil conditions due to excessive precipitation and/or flooding.

practicable, but no later than seven (7) calendar days after stabilization has been initiated.

- b.** Final Stabilization Criteria (for any areas not covered by permanent structures):
- i. Establish uniform, perennial vegetation (*i.e.*, *evenly distributed, without large bare areas*) that provides 70 percent or more of the cover that is provided by vegetation native to local undisturbed areas; and/or
 - ii. Implement permanent non-vegetative stabilization measures³⁵ to provide effective cover.
 - iii. Exceptions:
 - (a) Arid, semi-arid, and drought-stricken areas (as defined in Appendix A). Final stabilization is met if the area has been seeded or planted to establish vegetation that provides 70 percent or more of the cover that is provided by vegetation native to local undisturbed areas within three (3) years and, to the extent necessary to prevent erosion on the seeded or planted area, non-vegetative erosion controls have been applied that provide cover for at least three years without active maintenance.
 - (b) Disturbed areas on agricultural land that are restored to their preconstruction agricultural use. The Part 2.2.14b final stabilization criteria does not apply.
 - (c) Areas that need to remain disturbed. In limited circumstances, stabilization may not be required if the intended function of a specific area of the site necessitates that it remain disturbed, and only the minimum area needed remains disturbed (*e.g.*, *dirt access roads, utility pole pads, areas being used for storage of vehicles, equipment, materials*).

2.3 POLLUTION PREVENTION REQUIREMENTS³⁶

You must implement pollution prevention controls in accordance with the following requirements to minimize the discharge of pollutants in stormwater and to prevent the discharge of pollutants from spilled or leaked materials from construction activities.

2.3.1 For equipment and vehicle fueling and maintenance:

- a.** Provide an effective means of eliminating the discharge of spilled or leaked chemicals, including fuels and oils, from these activities;³⁷

³⁵ Examples of permanent non-vegetative stabilization measures include riprap, gravel, gabions, and geotextiles.

³⁶ Under this permit, you are not required to minimize exposure for any products or materials where the exposure to precipitation and to stormwater will not result in a discharge of pollutants, or where exposure of a specific material or product poses little risk of stormwater contamination (such as final products and materials intended for outdoor use).

³⁷ Examples of effective means include:

- Locating activities away from waters of the U.S. and stormwater inlets or conveyances so that stormwater coming into contact with these activities cannot reach waters of the U.S.;
- Providing secondary containment (*e.g.*, *spill berms, decks, spill containment pallets*) and cover where appropriate; and
- Having a spill kit available on site and ensuring personnel are available to respond expeditiously in the event of a leak or spill.

- b. If applicable, comply with the Spill Prevention Control and Countermeasures (SPCC) requirements in 40 CFR part 112 and Section 311 of the CWA;
- c. Ensure adequate supplies are available at all times to handle spills, leaks, and disposal of used liquids;
- d. Use drip pans and absorbents under or around leaky vehicles;
- e. Dispose of or recycle oil and oily wastes in accordance with other federal, state, tribal, or local requirements; and
- f. Clean up spills or contaminated surfaces immediately, using dry clean up measures (do not clean contaminated surfaces by hosing the area down), and eliminate the source of the spill to prevent a discharge or a continuation of an ongoing discharge.

2.3.2 For equipment and vehicle washing:

- a. Provide an effective means of minimizing the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other types of wash waters;³⁸
- b. Ensure there is no discharge of soaps, solvents, or detergents in equipment and vehicle wash water; and
- c. For storage of soaps, detergents, or solvents, provide either (1) cover (e.g., *plastic sheeting, temporary roofs*) to minimize the exposure of these detergents to precipitation and to stormwater, or (2) a similarly effective means designed to minimize the discharge of pollutants from these areas.

2.3.3 For storage, handling, and disposal of building products, materials, and wastes:

- a. *For building materials and building products*³⁹, provide either (1) cover (e.g., *plastic sheeting, temporary roofs*) to minimize the exposure of these products to precipitation and to stormwater, or (2) a similarly effective means designed to minimize the discharge of pollutants from these areas.
- b. *For pesticides, herbicides, insecticides, fertilizers, and landscape materials:*
 - i. In storage areas, provide either (1) cover (e.g., *plastic sheeting, temporary roofs*) to minimize the exposure of these chemicals to precipitation and to stormwater, or (2) a similarly effective means designed to minimize the discharge of pollutants from these areas; and
 - ii. Comply with all application and disposal requirements included on the registered pesticide, herbicide, insecticide, and fertilizer label (see also Part 2.3.5).
- c. *For diesel fuel, oil, hydraulic fluids, other petroleum products, and other chemicals:*
 - i. Store chemicals in water-tight containers, and provide either (1) cover (e.g., *plastic sheeting, temporary roofs*) to minimize the exposure of these containers to precipitation and to stormwater, or (2) a similarly effective means designed to minimize the discharge of pollutants from these areas (e.g., *having a spill kit available on site and ensuring personnel are available to respond expeditiously in*

³⁸ Examples of effective means include locating activities away from waters of the U.S. and stormwater inlets or conveyances and directing wash waters to a sediment basin or sediment trap, using filtration devices, such as filter bags or sand filters, or using other similarly effective controls.

³⁹ Examples of building materials and building products typically present at construction sites include asphalt sealants, copper flashing, roofing materials, adhesives, concrete admixtures, and gravel and mulch stockpiles.

- the event of a leak or spill*), or provide secondary containment (*e.g., spill berms, decks, spill containment pallets*); and
- ii. Clean up spills immediately, using dry clean-up methods where possible, and dispose of used materials properly. You are prohibited from hosing the area down to clean surfaces or spills. Eliminate the source of the spill to prevent a discharge or a furtherance of an ongoing discharge.
- d. *For hazardous or toxic wastes:*⁴⁰
- i. Separate hazardous or toxic waste from construction and domestic waste;
 - ii. Store waste in sealed containers, which are constructed of suitable materials to prevent leakage and corrosion, and which are labeled in accordance with applicable Resource Conservation and Recovery Act (RCRA) requirements and all other applicable federal, state, tribal, or local requirements;
 - iii. Store all outside containers within appropriately-sized secondary containment (*e.g., spill berms, decks, spill containment pallets*) to prevent spills from being discharged, or provide a similarly effective means designed to prevent the discharge of pollutants from these areas (*e.g., storing chemicals in a covered area, having a spill kit available on site*);
 - iv. **Dispose of hazardous or toxic waste in accordance with the manufacturer's recommended method of disposal and in compliance with federal, state, tribal, and local requirements;**
 - v. Clean up spills immediately, using dry clean-up methods, and dispose of used materials properly. You are prohibited from hosing the area down to clean surfaces or spills. Eliminate the source of the spill to prevent a discharge or a furtherance of an ongoing discharge; and
 - vi. Follow all other federal, state, tribal, and local requirements regarding hazardous or toxic waste.
- e. *For construction and domestic wastes:*⁴¹
- i. Provide waste containers (*e.g., dumpster, trash receptacle*) of sufficient size and number to contain construction and domestic wastes;
 - ii. Keep waste container lids closed when not in use and close lids at the end of the business day for those containers that are actively used throughout the day. For waste containers that do not have lids, provide either (1) cover (*e.g., a tarp, plastic sheeting, temporary roof*) to minimize exposure of wastes to precipitation, or (2) a similarly effective means designed to minimize the discharge of pollutants (*e.g., secondary containment*);
 - iii. On business days, clean up and dispose of waste in designated waste containers; and
 - iv. Clean up immediately if containers overflow.

⁴⁰ Examples of hazardous or toxic waste that may be present at construction sites include paints, caulks, sealants, fluorescent light ballasts, solvents, petroleum-based products, wood preservatives, additives, curing compounds, and acids.

⁴¹ Examples of construction and domestic waste include packaging materials, scrap construction materials, masonry products, timber, pipe and electrical cuttings, plastics, styrofoam, concrete, demolition debris; and other trash or building materials.

- f. *For sanitary waste, position portable toilets so that they are secure and will not be tipped or knocked over, and located away from waters of the U.S. and stormwater inlets or conveyances.*
- 2.3.4 For washing applicators and containers used for stucco, paint, concrete, form release oils, curing compounds, or other materials:
- a. Direct wash water into a leak-proof container or leak-proof and lined pit designed so that no overflows can occur due to inadequate sizing or precipitation;
 - b. Handle washout or cleanout wastes as follows:
 - i. Do not dump liquid wastes in storm sewers or waters of the U.S.;
 - ii. Dispose of liquid wastes in accordance with applicable requirements in Part 2.3.3; and
 - iii. Remove and dispose of hardened concrete waste consistent with your handling of other construction wastes in Part 2.3.3; and
 - c. Locate any washout or cleanout activities as far away as possible from waters of the U.S. and stormwater inlets or conveyances, and, to the extent feasible, designate areas to be used for these activities and conduct such activities only in these areas.
- 2.3.5 For the application of fertilizers:
- a. **Apply at a rate and in amounts consistent with manufacturer's specifications, or document in the SWPPP departures from the manufacturer specifications where appropriate in accordance with Part 7.2.6.b.ix;**
 - b. Apply at the appropriate time of year for your location, and preferably timed to coincide as closely as possible to the period of maximum vegetation uptake and growth;
 - c. Avoid applying before heavy rains that could cause excess nutrients to be discharged;
 - d. Never apply to frozen ground;
 - e. Never apply to stormwater conveyance channels; and
 - f. Follow all other federal, state, tribal, and local requirements regarding fertilizer application.
- 2.3.6 Emergency Spill Notification Requirements
- Discharges of toxic or hazardous substances from a spill or other release are prohibited, consistent with Part 1.3.5. Where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR 110, 40 CFR 117, or 40 CFR 302 occurs during a 24-hour period, you must notify the National Response Center (NRC) at (800) 424-8802 or, in the Washington, DC metropolitan area, call (202) 267-2675 in accordance with the requirements of 40 CFR 110, 40 CFR 117, and 40 CFR 302 as soon as you have knowledge of the release. You must also, within seven (7) calendar days of knowledge of the release, provide a description of the release, the circumstances leading to the release, and the date of the release. State, tribal, or local requirements may necessitate additional reporting of spills or discharges to local emergency response, public health, or drinking water supply agencies.

2.4 CONSTRUCTION DEWATERING REQUIREMENTS

Comply with the following requirements to minimize the discharge of pollutants in ground water or accumulated stormwater that is removed from excavations, trenches, foundations, vaults, or other similar points of accumulation, in accordance with Part 1.2.2.⁴²

- 2.4.1 Treat dewatering discharges with controls to minimize discharges of pollutants;⁴³
- 2.4.2 Do not discharge visible floating solids or foam;
- 2.4.3 Use an oil-water separator or suitable filtration device (such as a cartridge filter) that is designed to remove oil, grease, or other products if dewatering water is found to contain these materials;
- 2.4.4 To the extent feasible, use vegetated, upland areas of the site to infiltrate dewatering water before discharge. You are prohibited from using waters of the U.S. as part of the treatment area;
- 2.4.5 At all points where dewatering water is discharged, comply with the velocity dissipation requirements of Part 2.2.11;
- 2.4.6 With backwash water, either haul it away for disposal or return it to the beginning of the treatment process; and
- 2.4.7 Replace and clean the filter media used in dewatering devices when the pressure differential equals or exceeds the manufacturer's specifications.

3 WATER QUALITY-BASED EFFLUENT LIMITATIONS

3.1 GENERAL EFFLUENT LIMITATION TO MEET APPLICABLE WATER QUALITY STANDARDS

Discharges must be controlled as necessary to meet applicable water quality standards. Discharges must also comply with any additional state or tribal requirements that are in Part 9.

In the absence of information demonstrating otherwise, EPA expects that compliance with the conditions in this permit will result in stormwater discharges being controlled as necessary to meet applicable water quality standards. If at any time you become aware, or EPA determines, that discharges are not being controlled as necessary to meet applicable water quality standards, you must take corrective action as required in Parts 5.1 and 5.2, and document the corrective actions as required in Part 5.4.

EPA may insist that you install additional controls (to meet the narrative water quality-based effluent limit above) on a site-specific basis, or require you to obtain coverage under an individual permit, if information in your NOI or from other sources indicates that your discharges are not controlled as necessary to meet applicable water quality standards. This includes situations where additional controls are necessary to comply with a wasteload allocation in an EPA-established or approved TMDL.

⁴² Uncontaminated, clear (non-turbid) dewatering water can be discharged without being routed to a control.

⁴³ Appropriate controls include sediment basins or sediment traps, sediment socks, dewatering tanks, tube settlers, weir tanks, filtration systems (e.g., bag or sand filters), and passive treatment systems that are designed to remove sediment. Appropriate controls to use downstream of dewatering controls to minimize erosion include vegetated buffers, check dams, riprap, and grouted riprap at outlets.

If during your coverage under a previous permit, you were required to install and maintain stormwater controls specifically to meet the assumptions and requirements of an EPA-approved or established TMDL (for any parameter) or to otherwise control your discharge to meet water quality standards, you must continue to implement such controls as part of your coverage under this permit.

3.2 DISCHARGE LIMITATIONS FOR SITES DISCHARGING TO SENSITIVE WATERS⁴⁴

For any portion of the site that discharges to a sediment or nutrient-impaired water or to a water that is identified by your state, tribe, or EPA as Tier 2, Tier 2.5, or Tier 3 for antidegradation purposes, you must comply with the inspection frequency specified in 4.3 and you must comply with the stabilization deadline specified in Part 2.2.14.a.iii.(c).⁴⁵

If you discharge to a water that is impaired for a parameter other than a sediment-related parameter or nutrients, EPA will inform you if any additional controls are necessary for your discharge to be controlled as necessary to meet water quality standards, including for it to be consistent with the assumptions of any available wasteload allocation in any applicable TMDL, or if coverage under an individual permit is necessary.

In addition, on a case-by-case basis, EPA may notify operators of new sites or operators of existing sites with increased discharges that additional analyses, stormwater controls, or other measures are necessary to comply with the applicable antidegradation requirements, or notify you that an individual permit application is necessary.

If you discharge to a water that is impaired for polychlorinated biphenyls (PCBs) and are engaging in demolition of any structure with at least 10,000 square feet of floor space built or renovated before January 1, 1980, you must:

⁴⁴ Sensitive waters include waters that are impaired and Tier 2, Tier 2.5, and Tier 3 waters.

"Impaired waters" are those waters identified by the state, tribe, or EPA as not meeting an applicable water quality standard and (1) requires development of a TMDL (pursuant to section 303(d) of the CWA; or (2) is addressed by an EPA-approved or established TMDL; or (3) is not in either of the above categories but the waterbody is covered by a pollution control program that meets the requirements of 40 CFR 130.7(b)(1). Your construction site will be considered to discharge to an impaired water if the first water of the U.S. to which you discharge is an impaired water for the pollutants contained in the discharge from your site. For discharges that enter a storm sewer system prior to discharge, the first water of the U.S. to which you discharge is the waterbody that receives the stormwater discharge from the storm sewer system. For assistance in determining whether your site discharges to impaired waters, EPA has developed a tool that is available both within the electronic NOI form in NeT, and at <https://water.epa.gov/polwaste/npdes/stormwater/discharge.cfm>.

Tiers 2, 2.5 and 3 refer to waters either identified by the state as high quality waters or Outstanding National Resource Waters under 40 CFR 131.12(a)(2) and (3). For the purposes of this permit, you are considered to discharge to a Tier 2, Tier 2.5, or Tier 3 water if the first water of the U.S. to which you discharge is identified by a state, tribe, or EPA as Tier 2, Tier 2.5, or Tier 3. For discharges that enter a storm sewer system prior to discharge, the water of the U.S. to which you discharge is the first water of the U.S. that receives the stormwater discharge from the storm sewer system. See list of Tier 2, Tier 2.5, and Tier 3 waters in Appendix F.

EPA may determine on a case-by-case basis that a site discharges to a sensitive water.

⁴⁵ If you qualify for any of the reduced inspection frequencies in Part 4.4, you may conduct inspections in accordance with Part 4.4 for any portion of your site that discharges to a sensitive water.

- a. Implement controls⁴⁶ to minimize the exposure of PCB-containing building materials, including paint, caulk, and pre-1980 fluorescent lighting fixtures, to precipitation and to stormwater; and
- b. Ensure that disposal of such materials is performed in compliance with applicable state, federal, and local laws.

4 SITE INSPECTION REQUIREMENTS

4.1 PERSON(S) RESPONSIBLE FOR INSPECTING SITE

The person(s) inspecting your site may be a person on your staff or a third party you hire to conduct such inspections. You are responsible for ensuring that the person who conducts inspections is a "qualified person."⁴⁷

4.2 FREQUENCY OF INSPECTIONS.⁴⁸

At a minimum, you must conduct a site inspection in accordance with one of the two schedules listed below, unless you are subject to the Part 4.3 site inspection frequency for discharges to sensitive waters or qualify for a Part 4.4 reduction in the inspection frequency:

- 4.2.1 At least once every seven (7) calendar days; or
- 4.2.2 Once every 14 calendar days and within 24 hours of the occurrence of a storm event of 0.25 inches or greater, or the occurrence of runoff from snowmelt sufficient to cause a discharge.⁴⁹ To determine if a storm event of 0.25 inches or greater has occurred on your site, you must either keep a properly maintained rain gauge on your site, or obtain the storm event information from a weather station that is representative of your location. For any day of rainfall during normal business hours that measures 0.25 inches or greater, you must record the total rainfall measured for that day in accordance with Part 4.7.1d.

4.3 INCREASE IN INSPECTION FREQUENCY FOR SITES DISCHARGING TO SENSITIVE WATERS.

For any portion of the site that discharges to a sediment or nutrient-impaired water or to a water that is identified by your state, tribe, or EPA as Tier 2, Tier 2.5, or Tier 3 for antidegradation purposes (see Part 3.2), instead of the inspection frequency specified in

⁴⁶ Examples of controls to minimize exposure of PCBs to precipitation and stormwater include separating work areas from non-work areas and selecting appropriate personal protective equipment and tools, constructing a containment area so that all dust or debris generated by the work remains within the protected area, using tools that minimize dust and heat (<212°F). For additional information, refer to Part 2.3.3 of the CGP Fact Sheet.

⁴⁷ A "qualified person" is a person knowledgeable in the principles and practice of erosion and sediment controls and pollution prevention, who possesses the appropriate skills and training to assess conditions at the construction site that could impact stormwater quality, and the appropriate skills and training to assess the effectiveness of any stormwater controls selected and installed to meet the requirements of this permit.

⁴⁸ Inspections are only required during the site's normal working hours.

⁴⁹ "Within 24 hours of the occurrence of a storm event" means that you must conduct an inspection within 24 hours once a storm event has produced 0.25 inches within a 24-hour period, even if the storm event is still continuing. Thus, if you have elected to inspect bi-weekly in accordance with Part 4.2.2 and there is a storm event at your site that continues for multiple days, and each day of the storm produces 0.25 inches or more of rain, you must conduct an inspection within 24 hours of the first day of the storm and within 24 hours after the end of the storm.

Part 4.2, you must conduct inspections in accordance with the following inspection frequencies:

Once every seven (7) calendar days *and* within 24 hours of the occurrence of a storm event of 0.25 inches or greater, or the occurrence of runoff from snowmelt sufficient to cause a discharge. To determine if a storm event of 0.25 inches or greater has occurred on your site, you must either keep a properly maintained rain gauge on your site, or obtain the storm event information from a weather station that is representative of your location. For any day of rainfall during normal business hours that measures 0.25 inches or greater, you must record the total rainfall measured for that day in accordance with Part 4.7.1d.

4.4 REDUCTIONS IN INSPECTION FREQUENCY

4.4.1 Stabilized areas.

- a. You may reduce the frequency of inspections to twice per month for the first month, no more than 14 calendar days apart, then once per month in any area of your site where the stabilization steps in 2.2.14a have been completed. If construction activity resumes in this portion of the site at a later date, the inspection frequency immediately increases to that required in Parts 4.2 and 4.3, as applicable. You must document the beginning and ending dates of this period in your SWPPP.
- b. Exception. For "linear construction sites" (as defined in Appendix A) where disturbed portions have undergone final stabilization at the same time active construction continues on others, you may reduce the frequency of inspections to twice per month for the first month, no more than 14 calendar days apart, in any area of your site where the stabilization steps in 2.2.14a have been completed. After the first month, inspect once more within 24 hours of the occurrence of a storm event of 0.25 inches or greater. If there are no issues or evidence of stabilization problems, you may **suspend further inspections. If "wash-out" of stabilization materials and/or sediment is observed, following re-stabilization, inspections must resume at the inspection frequency required in Part 4.4.1a** Inspections must continue until final stabilization is visually confirmed following a storm event of 0.25 inches or greater.

4.4.2 Arid, semi-arid, or drought-stricken areas (as defined in Appendix A). If it is the seasonally dry period or a period in which drought is occurring, you may reduce the frequency of inspections to once per month and within 24 hours of the occurrence of a storm event of 0.25 inches or greater. You must document that you are using this reduced schedule and the beginning and ending dates of the seasonally dry period in your SWPPP. To determine if a storm event of 0.25 inches or greater has occurred on your site, you must either keep a properly maintained rain gauge on your site, or obtain the storm event information from a weather station that is representative of your location. For any day of rainfall during normal business hours that measures 0.25 inches or greater, you must record the total rainfall measured for that day in accordance with Part 4.7.1d.

4.4.3 Frozen conditions:

- a. If you are suspending construction activities due to frozen conditions, you may temporarily suspend inspections on your site until thawing conditions (as defined in Appendix A) begin to occur if:
 - i. Runoff is unlikely due to continuous frozen conditions that are likely to continue at your site for at least three (3) months based on historic seasonal averages. If unexpected weather conditions (such as above freezing temperatures or rain

events) make discharges likely, you must immediately resume your regular inspection frequency as described in Parts 4.2 and 4.3, as applicable;

- ii. Land disturbances have been suspended; and
 - iii. All disturbed areas of the site have been stabilized in accordance with Part 2.2.14a.
- b. If you are still conducting construction activities during frozen conditions, you may reduce your inspection frequency to once per month if:
- i. Runoff is unlikely due to continuous frozen conditions that are likely to continue at your site for at least three (3) months based on historic seasonal averages. If unexpected weather conditions (such as above freezing temperatures or rain events) make discharges likely, you must immediately resume your regular inspection frequency as described in Parts 4.2 and 4.3, as applicable; and
 - ii. Except for areas in which you are actively conducting construction activities, disturbed areas of the site have been stabilized in accordance with Part 2.2.14a.

You must document the beginning and ending dates of this period in your SWPPP.

4.5 AREAS THAT MUST BE INSPECTED

During your site inspection, you must at a minimum inspect the following areas of your site:

- 4.5.1 All areas that have been cleared, graded, or excavated and that have not yet completed stabilization consistent with Part 2.2.14a;
- 4.5.2 All stormwater controls (including pollution prevention controls) installed at the site to comply with this permit;⁵⁰
- 4.5.3 Material, waste, borrow, and equipment storage and maintenance areas that are covered by this permit;
- 4.5.4 All areas where stormwater typically flows within the site, including drainageways designed to divert, convey, and/or treat stormwater;
- 4.5.5 All points of discharge from the site; and
- 4.5.6 All locations where stabilization measures have been implemented.

You are not required to inspect areas that, at the time of the inspection, are considered unsafe to your inspection personnel.

4.6 REQUIREMENTS FOR INSPECTIONS

During your site inspection, you must at a minimum:

- 4.6.1 Check whether all stormwater controls (*i.e.*, *erosion and sediment controls and pollution prevention controls*) are properly installed, appear to be operational, and are working as intended to minimize pollutant discharges;
- 4.6.2 Check for the presence of conditions that could lead to spills, leaks, or other accumulations of pollutants on the site;

⁵⁰ This includes the requirement to inspect for sediment that has been tracked out from the site onto paved roads, sidewalks, or other paved areas consistent with Part 2.2.4.

- 4.6.3 Identify any locations where new or modified stormwater controls are necessary to meet the requirements of Parts 2 and/or 3;
 - 4.6.4 Check for signs of visible erosion and sedimentation (*i.e.*, *sediment deposits*) that have occurred and are attributable to your discharge at points of discharge and, if applicable, the banks of any waters of the U.S. flowing within or immediately adjacent to the site;
 - 4.6.5 Identify any incidents of noncompliance observed;
 - 4.6.6 If a discharge is occurring during your inspection:
 - a. Identify all discharge points at the site; and
 - b. Observe and document the visual quality of the discharge, and take note of the characteristics of the stormwater discharge, including color; odor; floating, settled, or suspended solids; foam; oil sheen; and other indicators of stormwater pollutants.
 - 4.6.7 Based on the results of your inspection, complete any necessary maintenance under Part 2.1.4 and corrective action under Part 5.
 - 4.7 INSPECTION REPORT
 - 4.7.1 You must complete an inspection report within 24 hours of completing any site inspection. Each inspection report must include the following:
 - a. The inspection date;
 - b. Names and titles of personnel making the inspection;
 - c. A summary of your inspection findings, covering at a minimum the observations you made in accordance with Part 4.6, including any necessary maintenance or corrective actions;
 - d. If you are inspecting your site at the frequency specified in Part 4.2.2, Part 4.3, or Part 4.4.1b, and you conducted an inspection because of rainfall measuring 0.25 inches or greater, you must include the applicable rain gauge or weather station readings that triggered the inspection; and
 - e. If you determined that it is unsafe to inspect a portion of your site, you must describe the reason you found it to be unsafe and specify the locations to which this condition applies.
 - 4.7.2 Each inspection report must be signed in accordance with Appendix I, Part I.11 of this permit.
 - 4.7.3 You must keep a copy of all inspection reports at the site or at an easily accessible location, so that it can be made available at the time of an on-site inspection or upon request by EPA.
 - 4.7.4 You must retain all inspection reports completed for this Part for at least three (3) years from the date that your permit coverage expires or is terminated.
 - 4.8 INSPECTIONS BY EPA
- You must allow EPA, or an authorized representative of EPA, to conduct the following activities at reasonable times. To the extent that you are utilizing shared controls that are

not on site to comply with this permit, you must make arrangements for EPA to have access at all reasonable times to those areas where the shared controls are located.

- 4.8.1 Enter onto all areas of the site, including any construction support activity areas covered by this permit, any off-site areas where shared controls are utilized to comply with this permit, discharge locations, adjoining waterbodies, and locations where records are kept under the conditions of this permit;
- 4.8.2 Access and copy any records that must be kept under the conditions of this permit;
- 4.8.3 Inspect your construction site, including any construction support activity areas covered by this permit (see Part 1.2.1c), any stormwater controls installed and maintained at the site, and any off-site shared controls utilized to comply with this permit; and
- 4.8.4 Sample or monitor for the purpose of ensuring compliance.

5 CORRECTIVE ACTIONS

5.1 CONDITIONS TRIGGERING CORRECTIVE ACTION.

You must take corrective action to address any of the following conditions identified at your site:

- 5.1.1 A stormwater control needs repair or replacement (beyond routine maintenance required under Part 2.1.4); or
- 5.1.2 A stormwater control necessary to comply with the requirements of this permit was never installed, or was installed incorrectly; or
- 5.1.3 Your discharges are causing an exceedance of applicable water quality standards; or
- 5.1.4 A prohibited discharge has occurred (see Part 1.3).

5.2 CORRECTIVE ACTION DEADLINES

For any corrective action triggering conditions in Part 5.1, you must:

- 5.2.1 Immediately take all reasonable steps to address the condition, including cleaning up any contaminated surfaces so the material will not discharge in subsequent storm events;
- 5.2.2 When the problem does not require a new or replacement control or significant repair, the corrective action must be completed by the close of the next business day;
- 5.2.3 When the problem requires a new or replacement control or significant repair, install the new or modified control and make it operational, or complete the repair, by no later than seven (7) calendar days from the time of discovery. If it is infeasible to complete the installation or repair within seven (7) calendar days, you must document in your records why it is infeasible to complete the installation or repair within the 7-day timeframe and document your schedule for installing the stormwater control(s) and making it operational as soon as feasible after the 7-day timeframe. Where these actions result in changes to any of the stormwater controls or procedures documented in your SWPPP, you must modify your SWPPP accordingly within seven (7) calendar days of completing this work.

5.3 CORRECTIVE ACTION REQUIRED BY EPA

You must comply with any corrective actions required by EPA as a result of permit violations found during an inspection carried out under Part 4.8.

5.4 CORRECTIVE ACTION REPORT

For each corrective action taken in accordance with this Part, you must complete a report in accordance with the following:

- 5.4.1 Within 24 hours of identifying the corrective action condition, document the specific condition and the date and time it was identified.
- 5.4.2 Within 24 hours of completing the corrective action (in accordance with the deadlines in Part 5.2), document the actions taken to address the condition, including whether any SWPPP modifications are required.
- 5.4.3 Each corrective action report must be signed in accordance with Appendix I, Part I.11 of this permit.
- 5.4.4 You must keep a copy of all corrective action reports at the site or at an easily accessible location, so that it can be made available at the time of an on-site inspection or upon request by EPA.
- 5.4.5 You must retain all corrective action reports completed for this Part for at least three (3) years from the date that your permit coverage expires or is terminated.

6 STAFF TRAINING REQUIREMENTS

Each operator, or group of multiple operators, must assemble a “stormwater team” to carry out compliance activities associated with the requirements in this permit.

- 6.1 Prior to the commencement of construction activities, you must ensure that the following personnel⁵¹ on the stormwater team understand the requirements of this permit and their specific responsibilities with respect to those requirements:
 - a. Personnel who are responsible for the design, installation, maintenance, and/or repair of stormwater controls (including pollution prevention controls);
 - b. Personnel responsible for the application and storage of treatment chemicals (if applicable);
 - c. Personnel who are responsible for conducting inspections as required in Part 4.1; and
 - d. Personnel who are responsible for taking corrective actions as required in Part 5.
- 6.2 You are responsible for ensuring that all activities on the site comply with the requirements of this permit. You are not required to provide or document formal training for subcontractors or other outside service providers, but you must ensure that such personnel understand any requirements of this permit that may be affected by the work they are subcontracted to perform.

⁵¹ If the person requiring training is a new employee who starts after you commence construction activities, you must ensure that this person has the proper understanding as required above prior to assuming particular responsibilities related to compliance with this permit.

For emergency-related projects, the requirement to train personnel prior to commencement of construction activities does not apply, however, such personnel must have the required training prior to NOI submission.

- 6.3 At a minimum, members of the stormwater team must be trained to understand the following if related to the scope of their job duties (e.g., *only personnel responsible for conducting inspections need to understand how to conduct inspections*):
- a. The permit deadlines associated with installation, maintenance, and removal of stormwater controls and with stabilization;
 - b. The location of all stormwater controls on the site required by this permit and how they are to be maintained;
 - c. The proper procedures to follow with respect to the permit's pollution prevention requirements; and
 - d. When and how to conduct inspections, record applicable findings, and take corrective actions.

6.4 Each member of the stormwater team must have easy access to an electronic or paper copy of applicable portions of this permit, the most updated copy of your SWPPP, and other relevant documents or information that must be kept with the SWPPP.

7 STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

7.1 GENERAL REQUIREMENTS

All operators associated with a construction site under this permit must develop a SWPPP consistent with the requirements in Part 7 prior to their submittal of the NOI.^{52, 53} The SWPPP must be kept up-to-date throughout coverage under this permit.

If a SWPPP was prepared under a previous version of this permit, the operator must **review and update the SWPPP to ensure that this permit's requirements are addressed** prior to submitting an NOI for coverage under this permit.

7.2 SWPPP CONTENTS

At a minimum, the SWPPP must include the information specified in this Part and as

⁵² The SWPPP does not establish the effluent limits that apply to your site's discharges; these limits are established in this permit in Parts 2 and 3.

⁵³ You have the option of developing a group SWPPP where you are one of several operators at your site. For instance, if both the owner and the general contractor of the construction site are operators and thus are both required to obtain a permit, the owner may be the party undertaking SWPPP development, and the general contractor (or any other operator at the site) can choose to use this same SWPPP, as long as **the SWPPP addresses the general contractor's (or other operator's) scope of construction work and functions to be performed under the SWPPP**. Regardless of whether there is a group SWPPP or several individual SWPPPs, all operators would be jointly and severally liable for compliance with the permit.

Where there are multiple operators associated with the same site through a common plan of development or sale, operators may assign to themselves various permit-related functions under the SWPPP provided that each SWPPP, or a group SWPPP, documents which operator will perform each function under the SWPPP. However, dividing the functions to be performed under each SWPPP, or a single group SWPPP, does not relieve an individual operator from liability for complying with the permit should another operator fail to implement any measures that are necessary for that individual operator to comply with the permit, e.g., the installation and maintenance of any shared controls. In addition, all operators must ensure, either directly or through coordination with other operators, that their activities do not cause a violation and/or **render any other operators' controls and/or any shared controls ineffective**. All operators who rely on a shared control to comply with the permit are jointly and severally liable for violations of the permit resulting from the failure to properly install, operate and/or maintain the shared control.

specified in other parts of this permit.

- 7.2.1 All Site Operators. Include a list of all other operators who will be engaged in construction activities at the site, and the areas of the site over which each operator has control.
- 7.2.2 Stormwater Team. Identify the personnel (by name or position) that are part of the stormwater team, as well as their individual responsibilities, including which members are responsible for conducting inspections.
- 7.2.3 Nature of Construction Activities.⁵⁴ Include the following:
- a. A description of the nature of your construction activities, including the age or dates of past renovations for structures that are undergoing demolition;
 - b. The size of the property (in acres or length in miles if a linear construction site);
 - c. The total area expected to be disturbed by the construction activities (to the nearest quarter acre or nearest quarter mile if a linear construction site);
 - d. A description of any on-site and off-site construction support activity areas covered by this permit (see Part 1.2.1c);
 - e. The maximum area expected to be disturbed at any one time, including on-site and off-site construction support activity areas;
 - f. A description and projected schedule for the following:
 - i. Commencement of construction activities in each portion of the site, including clearing and grubbing, mass grading, demolition activities, site preparation (i.e., *excavating, cutting and filling*), final grading, and creation of soil and vegetation stockpiles requiring stabilization;
 - ii. Temporary or permanent cessation of construction activities in each portion of the site;
 - iii. Temporary or final stabilization of exposed areas for each portion of the site; and
 - iv. Removal of temporary stormwater controls and construction equipment or vehicles, and the cessation of construction-related pollutant-generating activities.
 - g. A list and description of all pollutant-generating activities⁵⁵ on the site. For each pollutant-generating activity, include an inventory of pollutants or pollutant constituents (e.g., *sediment, fertilizers, pesticides, paints, caulks, sealants, fluorescent light ballasts, contaminated substrates, solvents, fuels*) associated with that activity, which could be discharged in stormwater from your construction site. You must take into account where potential spills and leaks could occur that contribute pollutants to stormwater discharges, and any known hazardous or toxic substances, such as PCBs and asbestos, that will be disturbed or removed during construction;
 - h. Business days and hours for the project;
 - i. If you are conducting construction activities in response to a public emergency (see Part 1.4), a description of the cause of the public emergency (e.g., *mud slides*,

⁵⁴ If plans change due to unforeseen circumstances or for other reasons, the requirement to describe the sequence and estimated dates of construction activities is not meant to "lock in" the operator to meeting these dates. When departures from initial projections are necessary, this should be documented in the SWPPP itself, or in associated records, as appropriate.

⁵⁵ Examples of pollutant-generating activities include paving operations; concrete, paint, and stucco washout and waste disposal; solid waste storage and disposal; and dewatering operations.

- earthquake, extreme flooding conditions, widespread disruption in essential public services), information substantiating its occurrence (e.g., state disaster declaration or similar state or local declaration), and a description of the construction necessary to reestablish affected public services.*
- 7.2.4 Site Map. Include a legible map, or series of maps, showing the following features of the site:
- a. Boundaries of the property;
 - b. Locations where construction activities will occur, including:
 - i. Locations where earth-disturbing activities will occur (note any phasing), including any demolition activities;
 - ii. Approximate slopes before and after major grading activities (note any steep slopes (as defined in Appendix A));
 - iii. Locations where sediment, soil, or other construction materials will be stockpiled;
 - iv. Any water of the U.S. crossings;
 - v. Designated points where vehicles will exit onto paved roads;
 - vi. Locations of structures and other impervious surfaces upon completion of construction; and
 - vii. Locations of on-site and off-site construction support activity areas covered by this permit (see Part 1.2.1c).
 - c. Locations of all waters of the U.S. within and one mile downstream of the site's discharge point. Also identify if any are listed as impaired, or are identified as a Tier 2, Tier 2.5, or Tier 3 water;
 - d. Areas of federally listed critical habitat within the site and/or at discharge locations;
 - e. Type and extent of pre-construction cover on the site (e.g., vegetative cover, forest, pasture, pavement, structures);
 - f. Drainage patterns of stormwater and authorized non-stormwater before and after major grading activities;
 - g. Stormwater and authorized non-stormwater discharge locations, including:
 - i. Locations where stormwater and/or authorized non-stormwater will be discharged to storm drain inlets;⁵⁶ and
 - ii. Locations where stormwater or authorized non-stormwater will be discharged directly to waters of the U.S.
 - h. Locations of all potential pollutant-generating activities identified in Part 7.2.3g;
 - i. Locations of stormwater controls, including natural buffer areas and any shared controls utilized to comply with this permit; and
 - j. Locations where polymers, flocculants, or other treatment chemicals will be used and stored.

⁵⁶ The requirement to show storm drain inlets in the immediate vicinity of the site on your site map only applies to those inlets that are easily identifiable from your site or from a publicly accessible area immediately adjacent to your site.

7.2.5 Non-Stormwater Discharges. Identify all authorized non-stormwater discharges in Part 1.2.2 that will or may occur.

7.2.6 Description of Stormwater Controls.

- a. For each of the Part 2.2 erosion and sediment control effluent limits, Part 2.3 pollution prevention effluent limits, and Part 2.4 construction dewatering effluent limits, as applicable to your site, you must include the following:
- i. A description of the specific control(s) to be implemented to meet the effluent limit;
 - ii. Any applicable stormwater control design specifications (including references to any manufacturer specifications and/or erosion and sediment control manuals/ordinances relied upon);⁵⁷
 - iii. Routine stormwater control maintenance specifications; and
 - iv. The projected schedule for stormwater control installation/implementation.
- b. You must also include any of the following additional information as applicable.
- i. Natural buffers and/or equivalent sediment controls (see Part 2.2.1 and Appendix G). You must include the following:
 - (a) The compliance alternative to be implemented;
 - (b) If complying with alternative 2, the width of natural buffer retained;
 - (c) If complying with alternative 2 or 3, the erosion and sediment control(s) you will use to achieve an equivalent sediment reduction, and any information you relied upon to demonstrate the equivalency;
 - (d) If complying with alternative 3, a description of why it is infeasible for you to provide and maintain an undisturbed natural buffer of any size;
 - (e) For "linear construction sites" where it is infeasible to implement compliance alternative 1, 2, or 3, a rationale for this determination, and a description of any buffer width retained and/or supplemental erosion and sediment controls installed; and
 - (f) A description of any disturbances that are exempt under Part 2.2.1 that occur within 50 feet of a water of the U.S.
 - ii. Perimeter controls **for a "linear construction site"** (see Part 2.2.3). For areas where perimeter controls are not feasible, include documentation to support this determination and a description of the other practices that will be implemented to minimize discharges of pollutants in stormwater associated with construction activities.

Note: Routine maintenance specifications for perimeter controls documented in the SWPPP must include the Part 2.2.3a requirement that sediment be removed before it has accumulated to one-half of the above-ground height of any perimeter control.
 - iii. Sediment track-out controls (see Parts 2.2.4b and 2.2.4c). Document the specific stabilization techniques and/or controls that will be implemented to remove sediment prior to vehicle exit.
 - iv. Sediment basins (see Part 2.2.12). In circumstances where it is infeasible to utilize outlet structures that withdraw water from the surface, include documentation to

⁵⁷ Design specifications may be found in manufacturer specifications and/or in applicable erosion and sediment control manuals or ordinances. Any departures from such specifications must reflect good engineering practice and must be explained in the SWPPP.

support this determination, including the specific conditions or time periods when this exception will apply.

- v. Treatment chemicals (see Part 2.2.13), you must include the following:
 - (a) A listing of the soil types that are expected to be exposed during construction in areas of the project that will drain to chemical treatment systems. Also include a listing of soil types expected to be found in fill material to be used in these same areas, to the extent you have this information prior to construction;
 - (b) A listing of all treatment chemicals to be used at the site and why the selection of these chemicals is suited to the soil characteristics of your site;
 - (c) If the applicable EPA Regional Office authorized you to use cationic treatment chemicals for sediment control, include the specific controls and implementation procedures designed to ensure that your use of cationic treatment chemicals will not lead to an exceedance of water quality standards;
 - (d) The dosage of all treatment chemicals to be used at the site or the methodology to be used to determine dosage;
 - (e) Information from any applicable Safety Data Sheet (SDS);
 - (f) Schematic drawings of any chemically enhanced stormwater controls or chemical treatment systems to be used for application of the treatment chemicals;
 - (g) A description of how chemicals will be stored consistent with Part 2.2.13c;
 - (h) References to applicable state or local requirements affecting the use of **treatment chemicals, and copies of applicable manufacturer's specifications** regarding the use of your specific treatment chemicals and/or chemical treatment systems; and
 - (i) A description of the training that personnel who handle and apply chemicals have received prior to permit coverage, or will receive prior to use of the treatment chemicals at your site.
- vi. Stabilization measures (see Part 2.2.14). You must include the following:
 - (a) The specific vegetative and/or non-vegetative practices that will be used;
 - (b) The stabilization deadline that will be met in accordance with Part 2.2.14.a.i-ii;
 - (c) If complying with the deadlines for sites in arid, semi-arid, or drought-stricken areas, the beginning and ending dates of the seasonally dry period and the schedule you will follow for initiating and completing vegetative stabilization; and
 - (d) If complying with deadlines for sites affected by unforeseen circumstances that delay the initiation and/or completion of vegetative stabilization, document the circumstances and the schedule for initiating and completing stabilization.
- vii. Spill prevention and response procedures (see Part 1.3.5 and Part 2.3). You must include the following:
 - (a) Procedures for expeditiously stopping, containing, and cleaning up spills, leaks, and other releases. Identify the name or position of the employee(s)

responsible for detection and response of spills or leaks; and

- (b) Procedures for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity consistent with Part 2.3.6 and established under either 40 CFR 110, 40 CFR 117, or 40 CFR 302, occurs during a 24-hour period. Contact information must be in locations that are readily accessible and available to all employees.

You may also reference the existence of Spill Prevention Control and Countermeasure (SPCC) plans developed for the construction activity under Part 311 of the CWA, or spill control programs otherwise required by an NPDES permit for the construction activity, provided that you keep a copy of that other plan on site.⁵⁸

- viii. Waste management procedures (see Part 2.3.3). Describe the procedures you will follow for handling, storing and disposing of all wastes generated at your site consistent with all applicable federal, state, tribal, and local requirements, including clearing and demolition debris, sediment removed from the site, construction and domestic waste, hazardous or toxic waste, and sanitary waste.
 - ix. Application of fertilizers (see Part 2.3.5). Document any departures from the manufacturer specifications where appropriate.
- 7.2.7 Procedures for Inspection, Maintenance, and Corrective Action. Describe the procedures you will follow for maintaining your stormwater controls, conducting site inspections, and, where necessary, taking corrective actions, in accordance with Part 2.1.4, Part 4, and Part 5 of this permit. Also include:
- a. The inspection schedule you will follow, which is based on whether your site is subject to Part 4.2 or Part 4.3, or whether your site qualifies for any of the reduced inspection frequencies in Part 4.4;
 - b. If you will be conducting inspections in accordance with the inspection schedule in Part 4.2.2, Part 4.3, or Part 4.4.1b, the location of the rain gauge or the address of the weather station you will be using to obtain rainfall data;
 - c. If you will be reducing your inspection frequency in accordance with Part 4.4.1b, the beginning and ending dates of the seasonally defined arid period for your area or the valid period of drought;
 - d. If you will be reducing your inspection frequency in accordance with Part 4.4.3, the beginning and ending dates of frozen conditions on your site; and
 - e. Any maintenance or inspection checklists or other forms that will be used.
- 7.2.8 Staff Training. Include documentation that the required personnel were, or will be, trained in accordance with Part 6.
- 7.2.9 Compliance with Other Requirements.
- a. Threatened and Endangered Species Protection. Include documentation required in Appendix D supporting your eligibility with regard to the protection of threatened and endangered species and designated critical habitat.

⁵⁸ Even if you already have an SPCC or other spill prevention plan in existence, your plans will only be considered adequate if they meet all of the requirements of this Part, either as part of your existing plan or supplemented as part of the SWPPP.

- b. Historic Properties. Include documentation required in Appendix E supporting your eligibility with regard to the protection of historic properties.
 - c. Safe Drinking Water Act Underground Injection Control (UIC) Requirements for Certain Subsurface Stormwater Controls. If you are using any of the following stormwater controls at your site, document any contact you have had with the applicable state agency⁵⁹ or EPA Regional Office responsible for implementing the requirements for **underground injection wells in the Safe Drinking Water Act and EPA's implementing regulations at 40 CFR 144 -147**. Such controls would generally be considered Class V UIC wells:
 - i. Infiltration trenches (if stormwater is directed to any bored, drilled, driven shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system);
 - ii. Commercially manufactured pre-cast or pre-built proprietary subsurface detention vaults, chambers, or other devices designed to capture and infiltrate stormwater flow; and
 - iii. Drywells, seepage pits, or improved sinkholes (if stormwater is directed to any bored, drilled, driven shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system).
- 7.2.10 SWPPP Certification. You must sign and date your SWPPP in accordance with Appendix I, Part I.11.
- 7.2.11 Post-Authorization Additions to the SWPPP. Once you are authorized for coverage under this permit, you must include the following documents as part of your SWPPP:
- a. A copy of your NOI submitted to EPA along with any correspondence exchanged between you and EPA related to coverage under this permit;
 - b. A copy of the acknowledgment letter you receive from NeT assigning your NPDES ID (*i.e.*, *permit tracking number*);
 - c. A copy of this permit (an electronic copy easily available to the stormwater team is also acceptable).

7.3 ON-SITE AVAILABILITY OF YOUR SWPPP

You must keep a current copy of your SWPPP at the site or at an easily accessible location so that it can be made available at the time of an on-site inspection or upon request by EPA; a state, tribal, or local agency approving stormwater management plans; the operator of a storm sewer system receiving discharges from the site; or representatives of the U.S. Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS).

EPA may provide access to portions of your SWPPP to a member of the public upon request. Confidential Business Information (CBI) will be withheld from the public, but may not be withheld from EPA, USFWS, or NMFS.⁶⁰

⁵⁹ For state UIC program contacts, refer to the following EPA website: <https://www.epa.gov/uic>.

⁶⁰ Information covered by a claim of confidentiality will be disclosed by EPA only to the extent of, and by means of, the procedures set forth in 40 CFR Part 2, Subpart B. In general, submitted information protected by a business confidentiality claim may be disclosed to other employees, officers, or authorized representatives of the United States concerned with implementing the CWA. The authorized representatives, including employees of other executive branch agencies, may review CBI during the course of reviewing draft regulations.

If an on-site location is unavailable to keep the SWPPP when no personnel are present, **notice of the plan's location must be posted near the main entrance of your construction site.**

7.4 SWPPP MODIFICATIONS

- 7.4.1 You must modify your SWPPP, including the site map(s), within seven (7) days of any of the following conditions:
- a. Whenever new operators become active in construction activities on your site, or you make changes to your construction plans, stormwater controls, or other activities at your site that are no longer accurately reflected in your SWPPP. This includes changes made in response to corrective actions triggered under Part 5. You do not need to modify your SWPPP if the estimated dates in Part 7.2.3f change during the course of construction;
 - b. To reflect areas on your site map where operational control has been transferred (and the date of transfer) since initiating permit coverage;
 - c. If inspections or investigations by EPA or its authorized representatives determine that SWPPP modifications are necessary for compliance with this permit;
 - d. Where EPA determines it is necessary to install and/or implement additional controls at your site in order to meet the requirements of this permit, the following must be included in your SWPPP:
 - i. A copy of any correspondence describing such measures and requirements; and
 - ii. A description of the controls that will be used to meet such requirements.
 - e. To reflect any revisions to applicable federal, state, tribal, or local requirements that affect the stormwater controls implemented at the site; and
 - f. If applicable, if a change in chemical treatment systems or chemically enhanced stormwater control is made, including use of a different treatment chemical, different dosage rate, or different area of application.
- 7.4.2 You must maintain records showing the dates of all SWPPP modifications. The records must include the name of the person authorizing each change (see Part 7.2.10 above) and a brief summary of all changes.
- 7.4.3 All modifications made to the SWPPP consistent with Part 7.4 must be authorized by a person identified in Appendix I, Part I.11.b.
- 7.4.4 Upon determining that a modification to your SWPPP is required, if there are multiple operators covered under this permit, you must immediately notify any operators who may be impacted by the change to the SWPPP.

8 HOW TO TERMINATE COVERAGE

Until you terminate coverage under this permit, you must comply with all conditions and effluent limitations in the permit. To terminate permit coverage, you must submit to EPA a complete and accurate Notice of Termination (NOT), which certifies that you have met the requirements for terminating in Part 8.

8.1 MINIMUM INFORMATION REQUIRED IN NOT

- 8.1.1 NPDES ID (*i.e.*, *permit tracking number*) provided by EPA when you received coverage under this permit;

- 8.1.2 Basis for submission of the NOT (see Part 8.2);
- 8.1.3 Operator contact information;
- 8.1.4 Name of site and address (or a description of location if no street address is available); and
- 8.1.5 NOT certification.

8.2 CONDITIONS FOR TERMINATING CGP COVERAGE

You must terminate CGP coverage only if one or more of the following conditions has occurred:

- 8.2.1 You have completed all construction activities at your site and, if applicable, construction support activities covered by this permit (see Part 1.2.1c), and you have met the following requirements:
 - a. For any areas that (1) were disturbed during construction, (2) are not covered over by permanent structures, and (3) over which you had control during the construction activities, you have met the requirements for final vegetative or non-vegetative stabilization in Part 2.2.14b;
 - b. You have removed and properly disposed of all construction materials, waste and waste handling devices, and have removed all equipment and vehicles that were used during construction, unless intended for long-term use following your termination of permit coverage;
 - c. You have removed all stormwater controls that were installed and maintained during construction, except those that are intended for long-term use following your termination of permit coverage or those that are biodegradable; and
 - d. You have removed all potential pollutants and pollutant-generating activities associated with construction, unless needed for long-term use following your termination of permit coverage; or
- 8.2.2 You have transferred control of all areas of the site for which you are responsible under this permit to another operator, and that operator has submitted an NOI and obtained coverage under this permit; or
- 8.2.3 Coverage under an individual or alternative general NPDES permit has been obtained.

8.3 HOW TO SUBMIT YOUR NOT

You must use EPA's NPDES eReporting Tool (NeT) to electronically prepare and submit your NOT for the 2017 CGP.

To access NeT, go to <https://www.epa.gov/npdes/stormwater-discharges-construction-activities#ereporting>.

Waivers from electronic reporting may be granted as specified in Part 1.4.1. If the EPA Regional Office grants you approval to use a paper NOT, and you elect to use it, you must complete the form in Appendix K.

8.4 DEADLINE FOR SUBMITTING THE NOT

You must submit your NOT within 30 calendar days after any one of the conditions in Part 8.2 occurs.

8.5 EFFECTIVE DATE OF TERMINATION OF COVERAGE

Your authorization to discharge under this permit terminates at midnight of the calendar day that a complete NOT is submitted to EPA.

9 PERMIT CONDITIONS APPLICABLE TO SPECIFIC STATES, INDIAN COUNTRY LANDS, OR TERRITORIES

The provisions in this Part provide modifications or additions to the applicable conditions of this permit to reflect specific additional conditions required as part of the state or tribal CWA Section 401 certification process, or the Coastal Zone Management Act (CZMA) certification process, or as otherwise established by the permitting authority. The specific additional revisions and requirements only apply to activities in those specific states, Indian country, and areas in certain states subject to construction projects by Federal Operators. States, Indian country, and areas subject to construction by Federal Operators not included in this Part do not have any modifications or additions to the applicable conditions of this permit.

9.1 EPA Region 1

9.1.1 NHR100000 State of New Hampshire

- a. If you disturb 100,000 square feet or more of contiguous area, you must also apply for an Alteration of Terrain (AoT) permit from DES pursuant to RSA 485- A:17 and Env-Wq 1500. This requirement also applies to a lower disturbance threshold of 50,000 square feet or more when construction occurs within the protected shoreline under the Shoreland Water Quality Protection Act (see RSA 483-B and Env-Wq 1400). A permit application must also be filed if your project disturbs an area of greater than 2,500 square feet, is within 50 feet of any surface water, and has a flow path of 50 feet or longer disturbing a grade of 25 percent or greater. Project sites with disturbances smaller than those discussed above, that have the potential to adversely affect state surface waters, are subject to the conditions of an AoT General Permit by Rule.
- b. You must determine that any excavation dewatering discharges are not contaminated before they will be authorized as an allowable non-stormwater discharge under this permit (see Part 1.2.2). The water is considered uncontaminated if there is no groundwater contamination within 1,000 feet of the groundwater dewatering location. Information on groundwater contamination can be generated over the Internet via the NHDES web site <http://des.nh.gov/> by using the One Stop Data Mapper at <http://des.nh.gov/onestop/gis.htm>. If it is determined that the groundwater to be dewatered is near a remediation or other waste site you must apply for the Remediation General Permit (see <https://www3.epa.gov/region1/npdes/rgp.html>.)
- c. You must treat any uncontaminated excavation dewatering discharges as necessary to remove suspended solids and turbidity. The discharges must be sampled at least once per week during weeks when discharges occur. Samples must be analyzed for total suspended solids (TSS) or turbidity and must meet monthly average and daily maximum limits of 50 milligrams per liter (mg/L) and 100 mg/L, respectively for TSS or 33 mg/l and 67 mg/l, respectively for turbidity. TSS (a.k.a. Residue, Nonfilterable) or turbidity sampling and analysis must be performed in accordance with Tables IB and II in 40 CFR 136.3 (http://www.ecfr.gov/cgi-bin/text-idx?SID=0243e3c4283cbd7d8257eb6afc7ce9a2&mc=true&node=se40.25.136_13&r

[gn=div8](#)). Records of any sampling and analysis must be maintained and kept with the SWPPP for at least three years after final site stabilization.

- d. Construction site owners and operators must consider opportunities for post-construction groundwater recharge using infiltration best management practices (BMPs) during site design and preparation of the SWPPP. If your construction site is in a town that is required to obtain coverage under the NPDES General Permit for discharges from Municipal Separate Storm Sewer Systems (MS4) you may be required to use such practices. The SWPPP must include a description of any on-site infiltration that will be installed as a post-construction stormwater management measure or reasons for not employing such measures such as 1) The facility is located in a wellhead protection area as defined in RSA 485- C:2; or 2) The facility is located in an area where groundwater has been reclassified to GAA, GAI or GA2 pursuant to RSA 485-C and Env-DW 901; or 3) Any areas that would be exempt from the groundwater recharge requirements contained in Env-Wq 1507.04(e), including all land uses or activities considered to be a "High-load Area" (see Env-Wq 1502.26). For design considerations for infiltration measures see Volume II of the NH Stormwater Manual.
- e. Appendix F contains a list of Tier 2, or high quality waters. Although there is no official list of tier 2 waters, it can be assumed that all NH surface waters are tier 2 for turbidity unless 1) the surface water that you are proposing to discharge into is listed as impaired for turbidity in the states listing of impaired waters (see Surface Water Quality - Watershed Report Cards at http://des.nh.gov/organization/divisions/water/wmb/swqa/report_cards.htm) or 2) sampling upstream of the proposed discharge location shows turbidity values greater than 10 NTU. A single grab sample collected during dry weather (no precipitation within 48 hours) is acceptable.
- f. To ensure compliance with RSA 485-C, RSA 485-A, RSA 485-A:13, I(a), Env-Wq 1700 and Env-Wq 302, the following information may be requested by NHDES. This information must be kept on site unless you receive a written request from NHDES that it be sent to the address shown in Part 9.1.4 (g).
 - i. A site map required in Part 7.2.4, showing the type and location of all post-construction infiltration BMPs utilized at the facility or the reason(s) why none were installed;
 - ii. A list of all non-stormwater discharges that occur at the facility, including their source locations and the control measures being used (see Part 1.2.2).
 - iii. Records of sampling and analysis of TSS required for construction dewatering discharges (see Part 9.1.4 (c)).
- g. All required or requested documents must be sent to:

NH Department of Environmental Services, Wastewater Engineering Bureau,
Permits & Compliance Section
P.O. Box 95
Concord, NH 03302-0095

9.2 EPA Region 3

9.2.1 DCR100000 District of Columbia

- a. The permittee must comply with the District of Columbia Water Pollution Control Act of 1984, as amended, (D.C. Official Code §8-103.01 et seq.) and its

implementing regulations in Title 21, Chapters 11 and 19 of the District of Columbia Municipal Regulations. Nothing in this permit will be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to District of Columbia laws and regulations.

- b. The permittee must comply with the District of Columbia Stormwater Management, and Soil Erosion and Sediment Control in Chapter 5 of Title 21 of the District of Columbia Municipal Regulations.
 - c. The permittee must comply with the District of Columbia Flood Management control in Chapter 31 of Title 20 of the District of Columbia Municipal Regulations.
 - d. The Department may request a copy of the Stormwater Pollution Prevention Plan (SWPPP) and the permittee is required to submit the SWPPP to the Department with 14 days of such request. The Department may conduct an inspection of any facility covered by this permit to ensure compliance with District's law requirements including water quality.
- 9.2.2 DER10F000 Areas in the State of Delaware subject to construction by a Federal Operator
- a. Federal agencies engaging in construction activities must submit, to DNREC, a sediment and stormwater management (S&S) plan and obtain approval from DNREC in accordance with 7 Del. C. §4010, 7 DE Admin. Code 5101, and 7 DE Admin. Code 7201.
 - b. Federal agencies engaging in construction activities must provide for construction review by a certified construction reviewer in accordance with 7 Del. C. §§4010 & 4013 and 7 DE Admin. Code 5101, subsection 6.1.6.
 - c. Federal agencies engaging in construction activities must certify that all responsible personnel involved in the construction project will have attended the blue card training prior to initiation of any land disturbing activity – see 7 Del. C. §§ 4002 & 4014 and 7 DE Admin. Code 5101.

9.3 EPA Region 5

9.3.1 MNR10I000 Indian country within the State of Minnesota

9.3.1.1 Fond du Lac Band of Lake Superior Chippewa. The following conditions apply only to discharges on the Fond du Lac Band of Lake Superior Chippewa Reservation:

- a. A copy of the Stormwater Pollution Prevention Plan (SWPPP) must be submitted to the Office of Water Protection at least fifteen (15) days in advance of sending the Notice of Intent (NOI) to EPA. The SWPPP can be submitted electronically to richardgitar@FDLREZ.com or by hardcopy sent to:

Fond du Lac Reservation
Office of Water Protection
1720 Big Lake Road
Cloquet, MN 55720

CGP applicants are encouraged to work with the FDL Office of Water Protection in the identification of all proposed receiving.

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- b. Copies of the Notice of Intent (NOI) and the Notice of Termination (NOT) must be sent to the Fond du Lac Office of Water Protection at the same time they are submitted to EPA.
 - c. The turbidity limit shall NOT exceed 10% of natural background within the receiving water(s) as determined by Office of Water Protection staff.
 - d. Turbidity sampling must take place within 24 hours of a ½-inch or greater rainfall event. The results of the sampling must be reported to the Office of Water Protection within 7 days of the sample collection. All sample reporting must include the date and time, location (GPS: UTM/Zone 15), and NTU. CGP applicants are encouraged to work with the Office of Water Protection in determining the most appropriate location(s) for sampling.
 - e. Receiving waters with open water must be sampled for turbidity prior to any authorized discharge as determined by Office of Water Protection staff. This requirement only applies to receiving waters in which no ambient turbidity data exists.
 - f. This Certification does not pertain to any new discharge to Outstanding Reservation Resource Waters (ORRW) as described in §105 b.3. of the Fond du Lac Water Quality Standards (Ordinance #12/98, as amended). Although additional waters may be designated in the future, currently Perch Lake, Rice Portage Lake, Miller Lake, Deadfish Lake, and Jaskari Lake are designated as ORRWs. New dischargers wishing to discharge to an ORRW must obtain an individual permit from EPA for stormwater discharges from large and small construction activities.
 - g. All work shall be carried out in such a manner as will prevent violations of water quality criteria as stated in the Water Quality Standards of the Fond du Lac Reservation, Ordinance 12/98, as amended. This includes, but is not limited to, the prevention of any discharge that causes a condition in which visible solids, bottom deposits, or turbidity impairs the usefulness of water of the Fond du Lac Reservation for any of the uses designated in the Water Quality Standards of the Fond du Lac Reservation. These uses include wildlife, aquatic life, warm water fisheries, cold water fisheries, subsistence fishing (netting), primary contact recreation, secondary contact recreation, cultural, wild rice areas, aesthetic waters, agriculture, navigation, and commercial.
 - h. Appropriate steps shall be taken to ensure that petroleum products or other chemical pollutants are prevented from entering waters of the Fond du Lac Reservation. All spills must be reported to the appropriate emergency management agency (National Response Center AND the State Duty Officer), and measures shall be taken immediately to prevent the pollution of waters of the Fond du Lac Reservation, including groundwater. The Fond du Lac Office of Water Protection must also be notified immediately of any spill regardless of size.
 - i. This certification does not authorize impacts to cultural, historical, or archeological features or sites, or properties that may be eligible for such listing.
- 9.3.1.2 Grand Portage Band of Lake Superior Chippewa. The following conditions apply only to discharges on the Grand Portage Band of Lake Superior Chippewa Reservation:
- a. The CGP authorization is for construction activities that may occur within the exterior boundaries of the Grand Portage Reservation in accordance to the Grand Portage Land Use Ordinance. The CGP regulates stormwater discharges associated with construction sites of one acre or more in size. Only those activities specifically authorized by the CGP are authorized by this certification (the

“Certification”). This Certification does not authorize impacts to cultural, historical, or archeological features or sites, or properties that may be eligible for listing as such.

- b. All construction stormwater discharges authorized by the CGP must comply with the Water Quality Standards and Water Resources Ordinance, as well as Applicable Federal Standards (as defined in the Water Resources Ordinance). As such, appropriate steps must be taken to ensure that petroleum products or other chemical pollutants are prevented from entering the Waters of the Reservation (as defined in the Water Resources Ordinance). All spills must be reported to the appropriate emergency-management agency, and measures must be taken to prevent the pollution of the Waters of the Reservation, including groundwater.
- c. The 2017 CGP requires inspections and monitoring reports of the construction site stormwater discharges by a qualified person. Monitoring and inspection reports must comply with the minimum requirements contained in the 2017 CGP. The monitoring plan must be prepared and incorporated into the Stormwater Pollution Prevention Plan (the “SWPPP”). A copy of the SWPPP must be submitted to the Board at least 30 days in advance of sending the requisite Notice of Intent to EPA. The SWPPP should be sent to:

Grand Portage Environmental Resources Board
P.O. Box 428
Grand Portage, MN 55605

Copies of the Notice of Intent and Notice of Termination required under the CGP must be submitted to the Board at the address above at the same time they are submitted to the EPA.

- d. If requested by the Grand Portage Environmental Department, the permittee must provide additional information necessary for a case-by-case eligibility determination to assure compliance with the Water Quality Standards and any Applicable Federal Standards.
- e. Discharges that the Board has determined to be or that may reasonably be expected to be contributing to a violation of Water Quality Standards or Applicable Federal Standards are not authorized by this Certification.
- f. The Board retains full authority provided by the Water Resources Ordinance to ensure compliance with and to enforce the provisions of the Water Resource Ordinance and Water Quality Standards, Applicable Federal Standards, and these Certification conditions.
- g. Appeals related to Board actions taken in accordance with any of the preceding conditions may be heard by the Grand Portage Tribal Court.

- 9.3.2 WIR10I000 Indian country within the State of Wisconsin, except the Sokaogon Chippewa (Mole Lake) Community
- 9.3.2.1 Bad River Band of Lake Superior Tribe of Chippewa Indians: The following conditions apply only to discharges on the Bad River Band of the Lake Superior Tribe of Chippewa Indians Reservation:
- a. Only those activities specifically authorized by the CGP are authorized by this Certification. This Certification does not authorize impacts to cultural properties, or historical sites, or properties that may be eligible for listing as such.^{61, 62}
 - b. Operators are not eligible to obtain authorization under the CGP for all new discharges to an Outstanding Tribal Resource Water (or Tier 3 water).⁶³ Outstanding Tribal Resource Waters, or Tier 3 waters, include the following: Kakagon Slough and the lower wetland reaches of its tributaries that support wild rice, Kakagon River, Bad River Slough, Honest John Lake, Bog Lake, a portion of Bad River, from where it enters the Reservation through the confluence with the White River, and Potato River.⁶⁴
 - c. Projects utilizing cationic treatment chemicals⁶⁵ within the Bad River Reservation boundaries are not eligible for coverage under the CGP.⁶⁶
 - d. All projects which are eligible for coverage under the CGP and are located within the exterior boundaries of the Bad River Reservation shall be implemented in such a manner that is consistent with the Tribe's Water Quality Standards (WQS).⁶⁷
 - e. An operator proposing to discharge to an Outstanding Resource Water (or Tier 2.5 water) under the CGP must comply with the antidegradation provisions of the Tribe's WQS. Outstanding Resource Waters, or Tier 2.5 waters, include the following: a portion of Bad River, from downstream the confluence with the White River to Lake Superior, White River, Marengo River, Graveyard Creek, Bear Trap Creek, Wood Creek, Brunsweller River, Tyler Forks, Bell Creek, and Vaughn Creek.⁶⁸ The antidegradation demonstration materials described in provision E.4.iii. must be submitted to the following address:

Bad River Tribe's Natural Resources Department
Attn: Water Resources Specialist
P.O. Box 39
Odanah, WI 54861

⁶¹ Bad River Band of Lake Superior Tribe of Chippewa Indians Water Quality Standards adopted by Resolution No. 7-6-11-441 (hereafter, Tribe's WQS).

⁶² 36 C.F.R. § 800.16(l)(2).

⁶³ Tribe's WQS: See provisions E.3.ii. and E.4.iv.

⁶⁴ Tribe's WQS: See provision E.2.iii.

⁶⁵ See definition of cationic treatment chemicals in Appendix A of the CGP.

⁶⁶ Tribe's WQS: See provisions E.6.ii.a. and E.6.ii.c.

⁶⁷ See footnote 61.

⁶⁸ Tribe's WQS: See provision E.2.ii.

- f. An operator proposing to discharge to an Exceptional Resource Water (or Tier 2 water) under the CGP must comply with the antidegradation provisions of the Tribe's WQS. **Exceptional Resource Waters, or Tier 2 waters, include the following:** any surface water within the exterior boundaries of the Reservation that is not specifically classified as an Outstanding Resource Water (Tier 2.5 water) or an Outstanding Tribal Resource Water (Tier 3 water).⁶⁹ The antidegradation demonstration materials described in provision E.4.ii. must be submitted to the following address:

Bad River Tribe's Natural Resources Department
Attn: Water Resources Specialist
P.O. Box 39
Odanah, WI 54861

- g. A discharge to a surface water within the Bad River Reservation boundaries shall not cause or contribute to an exceedance of the turbidity criterion included in the Tribe's WQS, which states: **Turbidity shall not exceed 5 NTU over natural background turbidity when the background turbidity is 50 NTU or less, or turbidity shall not increase more than 10% when the background turbidity is more than 50 NTU.**⁷⁰
- h. All projects which are eligible for coverage under the CGP within the exterior boundaries of the Bad River Reservation must comply with the Bad River Reservation Wetland and Watercourse Protection Ordinance, or Chapter 323 of the Bad River Tribal Ordinances, including the erosion and sedimentation control, natural buffer, and stabilization requirements. Questions regarding Chapter 323 and requests for permit applications can be directed to the Wetlands Specialist in the Tribe's Natural Resources Department at (715) 682-7123 or wetlands@badriver-nsn.gov.
- i. An operator of a project, which is eligible for coverage under the CGP, that would result in an allowable discharge under the CGP occurring within the exterior boundaries of the Bad River Reservation must notify the Tribe prior to the commencing earth-disturbing activities.^{71, 72} The operator must submit a copy of the Notice of Intent (NOI) to the following addresses at the same time it is submitted to the U.S. EPA:

Bad River Tribe's Natural Resources Department
Attn: Water Resources Specialist
P.O. Box 39
Odanah, WI 54861

Bad River Tribe's Natural Resources Department
Attn: Tribal Historic Preservation Officer (THPO)
P.O. Box 39
Odanah, WI 54861

⁶⁹ Tribe's WQS: See provision E.2.i.

⁷⁰ Tribe's WQS: See provision E.7.iii.

⁷¹ See footnote 61.

⁷² See footnote 62.

The operator must also submit a copy of the Notice of Termination (NOT) to the above addresses at the same time it is submitted to the U.S. EPA.

- j. The THPO must be provided 30 days to comment on the project.⁷³
- k. The operator must obtain THPO concurrence in writing. This written concurrence will outline measures to be taken to prevent or mitigate effects to historic properties. For more information regarding the specifics of the cultural resources process, see 36 CFR Part 800. A best practice for an operator is to consult with the THPO during the planning stages of an undertaking.⁷⁴
- l. An operator of a project, which is eligible for coverage under the CGP, that would result in an allowable discharge under the CGP occurring within the exterior boundaries of the Bad River Reservation must submit a copy of the Stormwater Pollution Prevention Plan (SWPPP) to the following address at the same time as submitting the NOI:⁷⁵

Bad River Tribe's Natural Resources Department
Attn: Water Resources Specialist
P.O. Box 39
Odanah, WI 54861

- m. Any corrective action reports that are required under the CGP must be submitted to the following address within one (1) working day of the report completion:⁷⁶

Bad River Tribe's Natural Resources Department
P.O. Box 39
Odanah, WI 54861

- n. An operator shall be responsible for meeting any additional permit requirements imposed by the U.S. EPA necessary to comply with the Tribe's antidegradation policies if the discharge point is located upstream of waters designated by the Tribe.⁷⁷

9.3.2.2 Lac du Flambeau Band of Lake Superior Tribe of Chippewa Indians: The following conditions apply only to discharges on the Lac du Flambeau Band of the Lake Superior Tribe of Chippewa Indians Reservation:

- a. A copy of the Stormwater Pollution Prevention Plan must be submitted to the following office, for the Traival environmental review process, at least thirty (30) days in advance of sending the Notice of Intent (NOI) to EPA:

Lac du Flambeau
Tribal Land Management
P.O. Box 279

⁷³ 36 C.F.R. § 800.3(c)(4).

⁷⁴ 36 C.F.R. § 800.3(b).

⁷⁵ See footnote 61.

⁷⁶ See footnote 61.

⁷⁷ See footnote 61.

Lac du Flambeau, WI 54538

CGP applicants are encouraged to work with the LdF Water Resources Program in the identification of all proposed receiving waters.

- b. Copies of the NOI and the Notice of Termination (NOT) must be sent to the LdF Water Resources Program at the same time they are submitted to EPA.
- c. All work shall be carried out in such a manner as will prevent violations of water quality criteria as stated in the Water Quality Standards of the Lac du Flambeau Reservation. This includes, but is not limited to, the prevention of any discharge that cause a condition in which visible solids, bottom deposits, or turbidity impairs the usefulness of water of the Lac du Flambeau Reservation for any of the uses designated in the Water Quality Standards of the Lac du Flambeau Reservation.
- d. Appropriate steps shall be taken to ensure that petroleum products or other chemical pollutants are prevented from entering waters of the Lac du Flambeau Reservation. All spills must be reported to the appropriate emergency management agency, and measures shall be taken immediately to prevent the pollution of waters of the Lac du Flambeau reservation, including groundwater.
- e. This certification does not authorize impacts to cultural, historical, or archeological features or sites, or properties that may be eligible for such listing.
- f. Due to the significant ecological and cultural importance of the Lac du Flambeau Reservation, any operator requesting a permit for a point source discharge of pollutants (i.e., discharge) associated with the Stormwater Discharge will need a stormwater pollution prevention plan in place that does not violate Lac du Flambeau Water Quality Standards to protect Reservation Waters.

9.4 EPA Region 6

9.4.1 NMR100000 State of New Mexico, except Indian country

- a. 20.6.4.13 NMAC General Criteria states: ...Surface waters of the state shall be free of any water contaminant in such quantity and of such duration as may with reasonable probability injure human health, animal or plant life or property, or unreasonably interfere with public welfare or use with property:
- b. Bottom Deposits and Suspended or Settleable Solids:
 - i. Surface waters of the state shall be free of water contaminants including fine sediment particles (less than two millimeters in diameter), precipitates or organic or inorganic solids from other than natural causes that have settled to form layers on or fill the interstices of the natural or dominant substrate in quantities that damage or impair the normal growth, function or reproduction of aquatic life or significantly alter the physical or chemical properties of the bottom.
 - ii. Suspended or settleable solids from other than natural causes shall not be present in surface waters of the state in quantities that damage or impair the normal growth, function or reproduction of aquatic life or adversely affect other designated uses.

- c. Floating Solids, Oil and Grease: Surface waters of the state shall be free of oils, scum, grease and other floating materials resulting from other than natural causes that would cause the formation of a visible sheen or visible deposits on the bottom or shoreline, or would damage or impair the normal growth, function or reproduction of human, animal, plant or aquatic life.
- d. Color: Color-producing materials resulting from other than natural causes shall not create an aesthetically undesirable condition nor shall color impair the use of the water by desirable aquatic life presently common in surface waters of the state.
- e. Toxic Pollutants: Except as provided in 20.6.4.16 N MAC, surface waters of the state shall be free of toxic pollutants from other than natural causes in amounts, concentrations or combinations that affect the propagation of fish or that are toxic to humans, livestock or other animals, fish or other aquatic organisms, wildlife using aquatic environments for habitation or aquatic organisms for food, or that will or can reasonably be expected to bioaccumulate in tissues of fish, shellfish and other aquatic organisms to levels that will impair the health of aquatic organisms or wildlife or result in unacceptable tastes, odors or health risks to human consumers of aquatic organisms.
- f. Turbidity: Turbidity attributable to other than natural causes shall not reduce light transmission to the point that the normal growth, function or reproduction of aquatic life is impaired or that will cause substantial visible contrast with the natural appearance of the water. Activities or discharges shall not cause turbidity to increase more than 10 NTU over background turbidity when the background turbidity, measured at a point immediately upstream of the activity, is 50 NTU or less, nor to increase more than 20 percent when the background turbidity is more than 50 NTU. However, limited-duration turbidity increases caused by dredging, construction or other similar activities may be allowed provided all practicable turbidity control techniques have been applied and all appropriate permits, certifications and approvals have been obtained.
- g. Total Dissolved Solids (TDS): TDS attributable to other than natural causes shall not damage or impair the normal growth, function or reproduction of animal, plant or aquatic life. TDS shall be measured by either the "calculation method" (sum of constituents) or the filterable residue method. Approved test procedures for these determinations are set forth in 20.6.4.14 NMAC.
- h. Dissolved Gases: Surface waters of the state shall be free of nitrogen and other dissolved gases at levels above 110 percent saturation when this supersaturation is attributable to municipal, industrial or other discharges.
- i. 20.6.4.52 NMAC: *PECOS RIVER BASIN: In order to protect existing and designated uses, it is a goal of the state of New Mexico to prevent increases in TDS in the Pecos River above the following benchmark values, which are expressed as flow-weighted, annual average concentrations, at three USGS gauging stations: at Santa Rosa 500 mg/L; near Artesia 2,700 mg/L; and near Malaga 3,600 mg/l. The benchmark values serve to guide state action. They are adopted pursuant to the New Mexico Water Quality Act, not the Clean Water Act.*
- j. 20.6.4.54 NMAC: *COLORADO RIVER BASIN: For the tributaries of the Colorado river system, the state of New Mexico will cooperate with the Colorado river basin states and the federal government to support and implement the salinity policy and program outlined in the most current "review, water quality standards for salinity, Colorado river system" or equivalent report by the Colorado river salinity control forum.*

- k. Segment-specific criteria across the state specify numeric limits for TDS, sulfate and chloride depending on the receiving waterbody, and numeric constituent specific values in 20.6.4.900 NMAC also apply depending on the designated use of the waterbody.
- l. If construction dewatering activities are anticipated at a site, permittees must complete the following steps:
 - i. Investigative information must be documented in the facility SWPPP.
 - ii. Refer to the GWQB Mapper at <https://gis.web.env.nm.gov/GWQB/> AND the PSTB Mapper (Go Mapper) at <https://gis.web.env.nm.gov/GoNM/> and check if the following sources are located within the noted distance from your anticipated construct site groundwater dewatering activity:

<i>Project Location Relative to a Source of Potential Groundwater Contamination</i>	<i>Constituents likely to be required for testing</i>
<i>Within 0.5 mile of an open Leaking Underground Storage Tank (LUST) site</i>	<i>BTEX (Benzene, Toluene, Ethylbenzene, and Xylene) plus additional parameters depending on site conditions.*</i>
<i>Within 0.5 mile of an open Voluntary Remediation site</i>	<i>All parameters listed in Appendix A (or an alternate list approved by the NMED SWQB)**</i>
<i>Within 0.5 mile of an open RCRA Corrective Action Site</i>	
<i>Within 0.5 mile of an open Abatement Site</i>	
<i>Within 0.5 mile of an open Brownfield Site</i>	
<i>Within 1.0 mile or more of a Superfund site or National Priorities List (NPL) site with associated groundwater contamination.</i>	

**For further assistance determining whether dewatering may encounter impacted groundwater, the permittee may contact the NMED Ground Water Quality Bureau at: 505-827-2965.*

***EPA approved-sufficiently sensitive methods must be used - approved methods are listed in 40 CFR Part 136.3.*

- ii. Indicate on the NO/ that dewatering activities are anticipated. Provide information on flow and potential to encounter impacted groundwater.
 - iii. Permittee must test the quality of the groundwater according to the chart above. Hardness and pH must also be measured.
 - iv. Permittee must send test result data to EPA Region 6 and the NMED Surface Water Quality Bureau. If the test data exceed standards, it cannot be discharged from the construction site into surface waters under this permit. Discharge to surface waters must be conducted under a separate NPDES individual permit to ensure proper treatment and disposal.
 - v. If disposal will be to the ground surface or in an unlined pond, the permittee must submit an NO/ to the NMED Ground Water Quality Bureau.
- m. State regulations at 20.6.4.8 NMAC state: *No degradation shall be allowed in waters designated by the commission as outstanding national resource waters (ONRWs), except as provided in Subparagraphs (a) through (e) of this paragraph and in Paragraph (4) of this Subsection A.*

- n. Operators are not eligible to obtain authorization under this permit for all new and existing storm water discharges to outstanding national resource waters (ONRWs) (also referred to as "Tier 3" waters.)
- o. NMED does not believe compliance with the permit necessarily assures that no degradation will occur. Although state WQS provide for temporary and short-term degradation of water quality in an ONRW under very limited circumstances if approved by the Water Quality Control Commission as specified at 20.6.4.8.A NMAC, the approval process required for these activities does not lend itself for use for projects covered under this general permit. This condition is necessary to ensure that no degradation is allowed in ONRWs by requiring proposed storm water discharges to be reviewed under the individual permit process. Tier 3 waters are defined in Appendix F of the proposed permit.
- p. EPA regulations at 40 CFR Part 122.44(k) require, in part: *Best management practices (BMPs) to control or abate the discharge of pollutants when:*
 - (3) *Numeric effluent limitations are infeasible, or*
 - (4) *The practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA.*
- q. State regulations at 20.6.4.8.A(2) state in part: *...Further, the state shall assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources...*
- r. State regulations at 20.6.4.8.B NMAC also state:
 - (3) *assess the probable effect of the effluent on the receiving water relative to its attainable or designated uses and numeric and narrative criteria.*
- s. Operators who intend to obtain authorization under this permit for new and existing storm water discharges from construction sites must satisfy the following condition: The SWPPP must include site-specific interim and permanent stabilization, managerial, and structural solids, erosion and sediment control best management practices (BMPs) and/or other controls that are designed to prevent to the maximum extent practicable an increase in the sediment yield and flow velocity from pre-construction, pre-development conditions to assure that applicable standards in 20.6.4.NMAC, including the antidegradation policy, or TMDL waste load allocations (WLAs) are met. This requirement applies to discharges both during construction and after construction operations have been completed. The SWPPP must identify and document the rationale for selecting these BMPs and/or other controls. The SWPPP must also describe design specifications, construction specifications, maintenance schedules (including a long term maintenance plan), criteria for inspections, and expected performance and longevity of these BMPs. For sites greater than 5 acres in size, BMP selection must be made based on the use of appropriate soil loss prediction models (i.e. SEDCAD, RUSLE, SEDIMOT, MULTISED, etc.) OR equivalent generally accepted (by professional erosion control specialists) soil loss prediction tools.
- t. For all sites, the operator(s) must demonstrate, and include documentation in the SWPPP, that implementation of the site-specific practices will assure that the applicable standards or TMDL WLAs are met, and will result in sediment yields and flow velocities that, to the maximum extent practicable, will not be greater than

the sediment yield levels and flow velocities from preconstruction, pre-development conditions.

- u. All SWPPPs must be prepared in accordance with good engineering practices by qualified (e.g. CPESC certified, engineers with appropriate training) erosion control specialists familiar with the use of soil loss prediction models and design of erosion and sediment control systems based on these models (or equivalent soil loss prediction tools). Qualifications of the preparer (e.g., professional certifications, description of appropriate training) must be documented in the SWPPP. The operator(s) must design, implement, and maintain BMPs in the manner specified in the SWPPP.
- v. State regulations at 20.6.2.1203 NMAC state: *With respect to any discharge from any facility of oil or other water contaminant, in such quantity as may with reasonable probability injure or be detrimental to human health, animal or plant life, or property, or unreasonably interfere with the public welfare or the use of property, the following notifications and corrective actions are required:*
 - i. As soon as possible after learning of such a discharge, but in no event more than twenty-four (24) hours thereafter, any person in charge of the facility shall orally notify the Chief of the Ground Water Quality Bureau of the department, or his counterpart in any constituent agency delegated responsibility for enforcement of these rules as to any facility subject to such delegation.

Permittees can call 505-827-9329 for emergencies at any time and 505-476-6000 for non-emergencies during business hours from 5am-5pm, Monday through Friday.

- w. EPA regulations at 40 CFR Part 122.44(k) require, in part: *Best management practices (BMPs) to control or abate the discharge of pollutants when:*
 - (3) *Numeric effluent limitations are infeasible, or*
 - (4) *The practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA.*
- x. State regulations at 20.6.4.8.A(2) state in part: *...Further, the state shall assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources...*

9.4.2 NMR10I000 Indian country within the State of New Mexico, except Navajo Reservation Lands that are covered under Arizona permit AZR10000I and Ute Mountain Reservation Lands that are covered under Colorado permit COR10000I.

9.4.2.1 Pueblo of Isleta. The following conditions apply only to discharges on the Pueblo of Isleta Reservation:

- a. CGP at 1.3 Prohibited discharges: Stormwater discharges associated with construction activity that EPA or the Pueblo of Isleta, prior to authorization under this permit, determines will cause, have the reasonable potential to cause, or may reasonably be expected to contribute to a violation or excursion of any applicable water quality standard, including the antidegradation policy, or the impairment of a designated use of receiving waters are not authorized by this permit.
- b. CGP at 1.4.1 How to Submit Your NOI: The operator shall provide a copy of the Notice of Intent ("NOI") to the Pueblo of Isleta at the same time it is submitted to the

U.S. Environmental Protection Agency, for projects occurring within the exterior boundaries of the Pueblo of Isleta. The operator shall also notify the Pueblo of Isleta when it has submitted the Notice of Termination ("NOT"). The NOI and NOT shall be sent to the Pueblo of Isleta at the following address:

Water Quality Control Officer
Pueblo of Isleta
Environment Division
PO Box 1270
Isleta, NM 87022
(505) 869-7565
E-mail: POI36871@isletapueblo.com

Overnight/Express Mail Delivery
Pueblo of Isleta
Environment Division
6 Sagebrush St.
Albuquerque, NM 87105

- c. CGP at 1.5 Requirement to post a notice of your permit coverage: Amend to read: "You must post a sign or other notice of your permit coverage at a safe, publicly accessible location in close proximity to the construction site. The notice must be located so that it is visible from the public road or tribal road that is **nearest to the active part of the construction site...**"
- d. CGP at 7.2.6 Description of stormwater controls: The SWPPP will be considered to be incomplete if the operator has not coordinated requirements under this Part with the Pueblo of Isleta Public Services Department.
- e. CGP I.12.6.1 at pg.I-6 of 8. The Pueblo of Isleta requests notification within 10 hours (rather than 24 hrs.) if health or the environment become endangered.
- f. CGP at I.12.2 Anticipated noncompliance: Amend to read: "You must give advance notice to EPA and the Pueblo of Isleta at the address indicated in 1.4.1(a) of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements."
- g. CGP at I.12.6.1: Any noncompliance for projects within the exterior boundaries of the Pueblo of Isleta which may endanger health or the environment shall be reported directly to the EPA Regional Office [(see contacts at <https://www2.epa.gov/national-pollutant-discharge-elimination-system-ntpdes/contact-us-stormwater#regional>)] and to the Pueblo of Isleta Water Quality Control Officer. Any information must be provided orally within 12 hours of the time you become aware of the circumstances. Other requirements of this Part for a written submission apply. Electronic communication (E-mail) shall be provided as soon as practical. Verbal notice shall be provided to:

Water Quality Control Officer
Pueblo of Isleta
E-mail: POI36871@isletapueblo.com
(505) 869-7565
(505) 263-5425 cellular
(505) 869-3030 Police Dispatch

- h. CGP at 2.2 Erosion and sediment control requirements: Erosion and sediment controls shall be designed to retain sediment on-site.
- i. CGP at 2.2 Under Sediment control requirements, Standard Permit Condition Duty to Mitigate Volumes of sediment at or over (five) 5 cubic yards must be removed and placed for disposal within a tribally approved sediment Disposal Site, located on Pueblo of Isleta lands. CGP 2.2 at pg. 8.
- j. Under Minimize erosion, a permittee must secure permission from the Pueblo or affected Pueblo of Isleta land assignment owner if a dissipation device needs to be placed up- or down- elevation of a given construction site. CGP 2.2.11 at pg. 11.
- k. CGP at 2.3.6 Emergency spill notification requirements: You must notify the Pueblo of Isleta Water Quality Control Officer and National Response Center (NRC) [at (800) 424-8802 or, in the Washington, DC metropolitan area, call (202) 267-2675 in accordance with the requirements of 40 CFR 110, 40 CFR 117, and 40 CFR 302] as soon as you have knowledge of the release. Verbal and electronic notice shall be provided as specified in I.12.6.1
- l. CGP at C.3 Equivalent analysis waiver: Parties wishing to apply for an Equivalent Analysis Waiver (see Appendix D, Section C) must provide a copy of the waiver analysis to the Pueblo of Isleta Water Quality Control Officer at the address indicated in 1.4.1 (a).

9.4.2.2 Pueblo of Sandia. The following conditions apply only to discharges on the Pueblo of Sandia Reservation:

- a. Only those activities specifically authorized by the CGP are authorized by the Pueblo of Sandia's Water Quality certification. The Pueblo of Sandia's Water Quality Certification does not authorize impact to cultural properties, historical sites or properties that may be eligible as such.
- b. Copies of all Notices of Intent (NOI) submitted to the EPA must also be sent concurrently to the Pueblo of Sandia at the following address. Discharges are not authorized by this permit unless an accurate and complete NOI has been submitted to the Pueblo of Sandia, either by mail or electronically.

Regular U.S. Delivery Mail:

Pueblo of Sandia Environment Department
Attention: Scott Bulgrin, Water Quality Manager
481 Sandia Loop
Bernalillo, New Mexico 87004

Electronically:

sbulgrin@sandiapueblo.nsn.us

- c. Any correspondences between the applicant and EPA related to analytical data, written reports, corrective action, enforcement, monitoring, or an adverse incident written reports should likewise be routed to the Pueblo of Sandia at the above address.
- d. The Stormwater Pollution Prevention Plan (SWPPP) must be available to the Pueblo of Sandia Environment Department either electronically or hard copy upon request for review. The SWPPP must be made available at least fourteen (14) days before construction begins. The fourteen (14) day period will give Pueblo staff time to become familiar with the project site, prepare for construction site inspections, and

determine compliance with the Pueblo of Sandia Water Quality Standards. Failure to provide a SWPPP to the Pueblo of Sandia may result in the delay or denial of the construction project.

- e. If requested by the Pueblo of Sandia Environment Department, the permittee must provide additional information necessary for a case-by-case eligibility determination to assure compliance with the Pueblo of Sandia Water Quality Standards and/or applicable Federal Standards not authorized by this certification.
- f. An "Authorization to Proceed Letter" with site specific mitigation requirements may be sent out to the permittee when a review of the NOI and SWPPP, on a case-by-case basis is completed by the Pueblo of Sandia Environment Department. This approval will allow the application to proceed if all mitigation requirements are met.
- g. The Pueblo of Sandia will not allow Small construction Waivers (Appendix C) or the Rainfall Erosivity Waiver (Appendix C.1) to be granted for any small construction activities.
- h. Before submitting a Notice of Termination (NOT) to the EPA, permittees must clearly demonstrate to the Pueblo of Sandia Environment Department through a site visit or documentation that requirements for site stabilization have been met and any temporary erosion control structures have been removed. A short letter stating the NOT is acceptable and all requirements have been met will be sent to the permittee to add to the permittee's NOT submission to EPA.
- i. Copies of all NOT submitted to the EPA must also be sent concurrently to the Pueblo of Sandia through the mail or electronically.

Regular U.S. Delivery Mail:

Pueblo of Sandia Environment Department
Attention: Scott Bulgrin, Water Quality Manager
481 Sandia Loop
Bernalillo, New Mexico 87004

Electronically:

sbulgrin@sandiapueblo.nsn.us

- j. The Pueblo of Sandia may require the permittee to perform water quality monitoring for pH, turbidity, and total suspended solids (TSS) during the permit term if the discharge is to a surface water leading to the Rio Grande for the protection of public health and the environment.

9.4.2.3 Pueblo of Santa Ana. The following conditions apply only to discharges on the Pueblo of Santa Ana Reservation:

- a. The operator shall provide a copy of the Notice of Intent (NOI) to the Pueblo of Santa Ana (the Pueblo), at the same time it is submitted to the U.S. Environmental Protection Agency (EPA), for projects with discharges onto the lands of the Pueblo as defined in the Pueblo of Santa Ana Water Quality Standards.
- b. The operator shall provide a copy of the Stormwater Pollution Prevention Plan (SWPPP), at the same time that an NOI is submitted to the EPA, to the Pueblo for

projects with discharges onto the lands of the Pueblo as defined in the Pueblo of Santa Ana Water Quality Standards.

- c. The operator shall provide a copy of the SWPPP, copies of inspections reports, and copies of corrective action reports to the Pueblo at the address below for review, upon request.
- d. The NOI, SWPPP and Notice of Termination (NOT) shall be sent to the Pueblo at the following address:

Pueblo of Santa Ana Department of Natural Resources,
Attention: Water Quality Program Specialist
2 Dove Road
Santa Ana Pueblo, NM, 87004

- e. Discharges are not authorized by this permit unless an accurate and complete NOI and SWPPP have been submitted to the Pueblo. Failure to provide an accurate and complete NOI and SWPPP may result in a denial of the discharge permit or groundbreaking or construction delay.
- f. The operator will not proceed with site work until authorized by the Pueblo. The Pueblo requires review of the complete and final SWPPP by the Pueblo before authorization to proceed. The Pueblo will provide an "authorization to proceed" notice after review and approval of the SWPPP.
- g. Before submitting a NOT, permittees must certify to the Pueblo's Department of Natural Resources in writing that requirements for site stabilization have been met, and any temporary erosion control structures have been removed. Documentation of the Pueblo's review that such requirements have been reviewed and met will be provided for the permittee to add to the permittee's NOT submission to EPA. Copies of all NOT submitted to the EPA must also be sent to the Pueblo at the address provided above.

9.4.2.4 Pueblo of Santa Clara. The following conditions apply only to discharges on the Pueblo of Santa Clara Reservation:

- a. The operator must provide a copy of the Notice of Intent (NOI) and Notice of Termination (NOT) to the Santa Clara Pueblo Governor's Office at the same time it is provided to the US Environmental Protection Agency.
- b. A copy of the Storm water Pollution Prevention Plan shall be made available to the Pueblo of Santa Clara staff upon request.

9.4.2.5 Pueblo of Tesuque. The following conditions apply only to discharges on the Pueblo of Tesuque Reservation:

- a. The operator shall provide a copy of the Notice of Intent (NOI) to the Pueblo of **Tesuque Governor's Office and Environment Department at same time it is** submitted to the Environmental Protection Agency, for projects occurring within the exterior boundaries of our tribal lands. The operator shall also notify the Pueblo of Tesuque Governor's Office and Environment Department when it submitted the Notice of Termination. The NOI and NOT shall be sent to the Pueblo of Tesuque Governor's Office and Environment Department at the following address:

Pueblo of Tesuque
Office of the Governor

Route 42 Box 360-T
Santa Fe, NM 87506 or
email: governor@pueblooftesuque.org

- b. The operator shall also provide a copy of the Stormwater Pollution Prevention Plan, copies of inspections reports, and copies of corrective action reports to staff in the Pueblo of Tesuque Environment Department.

9.4.2.6 Taos Pueblo. The following conditions apply only to discharges on the Taos Pueblo Reservation:

- a. The operator shall provide a copy of the Notice of Intent (NOI) to the Taos Pueblo **Governor's Office, War Chief's Office and Environmental Office, at the same time** it is submitted to the U.S. Environmental Protection Agency, for projects occurring within the exterior boundaries of Taos Pueblo. The operator shall also notify Taos Pueblo when it has submitted the Notice of Termination (NOT). The NOI and NOT shall be sent to the Taos Pueblo at the following addresses:

- i. Taos Pueblo Governor's Office
P.O. Box 1846
Taos NM 87571
- ii. Taos Pueblo War Chief's Office
P.O. Box 2596
Taos NM 87571
- iii. Environmental Office
Attn: Program Manger
P.O. Box 1846
Taos NM 87571

- b. Taos Pueblo requests that in the event Indian artifacts or human remains are inadvertently discovered on projects occurring near or on Taos Pueblo lands that consultation with the tribal Governor's Office occur at the earliest possible time.
- c. The operator shall provide a copy of the Stormwater Pollution Prevention Plan, copies of inspections reports, and copies of corrective action reports to staff in the Taos Pueblo Environmental Office for review and copy, upon request.

9.4.2.7 Ohkay Owingeh. The following conditions apply only to discharges on the Ohkay Owingeh Reservation:

- a. Prior to commencement of any construction activity on Ohkay Owingeh Lands **requiring permit coverage under EPA's Construction General Permit, the operator(s) shall submit to Ohkay Owingeh Office of Environmental Affairs, a copy of the electronic "Notice of Intent," submitted to the Environmental Protection Agency, immediately following EPA's electronic notification that the NOI has been received.** A copy of the Stormwater Pollution Prevention Plan(s) must be made available to the Ohkay Owingeh Office of Environmental Affairs upon the tribe's request either electronically or hard copy. Operator(s) shall also submit to Ohkay Owingeh Office of Environmental Affairs a copy of the electronic Notice of Termination (NOT) submitted to the Environmental Protection Agency. Documents shall be submitted to Ohkay Owingeh at the following address:

Ohkay Owingeh Office of Environment Affairs
Attention: Environmental Programs Manager

P.O. Box 717
Ohkay Owingeh, New Mexico 87566
Office # 505.852.4212
Fax # 505.852.1432
Electronic mail: naomi.archuleta@ohkay.org

- b. Ohkay Owingeh will not allow the Rainfall Erosivity Waivers (see Appendix C) to be granted for any small construction activities.
 - c. All vegetation used to prevent soil loss, seeding or planting of the disturbed area(s) to meet the vegetative stabilization requirements must utilize native seeds/vegetation commonly known to the area. All temporary erosion control structures, such as silt fences must be removed as soon as stabilization requirements are met.
- 9.4.3 OKR10I000 Indian country within the State of Oklahoma
- 9.4.3.1 Pawnee Nation. The following conditions apply only to discharges within Pawnee Indian country:
- a. Copies of the Notice of Intent (NOI) and Notice of Termination (NOT) must be provided to the Pawnee Nation at the same time it is submitted to the Environmental Protection Agency to the following address:

Pawnee Nation Department of Environmental Conservation and Safety
P.O. Box 470
Pawnee, OK 74058
Or email to mmatlock@pawneenation.org
 - b. The Storm Water Pollution Prevention Plan must be available to Departmental inspectors upon request.
 - c. The Department must be notified at 918.762.3655 immediately upon discovery of any noncompliance with any provision of the permit conditions.
- 9.4.4 OKR10F000 Discharges in the State of Oklahoma that are not under the authority of the Oklahoma Department of Environmental Quality, including activities associated with oil and gas exploration, drilling, operations, and pipelines (includes SIC Groups 13 and 46, and SIC codes 492 and 5171), and point source discharges associated with agricultural production, services, and silviculture (includes SIC Groups 01, 02, 07, 08, 09).
- a. For activities located within the watershed of any Oklahoma Scenic River, including the Illinois River, Flint Creek, Barren Fork Creek, Upper Mountain Fork, Little Lee Creek, and Lee Creek or any water or watershed designated "ORW" in Oklahoma's Water Quality Standards, this permit may only be used to authorize discharges from temporary construction activities. Certification is denied for any on-going activities such as sand and gravel mining or any other mineral mining.
 - b. For activities located within the watershed of any Oklahoma Scenic River, including the Illinois River, Flint Creek, Barren Fork Creek, Upper Mountain Fork, Little Lee Creek, and Lee Creek or any water or watershed designated "ORW" in Oklahoma's Water Quality Standards, certification is denied for any discharges originating from support activities, including concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, or borrow areas.

- c. In order to comply with Oklahoma's Water Quality Standards, these conditions and restrictions also apply to any construction projects located wholly or partially on Indian Country lands within the State of Oklahoma.

9.5 EPA Region 8

9.5.1 MTR10I000 Indian country within the State of Montana

9.5.1.1 The Confederated Salish and Kootenai Tribes of the Flathead Nation. The following conditions apply only to discharges on the Confederated Salish and Kootenai Tribes of the Flathead Nation Reservation:

- a. Permittees must submit the Stormwater Pollution Prevention Plan (SWPPP) to the Confederated Salish and Kootenai Tribes at least 30 days before construction starts.
- b. Before submitting the Notice of Termination (NOT), permittees must clearly demonstrate to an appointed Tribal staff person during an onsite inspection that requirements for site stabilization have been met.
- c. The permittee must send a copy of the Notice of Intent (NOI) and the NOT to CSKT.
- d. Permittees may submit their SWPPPs, NOIs and NOTs electronically to:
clintf@cskt.org.
- e. Written SWPPPs, NOIs and NOTs may be mailed to:

Clint Folden, Water Quality Regulatory Specialist
Confederated Salish and Kootenai Tribes
Natural Resources Department
P.O. Box 278
Pablo, MT 59855

9.6 EPA Region 9

9.6.1 CAR10I000 Indian country within the State of California

9.6.1.1 Twenty-Nine Palms Band of Mission Indians. The following conditions apply only to discharges on the Twenty-Nine Palms Band of Mission Indians Reservation:

- a. At the time the applicant submits its Notice of Intent (NOI) to the EPA, the applicant must concurrently submit written notification of the NOI and a copy of the Stormwater Pollution Prevention Plan (SWPPP) to the Twenty-Nine Palms Band of Mission Indians at the address below:

Tribal Environmental Coordinator
Twenty-Nine Palms Band of Mission Indians
46-200 Harrison Place
Coachella, CA 92236

- b. The applicant must also concurrently submit to the Tribal Environmental Coordinator written notification of any other forms or information submitted to the EPA, including waivers, reporting, and Notice of Termination (NOT).
- c. Permitted entities under the CGP must keep the Tribal EPA informed of authorized discharges under the CGP by submitting written information about the type, quantity, frequency and location, intended purpose, and potential human health

and/or environmental effects of their activities. These requirements are pursuant to Section 4 of the Twenty-Nine Palms Band of Mission Indians Water Pollution Control Ordinance (022405A). This information may be submitted to Tribal EPA in the form of Stormwater Pollution Prevention Plans (SWPPPs), monitoring reports, or other reports as required under the CGP. Spills, leaks, or unpermitted discharges must be reported in writing to Tribal EPA within 24 hours of the incident.

- 9.6.2 GUR100000 Island of Guam. The following conditions apply only to discharges on the Island of Guam:
- a. Any earth-moving operations which require a permit must be obtained from the Department of Public Works (DPW) with clearance approval from various Government of Guam Agencies including Guam EPA prior to the start of any earth-moving activity.
 - b. In the event that the construction sites are within the Guam Sole Source Aquifer, the construction site owner and operator must consider opportunities to facilitate groundwater recharge for construction and post-construction implementing infiltration Best Management Practices. Stormwater disposal systems shall be designed and operated within the boundaries of the project. Stormwater systems shall not be permitted within any Wellhead Protection Zone unless the discharge meets the Guam Water Quality Standards within the zone. Waters discharged within the identified category G-2 recharge zone shall receive treatment to the degree required to protect the drinking water quality prior to it entering the category G-1 resource zone.
 - c. All conditions and requirements set forth in the 22 Guam Administrative Rules and Regulations (GARR), Division II, Water Control, Chapter 10, Guam Soil Erosion and Sediment Control Regulations (GSESCR) that are more protective than the CGP regarding construction activities must be complied with.
 - d. All standards and requirements set forth in the 22 GARR, Division II, Water Control, Chapter 5, *Guam Water Quality Standards (GWQS) 2001 Revisions*, must be complied with to include reporting GWQS exceedance to Guam EPA.
 - e. All operators/owners of any property development or earth moving activities shall comply with the erosion control pre-construction and post-construction BMP design performance standards and criteria set forth in the 2006 CNMI and Guam Stormwater Management Manual.
 - f. All conditions and requirements regarding dewatering activities set forth in 22 Guam Administrative Rules and Regulations Chapter 7, Water Resources Development and Operating Regulations must be complied with to include securing permits with Guam EPA prior to the start of any dewatering activities.
 - g. If a project to be developed is covered under the Federal Stormwater Regulations (40 CFR Parts 122 & 123), a Notice of Intent (NOI) to discharge stormwater to the surface and marine waters of Guam must be submitted to the U.S. EPA and a copy furnished to Guam EPA, pursuant to Section 10, 104(B)(5)(d) 22GAR, Division II, Chapter 10.
 - h. Guam EPA shall apply the Buffer Requirements listed in Appendix G of the CGP NPDES Permit for construction activities as it pertains to Waters of the U.S. in Guam. Guam EPA shall also apply the same buffer requirements for sinkholes in Guam.
 - i. When Guam EPA, through its permit review process, identifies that the proposed construction activity is close proximity to marine waters, contractors and owners will

be informed that any activity that may impair water quality are required to stop during peak coral spawning periods as per the Guam Coral Spawning Construction Moratoriums.

- j. The Proposed Construction General Permit must set appropriate measures and conditions to protect Guam's **Threatened and Endangered Species and Outstanding Resource Waters** of exceptional recreational or ecological significance as determined by the Guam EPA Administrator as per *Guam Water Quality Standards 2001 Revisions*, §5102, Categories of Waters, D. Outstanding Resource Waters.
- k. When Guam EPA through its permit review process identifies that proposed construction activity is in close proximity to any Section 303d impaired waters, which includes marine waters and surface waters, shall ensure that construction **activity does not increase the impaired water's ambient parameters.**
- l. When Rainfall Erosivity and TMDL Waivers reflected in the CGP, Appendix C, are submitted to the U.S. EPA, Guam EPA will review waivers on a project by project basis.
- m. Prior to submission of the Notice of Termination (NOT) to the U.S. EPA, permittees must clearly demonstrate to Guam EPA that the project site has met all soil stabilization requirements and removal of any temporary erosion control as outlined in the GSESCR.

9.7 EPA Region 10

9.7.1 IDR100000 State of Idaho, except Indian country

- a. **Idaho's Antidegradation Policy.** The WQS contain an antidegradation policy providing three levels of protection to water bodies in Idaho (IDAPA 58.01.02.051).
 1. Tier I Protection. The first level of protection applies to all water bodies subject to Clean Water Act jurisdiction and ensures that existing uses of a water body and the level of water quality necessary to protect those existing uses will be maintained and protected (IDAPA 58.01.02.051.01; 58.01.02.052.01). Additionally, a Tier 1 review is performed for all new or reissued permits or licenses (IDAPA 58.01.02.052.05).
 2. Tier II Protection. The second level of protection applies to those water bodies considered high quality and ensures that no lowering of water quality will be allowed unless deemed necessary to accommodate important economic or social development (IDAPA 58.01.02.051.02; 58.01.02.052.08).
 3. Tier III Protection. The third level of protection applies to water bodies that have been designated outstanding resource waters and requires that activities not cause a lowering of water quality (IDAPA 58.01.02.051.03; 58.01.02.052.09).

DEQ is employing a water body by water body approach to implementing **Idaho's antidegradation policy. This approach means** that any water body fully supporting its beneficial uses will be considered high quality (IDAPA 58.01.02.052.05.a). Any water body not fully supporting its beneficial uses will be provided Tier I protection for that use, unless specific circumstances warranting Tier II protection are met (IDAPA 58.01.02.052.05.c). The most recent federally approved Integrated Report and supporting data are used to determine support status and the tier of protection (IDAPA 58.01.02.052.05).
- b. **Pollutants of Concern.** The primary pollutants of concern associated with stormwater discharges from construction activities are sediment, typically

measured as total suspended solids and turbidity. Other potential pollutants include the following: phosphorus, nitrogen, pesticides, organics, metals, PCBs, petroleum products, construction chemicals, and solid wastes.

- c. Receiving Water Body Level of Protection. The CGP provides coverage to construction activities throughout the entire State of Idaho. Because of the statewide applicability, all of the jurisdictional waters within Idaho could potentially receive discharges either directly or indirectly from activities covered under the CGP. DEQ applies a water body by water body approach to determine the level of antidegradation a water body will receive.

All waters in Idaho that receive discharges from activities authorized under the CGP will receive, at minimum Tier I antidegradation protection because Idaho's antidegradation policy applies to all waters of the state. Water bodies that fully support their aquatic life or recreational uses are considered to be *high quality waters* and will receive Tier II antidegradation protection.

Although Idaho does not currently have any Tier III designated outstanding resource waters (ORWs) designated, it is possible for a water body to be designated as an ORW during the life of the CGP. Because of this potential, the antidegradation review also assesses whether the permit complies with the outstanding resource water requirements of Idaho's antidegradation policy.

To determine the support status of the receiving water body, persons filing a Notice of Intent (NOI) for coverage under this general permit must use the most recent EPA-approved Integrated Report, available on Idaho DEQ's website: <http://www.deq.idaho.gov/water-quality/surface-water/monitoring-assessment/integrated-report/>.

High quality waters are identified in Categories 1 and 2 of the Integrated Report. If a water body is in either Category 1 or 2, it is a Tier II water body.

Unassessed waters are identified as Category 3 of DEQ's Integrated Report. These waters require a case-by-case determination to be made by DEQ based on available information at the time of the application for permit coverage. If a water body is unassessed, the applicant is directed to contact DEQ for assistance in filing the NOI.

Impaired waters are identified in Categories 4 and 5 of the Integrated Report. Category 4(a) contains impaired waters for which a TMDL has been approved by EPA. Category 4(b) contains impaired waters for which controls other than a TMDL have been approved by EPA. Category 5 contains waters which have been **identified as "impaired," for which a TMDL is needed.** These waters are Tier I waters, for the use which is impaired. With the exception, if the aquatic life uses are impaired for any of these three pollutants—dissolved oxygen, pH, or temperature—and the biological or aquatic habitat parameters show a health, balanced biological community, then the water body shall receive Tier II protection, in addition to Tier I protection, for aquatic life uses (IDAPA 58.01.02.052.05.c.i.).

DEQ's webpage also has a link to the state's map-based Integrated Report which presents information from the Integrated Report in a searchable, map-based format: <http://www.deq.idaho.gov/assistance-resources/maps-data/>.

Water bodies can be in multiple categories for different causes. If assistance is

needed in using these tools, or if additional information/clarification regarding the support status of the receiving water body is desired, the operator is directed to make contact with the appropriate DEQ regional office of the State office in the table below:

Regional and State Office	Address	Phone Number	Email
Boise	1445 N. Orchard Rd., Boise 83706	208-373-0550	Kati.carberry@deq.idaho.gov
Coeur d'Alene	2110 Ironwood Parkway, Coeur D'Alene 83814	208-769-1422	June.bergquist@deq.idaho.gov
Idaho Falls	900 N. Skyline, Suite B., Idaho Falls 83402	208-528-2650	Troy.saffle@deq.idaho.gov
Lewiston	1118 "F" St., Lewiston 83501	208-799-4370	Mark.sellet@deq.idaho.gov
Pocatello	444 Hospital way, #300 Pocatello 83201	208-236-6160	Lynn.vanevery@deq.idaho.gov
Twin Falls	650 Addison Ave., W., Suite 110, Twin Falls 83301	208-736-2190	Balthasar.buhidar@deq.idaho.gov
State Office	1410 N. Hilton Rd., Boise 83706	208-373-0502	Nicole.deinarowicz@deq.idaho.gov

- d. *Turbidity Monitoring*. The permittee must conduct turbidity monitoring during construction activities and thereafter on days where there is a direct discharge of pollutants from an unstabilized portion of the site which is causing a visible plume to a water of the U.S.

A properly and regularly calibrated turbidimeter is required for measurements analyzed in the field (preferred method), but grab samples may be collected and taken to a laboratory for analysis. If the permittee can demonstrate that there will be no direct discharge from the construction site, then turbidity monitoring is not required. When monitoring is required, a sample must be taken at an undisturbed area immediately upstream of the project area to establish background turbidity levels for the monitoring event. Background turbidity, location, date and time must be recorded prior to monitoring downstream of the project area. A sample must also be taken immediately downstream from any point of discharge and *within* any visible plume. The turbidity, location, date and time must be recorded. The

downstream sample must be taken immediately following the upstream sample in order to obtain meaningful and representative results.

Results from the compliance point sampling or observation⁷⁸ must be compared to the background levels to determine whether project activities are causing an exceedance of state WQS. If the downstream turbidity is 50 NTUs or more than the upstream turbidity, then the project is causing an exceedance of WQS. *Any exceedance of the turbidity standard must be reporting to the appropriate DEQ regional office within 24 hours. The following six (6) steps should be followed to ensure compliance with the turbidity standard:*

1. If a visible plume is observed, quantify the plume by collecting turbidity **measurements from within the plume and compare the results to Idaho's** instantaneous numeric turbidity criterion (50 NTU over the background).
2. If turbidity is less than 50 NTU instantaneously over the background turbidity; continue monitoring as long as the plume is visible. If turbidity exceeds background turbidity by more than 50 NTU instantaneously then stop all earth disturbing construction activities and proceed to step 3.
3. Take immediate action to address the cause of the exceedance. That may include inspection the condition of project BMPs. If the BMPs are functioning to their fullest capability, then the permittee must modify project activities and/or BMPs to correct the exceedance.
4. Notify the appropriate DEQ regional office within 24 hours.
5. Possibly increase monitoring frequency until state water quality standards are met.
6. Continue earth disturbing construction activities once turbidity readings return to within 50 NTU instantaneously and 25 NTU for more than ten consecutive days over the background turbidity.

Copies of daily logs for turbidity monitoring must be available to DEQ upon request. The report must describe all exceedances and subsequent actions taken, including the effectiveness of the action.

- e. Reporting of Discharges Containing Hazardous Materials or Petroleum Products. All spills of hazardous material, deleterious material or petroleum products which may impact waters (ground and surface) of the state shall be immediately reported. Call 911 if immediate assistance is required to control, contain or clean up the spill. If no assistance is needed in cleaning up the spill, contact the appropriate DEQ regional office in the table below during normal working hours or Idaho State Communications Center after normal working hours. If the spilled volume is above federal reportable quantities, contact the National Repose Center.

For immediate assistance: Call 911

National Response Center: (800) 424-8802

⁷⁸ A visual observation is only acceptable to determine whether BMPs are functioning properly. If a plume is observed, the project may be causing an exceedance of WQS and the permittee must collect turbidity data and inspect the condition of the projects BMPs. If the BMPs appear to be functioning to their fullest capability and the turbidity is 50 NTUs or more than the upstream turbidity, then the permittee must modify the activity or implement additional BMPs (this may also include modifying existing BMPs).

Idaho State Communications Center: (208) 632-8000

Regional office	Toll Free Phone Number	Phone Number
Boise	888-800-3480	208-373-0321
Coeur d'Alene	877-370-0017	208-769-1422
Idaho Falls	800-232-4635	208-528-2650
Lewiston	977-547-3304	208-799-4370
Pocatello	888-655-6160	208-236-6160
Twin Falls	800-270-1663	208-736-2190

9.7.2 IDR10I000 Indian country within the State of Idaho, except Duck Valley Reservation lands (see Region 9)

9.7.2.1 Shoshone-Bannock Tribes. The following conditions apply only to discharges on the Shoshone-Bannock Reservation:

- f. Each operator shall submit a signed hard copy of the Notice of Intent (NOI) to the Shoshone-Bannock Tribes Water Resources Department at the same time it is submitted electronically to the Environmental Protection Agency (EPA) and shall provide the Shoshone-Bannock Tribes Water Resources Department the acknowledgement of receipt of the NOI from the EPA within 7 calendar days of receipt from the EPA.

9.7.3 WAR10F000 Areas in the State of Washington, except those located on Indian country, subject to construction activity by a Federal Operator. The following conditions apply only to discharges on federal facilities in the State of Washington:

- a. Discharges shall not cause or contribute to a violation of surface water quality standards (Chapter 173-201A WAC), groundwater quality standards (Chapter 173-200 WAC), sediment management standards (Chapter 173-204 WAC), and human health-based criteria in the National Toxics Rule (40 CFR Part 131.36). Discharges that are not in compliance with these standards are not authorized.
- b. Prior to the discharge of stormwater and non-storm water to waters of the State, the Permittee must apply all known, available, and reasonable methods of prevention, control, and treatment (AKART). This includes the preparation and implementation of an adequate SWPPP, with all appropriate BMPs installed and maintained in accordance with the SWPPP and the terms and conditions of this permit.
- c. Permittees who discharge to segments of waterbodies listed as impaired by the State of Washington under Section 303(d) of the Clean Water Act for turbidity, fine sediment, phosphorus, or pH must comply with the following numeric effluent limits:

Parameter Identified in 303(d) Listing	Parameter Sampled	Unit	Analytical Method	Numeric Effluent Limit
<ul style="list-style-type: none"> • Turbidity • Fine Sediment • Phosphorus 	Turbidity	NTU	SM2130 or EPA 180.1	25 NTUs at the point where the stormwater is discharged from the site.
High pH	pH	Su	pH meter	In the range of

				6.5 – 8.5
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- d. All references and requirements associated with Section 303(d) of the Clean Water Act mean the most current EPA approved listing of impaired waters that exists on February 16, 2017, or the date when the operator's complete permit application is received by EPA, whichever is later.
- e. Discharges to waterbodies subject to an applicable Total Maximum Daily Load (TMDL) for turbidity, fine sediment, high pH, or phosphorus, shall be consistent with the assumptions and requirements of the TMDL.
 - i. Where an applicable TMDL sets specific waste load allocations or requirements for discharges covered by this permit, discharges shall be consistent with any specific waste load allocations or requirements establish by the applicable TMDL.
 - ii. Where an applicable TMDL has established a general waste load allocation for construction stormwater discharges, but no specific requirements have been identified, compliance with this permit will be assumed to be consistent with the approved TMDL.
 - iii. Where an applicable TMDL has not specified a waste load allocation for construction stormwater discharges, but has not excluded these discharges, compliance with this permit will be assumed to be consistent with the approved TMDL.
 - iv. Where an applicable TMDL specifically precludes or prohibits discharges from construction activity, the operator is not eligible for coverage under this permit.
 - v. Applicable TMDL means a TMDL for turbidity, fine sediment, high pH, or phosphorus, which has been completed and approved by EPA prior to February 16, 2017, or prior to the date the operator's complete NOI is received by EPA, whichever is later.

9.7.4 WAR10I000 Indian country within the State of Washington

9.7.4.1 Confederated Tribes of the Colville Reservation. The following conditions apply only to discharges on the Colville Indian Reservation (CIR) and on other Tribal trust lands or allotments of the Confederated Tribes of the Colville Reservation:

- a. A copy of the Stormwater Pollution Prevention Plan must be submitted to the following office at least thirty (30) days in advance of sending the Notice of Intent (NOI) to EPA:

Environmental Trust Department
Confederated Tribes of the Colville Reservation
PO Box 150
Nesepalem, WA 99155

- b. Copies of the Notice of Intent (NOI) and Notice of Termination (NOT) must be sent to the ETD at the same time they are submitted to EPA.
- c. Discharges to Omak Creek, the Okanogan River, and Columbia River downstream of Chief Joseph Dam may affect threatened or endangered species, and shall only be permitted in adherence with Appendix D of the CGP.

- d. All work shall be carried out in such a manner as will prevent violations of water quality criteria as stated in Chapter 4-8 Water Quality Standards of the Colville Law and Order Code, as amended.
- e. Appropriate steps shall be taken to ensure that petroleum products or other chemical pollutants are prevented from entering waters of the CIR. All spills must be reported to the appropriate emergency management agency and the ETD, and measures shall be taken immediately to prevent the pollution of waters of the CIR, including groundwater.
- f. Stormwater site inspections shall be conducted at least once every 7 calendar days, within 24-hours of the occurrence of a rain event of 0.25 inches or greater in a 24-hour period, and daily during periods of saturated ground surface or snowmelt with accompanying surface runoff.
- g. Results of discharge sampling must be reported to the ETD within 7 days of sample collection. All sample reporting must include the date and time, location, and individual performing the sampling.
- h. Any corrective action reports that are required under the CGP must be submitted to the ETD at the above address within one (1) working day of the report completion.
- i. This certification does not authorize impacts to cultural, historical, or archeological features or sites, or properties that may be eligible for such listing.

9.7.4.2 Lummi Nation. The following conditions apply only to discharges on the Lummi Reservation:

- a. The Lummi Nation reserves the right to modify this 401 certification if the final version of the NPDES General Permit for Storm Water Discharges Associated with Construction Activity (CGP) on tribal lands in the State of Washington (Permit No. WAR10I000) is substantively different than the draft version of the proposed permit that was made available for public comments during April 2016. The Lummi Nation will determine if the final version of the NPDES CGP is substantively different than the draft version following review of the final version once the EPA makes it available.
- b. This certification does not exempt and is provisional upon compliance with other applicable statutes and codes administered by federal and Lummi tribal agencies. Pursuant to Lummi Code of Laws (LCL) 17.05.020(a), the operator must also obtain a land use permit from the Lummi Planning Department as provided in Title 15 of the Lummi Code of Laws and regulations adopted thereunder.
- c. Pursuant to LCL 17.05.020(a), each operator shall develop and submit a Storm Water Pollution Prevention Plan to the Lummi Water Resources Division for review and approval by the Water Resources Manager prior to beginning any discharge activities.
- d. Pursuant to LCL Title 17, each operator shall be responsible for achieving compliance with the Water Quality Standards for Surface Waters of the Lummi Indian Reservation (Lummi Administrative Regulations [LAR] 17 LAR 07.010 through 17 LAR 07.210 together with supplements and amendments thereto).
- e. Each operator shall submit a signed hard copy of the Notice of Intent (NOI) to the Lummi Water Resources Division at the same time it is submitted electronically to the Environmental Protection Agency (EPA) and shall provide the Lummi Water Resources Division the acknowledgement of receipt of the NOI from the EPA and

the associated NPDES tracking number provided by the EPA within 7 calendar days of receipt from the EPA.

- f. Each operator shall submit a signed hard copy of the Notice of Termination (NOT) to the Lummi Water Resources Division at the same time it is submitted electronically to the EPA and shall provide the Lummi Water Resources Division the EPA acknowledgement of receipt of the NOT.
- g. Storm Water Pollution Prevention Plans, Notice of Intent, Notice of Termination and associated correspondence with the EPA shall be submitted to:

Lummi Natural Resources Department
ATTN: Water Resources Manager
2665 Kwina Road
Bellingham, WA 98226-9298

9.7.4.3 Makah Tribe. The following conditions apply only to discharges on the Makah Reservation:

- a. The operator shall be responsible for achieving compliance with the Makah Tribe's Water Quality Standards.
- b. The operator shall submit a Storm Water Pollution Prevention Plan to the Makah Tribe Water Quality Program and Makah Fisheries Habitat Division for review and approval at least thirty (30) days prior to beginning any discharge activities.
- c. The operator shall submit a copy of the Notice of Intent to the Makah Tribe Water Quality Program and Makah Fisheries Habitat Division at the same time it is submitted to EPA.
- d. Storm Water Pollution Prevention Plans and Notices of Intent shall be submitted to:

Aaron Parker
Makah Fisheries Management Water Quality Specialist
(360) 645-3162
Cell 206-356-0319
Aaron.parker@makah.com
PO Box 115
Neah Bay WA 98357

9.7.4.4 Puyallup Tribe of Indians. The following conditions apply only to discharges on the Puyallup Tribe of Indians Reservation:

- a. Each permittee shall be responsible for achieving compliance with the Puyallup Tribe's Water Quality Standards, including antidegradation provisions. The Puyallup Natural Resources Department will conduct an antidegradation review for permitted activities that have the potential to lower water quality. The antidegradation review will be consistent with the Tribe's Antidegradation Implementation Procedures. The Tribe may also impose additional controls on a site-specific basis, or request EPA to require the operator obtain coverage under an individual permit, if information in the NOI or from other sources indicates that the operator's discharges are not controlled as necessary to meet applicable water quality standards.
- b. The permittee shall be responsible for meeting any additional permit requirements imposed by EPA necessary to comply with the Puyallup Tribe's antidegradation

policies if the discharge point is located within 1 linear mile upstream of waters designated by the Tribe.

- c. Each permittee shall submit a copy of the Notice of Intent (NOI) to be covered by the general permit to Char Naylor (char.naylor@puyalluptribe.com) and Russ Ladley (russ.ladley@puyalluptribe.com) by email or at the address listed below at the same time it is submitted to EPA.

Puyallup Tribe of Indians
3009 E. Portland Avenue
Tacoma, WA 98404
ATTN: Russ Ladley and Char Naylor

- d. All supporting documentation and certifications in the NOI related to coverage under the general permit for Endangered Species Act purposes shall be submitted to the Tribe's Resource Protection Manager (russ.ladley@puyalluptribe.com) and Char Naylor (char.naylor@puyalluptribe.com) for review.
- e. If EPA requires coverage under an individual or alternative permit, the permittee shall submit a copy of the permit to Russ Ladley and Char Naylor at the address listed above.
- f. The permittee shall submit all stormwater pollution prevention plans to Char Naylor for review and approval prior to beginning any activities resulting in a discharge to tribal waters.
- g. The permittee shall conduct benchmark monitoring for turbidity (or transparency) and, in the event of significant concrete work or engineered soils, pH monitoring as well. Monitoring, benchmarks, and reporting requirements contained in Condition S.4. (pp.13-20) of the Washington State Construction Stormwater General Permit, effective January 1, 2016, shall apply, as applicable.
- h. The permittee shall notify Char Naylor (253-680-5520) and Russ Ladley (253-680-5560) prior to conducting inspections at construction sites generating storm water discharged to tribal waters.
- i. Treat dewatering discharges with controls necessary to minimize discharges of pollutants in order to minimize the discharge of pollutants to groundwater or surface waters from stormwater that is removed from excavations, trenches, foundations, vaults, or other storage areas. Examples of appropriate controls include sediment basins or sediment traps, sediment socks, dewatering tanks, tube settlers, weir tanks, and filtration systems (e.g., bag or sand filters) that are designed to remove sediment.

To the extent feasible, utilize vegetated, upland areas of the site to infiltrate dewatering water before discharge. At all points where dewatering water is discharged, comply with the velocity dissipation requirements of Part 2.2.11 of EPA's 2016 General Construction Stormwater Permit. Examples of velocity dissipation devices include check dams, sediment traps, riprap, and grouted riprap at outlets.

- j. The permittee shall provide and maintain natural buffers to the maximum extent possible (and/or equivalent erosion and sediment controls) when tribal waters are located within 100 feet of the site's earth disturbances. If infeasible to provide and maintain an undisturbed 100 foot natural buffer, erosion and sediment controls to achieve the sediment load reduction equivalent to a 100-foot undisturbed natural buffer shall be required.

- 9.7.4.5 Spokane Tribe of Indians. The following conditions apply only to discharges on the Spokane Tribe Reservation:
- a. Pursuant to Tribal Law and Order Code (TLOC) Chapter 30 each operator shall be responsible for achieving compliance with the Surface Water Quality Standards of the Spokane Tribe. The operator shall notify the Spokane Tribe, Water Control Board (WCB) of any spills of hazardous material and;
 - b. Each operator shall submit a signed hard copy of the Notice of Intent (NOI) to the WCB at the same time it is submitted to EPA.
 - c. The permittee shall allow the Tribal Water Control Board or its designee to inspect and sample at the construction site as needed.
 - d. Each operator shall submit a signed copy of the Notice of Termination (NOT) to the WCB at the same time it is submitted to EPA.

The correspondence address for the Spokane Tribe Water Control Board is:

Water Control Board
c/o. Brian Crossley
PO Box 480
Wellpinit WA 99040
(509)626-4409
crossley@spokanetribe.com

- 9.7.4.6 Swinomish Indian Tribal Community. The following conditions apply only to discharges on the Swinomish Reservation:
- a. Owners and operators seeking coverage under this permit who intend to discharge to Regulated Surface Waters must submit a copy of the Notice of Intent (NOI) to the DEP at the same time the NOI is submitted to EPA.
 - b. Owners and operators seeking coverage under this permit must also submit a Stormwater Pollution Prevention Plan to the DEP for review and approval by DEP prior to beginning any discharge activities.
 - c. Owners and operators must also submit to the DEP Changes in NOI and/or Notices of Termination at the same time they are submitted to EPA.

- 9.7.4.7 Tulalip Tribes. The following conditions apply only to discharges on the Tulalip Reservation:
- a. This certification does not exempt and is provisional upon compliance with other applicable statutes and codes administered by federal and Tulalip tribal agencies. Pursuant to Tulalip Tribes code of law, the operator must also obtain a land use permit from the Tulalip Tribes Planning Department as provided in Title 7 of the Tulalip Tribal Code (<http://www.codepublishing.com/WA/Tulalip/?Tulalip02/Tulalip0205.html>).
 - b. Each CGP operator shall be responsible for achieving compliance with Tulalip Tribes Water Quality Standards.
 - c. Each CGP operator shall submit their Stormwater Pollution Prevention Plan (SWPPP) to the:

Tulalip Natural & Cultural Resources Department
Tulalip Tribes
6406 Marine Drive
Tulalip, WA 98271

Attachment C – NOI and EPA Authorization e-mail



Submission of this Notice of Intent (NOI) constitutes notice that the operator identified in Section III of this form requests authorization to discharge pursuant to the NPDES Construction General Permit (CGP) permit number identified in Section II of this form. Submission of this NOI also constitutes notice that the operator identified in Section III of this form meets the eligibility requirements of Part 1.1 CGP for the project identified in Section IV of this form. Permit coverage is required prior to commencement of construction activity until you are eligible to terminate coverage as detailed in Part 8 of the CGP. To obtain authorization, you must submit a complete and accurate NOI form. Discharges are not authorized if your NOI is incomplete or inaccurate or if you were never eligible for permit coverage. Refer to the instructions at the end of this form.

Permit Information

NPDES ID: MAR1002FEState where your construction site is located: MA

Is your construction site located on Indian Country Lands? No

Are you requesting coverage under this NOI as a "Federal Operator" as defined in Appendix A (https://www.epa.gov/sites/production/files/2019-05/documents/final_2017_cgp_appendix_a_-_definitions.pdf)?

No

Have stormwater discharges from your current construction site been covered previously under an NPDES permit? No

Will you use polymers, flocculants, or other treatment chemicals at your construction site? No

Has a Stormwater Pollution Prevention Plan (SWPPP) been prepared in advance of filling this NOI, as required? Yes

Are you able to demonstrate that you meet one of the criteria listed in Appendix D (https://www.epa.gov/sites/production/files/2017-02/documents/2017_cgp_final_appendix_d_-_endangered_species_reqs_508.pdf) with respect to protection of threatened or endangered species listed under the Endangered Species Act (ESA) and federally designated critical habitat?

Yes

Have you completed the screening process in Appendix E (https://www.epa.gov/sites/production/files/2017-02/documents/2017_cgp_final_appendix_e_-_historic_properties_reqs_508.pdf) relating to the protection of historic properties?

Yes

Indicating "Yes" below, I confirm that I understand that CGP only authorized the allowable stormwater discharges in Part 1.2.1 and the allowable non-stormwater discharges listed in Part 1.2.2. Any discharges not expressly authorized in this permit cannot become authorized or shielded from liability under CWA section 402(k) by disclosure to EPA, state or local authorities after issuance of this permit via any means, including the Notice of Intent (NOI) to be covered by the permit, the Stormwater Pollution Prevention Plan (SWPPP), during an inspection, etc. If any discharges requiring NPDES permit coverage other than the allowable stormwater and non-stormwater discharges listed in Parts 1.2.1 and 1.2.2 will be discharged, they must be covered under another NPDES permit.

Yes

Operator Information

Operator Information

Operator Name: Dellbrook JKS

Operator Mailing Address:

Address Line 1: One Adams Place, 859 Willard St

Address Line 2:

City: QuincyZIP/Postal Code: 02169State: MACounty or Similar Division: NORFOLK

Operator Point of Contact Information

First Name, Middle Initial, Last Name: Jonathan BonaccorsiTitle: Project ManagerPhone: 781-380-1604 Ext.Email: JBonaccorsi@dellbrooksjks.com

NOI Preparer Information

 This NOI is being prepared by someone other than the certifier.First Name, Middle Initial, Last Name: Marcel FuksPhone: 857-206-8667 Ext.Email: mfuks@hitcheng.com

Project/Site Information

Project/Site Name: 144 Addison Street, Boston, Massachusetts

Project/Site Address

Address Line 1: 144 Addison Street

Address Line 2:

City: East Boston

ZIP/Postal Code: 02128

State: MA

County or Similar Division: SUFFOLK

Latitude/Longitude: 42.385698°N, 71.014185°W

Latitude/Longitude Data Source: Google Maps

Horizontal Reference Datum: NAD 83

Project Start Date: 2020-01-01

Project End Date: 2023-12-31

Estimated Area to be Disturbed: 4.25

Types of Construction Sites:

- Multi-Family Residential

Will there be demolition of any structure built or renovated before January 1, 1980? No

Was the pre-development land use used for agriculture? No

Have earth-disturbing activities commenced on your project/site? No

Is your project located on a property of religious or cultural significance to an Indian tribe? No

Discharge Information

Does your project/site discharge stormwater into a Municipal Separate Storm Sewer System (MS4)? No

Are there any waters of the U.S. within 50 feet of your project's earth disturbances? No

Are any of the waters of the U.S. to which you discharge designated by the state or tribal authority under its antidegradation policy as a Tier 2 (or Tier 2.5) water (water quality exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water) or as a Tier 3 water (Outstanding National Resource Water)? See Appendix F (https://www.epa.gov/sites/production/files/2017-02/documents/2017-cgp_final_appendix_f_-_tier_3_tier_2_and_tier_2.5_waters_508.pdf)

No

001: Chelsea River

Latitude/Longitude: 42.387592°N, 71.020478°W

Tier Designation: N/A

Is this receiving water impaired (on the CWA 303(d) list)? Yes

Has a TMDL been completed for this receiving waterbody? No

Pollutant	Causing Impairment?	TMDL ID	TMDL Name
Ammonia	Yes		
Dissolved oxygen	Yes		
Coliform, fecal general	Yes		
PCB in fish tissue	Yes		
Taste [severity]	Yes		
Turbidity	Yes		

Stormwater Pollution Prevention Plan (SWPPP)

First Name, Middle Initial, Last Name: Chris

Hodney

Title: Project Engineer

Phone: 617-338-0063

Ext.

Email: chodney@nitscheng.com

Endangered Species Protection

Using the Instructions in Appendix D of the CGP, under which criterion listed in Appendix D are you eligible for coverage under this permit? Criterion A

Provide a brief summary of the basis for criterion selection listed above (the necessary content for a supportive basis statement is provided under the criterion you selected.):

NHESP data layer (August 2017 or as amended) from MassGIS, U.S. Fish and Wildlife online system Information for Planning and Conservation (IPaC)

Historic Preservation

Are you installing any stormwater controls as described in Appendix E (https://www.epa.gov/sites/production/files/2017-02/documents/2017_cgp_final_appendix_e_-_historic_properties_reqs_508.pdf) that require subsurface earth disturbances? (Appendix E (https://www.epa.gov/sites/production/files/2017-02/documents/2017_cgp_final_appendix_e_-_historic_properties_reqs_508.pdf), Step 1)

Yes

- ➔ Have prior surveys or evaluations conducted on the site already determined historic properties do not exist, or that prior disturbances have precluded the existence of historic properties? (Appendix E (https://www.epa.gov/sites/production/files/2017-02/documents/2017_cgp_final_appendix_e_-_historic_properties_reqs_508.pdf), Step 2):

Yes

Certification Information

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. Signing an electronic document on behalf of another person is subject to criminal, civil, administrative, or other lawful action.

Certified By: Jonathan Bonaccorsi

Certifier Title: Project Manager

Certifier Email: jbonaccorsi@dellbrookjks.com

Certified On: 12/16/2019 10:25 AMET

Attachment D – Inspection Form

2017 Construction General Permit Inspection Report Template – Field Version

Purpose

This **Inspection Report Template** (or “**template**”) is to assist you in preparing inspection reports for EPA’s 2017 Construction General Permit (CGP). If you are covered under the 2017 CGP, you can use this template to create an inspection report form that is customized to the specific circumstances of your site and that complies with the minimum reporting requirements of Part 4.7 of the permit. Note that the use of this form is optional; you may use your own inspection report form provided it includes the minimum information required in Part 4.7 of the CGP.

If you are covered under a state CGP, this template may be helpful in developing a form that can be used for that permit; however, it will need to be modified to meet the specific requirements of that permit. If your permitting authority requires you to use a specific inspection report form, you should not use this form.

Notes:

While EPA has made every effort to ensure the accuracy of all instructions contained in the Inspection Report Template, it is the permit, not the template, that determines the actual obligations of regulated construction stormwater discharges. In the event of a conflict between the Inspection Report Template and any corresponding provision of the 2017 CGP, you must abide by the requirements in the permit. EPA welcomes comments on the Inspection Report Template at any time and will consider those comments in any future revision of this document. You may contact EPA for CGP-related inquiries at cgp@epa.gov.

Overview of Inspection Requirements (see CGP Part 4)

Construction operators covered under the 2017 CGP are subject to the following inspection requirements:

Person(s) Responsible for Inspecting the Site (see Part 4.1)

The person(s) inspecting your site must be a “**qualified person**” who may be either on your staff or a third party you hire to conduct such inspections.

- A “**qualified person**” is a person knowledgeable in the principles and practice of erosion and sediment controls and pollution prevention, who possesses the appropriate skills and training to assess conditions at the construction site that could impact stormwater quality, and the appropriate skills and training to assess the effectiveness of any stormwater controls selected and installed to meet the requirements of this permit.

Inspection Frequency (see Part 4.2)

You are required to conduct inspections either:

- Once every 7 calendar days; or
- Once every 14 calendar days and within 24 hours of a storm event of 0.25 inches or greater or the occurrence of runoff from snowmelt sufficient to cause a discharge.

Your inspection frequency is increased if the site discharges to a sensitive water. See Part 4.3. Your inspection frequency may be decreased to account for stabilized areas, or for arid, semi-arid, or drought-stricken conditions, or for frozen conditions. See Part 4.4.

Areas That Need to Be Inspected (see Part 4.5)

During each inspection, you must inspect the following areas of your site:

- Cleared, graded, or excavated areas of the site;
- Stormwater controls (e.g., perimeter controls, sediment basins, inlets, exit points etc.) and pollution prevention practices (e.g., pollution prevention practices for vehicle fueling/maintenance and washing, construction product storage, handling, and disposal, etc.) at the site;
- Material, waste, or borrow areas covered by the permit, and equipment storage and maintenance areas;
- Areas where stormwater flows within the site;
- Stormwater discharge points; and
- Areas where stabilization has been implemented.

What to Check For During Your Inspection (see Part 4.6)

During your site inspection, you are required to check:

- Whether stormwater controls or pollution prevention practices are properly installed, require maintenance or corrective action, or whether new or modified controls are required;
- For the presence of conditions that could lead to spills, leaks, or other pollutant accumulations and discharges;
- For locations where new or modified stormwater controls are necessary to meet requirements of the permit;

- Whether there are visible signs of erosion and sediment accumulation at points of discharge and to the channels and streambanks that are in the immediate vicinity of the discharge;
- If a stormwater discharge is occurring at the time of the inspection, whether there are obvious, visual signs of pollutant discharges; and
- If any permit violations have occurred on the site.

Inspection Reports (see Part 4.7)

Within 24 hours of completing each inspection, you are required to complete an inspection report that includes:

- Date of inspection;
- Names and titles of person(s) conducting the inspection;
- Summary of inspection findings;
- Rain gauge or weather station readings if your inspection is triggered by the 0.25-inch storm threshold; and
- If you determine that a portion of your site is unsafe to access for the inspection, documentation of what conditions prevented the inspection and where these conditions occurred on the site

Instructions for Using This Template

This Field Version of the Inspection Report Template is intended to be used in the field and filled out by hand. If you will be filling out the Inspection Report Template electronically (i.e., you will be typing in your findings), please use the Electronic Version of the Inspection Report Template available at <https://www.epa.gov/npdes/stormwater-discharges-construction-activities#resources>. The Electronic Version includes text fields with instructions for what to enter.

Keep in mind that this document is a template and not an "off-the-shelf" inspection report that is ready to use without some modification. You must first customize this form to include the specifics of your project in order for it to be useable for your inspection reports. Once you have entered all of your site-specific information into these fields, you may print out this form for use in the field to complete inspection reports.

The following tips for using this template will help you ensure that the minimum permit requirements are met:

- Review the inspection requirements. Before you start developing your inspection report form, read the CGP's Part 4 inspection requirements. This will ensure that you have a working understanding of the permit's underlying inspection requirements.
- Complete all required text fields. Fill out all text fields. Only by filling out all fields will the template be compliant with the requirements of the permit. (Note: Where you do not need the number of rows provided in the template form for your inspection, you may leave those rows blank. Or, if you need more space to document your findings, you may add an additional sheet.)
- Use your site map to document inspection findings. In several places in the template, you are directed to specify the location of certain features of your site, including where stormwater controls are installed and where you will be stabilizing exposed soil. You are also asked to fill in location information for unsafe conditions and the locations of any discharges occurring during your inspections. Where you are asked for location information, EPA encourages you to reference the point on your SWPPP site map that corresponds to the requested location on the inspection form. Using the site map as a tool in this way will help you conduct efficient inspections, will assist you in evaluating problems found, and will ensure proper documentation.
- Sign and certify each inspection report. The operator or a duly authorized representative (see Appendix I, Part I.11.2) must sign and certify each inspection report for it to be considered complete. Where a contractor or subcontractor carries out your inspections, it is recommended that you also have the inspector sign and certify the form, in addition to the signature and certification required of the permitted operator. The template includes a signature block for both parties.
- Include the inspection form with your SWPPP. Once your form is complete, make sure to include a copy of the inspection form in your SWPPP in accordance with Part 7.2.7.e of the CGP.
- Retain copies of all inspection reports with your records. You must also retain in your records copies of all inspection reports in accordance with the requirements in Part 4.7.3 of the 2017 CGP. These reports must be retained for at least 3 years from the date your permit coverage expires or is terminated.

Section-by-Section Instructions

You will find specific instructions corresponding to each section of the report form on the reverse side of each page. These instructions provide you with more details in terms of what EPA expects to be documented in these reports.

General Information
(see reverse for instructions)

Name of Project		NPDES ID No.		Inspection Date	
Weather conditions during inspection		Inspection start time		Inspection end time	
Inspector Name, Title & Contact Information					
Present Phase of Construction					
Inspection Location (if multiple inspections are required, specify location where this inspection is being conducted)					

Inspection Frequency *(Note: you may be subject to different inspection frequencies in different areas of the site. Check all that apply)*

Standard Frequency:

Every 7 days

Every 14 days and within 24 hours of a 0.25" rain or the occurrence of runoff from snowmelt sufficient to cause a discharge

Increased Frequency:

Every 7 days and within 24 hours of a 0.25" rain (for areas of sites discharging to sediment or nutrient-impaired waters or to waters designated as Tier 2, Tier 2.5, or Tier 3)

Reduced Frequency:

Twice during first month, no more than 14 calendar days apart; then once per month after first month; (for stabilized areas)

Twice during first month, no more than 14 calendar days apart; then once more within 24 hours of a 0.25" rain (for stabilized areas on "linear construction sites")

Once per month and within 24 hours of a 0.25" rain (for arid, semi-arid, or drought-stricken areas during seasonally dry periods or during drought)

Once per month (for frozen conditions where earth-disturbing activities are being conducted)

Was this inspection triggered by a 0.25" storm event? Yes No

If yes, how did **you determined whether a 0.25" storm event has occurred?**

Rain gauge on site Weather station representative of site. Specify weather station source:

Total rainfall amount that triggered the inspection (in inches):

Was this inspection triggered by the occurrence of runoff from snowmelt sufficient to cause a discharge? Yes No

Unsafe Conditions for Inspection

Did you determine that any portion of your site was unsafe for inspection per CGP Part 4.5? Yes No

If "yes", complete the following:

- Describe the conditions that prevented you from conducting the inspection in this location:

- Location(s) where conditions were found:

Instructions for Filling Out “General Information” Section

Name of Project

Enter the name for the project.

NPDES ID No.

Enter the NPDES ID number that was assigned to your NOI for permit coverage.

Inspection Date

Enter the date you conducted the inspection.

Weather Conditions During Inspection

Enter the weather conditions occurring during the inspection, e.g., sunny, overcast, light rain, heavy rain, snowing, icy, windy.

Inspection start and end times

Enter the time you started and ended the inspection.

Inspector Name, Title & Contact Information

Provide the name of the person(s) (either a member of your company's staff or a contractor or subcontractor) that conducted this inspection. Provide the inspector's name, title, and contact information as directed in the form.

Present Phase of Construction

If this project is being completed in more than one phase, indicate which phase it is currently in.

Inspection Location

If your project has multiple locations where you conduct separate inspections, specify the location where this inspection is being conducted. If only one inspection is conducted for your entire project, enter “Entire Site.” If necessary, complete additional inspection report forms for each separate inspection location.

Inspection Frequency

Check the box that describes the inspection frequency that applies to you. Note that you may be subject to different inspection frequencies in different areas of your site. If your project does not discharge to a “sensitive water” (i.e., a water impaired for sediment or nutrients, or listed as Tier 2, 2.5, or 3 by your state or tribe) and you are not affected by any of the circumstances described in CGP Part 4.4, then you can choose your frequency based on CGP Part 4.2 – either every 7 calendar days, or every 14 calendar days and within 24 hours of a 0.25-inch storm event. For any portion of your site that discharges to a sensitive water, your inspection frequency for that area is fixed under CGP Part 4.3 at every 7 calendar days and within 24 hours of a 0.25-inch storm event. If portions of your site are stabilized, are located in arid, semi-arid, or drought-stricken areas, or are subject to frozen conditions, consult CGP Part 4.4 for the applicable inspection frequency. Check all the inspection frequencies that apply to your project.

Was This Inspection Triggered by a 0.25 Inch Storm Event or the occurrence of runoff from snowmelt sufficient to cause a discharge?

If you were required to conduct this inspection because of a 0.25-inch (or greater) rain event, indicate whether you relied on an on-site rain gauge or a nearby weather station (and where the weather station is located). Also, specify the total amount of rainfall for this specific storm event. If you were required to conduct this inspection because of the occurrence of runoff from snowmelt, then check the appropriate box.

Unsafe Conditions for Inspection

Inspections are not required where a portion of the site or the entire site is subject to unsafe conditions. See CGP Part 4.5. These conditions should not regularly occur, and should not be consistently present on a site. Generally, unsafe conditions are those that render the site (or a portion of it) inaccessible or that would pose a significant probability of injury to applicable personnel. Examples could include severe storm or flood conditions, high winds, and downed electrical wires.

If your site, or a portion of it, is affected by unsafe conditions during the time of your inspection, provide a description of the conditions that prevented you from conducting the inspection and what parts of the site were affected. If the entire site was considered unsafe, specify the location as “Entire site”

Condition and Effectiveness of Erosion and Sediment (E&S) Controls (CGP Part 2.2)
(see reverse for instructions)

Type/Location of E&S Control [Add an additional sheet if necessary]	Maintenance Needed?*	Corrective Action Required?*	Date on Which Maintenance or Corrective Action First Identified?	Notes
1.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
2.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
3.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
4.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
5.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
6.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
7.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
8.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
9.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
10.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		

* Note: The permit differentiates between conditions requiring routine maintenance, and those requiring corrective action. The permit requires maintenance in order to keep controls in effective operating condition. Corrective actions are triggered only for specific conditions, which include: 1) A stormwater control needs repair or replacement (beyond routine maintenance) if it is not operating as intended; 2) A stormwater control necessary to comply with the permit was never installed or was installed incorrectly; 3) You become aware that the stormwater controls you have installed and are maintaining are not effective enough for the discharge to meet applicable water quality standards or applicable requirements in Part 3.1; 4) One of the prohibited discharges in Part 1.3 is occurring or has occurred; or 5) EPA requires corrective actions as a result of a permit violation found during an inspection carried out under Part 4.8. If a condition on your site requires a corrective action, you must also fill out a corrective action form found at <https://www.epa.gov/npdes/stormwater-discharges-construction-activities#resources>. See Part 5 of the permit for more information.

Instructions for Filling Out the “Erosion and Sediment Control” Table

Type and Location of E&S Controls

Provide a list of all erosion and sediment (E&S) controls that your SWPPP indicates will be installed and implemented at your site. This list must include at a minimum all E&S controls required by CGP Part 2.2. Include also any natural buffers established under CGP Part 2.2.1. Buffer requirements apply if **your project's earth-disturbing activities** will occur within 50 feet of a water of the U.S. You may group your E&S controls on your form if you have several of the same type of controls (e.g., you may group “Inlet Protection Measures”, “Perimeter Controls”, and “Stockpile Controls” together on one line), but if there are any problems with a specific control, you must separately identify the location of the control, whether maintenance or corrective action is necessary, and in the notes section you must describe the specifics about the problem you observed.

Maintenance Needed?

Answer “yes” if the E&S control requires maintenance due to normal wear and tear in order for the control to continue operating effectively. At a minimum, maintenance is required in the following specific instances: (1) for perimeter controls, whenever sediment has accumulated to half or more the above-ground height of the control (CGP Part 2.2.3.a); (2) where sediment has been tracked-out onto the surface of off-site streets or other paved areas (CGP Part 2.2.4); (3) for inlet protection measures, when sediment accumulates, the filter becomes clogged, and/or performance is compromised (CGP Part 2.2.10); and (4) for sediment basins, as necessary to maintain at least half of the design capacity of the basin (CGP Part 2.2.12.f). Note: In many cases, “yes” answers are expected and indicate a project with an active operation and maintenance program. You should also answer “yes” if work to fix the problem is still ongoing from the previous inspection.

Corrective Action Needed?

Answer “yes” if during your inspection you found any of the following conditions to be present (CGP, Part 5.1): (1) a required E&S control needs repair or replacement (beyond routine maintenance required under Part 2.1.4); (2) a required E&S control was never installed or was installed incorrectly; (3) you become aware that the inadequacy of the E&S control has led to an exceedance of an applicable water quality standard; (4) one of the prohibited discharges in Part 1.3 is occurring or has occurred; or (5) EPA requires corrective action for an E&S control as a result of a permit violation found during an inspection carried out under Part 4.8. If you answer “yes”, you must take corrective action and complete a corrective action report, found at <https://www.epa.gov/npdes/stormwater-discharges-construction-activities#resources>. Note: You should answer “yes” if work to fix the problem from a previous inspection is still ongoing.

Date on Which Maintenance or Corrective Action First Identified?

Provide the date on which the condition that triggered the need for maintenance or corrective action was first identified. If the condition was just discovered during this inspection, enter the inspection date. If the condition is a carryover from a previous inspection, enter the original date of the condition's discovery.

Notes

For each E&S control and the area immediately surrounding it, note whether the control is properly installed and whether it appears to be working to minimize sediment discharge. Describe any problem conditions you observed such as the following, and why you think they occurred as well as actions (e.g., maintenance or corrective action) you will take or have taken to fix the problem:

1. Failure to install or to properly install a required E&S control
2. Damage or destruction to an E&S control caused by vehicles, equipment, or personnel, a storm event, or other event
3. Mud or sediment deposits found downslope from E&S controls
4. Sediment tracked out onto paved areas by vehicles leaving construction site
5. Noticeable erosion at discharge outlets or at adjacent streambanks or channels
6. Erosion of the site's sloped areas (e.g., formation of rills or gullies)
7. E&S control is no longer working due to lack of maintenance

For buffer areas, make note of whether they are marked off as required, whether there are signs of construction disturbance within the buffer, which is prohibited under the CGP, and whether there are visible signs of erosion resulting from discharges through the area.

If maintenance or corrective action is required, briefly note the reason. If maintenance or corrective action have been completed, make a note of the date it was completed and what was done. *If corrective action is required, note that you will need to complete a separate corrective action report describing the condition and your work to fix the problem.*

Condition and Effectiveness of Pollution Prevention (P2) Practices (CGP Part 2.3)
(see reverse for instructions)

Type/Location of P2 Practices [Add an additional sheet if necessary]	Maintenance Needed?*	Corrective Action Required?*	Date on Which Maintenance or Corrective Action First Identified?	Notes
1.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
2.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
3.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
4.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
5.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
6.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
7.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
8.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
9.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
10.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		

* Note: The permit differentiates between conditions requiring routine maintenance, and those requiring corrective action. The permit requires maintenance in order to keep controls in effective operating condition. Corrective actions are triggered only for specific conditions, which include: 1) A stormwater control needs repair or replacement (beyond routine maintenance) if it is not operating as intended; 2) A stormwater control necessary to comply with the permit was never installed or was installed incorrectly; 3) You become aware that the stormwater controls you have installed and are maintaining are not effective enough for the discharge to meet applicable water quality standards or applicable requirements in Part 3.1; 4) One of the prohibited discharges in Part 1.3 is occurring or has occurred; or 5) EPA requires corrective actions as a result of a permit violation found during an inspection carried out under Part 4.8. If a condition on your site requires a corrective action, you must also fill out a corrective action form found at <https://www.epa.gov/npdes/stormwater-discharges-construction-activities#resources>. See Part 5 of the permit for more information.

Instructions for Filling Out the "Pollution Prevention (P2) Practice" Table

Type and Location of P2 Controls

Provide a list of all pollution prevention (P2) practices that are implemented at your site. This list must include all P2 practices required by Part 2.3, and those that are described in your SWPPP.

Maintenance Needed?

Answer "yes" if the P2 practice requires maintenance due to normal wear and tear in order for the control to continue operating effectively. Note: In many cases, "yes" answers are expected and indicate a project with an active operation and maintenance program.

Corrective Action Needed?

Answer "yes" if during your inspection you found any of the following conditions to be present (CGP, Part 5.1): (1) a required P2 practice needs repair or replacement (beyond routine maintenance required under Part 2.1.4); (2) a required P2 practice was never installed or was installed incorrectly; (3) you become aware that the inadequacy of the P2 practice has led to an exceedance of an applicable water quality standard; (4) one of the "prohibited discharges" listed in CGP Part 1.3 is occurring or has occurred, or (5) EPA requires corrective action for a P2 practice as a result of a permit violation found during an inspection carried out under Part 4.8.

If you answer "yes", you must take corrective action and complete a corrective action report (see <https://www.epa.gov/npdes/stormwater-discharges-construction-activities#resources>). Note: You should answer "yes" if work to fix the problem from a previous inspection is still ongoing.

Date on Which Maintenance or Corrective Action First Identified?

Provide the date on which the condition that triggered the need for maintenance or corrective action was first identified. If the condition was just discovered during this inspection, enter the inspection date. If the condition is a carryover from a previous inspection, enter the original date of the condition's discovery.

Notes

For each P2 control and the area immediately surrounding it, note whether the control is properly installed, whether it appears to be working to minimize or eliminate pollutant discharges, and whether maintenance or corrective action is required. Describe problem conditions you observed such as the following, and why you think they occurred, as well as actions you will take or have taken to fix the problem:

1. Failure to install or to properly install a required P2 control
2. Damage or destruction to a P2 control caused by vehicles, equipment, or personnel, or a storm event
3. Evidence of a spill, leak, or other type of pollutant discharge, or failure to have properly cleaned up a previous spill, leak, or other type of pollutant discharge
4. Spill response supplies are absent, insufficient, or not where they are supposed to be located
5. Improper storage, handling, or disposal of chemicals, building materials or products, fuels, or wastes
6. P2 practice is no longer working due to lack of maintenance

If maintenance or corrective action is required, briefly note the reason. If maintenance or corrective action have been completed, make a note of the date it was completed and what was done. *If corrective action is required, note that you will need to complete a separate corrective action report describing the condition and your work to fix the problem.*

Stabilization of Exposed Soil (CGP Part 2.2.14) (see reverse for instructions)			
Stabilization Area [Add an additional sheet if necessary]	Stabilization Method	Have You Initiated Stabilization?	Notes
1.		<input type="checkbox"/> YES <input type="checkbox"/> NO If yes, provide date:	
2.		<input type="checkbox"/> YES <input type="checkbox"/> NO If yes, provide date:	
3.		<input type="checkbox"/> YES <input type="checkbox"/> NO If yes, provide date:	
4.		<input type="checkbox"/> YES <input type="checkbox"/> NO If yes, provide date:	
5.		<input type="checkbox"/> YES <input type="checkbox"/> NO If yes, provide date:	

Description of Discharges (CGP Part 4.6.6) (see reverse for instructions)	
Was a stormwater discharge or other discharge occurring from any part of your site at the time of the inspection? <input type="checkbox"/> Yes <input type="checkbox"/> No If "yes", provide the following information for each point of discharge:	
Discharge Location [Add an additional sheet if necessary]	Observations
1.	Describe the discharge: At points of discharge and the channels and banks of waters of the U.S. in the immediate vicinity, are there any visible signs of erosion and/or sediment accumulation that can be attributed to your discharge? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe what you see, specify the location(s) where these conditions were found, and indicate whether modification, maintenance, or corrective action is needed to resolve the issue:
2.	Describe the discharge: At points of discharge and the channels and banks of waters of the U.S. in the immediate vicinity, are there any visible signs of erosion and/or sediment accumulation that can be attributed to your discharge? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe what you see, specify the location(s) where these conditions were found, and indicate whether modification, maintenance, or corrective action is needed to resolve the issue:

Instructions for Filling Out the “Stabilization of Exposed Soil” Table

Stabilization Area

List all areas where soil stabilization is required to begin because construction work in that area has permanently stopped or temporarily stopped (i.e., work will stop for 14 or more days), and all areas where stabilization has been implemented.

Stabilization Method

For each area, specify the method of stabilization (e.g., hydroseed, sod, planted vegetation, erosion control blanket, mulch, rock).

Have You Initiated Stabilization

For each area, indicate whether stabilization has been initiated.

Notes

For each area where stabilization has been initiated, describe the progress that has been made, and what additional actions are necessary to complete stabilization. Note the effectiveness of stabilization in preventing erosion. If stabilization has been initiated but not completed, make a note of the date it is to be completed. If stabilization has been completed, make a note of the date it was completed. If stabilization has not yet been initiated, make a note of the date it is to be initiated, and the date it is to be completed.

Instructions for Filling Out the “Description of Discharges” Table

You are only required to complete this section if a discharge is occurring at the time of the inspection.

Was a Stormwater Discharge Occurring From Any Part of Your Site At The Time of the Inspection?

During your inspection, examine all points of discharge from your site, and determine whether a discharge is occurring. If there is a discharge, answer “yes” and complete the questions below regarding the specific discharge. **If there is not a discharge, answer “no” and skip to the next page.**

Discharge Location (repeat as necessary if there are multiple points of discharge)

Location of discharge. Specify the location on your site where the discharge is occurring. The location may be an outlet from a stormwater control or constructed stormwater channel, a discharge into a storm sewer inlet, or a specific point on the site. Be as specific as possible; it is recommended that you refer to a precise point on your site map.

Describe the discharge. Include a specific description of any noteworthy characteristics of the discharge such as color; odor; floating, settled, or suspended solids; foam; oil sheen; and other obvious pollution indicators.

Are there visible signs of erosion or sediment accumulation? At each point of discharge and the channel and streambank in the immediate vicinity, visually assess whether there are any obvious signs of erosion and/or sediment accumulation that can be attributed to your discharge. **If you answer “yes”,** include a description in the space provided of the erosion and sediment deposition that you have found, specify where on the site or in the water of the U.S. it is found, and indicate whether modification, maintenance, or corrective action is needed to resolve the issue.

Contractor or Subcontractor Signature and Certification
(see reverse for instructions)

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature of Contractor or Subcontractor: _____ Date: _____

Printed Name and Affiliation: _____

Operator Signature and Certification
(see reverse for instructions)

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature of Operator or **"Duly Authorized Representative"**: _____ Date: _____

Printed Name and Affiliation: _____

Instructions for Signature/Certification

Each inspection report must be signed and certified to be considered complete.

Contractor or Subcontractor Signature and Certification

Where you rely on a contractor or subcontractor to carry out the inspection and complete the inspection report, you should require the inspector to sign and certify each report. Note that this does not relieve you, the permitted operator, of the requirement to sign and certify the inspection report as well.

Operator Signature and Certification

At a minimum, the inspection report must be signed by either (1) the person who signed the NOI, or (2) a duly authorized representative of that person. The following requirements apply to scenarios (1) and (2):

If the signatory will be the person who signed the NOI for permit coverage, as a reminder, that person must be one of the following types of individuals:

- *For a corporation:* A responsible corporate officer. For the purpose of this subsection, a responsible corporate officer means: (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
- *For a partnership or sole proprietorship:* A general partner or the proprietor, respectively.
- *For a municipality, state, federal, or other public agency:* Either a principal executive officer or ranking elected official. For purposes of this subsection, a principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of EPA).

If the signatory will be a duly authorized representative, the following requirements must be met:

- The authorization is made in writing by the person who signed the NOI (see above);
- The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and
- The signed and dated written authorization is included in the SWPPP. A copy must be submitted to EPA, if requested.

Attachment E – Corrective Action Form

2017 Construction General Permit Corrective Action Report Form – Field Version

Purpose

This Corrective Action Report Form is to assist you in preparing corrective action reports for EPA's 2017 Construction General Permit (CGP). If you are covered under EPA's 2017 CGP, you can use this form to create a corrective action report that complies with the minimum reporting requirements of Part 5.4 of the permit.

You are only required to fill out this form if one of the conditions triggering corrective action in Part 5.1 or 5.3 occurs on your site. Routine maintenance is generally not considered to trigger corrective action. Corrective actions are triggered only for specific conditions that are **identified below in the "Overview of Corrective Action Requirements."**

If you are covered under a state CGP, this form may be helpful in developing a report that can be used for that permit; however, it will need to be modified to meet the specific requirements of the permit. If your permitting authority requires you to use a specific corrective action report form, you should not use this form.

Notes

While EPA has made every effort to ensure the accuracy of all instructions contained in the Corrective Action Report Form, it is the permit, not the form, that determines the actual obligations of regulated construction stormwater discharges. In the event of a conflict between the Corrective Action Report Form and any corresponding provision of the 2017 CGP, you must abide by the requirements in the permit. EPA welcomes comments on the Corrective Action Report Form at any time and will consider those comments in any future revision of this document. You may contact EPA for CGP-related inquiries at cgp@epa.gov.

Overview of Corrective Action Requirements

Construction operators covered under the 2017 CGP are required to conduct corrective actions and report on progress made in correcting the problem condition(s) in accordance with the following requirements:

Conditions Triggering Corrective Action (Parts 5.1 and 5.3)

Corrective action is required whenever any of the following conditions occur at your site:

- A stormwater control needs repair or replacement (beyond routine maintenance required under Part 2.1.4); or
- A stormwater control necessary to comply with the requirements of this permit was never installed, or was installed incorrectly; or
- Discharges are causing an exceedance of applicable water quality standards; or
- A Part 1.3 prohibited discharge has occurred; or
- EPA requires corrective action as a result of permit violations found during an inspection carried out under Part 4.8.

Deadlines for Completing Corrective Actions (Part 5.2)

For any condition triggering corrective action:

- You must immediately take all reasonable steps to address the condition (e.g. cleaning up contaminated surfaces so the material(s) is not discharged in subsequent storm events);
- If the problem does not require a new or replacement control or significant repair, you must complete the corrective action by the close of the next business day
- If the problem does require a new or replacement control or significant repair, you must complete corrective action (e.g., installing and making operational any new or modified control, completing repairs) by no later than 7 calendar days from the time of discovery of the condition. If infeasible to complete the installation or repair within 7 calendar days, you must document why it is infeasible and document your schedule for completing the corrective action as soon as practicable. If any of these actions result in changes to the stormwater controls documented in your SWPPP, you must modify your SWPPP within 7 calendar days.

Deadlines for Documenting Corrective Actions in a Report (Part 5.4)

You are required to complete a corrective action report for each corrective action you take in accordance with the following deadlines.

- Within 24 hours of *identifying* the corrective action condition, you must document the following:
 - The condition identified at your site; and
 - The date and time you identified the condition

- Within 24 hours of completing the corrective action, you must document the following:
 - The actions you took to address the condition, and
 - Whether any SWPPP modifications are required.

Instructions for Using This Report Form

This Field Version of the Corrective Action Report Form is intended to be used in the field and filled out by hand. If you will be filling out the Corrective Action Report Form electronically (i.e., you will be typing in your findings), please use the Electronic Version of the Corrective Action Report Form available at <https://www.epa.gov/npdes/stormwater-discharges-construction-activities#resources>. The Electronic Version includes text fields with instructions for what to enter.

The following tips for using this form will help you ensure that the minimum permit requirements are met:

- Review the corrective action requirements. Before you fill out this corrective action report form, read the CGP's Part 5 corrective action requirements. This will ensure that you have a working understanding of the permit's underlying corrective action requirements.
- Complete a separate report for each condition that triggers corrective action. For each triggering condition on your site, you will need to fill out a separate corrective action report form.
- Complete all required text fields. Fill out all text fields. Only by filling out all fields will the form be compliant with the requirements of the permit. (Note: Where you do not need the number of rows provided in the corrective action report form, you may leave those rows blank. Or, if you need more space to document your findings, you may add an additional sheet.)
- Sign and certify each corrective action report. The operator or a duly authorized representative (see Appendix I, Part I.11.2) must sign and certify each corrective action report form for it to be considered complete. Where a contractor or subcontractor carries out your corrective actions, it is recommended that you also have that individual sign and certify the form, in addition to the signature and certification required of the permitted operator. The form includes a signature block for both parties.
- Include the corrective action report form with your SWPPP. Once your form is complete, make sure to include a copy of the corrective action report form in your SWPPP in accordance with Part 7.2.7.e of the CGP.
- Retain copies of all corrective action reports with your records. You must retain copies of your corrective action reports in your records in accordance with the requirements in Part 5.4.4 of the 2017 CGP. These reports must be retained for at least 3 years from the date your permit coverage expires or is terminated.

Section-by-Section Instructions

You will find specific instructions corresponding to each section of the report form on the reverse side of each page. These instructions were written in order to provide you with more details in terms of what EPA expects to be documented in these reports

Section A – Initial Report (CGP Part 5.4.1)
 (Complete this section within 24 hours of identifying the condition that triggered corrective action)

Name of Project		NPDES ID No.		Today's Date	
-----------------	--	--------------	--	---------------------	--

Date Problem First Discovered		Time Problem First Discovered	
-------------------------------	--	-------------------------------	--

Name and Contact Information of Individual Completing this Form	
---	--

- What site conditions triggered the requirement to conduct corrective action (*check the box that applies*):
- A stormwater control needs repair or replacement (beyond routine maintenance required under Part 2.1.4)
 - A stormwater control necessary to comply with the requirements of this permit was never installed, or was installed incorrectly
 - A discharge is causing an exceedance of applicable water quality standards
 - A Part 1.3 prohibited discharge has occurred
 - EPA requires corrective action as a result of permit violations found during an EPA inspection carried out under Part 4.8

Provide a description of the problem:

- Deadline for completing corrective action (*check the box that applies*):
- Immediately take all reasonable steps to address the condition, including cleaning up any contaminated surfaces so the material will not discharge in subsequent storm events
 - Complete by close of the next business day when problem does not require a new or replacement control or significant repair
 - No later than 7 calendar days from the time of discovery for problems that require a new or replacement control or significant repair
 - Infeasible to complete the installation or repair within 7 calendar days. Explain why it is infeasible and document schedule for installing control:

Enter date of corrective action completion: _____

Section B – Corrective Action Completion (CGP Part 5.4.2)
 (Complete this section no later than 24 hours after completing the corrective action)

Section B.1 – Why the Problem Occurred

Cause(s) of Problem (Add an additional sheet if necessary)	How You Determined the Cause and the Date You Determined the Cause
1.	1.
2.	2.

Section B.2 – Stormwater Control Modifications Implemented to Correct the Problem

List of Stormwater Control Modification(s) Needed to Correct Problem (Add an additional sheet if necessary)	Date of Completion	SWPPP Update Necessary?	Notes
1.		<input type="checkbox"/> Yes <input type="checkbox"/> No If yes, provide date SWPPP modified:	
2.		<input type="checkbox"/> Yes <input type="checkbox"/> No If yes, provide date SWPPP modified:	

Instructions for Filling Out the Initial Report (Section A)

You must complete Section A of the report form within 24 hours of discovering the condition that triggered corrective action

Name of Project

Enter the name for the project.

NPDES ID No.

Enter the NPDES ID number that was assigned to your NOI for permit coverage.

Today's Date

Enter the date you completed this form.

Date/Time Problem First Discovered

Specify the date on which the triggering condition was first discovered. Also specify the time of the discovery.

Name/Contact Information

Provide the individual's name, title, and contact information as directed in the form.

Site Condition That Triggered Corrective Action

Under the CGP, corrective action is required when one of 4 triggering conditions occurs at your site or when EPA requires a corrective action as a result of a permit violation found during an EPA inspection. See CGP Parts 5.1 and 5.3. Check the box that corresponds to the condition that triggered this corrective action.

Description of the Site Condition

Provide a summary description of the condition you found that triggered corrective action under CGP Part 5.1 and the specific location where it was found. Be as specific as possible about the location; it is recommended that you refer to a precise point on your site map. If you have already provided this explanation in an inspection report, you can refer to that report.

Deadline for Completing Corrective Action

This deadline is fixed in CGP Part 5.2. For all projects, the deadlines are: (1) immediately take all reasonable steps; (2) by the close of the next business day when the problem does not require significant repair or replacement; (3) no more than 7 calendar days after the date you discovered the problem when the problem does require significant repair or replacement, or (4) if it is infeasible to complete work within the first 7 days, as soon as practicable following the 7th day. If your estimated date of completion falls after the 7-day deadline consistent with (3), above, explain (a) why you believe it is infeasible to complete work within 7 days, and (b) why the date you have established for making the new or modified stormwater control operational is the soonest practicable timeframe.

Instructions for Filling Out the Corrective Action Completion Table (Section B)

You must complete Section B of the report form no later than 24 hours after completing the correction action.

Section B.1 – Why the Problem Occurred

After you have had the opportunity to examine the problem more closely, provide details as to what you believe to be the cause of the problem, and specify the follow-up actions you took (along with the dates of such actions) to diagnose the problem. This is consistent with CGP Part 5.4.2.

Section B.2 – Stormwater Control Modifications Implemented

Provide a list of modifications you made to your stormwater controls to correct the problem and the date you completed such work. Keep in mind that your work must be completed within the timeline specified in Section A for the completion of corrective action work.

Also, if a SWPPP modification is necessary consistent with Part 7.4.1.a in order to reflect changes implemented at your site, indicate the date you modified your SWPPP. Keep in mind that SWPPP changes must be made within 7 days of discovering the problem that triggered this corrective action.

Space is provided for you to include additional notes or observations regarding the change that you implemented at your site to correct the problem.

Section C –Signature and Certification (CGP Part 5.4.3)

Section C.1 – Contractor or Subcontractor Signature and Certification

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature of Contractor or Subcontractor: _____

Date:

Printed Name and Affiliation: _____

Section C.2 – Operator Signature and Certification

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature of Operator or **"Duly Authorized Representative"**: _____

Date:

Printed Name and Affiliation: _____

Instructions for Signature and Certification (Section C)

Each corrective action report must be signed and certified to be considered complete.

Section C.1 – Contractor or Subcontractor Signature and Certification

Where you rely on a contractor or subcontractor to complete this report and the associated corrective action, you should require the individual(s) to sign and certify each report. Note that this does not relieve you, the permitted operator, of the requirement to sign and certify the report as well.

Section C.2 – Operator Signature and Certification

At a minimum, the corrective action report form must be signed by either (1) the person who signed the NOI, or (2) a duly authorized representative of that person. The following requirements apply to scenarios (1) and (2):

If the signatory will be the person who signed the NOI for permit coverage, as a reminder, that person must be one of the following types of individuals:

- *For a corporation:* A responsible corporate officer. For the purpose of this subsection, a responsible corporate officer means: (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
- *For a partnership or sole proprietorship:* A general partner or the proprietor, respectively.
- *For a municipality, state, federal, or other public agency:* Either a principal executive officer or ranking elected official. For purposes of this subsection, a principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of EPA).

If the signatory will be a duly authorized representative, the following requirements must be met:

- The authorization is made in writing by the person who signed the NOI (see above);
- The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and
- The signed and dated written authorization is included in the SWPPP. A copy must be submitted to EPA, if requested.

Attachment F – SWPPP Amendment Log

Attachment G –Subcontractor Certifications/Agreements

SUBCONTRACTOR CERTIFICATION
STORMWATER POLLUTION PREVENTION PLAN

Project Number: _____

Project Title: _____

Operator(s): _____

As a subcontractor, you are required to comply with the Stormwater Pollution Prevention Plan (SWPPP) for any work that you perform onsite. Any person or group who violates any condition of the SWPPP may be subject to substantial penalties or loss of contract. You are encouraged to advise each of your employees working on this project of the requirements of the SWPPP. A copy of the SWPPP is available for your review at the office trailer.

Each subcontractor engaged in activities at the construction site that could impact stormwater must be identified and sign the following certification statement:

I certify under the penalty of law that I have read and understand the terms and conditions of the SWPPP for the above designated project and agree to follow the practices described in the SWPPP.

This certification is hereby signed in reference to the above named project:

Company: _____

Address: _____

Telephone Number: _____

Type of construction service to be provided: _____

Signature: _____

Title: _____

Date: _____

Attachment H – Grading and Stabilization Activities Log

Attachment I – SWPPP Training Log

Stormwater Pollution Prevention Training Log

Project Name: **144 Addison Street**

Project Location: **East Boston, Massachusetts**

Instructor's Name(s):

Instructor's Title(s):

Course Location: _____ Date: _____

Course Length (hours): _____

Stormwater Training Topic: *(check as appropriate)*

- Sediment and Erosion Controls**
- Emergency Procedures**
- Stabilization Controls**
- Inspections/Corrective Actions**
- Pollution Prevention Measures**

Specific Training Objective: _____

Attendee Roster: *(attach additional pages as necessary)*

No.	Name of Attendee	Company
1		
2		
3		
4		
5		
6		
7		
8		

Attachment J – Delegation of Authority Form

Delegation of Authority

I, _____ (name), hereby designate the person or specifically described position below to be a duly authorized representative for the purpose of overseeing compliance with environmental requirements, including the Construction General Permit, at the _____ construction site. The designee is authorized to sign any reports, stormwater pollution prevention plans and all other documents required by the permit.

_____ (name of person or position)
_____ (company)
_____ (address)
_____ (city, state, zip)
_____ (phone)

By signing this authorization, I confirm that I meet the requirements to make such a designation as set forth in Appendix I of EPA's Construction General Permit (CGP), and that the designee above meets the definition of a "duly authorized representative" as set forth in Appendix I.






I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

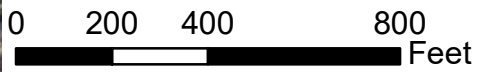
Name: _____
Company: _____
Title: _____
Signature: _____
Date: _____

Attachment K – Endangered Species Documentation



Legend

-  NHESP Certified Vernal Pools
-  NHESP Potential Vernal Pools
-  NHESP Natural Communities
-  NHESP Priority Habitats of Rare Species
-  NHESP Estimated Habitats of Rare Wildlife



USGS, MassGIS

ENDANGERED SPECIES
ADDISON STREET
BOSTON, MASSACHUSETTS

Attachment L – Historic Preservation Documentation



HISTORIC PRESERVATION

ADDISON STREET BOSTON, MASSACHUSETTS

Attachment M – Rainfall Gauge Recording

Use the table below to record the rainfall gauge readings at the beginning and end of each work day. An example table follows.

Month/Year			Month/Year			Month/Year		
Day	Start time	End time	Day	Start time	End time	Day	Start time	End time
1			1			1		
2			2			2		
3			3			3		
4			4			4		
5			5			5		
6			6			6		
7			7			7		
8			8			8		
9			9			9		
10			10			10		
11			11			11		
12			12			12		
13			13			13		
14			14			14		
15			15			15		
16			16			16		
17			17			17		
18			18			18		
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21			21			21		
22			22			22		
23			23			23		
24			24			24		
25			25			25		
26			26			26		
27			27			27		
28			28			28		
29			29			29		
30			30			30		
31			31			31		

Attachment N – Order of Conditions

See Condition #9 Compliance



Nitsch Engineering

Center Plaza, Suite 430

Boston, MA 02108-1928

T: 617-338-0063

F: 617-338-6472

www.nitscheng.com

Conditions #19b-19d: Engineer's Statement

MEMORANDUM

TO: Boston Conservation Commission

FROM: Chris Hodney

DATE: June 7, 2022

RE: DEP File # 006-1613 Statement

Nitsch Project #12433

This document shall serve as the written statement accompanying WPA Form 8A - Request for Certificate of Compliance for 144 Addison Street in East Boston.

To the best of my knowledge, information and belief based on the standards of care of professional engineers practicing in the Commonwealth of Massachusetts familiar with this project, the work as described in the Order of Conditions File #006-1613 is completed in substantial conformance with the approved plans.

This certification is limited to the physical observable elements and by review of the applicable As-built Plans. I confirm following requirements are met:

- The construction period BMPs have almost all been removed. Some remain in areas where vegetation has not fully germinated.
- The as-built final construction plans are included, signed, and stamped by a Registered Professional Surveyor.
- There is no illicit discharge to the stormwater management system, as per the requirement of Stormwater Standard 10.
- The post-construction stormwater BMPs are installed in general conformance with the plans approved by the issuing authority and have been inspected to ensure that they are not damaged and that they are in proper working condition.
- An Operation and Maintenance Compliance Statement (O&M Statement) is provided in a separate document from the Owner.
- The O&M Plan included in the Notice of Intent will be implemented upon receipt of the Certificate of Compliance and is included here for reference.

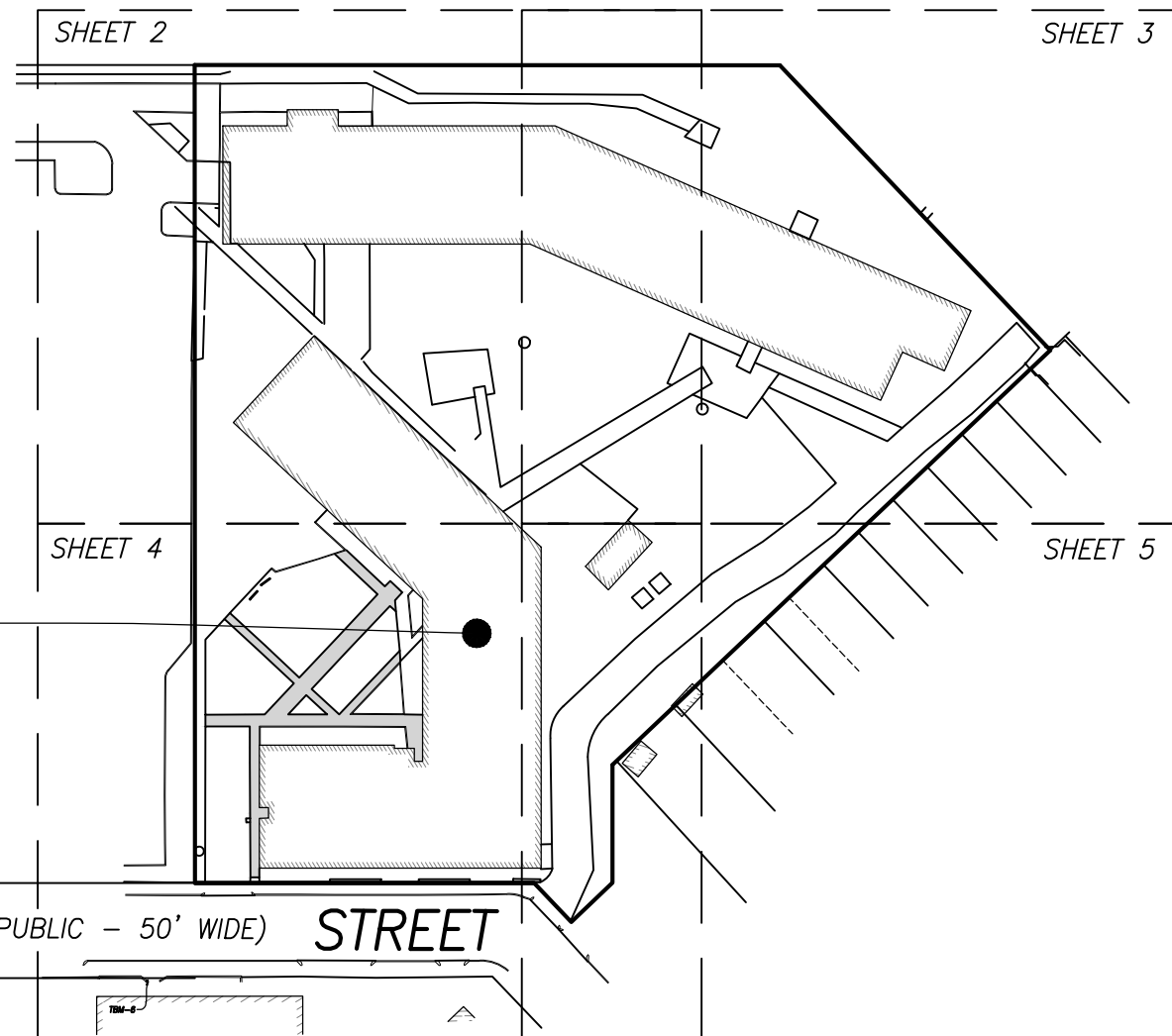
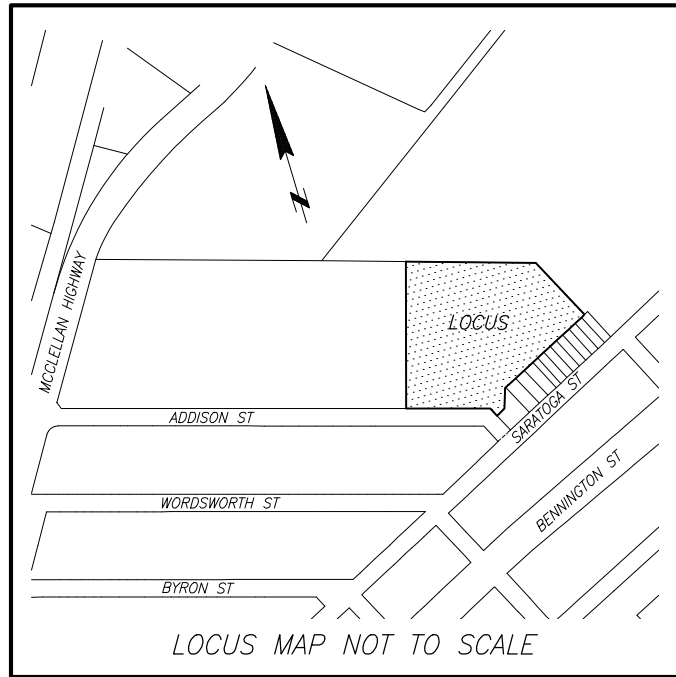
If you have any questions or concerns, please call. I can also be reached at chodney@nitscheng.com.

Very truly yours,

Chris Hodney, PE

Project Manager

12433/project data/Certificate/Con Com Statement 06-08-2022



Now or Formerly
144 ADDISON STREET, LLC
 BOOK 60462, PAGE 115
 PARENT PARCEL ID 0100548150
LOT 2
AREA=143,743 SQ. FT.
 =3.300 ACRES

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


 JOSEPH R. ZAMBUTO, PLS
 (MA# 52783)
 JZAMBUTO@FELDMANGE0.COM

APRIL 26, 2022
 DATE



NOTES:

1. BENCHMARK INFORMATION:

BENCHMARKS TAKEN FROM PLAN ENTITLED "GRID CONTROL PLAN WORKSHEET, 144 ADDISON STREET, BOSTON, MASS", DATED: MAY 14, 2020, BY FELDMAN LAND SURVEYORS. JOB NO. 17241.

TBM-6: RIGHT OUTER CORNER LOWEST CONCRETE STEP AT #155 ADDISON STREET, 0.65' ABOVE GRADE. AS SHOWN HEREON, SEE SHEET 4. ELEVATION = 19.06

TBM-7: RIGHT OUTER CORNER LOWEST CONCRETE STEP AT THE ENTRANCE TO PLANET FITNESS, 0.7' ABOVE GRADE. ELEVATION = 14.21

2. ELEVATIONS REFER TO BOSTON CITY BASE (BCB).

3. CONTOUR INTERVAL EQUALS ONE (1) FOOT.

4. BY GRAPHIC PLOTTING ONLY, THE PARCEL SHOWN HEREON LIES WITHIN A ZONE "AE", BASE FLOOD ELEVATIONS DETERMINED, AND A ZONE "X" (UNSHADED), AN AREA OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOOD, 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.

5. 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.

6. AS-BUILT UTILITY INFORMATION TAKEN FROM A PDF FILE ENTITLED "323000-14.2 ADDISON ST CIVIL_REVISD ASBUILT 11.1.21_REVIEWED" BY D&M CIVIL, AND RECEIVED FROM DELLBROOK | JKS.

7. THIS DOCUMENT IS AN INSTRUMENT OF SERVICE OF FELDMAN GEOSPATIAL ISSUED TO OUR CLIENT FOR PURPOSES RELATED DIRECTLY AND SOLELY TO FELDMAN GEOSPATIAL'S SCOPE OF SERVICES UNDER CONTRACT TO OUR CLIENT FOR THIS PROJECT. ANY USE OR REUSE OF THIS DOCUMENT FOR ANY REASON BY ANY PARTY FOR PURPOSES UNRELATED DIRECTLY AND SOLELY TO SAID CONTRACT SHALL BE AT THE USER'S SOLE AND EXCLUSIVE RISK AND LIABILITY, INCLUDING LIABILITY FOR VIOLATION OF COPYRIGHT LAWS, UNLESS WRITTEN CONSENT IS PROVIDED BY FELDMAN GEOSPATIAL.



BOSTON HEADQUARTERS 152 HAMPDEN STREET BOSTON, MA 02119 (617)357-9740
 WORCESTER OFFICE 27 MECHANIC STREET WORCESTER, MA 01608 www.feldmangeo.com

ADDRESS:

144 ADDISON STREET
 BOSTON, MASS.

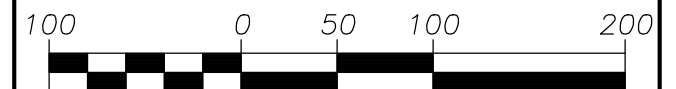
RESEARCH:	FIELD CHIEF: EC
PROJ MGR: JRZ	APPROVED:
CALC:	CADD: CEM
FIELD CHK:	CRD FILE: 2101180

REVISIONS:

DRAWING NAME:

AS-BUILT
 PLAN OF LAND
 KEY SHEET

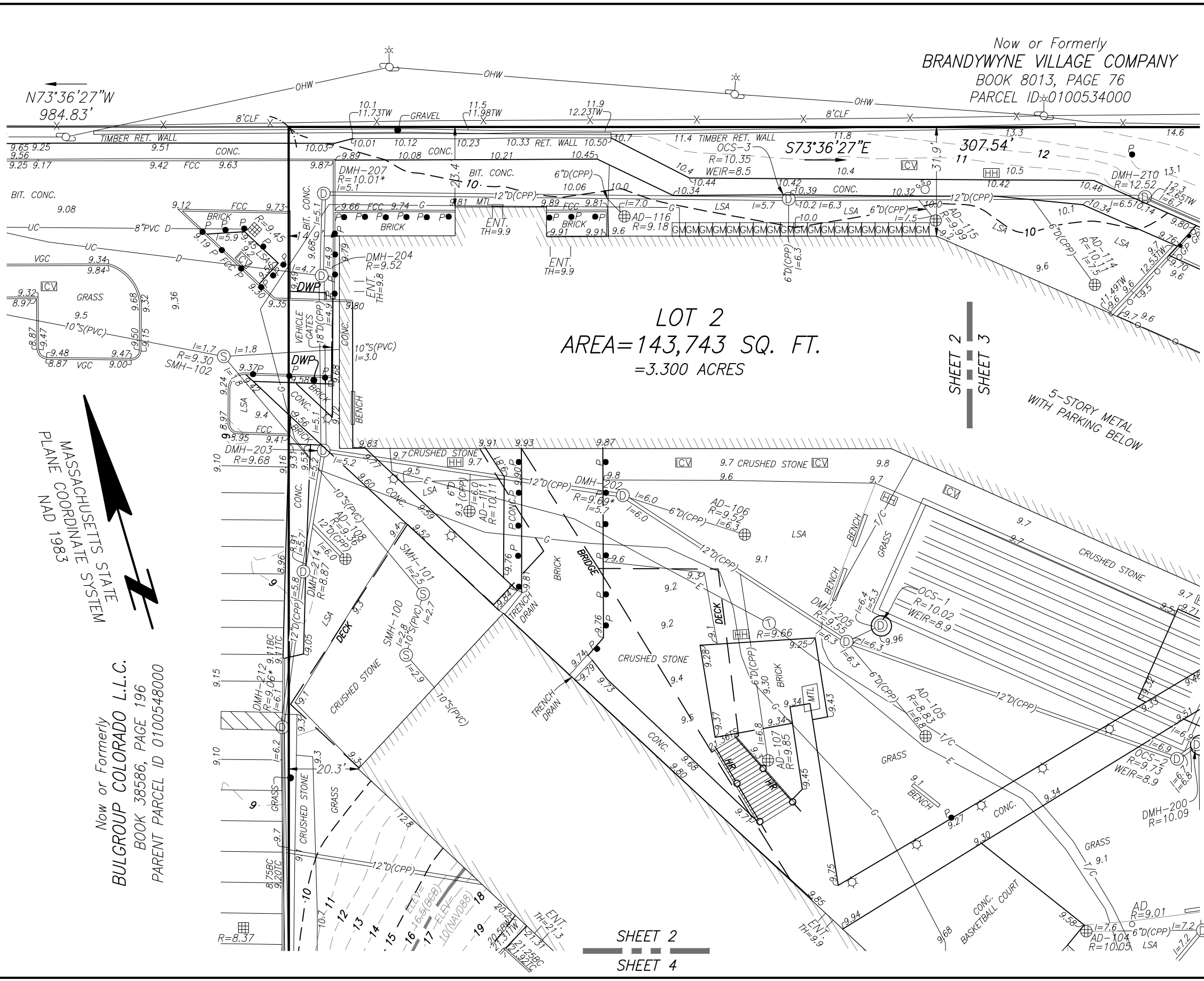
DATE: APRIL 6, 2022



SCALE: 1"=100'

SHEET NO. 1 OF 5

FILENAME: S:\PROJECTS\2021\2101180\DWG\2101180-AB.dwg



Now or Formerly
BRANDYWYNE VILLAGE COMPANY
BOOK 8013, PAGE 76
PARCEL ID: 0100534000

FELDMAN
G E O S P A T I A L

BOSTON HEADQUARTERS 152 HAMPDEN STREET BOSTON, MA 02119 (617)357-9740
WORCESTER OFFICE 27 MECHANIC STREET WORCESTER, MA 01608 www.feldmangeo.com

ADDRESS:

144 ADDISON STREET
BOSTON, MASS.

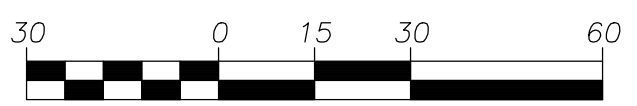
RESEARCH:	FIELD CHIEF: EC
PROJ MGR: JRZ	APPROVED:
CALC:	CADD: CEM
FIELD CHK:	CRD FILE: 2101180

REVISIONS:

DRAWING NAME:

AS-BUILT
PLAN OF LAND

DATE: APRIL 6, 2022



SCALE: 1"=30'

SHEET NO. 2 OF 5

MASSACHUSETTS STATE
PLANE COORDINATE SYSTEM
NAD 1983

Now or Formerly
BULGROUP COLORADO L.L.C.
BOOK 38586, PAGE 196
PARENT PARCEL ID 0100548000

LOT 2
AREA=143,743 SQ. FT.
=3.300 ACRES

SHEET 2
SHEET 4

SHEET 2
SHEET 3
5-STORY METAL
WITH PARKING BELOW

Now or Formerly
BRANDYWYNE VILLAGE COMPANY
 BOOK 8013, PAGE 76
 PARCEL ID: 0100534000

MASSACHUSETTS STATE
 PLANE COORDINATE SYSTEM
 NAD 1983



BOSTON HEADQUARTERS 152 HAMPDEN STREET BOSTON, MA 02119 (617)357-9740
 WORCESTER OFFICE 27 MECHANIC STREET WORCESTER, MA 01608 www.feldmangeo.com

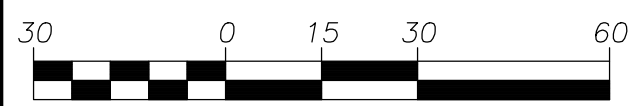
ADDRESS:
 144 ADDISON STREET
 BOSTON, MASS.

RESEARCH:	FIELD CHIEF: EC
PROJ MGR: JRZ	APPROVED:
CALC:	CADD: CEM
FIELD CHK:	CRD FILE: 2101180

REVISIONS:

DRAWING NAME:
**AS-BUILT
 PLAN OF LAND**

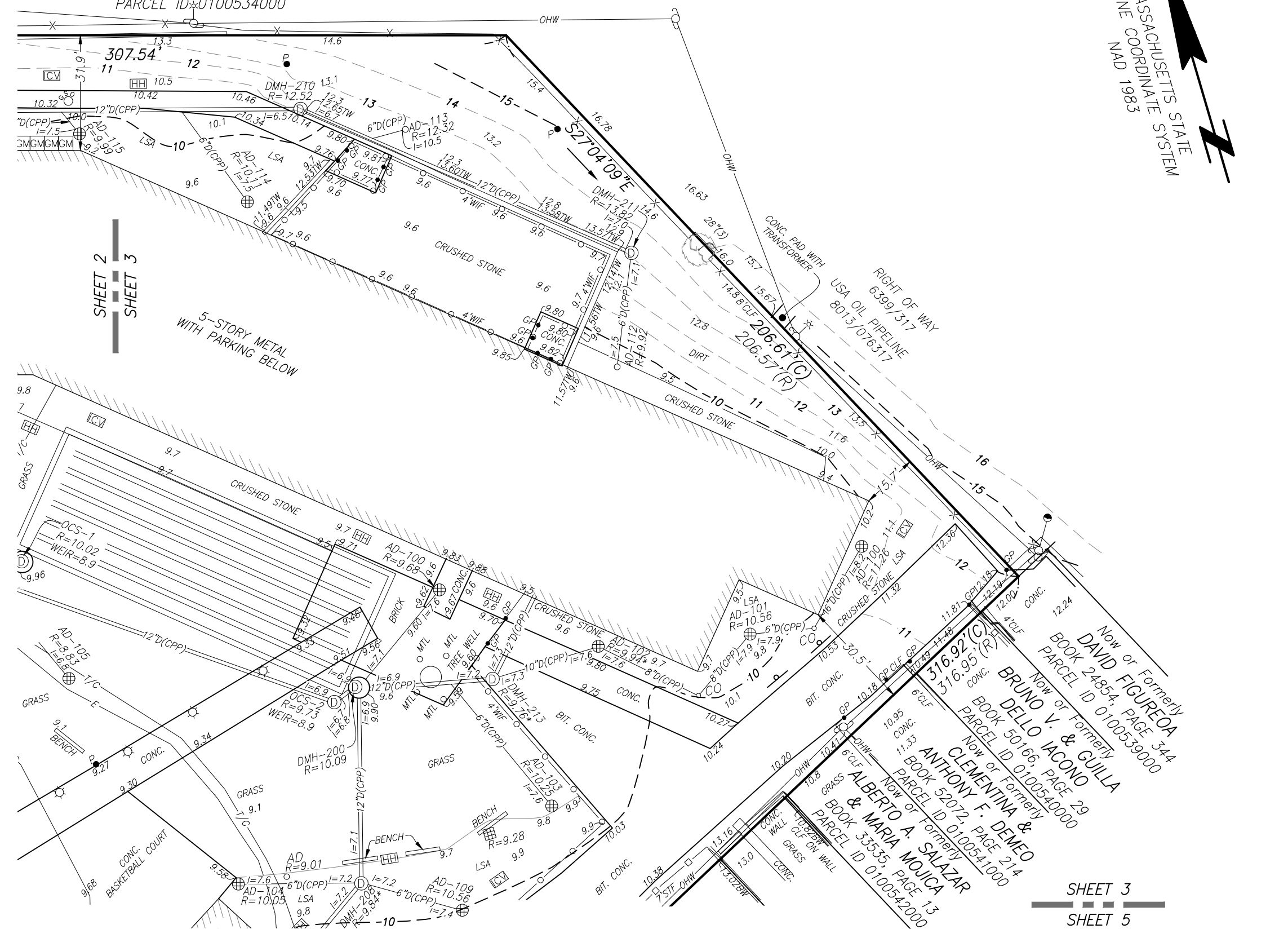
DATE: APRIL 6, 2022



SCALE: 1"=30'

SHEET NO. 3 OF 5

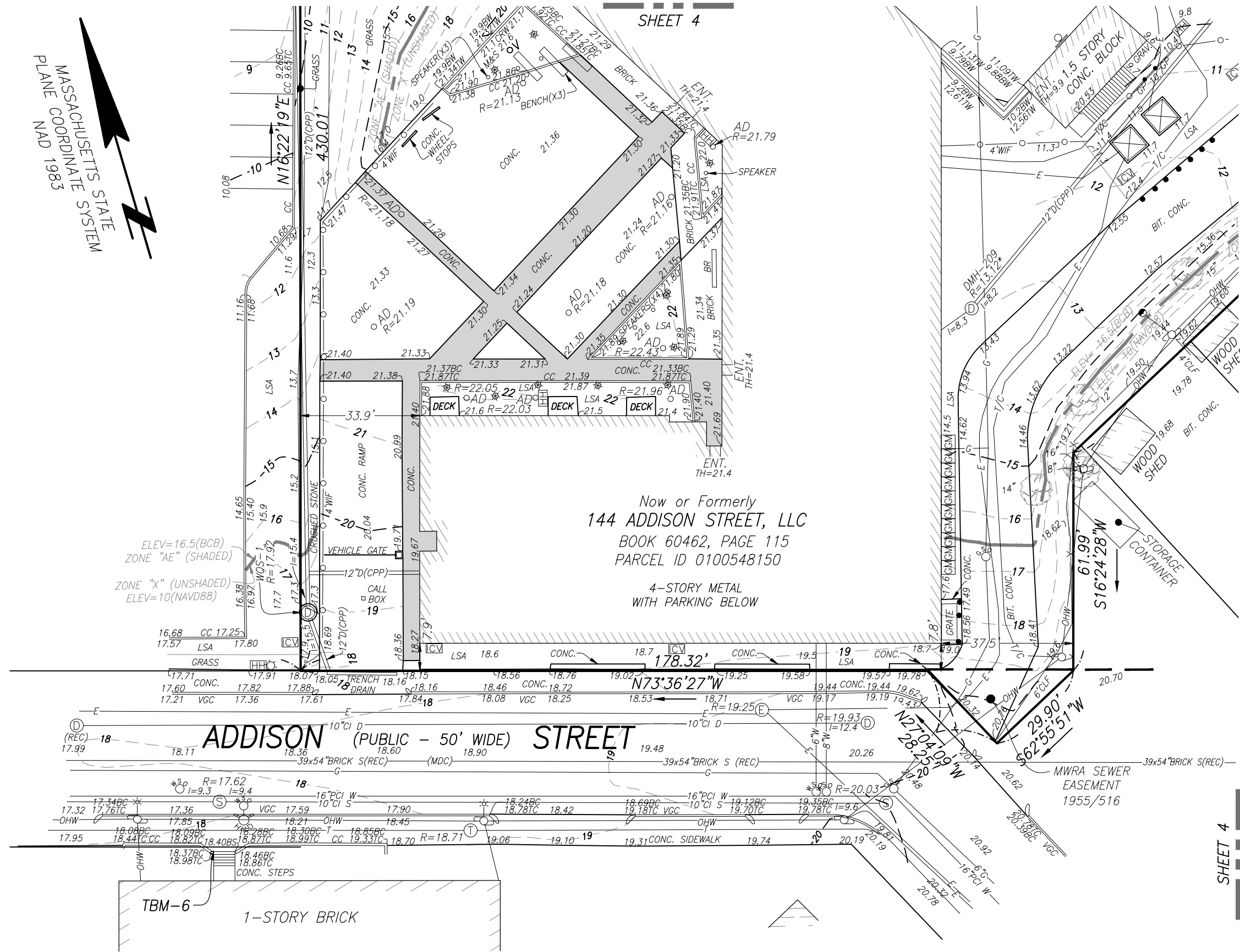
FILENAME: S:\PROJECTS\2021\2101180\DWG\2101180-AB.dwg



SHEET 3
 SHEET 5

MASSACHUSETTS STATE
PLANE COORDINATE SYSTEM
NAD 1983

SHEET 2
SHEET 4



Now or Formerly
144 ADDISON STREET, LLC
BOOK 60462, PAGE 115
PARCEL ID 0100548150

4-STORY METAL
WITH PARKING BELOW

ADDISON (PUBLIC - 50' WIDE) STREET

AS-BUILT
PLAN OF LAND

FELDMAN
G E O S P A T I A L

BOSTON HEADQUARTERS 152 HAMPDEN STREET BOSTON, MA 02119 (617)357-9740
WORCESTER OFFICE 27 MECHANIC STREET WORCESTER, MA 01608 www.feldmangeo.com

ADDRESS:

144 ADDISON STREET
BOSTON, MASS.

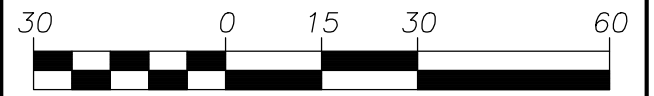
RESEARCH:	FIELD CHIEF: EC
PROJ MGR: JRZ	APPROVED:
CALC:	CADD: CEM
FIELD CHK:	CRD FILE: 2101180

REVISIONS:

DRAWING NAME:

AS-BUILT
PLAN OF LAND

DATE: APRIL 6, 2022



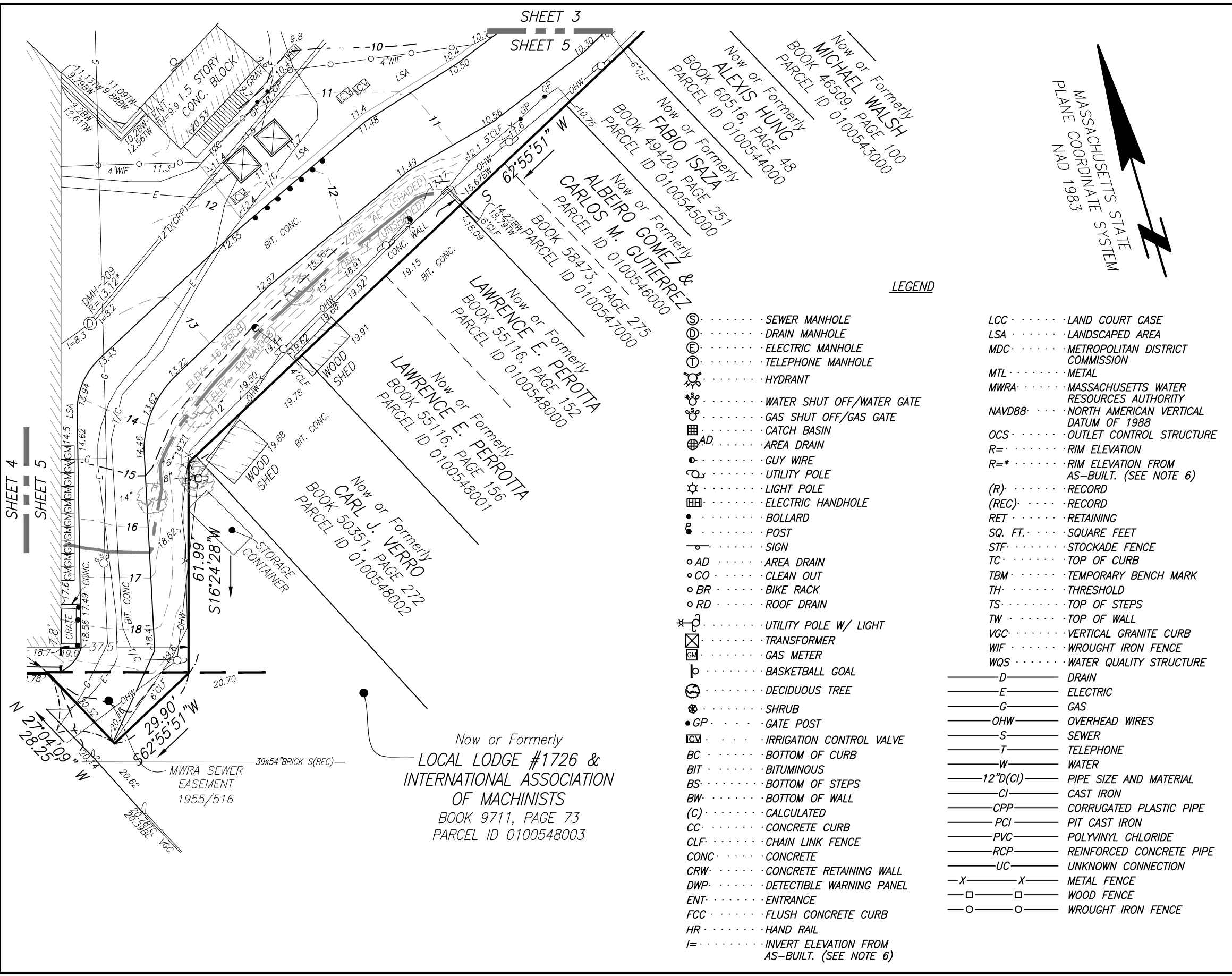
SCALE: 1"=30'

SHEET NO. 4 OF 5

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SHEET 4
SHEET 5

FILENAME: S:\PROJECTS\2021\2101180\DWG\2101180-AB.dwg



FELDMAN

G E O S P A T I A L

BOSTON HEADQUARTERS
152 HAMPDEN STREET
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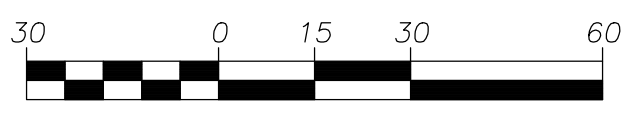
RESEARCH:	FIELD CHIEF: EC
PROJ MGR: JRZ	APPROVED:
CALC:	CADD: CEM
FIELD CHK:	CRD FILE: 2101180

REVISIONS:

DRAWING NAME:

AS-BUILT
PLAN OF LAND

DATE: APRIL 6, 2022



SCALE: 1"=30'

SHEET NO. 5 OF 5



LEGEND

- ⊙ SEWER MANHOLE
- ⊙ DRAIN MANHOLE
- ⊙ ELECTRIC MANHOLE
- ⊙ TELEPHONE MANHOLE
- ⊙ HYDRANT
- ⊙ WATER SHUT OFF/WATER GATE
- ⊙ GAS SHUT OFF/GAS GATE
- ⊙ CATCH BASIN
- ⊙ AREA DRAIN
- ⊙ GUY WIRE
- ⊙ UTILITY POLE
- ⊙ LIGHT POLE
- ⊙ ELECTRIC HANDHOLE
- ⊙ BOLLARD
- ⊙ POST
- ⊙ SIGN
- ⊙ AREA DRAIN
- ⊙ CLEAN OUT
- ⊙ BIKE RACK
- ⊙ ROOF DRAIN
- ⊙ UTILITY POLE W/ LIGHT
- ⊙ TRANSFORMER
- ⊙ GAS METER
- ⊙ BASKETBALL GOAL
- ⊙ DECIDUOUS TREE
- ⊙ SHRUB
- ⊙ GATE POST
- ⊙ IRRIGATION CONTROL VALVE
- BC BOTTOM OF CURB
- BIT BITUMINOUS
- BS BOTTOM OF STEPS
- BW BOTTOM OF WALL
- (C) CALCULATED
- CC CONCRETE CURB
- CLF CHAIN LINK FENCE
- CONC CONCRETE
- CRW CONCRETE RETAINING WALL
- DWP DETECTIBLE WARNING PANEL
- ENT ENTRANCE
- FCC FLUSH CONCRETE CURB
- HR HAND RAIL
- I= INVERT ELEVATION FROM AS-BUILT. (SEE NOTE 6)
- LCC LAND COURT CASE
- LSA LANDSCAPED AREA
- MDC METROPOLITAN DISTRICT COMMISSION
- MTL METAL
- MWRA MASSACHUSETTS WATER RESOURCES AUTHORITY
- NAVD88 NORTH AMERICAN VERTICAL DATUM OF 1988
- OCS OUTLET CONTROL STRUCTURE
- R= RIM ELEVATION
- R=* RIM ELEVATION FROM AS-BUILT. (SEE NOTE 6)
- (R) RECORD
- (REC) RECORD
- RET RETAINING
- SQ. FT. SQUARE FEET
- STF STOCKADE FENCE
- TC TOP OF CURB
- TBM TEMPORARY BENCH MARK
- TH THRESHOLD
- TS TOP OF STEPS
- TW TOP OF WALL
- VGC VERTICAL GRANITE CURB
- WIF WROUGHT IRON FENCE
- WQS WATER QUALITY STRUCTURE
- D DRAIN
- E ELECTRIC
- G GAS
- OHW OVERHEAD WIRES
- S SEWER
- T TELEPHONE
- W WATER
- 12"D(CI) PIPE SIZE AND MATERIAL
- CI CAST IRON
- CPP CORRUGATED PLASTIC PIPE
- PCI PIT CAST IRON
- PVC POLYVINYL CHLORIDE
- RCP REINFORCED CONCRETE PIPE
- UC UNKNOWN CONNECTION
- X METAL FENCE
- WOOD FENCE
- WROUGHT IRON FENCE

Now or Formerly
LOCAL LODGE #1726 &
INTERNATIONAL ASSOCIATION
OF MACHINISTS
BOOK 9711, PAGE 73
PARCEL ID 0100548003

Now or Formerly
CARL J. VERRO
BOOK 50351, PAGE 272
PARCEL ID 0100548002

Now or Formerly
LAWRENCE E. PERROTTA
BOOK 55116, PAGE 152
PARCEL ID 0100548000

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ALBEIRO GOMEZ &
CARLOS M. GUTIERREZ
BOOK 58473, PAGE 275
PARCEL ID 0100547000

Now or Formerly
FABIO ISAZA
BOOK 49420, PAGE 251
PARCEL ID 0100545000

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ALEXIS HUNG
BOOK 60516, PAGE 48
PARCEL ID 0100544000

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MICHAEL WALSH
BOOK 46509, PAGE 100
PARCEL ID 0100543000



STANDARD 10: Illicit Discharge Compliance Statement

Project Name: 144 Addison Street	Nitsch Project #: 12433
Location: East Boston, MA	Checked by:
Prepared by: CDH	Sheet No. 1 of 1
Date: 10/07/2019	

Standard 10 states: All illicit discharges to the stormwater management system are prohibited.

This is to verify:

1. Based on the information available there are no known or suspected illicit discharges to the stormwater management system at the 144 Addison Street site as defined in the MassDEP Stormwater Handbook.
2. The design of the stormwater system includes no proposed illicit discharges.

A handwritten signature in blue ink, appearing to read "Chris D. Hodney", is written over a horizontal line.

Chris D. Hodney, PE

10/7/19
Date

Condition #19b: Post-Construction Photos

General Condition 19b:

No stormwater runoff may be discharged to the post-construction stormwater BMPs unless and until a Registered Professional Engineer provides a Certification that i. all construction period BMPs have been removed or will be removed by a date certain specified in the Certification.



General Condition 19b: v. any vegetation associated with post-construction BMPs is suitably established to withstand erosion.



Condition #19b: Stormwater Report



Nitsch Engineering

September 19, 2018

**STORMWATER
REPORT**

For

144 ADDISON STREET
East Boston, Massachusetts

Prepared for:

Addison Street Partners, LLC
224 12th Avenue
New York, NY 10001

Prepared by:

NITSCH ENGINEERING, INC.
2 Center Plaza, Suite 430
Boston, MA 02108

Nitsch Project #12433

Building better communities with you.

TABLE OF CONTENTS

1.0 INTRODUCTION	1
2.0 EXISTING CONDITIONS	1
2.1 Existing Drainage Infrastructure	1
2.2 NRCS Soil Designations	1
2.3 On-Site Soil Investigations	2
3.0 PROPOSED CONDITIONS	2
3.1 Project Description	2
3.2 Stormwater Management System	3
3.3 Stormwater Management During Construction	4
4.0 STORMWATER MANAGEMENT ANALYSIS	5
4.1 Methodology	5
4.2 HydroCAD Version 10.00	5
4.3 Precipitation Data	6
4.4 Existing Hydrologic Conditions	6
4.5 Proposed Hydrologic Conditions	6
4.6 Peak Flow Rates	7
5.0 MASSDEP STORMWATER MANAGEMENT STANDARDS	7
Standard 1: No New Untreated Discharges	7
Standard 2: Peak Rate Attenuation	8
Standard 3: Groundwater Recharge	8
Standard 4: Water Quality Treatment	8
Standard 5: Land Uses with Higher Potential Pollutant Loads	9
Standard 6: Critical Areas	9
Standard 7: Redevelopments	9

Standard 8: Construction Period Pollution Prevention and Sedimentation Control 10

Standard 9: Operation and Maintenance Plan 10

Standard 10: Prohibition of Illicit Discharges 10

6.0 CLOSED DRAINAGE SYSTEM DESIGN 10

6.1 The Rational Method for Closed Drainage System Design 11

6.2 Autodesk® Storm and Sanitary Analysis Software v. 12.0 11

7.0 CONCLUSION 11

FIGURES

Figure 1 Locus Plan

Figure 2 FEMA Flood Rate Map

Figure 3 Proposed Watershed Areas

Figure 4 Proposed Structures Drainage Map

APPENDICES

Appendix A Stormwater Management Standards Documentation

- MassDEP Checklist for Stormwater Report
- Standard 3: Required Recharge Volume Worksheet
- Standard 4: TSS Removal Calculations
- Standard 4: Pathogen Removal Worksheet
- Standard 10: Illicit Discharge Compliance Statement

Appendix B Closed Drainage System Design

Appendix C Long-Term Pollution Prevention and Stormwater Operation and Maintenance Plan

Appendix D DRAFT Stormwater Pollution Prevention Plan (SWPPP)

Appendix E Soil Investigations

- NRCS Soil Maps and Descriptions
- Geotechnical Report

1.0 INTRODUCTION

Nitsch Engineering has prepared this Stormwater Report to support the Notice of Intent application for the new 144 Addison Street project in East Boston, Massachusetts. The Project Site is an existing parking lot bounded by Brandywyne Village to the north, Brandywyne Drive to the east, existing homes on Saratoga Street to the southeast, Addison Street to the southwest, and a commercial property to the west at 175 McClellan Highway. The Project consists of the construction of two residential buildings with 270 units, new parking at site grade beneath the buildings, and new landscape and hardscape. The Project includes a stormwater management system that has been designed to comply with the requirements of the Boston Water and Sewer Commission (BWSC) and the Massachusetts Department of Environmental Protection (DEP) Stormwater Management Standards.

2.0 EXISTING CONDITIONS

The site is located at 144 Addison Street in East Boston, Massachusetts (Figure 1). The Project Site is approximately 3.3 acres and consists of an asphalt parking lot and a small guard shack. The site has high points at its edges. The edge along Addison Street ranges from elevation 18 to 19 Boston City Base (BCB) and 14-16 BCB along the edge along Brandywyne Drive. The site slopes down to low points near the center of the site at approximately elevation 8 BCB. The west side of the site is at level grade with the parking lot at the adjacent 175 McClellan Highway parcel.

There are no wetlands on or near the site.

Approximately 3.1 acres of the site are Land Subject to Coastal Storm Flowage (LSCSF) as shown on the FEMA Flood Rate Maps for the project site (Figure 2). The limit of this area is elevation 10 NAVD88 or 16.49 BCB.

2.1 Existing Drainage Infrastructure

Stormwater that falls on the Project Site is collected by four catch basins located at the four low points of approximately elevation 8 BCB. These catch basins connect to a closed drainage system that flows west through the 175 McClellan Highway parcel to a 48-inch storm drain in the shared driveway. Stormwater then flows through a tide gate and then down the shared drive, across McClellan Highway and through an outfall into the Chelsea Creek.

The existing stormwater management system was constructed prior to the 2008 MassDEP Stormwater Management Standards, and the Site provides no peak flow attenuation, water quality treatment, or groundwater recharge.

Record plans show that some untreated stormwater flows onto the Site by sheet flow from Brandywyne Drive and Brandywyne Village.

There is an existing 10-inch BWSC-owned storm drain in Addison Street. The Project Site does not currently connect to this storm drain.

2.2 NRCS Soil Designations

The Soil Classification Summary (Table 1) outlines the Natural Resources Conservation Services (NRCS) designation of the soil series at the Site.

The soils within the Project site are classified as Urban land, wet substratum, 0 to 3 percent slopes. These soils have not been assigned to a hydrologic group by the survey and onsite investigation is needed to determine the suitability of these soils for any use.

Table 1. NRCS Soil Classification Summary

Soil Unit	Soil Series	Hydrologic Soil Group
603	Urban land, wet substratum, 0 to 3 percent slopes	---

2.3 On-Site Soil Investigations

Sanborn, Head, and Associates conducted an onsite exploration program and provided the geotechnical engineering for this Project. In general, the following subsurface units, in order of occurrence below the ground surface are anticipated:

Table 2. Typical Subsurface Profile

Stratum/Subsurface Unit	Range in Thickness (ft.)
Fill	4 to 6
Organic Silt	2 to 9
Silty Sand/Sandy Silt	3 to 11
Boston Blue Clay	40 to 100
Glacial Till	---

Groundwater was encountered at approximately 5 feet below grade.

Based on the results of the subsurface investigation, the soils beneath the site appear to be Hydrologic Group D with a corresponding saturated hydraulic conductivity of 0.02 in/hr.

Refer to Appendix E for a copy of the Geotechnical Report.

3.0 PROPOSED CONDITIONS

3.1 Project Description

As stated above, the Project includes the construction of two new residential buildings with parking beneath. The site improvements include the following:

1. Construction of a landscaped courtyard between the two buildings near the center of the site;
2. Construction of a new access driveway on the southeastern edge of the site to serve the new parking garage and the abutting properties on Saratoga Street;
3. Construction of new water, sewer, and storm drainage utilities;
4. Construction of new electrical, telecom, and gas utilities;
5. Construction of new sidewalks and walkways that provide for pedestrian connections through the site;
6. Construction of a new stormwater management system, including a closed drainage system and four subsurface infiltration systems.

The Site is located in Land Subject to Coastal Storm Flowage. To mitigate this issue, parking is proposed at ground level. Habitable spaces will begin above the parking level at an elevation approximately four feet above the flood plain elevation.

The Project is a redevelopment since it is located within previously disturbed areas (i.e. paved parking and buildings) and will substantially decrease the overall impervious area by approximately 1.3 acres. The increase in overall site perviousness will result in a reduction in future peak rates and volumes of stormwater from the Project Site to the shared closed drainage system in the shared driveway. Refer to Table 3 for a comparison of the existing and proposed surface covers for the Site.

Table 3. Proposed Land Use (in acres)

Land Use	Existing Site (acres)	Proposed Site (acres)	Change
Buildings and Paved Parking	3.23	1.92	-1.31
Landscaped Lawns and Planting Areas	0.06	1.37	+1.31
Total	3.30	3.30	---

3.2 Stormwater Management System

The Site will include the installation of a stormwater management system that is being designed to meet the MassDEP Stormwater Management Standards and the BWSC Rules and Regulations. As a redevelopment, the Project is required to improve existing conditions on the site.

The proposed stormwater management system for the project site will include four underground infiltration systems. Runoff from roof drains and area drains with sumps will be directed to these infiltration systems. These systems are sized to capture the first 1.25-inches of stormwater runoff over the impervious areas onsite to meet BWSC requirements. These systems will overflow to the shared storm drain in the shared driveway.

The existing drainage system onsite will be removed and disposed of. Existing inlets will be protected in place with inlet protection measures until they are taken offline and removed.

Deep Sump and Hooded Catch Basins

Deep sump and hooded catch basins are proposed to provide pretreatment in the impervious areas of the parking lot and access driveway.

Subsurface Infiltration Systems

Stormwater from the impervious areas onsite will be directed to four infiltration systems located at various locations around the Site.

Infiltration System #1 is located on the south side of the site under the new access driveway. This system consists of 360 linear feet of 24-inch corrugated polyethylene pipe (CPP) in a crushed stone base that extends six inches above and below the pipe and one foot around the edge. The capacity of the system is sized to infiltrate the first 1.25 inches of runoff over the impervious area that is directed to it. The system overflows to a storm drain main that runs through the center of the site and eventually to the 48-inch storm drain described above.

Infiltration System #2 is located between the two buildings. This system consists of 300 linear feet of 24-inch corrugated polyethylene pipe (CPP) in a crushed stone base that extends six inches above and below the pipe and one foot around the edge. The capacity of the system is sized to infiltrate the first 1.25 inches of runoff over the impervious area that is directed to it. The system also overflows to a storm drain main that runs through the center of the site and eventually to the 48-inch storm drain described above.

Infiltration System #3 is located on the south side of the site under the new access driveway. This system consists of 468 linear feet of 24-inch corrugated polyethylene pipe (CPP) in a crushed stone base that extends six inches above and below the pipe and one foot around the edge. The capacity of the system is sized to infiltrate the first 1.25 inches of runoff over the impervious area that is directed to it. The system overflows to a 24-inch storm drain that connects to the 48-inch storm drain described above.

Infiltration System #4 is located on the west side of the site under a landscaped area. This system consists of 160 linear feet of 24-inch corrugated polyethylene pipe (CPP) in a crushed stone base that extends six inches above and below the pipe and one foot around the edge. The capacity of the system is sized to infiltrate the first 1.25 inches of runoff over the impervious area that is directed to it. The system overflows to a storm drain main that runs through the center of the site and eventually to the 48-inch storm drain described above.

3.3 Stormwater Management During Construction

The Site Contractor will be responsible for stormwater management of the active construction site and is required to adhere to the conditions of the 2017 Construction General Permit (CGP) issued by the Environmental Protection Agency (EPA). The construction contract documents will require the contractor to obtain coverage under the EPA's National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges from Construction Activities and to prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) to comply with the Clean Water Act and its amendments. Operators of large and small construction activities must apply for coverage under the terms of the NPDES General Permit. The EPA has issued the CGP to authorize the discharge of stormwater associated with construction activities under the NPDES. The CGP authorizes the stormwater discharges from large and small construction activities that result in a total land disturbance of equal to or greater than 1 acre, where those discharges enter surface waters of the United States or a municipal storm system leading to surface waters of the United States. The discharges are subject to the conditions set forth in the CGP.

The goal of the CGP is to reduce or eliminate stormwater pollution from construction activities by requiring the planning and implementation of a SWPPP to protect the water quality of receiving surface water bodies. The SWPPP identifies potential sources of pollution from the construction site that may affect the quality of stormwater discharges, describes practices to be used to reduce such pollutants, and assures compliance with the terms and conditions of the CGP. The SWPPP is a comprehensive guide, which, when followed will result in the placement of erosion and pollution prevention measures, maintenance and monitoring of the in-place measures, and means to modify the plan.

In order to obtain coverage under the CGP for authorized stormwater discharges, the operator must prepare and submit a *Notice of Intent (NOI) for Storm Water Discharges Associated with Construction Activity under a NPDES General Permit*. A SWPPP must be prepared before the submission of a NOI and prior to the start of construction activities. A copy of the SWPPP must be kept at the project site from project initiation to the date of final stabilization. Upon final stabilization of the site, a Notice of Termination must be submitted to the EPA. A notice of the permit and SWPPP must be posted conspicuously near the entrance to the site.

In Massachusetts, the EPA is the NPDES permitting authority. Minimum erosion and sediment controls have been incorporated into the project design to protect the resource areas during construction and are indicated on the Construction Plans within the accompanying Project Plan Set.

Prior to commencing any construction activities, the Contractor shall prepare a detailed SWPPP appropriate to the specific means and methods of construction of this project. The project's plans and specifications require the Contractor to implement erosion control measures prior to the start of any work. Control measures shall prevent erosion, siltation, and sedimentation of wetlands, construction areas, and adjacent areas. Erosion and sediment controls will be utilized adjacent to earthwork stockpiles, onsite storage and staging areas, cut and fill slopes, stripped and graded areas, constructed swales and ditches, and the abutting properties.

The erosion and sediment controls will include siltation fences, compost filter tube barriers, and temporary covers for drainage structures. Additionally, temporary soil protective coverings are required in all disturbed or graded areas subject to erosion or as directed by the Engineer. The temporary ground cover will be maintained until the area is stabilized.

In addition, the Contractor is required to submit a Dewatering Plan for activities needed to control groundwater when installing structures. No direct discharges to the BWSC storm drain system will be allowed without the use of measures (i.e., sedimentation basin, dewatering boxes, etc.) to reduce sediments, sludge, and contaminants from the discharge.

This Stormwater Report includes an Operation and Maintenance Plan for stormwater management systems during and post construction operations including scheduled observation and maintenance activities as well as log forms for reporting maintenance actions.

4.0 STORMWATER MANAGEMENT ANALYSIS

4.1 Methodology

Nitsch Engineering completed a hydrologic analysis of the existing project site utilizing Soil Conservation Service (SCS) Runoff Curve Number (CN) methodology. The SCS method calculates the rate at which the runoff reaches the design point considering several factors: the slope and flow lengths of the subcatchment area, the soil type of the subcatchment area, and the type of surface cover in the subcatchment area. HydroCAD Version 10.00 computer modeling software was used in conjunction with the SCS method to determine the peak runoff rates and runoff volumes for the 2-, 10-, 25-, and 100-year, 24-hour storm events. The proposed project site is being analyzed with the same methodology.

The Site was divided into multiple drainage areas, or subcatchments, which drain to the design points along the property boundary and within the site. For each subcatchment area, SCS Runoff Curve Numbers (CNs) were selected by using the cover type and hydrologic soil group of each area. The peak runoff rates and runoff volumes for the 2-, 10-, 25- and 100-year 24-hour storm events were then determined by inputting the drainage areas, CNs, and time of concentration (T_c) paths into the HydroCAD model.

The existing and proposed subcatchments and the design point are indicated on Figure 3, Existing Watershed Areas and Figure 4, Proposed Watershed Areas.

4.2 HydroCAD Version 10.00

The HydroCAD computer program uses SCS and TR-20 methods to model drainage systems. TR-20 (Technical Release 20) was developed by the Soil Conservation Service to estimate runoff and peak

discharges in small watersheds. TR-20 is generally accepted by engineers and reviewing authorities as the standard method for estimating runoff and peak discharges.

HydroCAD Version 10.00 uses up to four types of components to analyze the hydrology of a given site: subcatchments, reaches, basins, and links. Subcatchments are areas of land that produce surface runoff. The area, weighted CN, and T_c characterize each individual subcatchment area. Reaches are generally uniform streams, channels, or pipes that convey water from one point to another. A basin is any impoundment that fills with water from one or more sources and empties via an outlet structure. Links are used to introduce hydrographs into a project from another source or to provide a junction for more than one hydrograph within a project. The time span for the model was set for 0-48 hours in order to prevent truncation of the hydrograph.

4.3 Precipitation Data

Nitsch Engineering, Inc. used National Oceanic and Atmospheric Administration (NOAA) Atlas 14 Volume 10 Precipitation Data to estimate the rainfall for the 2-year, 10-year, 25-year and 100-year 24-hour storms. The rainfall values for Boston that will be used are as follows:

Table 4. Precipitation Data

Storm Event	24-Hour Rainfall
2-year	3.16 in
10-year	5.00 in
25-year	6.15 in
100-year	7.92 in

4.4 Existing Hydrologic Conditions

As summarized in Table 4, Nitsch Engineering delineated the project site into one on-site subcatchment (watershed) area discharging to one design point utilizing an existing conditions survey and on-site observations (See Figure 3). Table 5 summarizes the design point, location and area of the watershed. The single design point is defined as the 48-inch storm drain in the shared drive (DP-A).

Table 5. Existing Drainage Area Summary

Design Point	Watershed	Area (acres)	Description
A	A	3.3	Parking Lot and Guard Shack
Total Area		3.3	

4.5 Proposed Hydrologic Conditions

The proposed project has been designed to mitigate the change in stormwater runoff at the design point as required by the DEP Stormwater Management Standards. The existing watershed area was modified to reflect the proposed topography, storm drainage structures and BMPs, and roof areas. (See Figure 4 and Table 6). The proposed BMPs included as ponds or reaches in the HydroCAD model are Subsurface Infiltration Systems.

BWSC requires that the site capture and infiltrate the first inch and a quarter of runoff over site impervious areas. The Subsurface Infiltration Systems are sized to meet this volume.

Table 6. Proposed Drainage Area Summary

Design Point	Watershed	Area (acres)	Description	Proposed Treatment BMP(s)
A	A1	0.73	Roof and Landscaped Area	Infiltration System #1
	A2	0.57	Roof and Landscaped Area	Infiltration System #2
	A3	0.80	Roof and Landscaped Area	Infiltration System #3
	A4	0.30	Front Parking Lot	Infiltration System #4
	A5	0.90	Landscaped Areas	
Total Area		3.30		

4.6 Peak Flow Rates

The proposed stormwater management system is expected to reduce the proposed peak runoff rates to below the existing rates for the Design Point. Tables 7 through 8 below summarize the existing and proposed hydrologic analyses for the site at each design point.

Table 7 – Peak Rates of Runoff for Design Point DP-A (in cfs)

Storm Event	2-year	10-year	25-year	100-year
Existing	9.83	15.73	19.38	25.00
Proposed	8.03	14.62	18.55	24.61

Table 8 – Volumes of Runoff for Total Site (in cubic feet)

Storm Event	2-year	10-year	25-year	100-year
Existing	34,967	56,891	70,609	91,733
Proposed	18,202	39,839	53,434	74,889

5.0 MassDEP Stormwater Management Standards

The Project is considered a *redevelopment* under the MassDEP Stormwater Management Standards and has been designed to meet the Standards as summarized below:

Standard 1: No New Untreated Discharges

The Project will not discharge any untreated stormwater directly to or cause erosion in wetlands or waters of the Commonwealth. Stormwater from the Site will be collected and treated in accordance

with the MassDEP Stormwater Management Standards and stormwater outfalls will be stabilized to prevent erosion.

Standard 2: Peak Rate Attenuation

The proposed stormwater management system has been designed so that the post-development peak discharge rates do not exceed pre-development peak discharge rates. To prevent storm damage and downstream flooding, the proposed stormwater management practices will mitigate peak runoff rates for the 2-, 10-, and 100-year, 24-hour storm events as noted in Section 4.6.

Standard 3: Groundwater Recharge

As noted above, an infiltration system has been included in the design of the stormwater management system to provide groundwater recharge, water quality treatment and peak rate attenuation of stormwater discharges to the BWSC storm drainage system adjacent to the project site. The infiltration system design recharge volume exceeds the required Recharge Volume under the Massachusetts Stormwater Management Standards since the system is designed to capture and infiltrate 1.25-inches over the project site's impervious area as required by BWSC.

This results in a significant improvement over existing conditions since the required recharge volume is captured and infiltrated into the ground for the Project Site.

Recharge Volume Sizing calculations are provided in Appendix A. The soil information is included in Appendix E.

Table 11 – Proposed Recharge Volumes for Stormwater BMPs

Infiltration BMP	Recharge Volume (cf)
Infiltration System #1	2,704
Infiltration System #2	2,327
Infiltration System #3	2,809
Infiltration System #4	1,102
Total	8,942

Standard 4: Water Quality Treatment

The proposed stormwater management system has been designed to improve the water quality treatment of the post-construction discharges from the project site resulting in a reduction in annual stormwater pollutant loads from the site. This project includes water quality treatment BMPs in the stormwater management system to provide increased TSS and pathogen removal over existing conditions. The stormwater pretreatment and treatment BMPs include deep sump and hooded catch basins, and underground infiltration structures.

The infiltration system is a highly effective stormwater treatment Best Management Practice (BMP) that removes many contaminants including TSS, nutrients, and pathogens. However, infiltration systems are not intended to remove coarse particulate pollutants so pretreatment BMPs including deep sump and hooded catch basins and proprietary water quality inlets and structures have been incorporated into the stormwater management system design to remove coarse particulates from vehicular and pedestrian surface areas before entering the infiltration structure.

The new infiltration systems will provide for the water quality treatment of the stormwater discharges from the project site, since the system will be sized to capture a water quality treatment depth of 1.25-inches over the project site's impervious area. This exceeds the required water quality treatment volume as required by the Massachusetts Stormwater Management Standards. This water quality treatment of the post-construction discharges from the project site results in a reduction in annual stormwater pollutant loads from the site including removing a minimum of 80% of Total Suspended Solids (TSS) and also the removal of pathogens. There is a draft Total Maximum Daily Load (TMDL) for pathogens for the Boston Harbor Watershed, and the proposed infiltration system will meet the requirements of the TMDL by reducing the pathogen loading in the stormwater runoff discharging to the storm drain mains from the project site.

TSS removal calculation spreadsheets and BMP sizing calculations are provided in Appendix A.

A post-construction Stormwater Management System Operation and Maintenance Plan (O&M) has been prepared which documents the long-term BMP operational requirements to maintain the functionality of the stormwater management system as designed. The O&M Plan is incorporated into the overall long-term pollution prevention plan that will be developed to document the post-construction source control and pollution prevention practices to be implemented by the Proponent. The long-term pollution prevention plan includes the proper procedures for the following as applicable:

1. Good housekeeping;
2. Storing materials and waste products inside or under cover;
3. Vehicle washing;
4. Routine inspection and maintenance of stormwater BMPs;
5. Spill prevention and response;
6. Maintenance of lawns, gardens, and other landscape areas;
7. Storage and use of fertilizers, herbicides, and pesticides;
8. Pet waste management; and
9. Proper management of deicing chemicals and snow.

The Operation and Maintenance Plan and Long-Term Pollution Prevention Plan are included in Appendix C.

Standard 5: Land Uses with Higher Potential Pollutant Loads

The project does not contain Land Uses with Higher Potential Pollutant Loads (LUHPPLs) as defined by MassDEP. Therefore, this standard is not applicable.

Standard 6: Critical Areas

The Project is not located within any critical areas. Therefore, this standard is not applicable.

Standard 7: Redevelopments

The project is a redevelopment as defined in the MassDEP Stormwater Management Handbook since these areas are located within previously disturbed areas (i.e. paved parking, roadways, walkways, and plazas), and the Project reduces impervious area. Therefore, the project has been designed to meet Standard 2, Standard 3, and the pretreatment and structural stormwater BMPs requirements of Standards 4, 5, and 6 of the Stormwater Management Standards to the maximum extent practicable. The project complies with all other requirements of the Stormwater Management Standards and will improve existing conditions.

Standard 8: Construction Period Pollution Prevention and Sedimentation Control

Sedimentation and erosion controls are included as part of the requirements of this project and will be employed during site construction by the Contractor. Land disturbance will be kept to a minimum and the phasing of the work will be planned so that only the areas actively being developed are exposed. All other areas should have natural vegetation preserved, have good temporary cover, or permanent vegetation established. Permanent structures, temporary or permanent vegetation, and mulch/erosion netting will be required to be employed, as quickly as possible after land is disturbed. Disturbed areas will be protected from stormwater runoff by installing erosion control or stormwater management measures to prevent water from entering and running over disturbed areas, and to prevent erosion damage to downstream facilities. Perimeter control practices will be installed to isolate the construction site from surrounding areas. Siltation fence, temporary covers for drainage structures, and temporary settlement basins will be utilized where applicable.

Since the project will disturb more than 1 acre of land, the Contractor will be required to submit a NOI to the EPA for coverage under the General Permit of the NPDES. As part of this application the Contractor will be required to prepare a SWPPP and implement the measures in the SWPPP. The SWPPP, which is to be kept onsite, includes erosion and sediment controls (stabilization practices and structural practices), temporary and permanent stormwater management measures, Contractor inspection schedules and reporting of all SWPPP features, materials management, waste disposal, off-site vehicle tracking, spill prevention and response, sanitation, and non-stormwater discharges.

The Contractor will be required to implement the SWPPP for the duration of the project. The Contractor will be required to inspect all controls regularly to ensure that the controls are working properly and shall clean and reinstall any control that needs to be cleaned or replaced. Additionally, the Contractor will be required to clean/flush the entire stormwater management system prior to final acceptance by the Owner.

The Contractor will obtain the appropriate permits for dewatering operations during construction and the Contractor will be required to adhere to the requirements and special conditions of these permits.

Standard 9: Operation and Maintenance Plan

A post-construction Operation and Maintenance Plan has been prepared and will be implemented to ensure that stormwater management systems function as designed. Source control and stormwater BMP operation requirements for the project site are summarized in the Long-Term Pollution Prevention Plan.

The Operation and Maintenance Plan and Long-Term Pollution Prevention Plan are included in Appendix C.

Standard 10: Prohibition of Illicit Discharges

There will be no illicit discharges to the stormwater management system associated with the Project. An Illicit Discharge Compliance Statement is provided in Appendix A.

6.0 CLOSED DRAINAGE SYSTEM DESIGN

The proposed closed drainage system consists of deep sump and hooded catch basins, plastic area drains with sumps, drainage manholes, and proprietary water quality treatment units connected with corrugated polyethylene pipe. The closed drainage system was designed to convey the 25-year storm event using the Rational method, as required by the BWSC. Refer to Appendix B for more information.

6.1 The Rational Method for Closed Drainage System Design

The Rational Method is a widely accepted rainfall-runoff model used for estimating peak design flows when modeling closed drainage system hydraulics. It is typically used when analyzing runoff rates from drainage areas to individual catch basins due to its simplicity and advantages on smaller scales over other models. Nitsch Engineering used the Rational Method to estimate the runoff into the closed drainage system.

The general formula for the rational method is:

$$Q = C i A$$

where

Q = volumetric rate of runoff, in cubic feet per second

C = dimensionless runoff coefficient

i = rate of rainfall, in inches per hour

A = contributing drainage area (subcatchment), in acres

The volumetric flow rate, Q , at which the runoff reaches a catch basin or other drainage inlet is determined by a number of factors: the slope and flow lengths of the subcatchment area, the soil type, the surface cover and size of the subcatchment area, and the chosen rainfall return period and associated intensity.

The primary difference between the Rational Method and the SCS method is the calculation of the runoff coefficient, C . The dimensionless runoff coefficient is determined from a number of factors which are generally related to the surface cover of each individual subcatchment. A site covered with impermeable pavement typically has a runoff coefficient of 0.90. This value implies that almost all of the rain that falls on pavement or other impermeable covers will be converted to runoff. A site covered by grass or other landscaping will allow some of the water to be absorbed into the ground and can have coefficients which vary from 0.20 to 0.40, reflecting the associated reduction of runoff due to absorption. These different cover types within a drainage area are assigned a runoff coefficient and then weighted to determine an overall drainage area runoff coefficient, C , for each subcatchment.

6.2 Autodesk® Storm and Sanitary Analysis Software v. 12.0

Nitsch Engineering used AutoDesk® Storm and Sanitary Analysis Software (SSA) to estimate storm system inflows by the Rational Method and to size the proposed closed drainage system. SSA models hydraulic system capacities using Manning's Formula to properly size closed drainage system elements for the calculated runoff rates. Please refer to Appendix B of this report for the results of this analysis.

7.0 CONCLUSION

In conclusion, the Project's stormwater management system will reduce or maintain peak runoff rates and volumes, increase groundwater recharge of stormwater runoff, and improve the water quality of stormwater being discharged from the Site. The Project is being designed to meet the applicable requirements of the MassDEP Stormwater Management Standards, and BWSC storm drainage improvement construction standards.

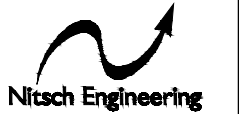
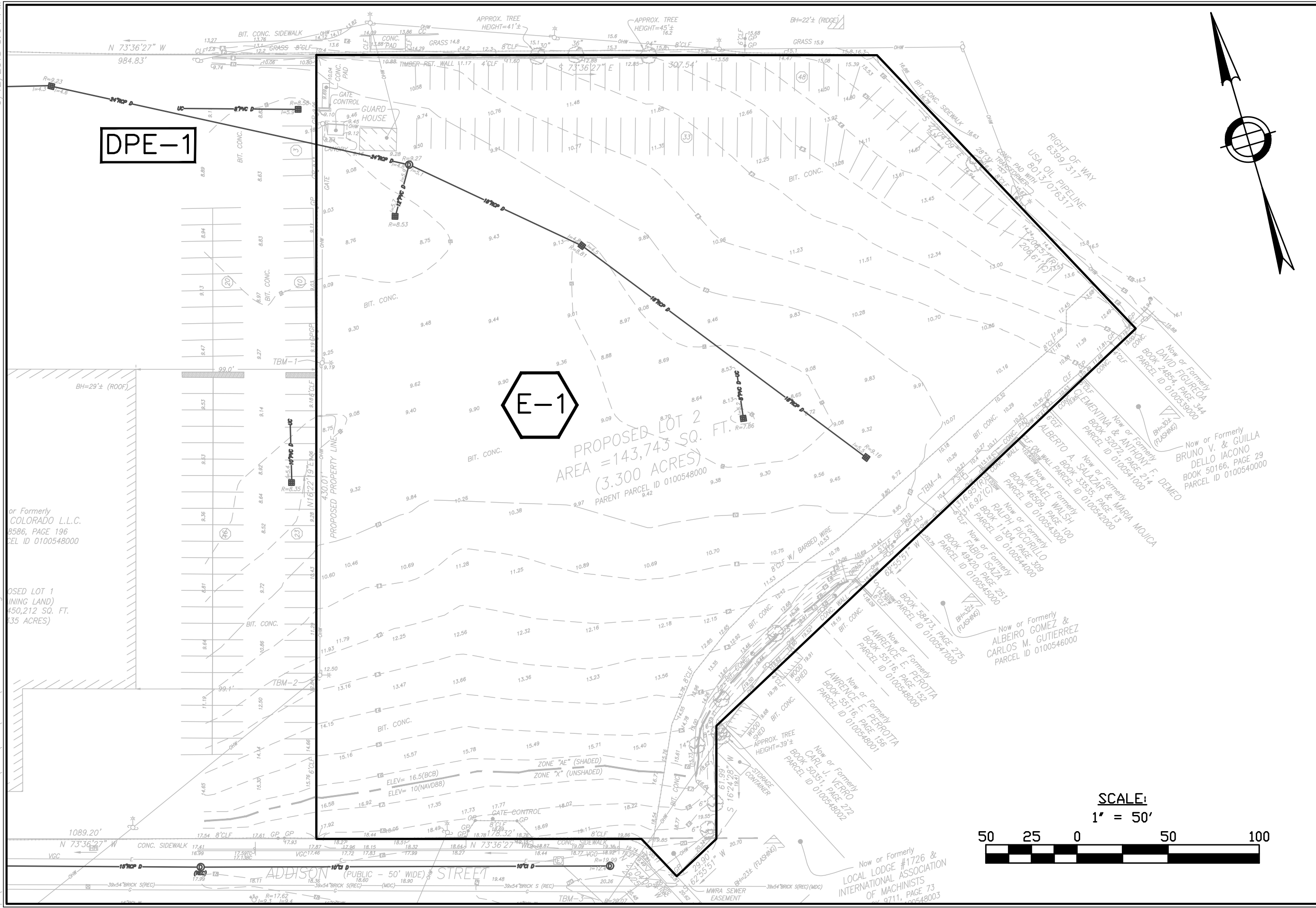
FIGURES

DR-1 Existing Watershed Areas

DR-2 Proposed Watershed Areas

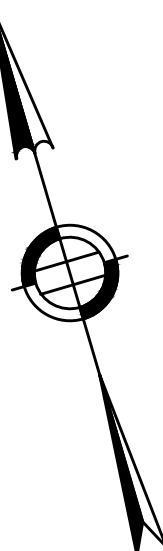
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- ▶ Planning
- ▶ GIS



EXISTING WATERSHED MAP

144 ADDISON STREET
 EAST BOSTON, MA

PREPARED FOR:
REDGATE
 265 FRANKLIN STREET, BOSTON, MA 02110

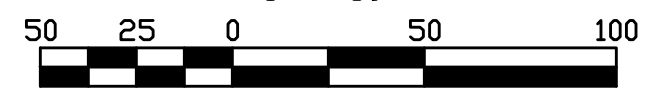
PROJECT #	12433
FILE:	12344DAEX.DWG
SCALE:	1"=50'
DATE:	09/19/2018
PROJECT MGR:	GP
SURVEYOR:	
DRAFTED BY:	PES
CHECKED BY:	CH

SHEET: 1

FIGURE-1

OF 2

SCALE:
 1" = 50'



DPE-1

E-1

PROPOSED LOT 2
 AREA = 143,743 SQ. FT.
 (3.300 ACRES)
 PARENT PARCEL ID 0100548000

or Formerly
 COLORADO L.L.C.
 BOOK 8586, PAGE 196
 PARCEL ID 0100548000

PROPOSED LOT 1
 (MINING LAND)
 450,212 SQ. FT.
 10.35 ACRES

Now or Formerly
 ALBEIRO GOMEZ &
 CARLOS M. GUTIERREZ
 PARCEL ID 0100546000

Now or Formerly
 LOCAL LODGE #1726 &
 INTERNATIONAL ASSOCIATION
 OF MACHINISTS
 BOOK 9711, PAGE 73
 PARCEL ID 0100548003

Now or Formerly
 BRUNO V. & GUILLA
 DELLO IACONO
 BOOK 50166, PAGE 29
 PARCEL ID 0100540000

Now or Formerly
 ALBERTO A. SALAZAR & MARIA MOJICA
 BOOK 52072, PAGE 24
 PARCEL ID 0100541000

Now or Formerly
 MICHAEL WALSH
 BOOK 46509, PAGE 100
 PARCEL ID 0100543000

Now or Formerly
 RALPH PICCIRILLO
 BOOK 11304, PAGE 309
 PARCEL ID 0100544000

Now or Formerly
 LAWRENCE E. PERROTTA
 BOOK 55116, PAGE 156
 PARCEL ID 0100548001

Now or Formerly
 LAWRENCE E. PERROTTA
 BOOK 55116, PAGE 152
 PARCEL ID 0100548000

Now or Formerly
 CARL J. VERRO
 BOOK 50151, PAGE 272
 PARCEL ID 0100548002

Now or Formerly
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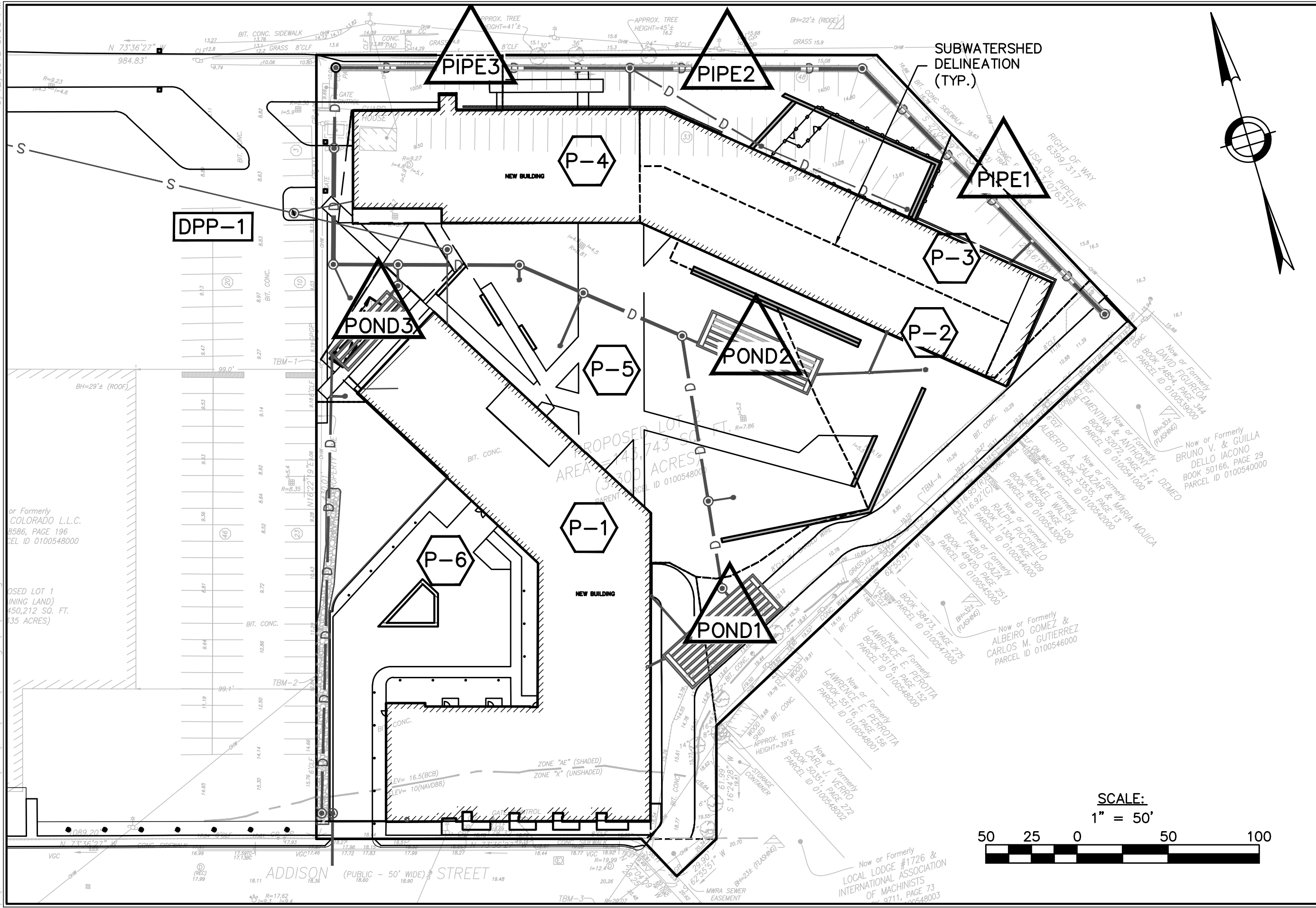
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PROPOSED WATERSHED MAP

144 ADDISON STREET
 EAST BOSTON, MA

PREPARED FOR:
REDGATE
 265 FRANKLIN STREET, BOSTON, MA 02110

PROJECT #	12433
FILE:	12344DAEX.DWG
SCALE:	1"=50'
DATE:	09/19/2018
PROJECT MGR:	GP
SURVEYOR:	
DRAFTED BY:	PES
CHECKED BY:	CH

SHEET: 1

FIGURE-2

APPENDIX A

Stormwater Management Standards Documentation

MassDEP Checklist for Stormwater Report

Standard 3: Required Recharge Volume Worksheet

Standard 4: TSS Removal Calculations

Standard 4: Pathogen Removal Worksheet

Standard 10: Illicit Discharge Compliance Statement [See Condition #19b Compliance](#)



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

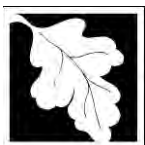
In addition to all plans and supporting information, the Stormwater Report must include a brief narrative describing stormwater management practices, including environmentally sensitive site design and LID techniques, along with a diagram depicting runoff through the proposed BMP treatment train. Plans 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.

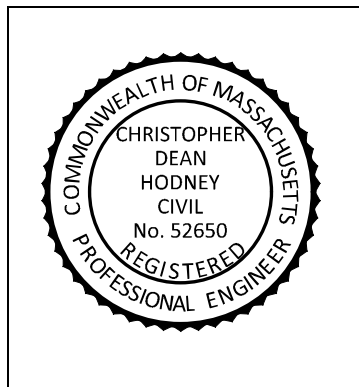
Note: Because stormwater requirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that the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



Chris Hodney 9/17/18
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): Subsurface Infiltration System

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)

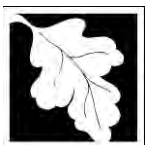
Standard 7: Redevelopments and Other Projects Subject to the Standards only to the maximum extent practicable

- 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.

**Form S3-B: Standard #3 – Recharge
 Required Recharge Volume**

Project Name: 144 Addison Street	Nitsch Project #: 12433
Location: East Boston, MA	Checked by:
Prepared by: CDH	Sheet No. 1 of 1
Date: 9/11/18	

INSTRUCTIONS:

1. Determine the increase in impervious area (in square feet) proposed above each Hydrologic Soil Group and input those areas in the appropriate blue cells.
2. The Required Recharge Volume (in cubic feet) will be calculated and displayed in the yellow cell.

Impervious area located above:	
Hydrologic Soil Group "A" Soil =	0 sf
Hydrologic Soil Group "B" Soil =	0 sf
Hydrologic Soil Group "C" Soil =	0 sf
Hydrologic Soil Group "D" Soil =	84507 sf
Required Recharge Volume =	704.23 cf

Water Quality Pathogen Removal Worksheet

Project Name: 144 Addison Street	Nitsch Project #: 12433
Location: East Boston, MA	Checked by:
Prepared by: CDH	Sheet No.1 of 1
Date: 9/11/18	

INSTRUCTIONS:

Version 1, Automated: Mar. 4, 2008

1. In BMP Column, click on Blue Cell to Activate Drop Down Menu
2. Select BMP from Drop Down Menu
3. After BMP is selected, Pathogen Removal and other Columns are automatically completed.

Location:

	B BMP ¹	C TP Removal Rate ¹	D Starting TP Load*	E Amount Removed (C*D)	F Remaining Load (D-E)
Pathogen Removal Calculation Worksheet	Subsurface Infiltration Structure	0.80	1.00	0.80	0.20
		0.00	0.00	0.00	0.00
		0.00	0.00	0.00	0.00
		0.00	0.00	0.00	0.00
		0.00	0.00	0.00	0.00

Total TP Removal

Project:
 Prepared By:

*Equals remaining load from previous BMP (E)

APPENDIX B

Closed Drainage System Design

Rainfall Details

Return Period..... 25 year(s)

Subbasin Summary

Subbasin Name	Area (ac)	Weighted Runoff Coefficient	Peak Runoff (cfs)	Time of Concentration (days hh:mm:ss)
DA-AD1	0.28	0.38	0.69	0 00:06:00
DA-AD2	0.35	0.53	1.18	0 00:06:00
DA-AD3	0.11	0.46	0.34	0 00:06:00
DA-AD4	0.22	0.64	0.90	0 00:06:00
DA-AD5	0.15	0.31	0.30	0 00:06:00
DA-AD6	0.12	0.52	0.40	0 00:06:00
DA-AD7	0.07	0.64	0.27	0 00:06:00
DA-AD8	0.07	0.64	0.27	0 00:06:00
DA-CB-1	0.28	0.78	1.42	0 00:06:00
DA-RD1	0.56	0.90	3.22	0 00:06:00
DA-RD2	0.18	0.90	1.05	0 00:06:00
DA-RD3	0.18	0.90	1.05	0 00:06:00
DA-RD4	0.18	0.90	1.05	0 00:06:00
DA-TD1	0.10	0.78	0.48	0 00:06:00
DA-TD2	0.09	0.30	0.17	0 00:06:00
DA-TD3	0.15	0.40	0.38	0 00:06:00

Link Summary

Pipe Name	From (Inlet) Node	Inlet To Invert (Outlet) Elevation Node	Outlet Invert Elevation	Pipe Length (ft)	Pipe Slope (%)	Pipe Diameter (in)	Manning's Roughness	Peak Flow Q (cfs)	Peak Flow Velocity (ft/sec)	Pipe Design Capacity (cfs)	Q/Qf Ratio
Link-01	OCS3	5.95 AccBasin5	5.75	8	2.61			0.73	4.11	6.23	0.12
Pipe - (100)	AccBasin3	5.15 Out-1Pipe - (100)	4.80	62	0.57			9.10	5.07	18.45	0.49
Pipe - (101)	DMH1	8.00 WYE3	7.73	54	0.50			0.09	0.42	17.27	0.01
Pipe - (101) (2)	WYE3	7.73 OCS4	7.08	131	0.50			1.41	2.76	17.27	0.08
Pipe - (102)	OCS4	6.98 OCS6	6.35	125	0.50			1.14	2.13	17.37	0.07
Pipe - (103)	OCS6	6.25 OCS5	5.48	159	0.48			2.76	3.59	17.03	0.16
Pipe - (104)	OCS5	5.48 Out-1Pipe - (104)	4.90	44	1.31			2.71	5.14	8.02	0.34
Pipe - (105)	AD1	7.60 AccBasin1	7.40	14	1.44			0.69	1.97	1.57	0.44
Pipe - (106)	Infil2Exit	7.50 OCS2	7.25	9	2.67			2.15	3.82	6.31	0.34
Pipe - (107)	AD4	7.00 AccBasin2	6.50	31	1.61			0.89	1.20	4.90	0.18
Pipe - (108)	AD3	6.70 AccBasin4	6.50	8	2.61			0.32	0.98	6.23	0.05
Pipe - (109)	AD5	6.70 WYE2	6.60	8	1.33			0.30	2.55	4.45	0.07
Pipe - (111)	AD6	6.00 AccBasin3	5.45	20	2.72			0.39	1.29	2.16	0.18
Pipe - (112)	AD2	7.25 WYE1	7.10	29	0.52			1.16	2.10	2.78	0.42
Pipe - (113)	WYE1	7.10 Out-1Pipe - (113)	6.50	29	2.08			2.15	3.73	5.57	0.39
Pipe - (114)	RD2	7.45 WYE1	7.10	24	1.44			1.02	1.98	4.63	0.22
Pipe - (115)	RD3	7.85 WYE3	7.73	17	0.70			1.21	3.46	3.24	0.37
Pipe - (116)	RD4	7.00 OCS6	6.35	23	2.84			1.41	3.25	6.50	0.22
Pipe - (117)	AD8	7.50 AD7	6.95	86	0.64			0.25	2.43	0.49	0.52
Pipe - (118)	AD7	6.87 OCS6	6.25	83	0.74			0.50	1.94	1.13	0.45
Pipe - (123)	AccBasin2	6.20 AccBasin4	6.00	34	0.59			7.02	4.07	8.71	0.81
Pipe - (124)	DMH2	12.19 WYE2	6.60	227	2.46			0.00	0.00	6.06	0.00
Pipe - (125)	WYE2	6.60 Out-1Pipe - (125)	6.30	22	1.36			0.29	2.37	4.51	0.06
Pipe - (126)	Infil4Exit	6.30 OCS3	6.20	4	2.59			1.45	3.40	6.21	0.23
Pipe - (127)	OCS3	5.95 AccBasin5	5.75	8	2.61			0.73	4.11	6.23	0.12
Pipe - (92)	RD1	7.75 Out-1Pipe - (92)	7.50	10	2.45			3.18	4.98	6.04	0.53
Pipe - (93)	Trench Drain	7.75 Out-1Pipe - (93)	7.50	28	0.89			0.48	2.56	3.64	0.13
Pipe - (94)	Infil1Exit	8.10 OCS1	7.90	3	6.00			3.66	7.19	6.68	0.55
Pipe - (95)	OCS1	8.00 AccBasin1	7.40	44	1.35			3.67	5.48	8.13	0.45
Pipe - (96)	AccBasin1	7.30 OCS2	6.70	88	0.68			4.10	3.83	5.79	0.71
Pipe - (97)	OCS2	6.60 AccBasin2	6.30	59	0.51			6.27	4.17	8.10	0.77
Pipe - (99)	AccBasin4	5.90 AccBasin5	5.55	67	0.53			7.31	4.31	8.25	0.89
Pipe - (99) (1)	AccBasin5	5.45 AccBasin3	5.25	35	0.56			8.76	4.30	18.42	0.48

Junction Input

Junction Name	Invert Elevation	Rim Elevation
	(ft)	(ft)
AccBasin1	7.30	9.61
AccBasin2	6.20	10.64
AccBasin3	5.15	9.70
AccBasin4	5.90	9.31
AccBasin5	5.45	9.79
AD1	7.60	9.25
AD2	7.25	8.92
AD3	6.37	9.30
AD4	6.50	9.26
AD5	6.70	9.35
AD6	5.63	9.25
AD7	6.87	10.01
AD8	7.50	10.01
CB1	15.00	18.84
DMH1	8.00	12.72
DMH2	12.19	16.99
Infil1Exit	8.10	9.26
Infil2Exit	7.50	8.07
Infil4Exit	6.30	6.82
OCS1	8.00	11.95
OCS2	6.60	10.85
OCS3	5.95	9.83
OCS4	6.98	15.38
OCS5	5.48	10.32
OCS6	6.25	8.69
RD1	7.75	0.66
RD2	7.45	7.12
RD3	7.85	0.66
RD4	7.00	7.06
Trench Drain	7.75	0.66
WYE1	7.10	6.01
WYE2	6.60	0.67
WYE3	7.73	10.00

APPENDIX C

Long-Term Pollution Prevention and Stormwater Operation and Maintenance Plan

See Condition #19d Compliance

APPENDIX D

DRAFT Stormwater Pollution Prevention Plan (SWPPP)

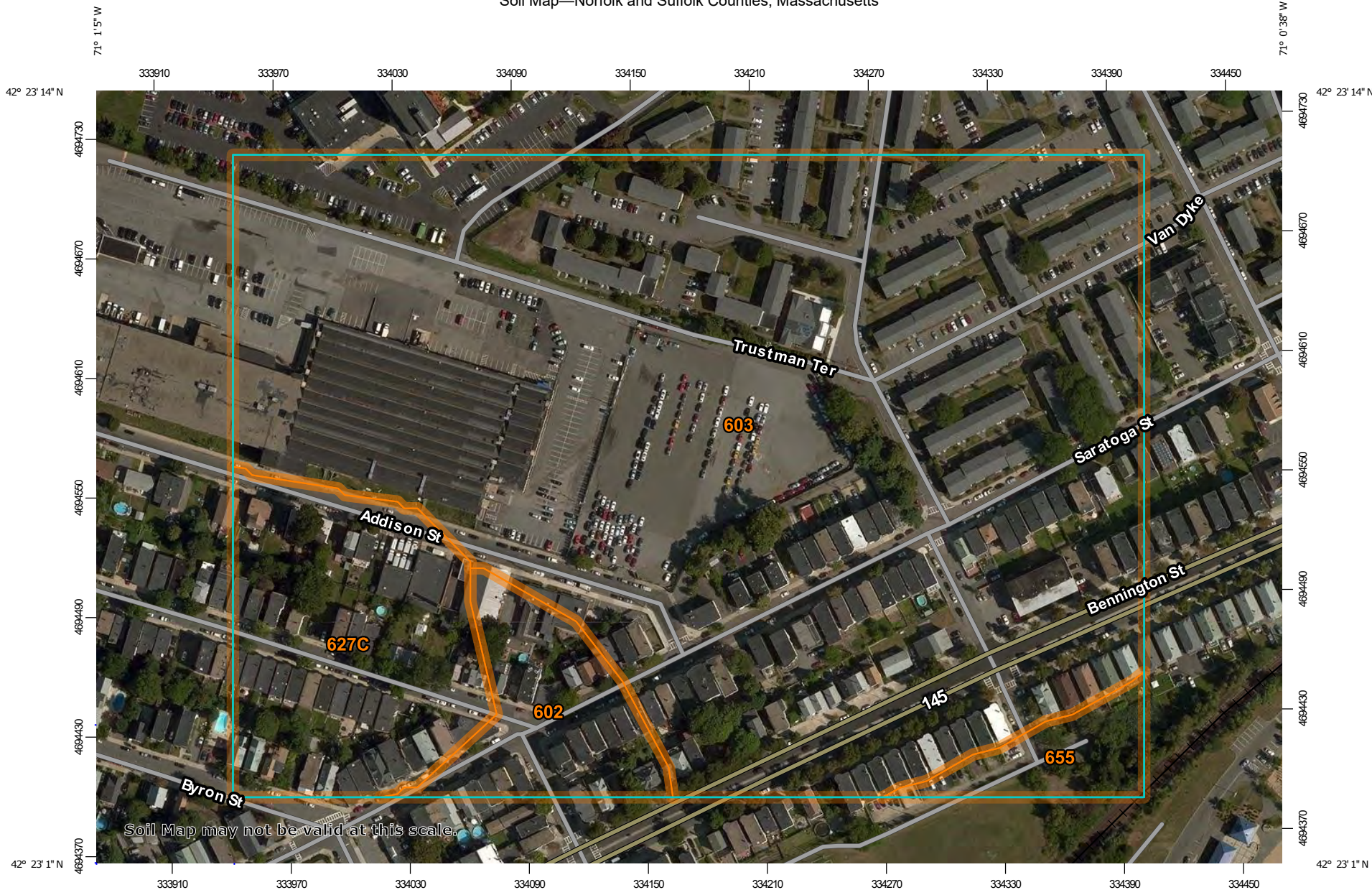
See Condition #19a Compliance

APPENDIX E

Soil Investigations

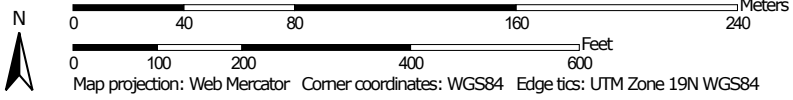
NRCS Soil Maps and Descriptions
Geotechnical Report

Soil Map—Norfolk and Suffolk Counties, Massachusetts




Soil Map may not be valid at this scale.

Map Scale: 1:2,730 if printed on A landscape (11" x 8.5") sheet.



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

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

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Norfolk and Suffolk Counties, Massachusetts

Survey Area Data: Version 13, Oct 6, 2017

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

Date(s) aerial images were photographed: Aug 10, 2014—Aug 25, 2014

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
602	Urban land, 0 to 15 percent slopes	2.0	5.5%
603	Urban land, wet substratum, 0 to 3 percent slopes	29.3	79.8%
627C	Newport-Urban land complex, 3 to 15 percent slopes	4.4	12.1%
655	Udorthents, wet substratum	1.0	2.6%
Totals for Area of Interest		36.8	100.0%

PRELIMINARY GEOTECHNICAL ENGINEERING REPORT
Addison Street Redevelopment
144 Addison Street
East Boston, Massachusetts

*Prepared for Gate Residential
File No. 4232.00
September 8, 2017*

Mr. Steve Perdue, Vice President
Gate Residential
265 Franklin Street, 6th Floor
Boston, MA 02110

September 8, 2017
File No. 4232.00

Re: Preliminary Geotechnical Engineering Report
Addison Street Redevelopment
144 Addison Street
East Boston, Massachusetts

Dear Steve:

Attached is an electronic (PDF) copy of our Preliminary Geotechnical Engineering Report for the above-referenced project in East Boston, Massachusetts. Foundation alternatives are discussed in the Executive Summary and in Section 7.0 of the report. Our final report will be issued upon receipt of a site grading plan, and pending additional test borings, if requested by you.

We trust this report meets the needs of the project at this time. If you have any questions, please call the undersigned at (857) 327-9731.

Very truly yours,
SANBORN, HEAD & ASSOCIATES, INC.



Americo J. Santamaria
Project Engineer



Stan S. Sadkowski, P.E.
Vice President/Senior Associate

SSS/KPS: ajs

Encl. Preliminary Geotechnical Engineering Report

P:\4200s\4232.00\Source Files\GT Report\20170908 GT Rpt Cover Ltr.docx

TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
1.0 INTRODUCTION.....	1
2.0 SITE DESCRIPTION AND SITE HISTORY	1
3.0 PROPOSED CONSTRUCTION.....	1
4.0 SUBSURFACE EXPLORATION PROGRAM.....	2
5.0 SUBSURFACE CONDITIONS.....	2
5.1 Surface Material.....	2
5.2 Existing Fill.....	2
5.3 Organic Silt	2
5.4 Silty Sand/Sandy Silt	3
5.5 Boston Blue Clay.....	3
5.6 Glacial Till	3
5.7 Groundwater.....	3
6.0 GEOTECHNICAL LABORATORY TESTING	3
7.0 GEOTECHNICAL CONSIDERATION AND RECOMMENDATIONS.....	4
7.1 Primary Geotechnical Engineering Issues.....	4
7.2 Preliminary Foundation Alternatives	4
7.3 Preliminary Building Foundation Design Criteria	5
7.3.1 Slab and Footing Design Criteria	5
7.3.2 Building Foundation Drains and Underdrains	6
7.3.3 Seismic Design	6
8.0 ADDITIONAL RECOMMENDATIONS.....	6

FIGURES

Figure 1 Exploration Location Plan

APPENDICES

- Appendix A Limitations
- Appendix B Boring Logs by Sanborn Head
- Appendix C Geotechnical Laboratory Report

EXECUTIVE SUMMARY

The proposed Addison Street Redevelopment includes the construction of three (3) new buildings (two interconnected) and associated site improvements at the 144 Addison Street property in East Boston, Massachusetts (Site). The proposed buildings are anticipated to consist of 5 stories of timber-framed construction over a concrete podium. No below-grade areas are proposed currently. We understand that site grades may be raised as much as approximately 8 to 12 feet in some areas to construct buildings and pavement areas as high as approximately El. 20.5 feet.

This preliminary report provides foundation alternatives to support the proposed raise-in-grade fill and buildings.

Based on the explorations advanced, the subsurface conditions consist of urban fill overlying compressible organic deposits overlying approximately 40 to 100 feet of compressible clay soils. Estimated settlement of the organic soils from the raise-in-grade fill ranges from approximately 4 to 20 inches (depending on the organic thickness and estimated fill to be placed above), plus approximately 3 to 8 inches of settlement in the clay soils from the raise-in-grade fill.

The existing fill and organics are unsuitable to support the proposed buildings. The estimated settlement of the clay soils from anticipated building loads is generally less than 1 inch, but will need to be re-evaluated pending the availability of actual column loads.

To address potential settlement concerns, we evaluated three options:

Option 1: Pre-load the clay for 6 to 9 months with approximately 8 feet of material above proposed grades to induce settlement prior to construction and installation of shallow ground improvement (through the fill and organics) to support the building. Ground improvement which would likely consist of rigid inclusions, or grouted rammed aggregate piers would allow the building to be constructed with footings and a slab-on-grade. To achieve a feasible duration for the pre-loading wick drains will be required. Ground improvement would only be necessary below foundations, and not slabs or pavement in this scenario.

Option 2: Deep ground improvement to support both the raise in grade fill and buildings across the entire Site. Ground improvement elements would be installed at the existing grade and extend through the fill, organics and clay down to approximately 45 to 85 feet below existing grade to limit settlement to less than 1 inch.

Option 3: The proposed 8 to 12 feet of fill is the major contributor to the amount of settlement. As such, we evaluated reducing the fill thickness to limit settlement of the underlying clays to less than 1 inch of total settlement with shallow ground improvement to support the raise in grade fill and buildings through the fill and organics. Our preliminary analyses indicate that shallow ground improvement (25 to

30 feet long) could support the building and up to approximately 3 feet of raise-in-grade fill.

Given the variability of the clay thickness and the proposed grades, additional explorations will be necessary to evaluate the length and spacing of ground improvement options and wick drains. Alternatively, limiting the raise of the site to 3 feet or less should be considered to lessen the premium costs associated with foundation construction.

1.0 INTRODUCTION

Sanborn, Head & Associates, Inc. (Sanborn Head) has prepared this preliminary geotechnical engineering report on behalf of Gate Residential (Client) to convey geotechnical design parameters and preliminary geotechnical foundation options based on data obtained from our subsurface exploration program for the proposed project located on a portion of 144 Addison Street in East Boston, Massachusetts (the Site). The scope of services to complete this preliminary geotechnical report was outlined in Sanborn Head's Proposal for Services dated August 10, 2017. Our environmental summary letter has been provided under separate cover. This report is subject to the Limitations included in Appendix A.

2.0 SITE DESCRIPTION AND SITE HISTORY

Based on our familiarity with the Site and surrounding area, and our review of the plans provided to us, we understand the Site is an approximately 3-acre portion of the property identified by the City of Boston Assessing Department as 144 Addison Street, formerly referred to as 175 McClellan Highway, in East Boston, Massachusetts. The Site consists of a paved surface parking lot with a small guard house and is currently operated as a car rental parking area for Avis. The Site is bounded by residential properties to the north and east, Addison Street to the south, and the larger approximately 10-acre portion of the 144 Addison Street property to the west. The western portion of the 144 Addison Street property is occupied by an approximately 330,000 square-foot commercial industrial building and a smaller auto storage garage. West of 144 Addison Street is Route 1A (William F McClellan Highway) and the Chelsea River.

Based on a survey by Feldman Land Surveyors of Boston, Massachusetts, the existing ground generally varies between approximately El. 8 to El. 14 feet, with higher elevation around El. 18 feet near Addison Street. Based on our experience working in the area and our review of readily available information, the Site was historically filled as part of land creation in East Boston. Elevations reference the Boston City Base datum.

3.0 PROPOSED CONSTRUCTION

Based on our review of the concept plans prepared by Arrowstreet Inc., we understand that the project consists of the following:

- Three (3) residential buildings (two interconnected) with five levels of timber frame above a concrete podium with no below grade-structures is currently proposed;
- The site may be raised as much as 8 to 12 feet in low-lying areas to address flood plain design requirements (up to El. 20.5 feet);
- First floor parking with approximately 150 total spaces; and,
- Landscaped areas and pedestrian walkways.

4.0 SUBSURFACE EXPLORATION PROGRAM

Sanborn Head conducted a subsurface exploration program which included five (5) geotechnical test borings, three (3) of which were completed as monitoring wells (SH-101W through SH-103W). The test boring explorations were advanced by Crawford Drilling Services, LLC (CDS) of Westminister, Massachusetts. The approximate locations of the subsurface explorations are shown on Figure 1.

The explorations were observed and logged by Sanborn Head personnel on a full-time basis. The test boring soil samples were classified using the Modified Burmister System. A legend describing the classification system is provided in Appendix B. Standard Penetration Tests (SPT) were completed for each test borings in general accordance with American Society of Testing and Materials (ASTM) Standard D1586.

Logs of geotechnical test borings by Sanborn Head are provided in Appendix B. The test borings were located based on tape measurements from existing site features. The approximate ground surface elevations at the test boring locations were estimated by interpolating between the existing ground surface contours on a survey prepared by Feldman Land Surveys of Boston, Massachusetts and dated April 10, 2017. As such, the locations and ground surface elevations should be considered approximate.

5.0 SUBSURFACE CONDITIONS

The following sections provide general descriptions of the subsurface strata observed in the explorations logged by Sanborn Head.

5.1 Surface Material

Explorations advanced across the proposed development area encountered a surface layer of asphalt pavement approximately 2 to 4 inches thick.

5.2 Existing Fill

Existing historic (urban) fill consisting of granular soil was encountered across the project area. The fill thickness ranges from approximately 4 to 6 feet. The existing fill typically consists of inorganic, fine to coarse sand with varying amounts of gravel and silt. In some areas, the fill was reported to also contain brick, ash, glass, coal, wood, asphalt and debris. At exploration locations SH-101 and SH-103, fill materials also contained very few organic particles/fibers. Standard penetration test (SPT) N-values in the existing fill typically ranged from 3 to 16 blows per foot (bpf), indicating the existing fill has variable density.

5.3 Organic Silt

A layer of organic soils was encountered below the fill. The organic layer, where encountered, varied in thickness from 2 feet to approximately 9 feet thick. Samples of the organic soils indicated the water content varied between approximately 80% and 200%, and organic content ranging between approximately 10 and 30%.

5.4 Silty Sand/Sandy Silt

A natural sandy silt layer was encountered below the existing fill and organic silt, generally extending 16 to 19 feet bgs. The natural sandy silt typically consists of silt with varying amounts of sand and clay. At exploration SH-103, the sandy silt also contained organic particles. SPT N-values in the silt typically ranged from 5 to 26 bpf, indicating the sandy silt is generally medium stiff to very stiff medium dense.

5.5 Boston Blue Clay

Boston Blue Clay (BBC) is present below the sand layer and was observed, where advanced through the full thickness of the layer, to be between approximately 40 and 100 feet thick. The silty clay decreases in thickness from north to south (as the glacial till comes up). The clay layer was observed to have an approximately 10-foot thick crust of highly over-consolidated, stiff to very stiff clay underlain by an approximately 20-foot thick medium stiff layer underlain by approximately 40 to 60 feet of soft to very soft clay. Undrained shear strengths were estimated between approximately 700 and 1800 pounds per square foot (psf).

5.6 Glacial Till

Glacial till was encountered at SH-101W, SH-102W, and SH-103W and generally consists of dense to very dense soils that contain fine to coarse sand, silt, and gravel in varying proportions. The depth to the top of the glacial till soils (where encountered) ranges from approximately 59 to 115 feet bgs. SPT N-values in the glacial till typically ranged from 30 to 58 bpf, indicating the material is dense to very dense.

5.7 Groundwater

During drilling, three (3) monitoring wells were installed in the locations shown on Figure 1. Groundwater readings during drilling indicated groundwater is approximately 5 feet below grade. Stabilized groundwater levels were not collected (due to the addition of water into the borehole during drive-and-wash drilling). The wells will need to be developed and purged of drill water to measure stabilized water levels.

It should be noted that groundwater levels will fluctuate depending on construction, presence of utilities and seasonal variations in temperature and precipitation. It is also possible that tidal effects may influence the groundwater level.

6.0 GEOTECHNICAL LABORATORY TESTING

Sanborn Head submitted soil samples to GeoTesting Express of Acton, Massachusetts for the following laboratory analyses:

- Seven (7) samples for Atterberg Limits (ASTM D4318);
- Ten (10) samples for moisture content (D2216);
- Four (4) samples for organic content (ASTM D2974);

- One (1) sample for incremental consolidation (ASTM D2435) and digital imaging (ASTM D4452);

Laboratory reports are included in Appendix C.

7.0 GEOTECHNICAL CONSIDERATION AND RECOMMENDATIONS

The following paragraphs present our geotechnical engineering evaluation of the impact of subsurface conditions on the proposed site development and our recommendations related to subgrade preparation and foundation design.

7.1 Primary Geotechnical Engineering Issues

Based on the subsurface information collected to date, we have identified the following primary geotechnical issues:

- **Presence of Variable Density Fill and Organic Soil:** Variable density urban fill and organic deposits were encountered across the Site. The fill and organic soils are not considered suitable for support of the proposed buildings in their current condition due to the compressibility of the soil and their variable density. In addition, the estimated settlement from the proposed raise in grade fill ranges from approximately 4 to 20 inches from the organic layer depending on the thickness of organics and raise in grade fill.
- **Presence of Thick Compressible Clays:** The approximately 3-acre site will be raised by approximately 8 to 12 +/- feet in the central portion of the site (and by lesser amounts around the perimeter of the site), resulting in consolidation of the underlying clay deposit with a thickness ranging from 40 to 100 feet. Settlement is estimated between 3 to 8 inches from the raise-in-grade fill.

7.2 Preliminary Foundation Alternatives

To address potential settlement concerns outlined above, we evaluated three options: 1) pre-loading the clay to induce settlement prior to construction and installation of shallow ground improvement to support the buildings given the organic soils; 2) Deep ground improvement to support both the raise in grade fill and the buildings across the Site; and, 3) limited raise in grade fill and shallow ground improvement supporting both the buildings and raise in grade fill across the Site. Given the estimated settlement of the deeper clays from the proposed raise in grade fills (8 to 12 feet), shallow ground improvement alone would still result in unacceptable settlements. Ground improvement, would likely consist of rigid inclusions, or grouted rammed aggregate piers allowing the buildings to be constructed with spread footings and a slab-on-grade. The installation of ground improvement may require placement of a load transfer platform (LTP) which may consist of 2 feet of dense-graded crushed stone. The need for an LTP could be waived pending the thickness and quality of the proposed raise-in-grade fill.

- **Option 1:** A staged pre-load program that would consist of an initial surcharge of 18 feet (total, including raise-in-grade fill), which would be removed upon achieving the

desired consolidation of the underlying organics and BBC deposits. The estimated time to achieve the required settlement is approximately 3 to 5 years given the thickness of the clay. As such, we recommend the installation of wick drains to shorten the drainage path and increase the rate of consolidation to a feasible duration of 6 to 9 months. Additional explorations and further analysis will be required to evaluate wick drain spacing and depths to achieve a feasible preload duration. It is anticipated the pre-load program also will achieve adequate settlement of the organic layer to limit long-term settlement outside of the building footprints to acceptable levels.

We recommend the buildings be supported by spread footings with a slab-on-grade bearing on shallow ground improvement extending in the clay crust to address the long-term settlement of the organic deposit.

- **Option 2:** Due to the soft compressible nature of the clay deposits underlying the crust, we analyzed a deep ground improvement system to identify a depth which would carry the load of the fill (~8+ feet) and building loads and allow for a conventional foundation system of spread footings and a slab-on-grade while limiting post construction settlement to approximately one (1) inch or less.

Based on our preliminary analysis, the anticipated fill thicknesses and the general soil profile previously discussed, the estimated depth of ground improvement from the existing ground surface (Approximately El. 8 to El. 14) ranges from 45 to 85 feet long and bearing in clay.

- **Option 3:** The proposed 8 to 12 feet of fill is the major contributor to the amount of settlement. Options 1 and 2, provide preliminary recommendations to achieve the proposed grades. As an alternative, we evaluated reducing the fill thickness to limit settlement of the underlying clays to less than 1 inch of total settlement with shallow ground improvement to support the raise in grade fill and buildings through the fill and organics. Our preliminary analyses indicate that shallow ground improvement (25 to 30 feet long) could support the building and up to approximately 3 feet of raise-in-grade fill.

7.3 Preliminary Building Foundation Design Criteria

7.3.1 Slab and Footing Design Criteria

Further evaluation of possible slab and footing support is necessary; however, preliminary considerations are provided below assuming the site will be prepared using ground improvement to support raise-in-grade fill and foundation loads.

Conventional, shallow spread footings (following ground improvement) should be proportioned based on a net allowable bearing pressure of 4 kips per square foot (ksf), while limiting the potential, long-term settlement to less than 1 inch, and limiting post-construction differential settlement to less than ½-inch.

The slab-on-grade should be supported by ground improvement. The slab should bear on 6 inches of compacted dense-graded crushed stone meeting the requirements for MassDOT Item M2.01.7. The modulus of subgrade reaction should be assumed as 150 pounds per cubic inch (pci).

As noted above, an LTP may be required to transfer loads from the foundations/slabs to the ground improvement. The LTP would likely consist of 2 feet of dense-graded crushed stone, but could be waived pending the actual thickness and quality of the proposed raise-in-grade fill material.

7.3.2 Building Foundation Drains and Underdrains

It is our opinion that perimeter foundation drains and/or subslab underdrains are not required as part of the foundation design based on the subsurface conditions encountered and the proposed raise in grade. A vapor barrier is not required for geotechnical purposes due to the presence of groundwater. However, we understand that the architect or structural engineer may require a vapor barrier to meet building code requirements.

7.3.3 Seismic Design

The draft 9th Edition (CMR 780) of the Massachusetts State Building Code (MSBC9) is based on the International Building Code 2015 (IBC 2015) with amendments. We recommend using the following design parameters for the proposed buildings as defined by MSBC9 and IBC 2015:

- Site Class: Based on the proposed building location, elevation and available subsurface information, Site Class D is recommended for the proposed structures;
- Design Spectral Response Accelerations: $S_{DS} = 0.231g$ and $S_{D1} = 0.110g$ (MSBC9 and IBC 2015).

If needed, revised seismic design acceleration may be provided upon promulgation of the new code. It is our opinion that the soils at the site are not susceptible to liquefaction as defined in Section 1806.4 of the MSBC.

8.0 ADDITIONAL RECOMMENDATIONS

Given the variability of the clay thickness and the proposed grades, additional explorations will be necessary to evaluate the length and spacing of ground improvement options and/or wick drain spacing to further evaluate the feasibility of a pre-load program.

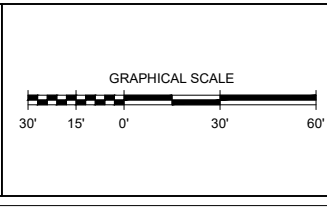
Limiting the thickness of the raise in grade fill to 3 feet or less should be considered to lessen the premium costs associated with foundation construction.

FIGURE



- NOTES:
1. THE BASE MAP WAS TAKEN FROM AN ELECTRONIC PLAN ENTITLED, "PARTIAL TOPOGRAPHIC PLAN OF LAND WITH BUILDING FOOTPRINT OVERLAY", PREPARED BY FELDMAN LAND SURVEYORS OF BOSTON, MA, DATED APRIL 10, 2017 WITH AN ORIGINAL SCALE OF 1" = 30'.
 2. EXPLORATIONS DESIGNATED SH-101W THROUGH SH-105 WERE ADVANCED BY CRAWFORD DRILLING SERVICES, LLC (CDS) OF WESTMINSTER, MA AND OBSERVED BY SANBORN HEAD BETWEEN AUGUST 14 AND 16, 2017.
 3. APPROXIMATE LOCATIONS OF EXPLORATIONS ARE BASED ON TAPED MEASUREMENTS MADE IN THE FIELD RELATIVE TO PROMINENT SITE FEATURES. THIS DATA SHOULD BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE METHOD USED.

- LEGEND:
- SH-104 APPROXIMATE LOCATION AND DESIGNATION OF TEST BORING OBSERVED BY SANBORN HEAD (AUGUST 2017)
 - SH-101W APPROXIMATE LOCATION AND DESIGNATION OF MONITORING WELL OBSERVED BY SANBORN HEAD (AUGUST 2017)



NO.	DATE	DESCRIPTION	BY

DRAWN BY: C.GREEN
 DESIGNED BY: P.MALONE
 REVIEWED BY: S.SADKOWSKI
 PROJECT MGR: P.MALONE
 PIC: S.SADKOWSKI
 DATE: AUGUST 2017

GEOTECHNICAL ENGINEERING SERVICES
 144 ADDISON STREET
 EAST BOSTON, MASSACHUSETTS

PROJECT NUMBER:
4232.00

SHEET NUMBER:
1

EXPLORATION LOCATION PLAN

APPENDIX A
LIMITATIONS

APPENDIX A

LIMITATIONS

Explorations

1. The analyses, recommendations, and designs submitted in this preliminary report are based in part on the data obtained from subsurface explorations by Sanborn Head and others. The nature and extent of variations between these explorations may not become evident until construction. If variations then appear evident, it will be necessary to re-evaluate the recommendations of this report.
2. The generalized soil profile described in the text is intended to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized, and have been developed by interpretation of widely spaced explorations and samples; actual soil transitions may be more or less gradual than indicated. For specific information, refer to the test boring logs.
3. Water level readings have been made in the drill holes at the times and under the conditions stated on the exploration logs. These data have been reviewed and interpretations have been made in the text of this report. However, it must be noted that fluctuations in the level of the groundwater may occur due to variations in rainfall, temperature, and other factors differing from those occurring at the time measurements were made.

Review

4. In the event that any changes in the nature, design, or location of the proposed buildings are planned, the conclusions and recommendations contained in this report shall not be considered valid unless the changes are reviewed and conclusions of the report modified or verified in writing by Sanborn Head.

Construction

5. It is recommended that this firm be retained to provide soil engineering services during the excavation and earthwork construction phases of the work. This is to observe compliance with the design concepts, specifications, or recommendations and to allow design changes in the event that subsurface conditions differ from those anticipated prior to the start of construction.

Use of Report

6. This preliminary report has been prepared for the exclusive use of Gate Residential for the Addison Street Redevelopment project located at 144 Addison Street in East Boston, Massachusetts, in accordance with generally accepted soil and foundation engineering practices. No other warranty, expressed or implied, is made.

7. This preliminary geotechnical engineering report has been prepared for this project by Sanborn Head for design purposes only and is not sufficient to prepare an accurate bid. Contractors wishing a copy of this report may secure it with the understanding that its scope is limited to design considerations only.

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APPENDIX B

BORING LOGS BY SANBORN HEAD

Description and Classification of Soil

1. **Density or Consistency:** The density or consistency of a soil sample is based on the Standard Penetration Test N-value according to the following table:

Density of Granular Soil	SPT N-Value		Consistency of Cohesive Soil
Very Loose	0-4	<2	Very Soft
Loose	4-10	2-4	Soft
Medium Dense	10-30	4-8	Medium Stiff
Dense	30-50	8-15	Stiff
Very Dense	>50	15-30	Very Stiff
		>30	Hard

The Standard Penetration Resistance, or N-value in blows per foot, is the sum of the blows recorded over the second and third 6-inch interval.

A number followed by "/3" indicates the distance that the sampler advanced. For example "100/4" indicates that 100 blows of a 140 pound hammer falling 30 inches advanced the sampler 4 inches. "WOR/24" indicates the weight of the drilling rods without the hammer caused the sampler to advance 24 inches.

"WOH" indicates the static weight of the 140 pound hammer and the drilling rods attached to the split spoon sampler were sufficient to cause the sampler to advance.

"WOR" indicates the static weight of the drilling rods attached to the split spoon sampler was sufficient to cause the sampler to advance.

2. **Color:** The color of a soil sample is based on visual observation.

3. Soil Components

- A. **Description:** The components of a soil sample are described by visually estimating the percentage of each component by weight of the total sample using a Modified Burnmaster System.

- i. **Major Component:** The major soil component is written with upper case letters for granular soil (e.g., SAND, GRAVEL) and a combination of upper and lower case letters for fine grained soil (e.g., Silty CLAY, Clayey SILT).
- ii. **Minor Component:** The minor soil components are written with the first letter of each soil type in upper case, and the remaining letters in lower case (e.g., Gravel, Silt). The minor components are identified and prefaced in the description based on the following percentages:

Preface	Percentage
and	35-50
some	20-35
little	10-20
trace	0-10

- iii. **Note:** The actual percentages of gravel soil may differ from that measured when sampling with a standard split spoon sampler because of the relatively small sampler diameter. Also, it is not possible to identify the presence of boulders and cobbles using a standard split spoon sampler.

B. Definitions

- i. **Granular Soil:** A granular soil sample is defined by the following particle sizes as referenced to a standard sieve:

Material	Description	Standard Sieve Limit	
		Upper	Lower
Boulders	C-sized	--	36 inch
	B-sized	36 inch	24 inch
	A-sized	24 inch	12 inch
Cobbles	--	12 inch	3 inch
Gravel	coarse	3 inch	3/4 inch
	fine	3/4 inch	No. 4
Sand	coarse	No. 4	No. 10
	medium	No. 10	No. 40
	fine	No. 40	No. 200

- ii. **Fine Grained Soil:** The degree of plasticity of fine-grained soils is defined as follows:

Material	Degree of Plasticity	Plasticity Index (PI)	Smallest Thread Diameter (in.)
SILT	Non-Plastic	0	None
Clayey SILT	Slight	1 to 5	1/4
SILT & CLAY	Low	5 to 10	1/8
CLAY & SILT	Medium	10 to 20	1/16
Silty CLAY	High	20 to 40	1/32
CLAY	Very High	40+	1/64

- iii. **Organic Soil:** An organic soil sample is classified by observation of the sample structure as follows:

Material	Description
TOPSOIL	Surficial soils that support plant life and which contain organic matter.
SUBSOIL	Soil underlying the topsoil which may contain very fragments of plant fibers.
PEAT	Deposits of plant remains in which the original plant fibers may be visible.
ORGANIC SILT	Deposit of plant remains in which the original plant fibers have been destroyed, may have high sand content. Usually found underlying peat.

- iv. **Non-Soil Constituents:** Non-soil constituents (artificial or anthropogenic material, organic materials, cobbles and boulders) are described as follows:

The following terminology is used to denote size ranges of non-soil constituents:

Descriptive Term	Size Range	Comparative Term
Specks	< No. 200 Sieve	Silt and Clay fines
Particles	No. 200 Sieve to No. 4 Sieve	Sand
Fragments	No. 4 Sieve to 3 in.	Gravel
Pieces	3 in. to 12 in.	Cobbles
Blocks	> 12 in.	Boulders

The following terminology is used to describe the frequency that a non-soil constituent is observed by estimating the percentage of the constituent by weight of the total sample:

Descriptor	Percentage
very few	0-5
few	5-10
common	10-20
frequent	20-35
numerous	35-50

4. **Moisture Content:** The moisture content of a soil sample is based on the observable presence of water according to the following table:

Dry	Moisture is not apparent, dusty.
Moist	No visible water.
Wet	Visible free water.

5. **Other Pertinent Characteristics:** Pertinent characteristics observed in a soil sample should be noted according to the following table:

Soil Structure Produced by Deposition of Sediments	
Stratified	Random soil deposits of varying components of color.
Varved	Alternating soil deposits of varying thickness (i.e., clays or silts).
Stratum	Soil deposit > 12 inches thick.
Layer	Soil deposit 3 inches to 12 inches thick.
Seam	Soil deposit 1/8 inch to 3 inches thick.
Parting/Lens	Soil deposit < 1/8 inch thick.



Project: 144 Addison Street
 Location: East Boston, MA
 Project No.: 4232.00

Log of Monitoring Well SH-101W

Ground Elevation: 9.4 ± feet
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Drive & Wash, 4in OD Casing Mobile Drill Rig B57, Truck Mounted Rig

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Drilling Company: Crawford Drilling Services, LLC

Foreman: T. Martinelli

Date Started: 08/14/17

Date Finished: 08/14/17

Logged By: C. Sobchuk

Checked By:

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
08/14/17	12:55	5'	Ground Surface	9'	58'	~45 Minutes
08/15/17	07:20	3.2'	Ground Surface	9'	Well Installed	~16 Hours
08/23/17	---	0.8'	Top of PVC		12'	9 Days

BORING LOG P:\4200S\4232.00\WORK\LOGS\4232.00 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 9/8/17

Depth (ft)	Sample Information					Stratum		Geologic Description	Well Diagram	Well Description
	Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/ Rec (in)	Field Testing Data	Log	Description			
0	S-1	0.1 - 2	9 5 3 2	24/14	PID: 0.4 ppmv			(0 to 0.1'): ASPHALT.		6" Dia. Flushmounted Road Box Set in Concrete (0 to 1')
2	S-2	2 - 4	2 1 2 1	24/10	PID: ND		FILL	S-1 (0.1 to 2'): Loose, dark brown, fine to coarse SAND, little Gravel, trace Silt, very few Organic particles, very few Glass particles, very few Ash particles, very few Tile particles. Moist. FILL. S-2 (2 to 4'): Very loose, dark brown, fine to coarse SAND, little Gravel, trace Silt, very few Organic particles, very few Glass particles, very few Ash particles, very few Tile particles. Moist. FILL.		2" Dia. Sch. 40 PVC Riser (1 to 2') Bentonite Chips (1 to 1.5')
4	S-3	4 - 6	5 2 1/12"	24/0	PID: NA			S-3 (4 to 6'): Very soft, No Recovery.		2" Dia. Sch. 40 PVC Well Screen (0.010" Slots) (2 to 12')
6	S-4	6 - 8	1/24"	24/0	PID: NA			S-4 (6 to 8'): Very soft, No Recovery.		
8	S-5	8 - 10	1 1 1/12"	24/15	PID: 10.8 ppmv PP: ND Tv: 0.1 PID: 15.9 ppmv		ORGANIC SILT	S-5A (8 to 9'): Very soft, dark gray, SILT, some Sand. Wet. ORGANIC SILT. S-5B (9 to 10'): Very soft, Clayey SILT, very few Organic particles. Wet. ORGANIC SILT.		
10	S-6	10 - 12	4 6 5 11	24/24	PID: 34 ppmv PP: 2.25 Tv: 0.35 PID: ND			S-6A (10 to 11.3'): Stiff, Clayey SILT, numerous Organic particles. Wet. ORGANIC SILT. S-6B (11.3 to 12'): Stiff, gray, SILT & CLAY, trace Organic particles. Wet. ORGANIC SILT.		
14	S-7	14 - 16	5 7 8 8	24/24	PID: ND		SILTY SAND	S-7 (14 to 16'): Medium stiff, SILT and Sand. Wet.		Filter Sand (1.5 to 67')
18	S-8	19 - 21	6 5 5 7	24/1	PID: NA			S-8 (19 to 21'): Stiff, gray, SILT & CLAY. Wet.		
22							SILT & CLAY			
24	S-9	24 - 26	2 4 3 6	24/2	PID: ND			S-9 (24 to 26'): Medium stiff, gray, CLAY & SILT. Wet.		
26	S-10	26 - 28	5 3 4 5	24/0				S-10 (26 to 28'): Medium stiff, No Recovery.		
28										



Project: 144 Addison Street
 Location: East Boston, MA
 Project No.: 4232.00

Log of Monitoring Well SH-101W

Ground Elevation: 9.4 ± feet
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Drive & Wash, 4in OD Casing Mobile Drill Rig B57, Truck Mounted Rig

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Drilling Company: Crawford Drilling Services, LLC

Foreman: T. Martinelli

Date Started: 08/14/17

Date Finished: 08/14/17

Logged By: C. Sobchuk

Checked By:

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
08/14/17	12:55	5'	Ground Surface	9'	58'	~45 Minutes
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08/23/17	---	0.8'	Top of PVC		12'	9 Days

BORING LOG P:\4200S\4232.00\WORK\LOGS\4232.00 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 9/8/17

Depth (ft)	Sample Information					Stratum		Geologic Description	Well Diagram	Well Description
	Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/Rec (in)	Field Testing Data	Log	Description			
56										Filter Sand (1.5 to 67')
58	S-17	59 - 61	1/12" 1 2	24/24	PID: ND PP: 0.0 Tv: 0.2			S-17 (58 to 61'): Very soft, gray, SILT & CLAY, trace Sand. Wet. Stratified.		
60										
62										
64	S-18	64 - 66	WOR/6" WOH/6" 3 4	24/24	PID: ND PP: 0.0 Tv: 0.25			S-18 (64 to 65'): Very soft, gray, CLAY & SILT, trace Sand. Wet. Stratified.		
66										
68										
70							SILT & CLAY			
72										
74	S-19	74 - 76	WOH/6" 1 1 2	24/24	PID: ND PP: 0.3 Tv: 0.2			S-19 (74 to 76'): Very soft, gray, Silty CLAY, trace Sand. Wet. Stratified.		
76										
78										
80										
82										
84										Formation Material (67 to 99.4')



Project: 144 Addison Street
 Location: East Boston, MA
 Project No.: 4232.00

Log of Monitoring Well SH-101W

Ground Elevation: 9.4 ± feet
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Drive & Wash, 4in OD Casing Mobile Drill Rig B57, Truck Mounted Rig

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Drilling Company: Crawford Drilling Services, LLC

Foreman: T. Martinelli

Date Started: 08/14/17

Date Finished: 08/14/17

Logged By: C. Sobchuk

Checked By:

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
08/14/17	12:55	5'	Ground Surface	9'	58'	~45 Minutes
08/15/17	07:20	3.2'	Ground Surface	9'	Well Installed	~16 Hours
08/23/17	---	0.8'	Top of PVC		12'	9 Days

BORING LOG P:\4200S\4232.00\WORK\LOGS\4232.00 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 9/8/17

Depth (ft)	Sample Information					Stratum		Geologic Description	Well Diagram	Well Description
	Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/Rec (in)	Field Testing Data	Log	Description			
84										
86										
88										
90							SILT & CLAY			
92										
94										
96	S-20	95.4 - 97.4	7 7 2 3	24/1	PID: ND			Roller bit to GLACIAL TILL at 95.4 feet.		
98	S-21	97.4 - 99.4	7 4 4 6	24/1	PID: ND		GLACIAL TILL	S-20 (95.4 to 97.4'): Loose, gray, SILT and Sand, some Gravel, little Clay. Wet. TILL. S-21 (97.4 to 99.4'): Loose, gray, SILT and Sand, some Gravel, little Clay. Wet. TILL.		
100								Boring terminated at 99.4 feet. No refusal encountered.		
102								NOTES:		
104								1. Soil samples were screened for volatile organic compounds (VOCs) using a MiniRAE 3000 Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million by volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. NA indicates not available. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC concentrations or identify individual compounds, the results can serve as a relative indicator for the presence of VOCs.		
106								2. The ground surface elevation was estimated from a plan entitled "Partial Topographic Plan of Land, 175 McClellan Highway & 144 Addison Street, Boston, Mass." Prepared by Feldman Land Surveyors of Boston, MA dated April 10, 2017.		
108								3. Abbreviations: PP = Pocket Penetrometer (DGS Pocket Penetrometer); Tv = Torvane (DGS Stiff Torvane).		
110								4. Values shown for the Stiff Torvane are uncorrected and require a 2.5 ratio (multiplied) for correction.		
112										



Project: 144 Addison Street
 Location: East Boston, MA
 Project No.: 4232.00

Log of Monitoring Well SH-101W

Ground Elevation: 9.4 ± feet
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Drive & Wash, 4in OD Casing Mobile Drill Rig B57, Truck Mounted Rig

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Drilling Company: Crawford Drilling Services, LLC

Foreman: T. Martinelli

Date Started: 08/14/17

Date Finished: 08/14/17

Logged By: C. Sobchuk

Checked By:

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
08/14/17	12:55	5'	Ground Surface	9'	58'	~45 Minutes
08/15/17	07:20	3.2'	Ground Surface	9'	Well Installed	~16 Hours
08/23/17	---	0.8'	Top of PVC		12'	9 Days

BORING LOG P:\4200S\4232.00\WORK\LOGS\4232.00 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 9/8/17

Depth (ft)	Sample Information					Stratum		Geologic Description	Well Diagram	Well Description
	Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/Rec (in)	Field Testing Data	Log	Description			
112								5. Top of organic silt layer interpreted from drilling action. 6. Blow counts for glacial till are not considered representative due to disturbed soils.		
114										
116										
118										
120										
122										
124										
126										
128										
130										
132										
134										
136										
138										
140										



Project: 144 Addison Street
 Location: East Boston, MA
 Project No.: 4232.00

Log of Monitoring Well SH-102W

Ground Elevation: 9.8 ± feet
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Drive & Wash, 4in OD Casing Mobile Drill Rig B57, Truck Mounted Rig

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Drilling Company: Crawford Drilling Services, LLC

Foreman: T. Martinelli

Date Started: 08/15/17

Date Finished: 08/15/17

Logged By: C. Sobchuk

Checked By:

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
08/15/17	11:45	5'	Ground Surface	14'	56'	~45 Minutes
08/16/17	07:15	3.7'	Ground Surface	14'	117'	~16 Hours
08/23/17	---	1'	Top of PVC		12'	8 Days

BORING LOG P:\4200S\4232.00\WORK\LOGS\4232.00 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 9/8/17

Depth (ft)	Sample Information					Stratum		Geologic Description	Well Diagram	Well Description
	Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/Rec (in)	Field Testing Data	Log	Description			
0	S-1	0.3 - 2	8 4 5 6	24/16	PID: 0.7 ppmv		---	(0 to 0.3'): ASPHALT.		6" Dia. Flushmounted Road Box Set in Concrete (0 to 1')
2	S-2	2 - 4	4 3 8 6	24/5	PID: ND	FILL		S-2 (2 to 4'): Medium dense, dark brown, fine to coarse SAND, little Gravel, trace Silt, very few Glass particles, very few Ash particles. Moist. FILL.		2" Dia. Sch. 40 PVC Riser (1 to 2')
4	S-3	4 - 6	4 2 2/12"	24/0	PID: NA		---	S-3 (4 to 6'): Very soft, No Recovery.		Bentonite Chips (1 to 1.5')
6	S-4	6 - 8	WOH/18 1	24/17	PID: 35.5 ppmv			S-4 (6 to 8'): Very soft, dark brown, SILT, little Sand, common Organic particles. Wet. ORGANIC SILT.		2" Dia. Sch. 40 PVC Well Screen (0.010" Slots) (2 to 12')
8	S-5	8 - 10	WOH/24"	24/3	PID: 54.6 ppmv	ORGANIC SILT		S-5 (8 to 10'): Very soft, dark brown, SILT, little Sand, common Organic particles. Wet. ORGANIC SILT.		
14	S-6	14 - 16	4 4 6 5	24/18	PID: ND PP: 3.5 Tv: 0.45	SILTY SAND	---	S-6 (14 to 16'): Stiff, light brown, Clayey SILT and Sand. Wet. Stratified.		Filter Sand (1.5 to 82')
16	S-7	16 - 18	8 7 9 10	24/0	PID: NA		---	S-7 (16 to 18'): Very stiff, No Recovery.		
20	S-8	19 - 21	2 2 3 5	24/19	PID: ND PP: 0.5 Tv: 0.15	SILT & CLAY		S-8 (19 to 21'): Medium stiff, gray, SILT & CLAY, trace Sand. Wet. Stratified.		
24	S-9	24 - 26	WOH/9" 1/3" 1 1	24/15	PID: ND PP: 0.0 Tv: 0.2			S-9 (24 to 26'): Very soft, gray, SILT & CLAY, trace Sand. Wet. Stratified.		



Project: 144 Addison Street
 Location: East Boston, MA
 Project No.: 4232.00

Log of Monitoring Well SH-102W

Ground Elevation: 9.8 ± feet
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Drive & Wash, 4in OD Casing Mobile Drill Rig B57, Truck Mounted Rig

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
08/15/17	11:45	5'	Ground Surface	14'	56'	~45 Minutes
08/16/17	07:15	3.7'	Ground Surface	14'	117'	~16 Hours
08/23/17	---	1'	Top of PVC		12'	8 Days

Drilling Company: Crawford Drilling Services, LLC

Foreman: T. Martinelli

Date Started: 08/15/17

Date Finished: 08/15/17

Logged By: C. Sobchuk

Checked By:

BORING LOG P:\4200S\4232.00\WORK\LOGS\4232.00 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 9/8/17

Depth (ft)	Sample Information					Stratum		Geologic Description	Well Diagram	Well Description
	Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/Rec (in)	Field Testing Data	Log	Description			
28	S-10	29 - 31	WOH/24	24/24	PID: ND PP: 0.3 Tv: 0.3			S-10 (29 to 31'): Very soft, gray, SILT & CLAY, trace Sand. Wet. Stratified.		
32	U-1	32 - 34		---				U-1 (32 to 34'): SILT & CLAY, Shelby Tube collected.		
34	S-11	34 - 36	3 3 3 2	24/12	PID: ND PP: 0.0 Tv: 0.15			S-11 (34 to 36'): Medium stiff, gray, Clayey SILT, trace Sand. Wet. Stratified.		Filter Sand (1.5 to 82')
42							SILT & CLAY			
44	S-12	44 - 46	WOH/6	24/24	PID: ND PP: 0.0 Tv: 0.2			S-12 (44 to 46'): Soft, gray, SILT & CLAY, trace Sand. Wet. Stratified.		
54	S-13	54 - 56	WOH/24	24/24	PID: ND PP: 0.0 Tv: 0.2			S-13 (54 to 56'): Very soft, gray, CLAY & SILT, trace Sand. Wet. Stratified.		



Project: 144 Addison Street
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Log of Monitoring Well SH-102W

Ground Elevation: 9.8 ± feet
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Drive & Wash, 4in OD Casing Mobile Drill Rig B57, Truck Mounted Rig

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Drilling Company: Crawford Drilling Services, LLC

Foreman: T. Martinelli

Date Started: 08/15/17

Date Finished: 08/15/17

Logged By: C. Sobchuk

Checked By:

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
08/15/17	11:45	5'	Ground Surface	14'	56'	~45 Minutes
08/16/17	07:15	3.7'	Ground Surface	14'	117'	~16 Hours
08/23/17	---	1'	Top of PVC		12'	8 Days

BORING LOG P:\4200S\4232.00\WORK\LOGS\4232.00 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 9/8/17

Depth (ft)	Sample Information					Stratum		Geologic Description	Well Diagram	Well Description
	Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/Rec (in)	Field Testing Data	Log	Description			
56								Roller bit to GLACIAL TILL at 115 feet.		
58										
60										Filter Sand (1.5 to 82')
62										
64										
66										
68										
70										
72										
74										
76										
78										
80										
82										
84										



Project: 144 Addison Street
 Location: East Boston, MA
 Project No.: 4232.00

Log of Monitoring Well SH-102W

Ground Elevation: 9.8 ± feet
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Drive & Wash, 4in OD Casing Mobile Drill Rig B57, Truck Mounted Rig

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Drilling Company: Crawford Drilling Services, LLC

Foreman: T. Martinelli

Date Started: 08/15/17

Date Finished: 08/15/17

Logged By: C. Sobchuk

Checked By:

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
08/15/17	11:45	5'	Ground Surface	14'	56'	~45 Minutes
08/16/17	07:15	3.7'	Ground Surface	14'	117'	~16 Hours
08/23/17	---	1'	Top of PVC		12'	8 Days

BORING LOG P:\4200S\4232.00\WORK\LOGS\4232.00 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 9/8/17

Depth (ft)	Sample Information					Stratum		Geologic Description	Well Diagram	Well Description
	Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/Rec (in)	Field Testing Data	Log	Description			
84								Roller bit to GLACIAL TILL at 115 feet.		
86										
88										
90										
92										
94										
96										
98										
100							SILT & CLAY			Formation Material (82 to 117')
102										
104										
106										
108										
110										
112										



Project: 144 Addison Street
 Location: East Boston, MA
 Project No.: 4232.00

Log of Monitoring Well SH-102W

Ground Elevation: 9.8 ± feet
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Drive & Wash, 4in OD Casing Mobile Drill Rig B57, Truck Mounted Rig

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Drilling Company: Crawford Drilling Services, LLC

Foreman: T. Martinelli

Date Started: 08/15/17

Date Finished: 08/15/17

Logged By: C. Sobchuk

Checked By:

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
08/15/17	11:45	5'	Ground Surface	14'	56'	~45 Minutes
08/16/17	07:15	3.7'	Ground Surface	14'	117'	~16 Hours
08/23/17	---	1'	Top of PVC		12'	8 Days

BORING LOG P:\4200S\4232.00\WORK\LOGS\4232.00 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 9/8/17

Depth (ft)	Sample Information					Stratum		Geologic Description	Well Diagram	Well Description
	Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/Rec (in)	Field Testing Data	Log	Description			
112										
114							SILT & CLAY			
115 - 117	S-14	115 - 117	18 22 21 13	24/12	PID: ND		GLACIAL TILL	S-14 (115 to 117'): Dense, gray, fine to coarse GRAVEL, little Sand, little Silt. Wet. TILL.		
116										
118								Boring terminated at 117 feet. No refusal encountered.		
120								NOTES: 1. Soil samples were screened for volatile organic compounds (VOCs) using a MiniRAE 3000 Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million by volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. NA indicates not available. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC concentrations or identify individual compounds, the results can serve as a relative indicator for the presence of VOCs. 2. The ground surface elevation was estimated from a plan entitled "Partial Topographic Plan of Land, 175 McClellan Highway & 144 Addison Street, Boston, Mass." Prepared by Feldman Land Surveyors of Boston, MA dated April 10, 2017. 3. Abbreviations: PP = Pocket Penetrometer (DGSI Pocket Penetrometer); Tv = Torvane (DGSI Stiff Torvane). 4. Values shown for the Stiff Torvane are uncorrected and require a 2.5 ratio (multiplied) for correction. 5. Top of organic silt layer interpreted from drilling action.		
122										
124										
126										
128										
130										
132										
134										
136										
138										
140										



Project: 144 Addison Street
 Location: East Boston, MA
 Project No.: 4232.00

Log of Monitoring Well SH-103W

Ground Elevation: 12.8 ± feet
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Drive & Wash, 4in OD Casing Mobile Drill Rig B57, Truck Mounted Rig

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
08/16/17	11:00	9.2'	Ground Surface	8'	63'	5 Minutes
08/23/17	---	0.3'	Top of PVC		15'	7 Days

Drilling Company: Crawford Drilling Services, LLC

Foreman: T. Martinelli

Date Started: 08/16/17

Date Finished: 08/16/17

Logged By: C. Sobchuk

Checked By:

BORING LOG P:\4200S\4232.00\WORK\LOGS\4232.00 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 9/8/17

Depth (ft)	Sample Information					Stratum		Geologic Description	Well Diagram	Well Description
	Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/Rec (in)	Field Testing Data	Log	Description			
0	S-1	0.3 - 2	18 10 6 5	24/12	PID: ND		---0'--- ---0.3'---	(0 to 0.3'): ASPHALT.		6" Dia. Flushmounted Road Box Set in Concrete (0 to 1')
2	S-2	2 - 4	4 6 7 7	24/16	PID: ND PID: 1.7 ppmv	FILL		S-1A (0.3 to 1.5'): Medium dense, dark brown, fine to coarse SAND, little Gravel, little Silt, few Coal/Ash particles. Moist. FILL. S-1B (1.5 to 2'): Stiff, gray, SILT, little Sand, trace Organic particles. Moist. FILL. S-2 (2 to 4'): Stiff, gray, Clayey SILT, little Sand, common Organic particles. Moist. FILL.		2" Dia. Sch. 40 PVC Riser (1 to 5') Bentonite Chips (1 to 2')
4	S-3	4 - 6	5 4 4 6	24/16	PID: ND			S-3 (4 to 6'): Medium stiff, gray, Clayey SILT, little Sand, trace Gravel, very few Organic particles. Moist. FILL. seam of Silt & Clay from approximately 4-4.3 feet.		2" Dia. Sch. 40 PVC Well Screen (0.010" Slots) (2 to 15')
6	S-4	6 - 8	2 1 2 2	24/12	PID: ND	ORGANIC SILT	---6'---	S-4 (6 to 8'): Soft, brown, SILT, frequent Organic particles. Wet. ORGANIC SILT.		
8	S-5	8 - 10	1 2 3 9	24/20	PID: ND		---8'---	S-5 (8 to 10'): Medium stiff, gray, Clayey SILT, trace Sand, very few Organic particles. Wet.		
10	S-6	10 - 12	7 13 13 17	24/18	PID: ND	SAND & SILT		S-6 (10 to 12'): Hard, gray/brown, Clayey SILT and Sand, very few Organic particles. Wet.		
14	S-7	14 - 16	3 4 5 5	24/24	PID: ND			S-7 (14 to 16'): Loose, brown, SAND and Silt, trace Clay. Wet.		Filter Sand (1.5 to 63')
18	S-8	19 - 21	2 2 2 2	24/24	PID: ND PP: 1.0 Tv: 0.35		---19'---	S-8 (19 to 21'): Soft, gray/brown, CLAY & SILT, trace Sand. Wet.		
24	S-9	24 - 26	1 1 1 2	24/24	PID: ND PP: 0.0 Tv: 0.2	SILT & CLAY		S-9 (24 to 26'): Very soft, gray, SILT & CLAY, trace Sand. Wet. Stratified.		



Project: 144 Addison Street
 Location: East Boston, MA
 Project No.: 4232.00

Log of Monitoring Well SH-103W

Ground Elevation: 12.8 ± feet
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Drive & Wash, 4in OD Casing Mobile Drill Rig B57, Truck Mounted Rig

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Drilling Company: Crawford Drilling Services, LLC

Foreman: T. Martinelli

Date Started: 08/16/17

Date Finished: 08/16/17

Logged By: C. Sobchuk

Checked By:

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
08/16/17	11:00	9.2'	Ground Surface	8'	63'	5 Minutes
08/23/17	---	0.3'	Top of PVC		15'	7 Days

BORING LOG P:\4200S\4232.00\WORK\LOGS\4232.00 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 9/8/17

Depth (ft)	Sample Information					Stratum		Geologic Description	Well Diagram	Well Description
	Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/Rec (in)	Field Testing Data	Log	Description			
56										
58							SILT & CLAY			
59	S-14	59 - 61	57 38 20 20	24/12	PID: ND		-----59'	S-14 (59 to 61'): Very dense, gray/brown, fine to coarse SAND & GRAVEL, little Silt. Wet. TILL.		Filter Sand (1.5 to 63')
60										
61	S-15	61 - 63	13 18 12 11	24/8			GLACIAL TILL	S-15 (61 to 63'): Dense, gray/brown, fine to coarse SAND & GRAVEL, little Silt. Wet. TILL.		
62							-----63'			
64								Boring terminated at 63 feet. No refusal encountered.		
66								NOTES: 1. Soil samples were screened for volatile organic compounds (VOCs) using a MiniRAE 3000 Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million by volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. NA indicates not available. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC concentrations or identify individual compounds, the results can serve as a relative indicator for the presence of VOCs. 2. The ground surface elevation was estimated from a plan entitled "Partial Topographic Plan of Land, 175 McClellan Highway & 144 Addison Street, Boston, Mass." Prepared by Feldman Land Surveyors of Boston, MA dated April 10, 2017. 3. Abbreviations: PP = Pocket Penetrometer (DGSI Pocket Penetrometer); Tv = Torvane (DGSI Stiff Torvane). 4. Values shown for the Stiff Torvane are uncorrected and require a 2.5 ratio (multiplied) for correction.		
68										
70										
72										
74										
76										
78										
80										
82										
84										



Project: 144 Addison Street
 Location: East Boston, MA
 Project No.: 4232.00

Log of Boring SH-104

Ground Elevation: 11.5 ± feet
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Drive & Wash, 4in OD Casing Mobile Drill Rig B57, Truck Mounted Rig

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
08/16/17	13:00	4'	Ground Surface		6'	<5 Minutes

Drilling Company: Crawford Drilling Services, LLC

Foreman: T. Martinelli

Date Started: 08/16/17

Date Finished: 08/16/17

Logged By: C. Sobchuk

Checked By:

Depth (ft)	Sample Information					Stratum		Geologic Description	Remarks
	Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/Rec (in)	Field Testing Data	Log	Description		
0	S-1	0.3 - 2	23 6 4 6	24/8	PID: 1.6 ppmv		-----0'----- -----0.3'----- (0 to 0.3'): ASPHALT. S-1 (0.3 to 2'): Loose, dark brown, fine to coarse SAND, little Silt, trace Gravel, few Glass fragments, few Ash/Coal particles/fragments. Moist. FILL. S-2 (2 to 4'): Loose, No Recovery.		
2	S-2	2 - 4	4 3 4 4	24/0	PID: NA		FILL		
4	S-3	4 - 6	4 3 3 2	24/12	PID: 5.8 ppmv			S-3 (4 to 6'): Loose, gray/brown, SAND and Silt, trace Gravel, trace Clay, very few Brick particles, very few Organic particles. Moist. FILL.	
6							-----6'-----	Boring terminated at 6 feet. No refusal encountered.	
8								NOTES: 1. Soil samples were screened for volatile organic compounds (VOCs) using a MiniRAE 3000 Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million by volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. NA indicates not available. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC concentrations or identify individual compounds, the results can serve as a relative indicator for the presence of VOCs. 2. The ground surface elevation was estimated from a plan entitled "Partial Topographic Plan of Land, 175 McClellan Highway & 144 Addison Street, Boston, Mass." Prepared by Feldman Land Surveyors of Boston, MA dated April 10, 2017. 3. Abbreviations: PP = Pocket Penetrometer (DGS Pocket Penetrometer); Tv = Torvane (DGS Stiff Torvane). 4. Values shown for the Stiff Torvane are uncorrected and require a 2.5 ratio (multiplied) for correction.	
10									
12									
14									
16									
18									
20									
22									
24									
26									
28									

BORING LOG P:\4200S\4232.00\WORK\LOGS\4232.00 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 9/8/17



Project: 144 Addison Street
 Location: East Boston, MA
 Project No.: 4232.00

Log of Boring SH-105

Ground Elevation: 12.5 ± feet
 Datum: Boston City Base

Sanborn, Head & Associates, Inc.

Drilling Method: Drive & Wash, 4in OD Casing Mobile Drill Rig B57, Truck Mounted Rig

Sampling Method: 2" O.D. Split Spoon, Automatic Hammer

Groundwater Readings

Date	Time	Depth to Water	Ref. Pt.	Depth of Casing	Depth of Hole	Stab. Time
08/16/17	14:00	4'	Ground Surface		6'	<5 Minutes

Drilling Company: Crawford Drilling Services, LLC

Foreman: T. Martinelli

Date Started: 08/16/17

Date Finished: 08/16/17

Logged By: C. Sobchuk

Checked By:

Depth (ft)	Sample Information					Stratum		Geologic Description	Remarks
	Sample No.	Depth (ft)	Spoon Blows per 6 in	Pen/Rec (in)	Field Testing Data	Log	Description		
0	S-1	0.3 - 2	32 7 5 6	24/12	PID: 0.3 ppmv		---0'--- ---0.3'--- (0 to 0.3'): ASPHALT. S-1 (0.3 to 2'): Medium dense, brown, fine to coarse SAND, trace Silt, trace Gravel, common Ash particles, very few Wood particles. Moist. FILL.		
2	S-2	2 - 4	3 3 1 1	24/10	PID: 4.6 ppmv		FILL S-2 (2 to 4'): Loose, brown, fine to coarse SAND, little Gravel, trace Silt, common Ash particles. Moist. FILL.		
4	S-3	4 - 6	1/8" 1/8" 1/8"	24/0	PID: NA		---4'--- S-3 (4 to 6'): Very soft, No Recovery.		
6	S-4	6 - 8	1/8" 1/8" 1/8"	24/2	PID: 5.2 ppmv		ORGANIC SILT S-4 (6 to 8'): Very soft, gray/brown, SILT, trace Sand, common Organic particles. Wet. ORGANIC SILT.		
8							---8'--- Boring terminated at 8 feet. No refusal encountered.		
10							NOTES: 1. Soil samples were screened for volatile organic compounds (VOCs) using a MiniRAE 3000 Photoionization Detector (PID) with a 10.6 eV lamp, calibrated to a 100 parts per million by volume (ppmv) isobutylene-in-air standard using a response factor of 1.0. Results are presented in ppmv; the typical detection limit is 1 ppmv. ND indicates not detected. NA indicates not available. The PID measures relative levels of VOCs. Although PID screening cannot be used directly to quantify VOC concentrations or identify individual compounds, the results can serve as a relative indicator for the presence of VOCs. 2. The ground surface elevation was estimated from a plan entitled "Partial Topographic Plan of Land, 175 McClellan Highway & 144 Addison Street, Boston, Mass." Prepared by Feldman Land Surveyors of Boston, MA dated April 10, 2017. 3. Abbreviations: PP = Pocket Penetrometer (DGS Pocket Penetrometer); Tv = Torvane (DGS Stiff Torvane). 4. Values shown for the Stiff Torvane are uncorrected and require a 2.5 ratio (multiplied) for correction. 5. Top of organic silt layer interpreted from drilling action.		
12									
14									
16									
18									
20									
22									
24									
26									
28									

BORING LOG P:\4200S\4232.00\WORK\LOGS\4232.00 LOGS.GPJ 2017 SANBORN HEAD V1.GLB 2017 SANBORN HEAD V1.GDT 9/8/17

APPENDIX C

GEOTECHNICAL LABORATORY REPORTS



Client:	Sanborn, Head & Associates, Inc.		
Project:	144 Addison St		
Location:	East Boston, MA	Project No:	GTX-306889
Boring ID:	---	Sample Type:	---
Sample ID:	---	Test Date:	08/24/17
Depth :	---	Test Id:	421358
		Tested By:	jbr
		Checked By:	emm

Moisture Content of Soil and Rock - ASTM D2216

Boring ID	Sample ID	Depth	Description	Moisture Content, %
SH-1	S- 5A	8-9	Moist, gray clay with organics	78.4
SH-1	S- 6A	10-11.3	Moist, dark brown silt with organics	201.0
SH-1	S- 9	24-26	Moist, gray clay	33.3
SH-1	S- 19	74-76	Moist, gray clay	40.8
SH-2	S- 4	6-8	Moist, olive brown clay with organics	126.9
SH-2	S- 8	19-21	Moist, gray clay	28.9
SH-2	S- 13	54-56	Moist, gray clay	32.1
SH-3	S- 4	6-8	Moist, grayish brown clay with organics	147.4
SH-3	S- 8	19-21	Moist, olive gray clay	28.0
SH-3	S- 13	49-51	Moist, gray clay	29.1

Notes: Temperature of Drying : 110° Celsius



Client:	Sanborn, Head & Associates, Inc.		
Project:	144 Addison St		
Location:	East Boston, MA	Project No:	GTX-306889
Boring ID:	---	Sample Type:	---
Sample ID:	---	Test Date:	08/25/17
Depth :	---	Test Id:	421376
		Tested By:	cam
		Checked By:	emm

Moisture, Ash, and Organic Matter - ASTM D2974

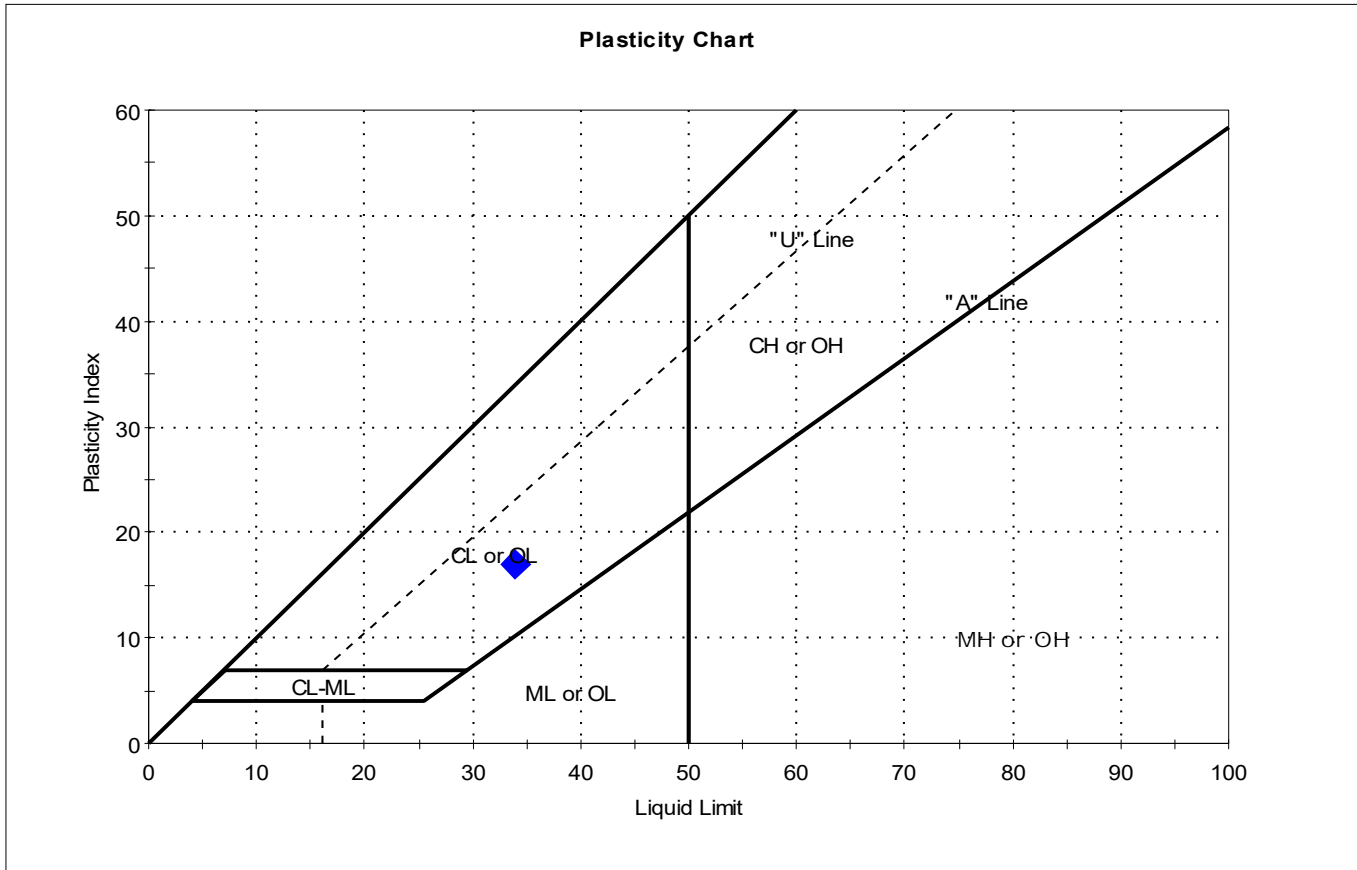
Boring ID	Sample ID	Depth	Description	Moisture Content, %	Ash Content, %	Organic Matter, %
SH-1	S-5A	8-9	Moist, gray clay with organics	78	91.4	8.6
SH-1	S-6A	10-11.3	Moist, dark brown silt with organics	201	71.0	29.0
SH-2	S-4	6-8	Moist, olive brown clay with organics	127	86.2	13.8
SH-3	S-4	6-8	Moist, grayish brown clay with organics	147	74.7	25.3

Notes: Moisture content determined by Method A and reported as a percentage of oven-dried mass; dried to a constant mass at temperature of 105° C
 Ash content and organic matter determined by Method C; dried to constant mass at temperature 440° C



Client:	Sanborn, Head & Associates, Inc.		
Project:	144 Addison St		
Location:	East Boston, MA	Project No:	GTX-306889
Boring ID:	SH-1	Sample Type:	jar
Sample ID:	S-9	Test Date:	08/25/17
Depth :	24-26	Test Id:	421370
Test Comment:	---		
Visual Description:	Moist, gray clay		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	S-9	SH-1	24-26	33	34	17	17	1	

Sample Prepared using the WET method

Dry Strength: VERY HIGH

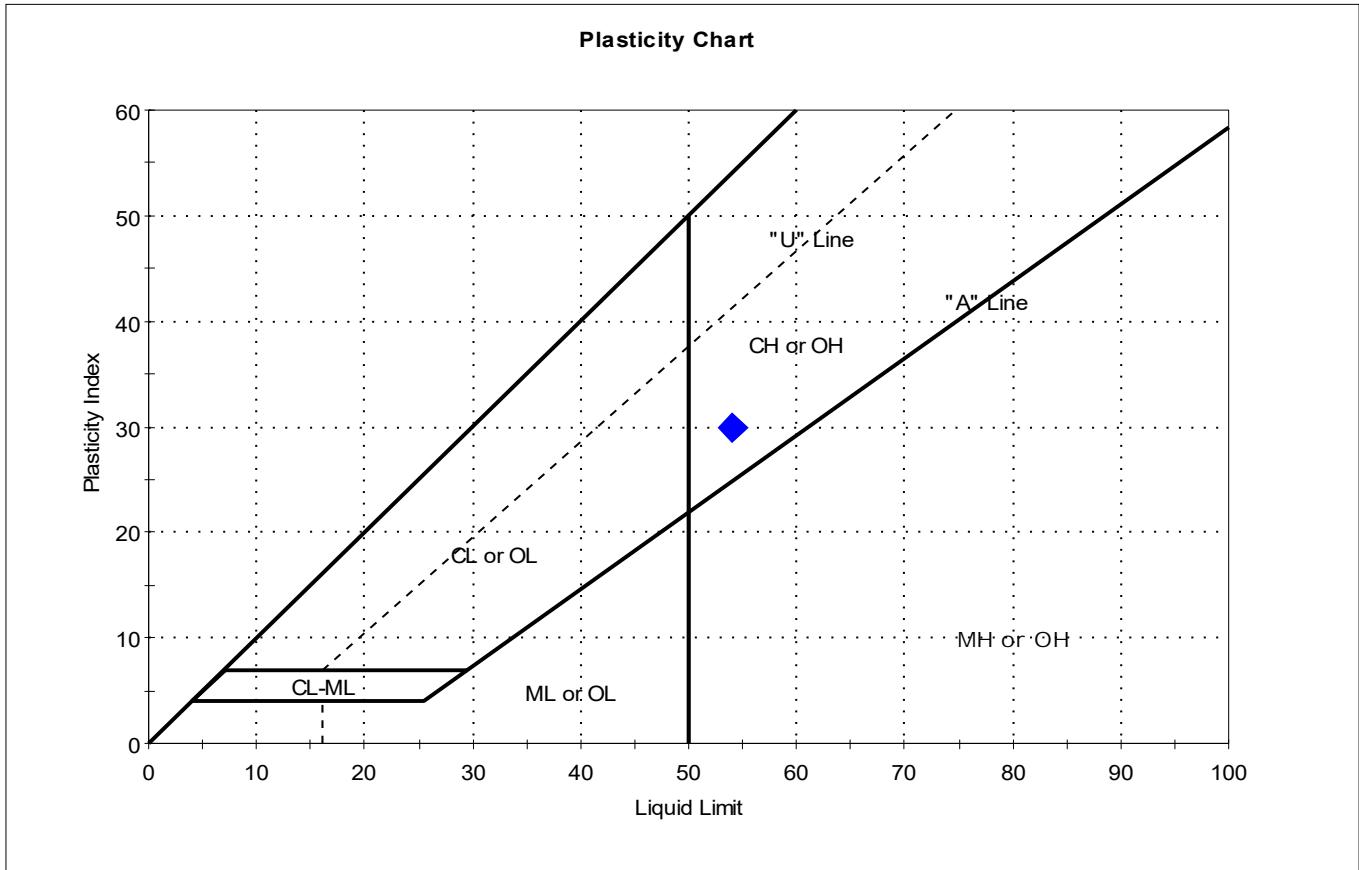
Dilatancy: SLOW

Toughness: LOW



Client:	Sanborn, Head & Associates, Inc.		
Project:	144 Addison St		
Location:	East Boston, MA	Project No:	GTX-306889
Boring ID:	SH-1	Sample Type:	jar
Sample ID:	S-19	Test Date:	08/24/17
Depth :	74-76	Test Id:	421367
Test Comment:	---		
Visual Description:	Moist, gray clay		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	S-19	SH-1	74-76	41	54	24	30	0.6	

Sample Prepared using the WET method

Dry Strength: VERY HIGH

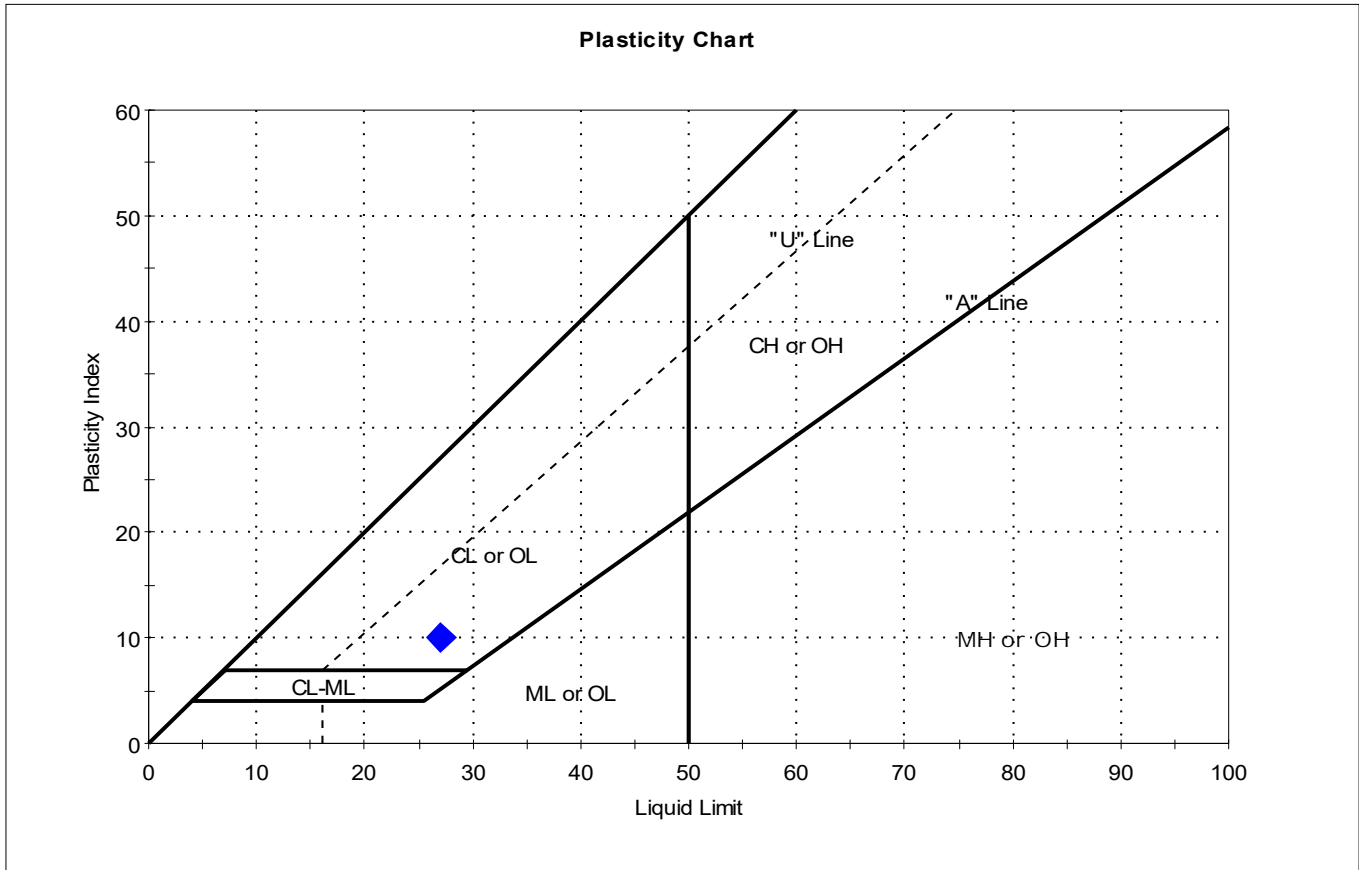
Dilatancy: SLOW

Toughness: LOW



Client:	Sanborn, Head & Associates, Inc.		
Project:	144 Addison St		
Location:	East Boston, MA	Project No:	GTX-306889
Boring ID:	SH-2	Sample Type:	jar
Sample ID:	S-8	Test Date:	08/25/17
Depth:	19-21	Test Id:	421371
Test Comment:	---		
Visual Description:	Moist, gray clay		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	S-8	SH-2	19-21	29	27	17	10	1.2	

Sample Prepared using the WET method

Dry Strength: VERY HIGH

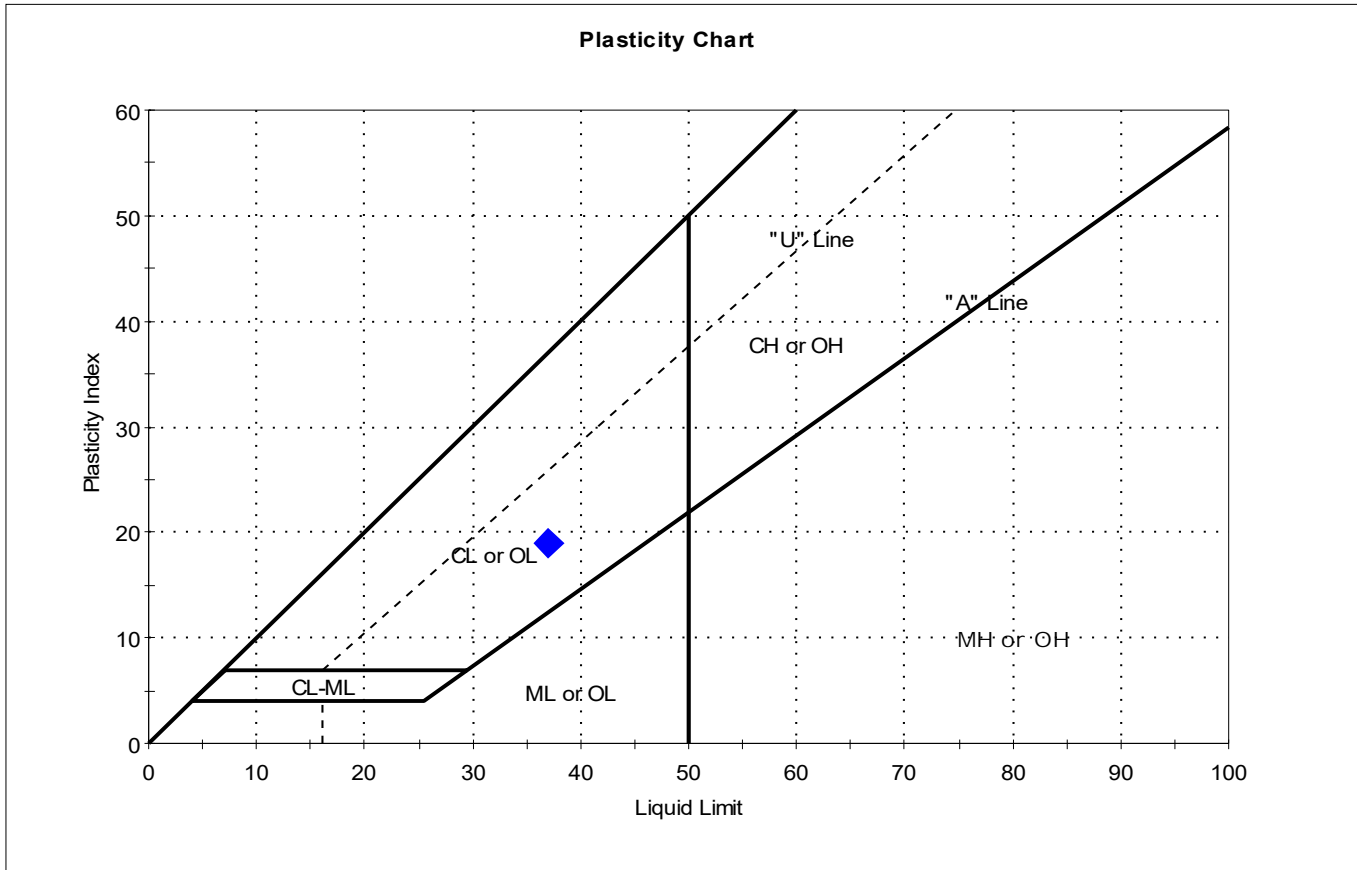
Dilatancy: SLOW

Toughness: LOW



Client:	Sanborn, Head & Associates, Inc.		
Project:	144 Addison St		
Location:	East Boston, MA	Project No:	GTX-306889
Boring ID:	SH-2	Sample Type:	jar
Sample ID:	S-13	Test Date:	08/24/17
Depth :	54-56	Test Id:	421368
Test Comment:	---		
Visual Description:	Moist, gray clay		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	S-13	SH-2	54-56	32	37	18	19	0.7	

Sample Prepared using the WET method

Dry Strength: VERY HIGH

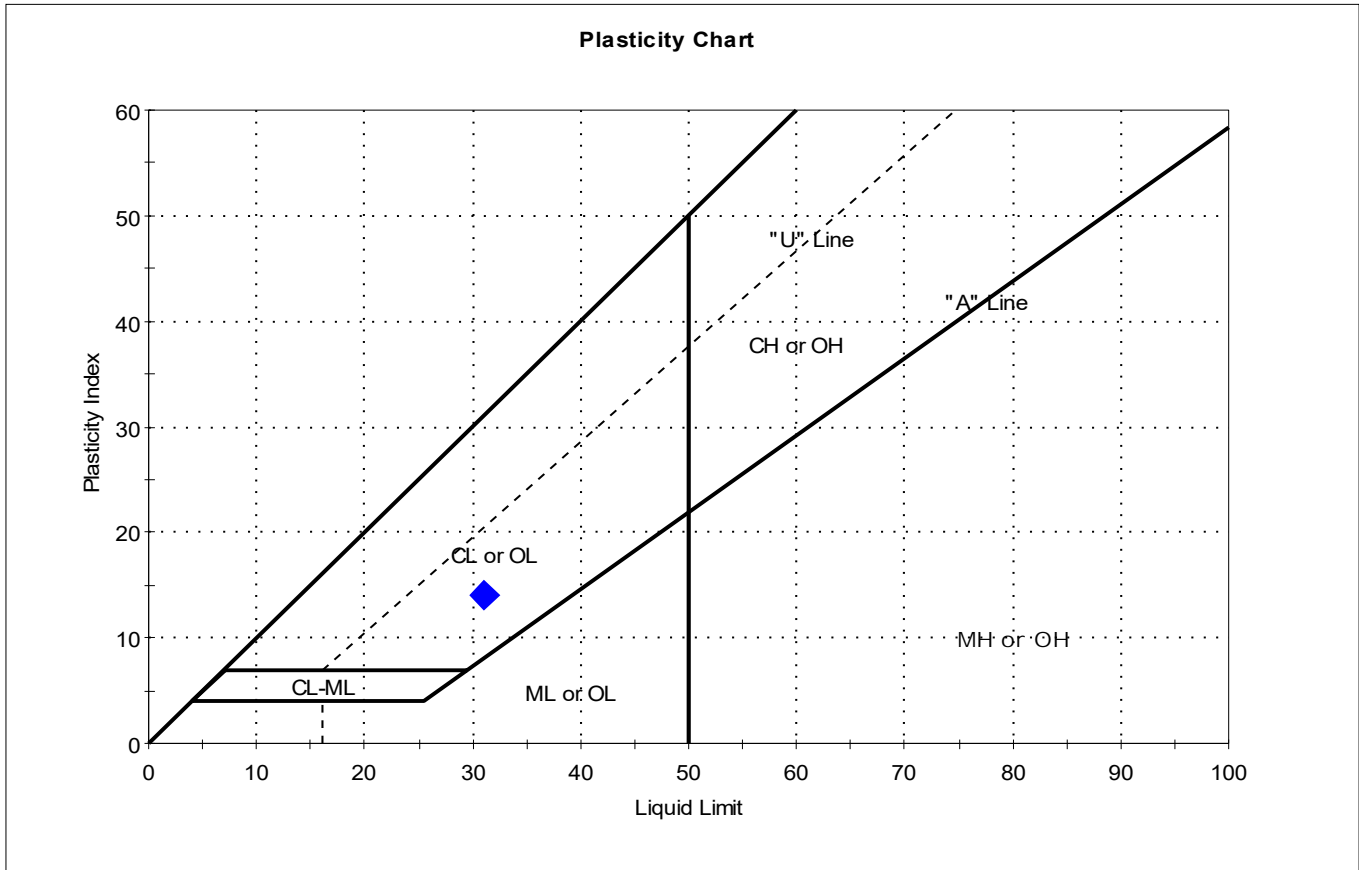
Dilatancy: SLOW

Toughness: LOW



Client:	Sanborn, Head & Associates, Inc.		
Project:	144 Addison St		
Location:	East Boston, MA	Project No:	GTX-306889
Boring ID:	SH-3	Sample Type:	jar
Sample ID:	S-8	Test Date:	08/24/17
Depth :	19-21	Test Id:	421372
Test Comment:	---		
Visual Description:	Moist, olive gray clay		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	S-8	SH-3	19-21	28	31	17	14	0.8	

Sample Prepared using the WET method

Dry Strength: VERY HIGH

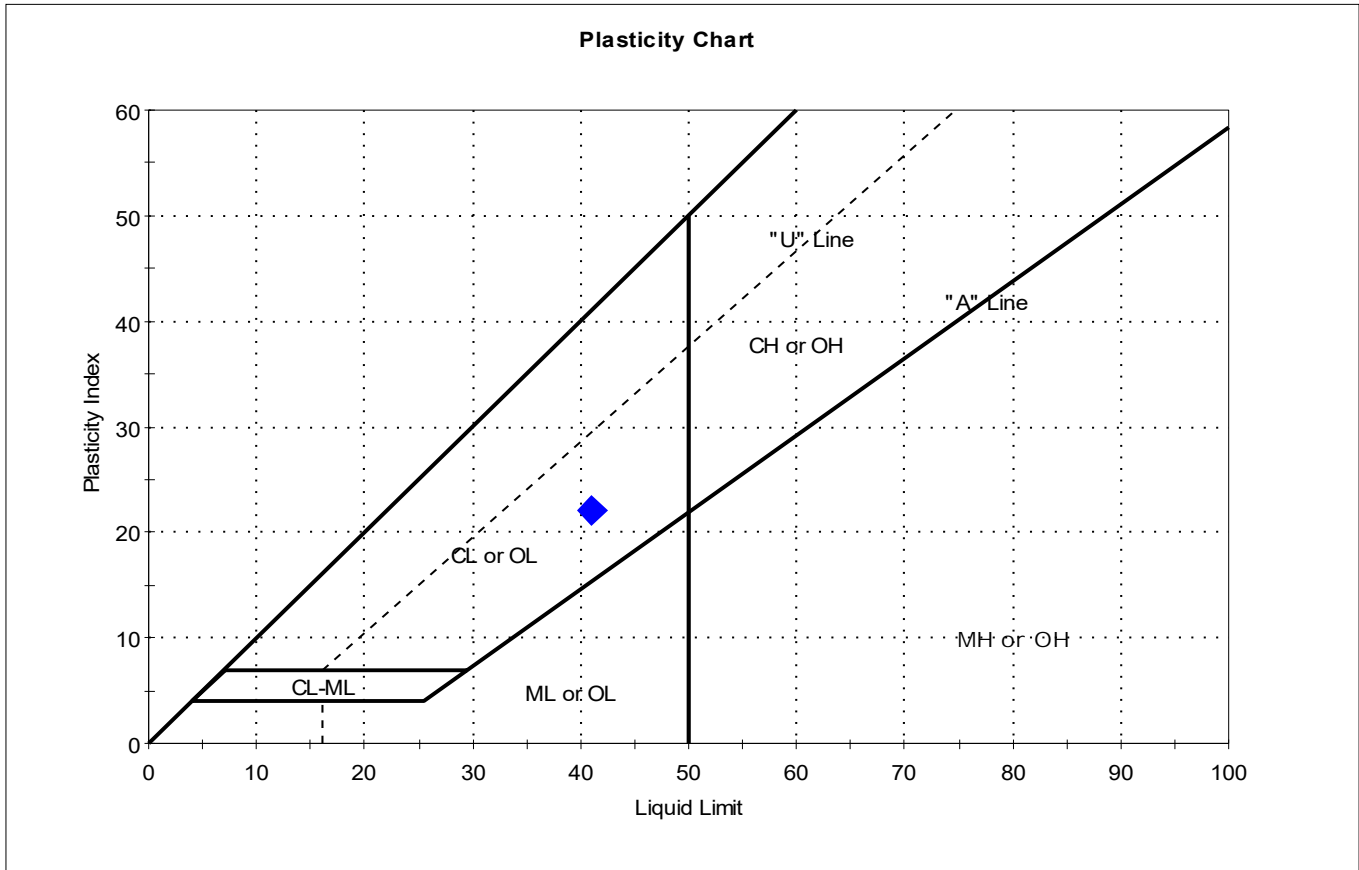
Dilatancy: SLOW

Toughness: LOW



Client:	Sanborn, Head & Associates, Inc.		
Project:	144 Addison St		
Location:	East Boston, MA	Project No:	GTX-306889
Boring ID:	SH-3	Sample Type:	jar
Sample ID:	S-13	Test Date:	08/24/17
Depth :	49-51	Test Id:	421369
Test Comment:	---		
Visual Description:	Moist, gray clay		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	S-13	SH-3	49-51	29	41	19	22	0.5	

Sample Prepared using the WET method

Dry Strength: VERY HIGH

Dilatancy: SLOW

Toughness: LOW



Client:	Sanborn, Head & Associates, Inc.		
Project:	144 Addison St		
Location:	East Boston, MA	Project No:	GTX-306889
Boring ID:	SH-2	Sample Type:	tube
Sample ID:	U-1	Test Date:	08/30/17
Depth :	32-34	Test Id:	421355
Test Comment:	---		
Visual Description:	Wet, gray silty clay with sand		
Sample Comment:	---		

Moisture Content of Soil and Rock - ASTM D2216

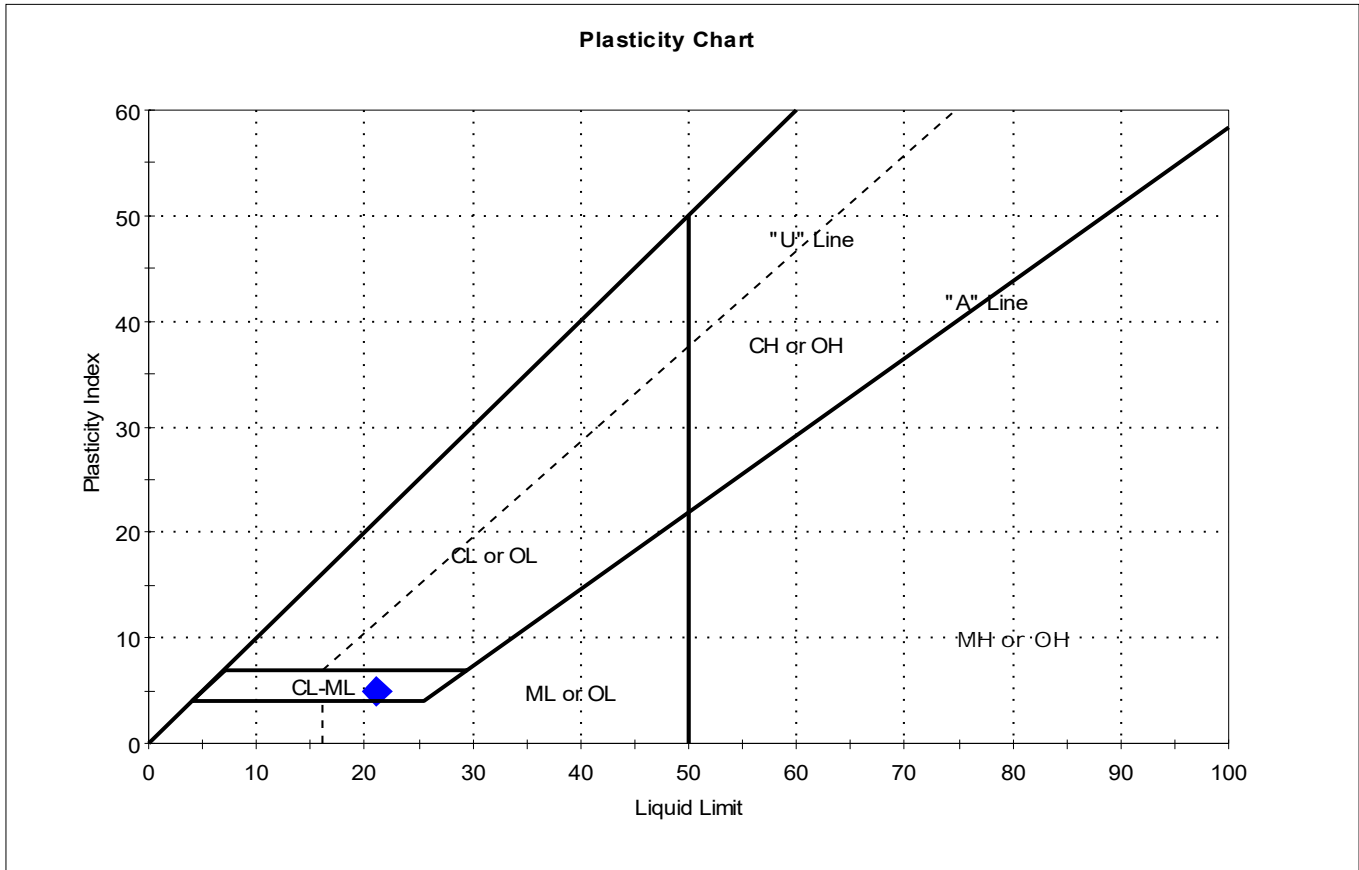
Boring ID	Sample ID	Depth	Description	Moisture Content,%
SH-2	U- 1	32-34	Wet, gray silty clay with sand	25.6

Notes: Temperature of Drying : 110° Celsius



Client:	Sanborn, Head & Associates, Inc.		
Project:	144 Addison St		
Location:	East Boston, MA	Project No:	GTX-306889
Boring ID:	SH-2	Sample Type:	tube
Sample ID:	U-1	Test Date:	08/30/17
Depth :	32-34	Test Id:	421366
Test Comment:	---		
Visual Description:	Wet, gray silty clay with sand		
Sample Comment:	---		

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	U-1	SH-2	32-34	26	21	16	5	1.9	

Sample Prepared using the WET method

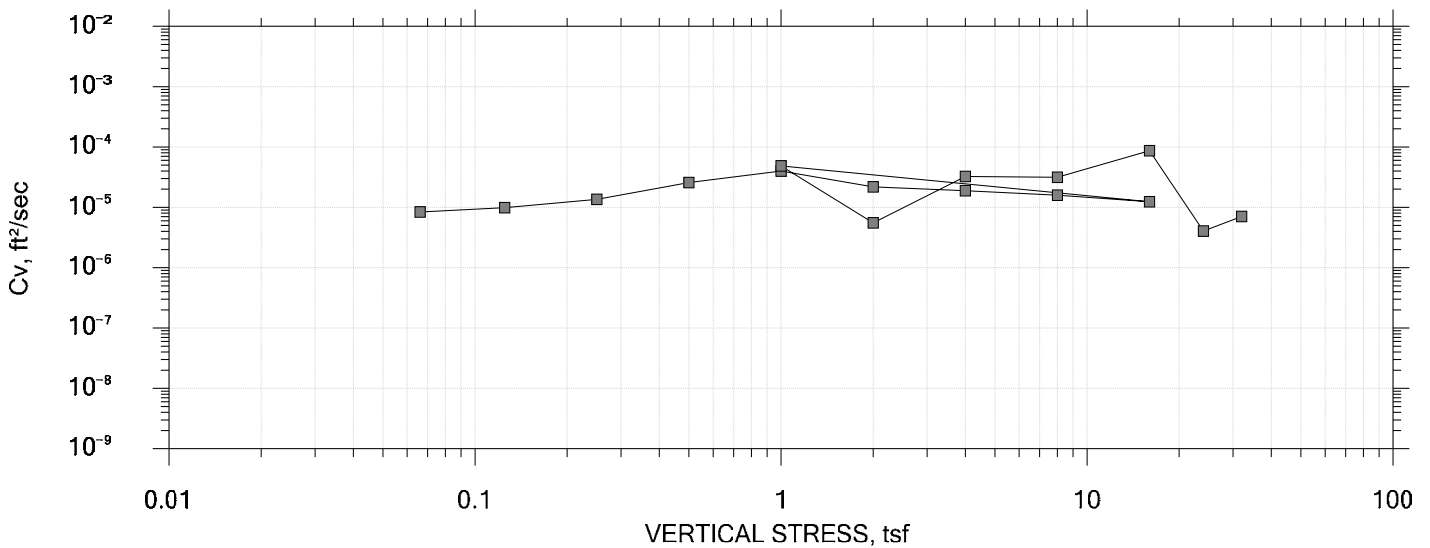
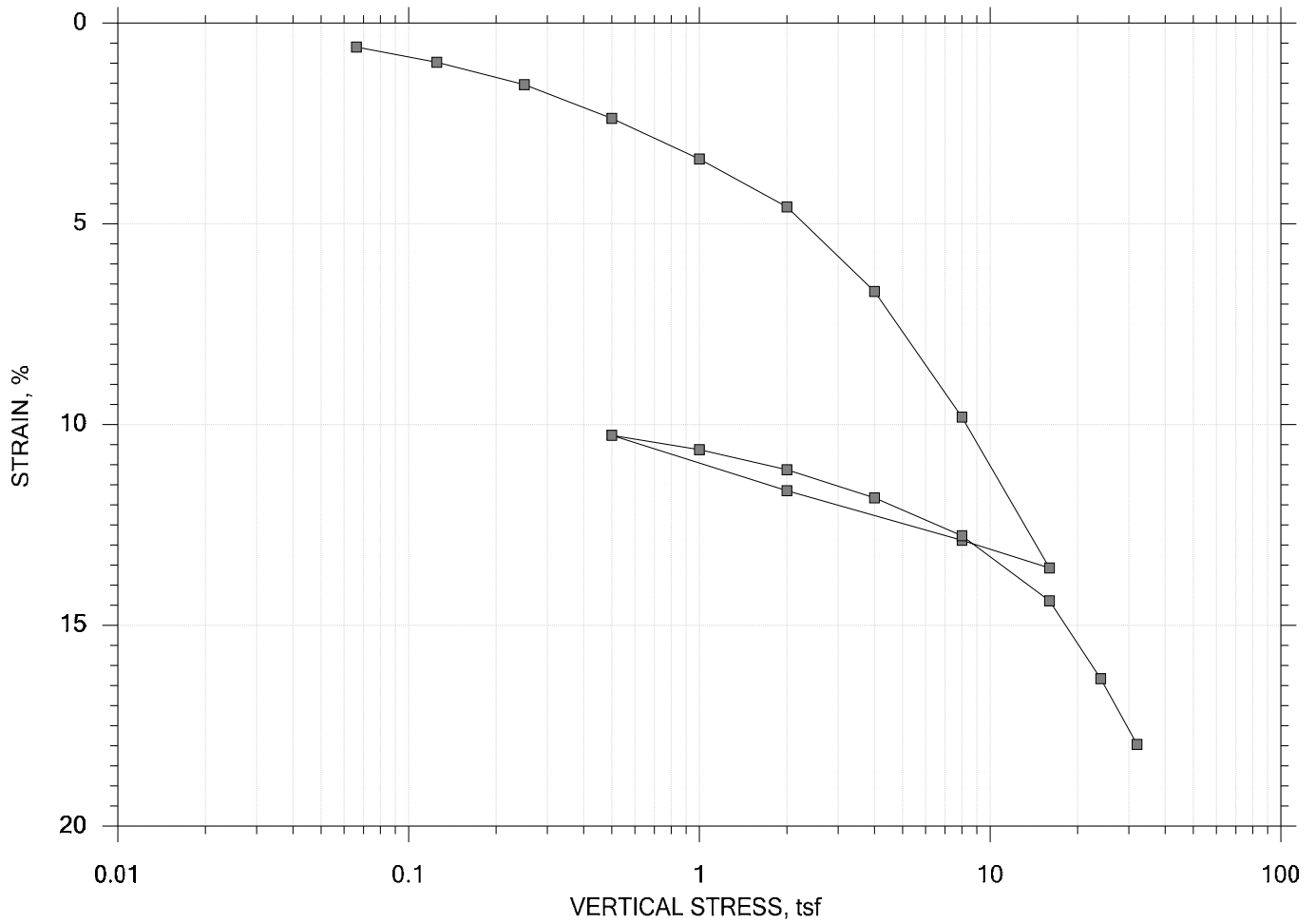
Dry Strength: HIGH


Dilatancy: SLOW

Toughness: LOW

One-Dimensional Consolidation by ASTM D2435 - Method B

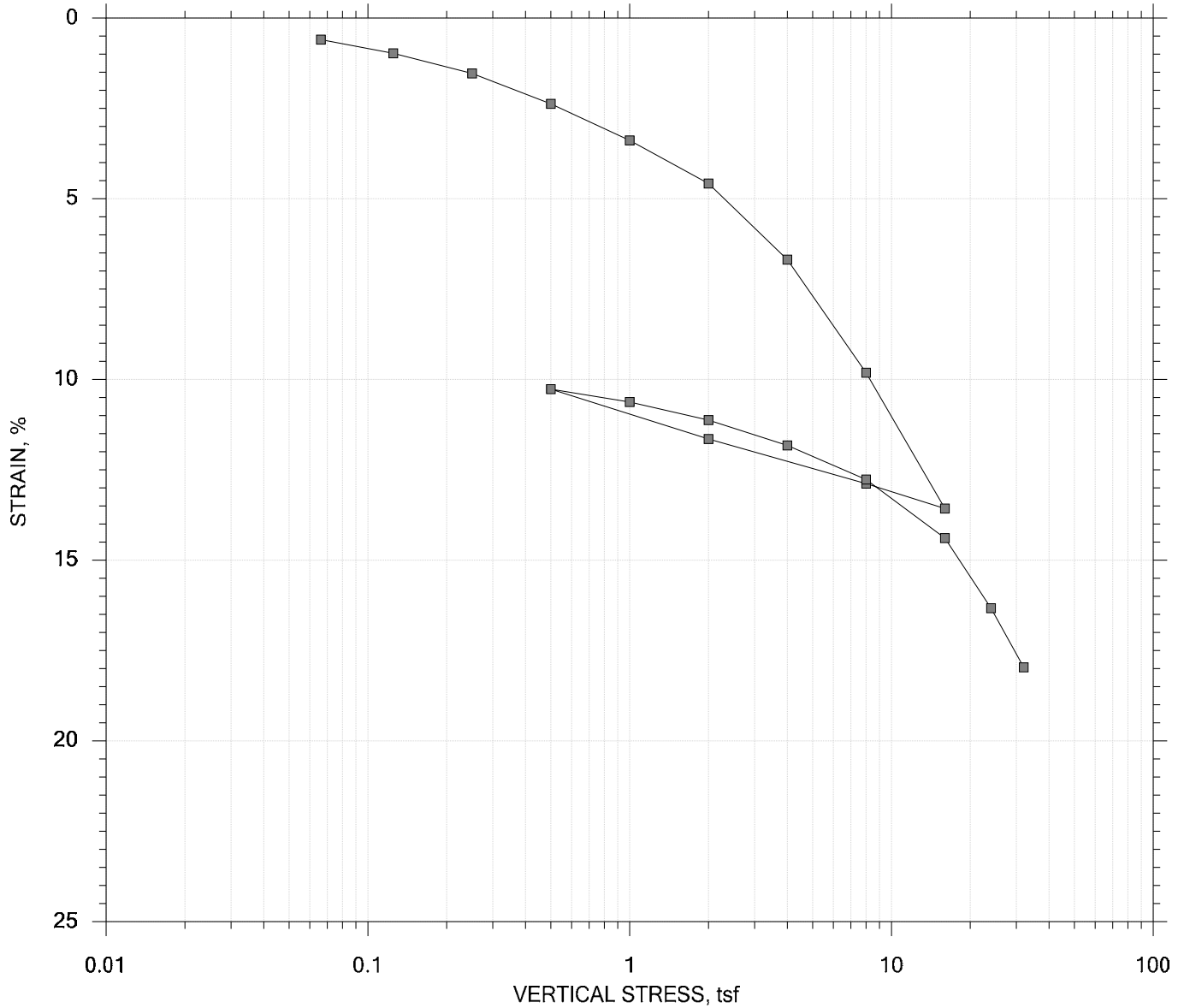
SUMMARY REPORT




	Project: 144 Addison St	Location: East Boston, MA	Project No.: GTX-306889
	Boring No.: SH-2	Tested By: md	Checked By: njh
	Sample No.: U-1	Test Date: 08/26/17	Test No.: IP-1
	Depth: 32-34 ft	Sample Type: intact	Elevation: ---
	Description: Wet, gray silty clay with sand		
	Remarks: System R& D, Swell Pressure = 0.0664 tsf		
	Displacement at End of Increment		

One-Dimensional Consolidation by ASTM D2435 - Method B

SUMMARY REPORT



				Before Test	After Test	
Current Vertical Effective Stress: ---				Water Content, %	27.91	19.76
Preconsolidation Stress: ---				Dry Unit Weight, pcf	95.989	110.33
Compression Ratio: ---				Saturation, %	98.92	100.00
Diameter: 2.5 in		Height: 1 in		Void Ratio	0.77	0.54
LL: 21	PL: 16	PI: 5	GS: 2.72			

	Project: 144 Addison St		Location: East Boston, MA		Project No.: GTX-306889	
	Boring No.: SH-2		Tested By: md		Checked By: njh	
	Sample No.: U-1		Test Date: 08/26/17		Test No.: IP-1	
	Depth: 32-34 ft		Sample Type: intact		Elevation: ---	
	Description: Wet, gray silty clay with sand					
	Remarks: System R& D, Swell Pressure = 0.0664 tsf					
	Displacement at End of Increment					

One-Dimensional Consolidation by ASTM D2435 - Method B

Project: 144 Addison St
 Boring No.: SH-2
 Sample No.: U-1
 Test No.: IP-1

Location: East Boston, MA
 Tested By: md
 Test Date: 08/26/17
 Sample Type: intact

Project No.: GTX-306889
 Checked By: njh
 Depth: 32-34 ft
 Elevation: ---

Soil Description: Wet, gray silty clay with sand
 Remarks: System R& D, Swell Pressure = 0.0664 tsf

Estimated Specific Gravity: 2.72
 Initial Void Ratio: 0.766
 Final Void Ratio: 0.537

Liquid Limit: 21
 Plastic Limit: 16
 Plasticity Index: 5

Specimen Diameter: 2.50 in
 Initial Height: 1.00 in
 Final Height: 0.87 in

	Before Consolidation		After Consolidation	
	Trimmings	Specimen+Ring	Specimen+Ring	Trimmings
Container ID	C-1892	RING		D-1159
Wt. Container + Wet Soil, gm	153.02	269.51	259.43	157.03
Wt. Container + Dry Soil, gm	123.24	234.99	234.99	132.62
Wt. Container, gm	8.4900	111.31	111.31	9.0700
Wt. Dry Soil, gm	114.75	123.68	123.68	123.55
Water Content, %	25.95	27.91	19.76	19.76
Void Ratio	---	0.766	0.537	---
Degree of Saturation, %	---	98.92	100.00	---
Dry Unit Weight, pcf	---	95.989	110.33	---

Note: Specific Gravity and Void Ratios are calculated assuming the degree of saturation equals 100% at the end of the test. Therefore, values may not represent actual values for the specimen.

One-Dimensional Consolidation by ASTM D2435 - Method B

Project: 144 Addison St
 Boring No.: SH-2
 Sample No.: U-1
 Test No.: IP-1

Location: East Boston, MA
 Tested By: md
 Test Date: 08/26/17
 Sample Type: intact

Project No.: GTX-306889
 Checked By: njh
 Depth: 32-34 ft
 Elevation: ---

Soil Description: Wet, gray silty clay with sand
 Remarks: System R & D, Swell Pressure = 0.0664 tsf

Displacement at End of Increment

	Applied Stress tsf	Final Displacement in	Void Ratio	Strain at End %	Sq.Rt T90 min	Cv ft ² /sec	Mv 1/tsf	k ft/day
1	0.0661	0.005973	0.756	0.597	3.504	6.96e-006	9.04e-002	1.70e-003
2	0.125	0.009743	0.749	0.974	2.502	9.65e-006	6.40e-002	1.67e-003
3	0.250	0.01532	0.739	1.53	1.808	1.32e-005	4.47e-002	1.59e-003
4	0.500	0.02375	0.724	2.37	1.049	2.25e-005	3.37e-002	2.04e-003
5	1.00	0.03383	0.706	3.38	0.897	2.58e-005	2.02e-002	1.40e-003
6	2.00	0.04578	0.685	4.58	2.367	9.56e-006	1.19e-002	3.08e-004
7	4.00	0.06683	0.648	6.68	2.166	1.01e-005	1.05e-002	2.86e-004
8	8.00	0.09811	0.593	9.81	2.496	8.27e-006	7.82e-003	1.75e-004
9	16.0	0.1357	0.526	13.6	2.561	7.47e-006	4.70e-003	9.47e-005
10	8.00	0.1288	0.539	12.9	0.697	2.65e-005	8.63e-004	6.17e-005
11	2.00	0.1165	0.560	11.6	0.886	2.13e-005	2.06e-003	1.18e-004
12	0.500	0.1027	0.585	10.3	5.422	3.59e-006	9.20e-003	8.91e-005
13	1.00	0.1062	0.578	10.6	0.875	2.25e-005	7.15e-003	4.34e-004
14	2.00	0.1112	0.570	11.1	3.087	6.31e-006	4.99e-003	8.50e-005
15	4.00	0.1182	0.557	11.8	0.948	2.03e-005	3.50e-003	1.92e-004
16	8.00	0.1277	0.541	12.8	0.988	1.91e-005	2.36e-003	1.22e-004
17	16.0	0.1439	0.512	14.4	0.818	2.24e-005	2.03e-003	1.22e-004
18	24.0	0.1633	0.478	16.3	3.791	4.64e-006	2.42e-003	3.03e-005
19	32.0	0.1796	0.449	18.0	3.332	5.06e-006	2.04e-003	2.79e-005

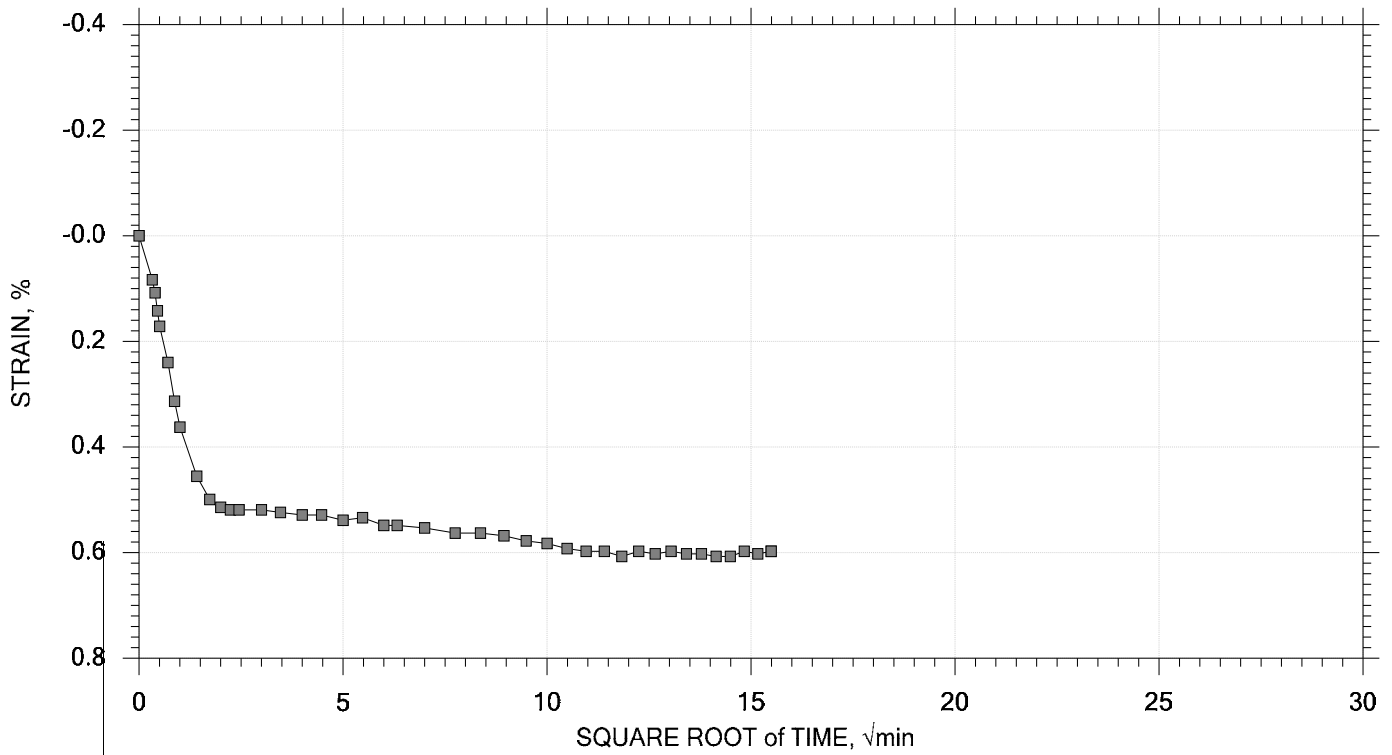
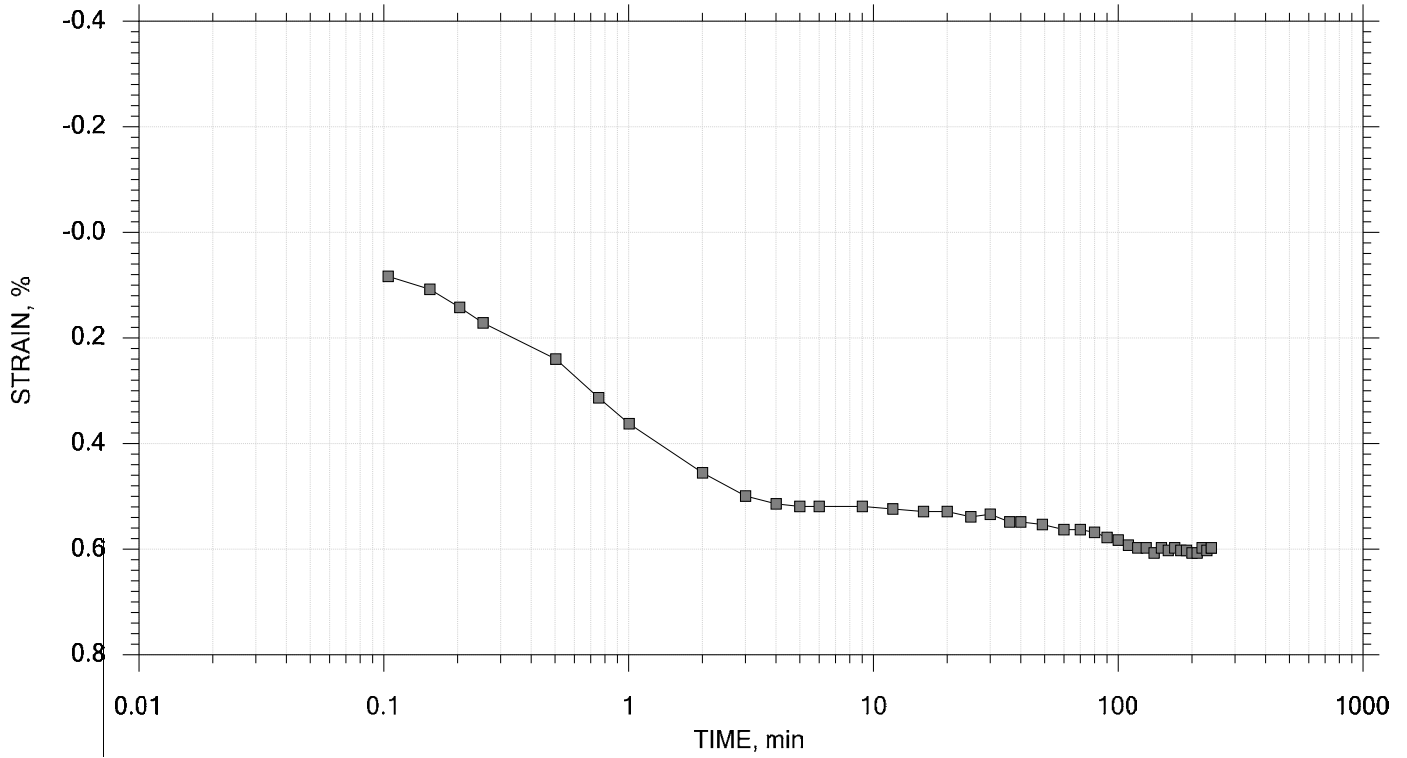
	Applied Stress tsf	Final Displacement in	Void Ratio	Strain at End %	Log T50 min	Cv ft ² /sec	Mv 1/tsf	k ft/day	Ca %
1	0.0661	0.005973	0.756	0.597	0.000	0.00e+000	9.04e-002	0.00e+000	0.00e+000
2	0.125	0.009743	0.749	0.974	0.000	0.00e+000	6.40e-002	0.00e+000	0.00e+000
3	0.250	0.01532	0.739	1.53	0.373	1.49e-005	4.47e-002	1.80e-003	0.00e+000
4	0.500	0.02375	0.724	2.37	0.222	2.47e-005	3.37e-002	2.24e-003	0.00e+000
5	1.00	0.03383	0.706	3.38	0.139	3.86e-005	2.02e-002	2.10e-003	0.00e+000
6	2.00	0.04578	0.685	4.58	0.121	4.33e-005	1.19e-002	1.40e-003	0.00e+000
7	4.00	0.06683	0.648	6.68	0.167	3.04e-005	1.05e-002	8.63e-004	0.00e+000
8	8.00	0.09811	0.593	9.81	0.137	3.51e-005	7.82e-003	7.40e-004	0.00e+000
9	16.0	0.1357	0.526	13.6	0.206	2.16e-005	4.70e-003	2.74e-004	0.00e+000
10	8.00	0.1288	0.539	12.9	0.000	0.00e+000	8.63e-004	0.00e+000	0.00e+000
11	2.00	0.1165	0.560	11.6	0.000	0.00e+000	2.06e-003	0.00e+000	0.00e+000
12	0.500	0.1027	0.585	10.3	0.000	0.00e+000	9.20e-003	0.00e+000	0.00e+000
13	1.00	0.1062	0.578	10.6	0.000	0.00e+000	7.15e-003	0.00e+000	0.00e+000
14	2.00	0.1112	0.570	11.1	0.000	0.00e+000	4.99e-003	0.00e+000	0.00e+000
15	4.00	0.1182	0.557	11.8	0.130	3.43e-005	3.50e-003	3.24e-004	0.00e+000
16	8.00	0.1277	0.541	12.8	0.135	3.25e-005	2.36e-003	2.07e-004	0.00e+000
17	16.0	0.1439	0.512	14.4	0.001	6.75e-003	2.03e-003	3.69e-002	0.00e+000
18	24.0	0.1633	0.478	16.3	0.000	0.00e+000	2.42e-003	0.00e+000	0.00e+000
19	32.0	0.1796	0.449	18.0	0.000	0.00e+000	2.04e-003	0.00e+000	0.00e+000


One-Dimensional Consolidation by ASTM D2435 - Method B

TIME CURVES

Constant Volume Step 1 of 19

Stress: 0.066104 tsf



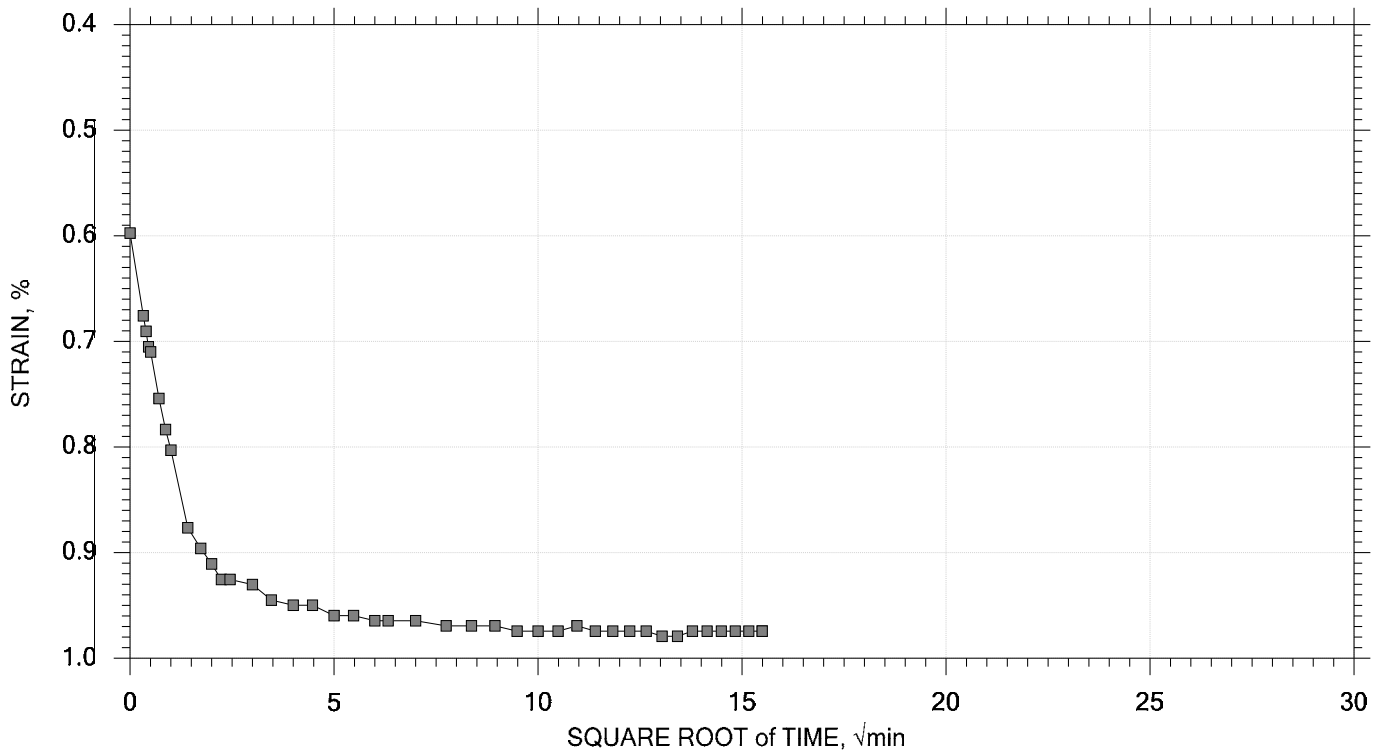
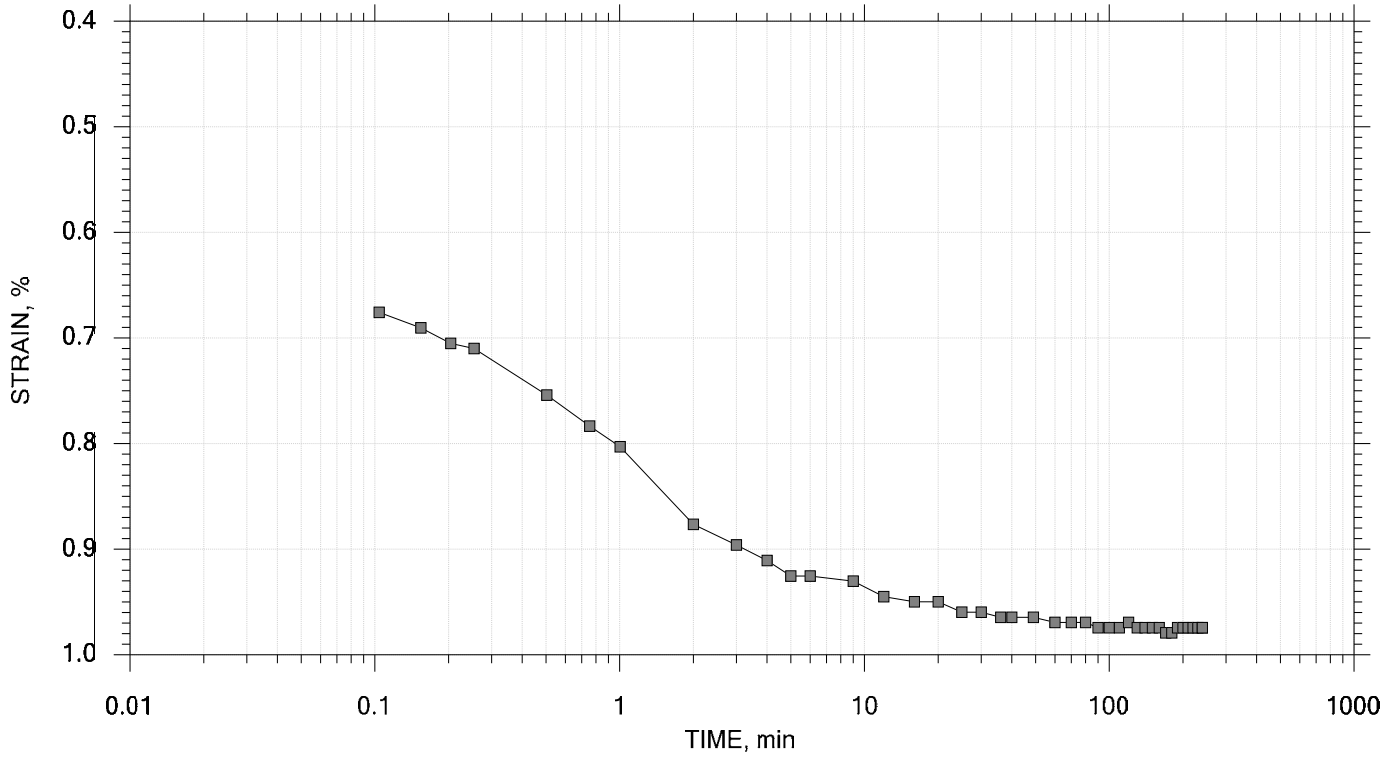
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	Boring No.: SH-2	Tested By: md	Checked By: njh
	Sample No.: U-1	Test Date: 08/26/17	Test No.: IP-1
	Depth: 32-34 ft	Sample Type: intact	Elevation: ---
	Description: Wet, gray silty clay with sand		
	Remarks: System R & D, Swell Pressure = 0.0664 tsf		


One-Dimensional Consolidation by ASTM D2435 - Method B

TIME CURVES

Constant Load Step 2 of 19

Stress: 0.125 tsf



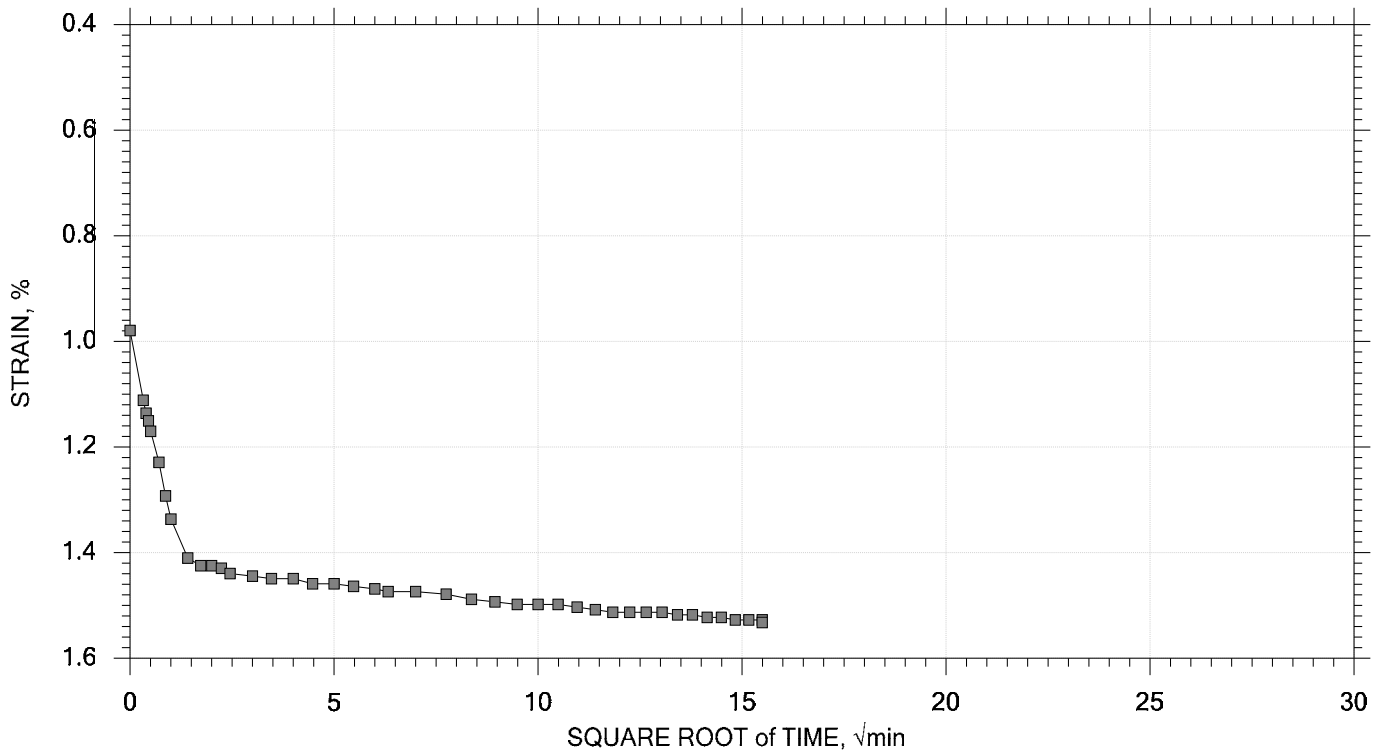
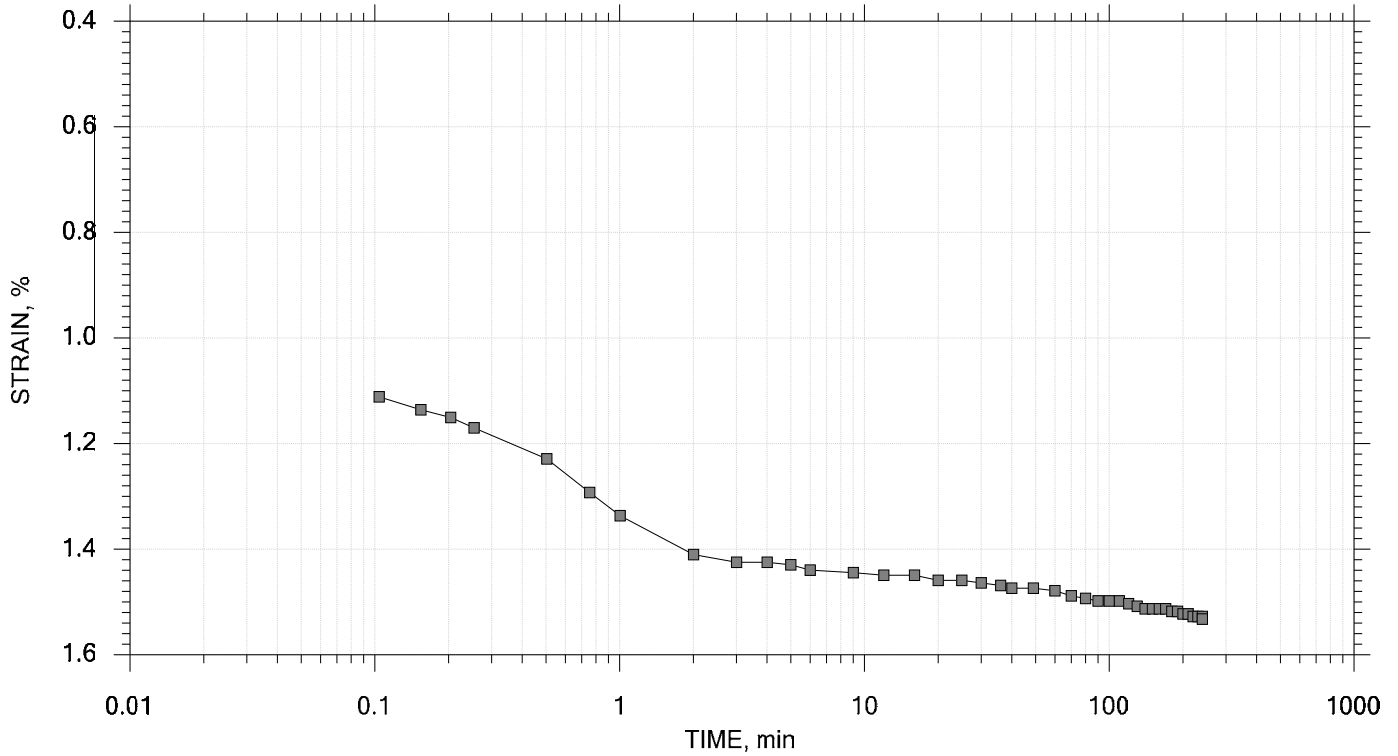
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	Boring No.: SH-2	Tested By: md	Checked By: njh
	Sample No.: U-1	Test Date: 08/26/17	Test No.: IP-1
	Depth: 32-34 ft	Sample Type: intact	Elevation: ---
	Description: Wet, gray silty clay with sand		
	Remarks: System R & D, Swell Pressure = 0.0664 tsf		


One-Dimensional Consolidation by ASTM D2435 - Method B

TIME CURVES

Constant Load Step 3 of 19

Stress: 0.25 tsf



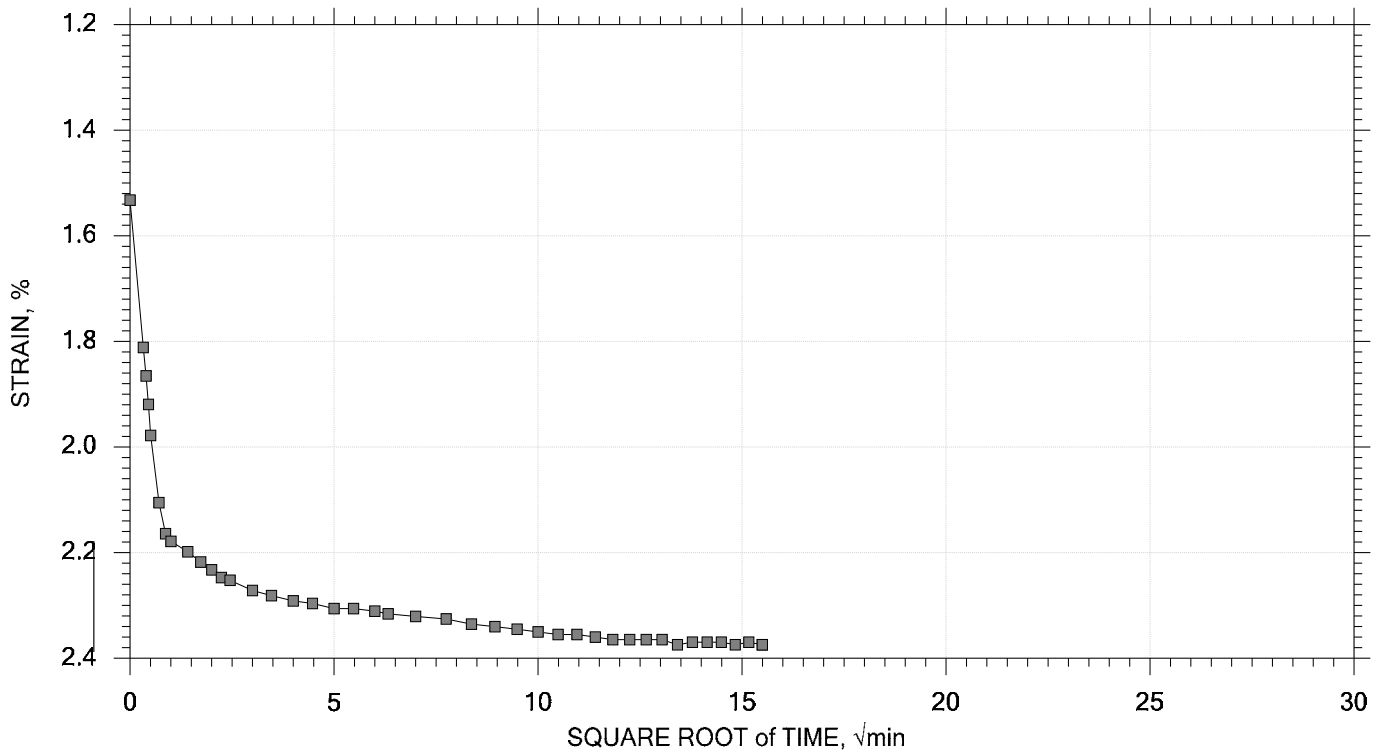
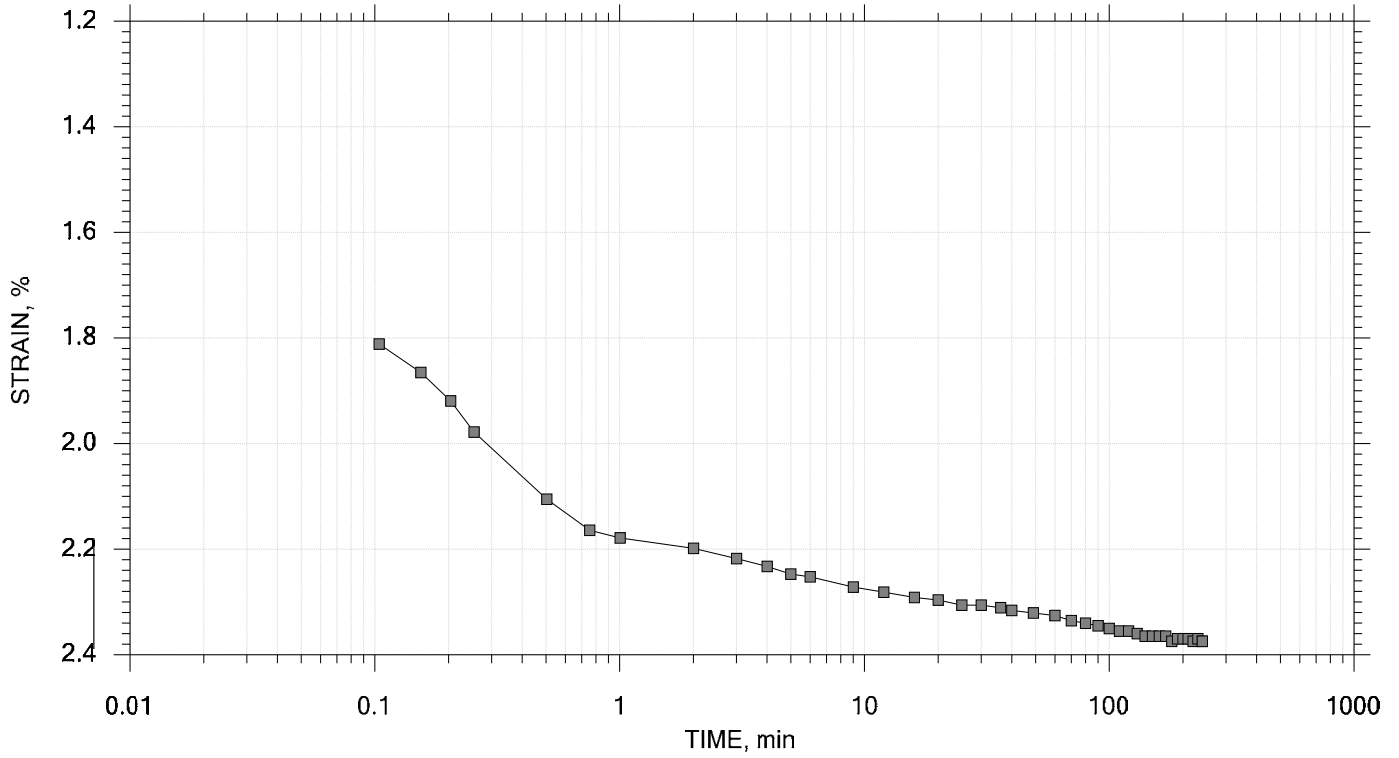
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	Boring No.: SH-2	Tested By: md	Checked By: njh
	Sample No.: U-1	Test Date: 08/26/17	Test No.: IP-1
	Depth: 32-34 ft	Sample Type: intact	Elevation: ---
	Description: Wet, gray silty clay with sand		
	Remarks: System R& D, Swell Pressure = 0.0664 tsf		


One-Dimensional Consolidation by ASTM D2435 - Method B

TIME CURVES

Constant Load Step 4 of 19

Stress: 0.5 tsf



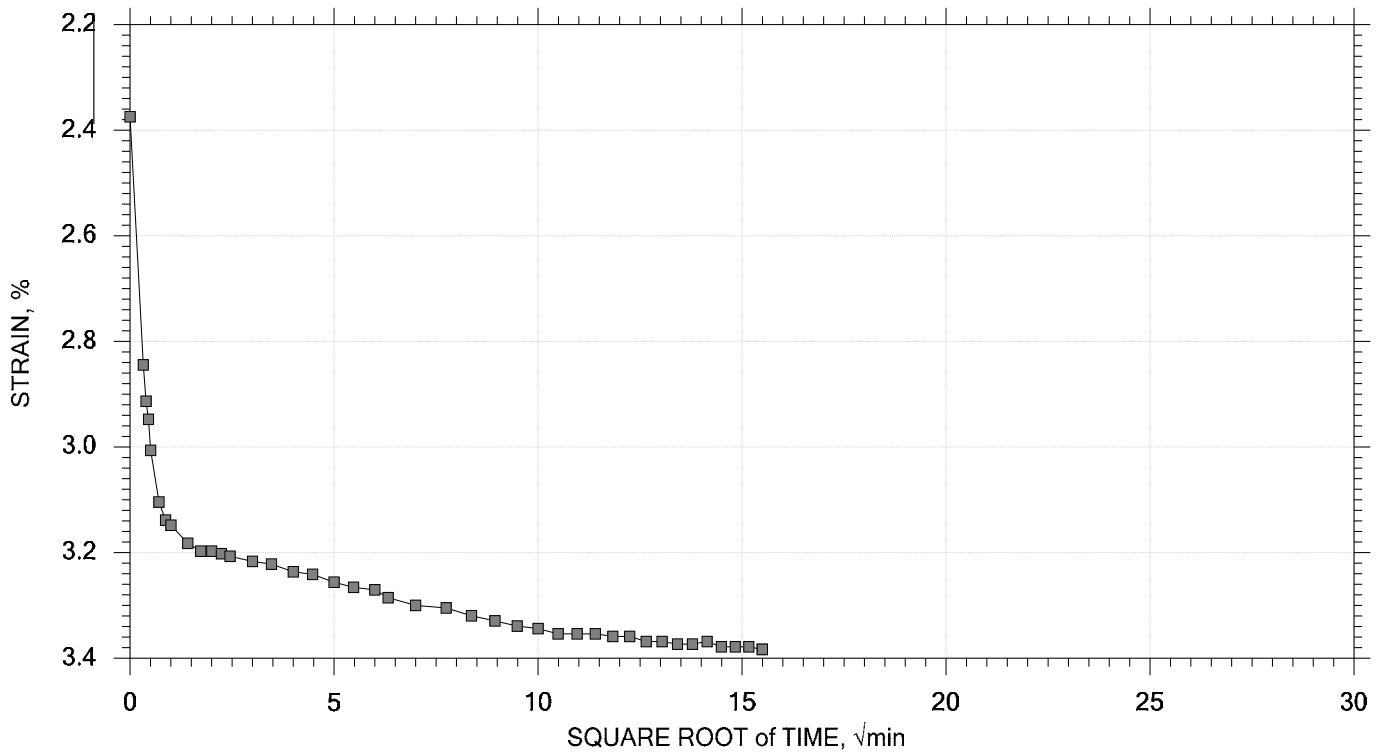
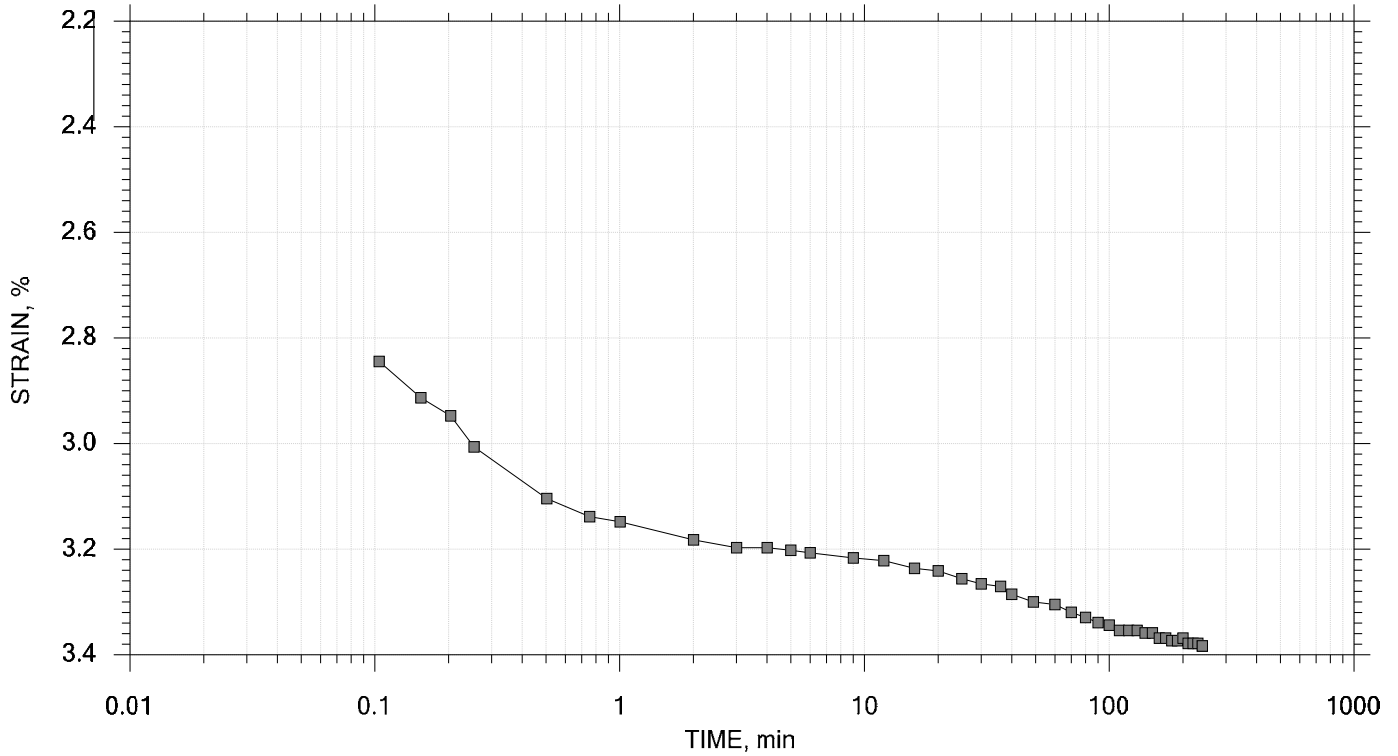
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	Boring No.: SH-2	Tested By: md	Checked By: njh
	Sample No.: U-1	Test Date: 08/26/17	Test No.: IP-1
	Depth: 32-34 ft	Sample Type: intact	Elevation: ---
	Description: Wet, gray silty clay with sand		
	Remarks: System R & D, Swell Pressure = 0.0664 tsf		


One-Dimensional Consolidation by ASTM D2435 - Method B

TIME CURVES

Constant Load Step 5 of 19

Stress: 1 tsf



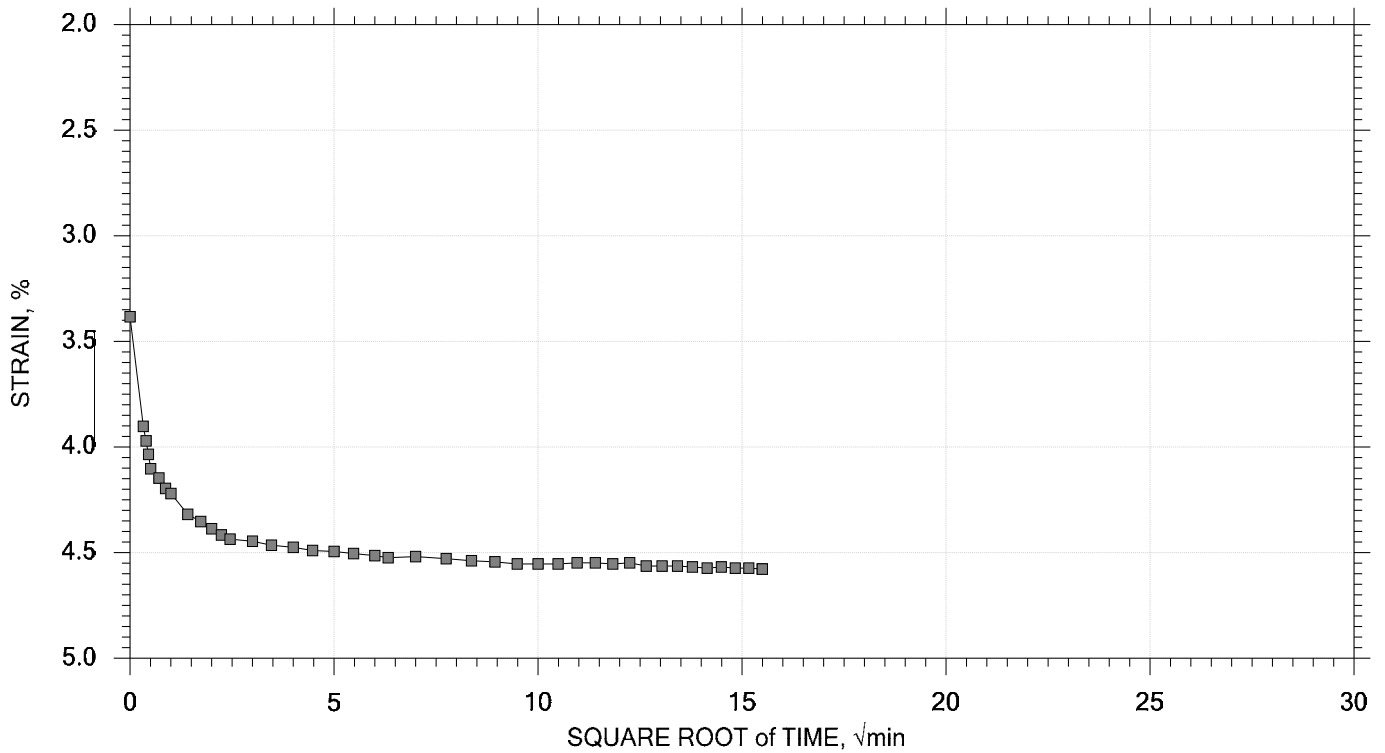
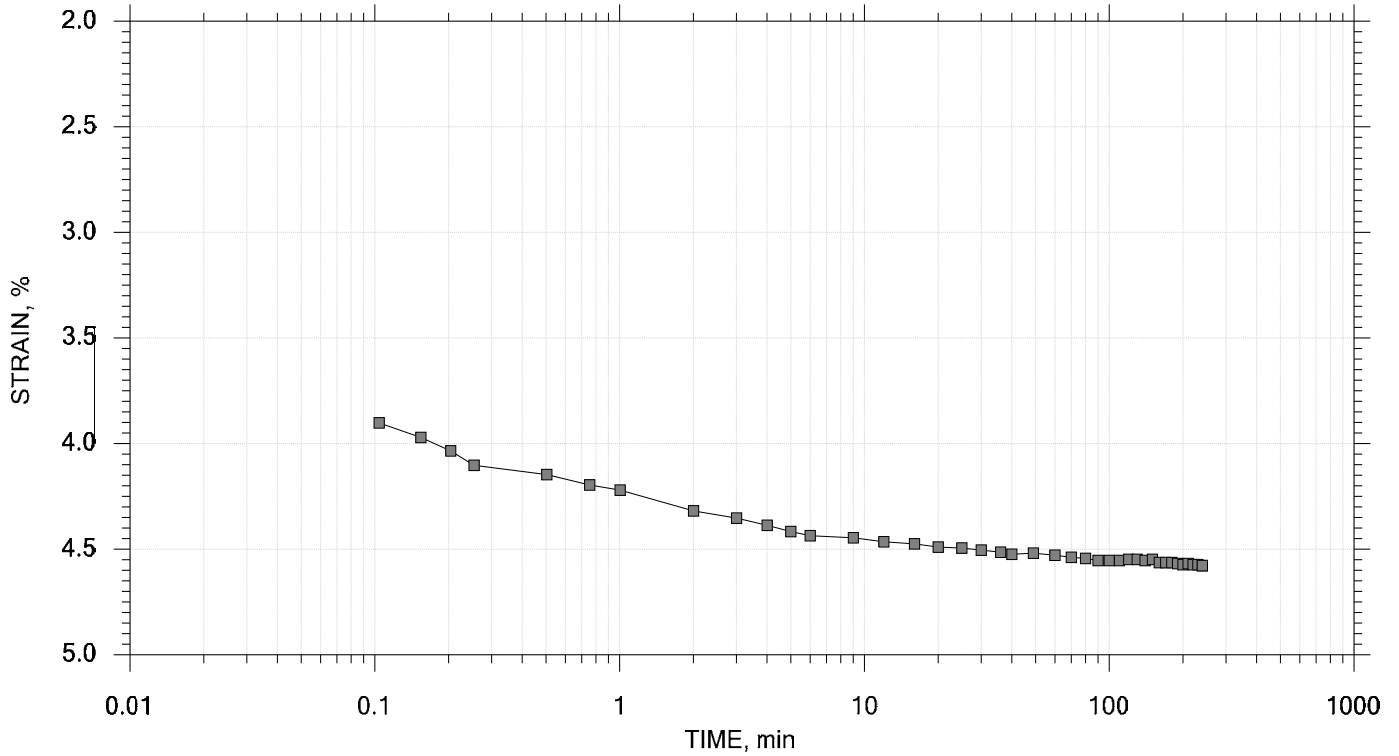
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	Boring No.: SH-2	Tested By: md	Checked By: njh
	Sample No.: U-1	Test Date: 08/26/17	Test No.: IP-1
	Depth: 32-34 ft	Sample Type: intact	Elevation: ---
	Description: Wet, gray silty clay with sand		
	Remarks: System R& D, Swell Pressure = 0.0664 tsf		


One-Dimensional Consolidation by ASTM D2435 - Method B

TIME CURVES

Constant Load Step 6 of 19

Stress: 2 tsf



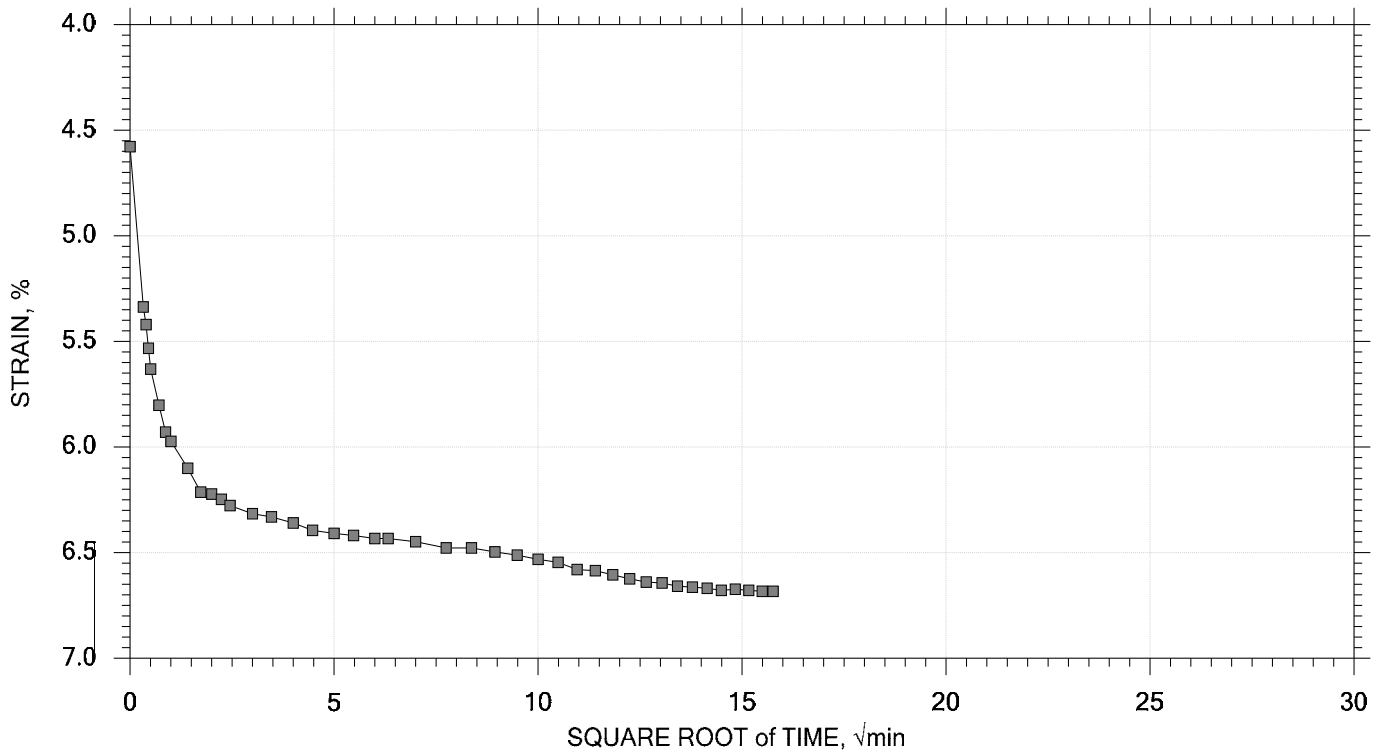
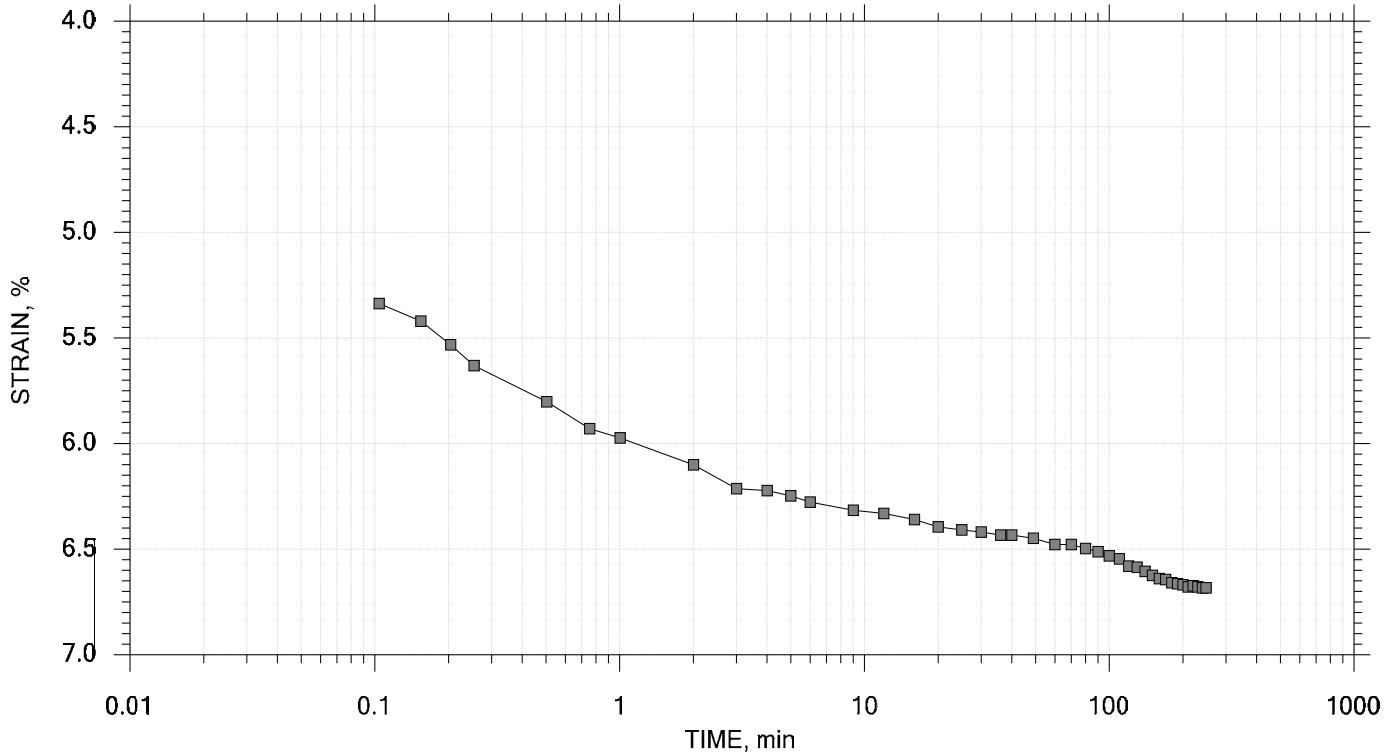
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	Boring No.: SH-2	Tested By: md	Checked By: njh
	Sample No.: U-1	Test Date: 08/26/17	Test No.: IP-1
	Depth: 32-34 ft	Sample Type: intact	Elevation: ---
	Description: Wet, gray silty clay with sand		
	Remarks: System R& D, Swell Pressure = 0.0664 tsf		


One-Dimensional Consolidation by ASTM D2435 - Method B

TIME CURVES

Constant Load Step 7 of 19

Stress: 4 tsf



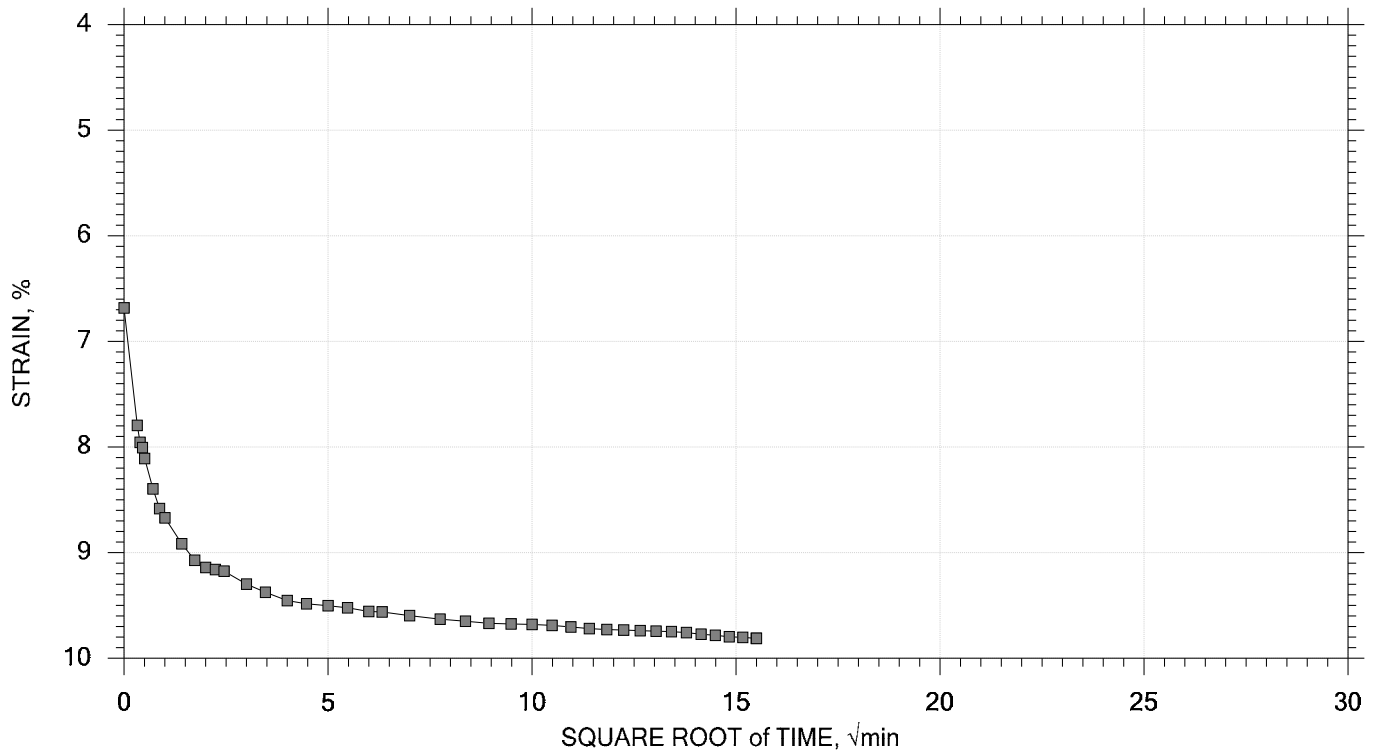
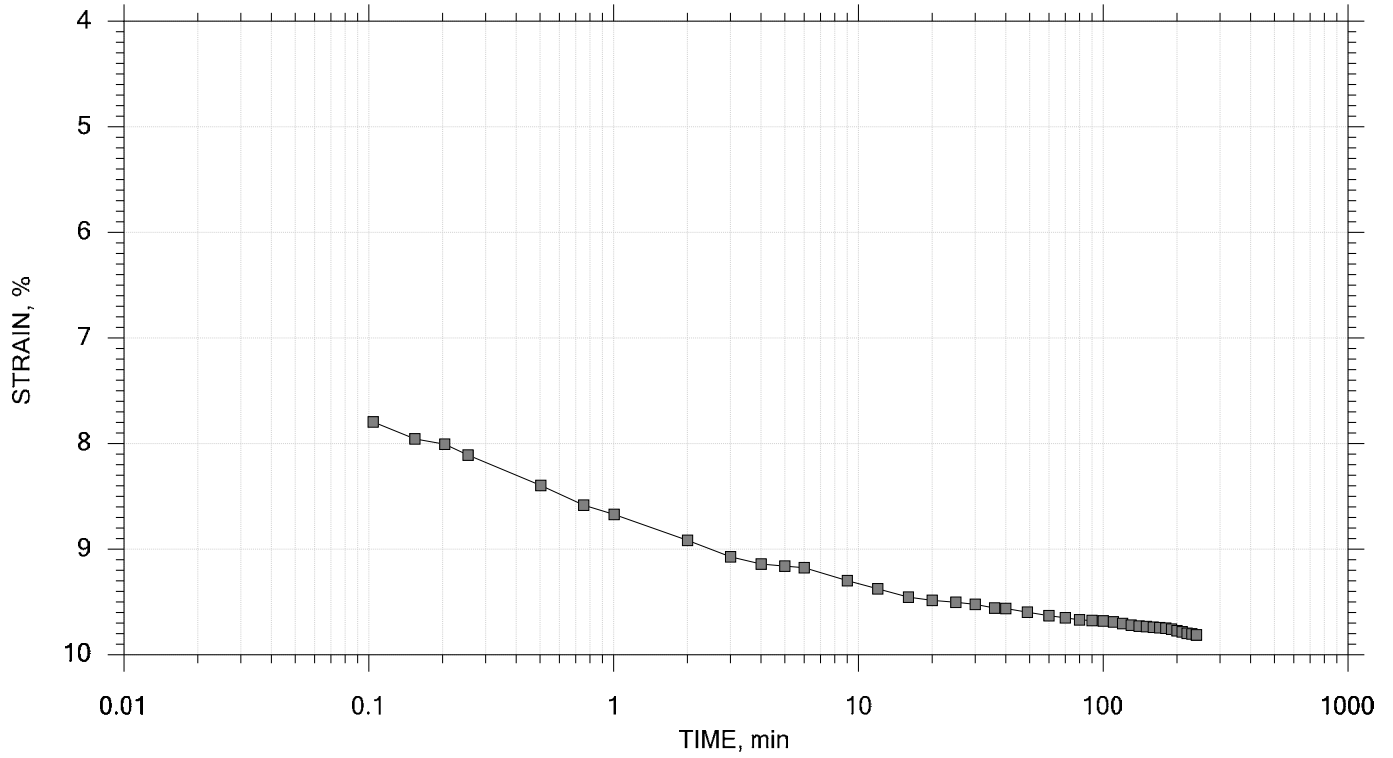
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	Boring No.: SH-2	Tested By: md	Checked By: njh
	Sample No.: U-1	Test Date: 08/26/17	Test No.: IP-1
	Depth: 32-34 ft	Sample Type: intact	Elevation: ---
	Description: Wet, gray silty clay with sand		
	Remarks: System R& D, Swell Pressure = 0.0664 tsf		


One-Dimensional Consolidation by ASTM D2435 - Method B

TIME CURVES

Constant Load Step 8 of 19

Stress: 8 tsf



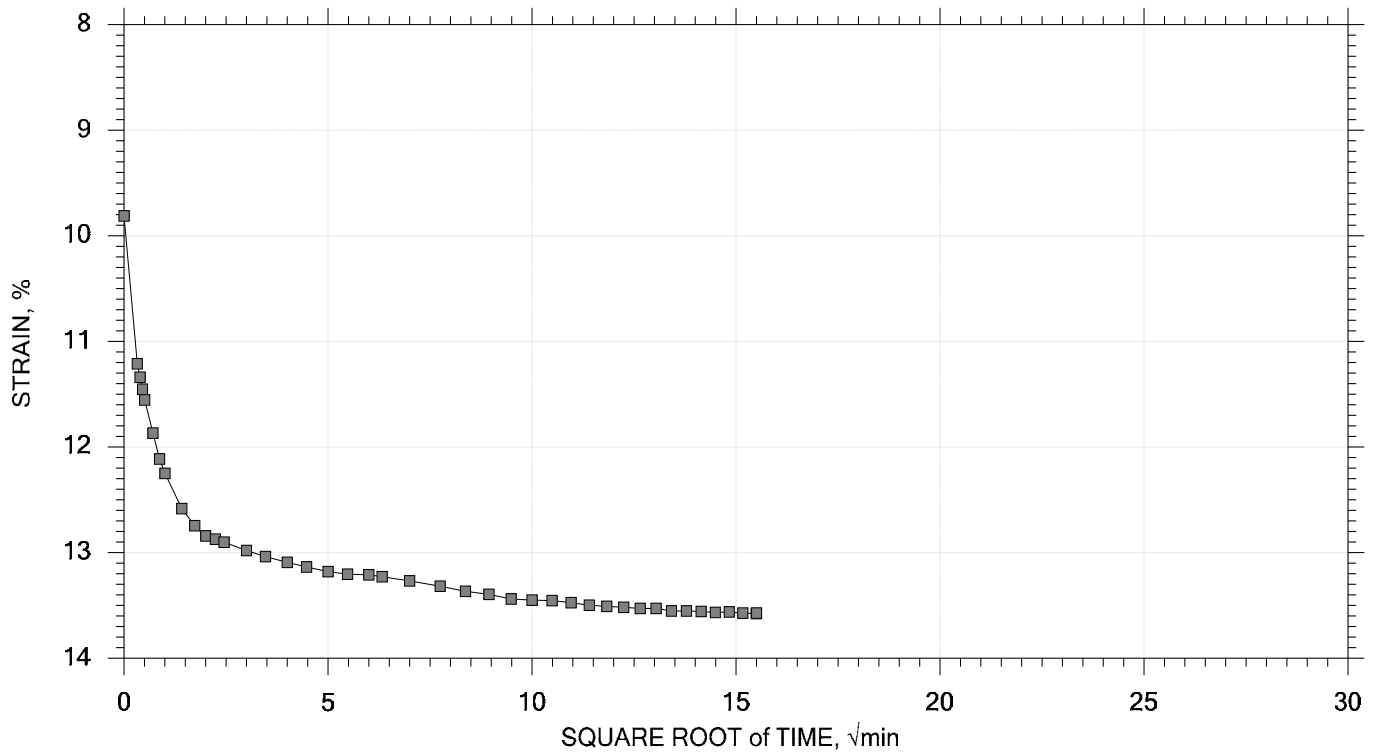
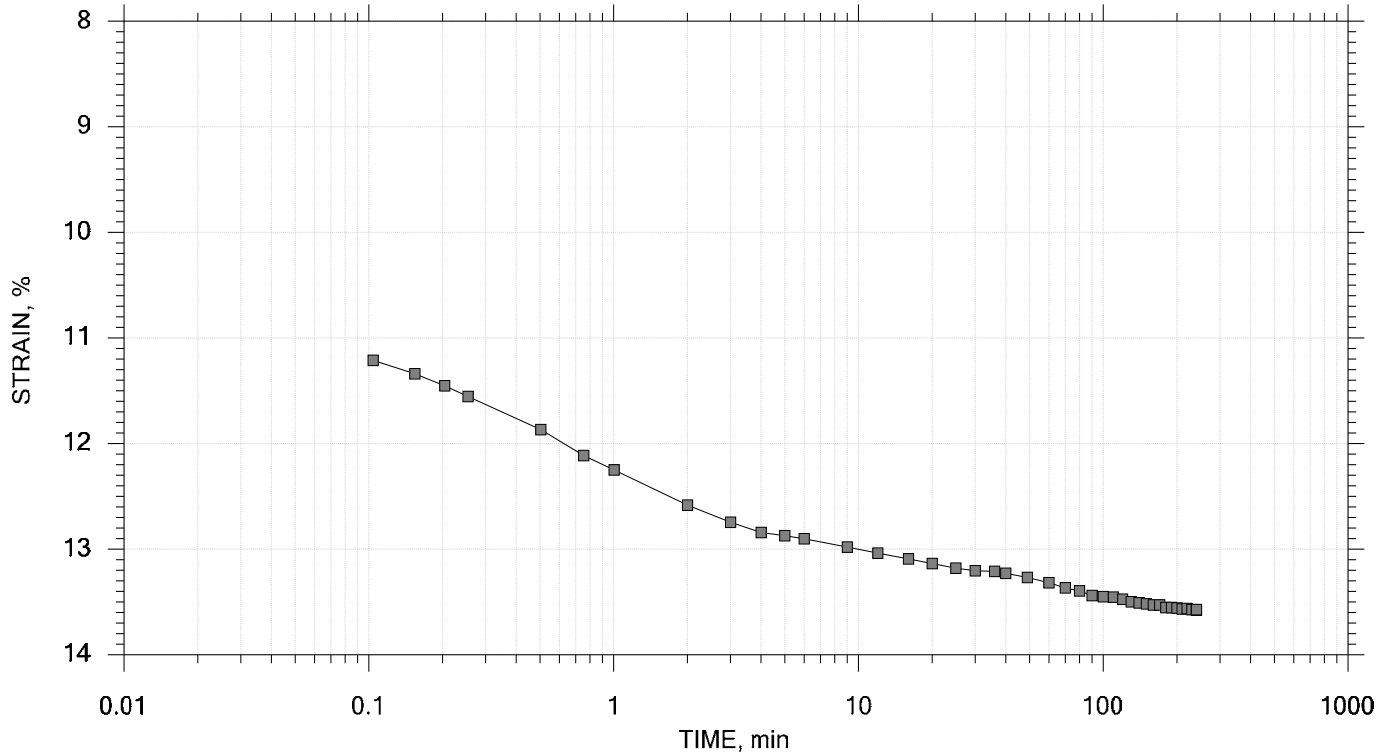
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	Boring No.: SH-2	Tested By: md	Checked By: njh
	Sample No.: U-1	Test Date: 08/26/17	Test No.: IP-1
	Depth: 32-34 ft	Sample Type: intact	Elevation: ---
	Description: Wet, gray silty clay with sand		
	Remarks: System R& D, Swell Pressure = 0.0664 tsf		


One-Dimensional Consolidation by ASTM D2435 - Method B

TIME CURVES

Constant Load Step 9 of 19

Stress: 16 tsf



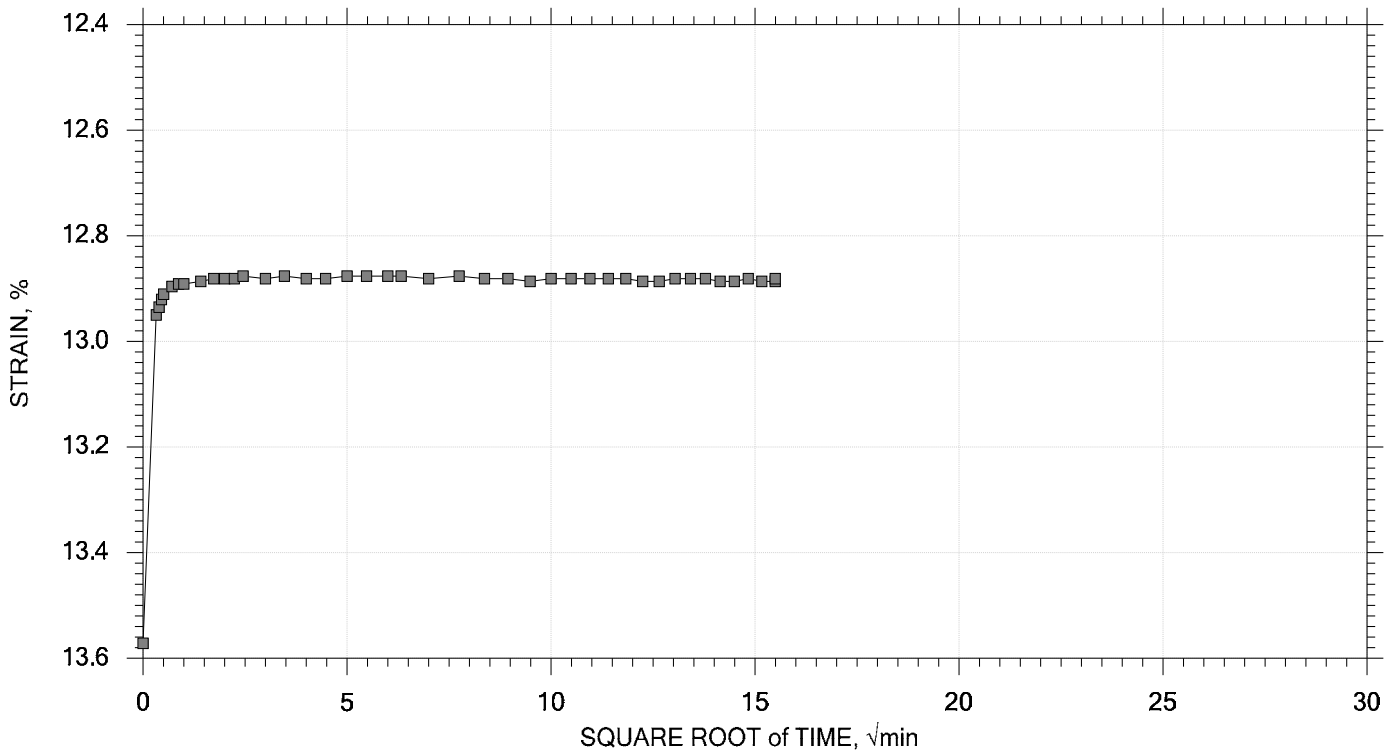
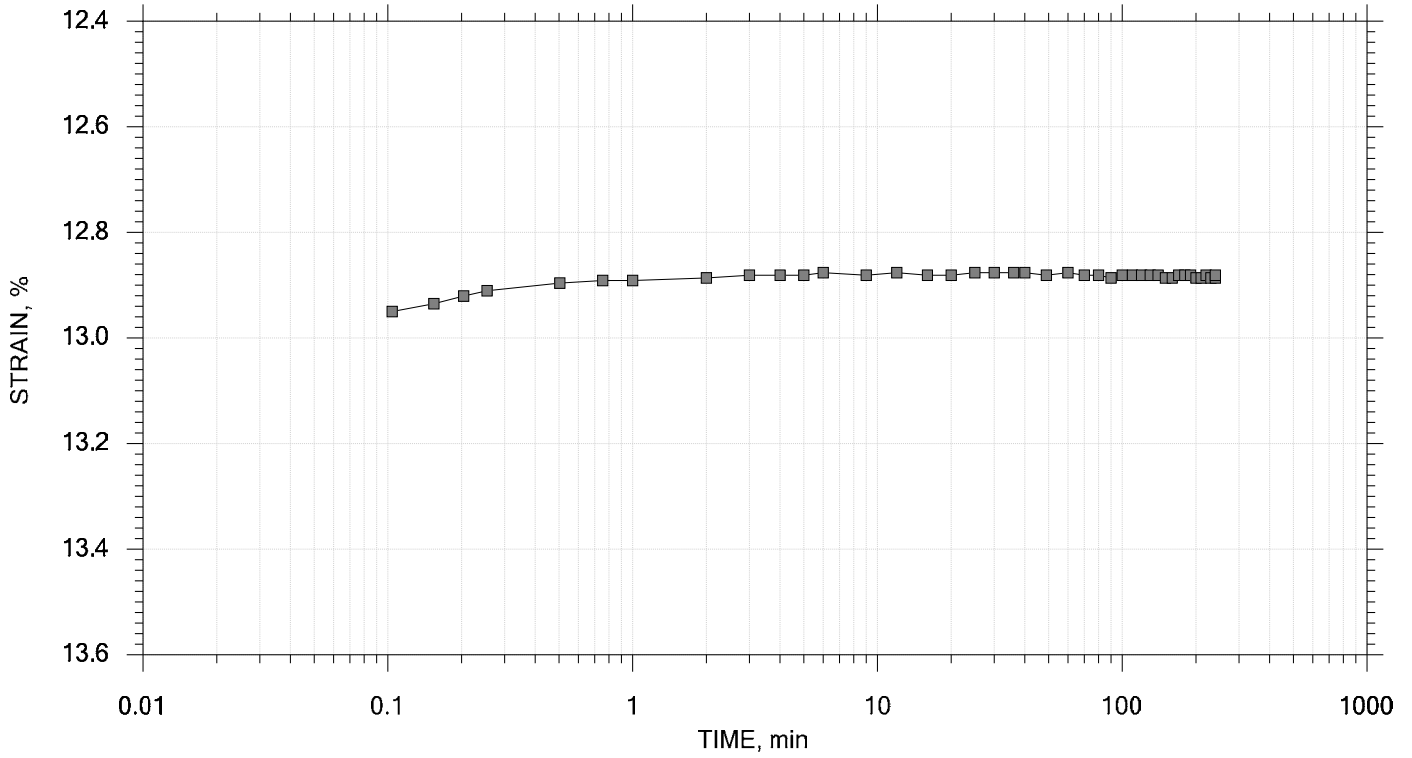
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	Boring No.: SH-2	Tested By: md	Checked By: njh
	Sample No.: U-1	Test Date: 08/26/17	Test No.: IP-1
	Depth: 32-34 ft	Sample Type: intact	Elevation: ---
	Description: Wet, gray silty clay with sand		
	Remarks: System R& D, Swell Pressure = 0.0664 tsf		


One-Dimensional Consolidation by ASTM D2435 - Method B

TIME CURVES

Constant Load Step 10 of 19

Stress: 8 tsf



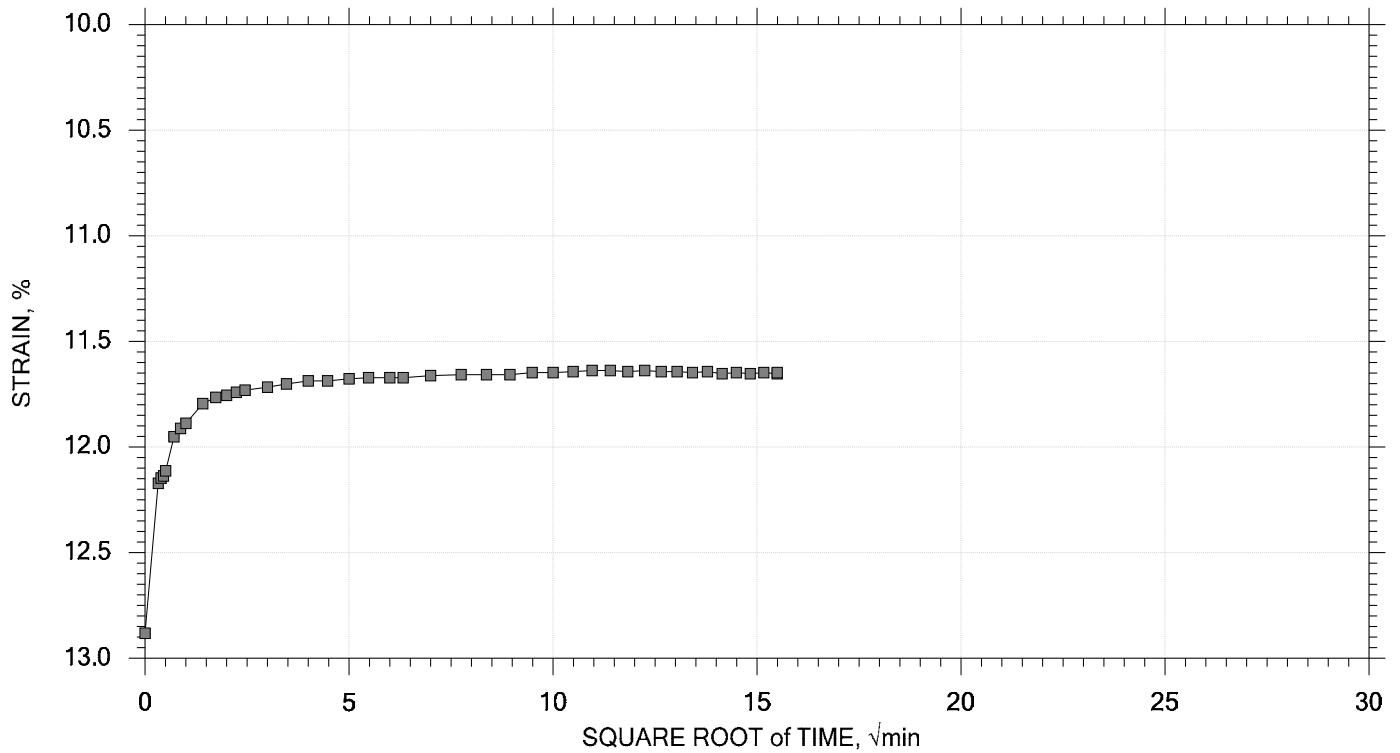
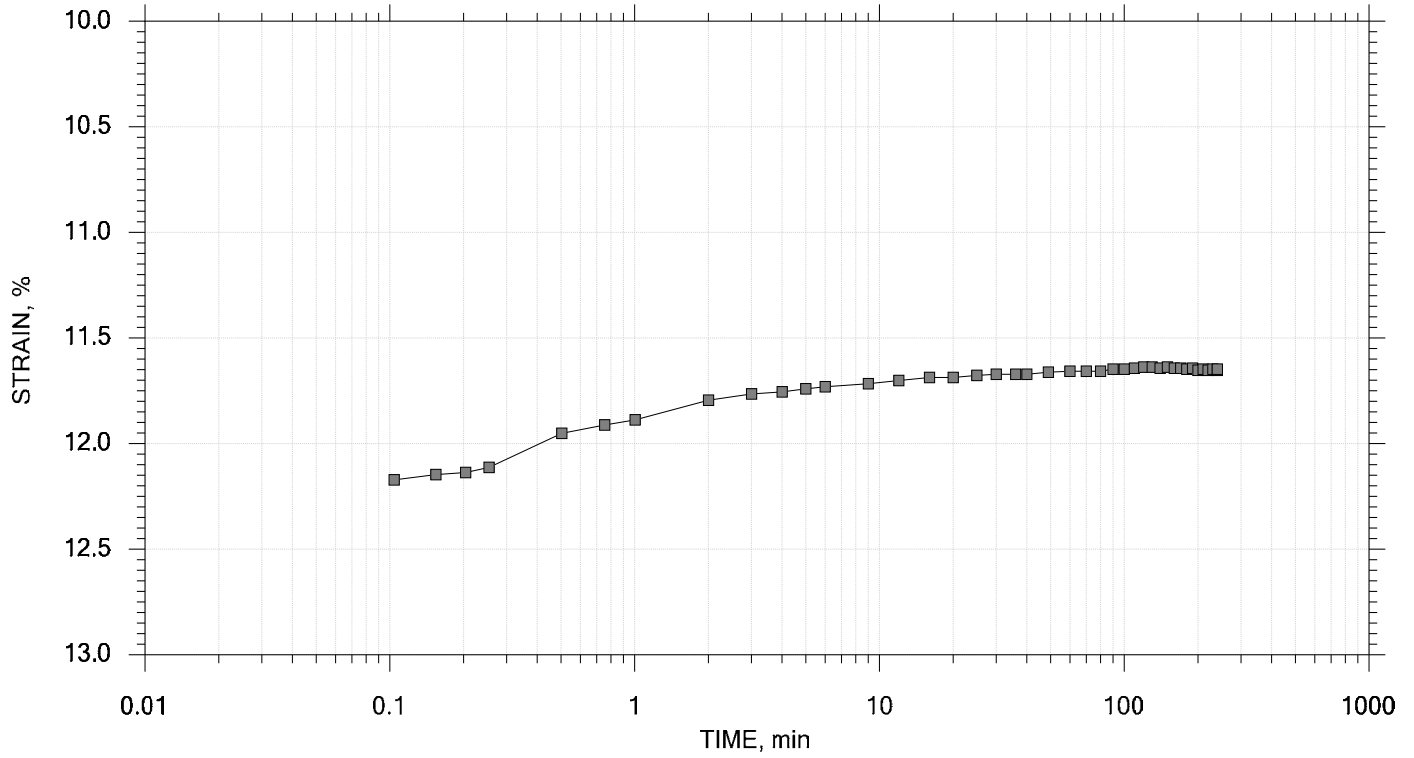
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	Boring No.: SH-2	Tested By: md	Checked By: njh
	Sample No.: U-1	Test Date: 08/26/17	Test No.: IP-1
	Depth: 32-34 ft	Sample Type: intact	Elevation: ---
	Description: Wet, gray silty clay with sand		
	Remarks: System R& D, Swell Pressure = 0.0664 tsf		


One-Dimensional Consolidation by ASTM D2435 - Method B

TIME CURVES

Constant Load Step 11 of 19

Stress: 2 tsf



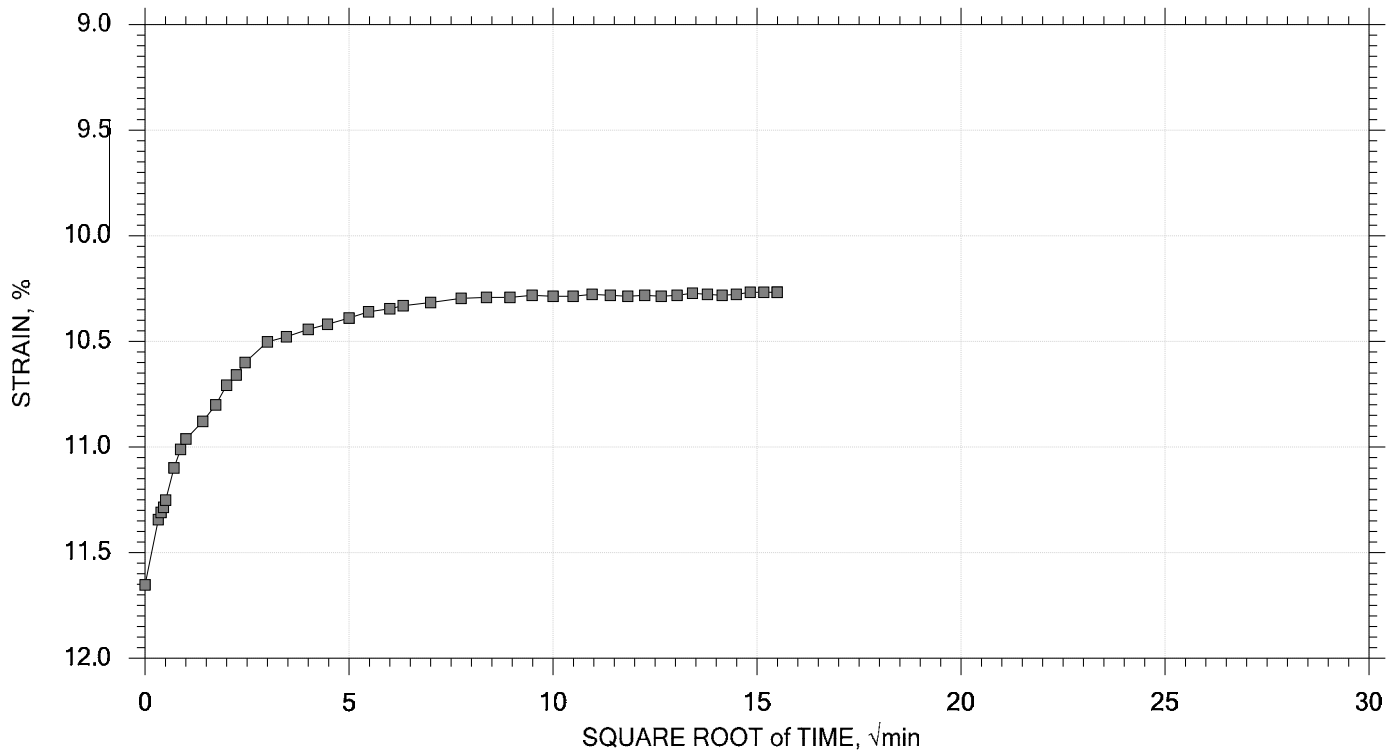
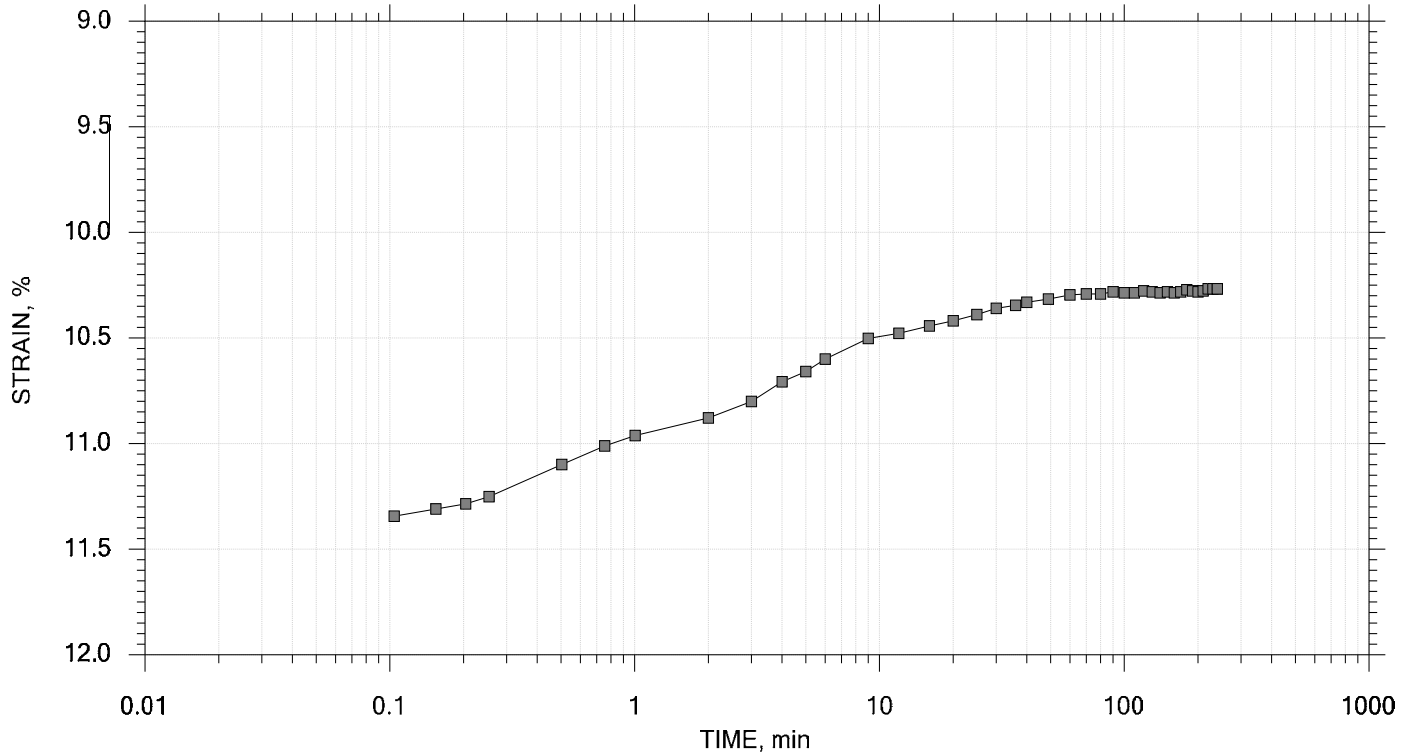
	Project: 144 Addison St	Location: East Boston, MA	Project No.: GTX-306889
	Boring No.: SH-2	Tested By: md	Checked By: njh
	Sample No.: U-1	Test Date: 08/26/17	Test No.: IP-1
	Depth: 32-34 ft	Sample Type: intact	Elevation: ---
	Description: Wet, gray silty clay with sand		
	Remarks: System R& D, Swell Pressure = 0.0664 tsf		


One-Dimensional Consolidation by ASTM D2435 - Method B

TIME CURVES

Constant Load Step 12 of 19

Stress: 0.5 tsf



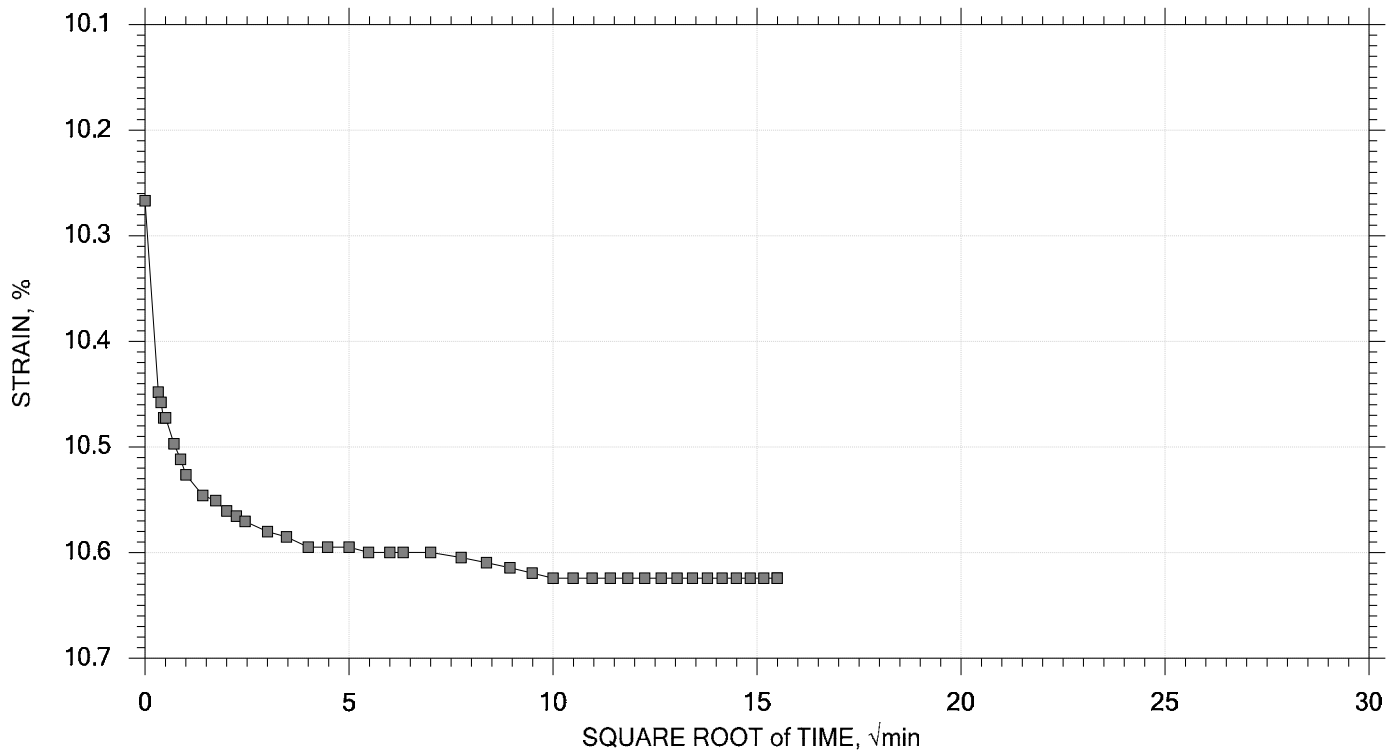
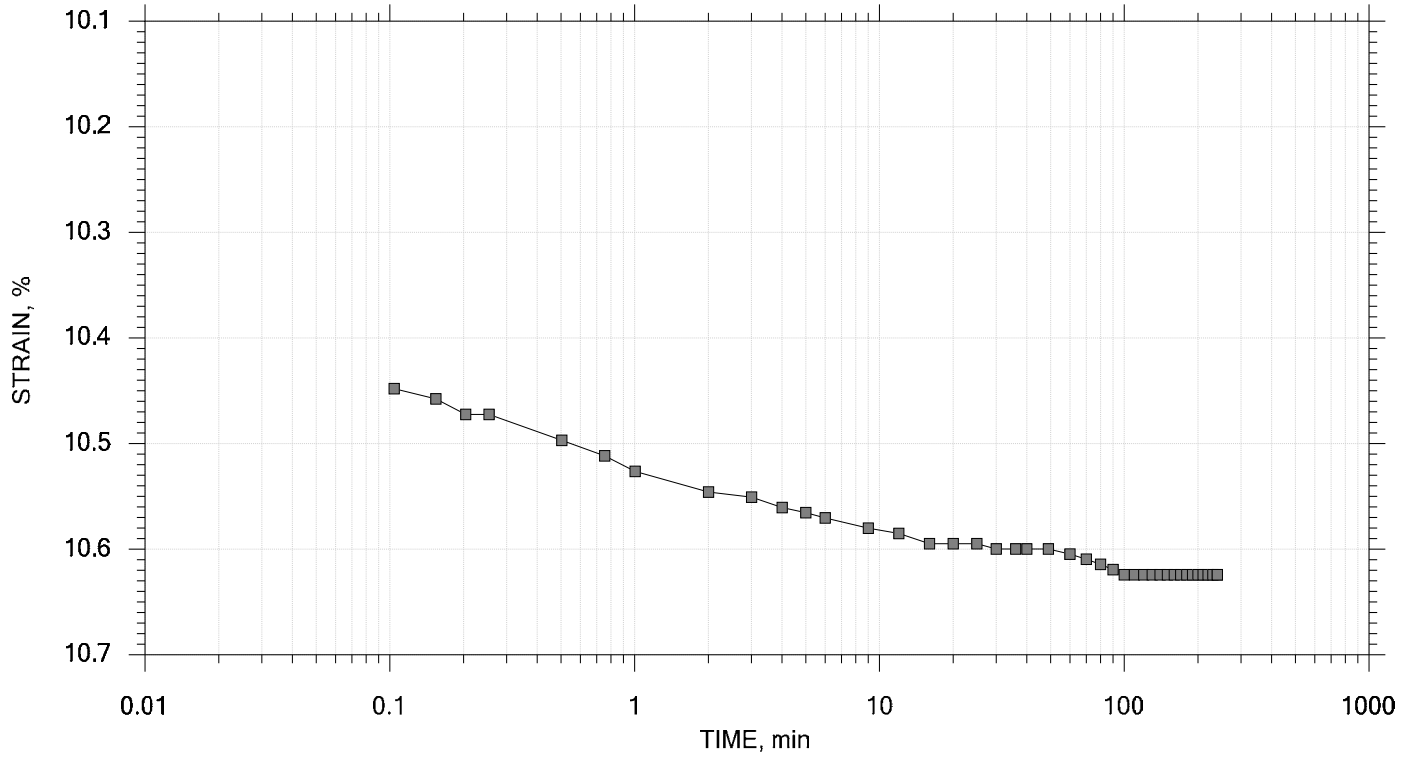
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	Boring No.: SH-2	Tested By: md	Checked By: njh
	Sample No.: U-1	Test Date: 08/26/17	Test No.: IP-1
	Depth: 32-34 ft	Sample Type: intact	Elevation: ---
	Description: Wet, gray silty clay with sand		
	Remarks: System R& D, Swell Pressure = 0.0664 tsf		


One-Dimensional Consolidation by ASTM D2435 - Method B

TIME CURVES

Constant Load Step 13 of 19

Stress: 1 tsf



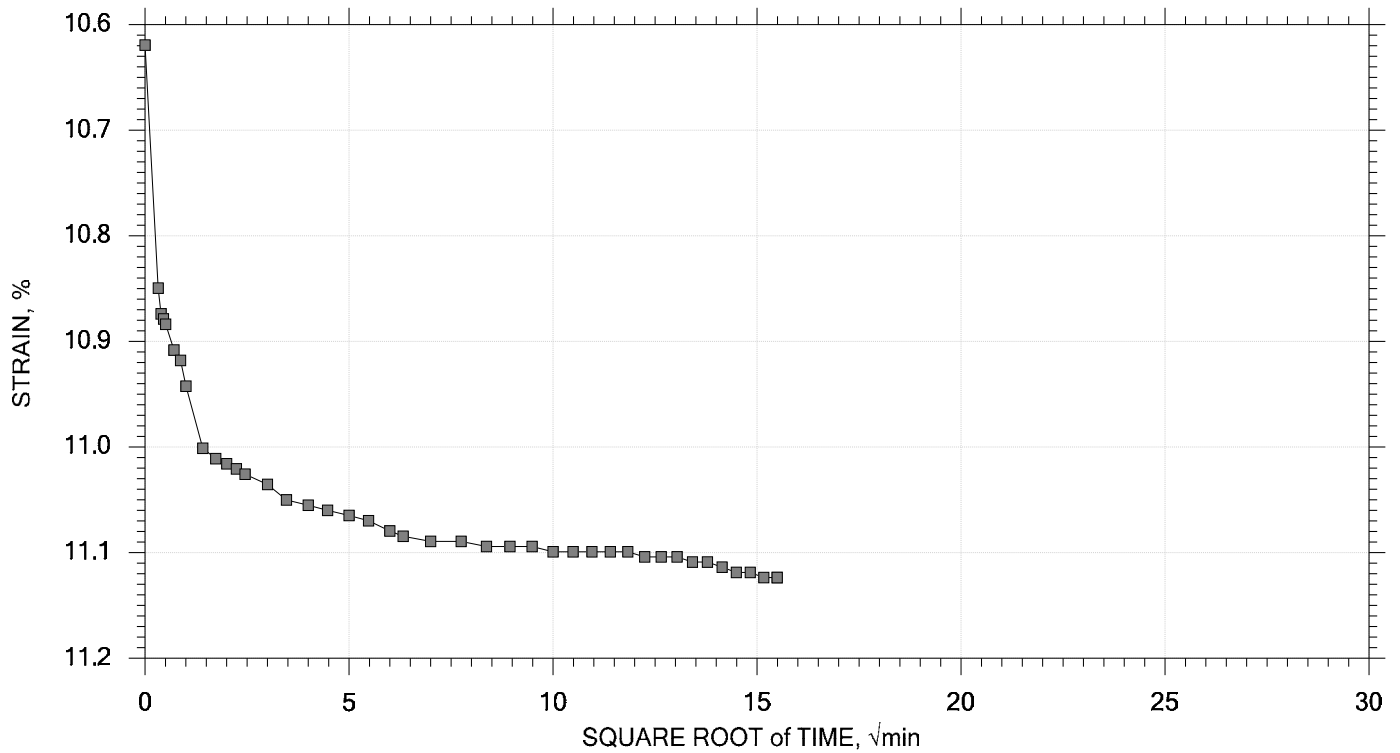
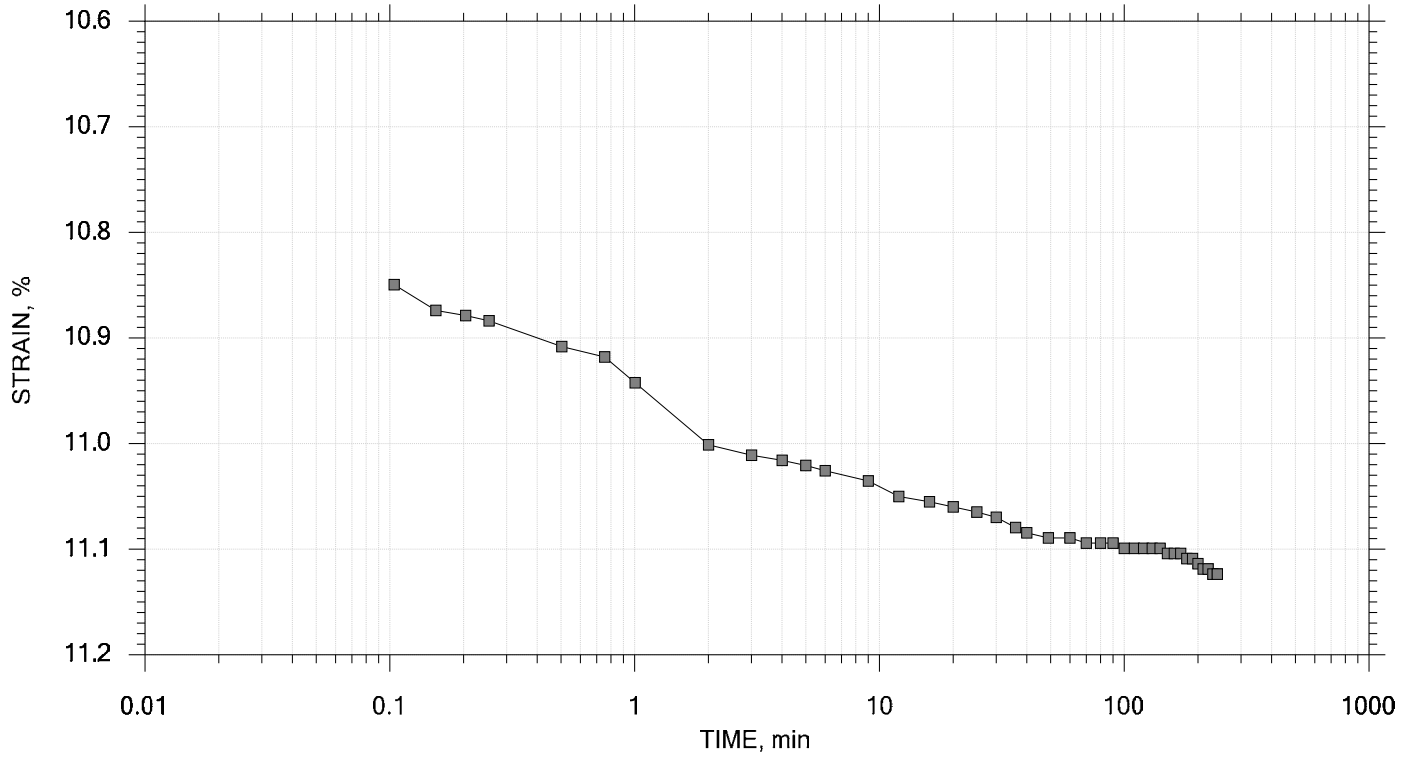
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	Sample No.: U-1	Test Date: 08/26/17	Test No.: IP-1
	Depth: 32-34 ft	Sample Type: intact	Elevation: ---
	Description: Wet, gray silty clay with sand		
	Remarks: System R& D, Swell Pressure = 0.0664 tsf		


One-Dimensional Consolidation by ASTM D2435 - Method B

TIME CURVES

Constant Load Step 14 of 19

Stress: 2 tsf



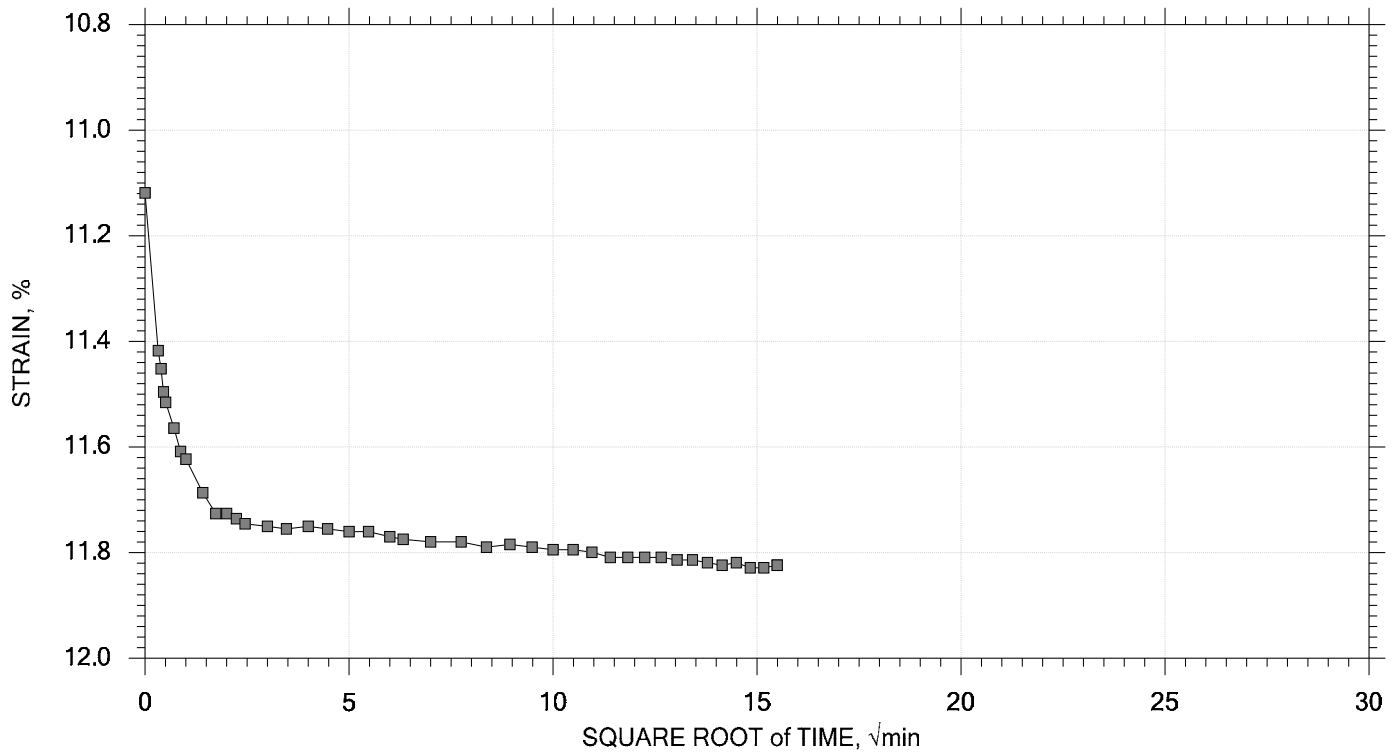
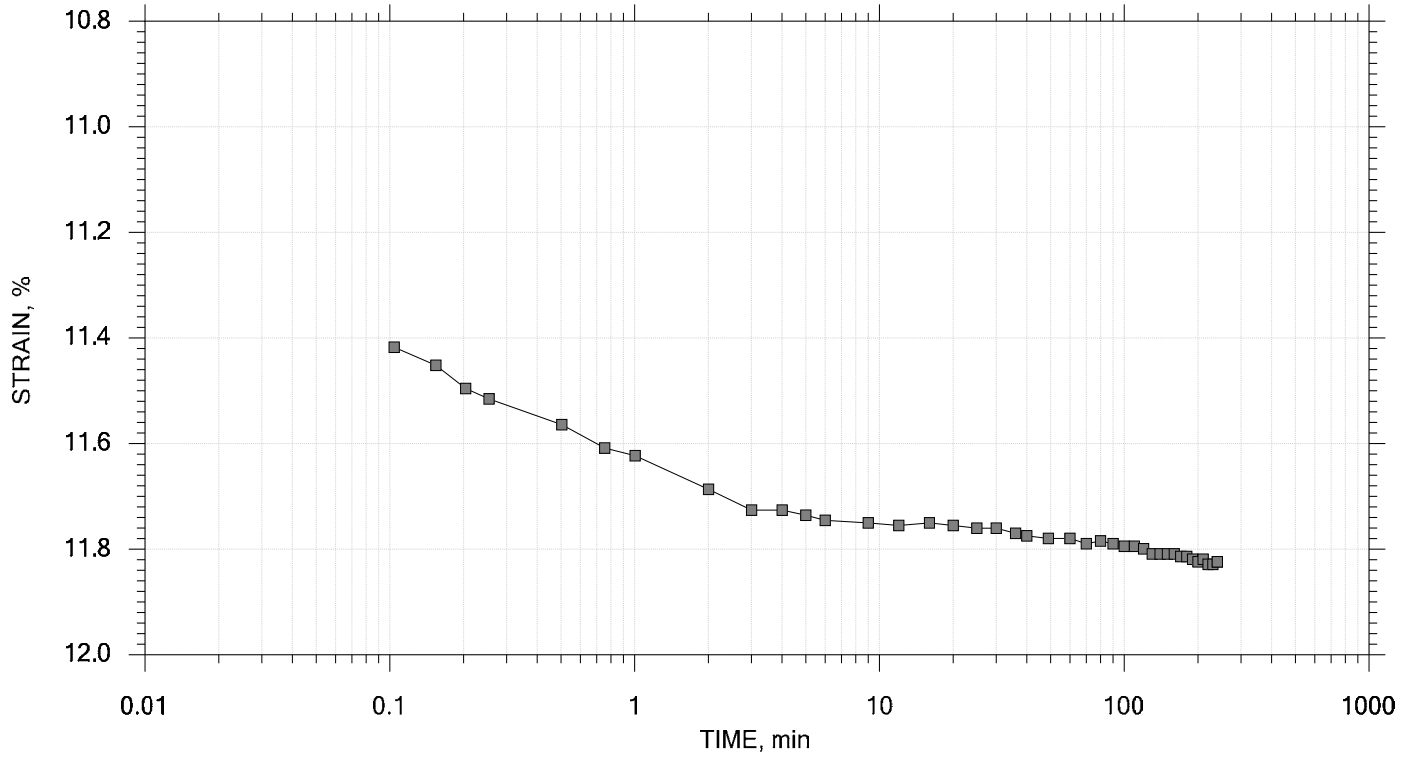
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	Boring No.: SH-2	Tested By: md	Checked By: njh
	Sample No.: U-1	Test Date: 08/26/17	Test No.: IP-1
	Depth: 32-34 ft	Sample Type: intact	Elevation: ---
	Description: Wet, gray silty clay with sand		
	Remarks: System R& D, Swell Pressure = 0.0664 tsf		


One-Dimensional Consolidation by ASTM D2435 - Method B

TIME CURVES

Constant Load Step 15 of 19

Stress: 4 tsf



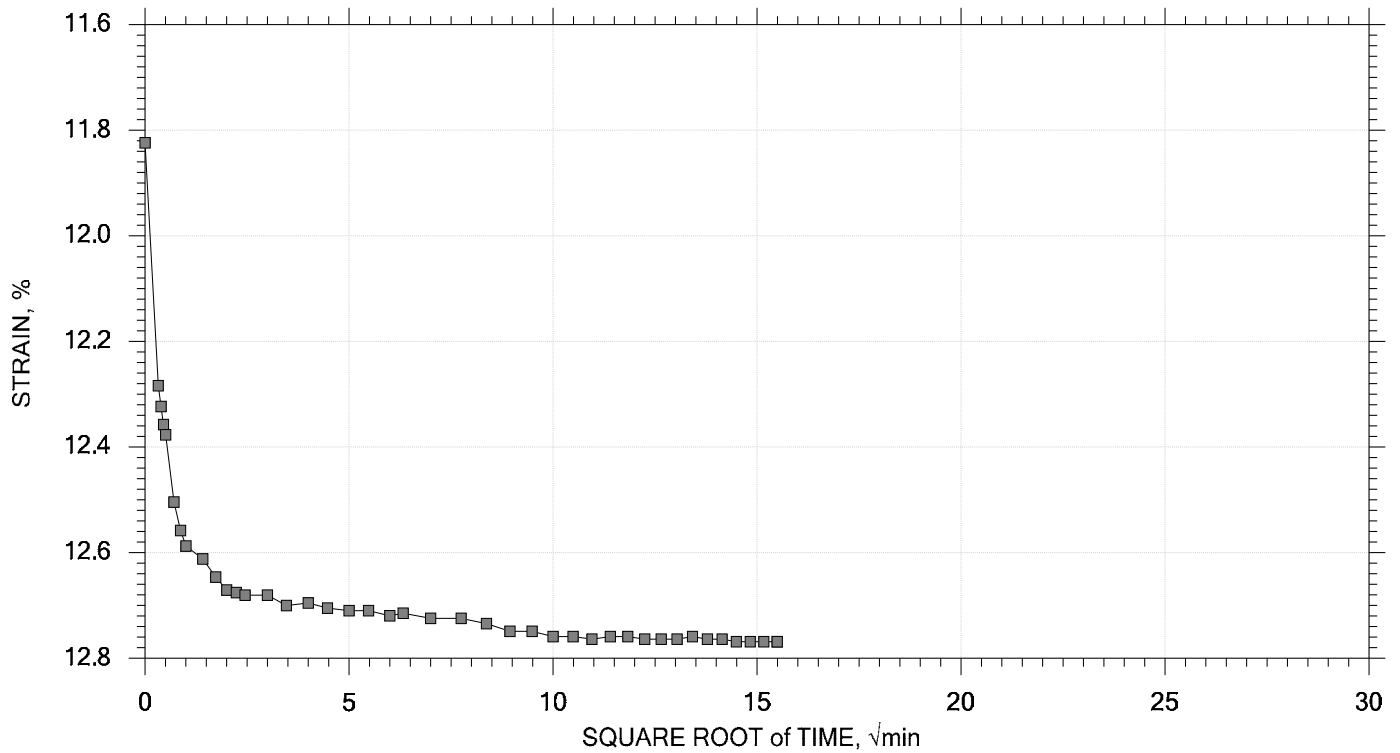
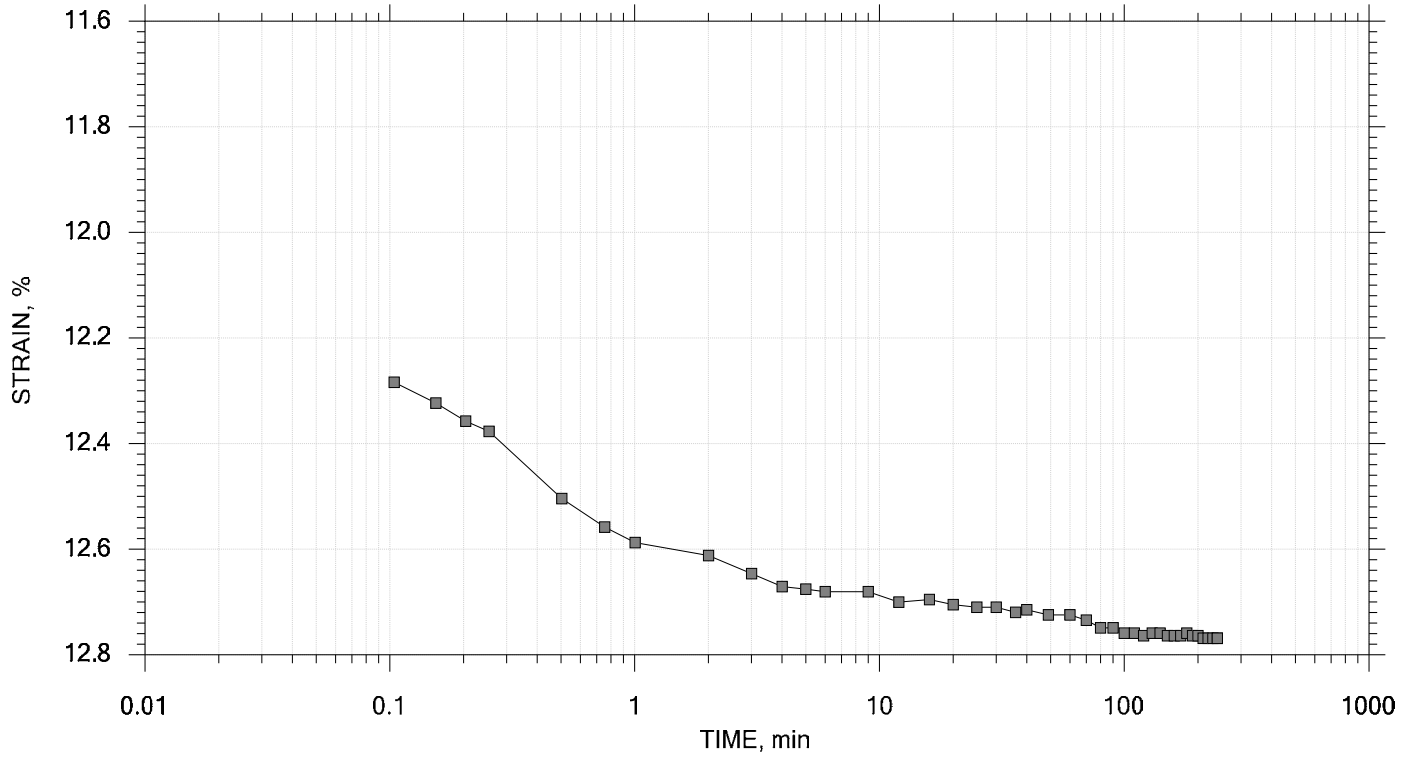
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	Boring No.: SH-2	Tested By: md	Checked By: njh
	Sample No.: U-1	Test Date: 08/26/17	Test No.: IP-1
	Depth: 32-34 ft	Sample Type: intact	Elevation: ---
	Description: Wet, gray silty clay with sand		
	Remarks: System R& D, Swell Pressure = 0.0664 tsf		


One-Dimensional Consolidation by ASTM D2435 - Method B

TIME CURVES

Constant Load Step 16 of 19

Stress: 8 tsf



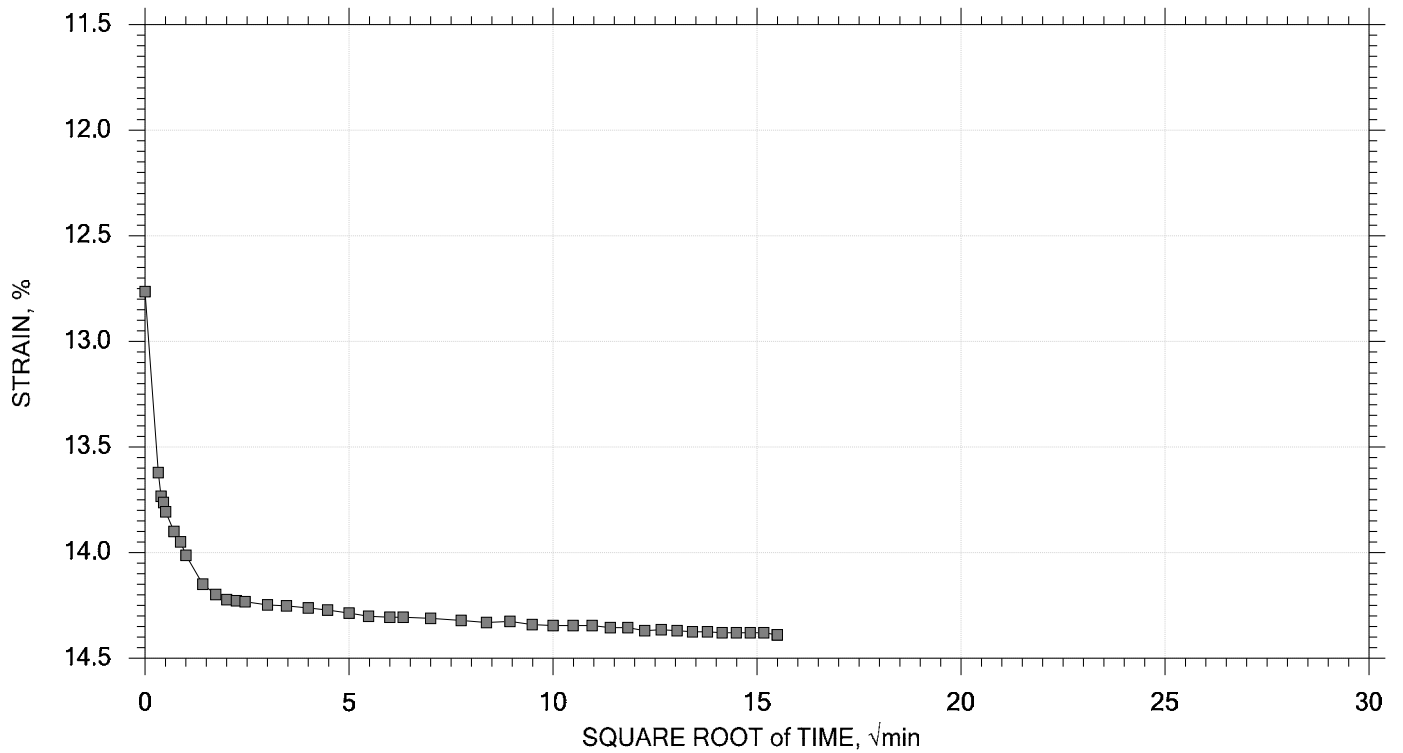
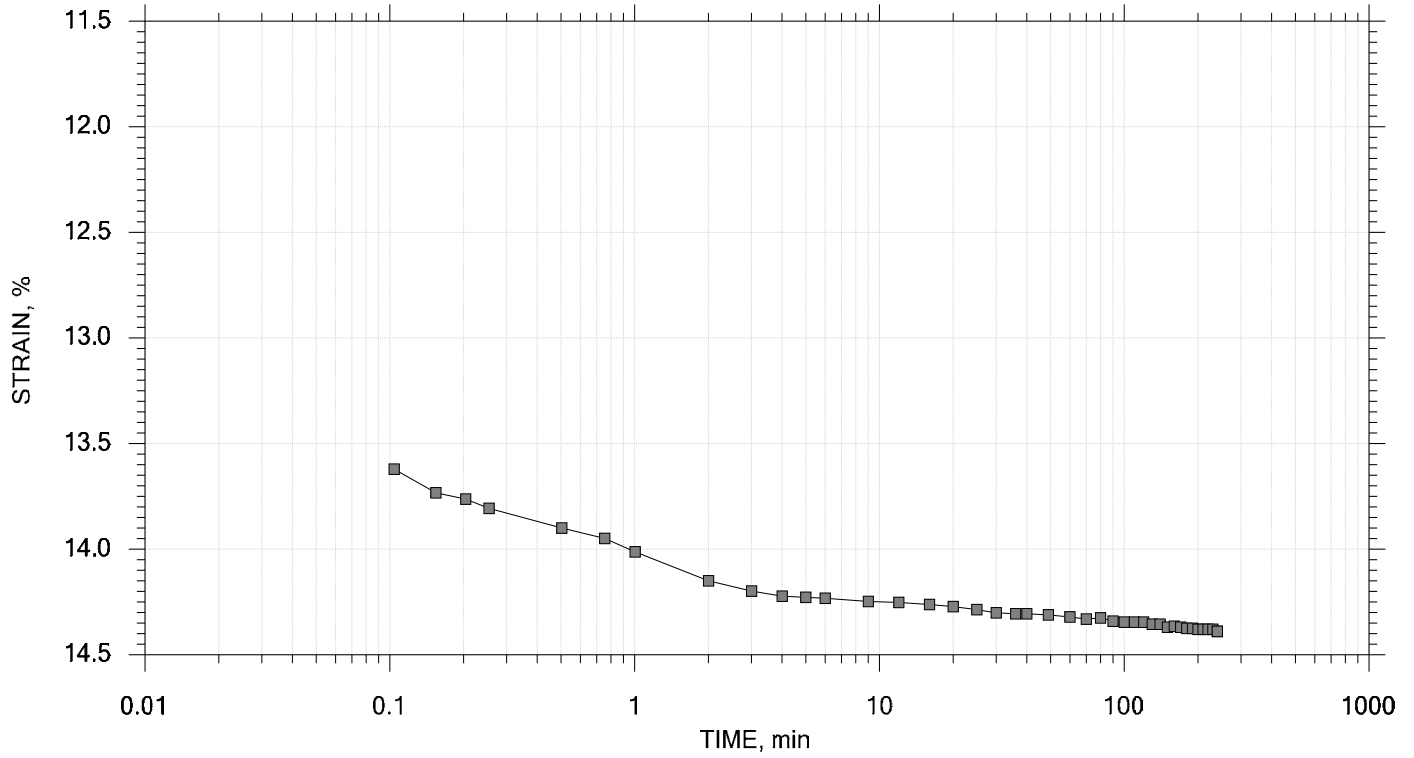
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	Depth: 32-34 ft	Sample Type: intact	Elevation: ---
	Description: Wet, gray silty clay with sand		
	Remarks: System R& D, Swell Pressure = 0.0664 tsf		


One-Dimensional Consolidation by ASTM D2435 - Method B

TIME CURVES

Constant Load Step 17 of 19

Stress: 16 tsf



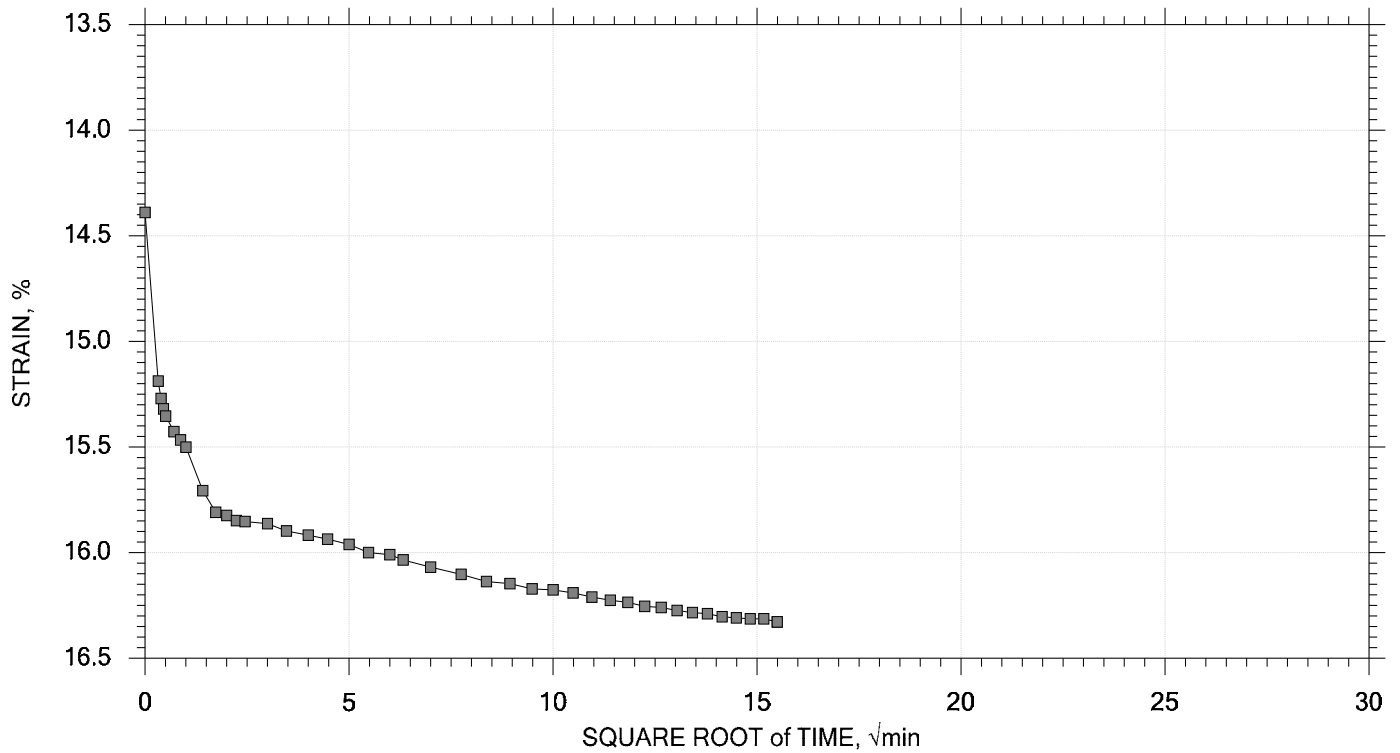
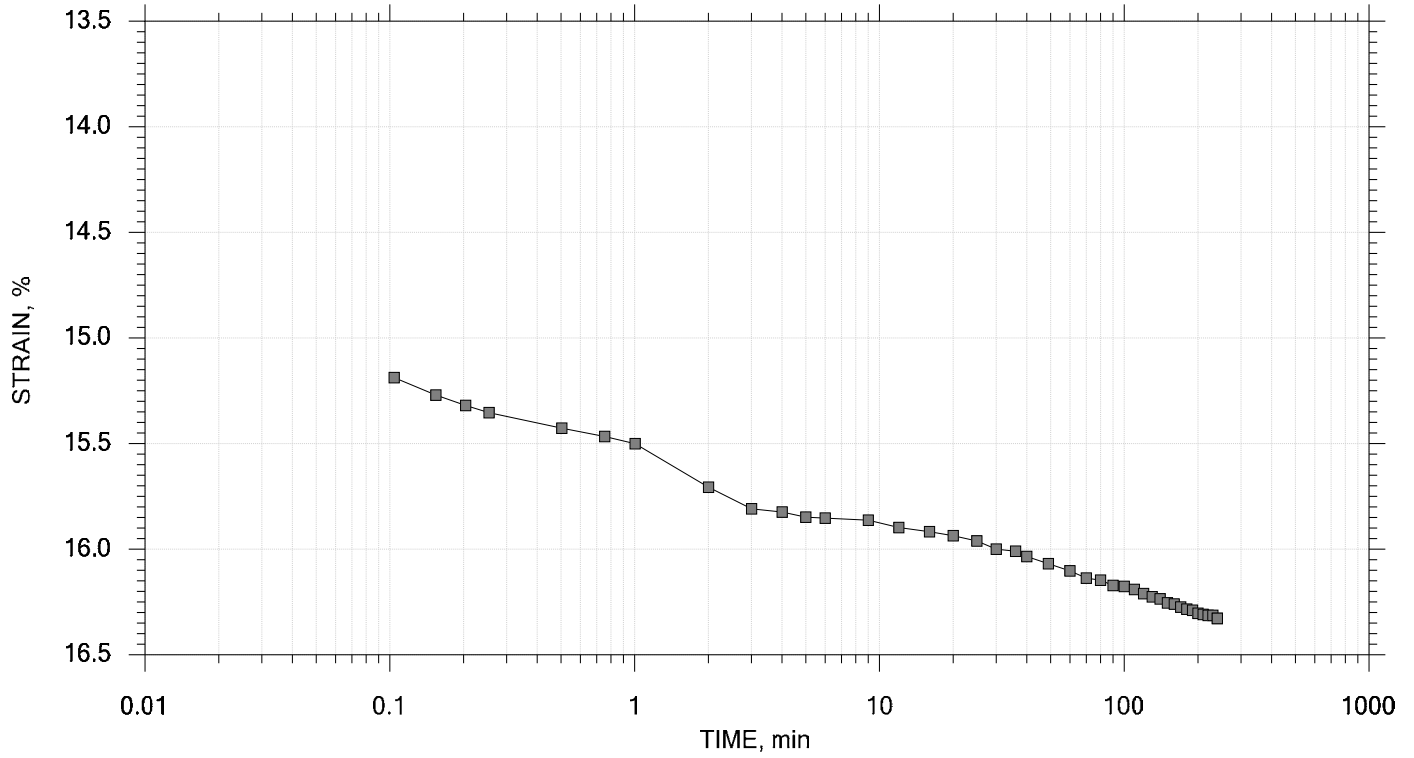
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	Boring No.: SH-2	Tested By: md	Checked By: njh
	Sample No.: U-1	Test Date: 08/26/17	Test No.: IP-1
	Depth: 32-34 ft	Sample Type: intact	Elevation: ---
	Description: Wet, gray silty clay with sand		
	Remarks: System R& D, Swell Pressure = 0.0664 tsf		


One-Dimensional Consolidation by ASTM D2435 - Method B

TIME CURVES

Constant Load Step 18 of 19

Stress: 24 tsf



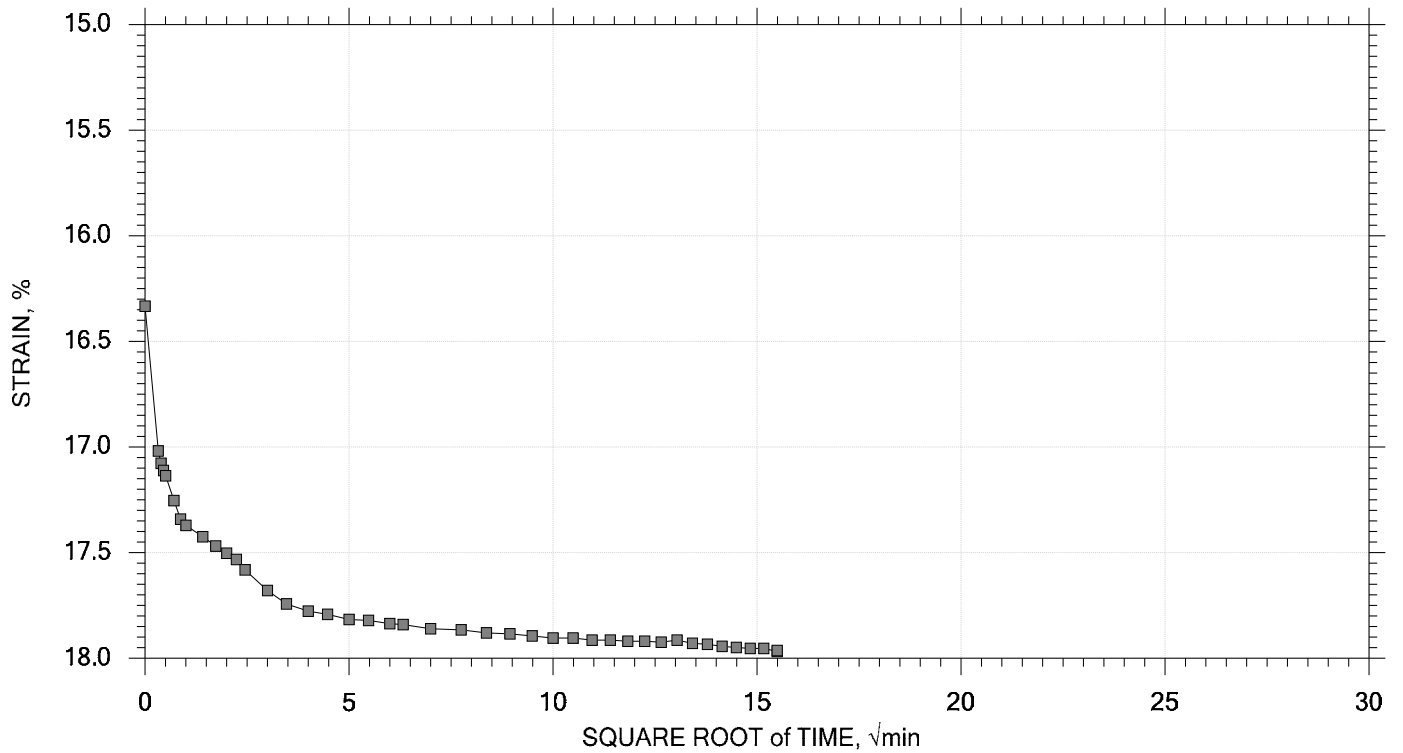
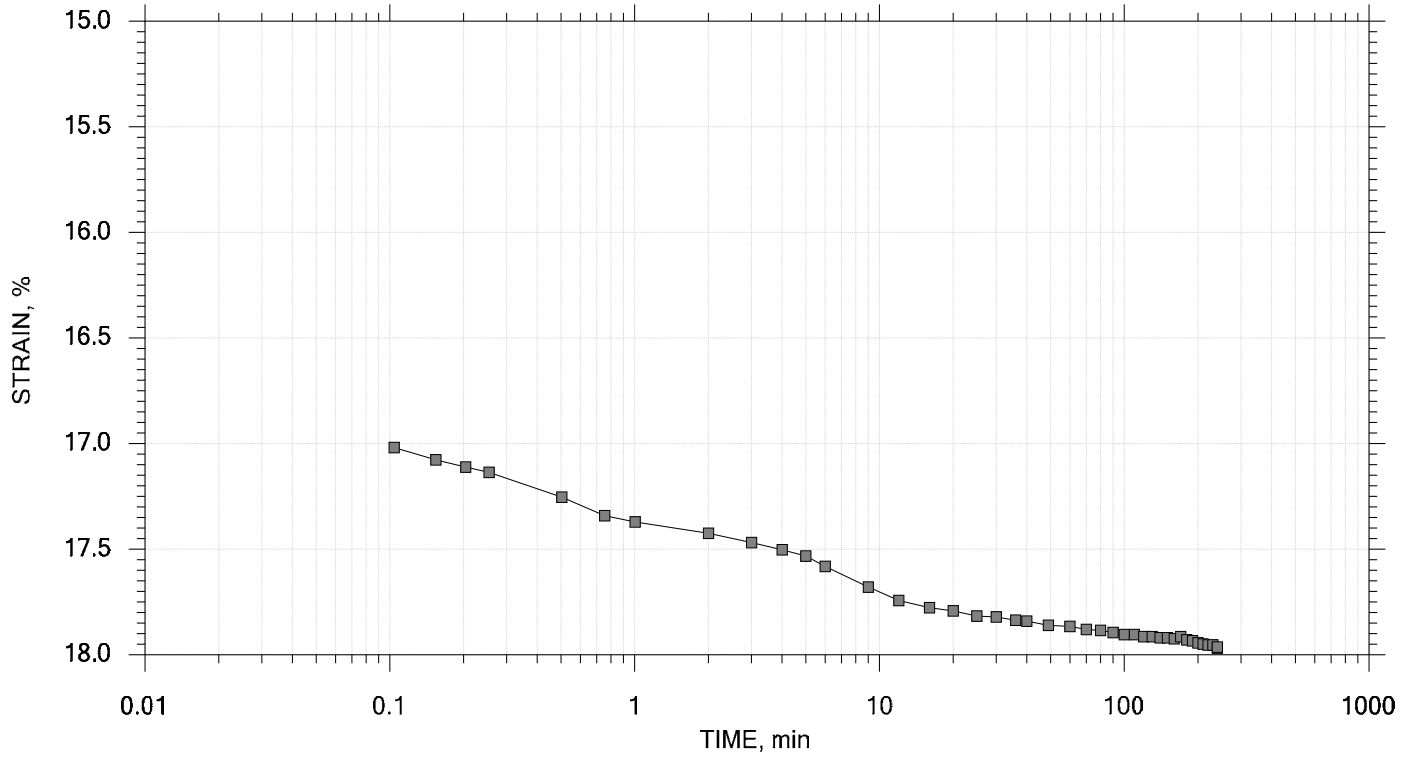
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	Sample No.: U-1	Test Date: 08/26/17	Test No.: IP-1
	Depth: 32-34 ft	Sample Type: intact	Elevation: ---
	Description: Wet, gray silty clay with sand		
	Remarks: System R& D, Swell Pressure = 0.0664 tsf		


One-Dimensional Consolidation by ASTM D2435 - Method B

TIME CURVES

Constant Load Step 19 of 19

Stress: 32 tsf



	Project: 144 Addison St	Location: East Boston, MA	Project No.: GTX-306889
	Boring No.: SH-2	Tested By: md	Checked By: njh
	Sample No.: U-1	Test Date: 08/26/17	Test No.: IP-1
	Depth: 32-34 ft	Sample Type: intact	Elevation: ---
	Description: Wet, gray silty clay with sand		
	Remarks: System R& D, Swell Pressure = 0.0664 tsf		



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LONG-TERM POLLUTION PREVENTION PLAN AND STORMWATER OPERATION AND MAINTENANCE PLAN

144 Addison Street, East Boston, MA

TABLE OF CONTENTS

1.0	INTRODUCTION	1
2.0	LONG-TERM POLLUTION PREVENTION PLAN	2
2.1	Storage of Hazardous Materials	2
2.2	Storage of Waste Products	2
2.3	Spill Prevention and Response	2
2.4	Minimize Soil Erosion	2
2.5	Vehicle Washing	3
2.6	Maintenance of Lawns, Gardens, and other Landscaped Areas	3
2.7	Management of Deicing Chemicals and Snow	3
2.8	Coordination with other Permits and Requirements	3
3.0	STORMWATER MANAGEMENT SYSTEM OPERATION AND MAINTENANCE PLAN	4
3.1	Introduction	4
3.2	Stormwater Operation and Maintenance Requirements	4
	Area Drains	4
	Water Quality Units (Proprietary Separators)	4
	Infiltration Basins	5
3.3	Street Sweeping	5
3.4	Repair of the Stormwater Management System	5
3.5	Reporting	5
	STORMWATER MANAGEMENT SYSTEM INSPECTION FORM.....	6

1.0 INTRODUCTION

The purpose of this document is to specify the pollution prevention measures and stormwater management system operation and maintenance for the 144 Addison Street site. The Responsible Party indicated below shall implement the management practices outlined in this document and proactively conduct operations at the project site in an environmentally responsible manner. Compliance with this Manual does not in any way dismiss the responsible party, owner, property manager, or occupants from compliance with other applicable federal, state or local laws.

Responsible Party: 144 Addison Street, LLC
Damian Szary c/o Gate Residential Properties
265 Franklin Street
Boston, MA 02110

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

Standard 4:

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

- Good housekeeping
- Storing materials and waste products inside or under cover
- Vehicle washing
- Routine inspections of stormwater best management practices
- Spill prevention and response
- Maintenance of lawns, gardens, and other landscaped areas
- Pet waste management
- Operation and management of septic systems
- Proper management of deicing chemicals and snow

Standard 9:

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

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

2.0 LONG-TERM POLLUTION PREVENTION PLAN

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

2.1 Storage of Hazardous Materials

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

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

2.2 Storage of Waste Products

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

Segregate liquid wastes, including motor oil, antifreeze, solvents, and lubricants, from solid waste and recycle through hazardous waste disposal companies, whenever possible. Separate oil filters, batteries, tires, and metal filings from grinding and polishing metal parts from common trash items and recycle. These items are not trash and are illegal to dump. Contact a hazardous waste hauler for proper disposal to a hazardous waste collection center.

2.3 Spill Prevention and Response

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

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

2.4 Minimize Soil Erosion

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

2.5 Vehicle Washing

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

2.6 Maintenance of Lawns, Gardens, and other Landscaped Areas

Pesticides and fertilizers shall not be used in the landscaped areas associated with the project site and shall not be stored on-site. Dumping of lawn wastes, brush or leaves or other materials or debris is not permitted in any Resource Area. Grass clippings, pruned branches and any other landscaped waste should be disposed of or composted in an appropriate location.

2.7 Management of Deicing Chemicals and Snow

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

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

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

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

2.8 Coordination with other Permits and Requirements

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

3.0 STORMWATER MANAGEMENT SYSTEM OPERATION AND MAINTENANCE PLAN

3.1 Introduction

This Operation and Maintenance Plan (O&M Plan) for 144 Addison Street site is required under Standard 9 of the 2008 MassDEP Stormwater Handbook to provide best management practices for implementing maintenance activities for the stormwater management system in a manner that minimizes impacts to wetland resource areas.

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

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

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

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

3.2 Stormwater Operation and Maintenance Requirements

Inspect and maintain the stormwater management system as directed below. Repairs to any component of the system shall be made as soon as possible to prevent any potential pollutants (including silt) from entering the resource areas.

Area Drains

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

Water Quality Units (Proprietary Separators)

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

- Inspect units following completion of construction, prior to being put into service.
- Inspect units at least twice per year following installation and no less than once per year thereafter.
- Inspect units immediately after any oil, fuel or chemical spill.

- All inspections shall include checking the oil level and sediment depth in the unit. Removal of sediments/oils shall occur per manufacturer recommendations.
- A licensed waste management company shall remove captured petroleum waste products from any oil, chemical or fuel spills and dispose.
- OSHA confined space entry protocols shall be followed if entry into the unit is required.

Infiltration Basins

The infiltration basins shall be inspected and maintained after major storm events (rainfall totals greater than 2.5 inches in 24 hours) during the first three months of operation and twice a year and when there are discharges through the outlet control structure thereafter. Additionally, all pretreatment BMPs shall be inspected in accordance with the minimal requirements specified for those practices and after all major storm events. Inspections shall include the following measures:

- During and after major storm events, the length of time standing water remains in the basin shall be recorded.
 - If the time is greater than 72 hours, thoroughly inspect the basin for signs of clogging.
 - A corrective action plan shall be developed by a qualified professional to restore infiltrative function. The Site Owner shall take immediate action to implement these corrective measures.
- Examine the outlet structure for evidence of clogging or outflow release velocities that are greater than the design velocity.
- Identify areas of sediment accumulation, differential settlement, cracking, and erosion within the basin.
- Inspect embankments for leakage and tree growth.
- Examine the health of the vegetation within the basin and on the embankments.

Corrective measures shall be taken immediately as warranted by the inspections. If any evidence of hydrocarbons is found during inspection, the material shall be immediately removed using absorbent pads or other suitable measures and legally disposed.

Preventative maintenance shall include the following activities:

- Mow the buffer area and basin bottom and side slopes, if vegetated.
- Remove trash, debris, and accumulated sediment that may clog the system.

3.3 Street Sweeping

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

3.4 Repair of the Stormwater Management System

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

3.5 Reporting

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

STORMWATER MANAGEMENT SYSTEM INSPECTION FORM

144 Addison Street East Boston, MA		Inspected by: _____ Date: _____
Component	Status/Inspection	Action Taken
Deep Sump Catch Basins, Area Drains and Drain Manholes		
Water Quality Units		
Subsurface Infiltration System		
General site conditions – evidence of erosion, etc.		

SUBMIT COPIES OF STORMWATER MANAGEMENT SYSTEM INSPECTION FORM TO THE BOSTON CONSERVATION COMMISSIONS WITH THE YEARLY REPORT.



Date: October 12, 2022

To: Nicholas Moreno, City of Boston Conservation Commission

From: Molly Kelly, 144 Addison Street LLC

RE: Conservation Commission Order of Conditions No. 006-1613

Dear Nicholas Moreno,

I am writing to confirm the following conditions listed below as stated in the original Order of Conditions issued in November 2018 and extended in March 2020 have been complied with by 144 Addison Street LLC as the owner.

Condition 19c ii, 19e, 19f, 19g, and 26) 144 Addison Street LLC accepts responsibility of the ongoing maintenance and operation of the stormwater BMPs in accordance with the Order of Conditions. We have notified our on-site Property Manager of their ongoing responsibility in this regard to operate and maintain the stormwater management BMPs, implement the Stormwater Pollution Prevention Plan, and maintain an operation and maintenance log.

Condition 19h) 144 Addison Street LLC accepts responsibility to ensure that all sediment or other contaminants removed from stormwater BMPs shall be disposed of in accordance with applicable federal, state, and local laws and regulations.

Conditions 19i) 144 Addison Street LLC accepts responsibility to prevent illicit discharges to the stormwater management system.

Condition 19j) 144 Addison Street LLC commits to obtain the prior written approval of the issuing authority if there are any changes needed for the stormwater management system approved in the Order of Conditions.

Condition 26) 144 Addison Street LLC has assigned responsibility to the Property Manager for maintaining all on-site drainage structures and outfalls to prevent detrimental impact to the on-site and/or off-site wetland resource areas. The Property Manager will clean and maintain the drainage structures on-site regularly.

Condition 46) 144 Addison Street LLC has assigned responsibility for debris removal on wetland resource areas of the site to the on-site Property Manager. They will regularly remove debris as part of ongoing maintenance operations.

Condition 51) 144 Addison Street LLC has assigned responsibility to the Property Manager for the inspection and cleaning of catch basins on the 144 Addison Street property. They are aware that inspections must occur twice a year: once between March 1st and April 30th and once between November 1st and November 30th of each year, and more often if necessary.

Condition 52) 144 Addison Street LLC commits to provide the Commission with copies of the Operations and Maintenance Log for all stormwater BMP's on the subject site yearly, for a minimum of three years after completion of construction. The property manager will specify dates of inspections, repairs, replacement, maintenance and cleaning actions, and names of individuals or contractors conducting said maintenance.

Condition 64) 144 Addison Street LLC assigns responsibility to the Property Manager to ensure no dumping of leaves, grass clippings, brush, fill or other debris into wetland resource areas to comply with the conditions and the Massachusetts Wetlands Protection Act.

The following conditions are not applicable, as the Order did not constitute an Amended Order of Conditions, no changes to the plans were made to require a new Notice of Intent, Redgate did not seek the Low Impact Design credit, and no external trash receptacles or wetland boundary markers were installed or required on-site at 144 Addison Street:

Condition 6) If this Order constitutes an Amended Order of Conditions, this Amended Order of Conditions does not exceed the issuance date of the original Final Order of Conditions.

Condition 14) Any change to the plans identified in Condition #13 above (any plans or special conditions referenced in the Order) shall require the applicant to inquire of the Conservation Commission in writing whether the change is significant enough to require the filing of a new Notice of Intent.

Condition 17) Once in place, the wetland boundary markers shall be maintained until a Certificate of Compliance has been issued by the Conservation Commission

Condition 19k) Areas designated as qualifying pervious areas for the purpose of the Low Impact Site Design Credit shall not be altered without the prior written approval of the issuing authority.

Condition 67) Exterior trash receptacles must be secured to the ground and must be covered or designed to prevent pollution of adjacent resource areas by vandalism or wind-blown litter. Trash receptacles will be emptied daily from Memorial Day to Columbus Day, and at least weekly during all other months.

Yours sincerely,
144 ADDISON STREET LLC

By: Gate Residential, a Redgate Company, its sole member

By: 

Molly Kelly
Senior Project Manager

Condition #55: BWSC Plaque Photo

Special Condition 64:

Any new or reconstructed catch basins, or any new or replaced sections of sidewalk or pavement adjacent to surface drains on the project site, must have a permanent plaque within one foot of the structure that states "Don't Dump - Drains to Boston Harbor."



ABUTTER MAILING LIST GENERATOR

Search for an address or enter a parcel ID below.

ADDRESS SEARCH

PARCEL SEARCH

SEARCH

SELECTED PARCEL

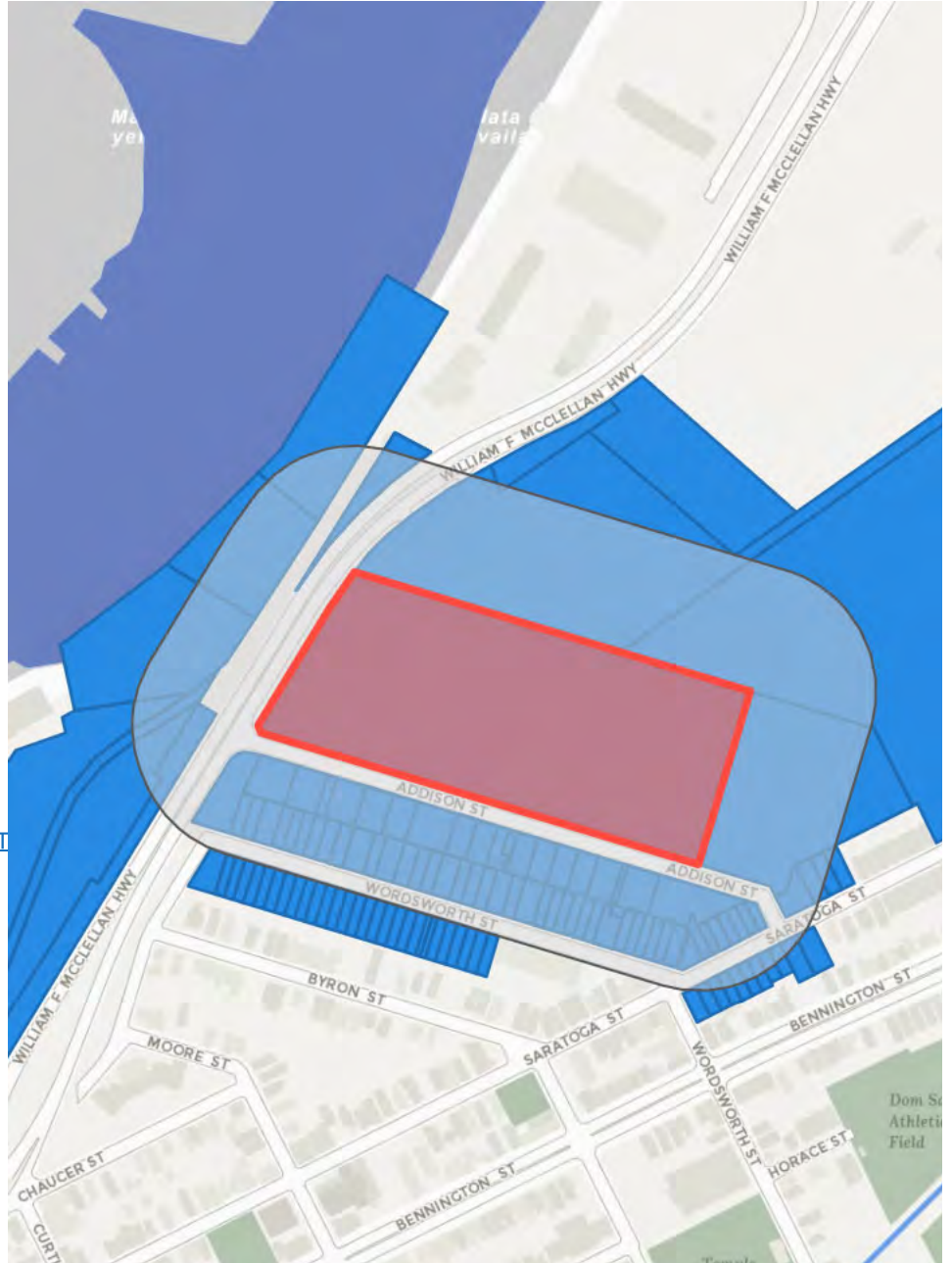
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Enter a buffer distance and a the mailing list csv will appear below.

BUFFER DISTANCE (FEET)

BUFFER PARCEL

[DOWNLOAD THE DATA](#)



Abutter Notification List

Name1	Name2	Address1	City	State	Zip
125 ADDISON STREET LLC		63 G ST	SOUTH BOSTON	MA	02127
144 ADDISON STREET LLC	C/O GATE RESIDENTIAL	265 FRANKLIN ST	BOSTON	MA	02110
22 JEROME STREET LLC		264 SALEM ST	MEDFORD	MA	02155
22 WADSWORTH LLC		295 COMMONWEALTH AVE	BOSTON	MA	02115
3B REAL ESTATE LLC		9 CRESCENT ST	WINTHROP	MA	02152
3B REAL ESTATE LLC MASS LLC		9 CRESCENT ST	WINTHROP	MA	02152
3B REAL ESTATE LLC MASS LLC		9 CRESCENT ST	WINTHROP	MA	02152
7 WORDSWORTH STREET LLC		47 ELECTRIC AVE, UNIT 1	SOMERVILLE	MA	02143
70 WORDSWORTH STREET CONDOMINIUM TRUST		36 BROMFIELD ST	BOSTON	MA	02109
815 SARATOGA SERIES UNDER		7 TOMAH DRIVE	PEABODY	MA	01960
816 SARATOGA STREET CONDOMINIUM TRUST		65 MARGIN STREET	PEABODY	MA	01960
82-84 WORDSWORTH STREET		82-84 WORDSWORTH ST	EAST BOSTON	MA	02128
86 WORDSWORTH STREET REALTY TRUST		86 WORDSWORTH ST	EAST BOSTON	MA	02128
ADDISON REALTY LLC	C/O VY HUYNH	PO BOX 320602	WEST ROXBURY	MA	02132
ALESSI MICHAEL C TS	C/O MICHAEL ALESSI TS	14 VISTA AV	SALEM	MA	01970
ARNO JOHN		816 SARATOGA ST, UNIT 2	EAST BOSTON	MA	02128
BAKOS ALEXANDER J		78 GASTON ST	MEDFORD	MA	02155
BARRERA BONIFACIO		819 SARATOGA ST	E BOSTON	MA	02128
BARRY JOSEPH T		141 ADDISON ST	EAST BOSTON	MA	02128
BARRY JOSEPH T	C/O EASTERN DECORATORS	143 ADDISON ST	EAST BOSTON	MA	02128
BASSETT PETER J GP	C/O PETER J BASSETT G.P.	555 PLEASANT ST STE 201	ATTLEBORO	MA	02703
BEHKAMI NIMA A		48 WORDSWORTH ST	EAST BOSTON	MA	02128
BRANDYWYNE VILLAGE CO	C/O FIRST REALTY MNGT CORP	151 TREMONT ST	BOSTON	MA	02111
BRENNAN THOMAS W		24 WORDSWORTH ST	EAST BOSTON	MA	02128
BROWN CARLOS-LUIS		62 WORDSWORTH ST	EAST BOSTON	MA	02128
BULGROUP COLORADO LLC	C/O JOSE GONZALEZ CFO	610 WEST 26TH ST 9TH FL SUITE 910	NEW YORK	NY	10001
BUONOPANE CARMINE		46 WORDSWORTH ST	EAST BOSTON	MA	02128
CAMERANO PAUL		17 WORDSWORTH ST	EAST BOSTON	MA	02128
CAMILLERI PATRICIA E		29 WORDSWORTH ST	EAST BOSTON	MA	02128
CAPOZZI CLAIRE		87 ADDISON ST #1	EAST BOSTON	MA	02128
CHINAFAT THERESA		33 WORDSWORTH ST	E BOSTON	MA	02128
CHRISTMAS AND DUNNE LLC	C/O JOHN BAKOS	55 GREENDALE DR	SUFFIELD	CT	06078
CIAMPA JOSEPH A		80 WORDSWORTH	EAST BOSTON	MA	02128
CITY OF BOSTON		5 MILANO DR	SOUGUS	MA	01906
CLEAR CHANNEL OUTDOOR INC (LESSEE)		89 MAPLE ST	STONEHAM	MA	02180
COMMONWEALTH OF MASS		20 SOMERSET ST	BOSTON	MA	02108
CONTRERAS BEATRIZ		35 WORDSWORTH ST	EAST BOSTON	MA	02128
CONTRERAS JAEN		831 SARATOGA ST	EAST BOSTON	MA	02128
CUBE SMART LP		P.O. BOX 320099	ALEXANDRIA	VA	22320
DANIELS FRANCIS R	C/O WILLIAM DESIMONE	121 WHITMAN AV	MELROSE	MA	02176
DCM REALTY LLC		25 RENEE DR	WAKEFIELD	MA	01880
DCM REALTY LLC		25 RENEE DR	WAKFIELD	MA	01880
DEFREITAS ILDA C		87 ADDISON ST #2	EAST BOSTON	MA	02128
DEFREITAS WAGNER M		72 GORE RD, UNIT 1	REVERE	MA	02151
DESIMONE STEPHEN T TRSTS		68 HIGH ST	NEWBURYPORT	MA	01950
DESI'S AUTOBODY (LESSEE)	C/O STEPHEN DESIMONE	68 HIGH ST	NEWBURYPORT	MA	01950

DI LEO MARIO P TS		31 WORDSWORTH ST	EAST BOSTON	MA	02128
DICESARE MARIE TS	C/O MARIE DICESARE	12 WORDSWORTH ST	EAST BOSTON	MA	02128
DICHIARO ANTHONY C		92- 94 WORDSWORTH ST	EAST BOSTON	MA	02128
DICHIARO ANTHONY C		92 WORDSWORTH ST	EAST BOSTON	MA	02128
DIPERRI CHARLES J JR		23 WORDSWORTH ST	EAST BOSTON	MA	02128
DISTEFANO ROBERT J	C/O ERIC R DANILCHUK	73 ADDISON ST	EAST BOSTON	MA	02128
DOUBLEEE PROPERTIES LLC		73 ADDISON ST	EAST BOSTON	MA	02128
DRAGO LUCILLE A		58 WORDSWORTH ST	EAST BOSTON	MA	02128
E B C D C INC		72 MARGINAL ST	EAST BOSTON	MA	02128
EAST BOSTON AOP LLC		72 MARGINAL ST	EAST BOSTON	MA	02128
EAST BOSTON AOP LLC	C/O EBCDC INC	72 MARGINAL ST	EAST BOSTON	MA	02128
EAST BOSTON NEIGHBORHOOD		155 ADDISON ST	EAST BOSTON	MA	02128
EBCDC INC		72 MARGINAL ST	EAST BOSTON	MA	02128
EIGHT-09 SARATOGA LLC	BROOK PROPERTY MANAGEMENT	193 HARVARD ST	BROOKLINE	MA	02446
EIGHTY 7 ADDISON STREET		87 ADDISON ST	EAST BOSTON	MA	02128
EPIFANIA MARIA		10 WORDSWORTH ST	EAST BOSTON	MA	02128
ESCOBAR JIM LOPEZ		74 WORDSWORTH ST	EAST BOSTON	MA	02128
EVANGELISTA THOMAS W		88 WORDSWORTH ST	EAST BOSTON	MA	02128
FITZGERALD EDWARD L	C/O EDWARD FITZGERALD	131 ADDISON ST	EAST BOSTON	MA	02128
FITZGERALD JOHN TS	C/O DARLENE FITZGERALD	95 ADDISON ST	E BOSTON	MA	02128
FIUMARA DENISE		1 CANDLEWOOD CT	SAUGUS	MA	01906
FIUMARA DENISE		53 WORDSWORTH ST	EAST BOSTON	MA	02128
FIUMARA DENISE		1 CANDLEWOOD CT	SAUGUS	MA	01906
FORBES ANTHONY P	C/O ANTHONY FORBES	56 WORDSWORTH ST	EAST BOSTON	MA	02128
GIGLIO MARIA C	C/O MARIA C CARRANZA	97 TAFT ST	REVERE	MA	02151
GILLIAN BUNSHAFT ANDERSON TRUST	C/O GILLIAN B ANDERSON	PO BOX 443	EAST BOSTON	MA	02128
GILLIGAN MICHAEL A	C/O MAUREEN GILLIGAN	78 WORDSWORTH ST	EAST BOSTON	MA	02128
GOMES FRANCIS JAQUELINE P	C/O FRANCIS GOMES	117 ADDISON ST	EAST BOSTON	MA	02128
GRAZIANO GIOVANNI		42 WORDSWORTH	EAST BOSTON	MA	02128
GRAZIANO JOHN		42 WORDSWORTH	EAST BOSTON	MA	02128
HEATHERWICK CARRIE		84 WORDSWORTH ST #2	EAST BOSTON	MA	02128
HERNANDEZ JUAN A	C/O JUAN HERNANDEZ	11 WORDSWORTH ST	EAST BOSTON	MA	02128
HERRERA NELSON E		814 SARATOGA ST	EAST BOSTON	MA	02128
HORIZON/MCCLELLAN LLC MASS LLC	C/O KIM ABOULHOSN	1441 BRICKELL AVE STE #1012	MIAMI	FL	33131
IGOE JOHN J		60 WORDSWORTH ST	E BOSTON	MA	02128
IKOS REALTY LLC		49 LAIGHTON ST, UNIT APT 3	LYNN	MA	01902
INSLEY CORRINE		10 HUTCHINSON ST	WINTHROP	MA	02152
INTNATL ASSOC MACHINISTS		830 SARATOGA	EAST BOSTON	MA	02128
JIMENEZ EVELYN M		820 SARATOGA ST	EAST BOSTON	MA	02128
LAURO MATTHEW P		82 WORDSWORTH ST #1	EAST BOSTON	MA	02128
LEONE FRANK A		54 WORDSWORTH ST	EAST BOSTON	MA	02128
LIN HSUAN KUANG		28 WORDSWORTH ST, UNIT 2	EAST BOSTON	MA	02128
MACEDO REGINALDO A		115 ADDISON ST #1	EAST BOSTON	MA	02128
MAGGIORE MATTHEW J		70 WORDSWORTH ST, UNIT 2	EAST BOSTON	MA	02128
MANFRA ERNEST E		4 JEFFERSON DR	REVERE	MA	02151
MARTELLI MARIO A TS		20 WORDSWORTH	EAST BOSTON	MA	02128
MASS DEPT OF TRANSPORTATION		10 PARK PLAZA	BOSTON	MA	02116

MASSACHUSETTS BAY		WM F MCLELLAN HW	EAST BOSTON	MA	02128
MAYA CECILIA		804-808 SARATOGA ST	EAST BOSTON	MA	02128
MAYA CECILIA		804-808 SARATOGA ST	EAST BOSTON	MA	02128
MAYA CECILIA		96 WORDSWORTH ST	EAST BOSTON	MA	02128
MCGUIRE GEORGE		45 WORDSWORTH ST	EAST BOSTON	MA	02128
MCGUIRE GEORGE		45 WORDSWORTH ST	EAST BOSTON	MA	02128
MCLELLAN HIGHWAY LLC		1000 MARKET ST BLDG #1	PORTSMOUTH	NH	03801
MCNAMEE JOSEPH P		23 BAYSWATER ST	EAST BOSTON	MA	02128
MENDOZA CARLOS V	C/O CARLOS MENDOZA	15 WORDSWORTH ST	EAST BOSTON	MA	02128
MESA PEDRO		822 SARATOGA ST	EAST BOSTON	MA	02128
MESA PEDRO		822 SARATOGA ST	EAST BOSTON	MA	02128
MESSINA GABRIELLA		70 WORDSWORTH ST, UNIT 3	EAST BOSTON	MA	02128
MINICHELLO ANDREW J		52 WORDSWORTH ST	EAST BOSTON	MA	02128
NOBLE TONI M		90 WORDSWORTH ST	EAST BOSTON	MA	02128
NOSIDDA73 LLC		73 ADDISON ST	EAST BOSTON	MA	02128
NOSIDDA7981 LLC		73 ADDISON ST	E BOSTON	MA	02128
NOSIDDA85 LLC		73 ADDISON ST	EAST BOSTON	MA	02128
ODOARDI MICHAEL	C/O MICHAEL A ODOARDI	55 WORDSWORTH ST #2	EAST BOSTON	MA	02128
ONE 13-115 ADDISON ST CONDO	C/O NEFFO T CAPPUCCIO TS	113 ADDISON ST	EAST BOSTON	MA	02128
OSORNO LUIS ALBERTO	C/O LUIS A OSDINO	25 WORDSWORTH ST	E BOSTON	MA	02128
PATEL NEAL		816 SARATOGA ST, UNIT 1	EAST BOSTON	MA	02128
PEREANEZ ELKIN		827 SARATOGA ST	EAST BOSTON	MA	02128
PERROTTA LAWRENCE E		842 SARATOGA ST	EAST BOSTON	MA	02128
PERROTTA LAWRENCE E		842 SARATOGA ST	EAST BOSTON	MA	02128
PICCA PROPERTIES LLC		7 TOMAH DR	PEABODY	MA	01960
PONITZ GEOFFREY C	LAURA E WOLFRAM	113 ADDISON ST #2	EAST BOSTON	MA	02128
RAMOS JOSE A		9 WORDSWORTH ST	E BOSTON	MA	02128
RICUPERO JOSEPH M		1216 BENNINGTON ST	E BOSTON	MA	02128
ROBERTO LOUIE TS	C/O RITA M ROBERTO TS	282 BENNINGTON STREET	EAST BOSTON	MA	02128
ROBERTO LOUIE TS	C/O RITA M ROBERTO	282 BENNINGTON STREET	EAST BOSTON	MA	02128
ROCHE BRIANNA J		18 WORDSWORTH ST	EAST BOSTON	MA	02128
RODRIGUES BROLIN		28 WORDSWORTH ST, UNIT 1	EAST BOSTON	MA	02128
SANTINI MICHAEL A		70 WORDSWORTH ST, UNIT 1	EAST BOSTON	MA	02128
SCARAMOZZA MARYANN		135 ADDISON ST	EAST BOSTON	MA	02128
SLUMBER TIME LLC	ATT: LISA ADE	1000 MARKET ST BLDG #1	PORTSMOUTH	NH	03801
SLUMBER TIME LLC	C/O SLUMBER TIME LLC/LISA ADE	1000 MARKET ST BLDG ONE	PORTSMOUTH	NH	03801
SUMMA ROBERT P		821 SARATOGA ST	EAST BOSTON	MA	02128
VARGAS JESUS J		16 WORDSWORTH ST	E BOSTON	MA	02128
VAZ IAN		30 WORDSWORTH ST	EAST BOSTON	MA	02128
VELEZ LINA MARIA		829 SARATOGA ST #1	EAST BOSTON	MA	02128
VERRO CARL J		834 SARATOGA ST	EAST BOSTON	MA	02128
VITIELLO CARMEN ETAL		21 WORDSWORTH	EAST BOSTON	MA	02128
WEISSE MATTHEW		28 WORDSWORTH ST, UNIT 3	EAST BOSTON	MA	02128
WEISSE MATTHEW		28 WORDSWORTH ST, UNIT 3	EAST BOSTON	MA	02128
WORDSWORTH STREET LLC	C/O LANGER & AMP, MCLAUGHLIN LL	535 BOYLSTON ST 3RD FLOOR	BOSTON	MA	02116
WORDSWORTH VENTURES LLC		519 SOMERVILLE AVE, UNIT 237	SOMERVILLE	MA	02143



City of Boston
Environment



CITY of **BOSTON**
Conservation Commission


**AFFIDAVIT OF SERVICE
FOR ABUTTER NOTIFICATION**

**Under the Massachusetts Wetlands Protection Act
and Boston Wetlands Ordinance**

I, _____, hereby certify under pains and penalties of perjury that that at least one week prior to the public hearing, I gave notice 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 _____ was filed under the Massachusetts Wetlands Protection Act and/or the Boston Wetlands Ordinance by _____ for _____ located at _____.

The Abutter Notification For, the list of abutters to whom it was given, and their addresses are attached to this Affidavit of Service.



Name

Date



BABEL NOTICE

English:

IMPORTANT! This document or application contains **important information** about your rights, responsibilities and/or benefits. It is crucial that you understand the information in this document and/or application, and we will provide the information in your preferred language at no cost to you. If you need them, please contact us at cc@boston.gov or 617-635-3850.

Spanish:

¡IMPORTANTE! Este documento o solicitud contiene **información importante** sobre sus derechos, responsabilidades y/o beneficios. Es fundamental que usted entienda la información contenida en este documento y/o solicitud, y le proporcionaremos la información en su idioma preferido sin costo alguno para usted. Si los necesita, póngase en contacto con nosotros en el correo electrónico cc@boston.gov o llamando al 617-635-3850.

Haitian Creole:

AVI ENPÒTAN! Dokiman oubyen aplikasyon sa genyen **enfòmasyon ki enpòtan** konsènan dwa, responsablite, ak/oswa benefis ou yo. Li enpòtan ke ou konprann enfòmasyon ki nan dokiman ak/oubyen aplikasyon sa, e n ap bay enfòmasyon an nan lang ou prefere a, san ou pa peye anyen. Si w bezwen yo, tanpri kontakte nou nan cc@boston.gov oswa 617-635-3850.

Traditional Chinese:

非常重要！這份文件或是申請表格包含關於您的權利，責任，和／或福利的重要信息。請您務必完全理解這份文件或申請表格的全部信息，這對我們來說十分重要。我們會免費給您提供翻譯服務。如果您有需要請聯系我們的郵箱 cc@boston.gov 電話# 617-635-3850..

Vietnamese:

QUAN TRỌNG! Tài liệu hoặc đơn yêu cầu này chứa **thông tin quan trọng** về các quyền, trách nhiệm và/hoặc lợi ích của bạn. Việc bạn hiểu rõ thông tin trong tài liệu và/hoặc đơn yêu cầu này rất quan trọng, và chúng tôi sẽ cung cấp thông tin bằng ngôn ngữ bạn muốn mà không tính phí. Nếu quý vị cần những dịch vụ này, vui lòng liên lạc với chúng tôi theo địa chỉ cc@boston.gov hoặc số điện thoại 617-635-3850.

Simplified Chinese:

非常重要！这份文件或是申请表格包含关于您的权利，责任，和／或福利的重要信息。请您务必完全理解这份文件或申请表格的全部信息，这对我们来说十分重要。我们会免费给您提供翻译服务。如果您有需要请联联系我们的邮箱 cc@boston.gov 电话# 617-635-3850.

Cape Verdean Creole:

INPURTANTI! Es dukumentu ó aplikason ten **informason inpurtanti** sobri bu direitus, rasponsabilidadi i/ó benefisius. Ê krusial ki bu intendi informason na es dukumentu i/ó aplikason ó nu ta da informason na língua di bu preferênsia sen ninhun kustu pa bó. Si bu prisiza del, kontata-nu na cc@boston.gov ó 617-635-3850.

Arabic:

مهم! يحتوي هذا المستند أو التطبيق على معلومات مهمة حول حقوقك ومسؤولياتك أو فوائده. من الأهمية أن تفهم المعلومات الواردة في هذا المستند أو التطبيق. سوف نقدم المعلومات بلغتك المفضلة دون أي تكلفة عليك. إذا كنت في حاجة إليها، يرجى الاتصال بنا على

cc@boston.gov أو 617-635-3850.

Russian:

ВАЖНО! В этом документе или заявлении содержится **важная информация** о ваших правах, обязанностях и/или льготах. Для нас очень важно, чтобы вы понимали приведенную в этом документе и/или заявлении информацию, и мы готовы бесплатно предоставить вам информацию на предпочитаемом вами языке. Если Вам они нужны, просьба связаться с нами по адресу электронной почты cc@boston.gov, либо по телефону 617-635-3850.

Portuguese:

IMPORTANTE! Este documento ou aplicativo contém **Informações importantes** sobre os seus direitos, responsabilidades e/ou benefícios. É importante que você compreenda as informações contidas neste documento e/ou aplicativo, e nós iremos fornecer as informações em seu idioma de preferência sem nenhum custo para você. Se precisar deles, fale conosco: cc@boston.gov ou 617-635-3850.

French:

IMPORTANT ! Ce document ou cette demande contient des **informations importantes** concernant vos droits, responsabilités et/ou avantages. Il est essentiel que vous compreniez les informations contenues dans ce document et/ou cette demande, que nous pouvons vous communiquer gratuitement dans la langue de votre choix. Si vous en avez besoin, veuillez nous contacter à cc@boston.gov ou au 617-635-3850.





**NOTIFICATION TO ABUTTERS
BOSTON CONSERVATION COMMISSION**

In accordance with the Massachusetts Wetlands Protection Act, Massachusetts General Laws Chapter 131, Section 40, and the Boston Wetlands Ordinance, you are hereby notified as an abutter to a project filed with the Boston Conservation Commission.

A. _____ has filed a Certificate of Compliance with the Boston Conservation Commission after seeking permission to alter an Area Subject to Protection under the Wetlands Protection Act (General Laws Chapter 131, section 40) and Boston Wetlands Ordinance.

B. The address of the lot where the activity has completed is _____.

C. The project completed _____.

D. Copies of the Certificate of Compliance may be obtained by contacting the Boston Conservation Commission at CC@boston.gov.

E. Copies of the Certificate of Compliance may be obtained from _____ by contacting them at _____ between the hours of _____, _____.

F. In accordance with the Chapter 20 of the Acts of 2021, the public hearing will take place **virtually** at <https://zoom.us/j/6864582044>. If you are unable to access the internet, you can call 1-929-205-6099, enter Meeting ID 686 458 2044 # and use # as your participant ID.

G. Information regarding the date and time of the public hearing may be obtained from the **Boston Conservation Commission** by emailing CC@boston.gov or calling **(617) 635-3850** between the hours of **9 AM to 5 PM, Monday through Friday**.

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 on www.boston.gov/public-notices and in Boston City Hall not less than forty-eight (48) hours in advance. If you would like to provide comments, you may attend the public hearing or send written comments to CC@boston.gov or Boston City Hall, Environment Department, Room 709, 1 City Hall Square, Boston, MA 02201

NOTE: If you would like to provide comments, you may attend the public hearing or send written comments to CC@boston.gov or Boston City Hall, Environment Department, Room 709, 1 City Hall Square, Boston, MA 02201

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

NOTE: If you plan to attend the public hearing and are in need of interpretation, please notify staff at CC@boston.gov by 12 PM the day before the hearing.

NOTIFICACIÓN A LOS COLINDANTES

BOSTON CONSERVATION COMMISSION

De conformidad con la Ley de protección de los humedales de Massachusetts, el Capítulo 131, Sección 40 de las Leyes Generales de Massachusetts y la Ordenanza sobre los humedales de Boston, por la presente queda usted notificado como propietario o vecino colindante de un proyecto presentado ante la Comisión de Conservación de Boston.

A. 144 Addison Street LLC ha presentado una solicitud a la Comisión de Conservación de Boston pidiendo permiso para modificar una zona sujeta a protección en virtud de la Ley de protección de los humedales (Leyes generales, capítulo 131, sección 40) y la Ordenanza sobre los humedales de Boston.

B. La dirección del lote donde se propone la actividad es 144 Addison Street, East Boston 02128.

C. El proyecto consiste en construcción de dos edificios residenciales multifamiliares, un espacio verde de acceso público y otras mejoras paisajísticas.

D. Se pueden obtener copias del Aviso de Intención comunicándose con la Comisión de Conservación de Boston en CC@boston.gov.

E. Las copias de la notificación de intención pueden obtenerse en Fort Point Associates, Inc comunicándose con ellos al 617-279-4385 o bcullinan@fpa-inc.com de lunes a viernes entre las 9 AM y 5 PM.

F. De acuerdo con el Decreto Ejecutivo de la Mancomunidad de Massachusetts que suspende ciertas disposiciones de la Ley de reuniones abiertas, la audiencia pública se llevará a cabo **virtualmente** en <https://zoom.us/j/6864582044>. Si no puede acceder a Internet, puede llamar al 1-929-205-6099, ingresar ID de reunión 686 458 2044 # y usar # como su ID de participante.

G. La información relativa a la fecha y hora de la audiencia pública puede solicitarse a la **Comisión de Conservación de Boston** por correo electrónico a CC@boston.gov o llamando al (617) 635-4416 entre las **9 AM y las 5 PM, de lunes a viernes**.

NOTA: La notificación de la audiencia pública, incluida su fecha, hora y lugar, se publicará en el **Boston Herald** con al menos cinco (5) días de antelación.

NOTA: La notificación de la audiencia pública, incluida su fecha, hora y lugar, se publicará en www.boston.gov/public-notices y en el Ayuntamiento de Boston con no menos de cuarenta y ocho (48) horas de antelación. Si desea formular comentarios, puede asistir a la audiencia pública o enviarlos por escrito a CC@boston.gov o al Ayuntamiento de Boston, Departamento de Medio Ambiente, Sala 709, 1 City Hall Square, Boston, MA 02201.

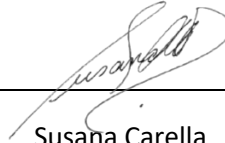
NOTA: También puede comunicarse con la Comisión de Conservación de Boston o con la Oficina Regional del Noreste del Departamento de Protección Ambiental para obtener más información sobre esta solicitud o la Ley de Protección de Humedales. Para comunicarse con el DEP, llame a la Región Noreste: (978) 694-3200.

NOTA: si tiene previsto asistir a la audiencia pública y necesita servicios de interpretación, sírvase informar al personal en CC@boston.gov antes de las 12 PM del día anterior a la audiencia.

CERTIFICATE OF TRANSLATION

I, Susana Carella, hereby certify that I am competent in both the Spanish and English languages, and that I translated the required information and read the attached document, Notification to Abutters Boston Conservation Commission into Spanish. And that is true and accurate to the best of my abilities.

Date: June 21, 2022



Susana Carella

27 Prescott Ave #1

Chelsea, MA 02150

+1(617) 851-3180

MEMORANDUM

TO: Boston Conservation Commission
FROM: Chris Hodney, PE
DATE: October 21, 2022
RE: DEP File # 006-1613 Statement Nitsch Project #12433

This document shall serve as the written statement accompanying WPA Form 8A – Request for Certificate of Compliance for 144 Addison Street in East Boston.

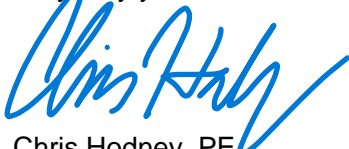
To the best of my knowledge, information and belief based on the standards of care of professional engineers practicing in the Commonwealth of Massachusetts, the work as described in the Order of Conditions File #006-1613 is completed in substantial conformance with the approved plans and in compliance with the Order of Conditions.

This certification is limited to the physical observable elements and by review of the applicable As-built Plans. I confirm the following requirements are met:

- Vegetation has germinated.
- The as-built construction plans are included, signed, and stamped by a Registered Professional Surveyor.
- There is no illicit discharge to the stormwater management system, as per the requirement of Stormwater Standard 10.
- The post-construction stormwater BMPs are installed in general conformance with the plans approved by the issuing authority and appear to be in proper working condition.
- An Operation and Maintenance Compliance Statement (O&M Statement) is provided in a separate document from the Owner.
- The O&M Plan included in the Notice of Intent will be implemented upon receipt of the Certificate of Compliance and is included here for reference.

If you have any questions or concerns, please call. I can also be reached at chodney@nitscheng.com.

Very truly yours,



Chris Hodney, PE
Project Manager

FELDMAN G E O S P A T I A L

BOSTON HEADQUARTERS 152 HAMPDEN STREET BOSTON, MA 02119 (617)357-9740
 WORCESTER OFFICE 27 MECHANIC STREET WORCESTER, MA 01608 www.feldmangeo.com

ADDRESS:

 144 ADDISON STREET
 BOSTON, MASS.

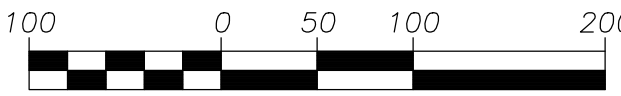
RESEARCH:	FIELD CHIEF: EC
PROJ MGR: JRZ	APPROVED:
CALC:	CADD: CEM
FIELD CHK:	CRD FILE: 2101180

REVISIONS:

DRAWING NAME:

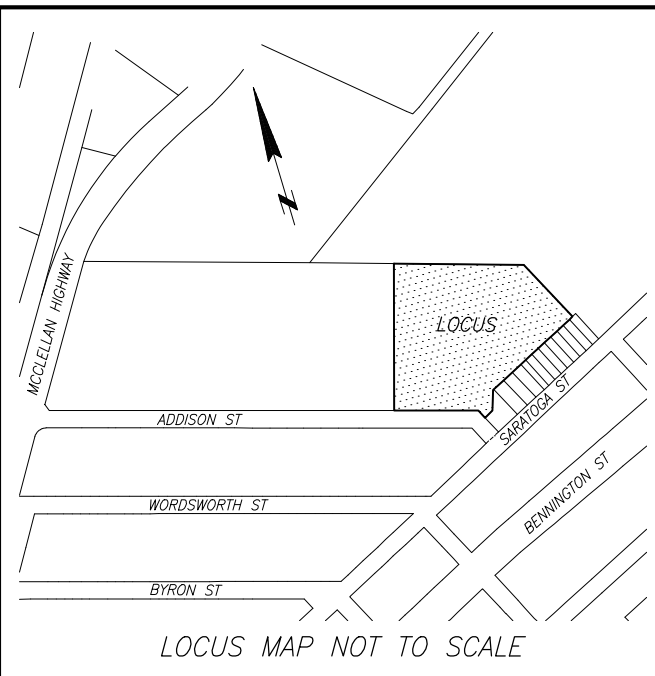
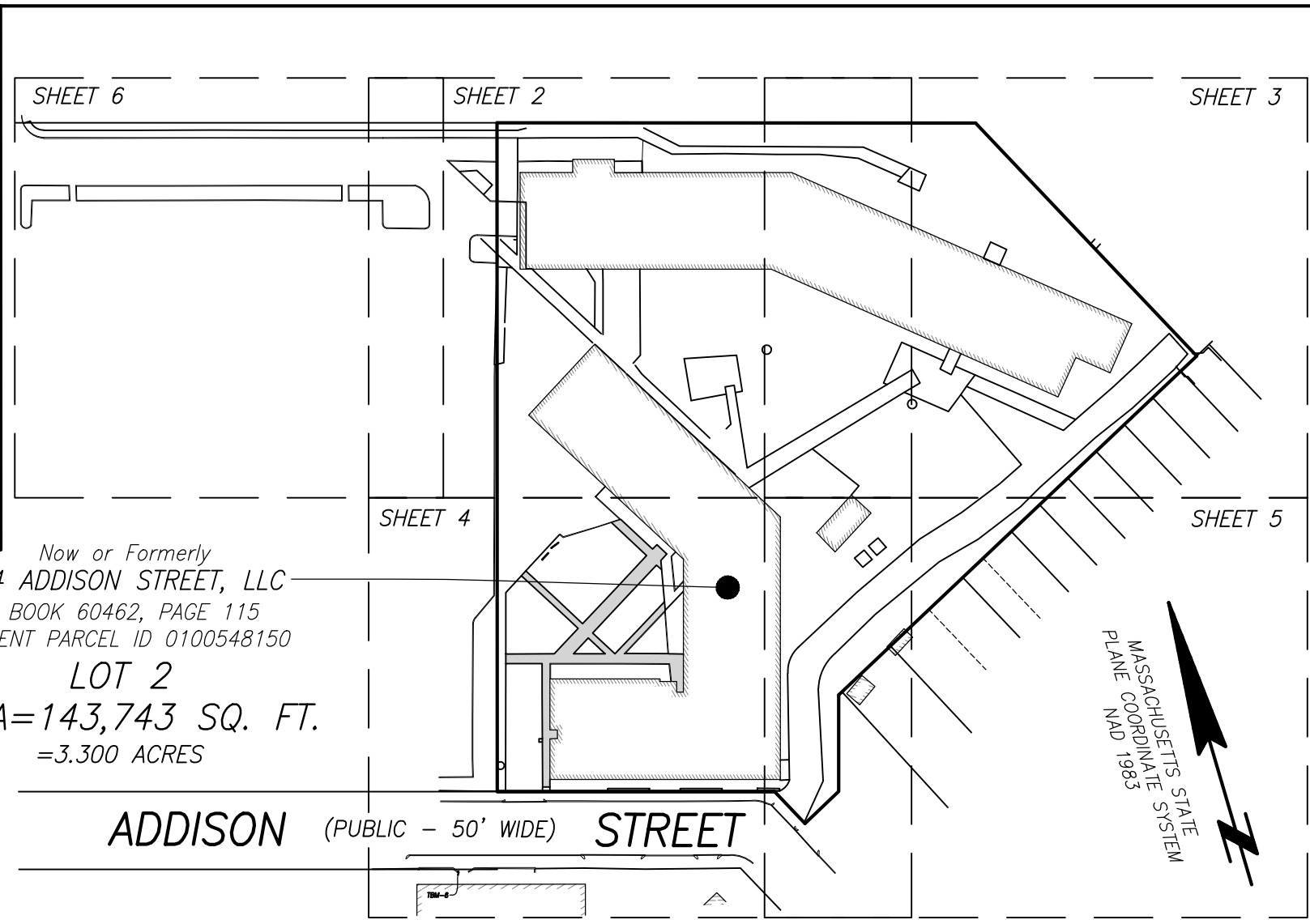
 AS-BUILT
 PLAN OF LAND
 KEY SHEET

DATE: APRIL 6, 2022



SCALE: 1"=100'

SHEET NO. 1 OF 6



Now or Formerly
 144 ADDISON STREET, LLC
 BOOK 60462, PAGE 115
 PARENT PARCEL ID 0100548150
 LOT 2
 AREA=143,743 SQ. FT.
 =3.300 ACRES

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

[Signature]
 TIMOTHY R. AGURKIS, PLS
 (MA# 52782)
 TAGURKIS@FELDMANGEO.COM

AUGUST 11, 2022
 DATE

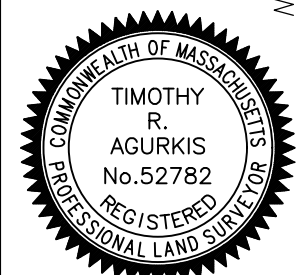


NOTES:

- BENCHMARK INFORMATION:**
 BENCHMARKS TAKEN FROM PLAN ENTITLED "GRID CONTROL PLAN WORKSHEET, 144 ADDISON STREET, BOSTON, MASS", DATED: MAY 14, 2020, BY FELDMAN LAND SURVEYORS. JOB NO. 17241.
 TBM-6: RIGHT OUTER CORNER LOWEST CONCRETE STEP AT #155 ADDISON STREET, 0.65' ABOVE GRADE. AS SHOWN HEREON, SEE SHEET 4. ELEVATION = 19.06
 TBM-7: RIGHT OUTER CORNER LOWEST CONCRETE STEP AT THE ENTRANCE TO PLANET FITNESS, 0.7' ABOVE GRADE. ELEVATION = 14.21
- ELEVATIONS REFER TO BOSTON CITY BASE (BCB).
- CONTOUR INTERVAL EQUALS ONE (1) FOOT.
- BY GRAPHIC PLOTTING ONLY, THE PARCEL SHOWN HEREON LIES WITHIN A ZONE "AE", BASE FLOOD ELEVATIONS DETERMINED, AND A ZONE "X" (UNSHADED), AN AREA OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOOD, 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.
- AS-BUILT UTILITY INFORMATION TAKEN FROM A PDF FILE ENTITLED "323000-14.2 ADDISON ST CIVIL_REVISD ASBUILT 11.1.21_REVIEWED" BY D&M CIVIL, AND RECEIVED FROM DELLBROOK | JKS.
- THIS DOCUMENT IS AN INSTRUMENT OF SERVICE OF FELDMAN GEOSPATIAL ISSUED TO OUR CLIENT FOR PURPOSES RELATED DIRECTLY AND SOLELY TO FELDMAN GEOSPATIAL'S SCOPE OF SERVICES UNDER CONTRACT TO OUR CLIENT FOR THIS PROJECT. ANY USE OR REUSE OF THIS DOCUMENT FOR ANY REASON BY ANY PARTY FOR PURPOSES UNRELATED DIRECTLY AND SOLELY TO SAID CONTRACT SHALL BE AT THE USER'S SOLE AND EXCLUSIVE RISK AND LIABILITY, INCLUDING LIABILITY FOR VIOLATION OF COPYRIGHT LAWS, UNLESS WRITTEN CONSENT IS PROVIDED BY FELDMAN GEOSPATIAL.

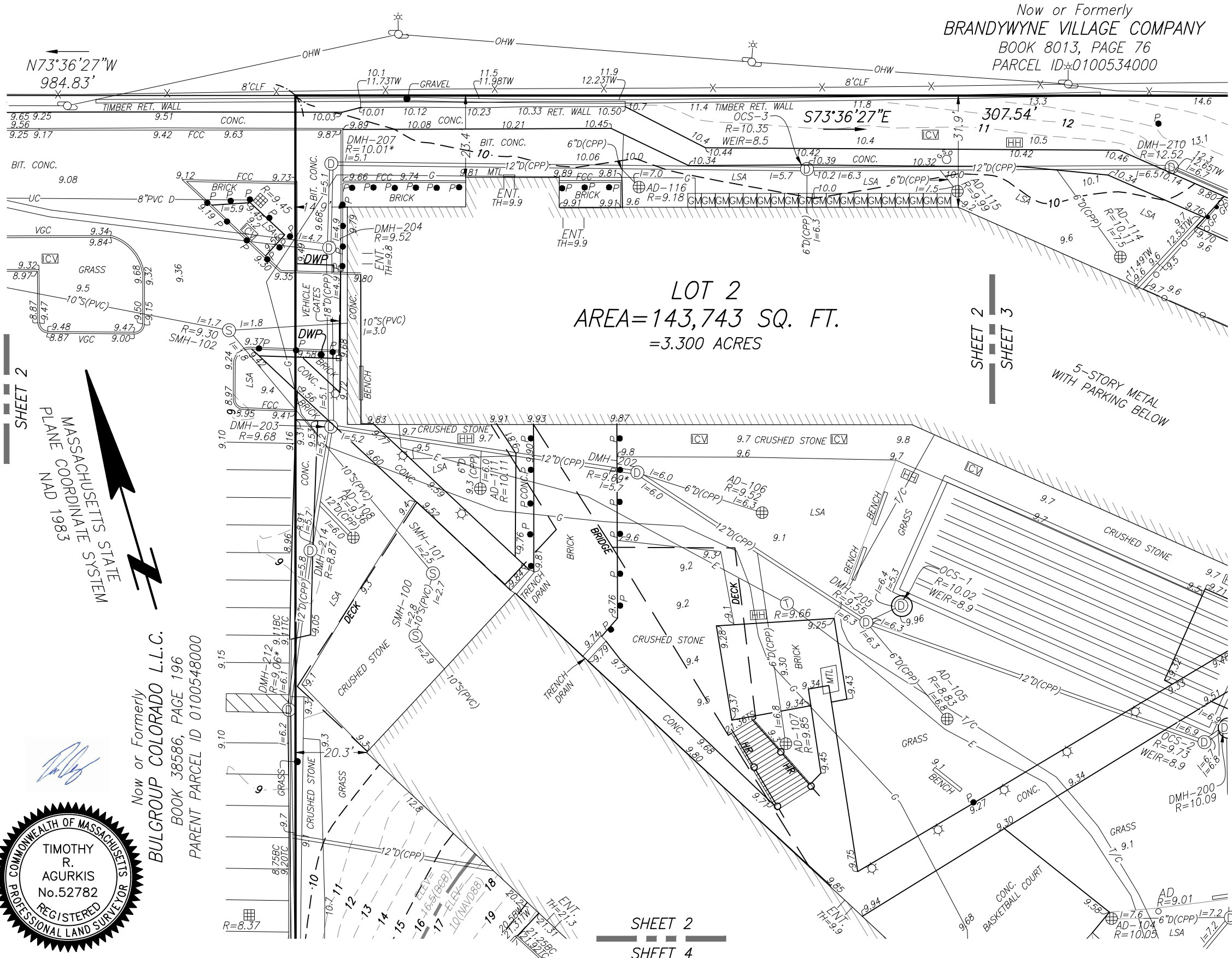
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Now or Formerly
BULGROUP COLORADO L.L.C.
 BOOK 38586, PAGE 196
 PARENT PARCEL ID 0100548000

SHEET 6
 SHEET 2
 MASSACHUSETTS STATE
 PLANE COORDINATE SYSTEM
 NAD 1983



Now or Formerly
BRANDYWYNE VILLAGE COMPANY
 BOOK 8013, PAGE 76
 PARCEL ID: 0100534000



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 BOSTON, MA 02119
 (617)357-9740

WORCESTER OFFICE
 27 MECHANIC STREET
 WORCESTER, MA 01608
 www.feldmangeo.com

ADDRESS:

144 ADDISON STREET
BOSTON, MASS.

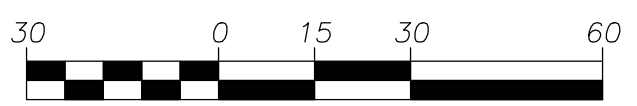
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PROJ MGR: JRZ	APPROVED:
CALC:	CADD: CEM
FIELD CHK:	CRD FILE: 2101180

REVISIONS:

DRAWING NAME:

AS-BUILT
PLAN OF LAND

DATE: APRIL 6, 2022

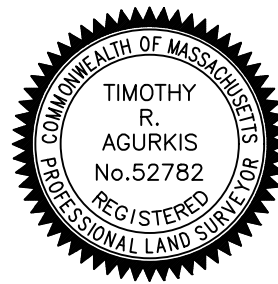


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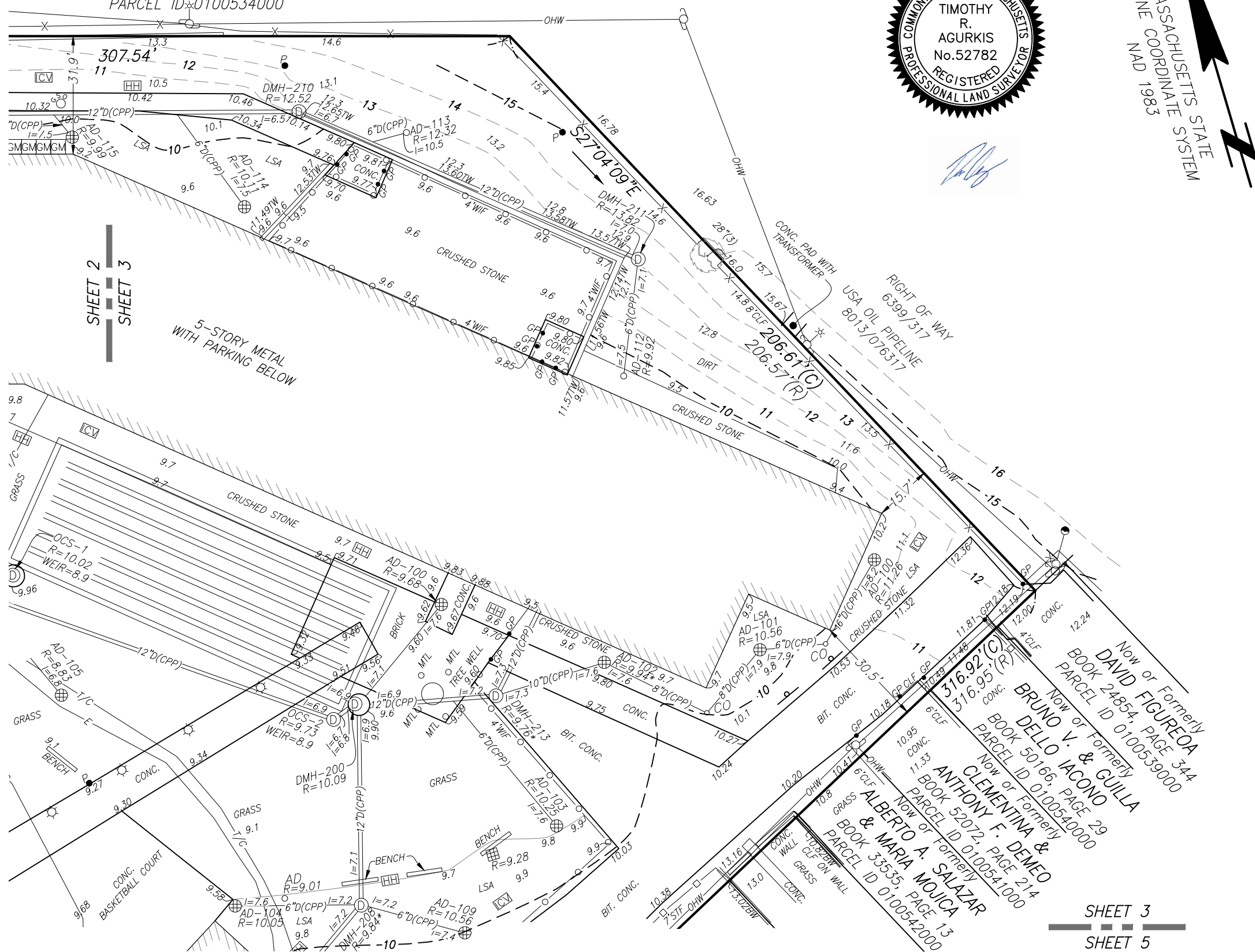
SHEET NO. 2 OF 6

SHEET 2
 SHEET 4

Now or Formerly
BRANDYWYNE VILLAGE COMPANY
 BOOK 8013, PAGE 76
 PARCEL ID: 0100534000



MASSACHUSETTS STATE
 PLANE COORDINATE SYSTEM
 NAD 1983



SHEET 2
 SHEET 3



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FIELD CHK:	CRD FILE: 2101180

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 PLAN OF LAND**

DATE: APRIL 6, 2022



SCALE: 1"=30'

SHEET NO. 3 OF 6

FILENAME: S:\PROJECTS\2021\2101180\DWG\2101180-AB.dwg

SHEET 3
 SHEET 5

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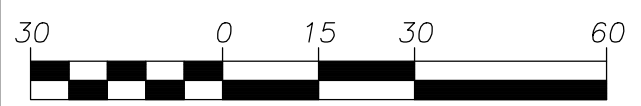
RESEARCH:	FIELD CHIEF: EC
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CALC:	CADD: CEM
FIELD CHK:	CRD FILE: 2101180

REVISIONS:

DRAWING NAME:

**AS-BUILT
PLAN OF LAND**

DATE: APRIL 6, 2022

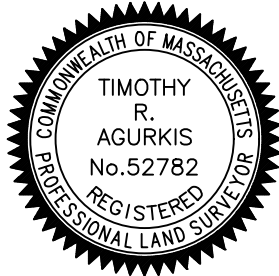


SCALE: 1"=30'

SHEET NO. 4 OF 6

SHEET 2
SHEET 4

MASSACHUSETTS STATE
PLANE COORDINATE SYSTEM
NAD 1983

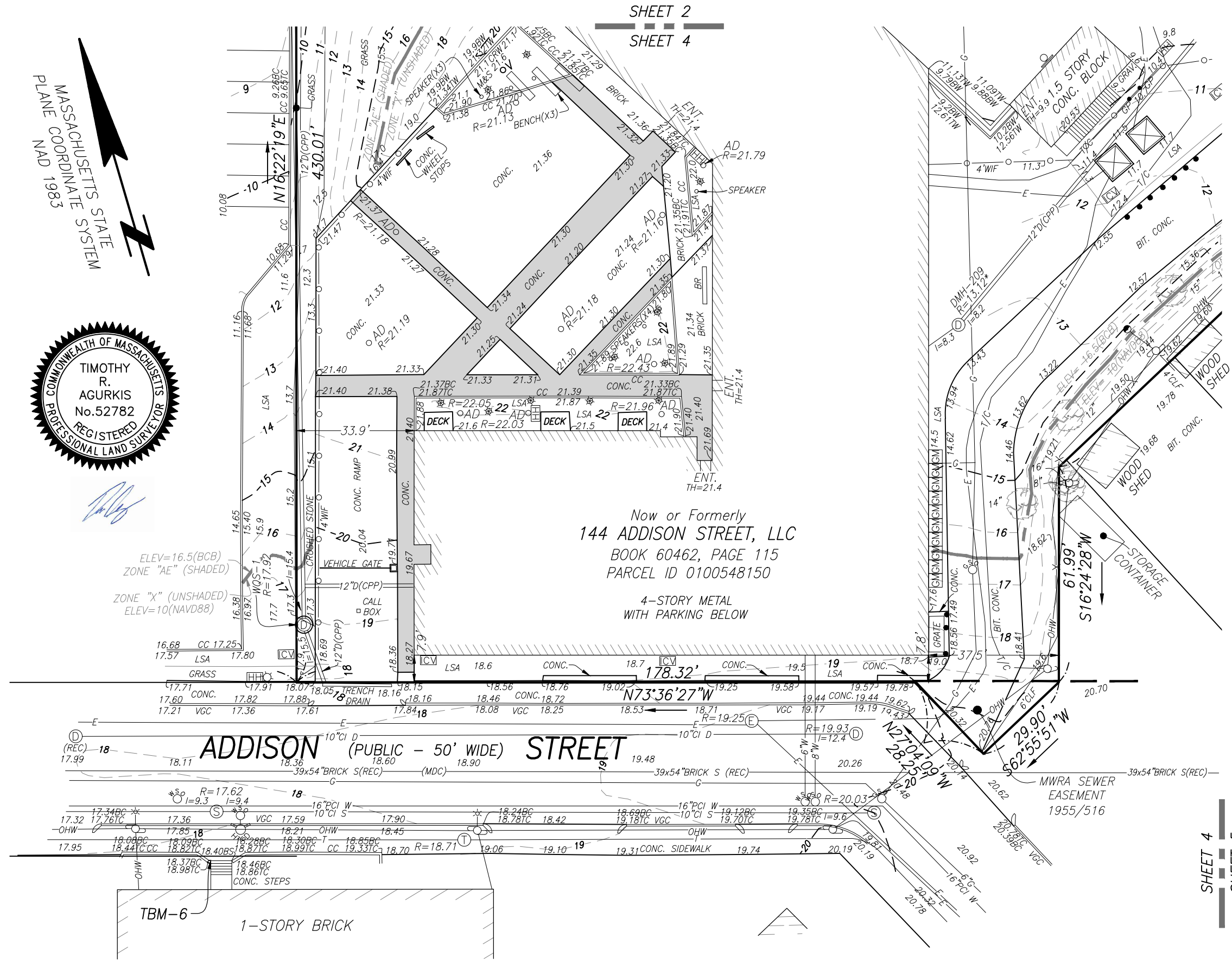


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144 ADDISON STREET, LLC
BOOK 60462, PAGE 115
PARCEL ID 0100548150

4-STORY METAL
WITH PARKING BELOW

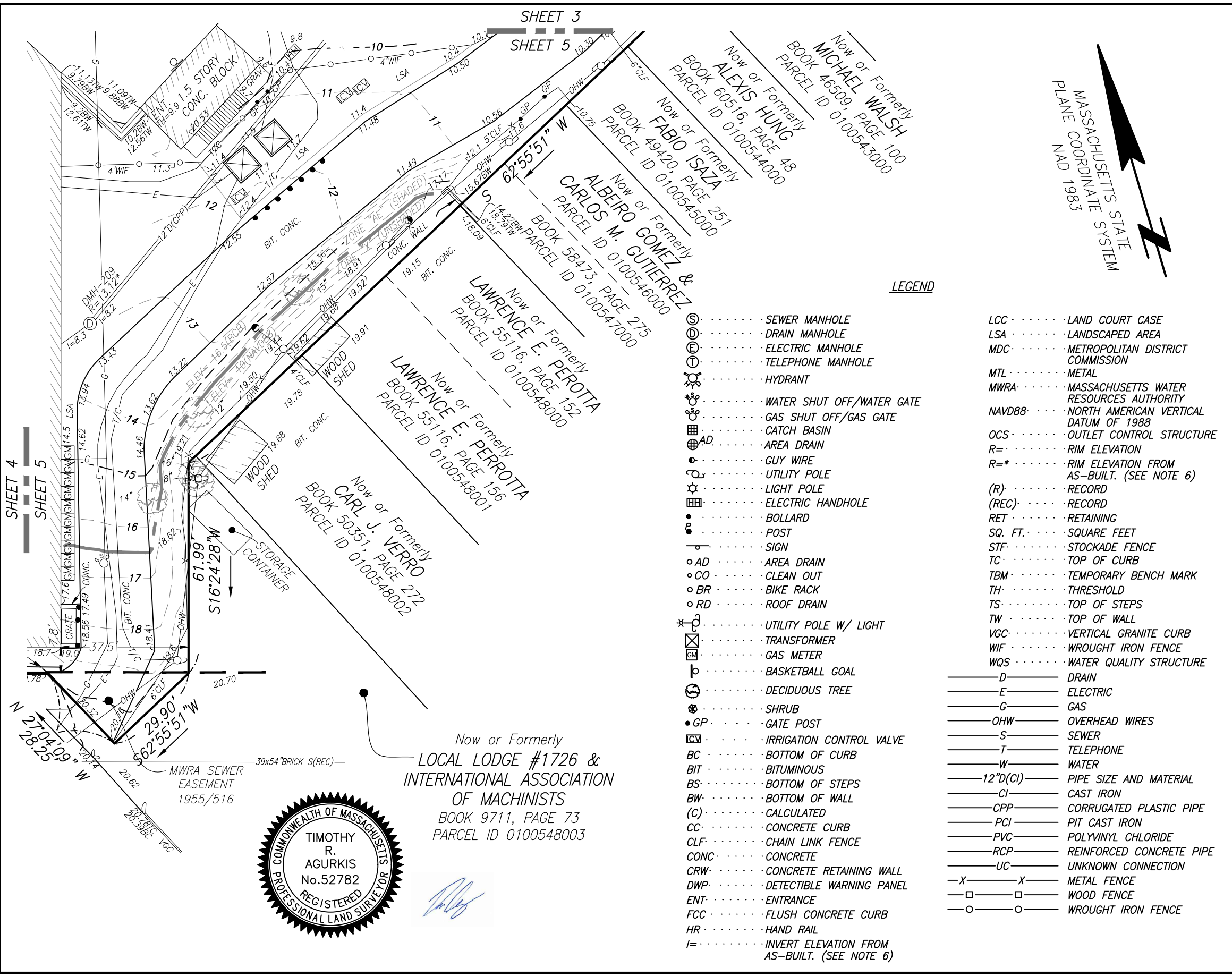
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SHEET 4
SHEET 5

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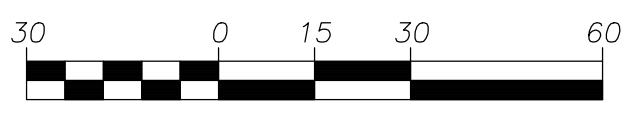
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PROJ MGR: JRZ	APPROVED:
CALC:	CADD: CEM
FIELD CHK:	CRD FILE: 2101180

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AS-BUILT PLAN OF LAND

DATE: APRIL 6, 2022



SCALE: 1"=30'

SHEET NO. 5 OF 6

LEGEND

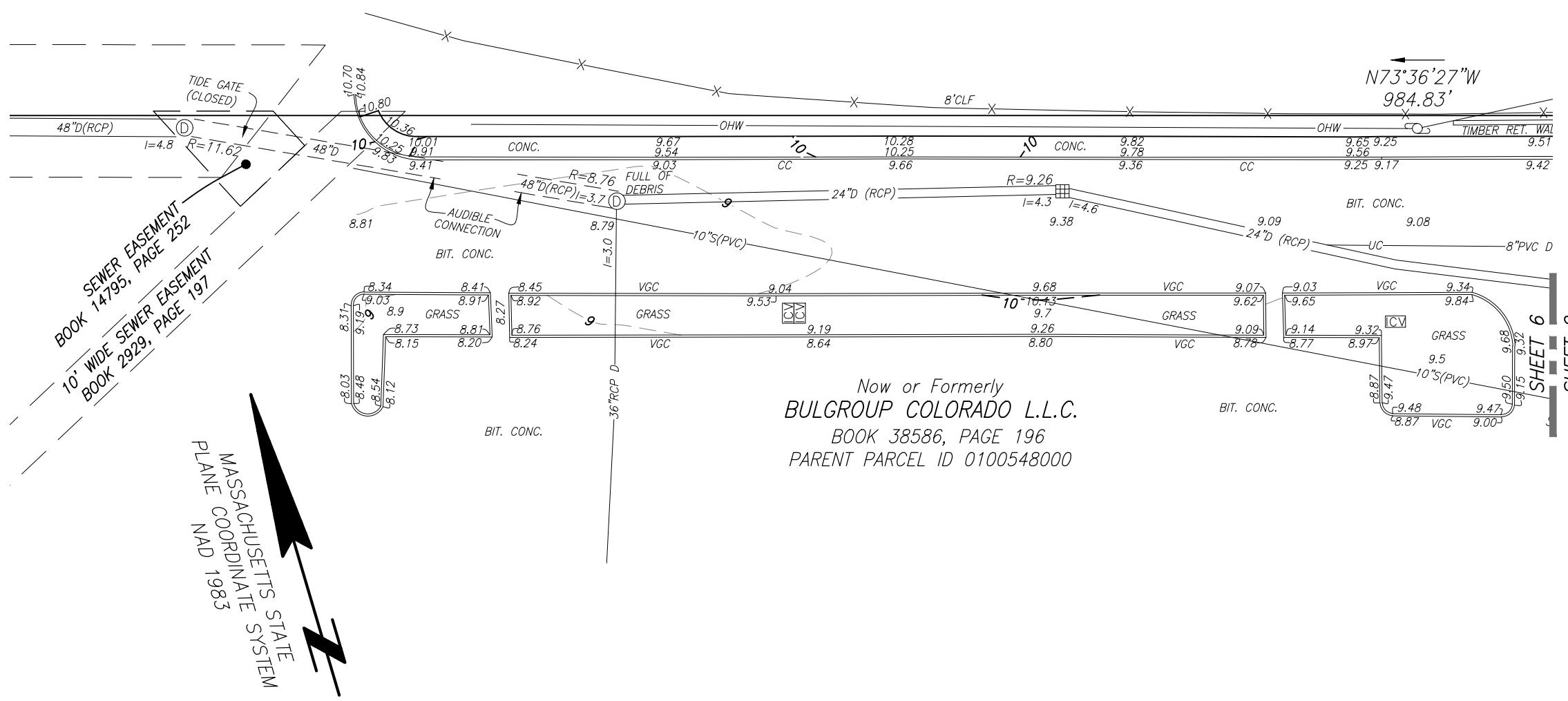
- ⊙ ······ SEWER MANHOLE
- ⊙ ······ DRAIN MANHOLE
- ⊙ ······ ELECTRIC MANHOLE
- ⊙ ······ TELEPHONE MANHOLE
- ⊙ ······ HYDRANT
- ⊙ ······ WATER SHUT OFF/WATER GATE
- ⊙ ······ GAS SHUT OFF/GAS GATE
- ⊙ ······ CATCH BASIN
- ⊙ ······ AREA DRAIN
- ⊙ ······ GUY WIRE
- ⊙ ······ UTILITY POLE
- ⊙ ······ LIGHT POLE
- ⊙ ······ ELECTRIC HANDHOLE
- ⊙ ······ BOLLARD
- ⊙ ······ POST
- ⊙ ······ SIGN
- ⊙ ······ AREA DRAIN
- ⊙ ······ CLEAN OUT
- ⊙ ······ BIKE RACK
- ⊙ ······ ROOF DRAIN
- ⊙ ······ UTILITY POLE W/ LIGHT
- ⊙ ······ TRANSFORMER
- ⊙ ······ GAS METER
- ⊙ ······ BASKETBALL GOAL
- ⊙ ······ DECIDUOUS TREE
- ⊙ ······ SHRUB
- ⊙ ······ GATE POST
- ⊙ ······ IRRIGATION CONTROL VALVE
- BC ······ BOTTOM OF CURB
- BIT ······ BITUMINOUS
- BS ······ BOTTOM OF STEPS
- BW ······ BOTTOM OF WALL
- (C) ······ CALCULATED
- CC ······ CONCRETE CURB
- CLF ······ CHAIN LINK FENCE
- CONC ······ CONCRETE
- CRW ······ CONCRETE RETAINING WALL
- DWP ······ DETECTIBLE WARNING PANEL
- ENT ······ ENTRANCE
- FCC ······ FLUSH CONCRETE CURB
- HR ······ HAND RAIL
- I= ······ INVERT ELEVATION FROM AS-BUILT. (SEE NOTE 6)
- LCC ······ LAND COURT CASE
- LSA ······ LANDSCAPED AREA
- MDC ······ METROPOLITAN DISTRICT COMMISSION
- MTL ······ METAL
- MWRA ······ MASSACHUSETTS WATER RESOURCES AUTHORITY
- NAVD88 ······ NORTH AMERICAN VERTICAL DATUM OF 1988
- OCS ······ OUTLET CONTROL STRUCTURE
- R= ······ RIM ELEVATION
- R=* ······ RIM ELEVATION FROM AS-BUILT. (SEE NOTE 6)
- (R) ······ RECORD
- (REC) ······ RECORD
- RET ······ RETAINING
- SQ. FT. ······ SQUARE FEET
- STF ······ STOCKADE FENCE
- TC ······ TOP OF CURB
- TBM ······ TEMPORARY BENCH MARK
- TH ······ THRESHOLD
- TS ······ TOP OF STEPS
- TW ······ TOP OF WALL
- VGC ······ VERTICAL GRANITE CURB
- WIF ······ WROUGHT IRON FENCE
- WQS ······ WATER QUALITY STRUCTURE
- D ······ DRAIN
- E ······ ELECTRIC
- G ······ GAS
- OHW ······ OVERHEAD WIRES
- S ······ SEWER
- T ······ TELEPHONE
- W ······ WATER
- 12"D(CI) ······ PIPE SIZE AND MATERIAL
- CI ······ CAST IRON
- CPP ······ CORRUGATED PLASTIC PIPE
- PCI ······ PIT CAST IRON
- PVC ······ POLYVINYL CHLORIDE
- RCP ······ REINFORCED CONCRETE PIPE
- UC ······ UNKNOWN CONNECTION
- X ······ X METAL FENCE
- ······ WOOD FENCE
- ······ WROUGHT IRON FENCE



Now or Formerly
**LOCAL LODGE #1726 &
INTERNATIONAL ASSOCIATION
OF MACHINISTS**
BOOK 9711, PAGE 73
PARCEL ID 0100548003

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SEWER EASEMENT
BOOK 14795, PAGE 252
10' WIDE SEWER EASEMENT
BOOK 2929, PAGE 197

MASSACHUSETTS STATE
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BOOK 38586, PAGE 196
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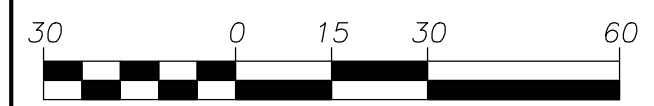
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PROJ MGR: JRZ	APPROVED:
CALC:	CADD: CEM
FIELD CHK:	CRD FILE: 2101180

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PLAN OF LAND**

DATE: APRIL 6, 2022



SCALE: 1"=30'

SHEET NO. 6 OF 6