

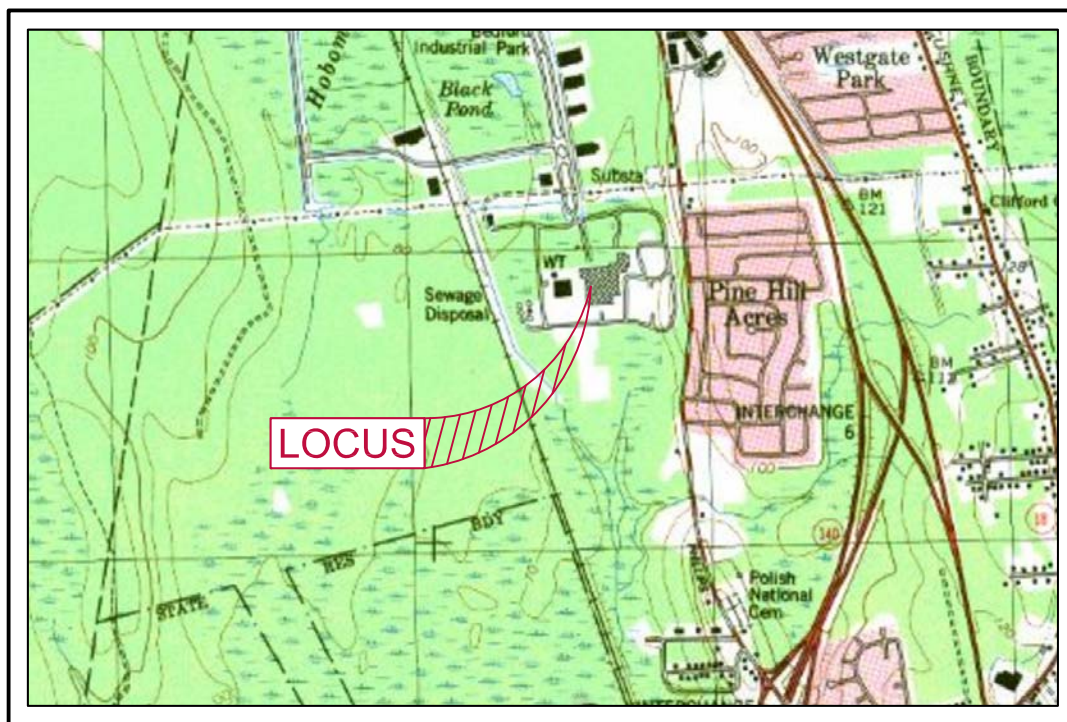


ENGINEERING A BETTER TOMORROW  
ENGINEERING | SITE WORK | LAND SURVEYING

# NOTICE OF INTENT

## SITE PLAN

ASSESSORS MAP 134 - LOT 5  
100 DUCHAINE BOULEVARD  
NEW BEDFORD, MASSACHUSETTS



PREPARED FOR:

PARALLEL PRODUCTS  
OF NEW ENGLAND  
401 INDUSTRY ROAD  
LOUISVILLE, KY 40208

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Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands

# WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

New Bedford

City/Town

**Important:**

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



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

## A. General Information

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

100 Duchaine Boulevard

a. Street Address

New Bedford

b. City/Town

02745

c. Zip Code

Latitude and Longitude:

41.425695

d. Latitude

-70.570619

e. Longitude

134

f. Assessors Map/Plat Number

5

g. Parcel /Lot Number

2. Applicant:

Tim

a. First Name

Cusson

b. Last Name

Parallel Products of New England

c. Organization

401 Industry Road

d. Street Address

Louisville

e. City/Town

KY

f. State

40208

g. Zip Code

(617) 908-0825

h. Phone Number

i. Fax Number

timc@parallelproducts.com

j. Email Address

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

a. First Name

b. Last Name

SMRE 100, LLC

c. Organization

401 Industry Road

d. Street Address

Louisville

e. City/Town

KY

f. State

40208

g. Zip Code

h. Phone Number

i. Fax Number

j. Email address

4. Representative (if any):

Christian

a. First Name

Farland

b. Last Name

Farland Corp.

c. Company

401 County Street

d. Street Address

New Bedford

e. City/Town

MA

f. State

02740

g. Zip Code

(508) 717-3479

h. Phone Number

i. Fax Number

cfarland@farlandcorp.com

j. Email address

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

a. Total Fee Paid

b. State Fee Paid

c. City/Town Fee Paid



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

**WPA Form 3 – Notice of Intent**

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

Provided by MassDEP:

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**A. General Information (continued)**

6. General Project Description:

Construction of an addition with associated parking, lighting and necessary drainage features.

Proposed concrete pad with asphalt apron, as well as steel vehicle scales with scale house.

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

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

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

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

2. Limited Project Type

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

8. Property recorded at the Registry of Deeds for:

Bristol (S.D)

a. County

24201

b. Certificate # (if registered land)

c. Book

d. Page Number

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

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

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





Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands

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

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

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

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

2. Width of Riverfront Area (check one):

☐ 25 ft. - Designated Densely Developed Areas only

☐ 100 ft. - New agricultural projects only

☐ 200 ft. - All other projects

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

4. Proposed alteration of the Riverfront Area:

a. total square feet \_\_\_\_\_ b. square feet within 100 ft. \_\_\_\_\_ c. square feet between 100 ft. and 200 ft. \_\_\_\_\_

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

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

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

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



Massachusetts Department of Environmental Protection  
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### B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

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

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

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

a. square feet of BVW

b. square feet of Salt Marsh

5. ☐ Project Involves Stream Crossings

a. number of new stream crossings

b. number of replacement stream crossings



## WPA Form 3 – Notice of Intent

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### C. Other Applicable Standards and Requirements

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

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

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

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

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

August 2017

b. Date of map

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

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

1. ☐ Percentage/acreage of property to be altered:

(a) within wetland Resource Area

percentage/acreage

(b) outside Resource Area

percentage/acreage

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

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

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

(b) ☐ Photographs representative of the site

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

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



Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands

## WPA Form 3 – Notice of Intent

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

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

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

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

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

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

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

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

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

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

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

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

North Shore - Hull to New Hampshire border:

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

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



Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands

## WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

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New Bedford

City/Town

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

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

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

### D. Additional Information

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

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

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

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



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

**WPA Form 3 – Notice of Intent**

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

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

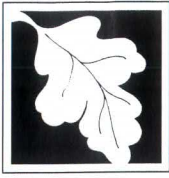
3. ☒ Identify the method for BVW and other resource area boundary delineations (MassDEP BVW Field Data Form(s), Determination of Applicability, Order of Resource Area Delineation, etc.), and attach documentation of the methodology.
4. ☒ List the titles and dates for all plans and other materials submitted with this NOI.
- |  |                          |
|--|--------------------------|
| Site Plan - 100 Duchaine Boulevard (Assessors Map 134 Lot 5 - New Bedford, MA) |                          |
| a. Plan Title  |                          |
| Farland Corp.  | Christian A. Farland     |
| b. Prepared By   | c. Signed and Stamped by |
| 8-10-17  | 1" = 50'                 |
| d. Final Revision Date   | e. Scale                 |
| Stormwater Report  | 8-10-17                  |
| f. Additional Plan or Document Title   | g. Date                  |
5. ☐ If there is more than one property owner, please attach a list of these property owners not listed on this form.
6. ☐ Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.
7. ☐ Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.
8. ☒ Attach NOI Wetland Fee Transmittal Form
9. ☒ Attach Stormwater Report, if needed.

**E. Fees**

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

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

5961	8-10-17
2. Municipal Check Number	3. Check date
5960	8-10-17
4. State Check Number	5. Check date
Farland Corp.	
6. Payor name on check: First Name	7. Payor name on check: Last Name



## WPA Form 3 – Notice of Intent

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

MassDEP File Number

Document Transaction Number

City/Town

### F. Signatures and Submittal Requirements

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

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

  
1. Signature of Applicant

8-10-17  
2. Date

3. Signature of Property Owner (if different)

4. Date

  
5. Signature of Representative (if any)

8/10/17  
6. Date

#### For Conservation Commission:

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

#### For MassDEP:

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

#### Other:

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

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





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

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



## A. Applicant Information

### 1. Location of Project:

100 Duchaine Boulevard

a. Street Address

5960

c. Check number

New Bedford

b. City/Town

\$487.50

d. Fee amount

### 2. Applicant Mailing Address:

Tim

a. First Name

Cusson

b. Last Name

Parallel Products of New England

c. Organization

401 Industry Road

d. Mailing Address

Louisville

e. City/Town

KY

f. State

40208

g. Zip Code

(617) 508-0825

h. Phone Number

i. Fax Number

timc@parallelproducts.com

j. Email Address

### 3. Property Owner (if different):

a. First Name

SMRE 100, LLC

c. Organization

401 Industry Road

d. Mailing Address

Louisville

e. City/Town

KY

f. State

40208

g. Zip Code

h. Phone Number

i. Fax Number

j. Email Address

## B. Fees

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

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

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

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

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

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

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

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



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

**B. Fees** (continued)

Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
Category 2b.) Parking Lot	1	\$500.00	\$500.00
Category 2g.) Source Discharge	1	\$500.00	\$500.00
Step 5/Total Project Fee:			\$1,000.00

**Step 6/Fee Payments:**

Total Project Fee:	\$1,000.00
	a. Total Fee from Step 5
State share of filing Fee:	\$487.50
	b. 1/2 Total Fee <b>less</b> \$12.50
City/Town share of filing Fee:	\$512.50
	c. 1/2 Total Fee <b>plus</b> \$12.50

**C. Submittal Requirements**

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

Department of Environmental Protection  
Box 4062  
Boston, MA 02211

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

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

# STORMWATER REPORT CHECKLIST



# Checklist for Stormwater Report

## A. Introduction

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



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

The Stormwater Report must include:

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

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

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

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

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

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



# Checklist for Stormwater Report

## B. Stormwater Checklist and Certification

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

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

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

### Registered Professional Engineer's Certification

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

Registered Professional Engineer Block and Signature



Signature and Date

*CAF* 8-10-17

## Checklist

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

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



# Checklist for Stormwater Report

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## Checklist (continued)

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

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

## Standard 1: No New Untreated Discharges

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



# Checklist for Stormwater Report

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## Checklist (continued)

### Standard 2: Peak Rate Attenuation

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

### Standard 3: Recharge

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

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





# Checklist for Stormwater Report

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## Checklist (continued)

### Standard 3: Recharge (continued)

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

### Standard 4: Water Quality

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

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



# Checklist for Stormwater Report

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## Checklist (continued)

### Standard 4: Water Quality (continued)

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

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

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

### Standard 6: Critical Areas

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



# Checklist for Stormwater Report

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## Checklist (continued)

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

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

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

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

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



# Checklist for Stormwater Report

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## Checklist (continued)

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

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

### Standard 9: Operation and Maintenance Plan

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

### Standard 10: Prohibition of Illicit Discharges

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

# STORMWATER MANAGEMENT REPORT

# **STORMWATER MANAGEMENT REPORT AND HYDROLOGIC ANALYSIS**

## **Proposed Site Plan**

**100 Duchaine Boulevard (Assessors Map 134 Lot 5)  
New Bedford, Massachusetts 02745**

## **Project Summary**

The project area associated with this proposed development is located at the southern terminus of Duchaine Boulevard in the New Bedford Business Park in northern New Bedford. The site is comprised tax parcel Lot 5 on Assessor's Map 134, and consists of approximately 65.1+/- acres. The proposed project area is comprised of the Southern half of the parcel area, and does not include any of the northern half of the property. Much of the parcel area, including the entire proposed project area, is located in the city's Industrial C zoning district. The site currently contains a large commercial building of the warehouse style consistent with other buildings within this business park. There also exists associated parking, loading, and landscaped areas, as well as several flagged areas of bordering vegetated wetlands. Access to the site is gained from a looped road off of Duchaine Boulevard, over which access easements have been provided.

The applicant is seeking permission to provide parking, loading, and drainage improvements to the project site, as well as a 15,000 S.F. addition to the existing building to be used as a shipping and receiving wing. The applicant is also seeking to expand the existing gravel parking area to the west of the existing building while adding in a concrete pad with an asphalt apron which will be utilized for material sorting and storage. The proposed plans depict the addition of a large solar canopy to be installed above the existing parking lot to the east of the existing building. This parking lot will be re-painted to include a total of 60 employee or visitor parking spaces, and 42 large trailer parking spaces. Outside of the parking lot covered by the solar canopy, there is an additional 11 proposed box truck parking spaces, and 11 employee parking spaces. These spaces are to be added to all existing parking spaces on the property for a grand total of 142 available parking spaces which would be in compliance with the zoning requirement of 55 total spaces for the intended use.

The current use of the property is a warehouse and distribution company that handles mostly food products. The applicant will be changing the use to a recycling facility handling mostly plastics and glass products. After meeting parking requirements for the governing zoning laws, the loading requirements will also be met by keeping all existing loading docks in use for a total of 20 loading bays.

In order to attenuate the increased stormwater runoff generated by the proposed impervious site coverage and to provide the appropriate level of water quality treatment, additional stormwater management practices have been proposed. Proposed structural BMP's include sediment forebays, detention basin and subsurface recharge system.

### **Methodology**

Drainage computations were performed using the Natural Resources Conservation Services (NRCS) TR-20 method and HydroCAD® Drainage Calculation Software to determine the change in the existing and post-development runoff rates from each drainage area for the 2-, 10-, and 100-year 24 hour storm events. The limits of the work proposed to complete the project fall within an area subject to protection by the Wetlands Protection Act, therefore, compliance with DEP Stormwater Management Standards is required. Sketches of the existing and proposed watershed areas, HydroCAD® Report, and copies of the calculation sheets are included as appendices to this report.

### **Existing Conditions**

The soils underlying the site are identified in the Natural Resources Conservation Service (NRCS) Soil Survey of Bristol County (*see Exhibit D*). The site soils are classified as 39A (Scarboro mucky fine sandy loam, 0-3 percent slopes, Hydrologic Soil Group: "C") and 602 (Urban Land, HSG: "Unranked")

### **Stormwater Management Overview**

#### Existing Conditions:

The project site has been divided into two existing subcatchment drainage areas, which discharge to one design point. The design point chosen for this site are the existing infiltration basin located to the west of the existing building. A singular depression in the existing parking lot collects stormwater runoff for this site and directs it to the aforementioned basin, both of which have been incorporated into the existing drainage model. Although this basin is small in depth and volume, it does provide peak rate attenuation for runoff which is directed to it. An existing outlet control within the wet basin has been incorporated into the model, and the outflow from the pond is combined with the off-site runoff to provide a total flow to the design points.

#### Proposed Conditions:

Under proposed conditions, four subcatchment areas have been included in the drainage model. New paved area to be added to the existing gravel parking area direct runoff towards an enlarged infiltration basin, located between the existing driveway and the proposed paved area. The runoff from the new building will be recharged through a subsurface infiltration cultec system.

The proposed infiltration basin has been designed in accordance with the DEP Stormwater Handbook. In accordance with the Stormwater Handbook, the rate



mitigation facilities have been engineered to reduce post-development runoff rates from pre-development conditions.

### **Stormwater Management Standards**

#### **Standard 1:**

- Under proposed conditions, there will be no new untreated discharges or erosion in wetland areas. Drainage outfalls from the infiltration basin which discharge toward the existing southerly Bordering Vegetated Wetlands are provided with rip-rap spillways to help control velocity and erosion at the outlet. Stormwater discharges have been held below erodible velocities. This standard has been met.

#### **Standard 2:**

- The design of the stormwater system was designed for the post-development conditions to handle all storms' peak discharges and runoff volume to include the 2 and 10-year storm events. An evaluation of peak discharges from the 100-year storm 24-hour storm event demonstrates that although a small increase in the peak discharge rate occurs, the discharge will not result in increased off-site flooding due to the short duration of increased rate and the overall reduced volume of runoff. The site drainage system was designed in consideration of the structural standards and techniques of the Best Management Practices (BMP) and Low Impact Development (LID) outlined in the "Stormwater Management Handbook".

The results of site drainage calculations are presented in the following Table. The results are based upon evaluation of Pre-development conditions and the design of proposed surface drainage systems for the Post-development condition. These results show the Post-Development offsite runoff rates are reduced to less than the Pre-development conditions for the two-year and ten-year storm events, thus meeting the BMP guidelines for this site development.

<b>Table 1 - Comparison of Pre- versus Post-Development Offsite Runoff</b>						
<b>Frequency Storm</b>	<b>2-Year</b>		<b>10-Year</b>		<b>100-Year</b>	
	Rate (cfs)	Volume (af)	Rate (cfs)	Volume (af)	Rate (cfs)	Volume (af)
Pre-Development	0.22	0.127	0.67	0.282	6.17	0.599
Post-Development	0.03	0.012	0.34	0.047	1.58	0.214

\*See **Exhibit E** for supporting hydrologic calculations

**Standard 3:**

- The proposed infiltration basin has been designed to recharge some of the anticipated stormwater runoff from all of the new impervious area and from some of the existing impervious area. The required Recharge Volume has been calculated using the Static Method and calculations are provided in **Exhibit F**. We note that the required Recharge Volume was calculated for the entire impervious area on-site, including existing paved areas as well as the newly proposed paved and roof areas. As a partial re-development project, this Standard is required to be met to the maximum extent practicable for these existing areas. The proposed design, however, provides the required recharge volume within the proposed basins. Drawdown Calculations have also been provided in **Exhibit G**. This standard has been met.

**Standard 4:**

- The proposed stormwater management systems for this project have been designed to remove 80% of the average annual post construction load of Total Suspended Solids in accordance with this standard, as shown in calculations provided in **Exhibit I**. Suitable practices for source control and pollution prevention have been identified in a long-term pollution prevention plan in **Exhibit L**. Structural BMPs have been designed to capture the required water quality volume (**Exhibit H**) determined in accordance with the Stormwater Handbook. As a partial redevelopment project, runoff from the new impervious areas is required to be treated to the maximum extent practicable. This standard has been met.

**Standard 5:**

- Stormwater discharges are proposed to be treated by the specific structural BMPs determined to be suitable for treating runoff from such land uses. Sediment Forebays and Infiltration Basins are appropriate BMPs for use with Land Uses with Higher Potential Pollutant Load. Stormwater treatment has been designed to provide 44% TSS removal prior to discharge to the infiltration BMPs, and BMPs have been designed to treat 1.0 inch of runoff times the total new impervious area at the post-development site. This standard has been met.

**Standard 6:**

- The site does not discharge within the Zone II or IWPA of a public water supply, nor does it discharge near or to any critical areas. This standard does not apply.

**Standard 7:**

- This project is a partial re-development project. Much of the site is currently paved or covered with impervious cover. Those areas where new impervious coverage is proposed have been designed to meet all of

the required Stormwater Standards. Those areas where existing impervious is proposed to remain will be allowed to maintain existing drainage patterns, where much of the runoff from the existing parking lot area is directed through an existing piped drainage system to several existing stormwater basin resource areas throughout the site, which attenuates the runoff prior to discharge to the BVW.

**Standard 8:**

- We have provided for Construction Period Pollution in accordance with the regulations. A formal Construction Period Pollution Prevention Plan will be submitted prior to construction.

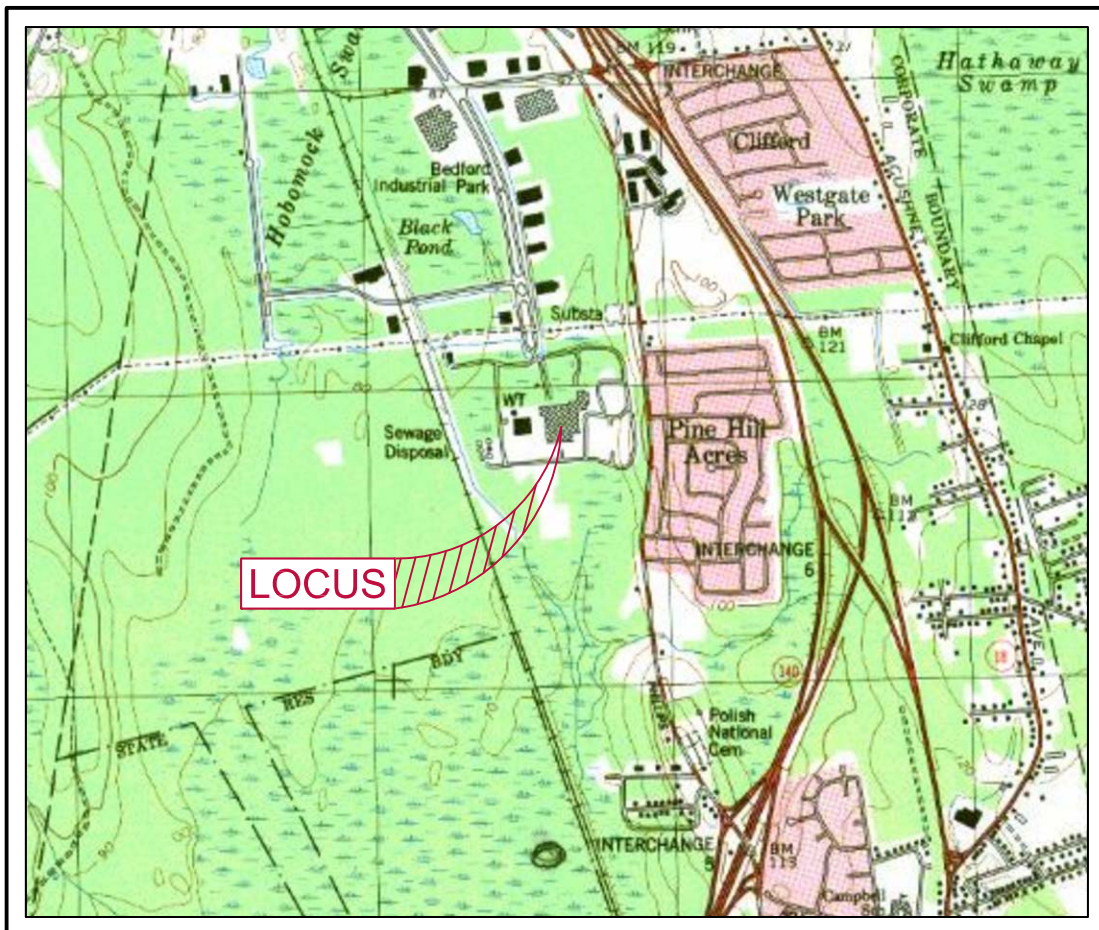
**Standard 9:**

- A long-term operation and maintenance plan has been prepared to ensure that stormwater management systems function as designed. (***Exhibit K***)

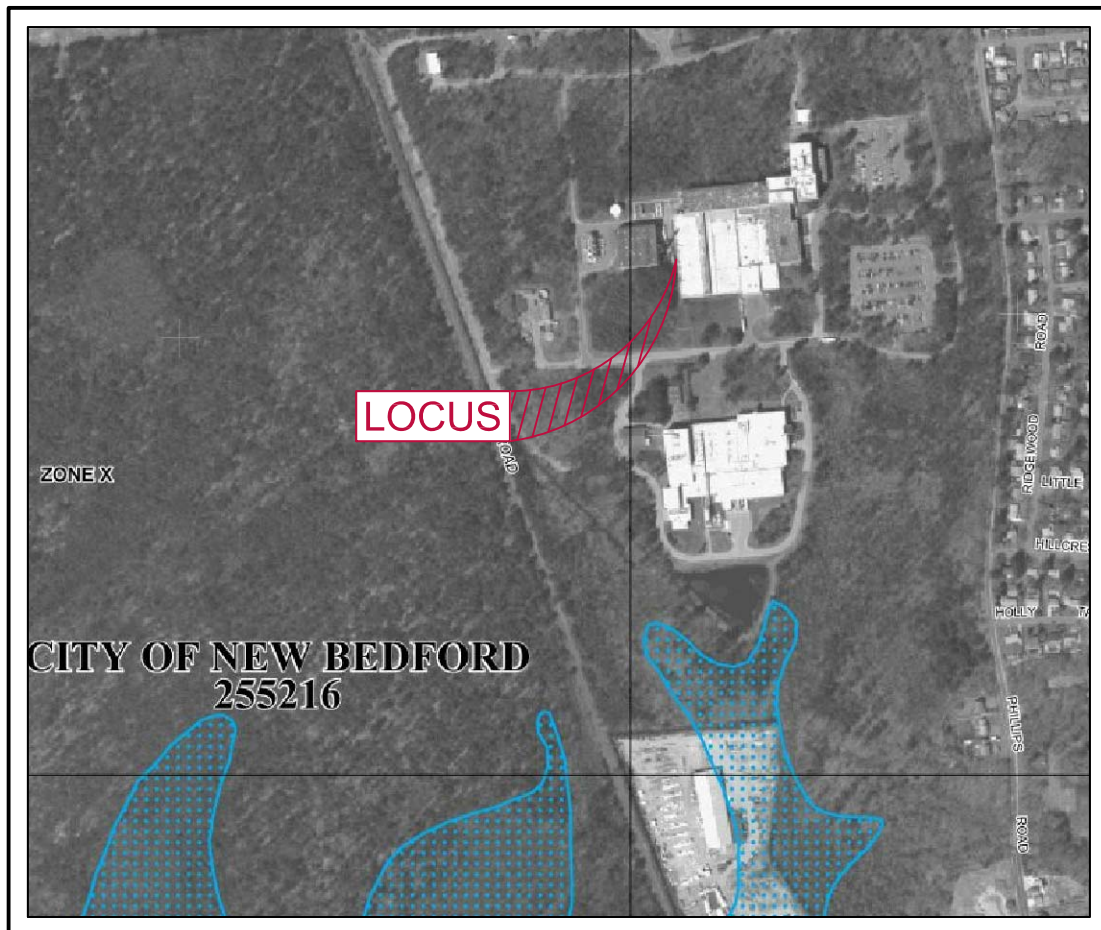
**Standard 10:**

- We are not proposing any illicit discharges as defined in the Stormwater Management Regulations. See attached letter in (***Exhibit M***)

# TOPO! VERSION 2.1.0

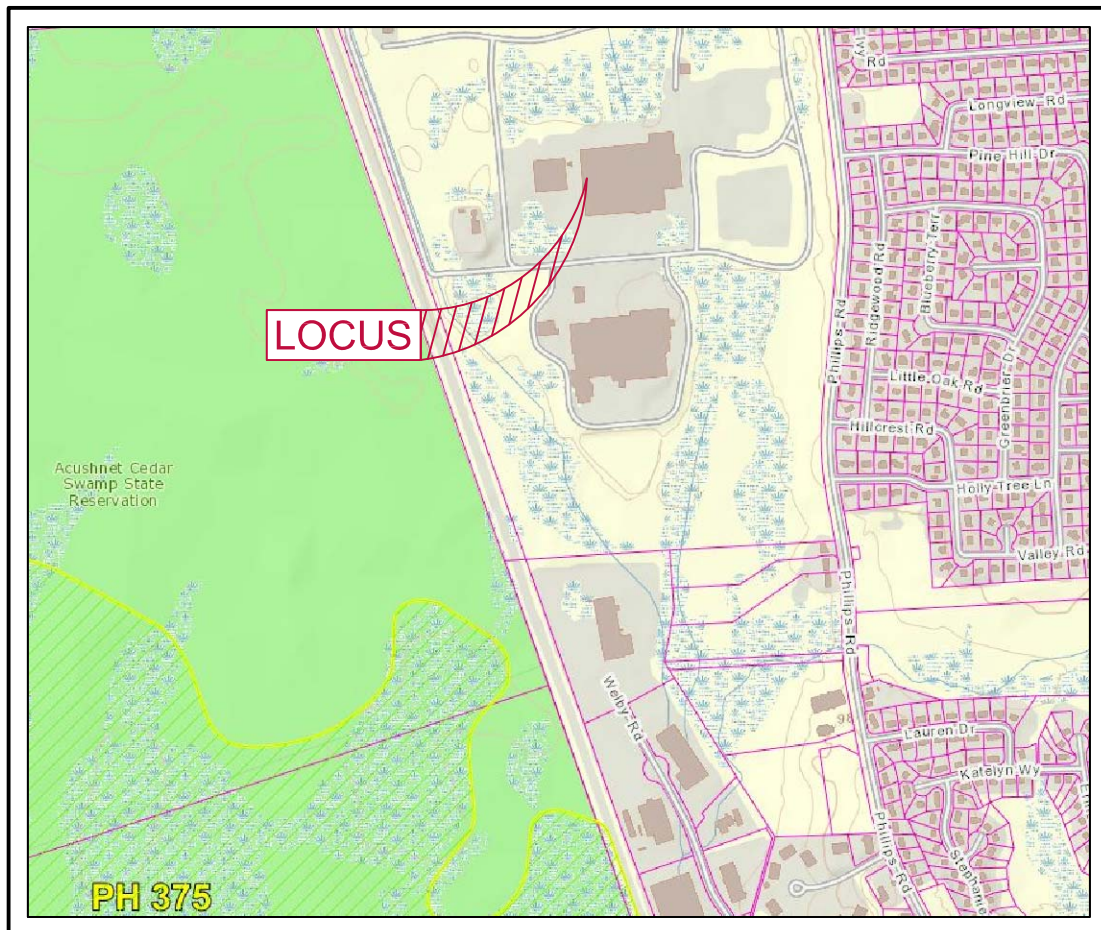


# FIRM MAP PANEL # 25005C0379F





# NHESP PRIORITY & ESTIMATED HABITAT MAP 2017



# NRCS SOIL MAP

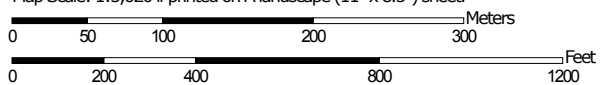


# Soil Map—Bristol County, Massachusetts, Southern Part



Soil Map may not be valid at this scale.

Map Scale: 1:5,020 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84



**Natural Resources  
Conservation Service**

Web Soil Survey  
National Cooperative Soil Survey

8/9/2017  
Page 1 of 3

## 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 1:20,000.

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: Bristol County, Massachusetts, Southern Part

Survey Area Data: Version 10, Sep 14, 2016

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

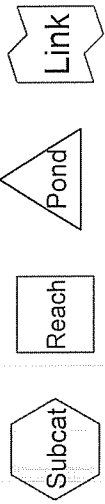
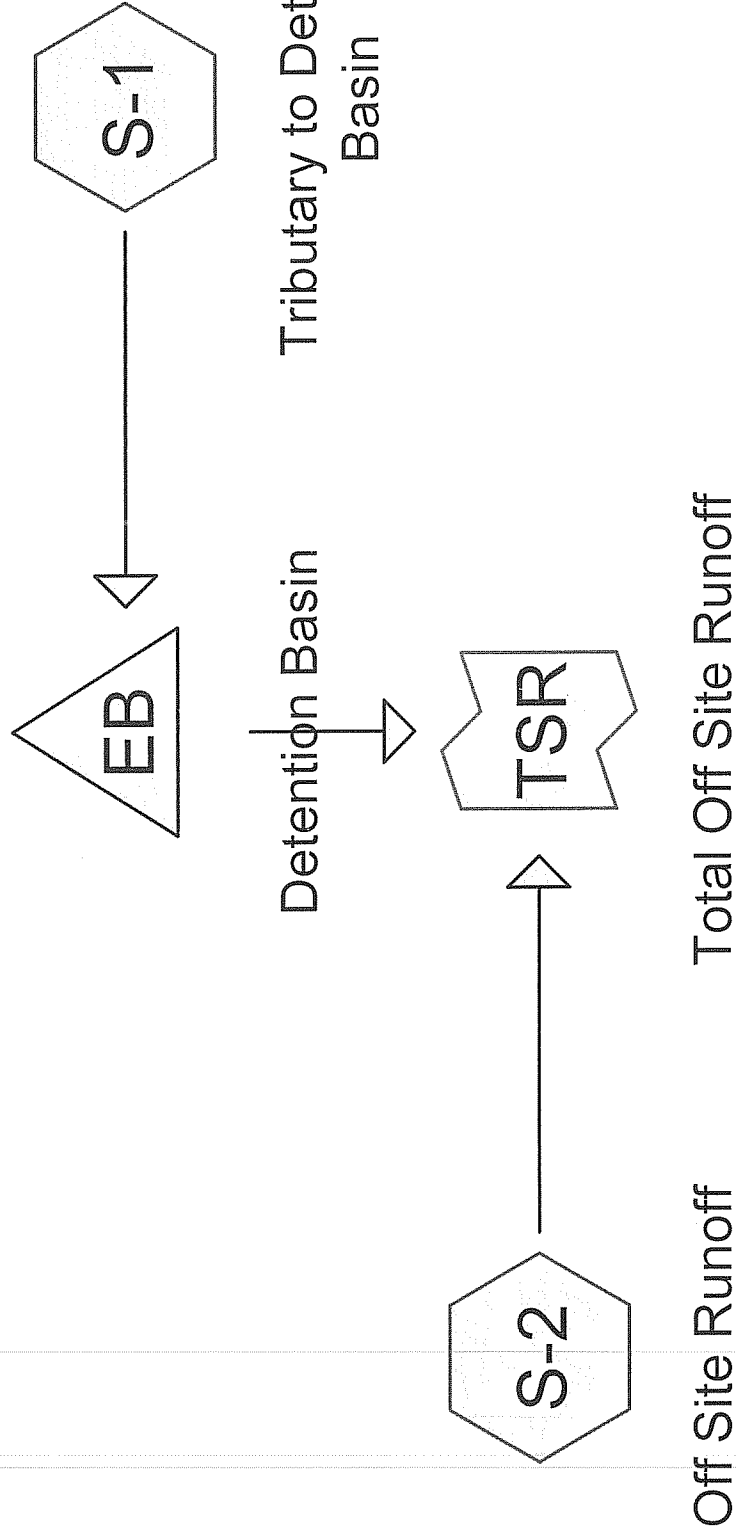
Date(s) aerial images were photographed: Dec 31, 2009—Jun 7, 2016

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

Bristol County, Massachusetts, Southern Part (MA603)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
38A	Pipestone loamy sand, 0 to 3 percent slopes	12.5	10.4%
39A	Scarboro mucky fine sandy loam, 0 to 3 percent slopes	35.2	29.3%
51A	Swansea muck, 0 to 1 percent slopes	0.6	0.5%
73A	Whitman fine sandy loam, 0 to 3 percent slopes, extremely stony	6.9	5.7%
256B	Deerfield loamy sand, 0 to 5 percent slopes	6.0	5.0%
260A	Sudbury fine sandy loam, 0 to 3 percent slopes	14.1	11.8%
305B	Paxton fine sandy loam, 3 to 8 percent slopes	0.9	0.8%
305C	Paxton fine sandy loam, 8 to 15 percent slopes	3.0	2.5%
306C	Paxton fine sandy loam, 8 to 15 percent slopes, very stony	7.8	6.5%
312B	Woodbridge fine sandy loam, 0 to 8 percent slopes, extremely stony	3.5	2.9%
602	Urban land	27.0	22.4%
651	Udorthents, smoothed	2.8	2.3%
<b>Totals for Area of Interest</b>		<b>120.3</b>	<b>100.0%</b>

# HYDROLOGIC CALCULATIONS & WATERSHED PLANS



**Summary for Subcatchment S-1: Tributary to Detention Basin**

Runoff = 2.31 cfs @ 12.09 hrs, Volume= 0.169 af, Depth= 1.29"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs  
Type III 24-hr 2-yr Rainfall=3.40"

Area (sf)	CN	Description
7,700	39	>75% Grass cover, Good, HSG A
* 5,800	98	Roadway
6,700	98	Water Surface
47,950	76	Gravel roads, HSG A
68,150	76	Weighted Average
55,650		Pervious Area
12,500		Impervious Area

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

**Summary for Subcatchment S-2: Off Site Runoff**

Runoff = 0.00 cfs @ 21.02 hrs, Volume= 0.002 af, Depth= 0.02"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs  
Type III 24-hr 2-yr Rainfall=3.40"

Area (sf)	CN	Description
42,500	30	Woods, Good, HSG A
6,100	39	>75% Grass cover, Good, HSG A
* 3,800	98	Roadway/Concrete
6,850	76	Gravel roads, HSG A
59,250	41	Weighted Average
55,450		Pervious Area
3,800		Impervious Area

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

**Summary for Subcatchment S-1: Tributary to Detention Basin**

Runoff = 4.34 cfs @ 12.09 hrs, Volume= 0.309 af, Depth= 2.37"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs  
Type III 24-hr 10-yr Rainfall=4.80"

Area (sf)	CN	Description
7,700	39	>75% Grass cover, Good, HSG A
* 5,800	98	Roadway
6,700	98	Water Surface
47,950	76	Gravel roads, HSG A
68,150	76	Weighted Average
55,650		Pervious Area
12,500		Impervious Area

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

**Summary for Subcatchment S-2: Off Site Runoff**

Runoff = 0.08 cfs @ 12.44 hrs, Volume= 0.026 af, Depth= 0.23"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs  
Type III 24-hr 10-yr Rainfall=4.80"

Area (sf)	CN	Description
42,500	30	Woods, Good, HSG A
6,100	39	>75% Grass cover, Good, HSG A
* 3,800	98	Roadway/Concrete
6,850	76	Gravel roads, HSG A
59,250	41	Weighted Average
55,450		Pervious Area
3,800		Impervious Area

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



**Summary for Subcatchment S-1: Tributary to Detention Basin**

Runoff = 7.80 cfs @ 12.09 hrs, Volume= 0.555 af, Depth= 4.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs  
Type III 24-hr 100-yr Rainfall=7.00"

Area (sf)	CN	Description
7,700	39	>75% Grass cover, Good, HSG A
* 5,800	98	Roadway
6,700	98	Water Surface
47,950	76	Gravel roads, HSG A
68,150	76	Weighted Average
55,650		Pervious Area
12,500		Impervious Area

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

**Summary for Subcatchment S-2: Off Site Runoff**

Runoff = 0.86 cfs @ 12.13 hrs, Volume= 0.104 af, Depth= 0.92"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs  
Type III 24-hr 100-yr Rainfall=7.00"

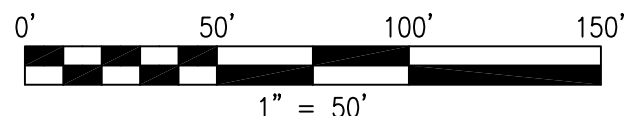
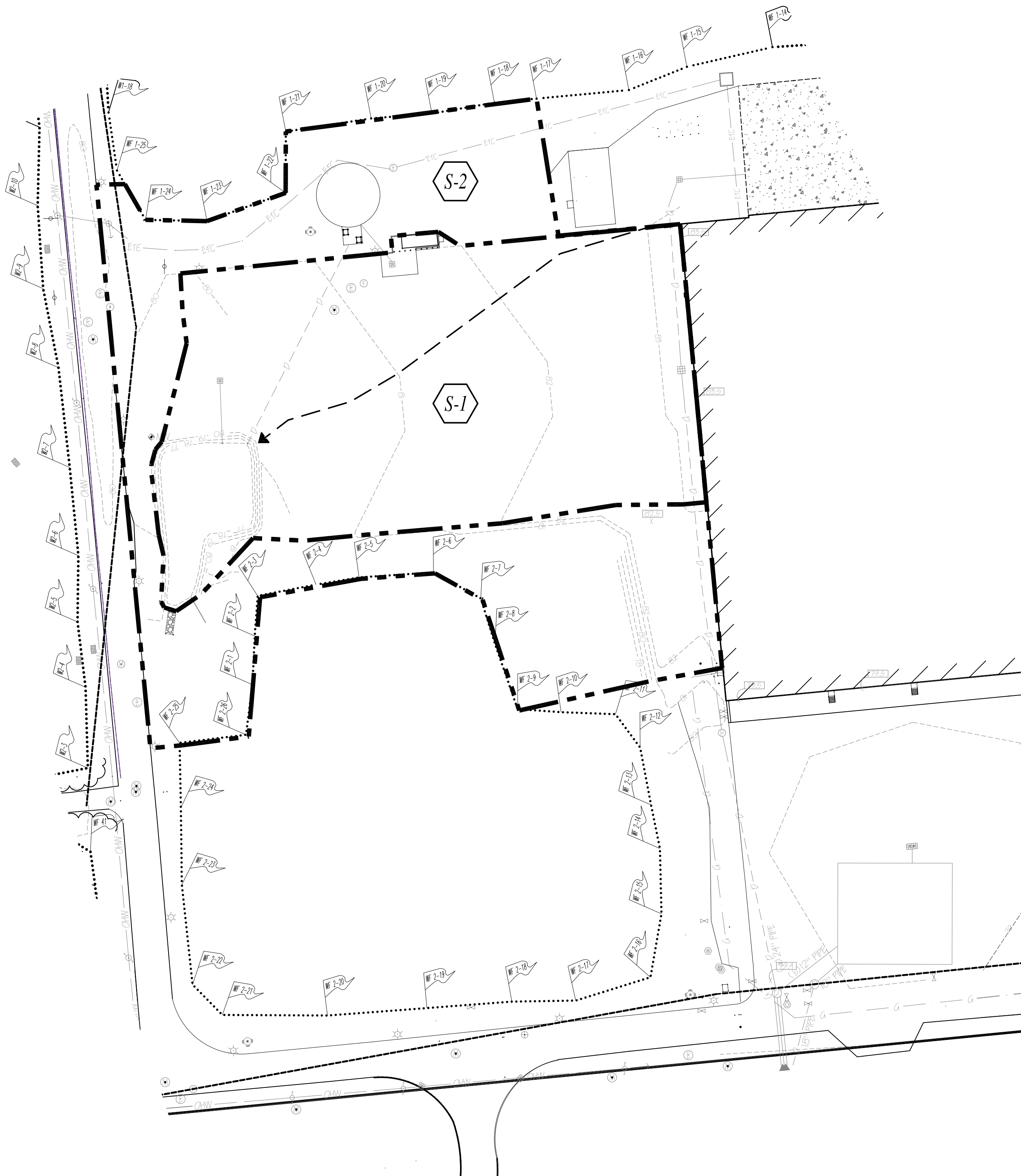
Area (sf)	CN	Description
42,500	30	Woods, Good, HSG A
6,100	39	>75% Grass cover, Good, HSG A
* 3,800	98	Roadway/Concrete
6,850	76	Gravel roads, HSG A
59,250	41	Weighted Average
55,450		Pervious Area
3,800		Impervious Area

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



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SEAL OF THE COMMONWEALTH OF MASSACHUSETTS

CHRISTIAN ALBERT FARLAND

No. 47544

Civil Engineer

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401 COUNTY STREET  
NEW BEDFORD, MA 02740  
P.508.717.3479  
OFFICES IN:  
● TAUNTON  
● MARLBOROUGH  
● WARWICK, RI

DRAWN BY: MJW  
DESIGNED BY: JKM  
CHECKED BY: CAF

SITE PLAN

100 DUCHAINE BOULEVARD  
ASSESSORS MAP 134 LOT 5  
NEW BEDFORD, MASSACHUSETTS

PREPARED FOR:  
PARALLEL PRODUCTS OF NEW ENGLAND  
401 INDUSTRY ROAD  
LOUISVILLE, KY 40208

AUGUST 10, 2017

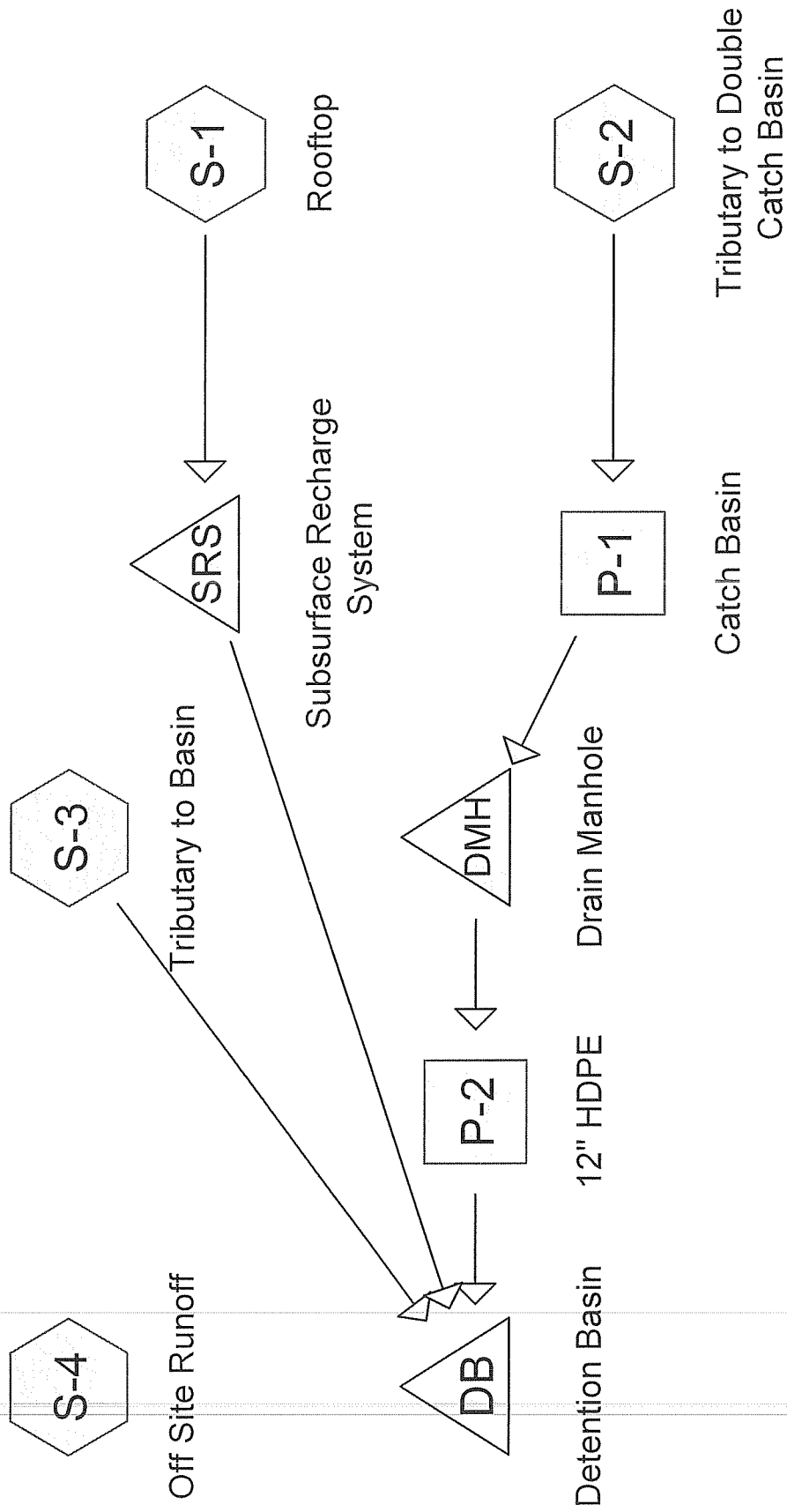
SCALE: 1"=50'

JOB NO. 15-500.2

LATEST REVISION:

PRE-SUBCATCHMENT

SHEET 5a OF 9



# Drainage Diagram for 15500.2POST

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**Summary for Subcatchment S-1: Rooftop**

Runoff = 1.14 cfs @ 12.08 hrs, Volume= 0.091 af, Depth= 3.17"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs  
Type III 24-hr 2-yr Rainfall=3.40"

	Area (sf)	CN	Description
*	15,000	98	Roof
	15,000		Impervious Area

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

**Summary for Subcatchment S-2: Tributary to Double Catch Basin**

Runoff = 1.80 cfs @ 12.08 hrs, Volume= 0.143 af, Depth= 3.17"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs  
Type III 24-hr 2-yr Rainfall=3.40"

	Area (sf)	CN	Description
*	23,660	98	Roadway
	23,660		Impervious Area

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

**Summary for Subcatchment S-3: Tributary to Basin**

Runoff = 2.06 cfs @ 12.09 hrs, Volume= 0.147 af, Depth= 1.70"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs  
Type III 24-hr 2-yr Rainfall=3.40"

	Area (sf)	CN	Description
*	16,450	98	Basin
*	26,600	76	Gravel roads, HSG A
	2,050	39	>75% Grass cover, Good, HSG A
	45,100	82	Weighted Average
	28,650		Pervious Area
	16,450		Impervious Area

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

**15500.2POST**

Type III 24-hr 2-yr Rainfall=3.40"

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Page 2

**Summary for Subcatchment S-4: Off Site Runoff**

Runoff = 0.03 cfs @ 12.46 hrs, Volume= 0.012 af, Depth= 0.15"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs  
Type III 24-hr 2-yr Rainfall=3.40"

	Area (sf)	CN	Description
*	3,500	98	Pavement
	10,900	76	Gravel roads, HSG A
	8,800	39	>75% Grass cover, Good, HSG A
	20,440	30	Woods, Good, HSG A
	43,640	49	Weighted Average
	40,140		Pervious Area
	3,500		Impervious Area

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

**Summary for Subcatchment S-1: Rooftop**

Runoff = 1.62 cfs @ 12.08 hrs, Volume= 0.131 af, Depth= 4.56"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs  
Type III 24-hr 10-yr Rainfall=4.80"

	Area (sf)	CN	Description
*	15,000	98	Roof
	15,000		Impervious Area

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

**Summary for Subcatchment S-2: Tributary to Double Catch Basin**

Runoff = 2.55 cfs @ 12.08 hrs, Volume= 0.207 af, Depth= 4.56"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs  
Type III 24-hr 10-yr Rainfall=4.80"

	Area (sf)	CN	Description
*	23,660	98	Roadway
	23,660		Impervious Area

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

**Summary for Subcatchment S-3: Tributary to Basin**

Runoff = 3.52 cfs @ 12.09 hrs, Volume= 0.250 af, Depth= 2.90"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs  
Type III 24-hr 10-yr Rainfall=4.80"

	Area (sf)	CN	Description
*	16,450	98	Basin
*	26,600	76	Gravel roads, HSG A
	2,050	39	>75% Grass cover, Good, HSG A
	45,100	82	Weighted Average
	28,650		Pervious Area
	16,450		Impervious Area

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

**15500.2POST**

Type III 24-hr 10-yr Rainfall=4.80"

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Page 4

**Summary for Subcatchment S-4: Off Site Runoff**

Runoff = 0.34 cfs @ 12.13 hrs, Volume= 0.047 af, Depth= 0.56"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Type III 24-hr 10-yr Rainfall=4.80"

	Area (sf)	CN	Description
*	3,500	98	Pavement
	10,900	76	Gravel roads, HSG A
	8,800	39	>75% Grass cover, Good, HSG A
	20,440	30	Woods, Good, HSG A
	43,640	49	Weighted Average
	40,140		Pervious Area
	3,500		Impervious Area

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

**Summary for Subcatchment S-1: Rooftop**

Runoff = 2.36 cfs @ 12.08 hrs, Volume= 0.194 af, Depth= 6.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs  
Type III 24-hr 100-yr Rainfall=7.00"

	Area (sf)	CN	Description
*	15,000	98	Roof
	15,000		Impervious Area

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

**Summary for Subcatchment S-2: Tributary to Double Catch Basin**

Runoff = 3.73 cfs @ 12.08 hrs, Volume= 0.306 af, Depth= 6.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs  
Type III 24-hr 100-yr Rainfall=7.00"

	Area (sf)	CN	Description
*	23,660	98	Roadway
	23,660		Impervious Area

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

**Summary for Subcatchment S-3: Tributary to Basin**

Runoff = 5.87 cfs @ 12.09 hrs, Volume= 0.424 af, Depth= 4.92"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs  
Type III 24-hr 100-yr Rainfall=7.00"

	Area (sf)	CN	Description
*	16,450	98	Basin
*	26,600	76	Gravel roads, HSG A
	2,050	39	>75% Grass cover, Good, HSG A
	45,100	82	Weighted Average
	28,650		Pervious Area
	16,450		Impervious Area

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

**15500.2POST**

Type III 24-hr 100-yr Rainfall=7.00"

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**Summary for Subcatchment S-4: Off Site Runoff**

Runoff = 1.58 cfs @ 12.10 hrs, Volume= 0.132 af, Depth= 1.58"

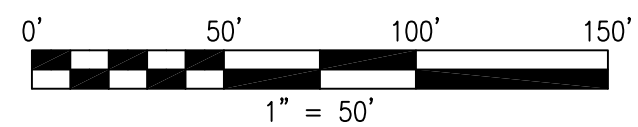
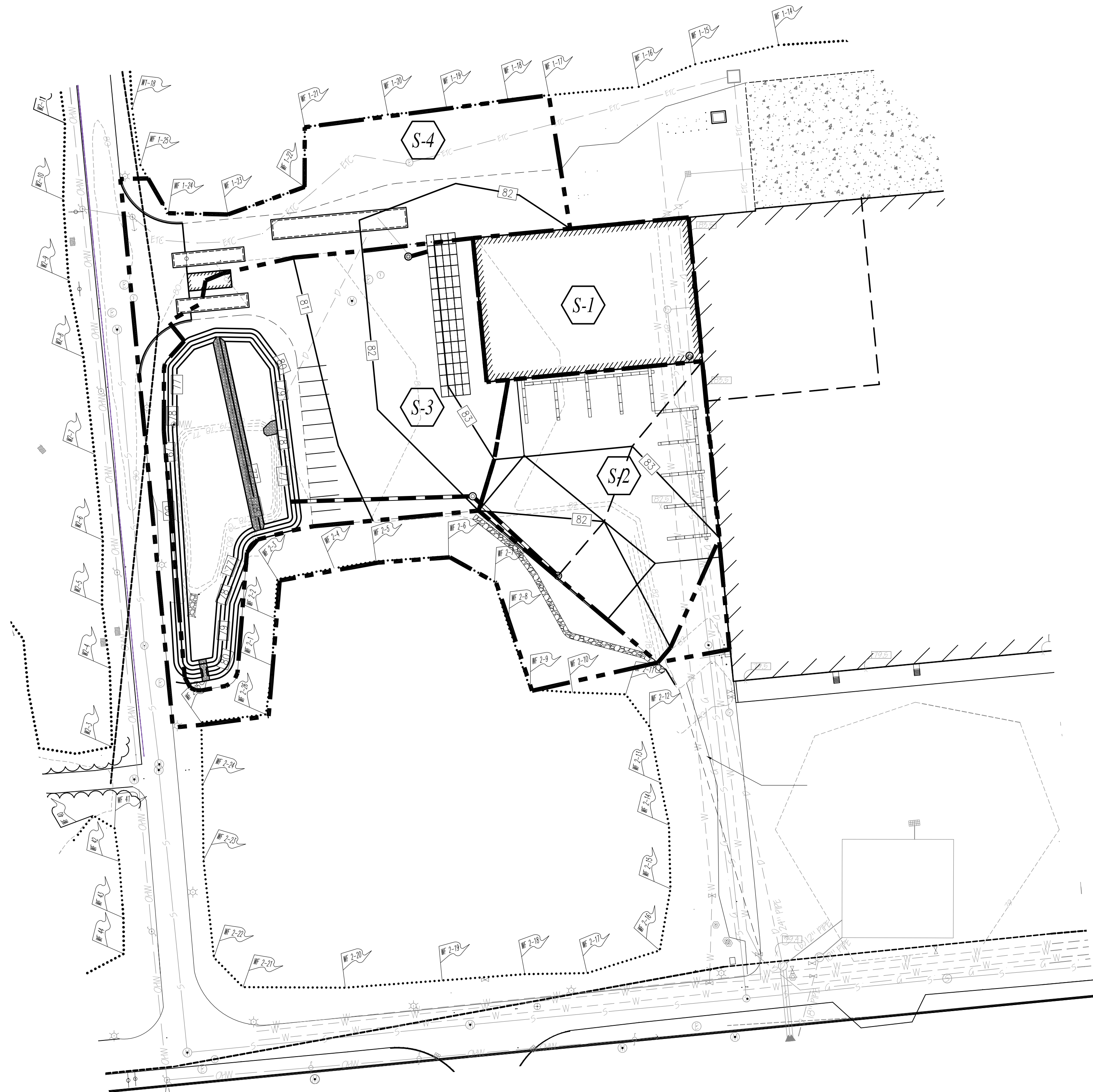
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs  
Type III 24-hr 100-yr Rainfall=7.00"

	Area (sf)	CN	Description
*	3,500	98	Pavement
	10,900	76	Gravel roads, HSG A
	8,800	39	>75% Grass cover, Good, HSG A
	20,440	30	Woods, Good, HSG A
	43,640	49	Weighted Average
	40,140		Pervious Area
	3,500		Impervious Area

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



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CHRISTIAN ALBERT FARLAND

No. 47544

Civil Engineer

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2016 JUL 11

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● MARLBOROUGH  
● WARWICK, RI

DRAWN BY: MJW  
DESIGNED BY: JKM  
CHECKED BY: CAF

SITE PLAN  
100 DUCHAINE BOULEVARD  
ASSESSORS MAP 134 LOT 5  
NEW BEDFORD, MASSACHUSETTS

PREPARED FOR:  
PARALLEL PRODUCTS OF NEW ENGLAND  
401 INDUSTRY ROAD  
LOUISVILLE, KY 40208

AUGUST 10, 2017  
SCALE: 1"=50'  
JOB NO. 15-500.2  
LATEST REVISION:

POST-SUBCATCHMENT  
SHEET 5b OF 9

# GROUNDWATER RECHARGE CALCULATIONS



## **RECHARGE CALCULATIONS**

### **SITE PLAN – 100 DUCHAINE BOULEVARD**

#### **REQUIRED:**

Recharge Volume Required ("C" Soils) = [Impervious Area x (Recharge Depth/12)]  
= [53,533 sf x (0.25"/12)]  
= 1,115 c.f. (Required Volume)

Total Required Recharge Volume = 1,115 c.f.

#### **STATIC METHOD:**

- Assume the entire Required Recharge Volume is discharged to the infiltration device before infiltration begins.

#### **PROVIDED:**

##### **Subsurface Recharge System:**

- Cumulative Volume below the lowest outlet (elev. =78.0) = 2,423 c.f.

##### **Water Quality Basin #1:**

- Cumulative Volume below the lowest outlet (elev. =79.0) = 24,780 c.f.

Total Recharge Volume Provided = 27,203 c.f.

# DRAWDOWN CALCULATIONS

$$Time_{drawdown} = \frac{R_v}{(K)(Bottom\ Area)}$$

Where:

$R_v$  = Required Storage Volume = (F)(impervious area)

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

For “Dynamic Field” Method, use 50% of the in-situ saturated hydraulic conductivity.

$$Time_{drawdown} = \frac{R_v}{(K)(Bottom\ Area)} = 7.03\ hours$$

$R_v$  = 1,115 C.F.  
 $K$  = 0.17 inch/hr.  
 $BA$  = 11,198 S.F.

A	sand	<b>0.6-inch</b>
B	loam	<b>0.35-inch</b>
C	silty loam	<b>0.25-inch</b>
D	clay	<b>0.1-inch</b>

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

# WATER QUALITY VOLUME CALCULATIONS



## WATER QUALITY VOLUME CALCULATIONS SITE PLAN – 100 DUCHAINE BOULEVARD

### **REQUIRED VOLUME:**

\*Water Quality Volume Required =  $(1.0"/12) \times (\text{Total Impervious Area})$

\*Water Quality Volume Required =  $(1.0"/12) \times (53,533 \text{ sf}) = \underline{4,461 \text{ c.f.}}$

### **PROVIDED:**

#### Subsurface Recharge System:

- Cumulative Volume below the lowest outlet (elev. =78.0) = 2,423 c.f.

#### Water Quality Basin #1:

- Cumulative Volume below the lowest outlet (elev. =79.0) = 24,780 c.f.

Total Water Quality Volume Provided = 27,203 c.f.

27,203 c.f. (Provided) >>> 4,461 c.f. (Required)

### **SUBSURFACE RECHARGE SYSTEM:**

#### REQUIRED:

Water Quality Volume Required =  $(1.0"/12) \times (15,000 \text{ sf}) = 1,250 \text{ c.f.}$

#### PROVIDED:

Cumulative Volume below the lowest outlet (elev. =78.0) = 2,423 c.f.

### **WATER QUALITY BASIN #1:**

#### REQUIRED:

Water Quality Volume Required =  $(1.0"/12) \times (19,995 \text{ sf}) = 1,666 \text{ c.f.}$

#### PROVIDED:

Cumulative Volume below the lowest outlet (elev. =79.0) = 24,780 c.f.

# TSS REMOVAL CALCULATIONS



## INSTRUCTIONS:

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, TSS Removal and other Columns are automatically completed.

Version 1, Automated: Mar. 4, 2008

Location: Subsurface Roof Recharge System

TSS Removal Calculation Worksheet	B	C	D	E	F
	BMP <sup>1</sup>	TSS Removal Rate <sup>1</sup>	Starting TSS Load*	Amount Removed (C*D)	Remaining Load (D-E)
	Subsurface Infiltration Structure	0.80	1.00	0.80	0.20
		0.00	0.20	0.00	0.20
		0.00	0.20	0.00	0.20
		0.00	0.20	0.00	0.20
		0.00	0.20	0.00	0.20

Total TSS Removal =

80%

Separate Form Needs to  
be Completed for Each  
Outlet or BMP Train

Project: 15-500.2

Prepared By: Christian A. Farland, P.E.

Date: 10-Aug-17

\*Equals remaining load from previous BMP (E)

which enters the BMP

Non-automated TSS Calculation Sheet  
must be used if Proprietary BMP Proposed

1. From MassDEP Stormwater Handbook Vol. 1

Mass. Dept. of Environmental Protection

## INSTRUCTIONS:

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, TSS Removal and other Columns are automatically completed.

Version 1, Automated: Mar. 4, 2008

Location: Detention Basin #1

TSS Removal Calculation Worksheet	B	C	D	E	F
	BMP <sup>1</sup>	TSS Removal Rate <sup>1</sup>	Starting TSS Load*	Amount Removed (C*D)	Remaining Load (D-E)
	Sediment Forebay	0.25	1.00	0.25	0.75
	Infiltration Basin	0.80	0.75	0.60	0.15
		0.00	0.15	0.00	0.15
		0.00	0.15	0.00	0.15
		0.00	0.15	0.00	0.15

Total TSS Removal =

85%

Separate Form Needs to  
be Completed for Each  
Outlet or BMP Train

Project: 15-500.2

Prepared By: Christian A. Farland, P.E.

Date: 10-Aug-17

\*Equals remaining load from previous BMP (E)  
which enters the BMP

Non-automated TSS Calculation Sheet  
must be used if Proprietary BMP Proposed  
1. From MassDEP Stormwater Handbook Vol. 1

Mass. Dept. of Environmental Protection

# SEDIMENT FOREBAY SIZING CALCULATIONS



SEDIMENT FOREBAY SIZING CALCULATIONS

CONTRIBUTING AREA TO FOREBAY AT WATER QUALITY BASIN #1

Impervious Area = 19,998 s.f.

REQUIRED VOLUME OF SEDIMENT FOREBAY = VOLUME PRODUCED BY 0.25" RUNOFF/IMPERVIOUS ACRE

= 0.25 "/ACRE x 1 ACRE X 19,998 S.F.  
43,560 S.F.  
= 0.115 INCHES OF RUNOFF

TOTAL VOLUME PRODUCED = 0.115 INCHES X 1 FT X 19,998 S.F.  
12 IN  
= 191 C.F.

PROVIDED VOLUME OF SEDIMENT FOREBAY

BOTTOM FOREBAY EL. = 77.00 AREA = 11,199 S.F.  
FOREBAY BERM EL. = 79.00 AREA = 12,880 S.F.

VOLUME PROVIDED = 24,079 C.F.

# LONG TERM OPERATION & MAINTENANCE PLAN



**ENGINEERING A BETTER TOMORROW**  
ENGINEERING | SITE WORK | LAND SURVEYING

# **Long Term Operation and Maintenance Plan**

## **Site Plan 100 Duchaine Boulevard New Bedford, MA 02745**

**August 10, 2017**

### **Owner:**

SMRE 100, LLC  
401 Industry Road  
Louisville, KY 40208

### **Prepared For:**

Parallel Products of  
New England  
401 Industry Road  
Louisville, KY 40208

### **Prepared By:**

Christian A. Farland, P.E.  
Farland Corp.  
Project No. 15-500.2

## **Street Sweeping**

The parking lot will be inspected and maintained by the owner.

It shall be the responsibility of the owner to:

Inspections:

Inspect sediment deposit accumulations on the parking lots quarterly.

Maintenance:

Sweep parking lots twice annually. One of the bi-annual sweepings is to be scheduled during the early spring months to clear sediment, sand and debris left behind following the winter accumulation.

Dispose of the accumulated sediment and hydrocarbons in accordance with local, state, and federal guidelines and regulations.

## **Stone/ Rip Rap Areas**

The owner of the rip rap areas shall be the owner.

The rip rap areas are to be inspected and maintained by the owner.

It shall be the responsibility of the owner to:

Inspections:

Inspect the rip rapped areas quarterly.

Maintenance:

Remove accumulated sediment, trash, leaves and debris at least annually. Check for signs of erosion and repair as need. Replace any damaged areas with new rip rap of the same size.

Dispose of the accumulated sediment and hydrocarbons in accordance with local, state, and federal guidelines and regulations.

## **Infiltration Basin**

The owner of the basins shall be the owner.

The basins are to be inspected and maintained by the owner.

It shall be the responsibility of the owner to:

### **Inspections:**

Inspect to basins quarterly and after major storms (>3.2" of rain in 24 hours)

Inspect fore-bay quarterly.

Inspect basins for settlement, subsidence, erosion, cracking or tree growth on the embankment, condition of stone; sediment accumulation around the outlet or within the basin; and erosion within the basin and banks.

Inspect outlet structures and/ or outlet pipes for evidence of clogging, sediment deposits or signs of erosion around the structure/ pipe.

Ensure that the basins are operating as designed. If inspection shows that a basin fails to fully drain within 72 hours following a storm event, then the responsible party shall retain a Registered Professional Civil Engineer licensed in the state of Massachusetts to assess the reason for infiltration/ detention failure and recommend corrective action for restoring the intended functions. For a wet pond, fully drained means that the ponding level in the basin is at or below the lowest elevation of the outlet structure. For an infiltration basin, fully drained means that there is no ponding occurring in the infiltration basin.

Inspect emergency spillways for signs of erosion.

### **Maintenance:**

When mowing the basin and forebay, mow the buffer area, side slopes, and basin bottom. Remove grass clippings and accumulated debris. Mow three times per year in May, July and September.

Remove accumulated trash, leaves, debris in basin and forebay every month between April and November of each year. Inspect areas in February of each year, if possible, to determine whether the aforementioned services are required.



If the infiltration basin is ponding in areas or not infiltrating as designed, use deep tilling to break up clogged surfaces, and re-vegetate immediately.

Replace stone in forebay and at all pipe ends once every five (5) years or when sediment depth is excessive.

Do not store snow in basin area.

Remove sediment from the basin and forebay as necessary and at least once every 5 years but wait until the floor of the basin is thoroughly dry. After removing sediment, replace any vegetation damaged during clean-out by either re-seeding or re-sodding.

Dispose of the accumulated sediment and hydrocarbons in accordance with local, state, and federal guidelines and regulations.

### **Drain Lines**

After construction, the drain lines shall be inspected after every major storm for the first few months to ensure proper functions. Presence of accumulated sand and silt would indicate more frequent maintenance of the pre-treatment devices is required. Thereafter, the drain lines shall be inspected at least once per year. Accumulated silt shall be removed by a vactor truck or other method preferred.

# LONG TERM POLLUTION PREVENTION PLAN



**ENGINEERING A BETTER TOMORROW**  
ENGINEERING / SITE WORK / LAND SURVEYING

# **Long Term Pollution Prevention Plan**

## **Site Plan 100 Duchaine Boulevard New Bedford, MA 02745**

**August 10, 2017**

**Owner:**

SMRE 100, LLC  
401 Industry Road  
Louisville, KY 40208

**Prepared For:**

Parallel Products of  
New England  
401 Industry Road  
Louisville, KY 40208

**Prepared By:**

Christian A. Farland, P.E.  
Farland Corp.  
Project No. 15-500.2

## **Long Term Pollution Prevention Plan**

This Long Term Pollution Prevention Plan serves to outline good housekeeping practices in order to prevent pollution of the wetland resource areas and surrounding environment. The Long Term Operation & Maintenance Plan shall be taken as part of this document as it is a critical part of this plan and shall be adhered to. Proper operation and maintenance records shall be kept on file at all times.

Snow disposal shall be carried out by the owner. The owner should follow DEP guideline #BRPG 01-01 for all snow removal requirements.

The following areas shall be avoided for snow disposal:

- Avoid dumping the snow in the bordering vegetated wetlands.
- Avoid dumping of snow on top of storm drain catch basins or in stormwater drainage swales or ditches. Snow combined with sand and debris may block a storm drainage system, causing localized flooding. A high volume of sand, sediment, and litter released from melting snow also may be quickly transported through the system into surface water.

In order to prevent or minimize the potential for a spill of hazardous substances or oils to contaminate stormwater, a spill control and containment kit, including spill berm, absorbent materials, rags, gloves, and trash containers, shall be readily available. All product manufacturers recommended spill cleanup methods shall be known by maintenance personnel, who shall be trained regarding these procedures and the location of the cleanup procedure information and supplies. In the event of oil, gasoline or other hazardous waste spill on-site, the City of New Bedford Fire Department, DEP and the Conservation Agent shall be notified immediately. For spills of less than ¼ gallon, clean-up with absorbent materials or other appropriate means, unless circumstances dictate that the spill should be treated by a professional emergency response contractor. Spills which exceed the reportable quantities of substances mentioned in 40 CFR 110, 40 CFR 117, or 40 CFR 302 must be immediately reported to the EPA National Response Center (800) 242-8802. Any catch basin that may be affected by the spill shall be covered immediately with a spill protector drain cover or similar product, or a spill berm placed around the perimeter of the opening to prevent any contamination into the drainage system. Proper cleanup and disposal of hazardous wastes must follow all applicable local and state regulations and must be carried out by a qualified contractor.

The maintenance of all individual lawns, gardens and landscaped areas shall be performed by the owner. The site is not located within or near an Area of Critical Environmental Concern. However, good housekeeping practices should include proper storage and minimal use of cleaning products and fertilizers.

# ILLICIT DISCHARGE STATEMENT



August 10, 2017

New Bedford Conservation Commission  
City Hall, Room 304  
133 William Street  
New Bedford, MA 02740

**RE: Illicit Discharge Compliance Statement (IDCS)  
Site Plan - 100 Duchaine Boulevard**

Dear Mr. Radcliffe,

As required, we are submitting this Illicit Discharge Compliance Statement verifying that no illicit discharges exist on the site or are proposed. We have included in the pollution prevention plan measures to prevent illicit discharges to the stormwater management system, including wastewater discharges and discharges of stormwater contaminated by contact with process wastes, raw materials, toxic pollutants, hazardous substances, oil, or grease.

The site plan identifies the location of any systems for conveying wastewater and/or groundwater on the site and show that there are no connections between the stormwater and wastewater management systems and the location of any measures taken to prevent the entry of illicit discharges into the stormwater management system.

Please feel free to contact us if you should need any further information.

Very Truly Yours,

FARLAND CORP.

*Christian A. Farland*

Christian A. Farland, P.E., LEED AP  
Principal Engineer and Vice President



## City of New Bedford

### REQUEST for a CERTIFIED ABUTTERS LIST

This information is needed so that an official abutters list as required by MA General Law may be created and used in notifying abutters. You, as applicant, are responsible for picking up and paying for the certified abutters list from the assessor's office (city hall, room #109).

SUBJECT PROPERTY			
MAP #	134	LOT(S)#	5
ADDRESS: 100 Duchaine Boulevard			
OWNER INFORMATION			
NAME: SM Real Estate, LLC			
MAILING ADDRESS: 401 Industry Road, Suite 100 - Louisville, KY 40208			
APPLICANT/CONTACT PERSON INFORMATION			
NAME (IF DIFFERENT): Matthew J. White, Farland Corp.			
MAILING ADDRESS (IF DIFFERENT): 401 County Street - New Bedford, MA 02740			
TELEPHONE #	(508) 717-3479		
EMAIL ADDRESS:	mwhite@farlandcorp.com		
REASON FOR THIS REQUEST: <i>Check appropriate</i>			
<input type="checkbox"/>	ZONING BOARD OF APPEALS APPLICATION		
<input checked="" type="checkbox"/>	PLANNING BOARD APPLICATION		
<input type="checkbox"/>	CONSERVATION COMMISSION APPLICATION		
<input type="checkbox"/>	LICENSING BOARD APPLICATION		
<input type="checkbox"/>	OTHER (Please explain):		

Once obtained, the Certified List of Abutters must be attached to this Certification Letter.

Submit this form to the Planning Division Room 303 in City Hall, 133 William Street. You, as applicant, are responsible for picking up and paying for the certified abutters list from the assessor's office (city hall, room #109).

#### Official Use Only:

As Administrative Assistant to the City of New Bedford's Board of Assessors, I do hereby certify that the names and addresses as identified on the attached "abutters list" are duly recorded and appear on the most recent tax.

Carlos Amado

Printed Name

*Carlos Amado*

Signature

7/10/2017

Date



July 6, 2017  
Dear Applicant,

Please find below the List of Abutters within 300 feet of the property known as 100 Duchanie Boulevard (134-5). The current ownership listed herein must be checked and verified by the City of New Bedford Assessor's Office. Following said verification, the list shall be considered a Certified List of Abutters.

Please note that multiple listed properties with identical owner name and mailing address shall be considered duplicates, and shall require only 1 mailing. Additionally, City of New Bedford-Owned properties shall not require mailed notice.

Parcel	Location	Owner and Mailing Address
134E-6	107 RIDGEWOOD RD	DUBOIS RAYMOND, DUBOIS DIANE C 107 RIDGEWOOD ROAD NEW BEDFORD, MA 02745
134E-7	115 RIDGEWOOD RD	CATOJO LENNY, 115 RIDGEWOOD ROAD NEW BEDFORD, MA 02745
134E-8	125 RIDGEWOOD RD	DEVLIN ROBERT, 125 RIDGEWOOD RD NEW BEDFORD, MA 02745
133-2 <i>ES</i>	JOHN VERTENTE BLVD	COMMONWEALTH OF MASSACHUSETTS, 251 CAUSEWAY STREET BOSTON, MA 02114
134F-29	109 BIRCHWOOD DR	TAYLOR BRUCE M, 109 BIRCHWOOD DR NEW BEDFORD, MA 02745
134F-31	97 IVY RD	<del>BARBOSA LUISA P,</del> <i>Manuel DaSilva, Laura Ann DaSilva</i> 97 IVY RD NEW BEDFORD, MA 02745
134F-30	99 IVY RD	TAVARES JOSE, 99 IVY ROAD NEW BEDFORD, MA 02745
134E-9	993 PINE HILL DR	BATES GAIL A, 993 PINE HILL DRIVE NEW BEDFORD, MA 02745
134-455	107 DUCHAINE BLVD	CITY OF NEW BEDFORD, 133 WILLIAM STREET NEW BEDFORD, MA 02740
134E-5	99 RIDGEWOOD RD	SEIFERT JEFFREY A, SEIFERT LORIE A 99 RIDGEWOOD ROAD NEW BEDFORD, MA 02745
134-406	1844 PHILLIPS RD	CRAPO VICTORIA J, CRAPO DENNIS S 1844 PHILLIPS ROAD NEW BEDFORD, MA 02745
134F-32	95 IVY RD	BOUCHARD DENNIS P, BOUCHARD WANDA M 95 IVY ROAD NEW BEDFORD, MA 02745
134-342	1784 PHILLIPS RD	HATHAWAY ROBERT, C/O ROBERT J HATHAWAY 1784 PHILLIPS ROAD NEW BEDFORD, MA 02745



July 6, 2017

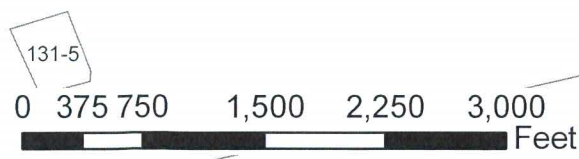
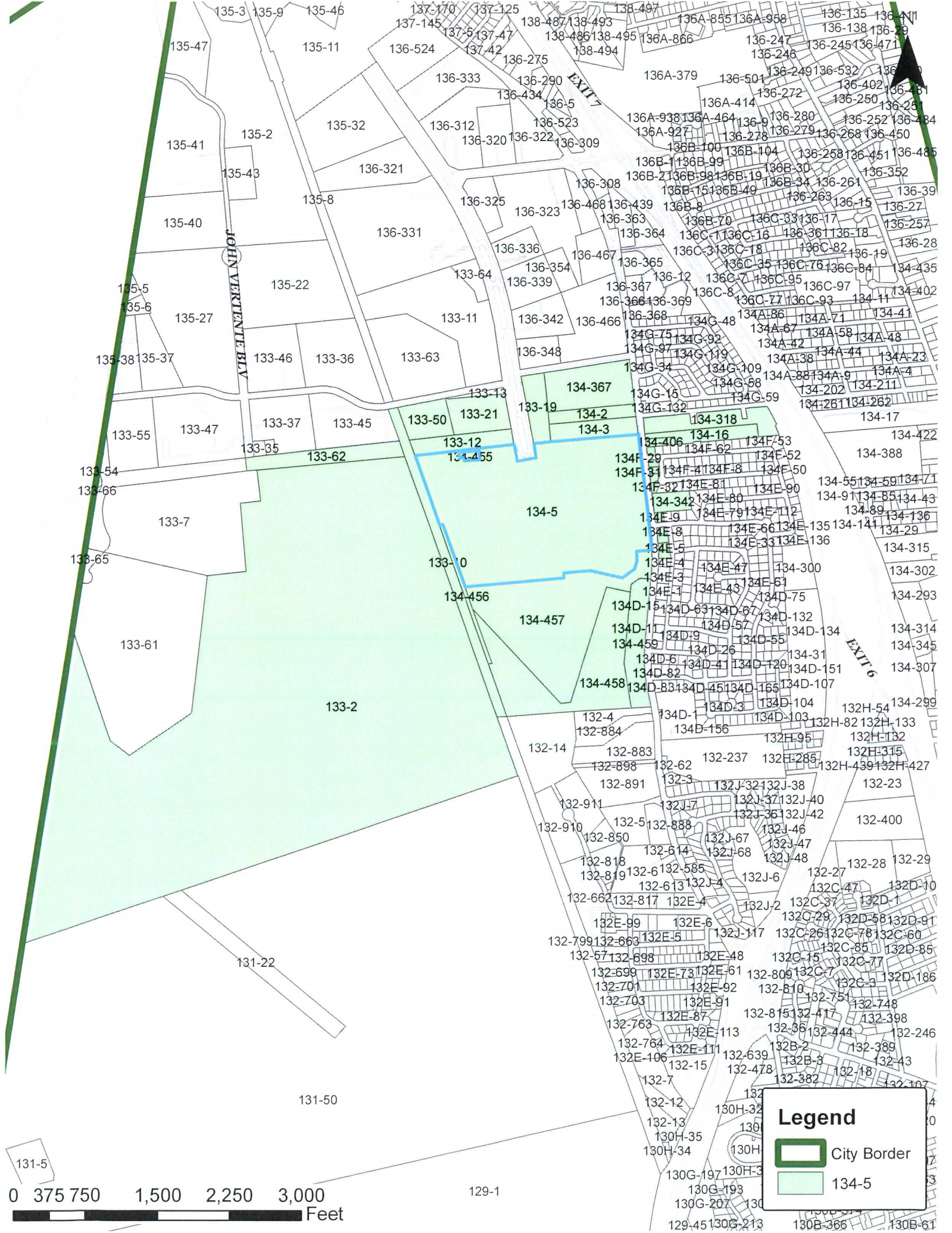
Dear Applicant,

Please find below the List of Abutters within 300 feet of the property known as 100 Duchaine Boulevard (134-5). The current ownership listed herein must be checked and verified by the City of New Bedford Assessor's Office. Following said verification, the list shall be considered a Certified List of Abutters.

Please note that multiple listed properties with identical owner name and mailing address shall be considered duplicates, and shall require only 1 mailing. Additionally, City of New Bedford-Owned properties shall not require mailed notice.

Parcel	Location	Owner and Mailing Address
134F-68	112 BIRCHWOOD DR	LORANTOS GEORGE G JR, LORANTOS CHERYL 112 BIRCHWOOD DRIVE NEW BEDFORD, MA 02745
133-62 <i>SS</i>	SAMUEL BARNETT BLVD	GNBIF/POLAROID LLC, C/O CORPORATE REAL ESTATE <del>227 UNION STREET</del> <i>1213 Purchase St.</i> NEW BEDFORD, MA 02740
133-12 <i>B-ES</i>	SAMUEL BARNETT BLVD	GREATER NEW BEDFORD, INDUSTRIAL FOUNDATION <del>227 UNION ST RM 607</del> <i>1213 Purchase St. Unit 2</i> NEW BEDFORD, MA 02740
134-16 <i>ES</i>	PHILLIPS RD	ABREU JOSEPH L, 759 BELLEVILLE AVE NEW BEDFORD, MA 02745
133-10	RIGHT OF WAY	PENN CENTRAL CO, CONSOLIDATED RAIL CORP <del>P O BOX 8097</del> <i>500 Water Street Dept. J910</i> <del>PHILADELPHIA, PA 19101</del> <i>Jacksonville, FL 32202</i>
134-2	PHILLIPS RD	COMMONWEALTH ELECTRIC CO, C/O PROPERTY TAX DEPARTMENT P O BOX 270 HARTFORD, CT 06141
133-50	30 SAMUEL BARNETT BLVD	IMTRA CORPORATION, 30 SAMUEL BARNET BLVD NEW BEDFORD, MA 02745
133-21	127 DUCHAINE BLVD <i>-127 D</i>	MILHENCH ARTHUR L "TRUSTEE", MILHENCH 2001 NOMINEE TRUST (THE) 127 DUCHAINE BLVD NEW BEDFORD, MA 02745
134-367 <i>WS</i>	PHILLIPS RD	N E PLASTICS CORP, 310 SALEM ST WOBURN, MA 01801
134-5	100 DUCHAINE BLVD	LOGAL LLC, C/O ERIC DECOSTA <del>89 BLACKMER STREET</del> <i>100 Duchaine Blvd.</i> NEW BEDFORD, MA <del>02744</del> <i>02745</i>
134-456 <i>R-WS</i>	DUCHAINE BLVD	<del>MULTILAYER COATING TECHNOLOGIES LLC, SM Real Estate LLC</del> <del>1 CRANBERRY HILL SUITE 401</del> <i>401 Industry Road - Ste 100</i> <del>LEXINGTON, MA 02421-7397</del> <i>Louisville, KY 40208</i>
134-457	50 DUCHAINE BLVD	<del>MULTILAYER COATING TECHNOLOGIES LLC, nSTAR Electric Co.</del> <del>1 CRANBERRY HILL</del> <i>247 Station Drive</i> <del>LEXINGTON, MA 02421</del> <i>Westwood, MA 02090</i>
134-459 <i>WS</i>	PHILLIPS RD	<del>MULTILAYER COATING TECHNOLOGIES LLC, sm Real Estate LLC</del> <del>1 CRANBERRY HILL SUITE 401</del> <i>401 Industry Rd. Ste. 100</i> <del>LEXINGTON, MA 02421-7397</del> <i>Louisville, KY 40208</i>





**Legend**

-  City Border
-  134-5

## **Notification to Abutters Under the Massachusetts Wetlands Protection Act**

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

- A. The name of the applicant is Tim Cusson - Parallel Products of New England.
- B. The applicant has filed a Notice of Intent with the Conservation Commission for the municipality of New Bedford seeking permission to remove, fill, dredge or alter an Area Subject to Protection Under the Wetlands Protection Act (General Laws Chapter 131, Section 40).
- C. The address of the lot where the activity is proposed is 100 Duchaine Boulevard.
- D. Copies of the Notice of Intent may be examined at the New Bedford Conservation Commission office at 133 William Street, Rm 304 between the hours of M-F 8AM-4PM.
- E. Copies of the Notice of Intent may also be obtained from the applicant's representative FOR A REASONABLE FEE by calling: Farland Corp. at (508) 717-3479 between the hours of 8:00 am and 4:00 pm on Monday – Friday.
- F. Information regarding the date, time and place of the public hearing may be obtained from the New Bedford CONSERVATION COMMISSION by calling: (508) 991-6188.

NOTE: Notice of the public hearing, including its date, time, and place, will be published at least five (5) days in advance in a publication with general circulation in the Community.

NOTE: Notice of the public hearing, including its date, time, and place, will be posted in the City or Town Hall not less than forty-eight (48) hours in advance.

NOTE: You also may contact the nearest Department of Environmental Protection Regional Office for more information about this application or the Wetlands Protection Act. To contact DEP, call: (508) 946-2700

**Under the Massachusetts Wetlands Protection Act**

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

I, Christian A. Farland hereby certify under the pains and penalties of  
perjury that on August 11, 2017, I gave notification to abutters in  
compliance with the second paragraph of Massachusetts General Laws  
Chapter 131, Section 40, and the DEP Guide to Abutter Notification dated  
April 8, 1994, in connection with the following matter:

A Notice of Intent filed under the Massachusetts Wetlands  
Protection Act by Tim Cusson of Parallel Products of New  
England with the New Bedford Conservation Commission on  
August 11, 2017 for property located at 100 Duchaine  
Boulevard - New Bedford, MA 02745.

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

  
\_\_\_\_\_  
Name

  
\_\_\_\_\_  
Date



# SITE PLAN

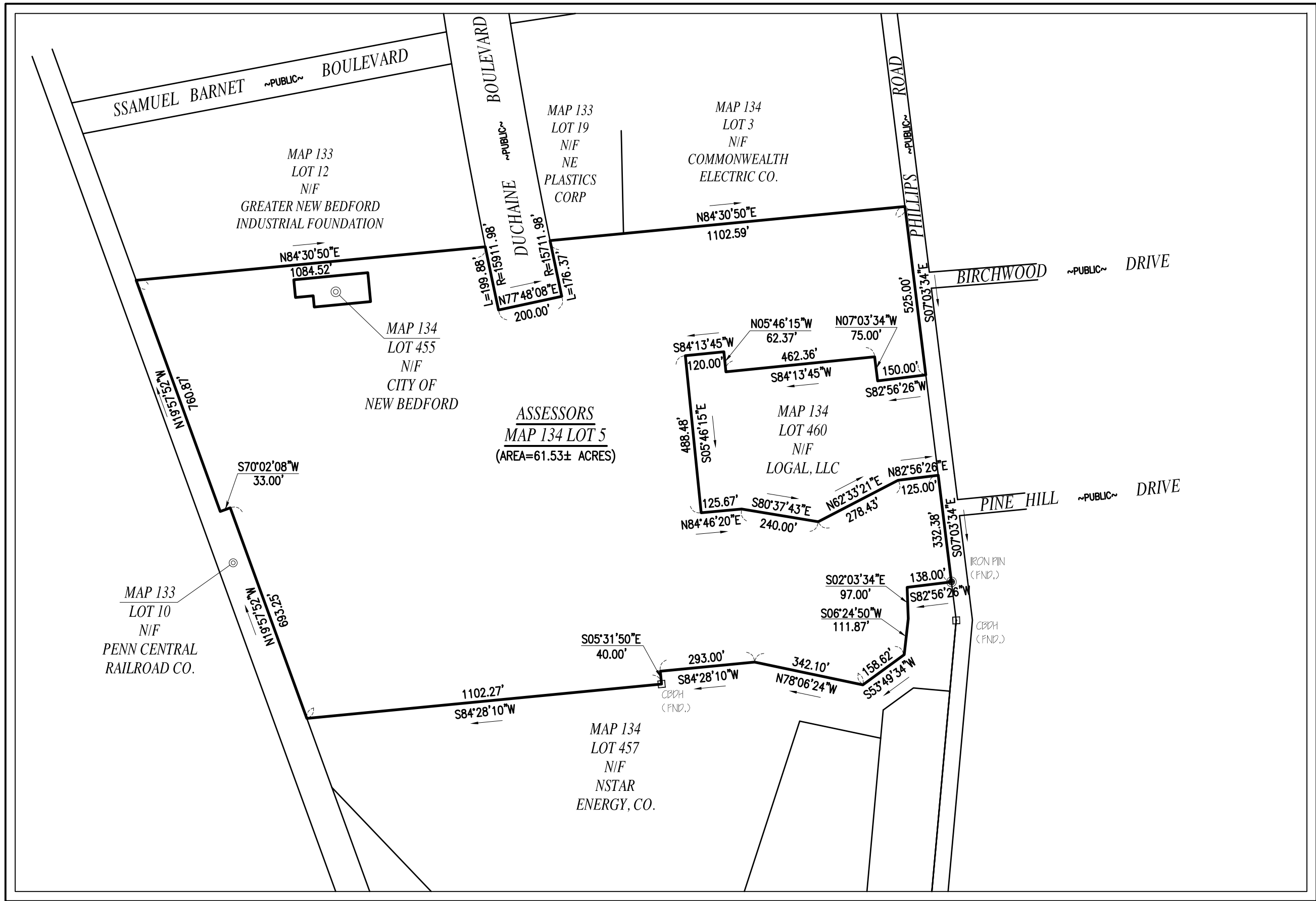


S I T E     P L A N

100 DUCHAINE BOULEVARD

ASSESSORS MAP #134 LOT #5

NEW BEDFORD, MASSACHUSETTS



— OVERALL SITE MAP —

SCALE: 1"=300'



— AREA MAP —

SCALE: 1"=1,000'±

— ZONING DATA —			
DISTRICT: INDUSTRIAL C			
DESCRIPTION	REQUIRED	EXISTING	PROVIDED
LOT AREA	0 S.F.	69.1± AC	69.1± AC
LOT FRONTAGE	0 FT	576.17 FT	576.17 FT
FRONT SETBACK	25 FT	849.6± FT	849.6± FT
SIDE SETBACK	25 FT	192.3± FT	192.3± FT
REAR SETBACK	25 FT	828.9± FT	828.9± FT
BUILDING HEIGHT (MAXIMUM)	100 FT	400 FT	400 FT
BUILDING COVERAGE (MAXIMUM)	50 %	3A± %	3B± %
LOT COVERAGE (MAXIMUM)	80 %	490 %	490 %
— PARKING & LOADING REQUIREMENTS —			
PRINCIPAL USE: RECYCLING FACILITY			
(FOR PARKING REGULATION PURPOSES: BUSINESS ENGAGED IN WAREHOUSING & DISTRIBUTION)			
REQUIREMENT	REQUIRED	PROVIDED	
1 SPACE PER 1,500 S.F. OF G.F.A. UP TO 15,000 S.F. THEREAFTER, ONE ADDITIONAL SPACE FOR EACH 5,000 S.F. OR PORTION THEREOF IN EXCESS OF 15,000 S.F., PLUS ONE SPACE FOR EACH VEHICLE UTILIZED IN THE BUSINESS.	55 TOTAL PARKING SPACES	142 TOTAL PARKING SPACES	
WHEN 26-50 TOTAL PARKING SPACES ARE PROVIDED, 2 MUST BE ACCESSIBLE SPACES. ONE IN EVERY EIGHT ACCESSIBLE SPACES, BUT NOT LESS THAN ONE, SHALL BE VAN ACCESSIBLE	2 TOTAL SPACES (1 VAN)	2 SPACES (1 VAN)	
TWO (2) LOADING SPACES FOR EACH BUILDING CONTAINING 10,000 S.F. OF GROSS FLOOR AREA. THEREAFTER, ONE (1) ADDITIONAL LOADING SPACE SHALL BE REQUIRED FOR EACH FIFTEEN (15) FEET OF DOCK, PLATFORM, OR OPENING IN THE BUILDING WHERE THE LOADING OR UNLOADING OF COMMODITIES IS INTENDED TO OCCUR.	17 LOADING SPACES	20 LOADING SPACES	

— I N D E X —			
SHEET	DESCRIPTION	SHEET	DESCRIPTION
1	COVER	5	UTILITIES & GRADING
2	NOTES & LEGEND	6	LIGHTING
3	EXISTING CONDITIONS	7	DETAILS
4	LAYOUT	8-9	ARCHITECTURALS

**WAIVERS REQUESTED**

CODE OF ORDINANCES — CH. 9 COMPREHENSIVE ZONING

1. SECTION 5350 — DEVELOPMENT IMPACT STATEMENT

**SITE PLAN REVIEW CHECKLIST**

2. SECTION 36. LANDSCAPE PLAN

3. SECTION 8. TRAFFIC IMPACT & ACCESS STUDY

**RECORD OWNER:**

ASSESSORS MAP 134 LOT 5

SM REAL ESTATE, LLC

401 INDUSTRY ROAD

LOUISVILLE, KY 40208

LC CERT# 23339

LC PLAN# 36318C

REVISIONS

UNIVERSITY OF MASSACHUSETTS  
CHRISTIAN ALBERT FARLAND  
No. 47544  
CIVIL ENGINEER  
MASSACHUSETTS

www.FarlandCorp.com

401 COUNTY STREET  
NEW BEDFORD, MA 02740  
P.508.717.3479  
OFFICES IN:  
● TAUNTON  
● MARLBOROUGH  
● WARWICK, RI

DRAWN BY: MJW  
DESIGNED BY: JKM  
CHECKED BY: CAF

SITE PLAN  
— 100 DUCHAINE BOULEVARD —  
ASSESSORS MAP 134 LOT 5  
NEW BEDFORD, MASSACHUSETTS  
PARALLEL PRODUCTS OF NEW ENGLAND  
401 INDUSTRY ROAD  
LOUISVILLE, KY 40208  
PREPARED FOR:

AUGUST 10, 2017  
SCALE: AS NOTED  
JOB NO. 15-500.2  
LATEST REVISION:  
COVER  
SHEET 1 OF 9



1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY, AND "DIG SAFE" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION ATTEMPT TO RELOCATE EXACT FIELD LOCATION OF UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLAN.
2. TOPOGRAPHIC AND PROPERTY LINE SURVEY PERFORMED BY FARLAND CORP. IN SEPTEMBER OF 2015.
3. VERTICAL ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988 AND HORIZONTAL LOCATIONS REFER TO THE NORTH AMERICAN DATUM (NAD) OF 1983.
4. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL STANDARDS AND REGULATIONS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL CONTROL POINTS AND BENCH MARKS NECESSARY FOR THE WORK.
6. ALL BENCH MARKS SHOWN ON THE PLAN ARE TO BE CHECKED FOR CONSISTENCY BY THE CONTRACTOR. ANY DISCREPANCIES MUST BE RESOLVED BY THIS OFFICE PRIOR TO CONSTRUCTION.
7. WHERE PROPOSED PAVEMENT AND WALKS ARE TO MEET EXISTING, THE CONTRACTOR SHALL SAWCUT A NEAT LINE AND MATCH GRADE. SEAL ALL JOINTS WITH HOT BITUMINOUS ASPHALT JOINT SEALER.
8. CURBING TO BE AS INDICATED ON THE PLANS.
9. ALL EXISTING TREES, SHRUBS AND GROUND COVER WHERE NATURAL GRADE IS TO BE RETAINED SHALL BE KEPT IN THEIR EXISTING STATE UNLESS REMOVAL IS REQUIRED FOR CONSTRUCTION PURPOSES.
10. ALL AREAS DISTURBED BY CONSTRUCTION AND NOT TO BE PAVED OR OTHERWISE TREATED AS NOTED ON PLAN SHALL BE TREATED WITH 4" OF LOAM, SEEDED AND HAY MULCHED FOR EROSION CONTROL.
11. SITE IMPROVEMENTS SHALL CONFORM TO A.D.A. SPECIFICATIONS.
12. ALL HANDICAP PARKING, RAMPS AND ACCESS SHALL CONFORM TO AAB & MAAB REQUIREMENTS.
13. ALL PAVEMENT MARKINGS AND SIGNS SHALL CONFORM TO MUTCD REQUIREMENTS.
14. LIGHTING SHALL BE DIRECTED ON SITE AND AWAY FROM TRAFFIC INTERFERENCE.
15. TEST PITS AND/OR BORINGS WERE TAKEN FOR THE PURPOSE OF DESIGN AND SHOW CONDITIONS AT BORING POINTS ONLY. THEY DO NOT NECESSARILY SHOW THE NATURE OF ALL MATERIALS TO BE ENCOUNTERED DURING CONSTRUCTION.
16. THE CONTRACTOR SHALL PROTECT AND/OR CAP OFF ALL EXISTING ON-SITE UTILITY SERVICES ACCORDING TO THE LOCAL AUTHORITY'S SPECIFICATIONS. SERVICES SHALL BE CAPPED OFF WHERE SAME ENTER THE PERIMETER OF THE PROPERTY LINE.
17. ANY WORK AND MATERIAL WITHIN THE CITY RIGHT-OF-WAY SHALL CONFORM TO THE CITY OF NEW BEDFORD REQUIREMENTS.
18. CONTRACTOR SHALL THOROUGHLY FAMILIARIZE THEMSELVES WITH ALL CONSTRUCTION DOCUMENTS, SPECIFICATIONS AND ALL CONDITIONS PRIOR TO BIDDING AND PRIOR TO CONSTRUCTION.
19. ANY DISCREPANCIES BETWEEN DRAWINGS, SPECIFICATIONS AND SITE CONDITIONS SHALL BE REPORTED IMMEDIATELY TO THE OWNER'S REPRESENTATIVE FOR CLARIFICATION AND RESOLUTION PRIOR TO BIDDING OR CONSTRUCTION.
20. ANY MINOR MODIFICATIONS (AS DETERMINED BY THE CITY ENGINEER) TO THE INFORMATION SHOWN ON THE APPROVED SITE PLANS SHALL BE SUBMITTED TO THE CITY ENGINEER AS A MINOR PLAN REVISION FOR APPROVAL PRIOR TO THE WORK BEING PERFORMED.
21. THESE PLANS ARE PERMITTING PLANS AND SHALL NOT TO BE USED FOR CONSTRUCTION. A FINAL SET OF STAMPED PLANS FOR CONSTRUCTION WILL BE ISSUED AFTER RECEIVING FINAL APPROVAL FROM THE LOCAL AND/OR STATE DEPARTMENTS.

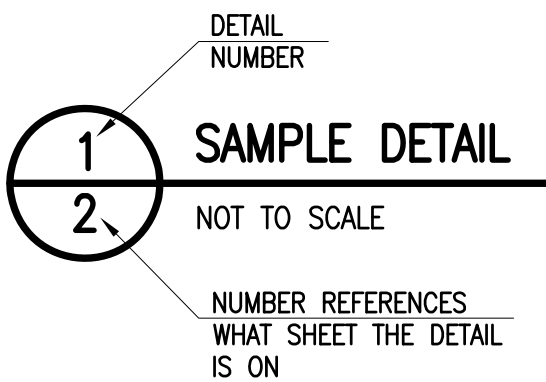
1. ALL BMP EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO DEMOLITION OR ANY SITE WORK.
2. EROSION CONTROL BMPs SHALL CONFORM TO US EPA, NPDES, MA DEP AND MASSACHUSETTS EROSION AND SEDIMENTATION CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS.
3. CONSTRUCT TEMPORARY AND PERMANENT EROSION CONTROL FACILITIES. EROSION CONTROL FACILITIES SHALL BE INSTALLED PRIOR TO ANY EARTH MOVING.
4. ALL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO CONSTRUCTION. EROSION CONTROL SHALL CONFORM TO THE CITY OF NEW BEDFORD CONSERVATION COMMISSION REQUIREMENTS AS STATED IN THE ORDER OF CONDITIONS.
5. TREE PROTECTION FENCE SHALL BE INSTALLED AND APPROVED BY THE OWNER REPRESENTATIVE PRIOR TO ANY EARTH MOVING.
6. ALL PERMANENT DITCHES AND SWALES ARE TO BE STABILIZED WITH VEGETATION OR RIP RAP PRIOR TO DIRECTING RUNOFF TO THEM.
7. CLEAR CUT, DEMOLISH AND DISPOSE OF EXISTING SITE ELEMENTS NOT TO REMAIN.
8. STORMWATER SHALL NOT BE DIRECTED TOWARDS THE INFILTRATION BASINS UNTIL THE ENTIRE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.
9. GRADE AND GRAVEL ALL PAVED AREAS. ALL PROPOSED PAVED AREAS SHALL BE STABILIZED IMMEDIATELY AFTER GRADING.
10. BEGIN ALL PERMANENT AND TEMPORARY SEEDING AND MULCHING. ALL CUT AND FILL SLOPES SHALL BE SEEDDED AND MULCHED IMMEDIATELY AFTER THEIR CONSTRUCTION.
11. DAILY, OR AS REQUIRED, CONSTRUCT TEMPORARY BERMS, DRAINS, DITCHES, SILT FENCES AND MULCH AND SEED AS REQUIRED.
12. FINISH PAVING ALL HARD SURFACE AREAS.
13. INSPECT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES.
14. COMPLETE PERMANENT SEEDING AND LANDSCAPING.
15. REMOVE TEMPORARY EROSION CONTROL MEASURES.
16. THE CONSTRUCTION SEQUENCE SHALL BE CONFINED TO THE LIMIT OF WORK AS SHOWN ON THE DRAWINGS.
17. UPON COMPLETION OF CONSTRUCTION THE OWNER SHALL AGREE TO MAINTAIN AND CLEAN ALL DRAINAGE STRUCTURES AS REQUIRED.
18. MAINTENANCE SPECIFICATIONS SHALL BE PROVIDED FOR ALL PROPOSED EROSION AND SEDIMENTATION CONTROLS.

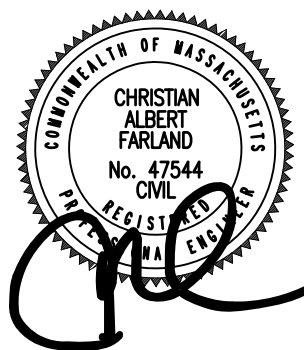
1. THE CONTRACTOR SHALL OBTAIN A STREET DISTURBANCE AND OBSTRUCTION PERMIT PRIOR TO ANY CONSTRUCTION WITHIN THE RIGHT-OF-WAY.
2. ALL WATER AND SEWER MATERIAL AND CONSTRUCTION SHALL CONFORM TO THE CITY OF NEW BEDFORD REQUIREMENTS.
3. ALL WATER AND SEWER CONSTRUCTION SHALL BE INSPECTED BY THE CITY OF NEW BEDFORD BEFORE BEING BACKFILLED.
4. THE CITY SHALL BE NOTIFIED AT LEAST 24 HOURS PRIOR TO THE REQUIRED INSPECTIONS.
5. ALL ON-SITE STORM DRAINAGE PIPES SHALL BE HIGH DENSITY POLYETHYLENE PIPE (HDPE) OR RCP, UNLESS NOTED OTHERWISE.
6. HDPE PIPE SHALL CONFORM WITH ASHTO DESIGNATIONS M294 AND M252. SHALL BE MANUFACTURED WITH HIGH DENSITY POLYETHYLENE PLASTIC AND SHALL BE ADS N-12 PIPE AS MANUFACTURED BY ADVANCE DRAINAGE SYSTEM, INC. OR HANCOR HI Q PIPE AS MANUFACTURED BY HANCOR, INC. OR APPROVED EQUAL UNLESS OTHERWISE NOTED OR DETAILED.
7. A MINIMUM OF 18" VERTICAL CLEARANCE SHALL BE MAINTAINED WHERE WATER SERVICES CROSS STORM DRAIN LINES.
8. ALL SERVICE CONNECTIONS SHALL BE INSTALLED TO A POINT OF 10 FEET FROM THE BUILDING WALL UNLESS OTHERWISE NOTED OR DETAILED.
9. BEFORE THE DEVELOPMENT SITE IS GRADED, THE AREA OF THE DRAINAGE BASINS SHOULD BE FENCED OFF TO PREVENT HEAVY EQUIPMENT FROM COMPACTING THE UNDERLYING SOIL.
10. WHERE PROPOSED GRADES MEET EXISTING GRADES, CONTRACTOR SHALL BLEND GRADES TO PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING AND NEW WORK. PONDING AT TRANSITION AREAS WILL NOT BE ALLOWED.
11. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM ALL BUILDING FOUNDATIONS AND STRUCTURES.
12. MAXIMUM SLOPE IN DISTURBED AREAS SHALL NOT EXCEED 3:1, UNLESS OTHERWISE NOTED.
13. CONTRACTOR SHALL VERIFY EXISTING GRADES AND NOTIFY OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES.
14. CONTRACTOR SHALL ADJUST UTILITY ELEMENT MEANT TO BE FLUSH WITH GRADE THAT IS AFFECTED BY SITE WORK OR GRADE CHANGES, WHETHER SPECIFICALLY NOTED ON PLANS OR NOT.
15. 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 OWNER'S REPRESENTATIVE FOR RESOLUTION OF THE CONFLICT.
16. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF ALL GAS, ELECTRIC TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES.
17. ELECTRICAL DUCT BANK LOCATION IS SHOWN FOR COORDINATION PURPOSES, REFER TO ELECTRICAL PLANS FOR SECTIONS AND DETAILS OF THE UTILITY DUCT BANK.
18. THE LOCATION, SIZE, DEPTH AND SPECIFICATIONS FOR CONSTRUCTION OF PRIVATE UTILITY SERVICES SHALL BE INSTALLED ACCORDING TO THE REQUIREMENTS PROVIDED BY AND APPROVED BY THE RESPECTIVE UTILITY COMPANY (GAS, TELEPHONE AND ELECTRICAL). FINAL DESIGN AND LOCATIONS AT THE BUILDING WILL BE PROVIDED BY THE ARCHITECT. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE UTILITY CONNECTIONS WITH THE RESPECTIVE COMPANIES PRIOR TO ANY UTILITY CONSTRUCTION.

1. CONTRACTOR SHALL THOROUGHLY FAMILIARIZE THEMSELVES WITH ALL CONSTRUCTION DOCUMENTS, SPECIFICATIONS AND SITE CONDITIONS PRIOR TO BIDDING AND PRIOR TO CONSTRUCTION.
2. ANY DISCREPANCIES BETWEEN DRAWINGS, SPECIFICATIONS AND SITE CONDITIONS SHALL BE REPORTED IMMEDIATELY TO THE OWNER'S REPRESENTATIVE FOR CLARIFICATION AND RESOLUTION PRIOR TO BIDDING OR CONSTRUCTION.
3. SEE ARCHITECTURAL DRAWINGS FOR EXISTING BUILDING DIMENSIONS AND ALL DETAILS CONTIGUOUS TO THE BUILDING INCLUDING SIDEWALKS, RAMPS, UTILITY ENTRANCE LOCATIONS, WALL PACKS, CONCRETE DOOR PADS, ROOF DRAINS, ETC.
4. ACCESSIBLE CURB RAMPS SHALL BE PER THE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD AND THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES, WHICH IS MORE STRINGENT.
5. THE FOLLOWING LAYOUT CRITERIA SHALL CONTROL UNLESS OTHERWISE NOTED ON THE PLAN:
  - ALL DIMENSIONS ARE TO OUTSIDE FACE OF BUILDING.
  - ALL DIMENSIONS ARE TO FACE OF CURB AT GUTTER LINE.
  - ALL DIMENSIONS ARE TO CENTER OF PAVEMENT MARKINGS.
  - ALL TIES TO PROPERTY LINES ARE PERPENDICULAR TO THE PROPERTY LINE UNLESS OTHERWISE NOTED.

1. THE CONSERVATION COMMISSION SHALL BE NOTIFIED, AT LEAST 72 HOURS PRIOR TO ANY LAND DISTURBANCE.
2. A COPY OF THE SOIL EROSION AND SEDIMENT CONTROL PLAN MUST BE MAINTAINED ON THE PROJECT SITE DURING CONSTRUCTION.
3. SOIL EROSION AND SEDIMENT CONTROL PRACTICES IN THE PLAN SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.
4. ALL APPLICABLE SOIL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IN PLACE PRIOR TO ANY DEMOLITION GRADING OPERATIONS AND/OR INSTALLATION OF PROPOSED STRUCTURES OR UTILITIES.
5. ALL APPLICABLE SOIL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE LEFT IN PLACE UNTIL CONSTRUCTION IS COMPLETED AND/OR THE AREA IS STABILIZED.
6. ALL SOIL EROSION AND SEDIMENT CONTROL STRUCTURES SHALL BE INSPECTED AND MAINTAINED ON A REGULAR BASIS AND AFTER EVERY STORM EVENT.
7. THE MAINTENANCE OF SOIL EROSION AND SEDIMENT CONTROL MEASURES AND FACILITIES DURING AND IMMEDIATELY AFTER CONSTRUCTION RESTS WITH THE GENERAL CONTRACTOR. UPON ACCEPTANCE OF THE PROJECT, THE OWNER SHALL BECOME RESPONSIBLE FOR MAINTENANCE OF ANY REMAINING MEASURES AND FACILITIES.
8. OFF SITE SEDIMENT DISTURBANCE MAY REQUIRE ADDITIONAL CONTROL MEASURES TO BE DETERMINED BY THE ENGINEER.
9. THE CONSERVATION COMMISSION AND/OR ENGINEER MAY REQUIRE ADDITIONAL SOIL EROSION MEASURES TO BE INSTALLED, AS DIRECTED BY THE DISTRICT INSPECTOR.
10. ADJOINING PROPERTIES SHALL BE PROTECTED FROM EXCAVATION AND FILLING OPERATIONS AT ALL TIMES.
11. THE CONTRACTOR SHALL UTILIZE ALL METHODS NECESSARY TO PREVENT BLOWING AND MOVEMENT OF DUST FROM THE EXPOSED SOIL SURFACES.
12. PAVED ROWWAYS MUST BE KEPT CLEAN AT ALL TIMES.
13. A CRUSHED STONE TIRE CLEANING PAD WILL BE INSTALLED WHEREVER A CONSTRUCTION ENTRANCE EXISTS. SEE LOCATION DETAIL ON PLAN.
14. ALL CATCH BASIN INLETS SHALL BE PROTECTED DURING CONSTRUCTION AS DETAILED ON THE PLAN, IF APPLICABLE.
15. ALL STORM DRAINAGE OUTLETS SHALL BE PROTECTED AS REQUIRED HEREON BEFORE DISCHARGE POINTS BECOME OPERATIONAL.
16. THE SITE SHALL AT ALL TIMES BE GRADED AND MAINTAINED SUCH THAT ALL STORMWATER RUNOFF IS DIVERTED TO SOIL EROSION AND SEDIMENT CONTROL FACILITIES.
17. LAND AREAS EXPOSED AT ANY ONE TIME AND THE LENGTH OF EXPOSURE SHALL BE KEPT TO A PRACTICAL MINIMUM. THEY SHALL BE LEFT IN A NEAT AND FINISHED APPEARANCE AND PROTECTED FROM EROSION.
18. ANY DISTURBED AREA THAT WILL BE LEFT EXPOSED FOR MORE THAN SIXTY (60) DAYS AND NOT SUBJECT TO CONSTRUCTION SHALL IMMEDIATELY RECEIVE A TEMPORARY SEEDING AND FERTILIZATION. IF THE SEASON PERMITS, TEMPORARY SEEDING, THE DISTRIBUTED AREAS SHALL BE MULCHED.
19. ALL CRITICAL AREAS SUBJECT TO EROSION SHALL RECEIVE A TEMPORARY SEEDING AND BE MULCHED IN ACCORDANCE WITH THE SPECIFICATIONS IMMEDIATELY FOLLOWING ROUGH GRADING.
20. IMMEDIATELY AFTER COMPLETION OF STRIPPING AND STOCKPILING OF TOPSOIL, SEED THE STOCKPILE WITH ANNUAL RYE GRASS. STABILIZE TOPSOIL STOCKPILES WITH STRAW MULCH FOR PROTECTION IF THE SEASON DOES NOT PERMIT THE APPLICATION AND ESTABLISHMENT OF TEMPORARY SEEDING.
21. SOIL STOCKPILES ARE NOT TO BE LOCATED WITHIN FIFTY (50) FEET OF WETLANDS, THE FLOODPLAIN, SLOPE, ROADWAY OR DRAINAGE FACILITIES. THE BASE OF ALL STOCKPILES SHALL BE PROTECTED BY A HAY BALE BARRIER OR SEDIMENT FENCE. LOCATIONS ARE DELINEATED ON THE PLAN.
22. MAXIMUM SLOPE SLOPES OF ALL EXPOSED SURFACES SHALL NOT BE CONSTRUCTED STEEPER THAN 3:1 UNLESS OTHERWISE APPROVED BY THE DISTRICT.
23. ALL AREAS NOT STABILIZED BY CONSTRUCTION, SODDING OR LANDSCAPING SHALL BE SEEDDED AND STABILIZED IN ACCORDANCE WITH THE SEEDING AND MULCHING SPECIFICATIONS.
24. MULCHING IS REQUIRED ON ALL SEEDDED AREAS TO INSURE AGAINST EROSION BEFORE GRASS IS ESTABLISHED TO PROMOTE EARLIER VEGETATIVE COVER.
25. ALL DEWATERING OPERATIONS MUST DISCHARGE DIRECTLY INTO A SEDIMENT FILTRATION DEVICE. THE SEDIMENT FILTER MUST BE CAPABLE OF FILTRATING THE SEDIMENT AND BE PLACED SO AS NOT TO CAUSE EROSION OF THE DOWNSTREAM AREA.

	PROPOSED
CONTOUR LINE	
SPOT GRADE	
EDGE OF PAVEMENT	EOP
VERTICAL GRANITE CURB	VGC
SLOPED GRANITE CURB	SGC
VERTICAL CONCRETE CURB	VCC
BITUMINOUS CONCRETE CURB	BCC
CAPE COD BERM	CCB
STONE WALL	
CHAIN LINK FENCE	
IRON FENCE	
POST & RAIL FENCE	
STOCKADE FENCE	
GUARD RAIL	
HAY BALES	
WATER LINE	
FIRE HYDRANT	
POST INDICATOR VALVE	
WATER GATE	
WATER METER PIT	
IRRIGATION HAND HOLE	
WELL	
SEWER LINE	
SEWER MANHOLE	
GAS LINE	
GAS METER	
GAS GATE	
DRAIN LINE	
DRAIN MANHOLE	
CATCH BASIN	
OVERHEAD WIRES	
ELECTRIC, TELEPHONE & CABLE	
UTILITY POLE	
GUY WIRE	



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— 100 DUCHAINE BOULEVARD —  
ASSESSORS MAP 134 LOT 5  
NEW BEDFORD, MASSACHUSETTS

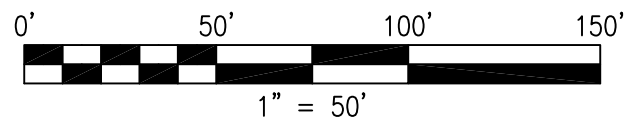
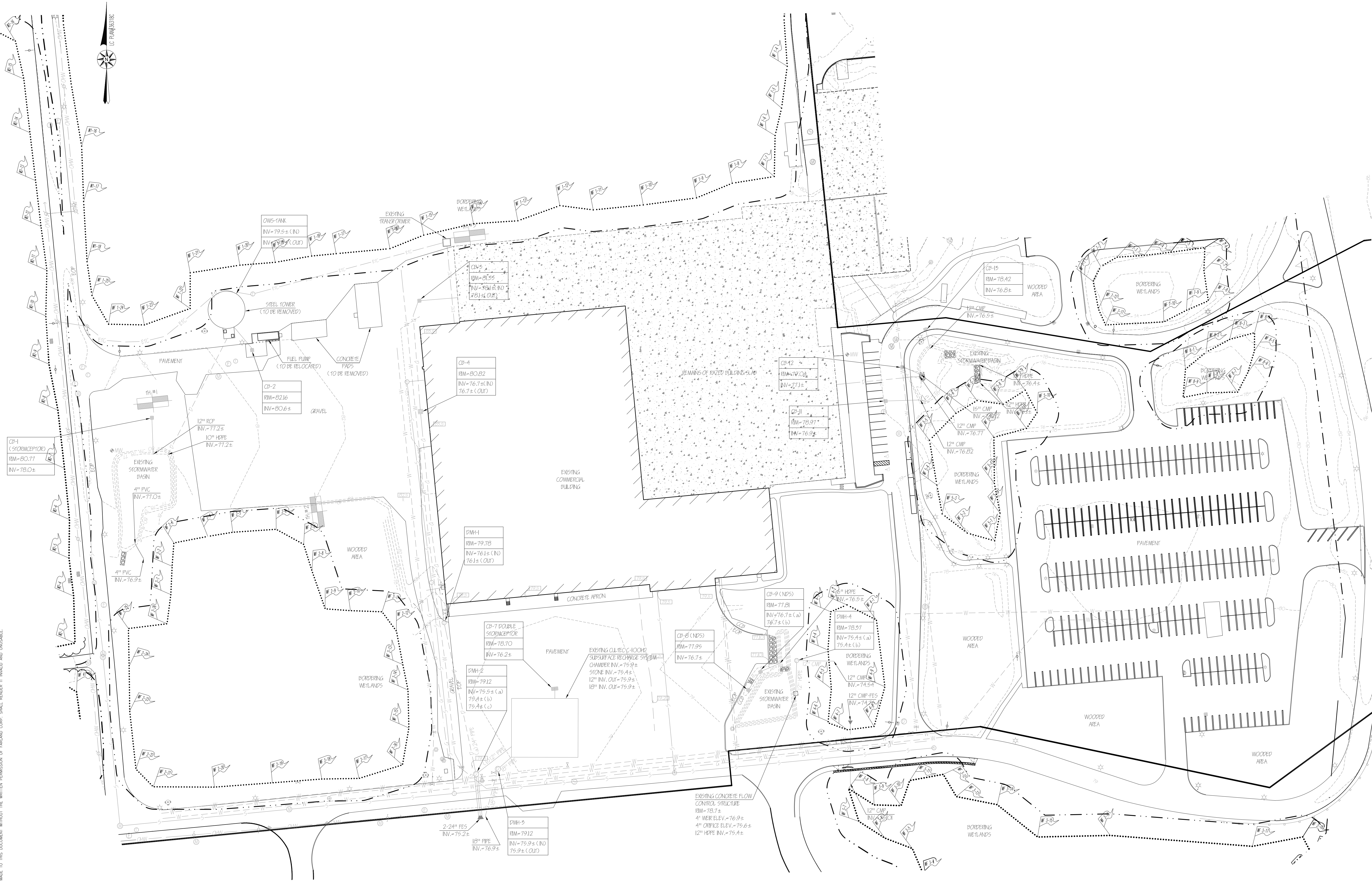
PREPARED  
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LATEST REVISION:

SHEET 2 OF 9



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DRAWN BY: MJW

DESIGNED BY: JKM

CHECKED BY: CAF

## SITE PLAN

100 DUCHAINE BOULEVARD  
ASSESSORS MAP 134 LOT 5  
NEW BEDFORD, MASSACHUSETTS

PREPARED FOR:  
PARALLEL PRODUCTS OF NEW ENGLAND  
401 INDUSTRY ROAD  
LOUISVILLE, KY 40208

AUGUST 10, 2017

SCALE: 1"=50'

JOB NO. 15-500.2

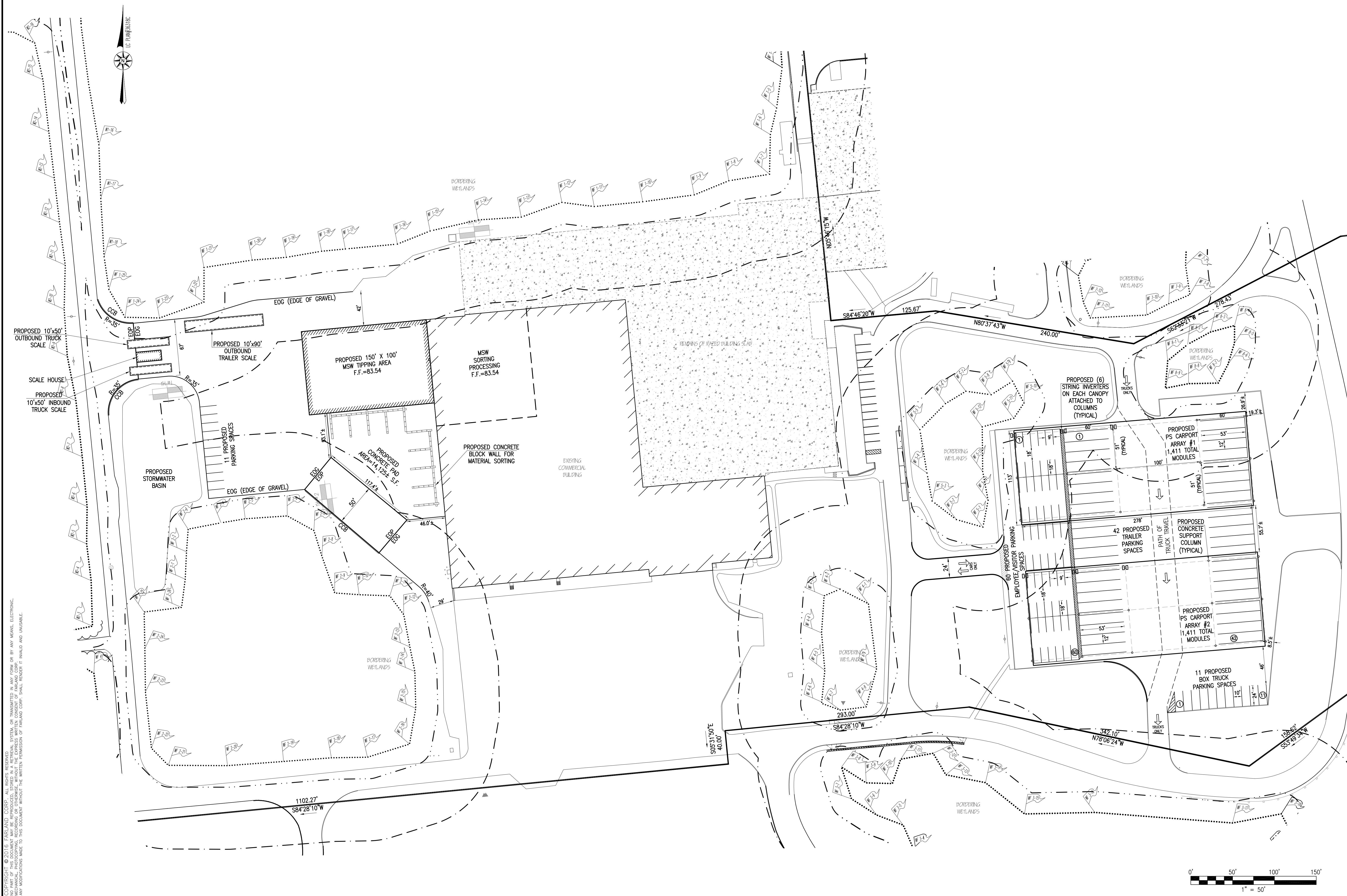
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EXISTING CONDITIONS

SHEET 3 OF 9



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No. 47544

Civil

MASSACHUSETTS

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DESIGNED BY: JKM

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SITE PLAN

100 DUCHAINE BOULEVARD  
ASSESSORS MAP 134 LOT 5  
NEW BEDFORD, MASSACHUSETTS

PREPARED FOR:  
PARALLEL PRODUCTS OF NEW ENGLAND  
401 INDUSTRY ROAD  
LOUISVILLE, KY 40208

AUGUST 10, 2017

SCALE: 1"=50'

JOB NO. 15-500.2

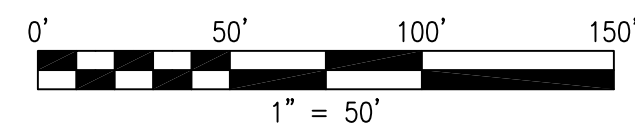
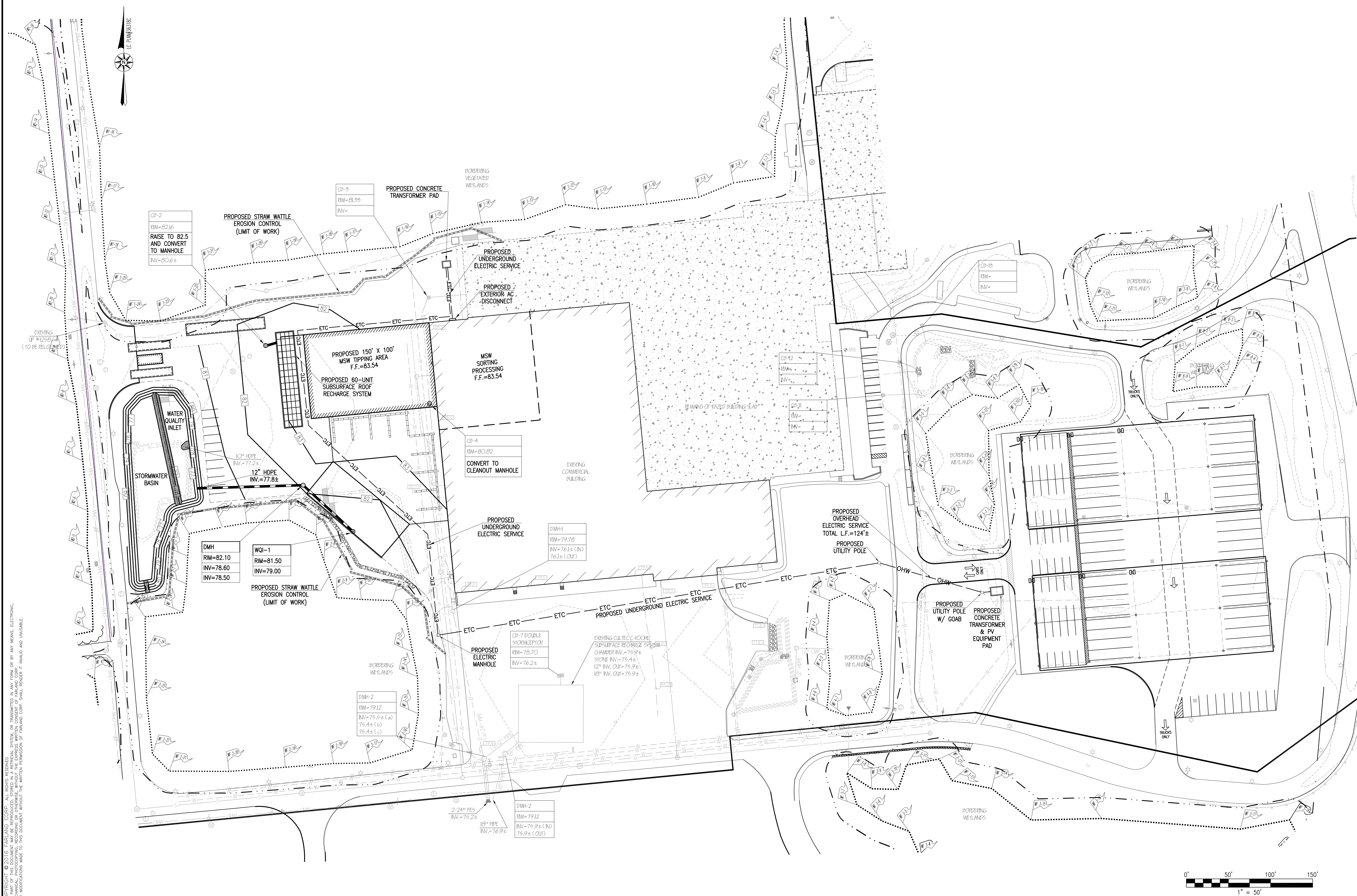
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LAYOUT

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Civil Engineer

2015

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100 DUCHAINE BOULEVARD  
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NEW BEDFORD, MASSACHUSETTS

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LOUISVILLE, KY 40208

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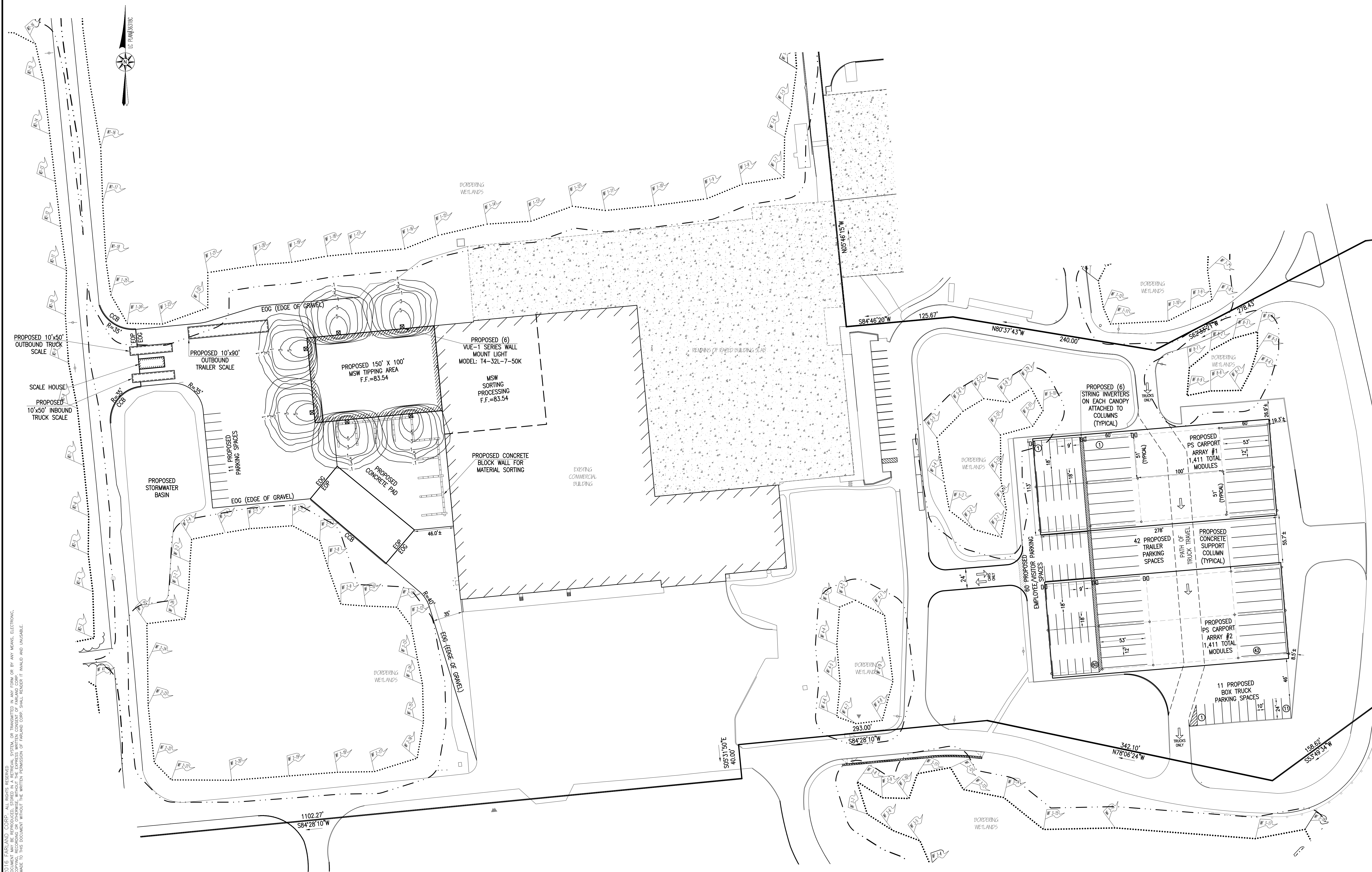
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UTILITIES & GRADING

SHEET 5 OF 9



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SITE PLAN

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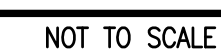
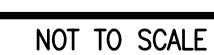
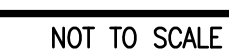
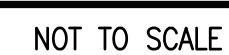
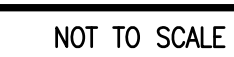
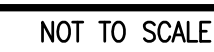
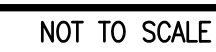
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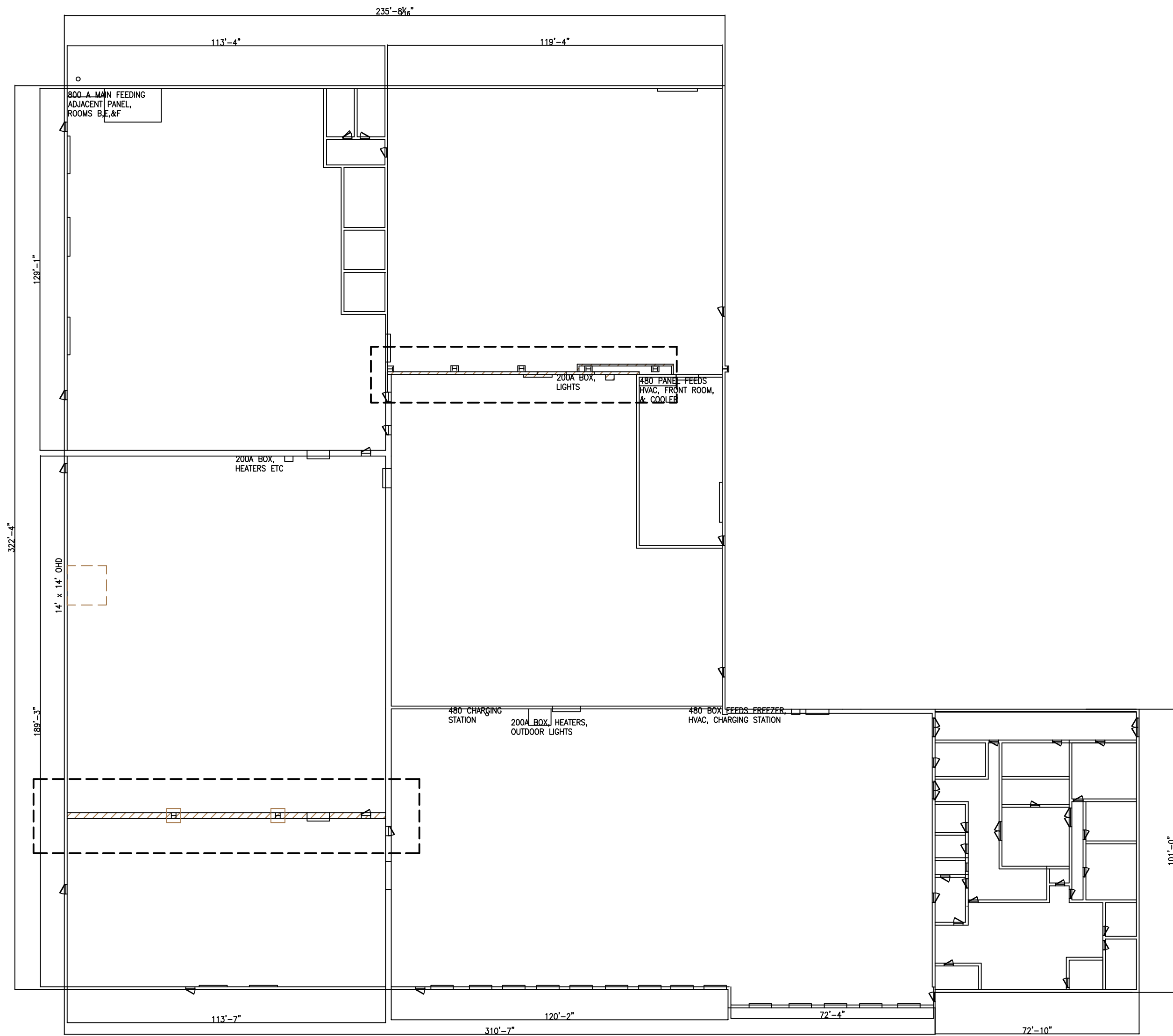
LIGHTING

SHEET 6 OF 9



SHEET 7 OF 9

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EXISTING FLOOR PLAN

SCALE: 1/32"=1'-0"

SCHEME 1.1

PROJECT NAME: PARALLEL  
PROJECT #: 6141762

OWNER:

LOCATION:  
100 DUCHANE BLVD.  
NEW BEDFORD, MA 02745

DATE:  
7.31.17

DRAWN BY: CHECKED BY:

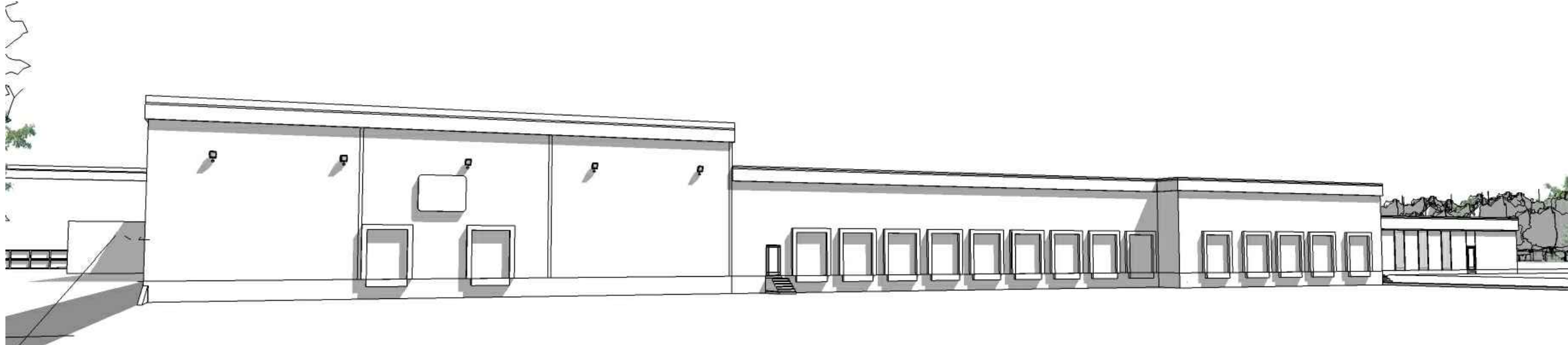




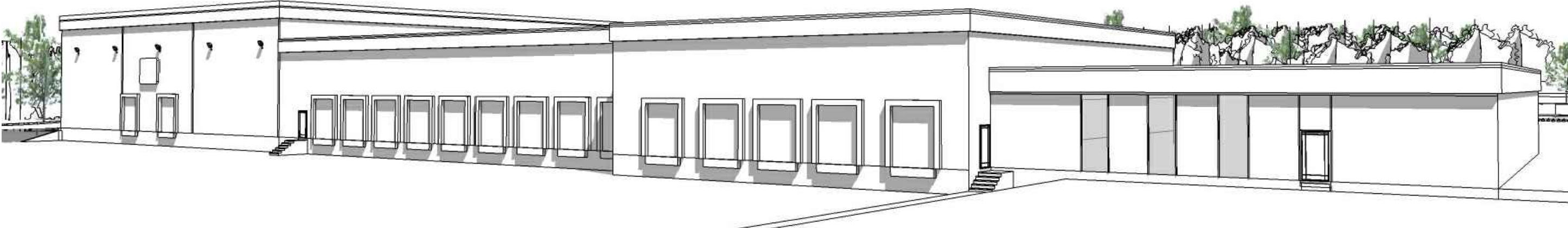
NORTH WEST RENDER 1



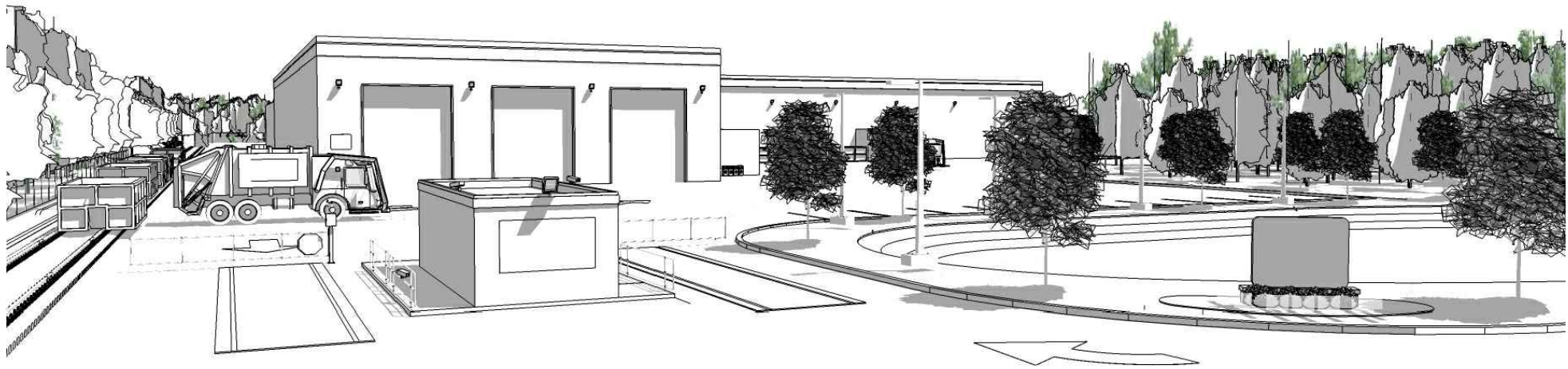
WEST RENDER 1



SOUTH WEST PERSPECTIVE



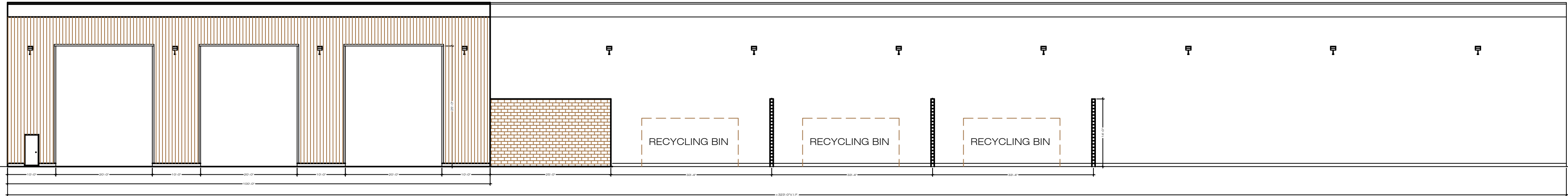
SOUTH EAST PERSPECTIVE



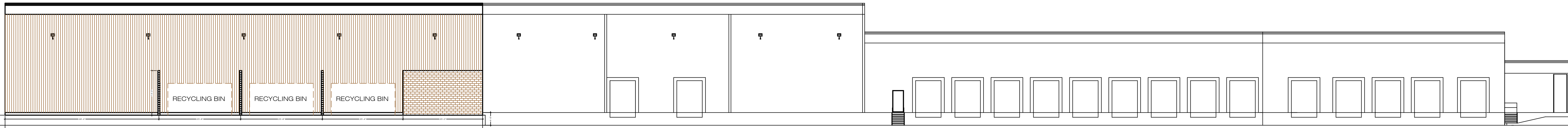
NORTH WEST PERSPECTIVE



WEST PERSPECTIVE



WEST ELEVATION (PROPOSED)  
SCALE: 1/16"=1'-0"



SOUTH ELEVATION (PROPOSED)  
SCALE: 1/16"=1'-0"



FRONT ENTRY SIGNAGE

PROJECT NAME: **PARALLEL**  
PROJECT #: **691759**

OWNER:

LOCATION:  
**100 DUCHANE BLVD.  
NEW BEDFORD, MA 02740**

DATE:  
**6.27.17**

DRAWN BY: **CL** CHECKED BY: **DS**