NOTICE OF INTENT
UNDER THE TOWN OF WEYMOUTH
WETLANDS PROTECTION ORDINANCE, CHAPTER 7, SECTION 301

1. Project Location 1441 Commercial Streett

2. Town of Weymouth Atlas Reference (Parcel #) 311-2,3,4,19

3. Project Description Construction of and apartment building, parking and utilities.

4. County, Norfolk: Book _____ Page _____

5. *Applicant ANGJ LLC *Telephone# _____

6. *Applicant Address PO Box 333, Weymouth, MA 02188

7. Property Owner ANGJ LLC

8. Representative Kenneth Thomson Telephone# 781 929 1203

9. Representative's Address Rockland, MA

10. Billing Party for Legal Notice (All info is required):
Name: Kenneth Thomson
Address: Rockland, MA
Home Phone: _____ Cell: 781 929 1203
Email address 5wetlands@gmail.com

11. Has the Conservation Commission received the **original** material **plus six (6) copies** of the Notice of Intent form, 8.5"X11", U.S.G.S. locus and 8.5"x11" sheet clearly showing the proposed site and work in addition to labeled resource areas? YES X NO _____

12. Are the following additional interests relevant to the proposed project? If so, Notice of Intent must include a discussion of these interests. Aesthetics No Wildlife No Recreation No Erosion Control Yes

13. Have you filed your Local Wetland Fees? State Fees? YES X NO _____

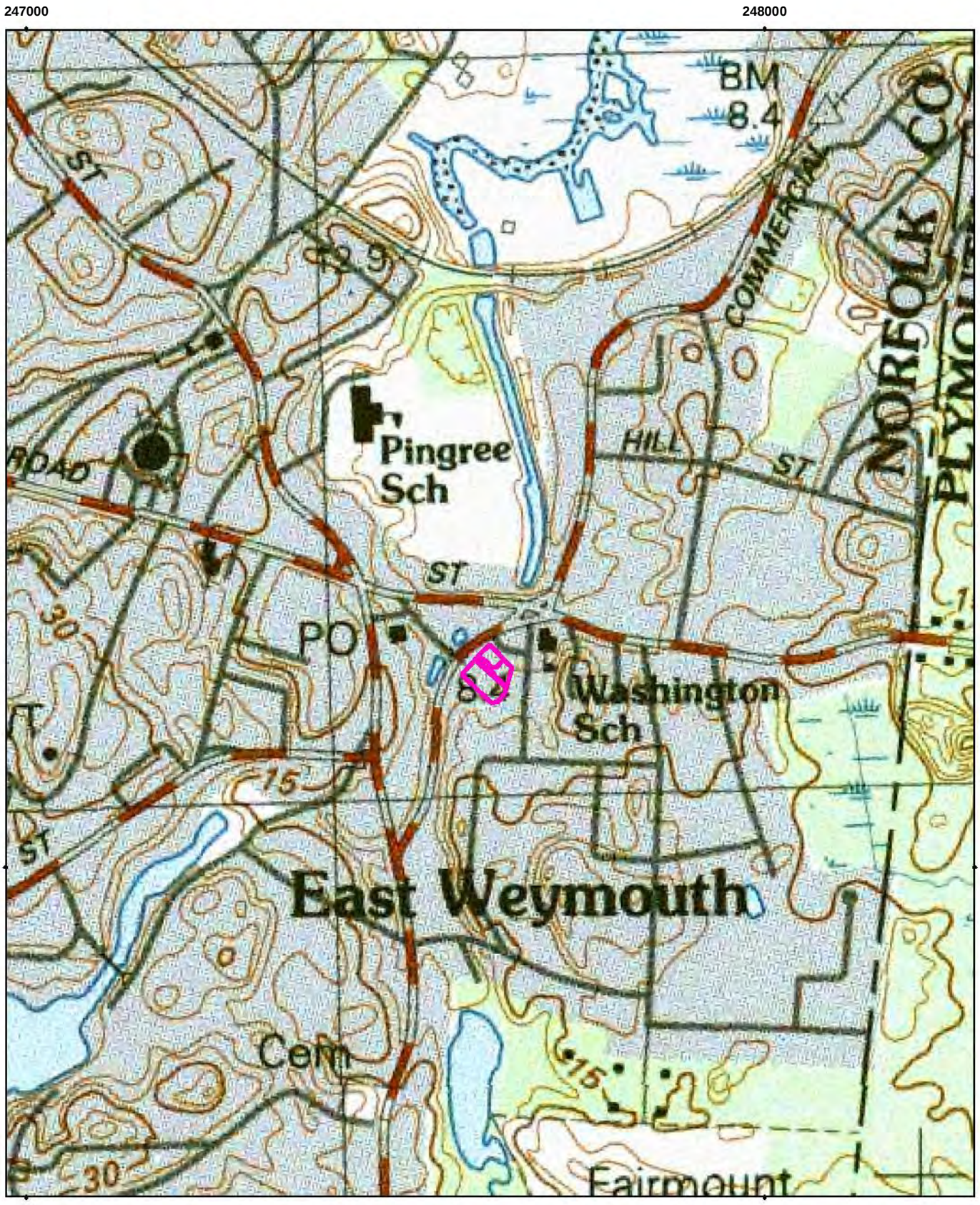
14. Have you filed the Abutters' Notification and Affidavit of Service? YES X NO _____

I, THE UNDERSIGNED, HEREBY APPLY FOR A PERMIT PURSUANT TO THE CODE OF ORDINANCES, TOWN OF WEYMOUTH, CHAPTER 7, SECTION 301

Kenneth Thomson
Signature

10/27/2022
Date

*THE WEYMOUTH CONSERVATION OFFICE WILL SUBMIT THE NECESSARY LEGAL AD, AND THE APPLICANT WILL BE BILLED DIRECTLY BY THE PATRIOT LEDGER. FOR BILLING PURPOSES, THE PATRIOT LEDGER REQUIRES THAT THE TELEPHONE NUMBER SUBMITTED MUST BE THE DIRECT CONTACT NUMBER THAT MATCHES THE NAME AND ADDRESS OF THE APPLICANT, OTHERWISE THE LEGAL AD WILL NOT BE PUBLISHED AND THE HEARING WILL BE DELAYED.



5 Wetlands	LOCUS 1441 Commercial Street Weymouth, MA	N W E S
	NOTES:	Feet 0 370 740
		Locus

Town of Weymouth

ABUTTERS LIST ORDER FORM
for CONSERVATION COMMISSION

Date: 10-17-22

1) Subject Identification (Address and Parcel #)

1441 Commercial Street

311-2, 311-3,311-4 311-19

2) Type of filing (check one)

- ☒ Conservation Commission (all filings)
- ☐ Planning Board - Subdivision (Definitive or Preliminary)
- ☐ Board of Appeals (all applications)
- ☐ Licensing ☐ Will establishment sell or serve alcohol?
- ☐ Town Council

3) Contact Person Kenneth Thomson

4) Telephone Number 781 929 1203

NOTE:

- Abutters List fee is $15.00; checks are payable to *Town of Weymouth* . Lists are requested in the Collector's Office , 1st Floor*
- You will be notified when list is ready (usually within a week)
- Completed requests must be picked up in the Conservation Office, 3rd Floor*

*75 Middle Street (Mon-Fri 8:30-4:30)

PAID
OCT 17 2022
By

REV. 01/2018

S:\ABUTTERS\ORDER FORMS\Abutters List Order Form 5/22/2019

#206

10/18/2022

PARCEL #	LOCATION	OWNER NAME/ADDRESS	CERTIFIED YES	CERTIFIED NO
MAP: 23 BLOCK: 305 LOT: 7 EXT: 0	917 BROAD ST	METRI ABDALLAH TRUSTEE ARM REALTY TRUST 917 BROAD ST E WEYMOUTH, MA, 02189	X	
MAP: 23 BLOCK: 305 LOT: 12 EXT: 0	0 COMMERCIAL ST	WEYMOUTH IRON COMPANY 0 COMMERCIAL ST WEYMOUTH, MA, 02188	X	
MAP: 23 BLOCK: 305 LOT: 13 EXT: 0	0 COMMERCIAL ST	OWNER UNKNOWN 0 COMMERCIAL ST WEYMOUTH, MA, 02188	X	
MAP: 23 BLOCK: 311 LOT: 4 EXT: 0	0 COMMERCIAL ST	ANGJ, LLC 1441 COMMERCIAL ST WEYMOUTH, MA, 02189	X	
MAP: 23 BLOCK: 311 LOT: 19 EXT: 0	0 COMMERCIAL ST	ANGJ, LLC 1441 COMMERCIAL ST WEYMOUTH, MA, 02189	X	
MAP: 23 BLOCK: 305 LOT: 6 EXT: 0	1440 COMMERCIAL ST	TOWN OF WEYMOUTH 75 MIDDLE ST E WEYMOUTH, MA, 02189	X	
MAP: 23 BLOCK: 311 LOT: 2 EXT: 0	1441 COMMERCIAL ST	ANGJ, LLC 1441 COMMERCIAL ST WEYMOUTH, MA, 02189	X	
MAP: 23 BLOCK: 311 LOT: 1 EXT: 0	1455 COMMERCIAL ST	71 HANCOCK LLC 1684 DORCHESTER AVE DORCHESTER, MA, 02122	X	
MAP: 23 BLOCK: 311 LOT: 3 EXT: 0	1439 COMMERCIAL ST REAR	ANGJ, LLC 1441 COMMERCIAL ST WEYMOUTH, MA, 02189	X	
MAP: 23 BLOCK: 311 LOT: 18 EXT: 0	15 SCHOOL ST	KALPAKOGLOU VASILIOS & LEARD MELANIE ANN JT 15 SCHOOL ST WEYMOUTH, MA, 02189	X	

10/18/2022

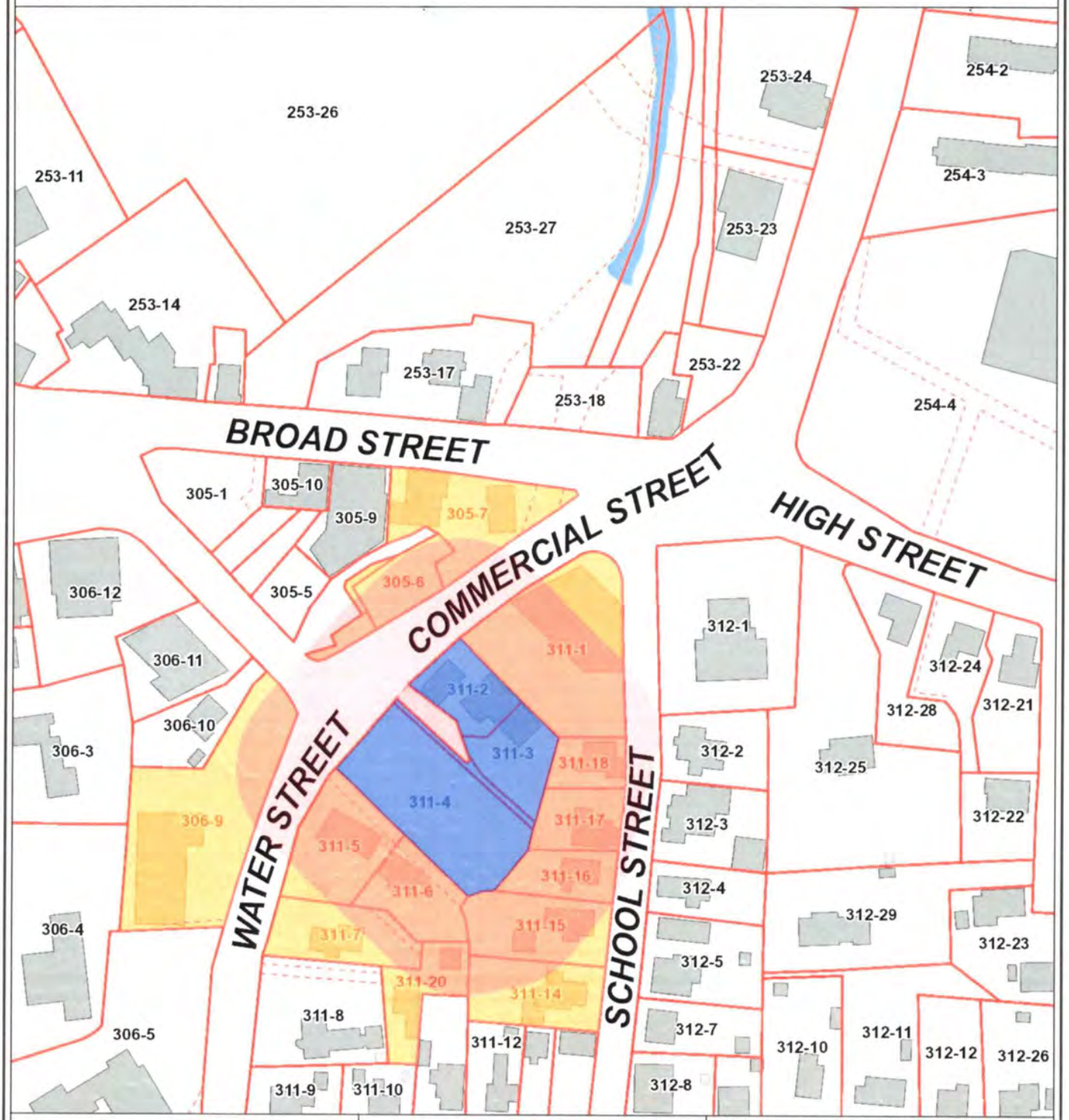
PARCEL #	LOCATION	OWNER NAME/ADDRESS	CERTIFIED YES	CERTIFIED NO
MAP: 23 BLOCK: 311 LOT: 17 EXT: 0	21 SCHOOL ST	CONTOIS PAUL D & CASEWELL BRENDA L TIC 21 SCHOOL ST WEYMOUTH, MA, 02189	X	
MAP: 23 BLOCK: 311 LOT: 16 EXT: 0	23 SCHOOL ST	BAKER WILBUR JR & JENNIFER WADE TBE 23 SCHOOL ST WEYMOUTH, MA, 02189	X	
MAP: 23 BLOCK: 311 LOT: 15 EXT: 0	27 SCHOOL ST	RETZIOS THEODOROS & DEA 27 SCHOOL ST WEYMOUTH, MA, 02189	X	
MAP: 23 BLOCK: 311 LOT: 14 EXT: 0	31 SCHOOL ST	BALDWIN JAMES D 31 SCHOOL ST WEYMOUTH, MA, 02189	X	
MAP: 23 BLOCK: 311 LOT: 5 EXT: 0	6 WATER ST	SANDRA L VIGLAS ROTHSCHILD REVOCABLE TRUST 6 WATER ST WEYMOUTH, MA, 02189	X	
MAP: 23 BLOCK: 311 LOT: 6 EXT: 0	10 WATER ST	DONAHUE PATRICK M & ASHLEIGH TBE 10 WATER ST WEYMOUTH, MA, 02189	X	
MAP: 23 BLOCK: 306 LOT: 9 EXT: 0	11 WATER ST	MD AUTO REPAIR, LLC 11 WATER ST WEYMOUTH, MA, 02189	X	
MAP: 23 BLOCK: 311 LOT: 7 EXT: 0	16 WATER ST	COMEAU JEFFREY S & MARY TBE 16 WATER ST WEYMOUTH, MA, 02189	X	
MAP: 23 BLOCK: 311 LOT: 20 EXT: 0	20 WATER ST	SEPECK KATHLEEN A LIFE EST RUNDLE TAMMY A TRUSTEE 20 WATER ST WEYMOUTH, MA, 02189	X	

This list of abutters is a certified copy of the Town of Weymouth's tax records for fiscal year 2023.
The record of ownership is accurate through May 2022.

Prepared by: 10/18/22

Weymouth Printable Map

October 18, 2022



Easemen
Assessors Parcels
Buildings
BUILDING
DECK
OTHER
SHED
Base Map
Roads - Layout
PUB/PRIV TRAVELWAYS
PAPER
Hydrography
Streams
Ponds / Major Streams
Towns
Built-Up Areas

1" = 139 ft

N

WESSAGUSSET - 1622
LABORARE EST VINCERE
MASSACHUSETTS
WEYMOUTH-1635

DISCLAIMER: ALL DATA IS PROVIDED "AS IS" WITH ALL FEATURES, IF ANY. THE TOWN OF WEYMOUTH EXPRESSLY DISCLAIMS ALL WARRANTIES OF ANY TYPE, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTLY AS TO THE ACCURACY OF THE DATA, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

TOWN OF WEYMOUTH

NOTIFICATION TO ABUTTERS UNDER THE MASSACHUSETTS WETLANDS PROTECTION ACT AND LOCAL WETLANDS PROTECTION ORDINANCE, CHAPTER 7, SECTION 301

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 ANGJ LLC

B. The applicant has filed: ☒ Notice of Intent, *or* ☐ OOC Amendment Request, *or* ☐ Request for Determination with the Conservation Commission for the municipality of Weymouth 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 and a brief description including square footage and/or dimensions of proposed project:

1441 Commercial Street: Construction of a 3 story mixed use structure with 1,600 sq ft of retail and 22 residential units, with associated parking and utilities.

D. Copies of the Notice of Intent or OOC Amendment Request or Request for Determination may be examined at The Weymouth Conservation Commission Office, Weymouth Town Hall, between the hours of 8:30 and 4:30, Monday through Friday (it is recommended to call for an appointment first at 781 340 5007). Copies may also be viewed on the Town of Weymouth Website, on the conservation page under the current and past cases tab at: https://www.weymouth.ma.us/conservation-commission/pages/current-and-past-cases-partial-list

E. Copies of the Notice of Intent or OOC Amendment Request or Request for Determination may be obtained from (check one):

☐ the Applicant **or** ☒ the Applicant's Representative

by calling this telephone number 781 929 1203 contact person Kenneth Thomson

between the hours of: 8am to 5pm on the following days of the week: Mon-Fri

F. Information regarding the date, time, and place of the public hearing may be obtained from:

Weymouth Conservation Commission

By calling this telephone number: **781-340-5007**
Between the hours of: **8:30 – 4:30 Mon. though Friday**

G. Check One:
X This is the Applicant
This is the Applicant's Representative
Other (specify) Town of Weymouth Conservation Commission

NOTE: Notice of the public hearing/meeting, including its date, time and place will be published at least five days in advance in the Patriot Ledger, and will also be posted on the Town website at www.weymouth.ma.us not less than forty-eight hours in advance. You may also contact the Weymouth Conservation Commission or the Department of Environment Protection Regional office for more information about this application or the Wetland Protection Act. To contact DEP, call 508-946-2700.

AFFIDAVIT OF SERVICE

Under the Massachusetts Wetlands Protection Act and
Code of Ordinances, Town of Weymouth, Chapter 7, Section 301

(To be submitted to the Massachusetts Department of Environmental Protection and the **Weymouth Conservation Commission** when filing a Notice of Intent or Request for Determination)

I Kenneth Thomson hereby certify under the pains and penalties of perjury that on 10/27/22 (date)
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, and **Town of Weymouth**, in connection with the following matter:

A Notice of Intent or Request for Determination filed under the Massachusetts Wetlands Protection Act by

_____

With the **Town of Weymouth Conservation Commission** on 10/27/2022 (Date)

For property located at 1441 Commercial Street

Shown on Assessors Map# 311 Block # _____ Lot# 2,3,4,19

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

Kenneth Thomson
Name

10/27/2022
Date

SITE ACCESS AUTHORIZATION

DATE: 10/21/2022

PROJECT: 1441 Commercial Street

TO: **Weymouth Conservation Commission and Conservation Administrator**

FROM: _____

_____

LOCATION: 1441 Commercial Street

(Hereafter referred to as the property)

I (We) hereby authorize the individual members of the Conservation Commission and its agents to enter upon the property for the purpose of gathering information prior to issuing a Determination of Applicability or an Order of Conditions and for the purpose of enforcing the Order of Conditions prior to the issuance of a Certificate of Compliance.

TIME: FROM THE PRESENT TO DATE OF ISSUANCE OF CERTIFICATE OF COMPLIANCE

PROPERTY OWNER: _____ **DATE:** 10-19-22

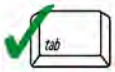
Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

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
Weymouth
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):

1441 Commercial Street — a. Street Address
Weymouth — b. City/Town
02189 — c. Zip Code

Latitude and Longitude:
42.21462 — d. Latitude
70.92318 — e. Longitude

311 — f. Assessors Map/Plat Number
2, 3, 4 & 19 — g. Parcel /Lot Number

2. Applicant:

Abdallah — a. First Name
Metri — b. Last Name
ANGJ LLC — c. Organization
PO Box 333 — d. Street Address
Weymouth — e. City/Town
ma — f. State
02189 — g. Zip Code
h. Phone Number
i. Fax Number
j. Email Address

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

Same — a. First Name
b. Last Name
c. Organization
d. Street Address
e. City/Town
f. State
g. Zip Code
h. Phone Number
i. Fax Number
j. Email address

4. Representative (if any):

Kenneth — a. First Name
Thomson — b. Last Name
5 Wetlands — c. Company
134 Spring Street — d. Street Address
Rockland — e. City/Town
ma — f. State
02370 — g. Zip Code
781 929 1203 — h. Phone Number
i. Fax Number
5wetlands@gmail.com — j. Email address

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

$1575.00 — a. Total Fee Paid
$775.00 — b. State Fee Paid
$800.00 — 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:

MassDEP File Number

Document Transaction Number

Weymouth
City/Town

A. General Information (continued)

6. General Project Description:

Construction of a three story apartment building with 1,600 square feet of retail space and 22 residential units with asscciated parking, stormwater and utilities.

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

1. ☐ Single Family Home
2. ☒ Residential Subdivision
3. ☒ Commercial/Industrial
4. ☐ Dock/Pier
5. ☐ Utilities
6. ☐ Coastal engineering Structure
7. ☐ Agriculture (e.g., cranberries, forestry)
8. ☐ Transportation
9. ☐ Other

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

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

2. Limited Project Type

If the proposed activity is eligible to be treated as an Ecological Restoration Limited Project (310 CMR10.24(8), 310 CMR 10.53(4)), complete and attach Appendix A: Ecological Restoration Limited Project Checklistand Signed Certification.

8. Property recorded at the Registry of Deeds for:

a. County	b. Certificate # (if registered land)
Norfolk	
c. Book	d. Page Number
30204	567

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

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

Weymouth
City/Town

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

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

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. ☐ Bank	1. linear feet	2. linear feet
b. ☐ Bordering Vegetated Wetland	1. square feet	2. square feet
c. ☐ Land Under Waterbodies and Waterways	1. square feet 3. cubic yards dredged	2. square feet

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
d. ☐ Bordering Land Subject to Flooding	1. square feet	2. square feet
	3. cubic feet of flood storage lost	4. cubic feet replaced
e. ☐ Isolated Land Subject to Flooding	1. square feet	
	2. cubic feet of flood storage lost	3. cubic feet replaced

f. ☒ Riverfront Area

Weymouth Back River - Inland
1. Name of Waterway (if available) - **specify coastal or inland**

2. Width of Riverfront Area (check one):

☐ 25 ft. - Designated Densely Developed Areas only

☐ 100 ft. - New agricultural projects only

☒ 200 ft. - All other projects

3. Total area of Riverfront Area on the site of the proposed project: 24532 square feet

4. Proposed alteration of the Riverfront Area:

20664	2943	17721
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
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

Weymouth
City/Town

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

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

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

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. ☐ Designated Port Areas	Indicate size under Land Under the Ocean, below	
b. ☐ Land Under the Ocean	1. square feet 2. cubic yards dredged	
c. ☐ Barrier Beach	Indicate size under Coastal Beaches and/or Coastal Dunes below	
d. ☐ Coastal Beaches	1. square feet	2. cubic yards beach nourishment
e. ☐ Coastal Dunes	1. square feet	2. cubic yards dune nourishment

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
f. ☐ Coastal Banks	1. linear feet	
g. ☐ Rocky Intertidal Shores	1. square feet	
h. ☐ Salt Marshes	1. square feet	2. sq ft restoration, rehab., creation
i. ☐ Land Under Salt Ponds	1. square feet 2. cubic yards dredged	
j. ☐ Land Containing Shellfish	1. square feet	
k. ☐ 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. ☐ Land Subject to Coastal Storm Flowage	1. square feet	

4. ☐ Restoration/Enhancement

If the project is for the purpose of restoring or enhancing a wetland resource area in addition to the square footage that has been entered in Section B.2.b or B.3.h above, please enter the additional amount here.

a. square feet of BVW

b. square feet of Salt Marsh

5. ☐ Project Involves Stream Crossings

a. number of new stream crossings

b. number of replacement stream crossings

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
Weymouth
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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 tohttp://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

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(seehttps://www.mass.gov/ma-endangered-species-act-mesa-regulatory-review).
Priority Habitat includes habitat for state-listed plants and strictly upland species not protected by the Wetlands Protection Act.
**MESA projects may not be segmented (321 CMR 10.16). The applicant must disclose full development plans even if such plans are not required as part of the Notice of Intent process.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:
MassDEP File Number
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Weymouth
City/Town

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

(c) ☐ MESA filing fee (fee information available at https://www.mass.gov/how-to/how-to-file-for-a-mesa-project-review).
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, https://www.mass.gov/service-details/exemptions-from-review-for-projectsactivities-in-priority-habitat; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59.)

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

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

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

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

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

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

Division of Marine Fisheries -
Southeast Marine Fisheries Station
Attn: Environmental Reviewer
836 South Rodney French Blvd.
New Bedford, MA 02744
Email: dmf.envreview-south@mass.gov

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@mass.gov

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.

c. ☐ Is this an aquaculture project? d. ☐ Yes ☐ No

If yes, include a copy of the Division of Marine Fisheries Certification Letter (M.G.L. c. 130, § 57).

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

Weymouth
City/Town

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

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

4. Is any portion of the proposed project within an Area of Critical Environmental Concern (ACEC)?

   a. ☐ Yes ☒ No If yes, provide name of ACEC (see instructions to WPA Form 3 or MassDEP Website for ACEC locations). **Note:** electronic filers click on Website.

   b. ACEC

5. Is any portion of the proposed project within an area designated as an Outstanding Resource Water (ORW) as designated in the Massachusetts Surface Water Quality Standards, 314 CMR 4.00?

   a. ☐ Yes ☒ No

6. Is any portion of the site subject to a Wetlands Restriction Order under the Inland Wetlands Restriction Act (M.G.L. c. 131, § 40A) or the Coastal Wetlands Restriction Act (M.G.L. c. 130, § 105)?

   a. ☐ Yes ☒ No

7. Is this project subject to provisions of the MassDEP Stormwater Management Standards?

   a. ☒ Yes. Attach a copy of the Stormwater Report as required by the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q) and check if:

      1. ☐ Applying for Low Impact Development (LID) site design credits (as described in Stormwater Management Handbook Vol. 2, Chapter 3)

      2. ☒ A portion of the site constitutes redevelopment

      3. ☐ Proprietary BMPs are included in the Stormwater Management System.

   b. ☐ No. Check why the project is exempt:

      1. ☐ Single-family house

      2. ☐ Emergency road repair

      3. ☐ Small Residential Subdivision (less than or equal to 4 single-family houses or less than or equal to 4 units in multi-family housing project) with no discharge to Critical Areas.

D. Additional Information

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

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

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

1. ☒ USGS or other map of the area (along with a narrative description, if necessary) containing sufficient information for the Conservation Commission and the Department to locate the site. (Electronic filers may omit this item.)

2. ☒ Plans identifying the location of proposed activities (including activities proposed to serve as a Bordering Vegetated Wetland [BVW] replication area or other mitigating measure) relative to the boundaries of each affected resource area.

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

Weymouth
City/Town

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 Layout 1441 Comercial Street Weymouth, Massachusetts
a. Plan Title

Hardy Man Design Group
b. Prepared By

Shawn Hardy PE
c. Signed and Stamped by

10-20-2022
d. Final Revision Date

1"=20'
e. Scale

f. Additional Plan or Document Title

g. Date

5. ☐ If there is more than one property owner, please attach a list of these property owners not listed on this form.

6. ☐ Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.

7. ☐ Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.

8. ☒ Attach NOI Wetland Fee Transmittal Form

9. ☒ Attach Stormwater Report, if needed.

E. Fees

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

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

1756
2. Municipal Check Number

10/25/2022
3. Check date

1755
4. State Check Number

10/25/2022
5. Check date

Hardy Man Desigh Group
6. Payor name on check: First Name

7. Payor name on check: Last Name

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

Weymouth
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 — 2. Date: 10-19-22

3. Signature of Property Owner (if different) — 4. Date: 10-19-22

5. Signature of Representative (if any) — 6. Date: 10-25-2022

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.

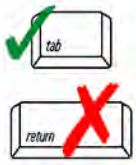
The original and copies must be sent simultaneously. Failure by the applicant to send copies in a timely manner may result in dismissal of the Notice of Intent.

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:

1441 Commercial Street	Weymouth
a. Street Address	b. City/Town
c. Check number	d. Fee amount

2. Applicant Mailing Address:

Abdallah	Metri	
a. First Name	b. Last Name	
ANGJ LLC		
c. Organization		
PO Box 333		
d. Mailing Address		
Weymouth	MA	02188
e. City/Town	f. State	g. Zip Code

h. Phone Number	i. Fax Number	j. Email Address

3. Property Owner (if different):

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

h. Phone Number	i. Fax Number	j. Email Address

B. Fees

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

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.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

NOI Wetland Fee Transmittal Form

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

B. Fees (continued)

Step 1/Type of Activity	Step 2/Number of Activities	Step 3/IndividualActivity Fee	Step 4/Subtotal Activity Fee
category 3b	1	$1050.00	$1050.00
Riverfront Multiplier			$525.00

Step 5/Total Project Fee:

Step 6/Fee Payments:

Total Project Fee:	$1575.00 a. Total Fee from Step 5
State share of filing Fee:	$775.00 b. 1/2 Total Fee **less $**12.50
City/Town share of filling Fee:	$800.00 c. 1/2 Total Fee **plus** $12.50

C. Submittal Requirements

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

Department of Environmental Protection
Box 4062
Boston, MA 02211

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

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

Existing Conditions

The subject property located within Jackson Square a busy retail area. The property is 32,595 square-foot lot located at 1441 Commercial Street in Weymouth, Massachusetts. The parcel is zoned business district 2 (BUS-2) and the use is an existing gas station and car sales facility. The property is located within the Riverfront resource of the Weymouth Back River, which is channelized with concrete walls. The entire Riverfront on this property is degraded with a gas station, additional building, pavement and all soil areas lacks topsoil.

Proposed Conditions

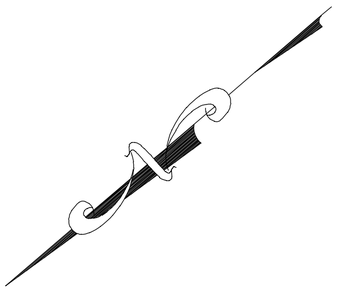
The applicant proposes to construct a mixed-use building. The first floor will consist of an approximately 1,600 SF commercial space and six (6) one-bedroom residential units. The upper two floors will have 16 residential units, for a total of 22 residential units.

The design increases stormwater runoff, to mitigate the proposed increase (±1,500 SF) in impervious area, the roof and driveway flows are to be directed to a series of 48 (4 rows of 12) Cultec 330 XLHD chambers. The proposed chambers will provide approximately 3,100 cubic feet of storage below the outlet invert. The system has been sized to reduce site runoff rate and volume for the 2, 10, 25 and 1 00-year design storms.

Erosion control measures to be employed include a staked filter sock type erosion control barrier as depicted on the site plan. The barrier shall be inspected daily and kept in place until such time that disturbed areas are re-vegetated or paved and are no longer a potential source of siltation. A stabilized gravel construction entrance is proposed to minimize tracking of sediments onto the adjacent roadway. In addition, the contractor shall utilize a combination of water and calcium chloride, as needed, to minimize the migration of dust.

Riverfront

The property was previously developed as a gas station and auto sales facility with a parking lot. This redevelopment of the site will impact 2,943 square feet of the 100 to 200 and 17,721 of the 100 to 200 Riverfront resource area. To mitigate for the project impacts, the project proposes to decrease the existing impervious/degraded area by 2,370 square feet, construct a stormwater treatment system and 3,470 square feet of plantings.



SYMBOL LEGEND	
Ⓢ	SEWER MANHOLE
	HYDRANT
Ⓓ	DRAIN MANHOLE
	CATCH BASIN
	CATCH BASIN
	SIGN
	UTILITY POLE
GG	GAS GATE
WG	WATER GATE
Ⓦ	MONITORING WELL
	LIGHT POLE
B•	BOLLARD
x31.2	SPOT ELEVATION
—OHE—	OVERHEAD ELECTRIC
—GAS—	GAS LINE
— SD —	DRAIN LINE
— SS —	SEWER LINE
— W —	WATER LINE
— 31 —	CONTOUR LINE
	TREE LINE

GRAPHIC SCALE

30 15 0 FEET 30 60

7.5 3.75 0 METERS 7.5 30

SCHOOL STREET

N/F
VASILIOS KALPAKOGLOU
ASSESSORS MAP 23
BLOCK 311 LOT 18
DEED BOOK 33408 PAGE 470

N/F
PAUL CONTOIS & BRENDA CASEWELL
ASSESSORS MAP 23
BLOCK 311 LOT 17
DEED BOOK 24697 PAGE 511

N/F
WILBUR BAKER &
JENNIFER WADE
ASSESSORS MAP 23
BLOCK 311 LOT 16
DEED BOOK 20213 PAGE 203

N/F
THEODOROS REXHO & DEA QIQI
ASSESSORS MAP 23
BLOCK 311 LOT 15
DEED BOOK 32316 PAGE 541

N/F
PETFUND LTD PARTNERSHIP
ASSESSORS MAP 23 BLOCK 311 LOT 1
DEED BOOK 13972 PAGE 428

N/F
PATRICIA KELLY &
CHRISTOPHER DONAHUE
ASSESSORS MAP 23 BLOCK 311 LOT
DEED BOOK 26020 PAGE 436

N/F
SANDRA VIGLAS
ASSESSORS MAP 23 BLOCK 311 LOT 5
DEED BOOK 11437 PAGE 473

S15°28'52"W 115.66'

S37°35'15"W 52.00'

N84°27'00"W 12.50'

S52°37'36"W 12.86'

N48°35'38"E 189.11'

S46°20'38"E 141.94'

N47°49'52"E 67.43'

N40°34'52"E 121.44'

N29°34'52"E 59.40'

LOT AREA
32,595 S.F.±

200' RIVERFRONT

100' RIVERFRONT

#1441
EXISTING
BUILDING
2,623 S.F.±

JACKSON
SQUARE GAS

EAGLE AUTO
SALES

BITUMINOUS PAVEMENT

EDGE OF PAVEMENT

EDGE OF TRAVELED WAY

CONCRETE SIDEWALK

GRAVEL DRIVE

STOCKADE FENCE

VINYL FENCE

CHAIN LINK FENCE

WIRE FENCE

WOOD POST

CONC. WALL

OVERHEAD DOORS

SILL=25.0

SILL=31.3

80.00'

1.6'

4.8'

ELEC. METER

AIR COMPRESSOR

FUEL TANK ACCESS

CANOPY

FUEL PUMP

RCB
RIM=31.75

RCB
RIM=28.47

DMH
RIM=28.47

SMH
RIM=31.60
(GREASE TRAP)

SMH
RIM=31.57'
(SEPTIC TANK)

DMH
RIM=28.78
INV=23.8
INV=24.9 (CB)

CB
RIM=28.16

SMH
RIM=28.79
INV=18.24 (PLAN)

SMH
RIM=29.49
INV=18.57 (PLAN)

SMH
RIM=30.45

15" SEWER

TW=38.3

TW=35.5

BENCHMARK:
XCUT ON BONNET BOLT
ELEVATION=31.55 (T.O.W.)

"JACKSON SQUARE GAS"

"NO PARKING ANY TIME"

VGC

VCC

COMMERCIAL STREET

GENERAL NOTES:

1. THE PROPERTY IS SHOWN AT THE TOWN OF WEYMOUTH ASSESSORS DEPARTMENT ON MAP 23, BLOCK 311 AS LOTS 2–4 AND 19 THEREON.

2. LOCUS TITLE IS RECORDED AT THE NORFOLK COUNTY REGISTRY OF DEEDS AS FOLLOWS:

   OWNER: ANGJ, LLC
   DEED BOOK 30204 PAGE 567

3. EXISTING CONDITIONS DETAIL AS SHOWN HEREON WAS DERIVED FROM ACTUAL FIELD LOCATION ON OR DURING FEBRUARY OF 2018 BY THIS FIRM. THE ELEVATIONS DEPICTED HEREON ARE REFERENCED TO THE TOWN OF WEYMOUTH DATUM.

4. LOCATION AND DEPTH OF UNDERGROUND UTILITIES IS APPROXIMATE ONLY, AND IS NOT WARRANTED TO BE CORRECT. UNDERGROUND UTILITIES ARE SHOWN BASED ON RECORD DATA PROVIDED BY THE OPERATING AUTHORITIES AND A VISUAL INSPECTION OF SURFACE OBSERVABLE FEATURES ONLY, AND HAVE BEEN FIELD INSPECTED FOR CONNECTIONS WHERE POSSIBLE. ADDITIONAL UTILITIES MAY EXIST WHICH ARE NOT INDICATED ON THESE PLANS. ALL EXISTING UTILITIES SHALL BE VERIFIED FOR SERVICE, SIZE, INVERT ELEVATION, LOCATIONS, ETC. PRIOR TO NEW CONNECTIONS TO OR RELOCATION OF SAME. CONTRACTOR MUST NOTIFY DIG–SAFE AT 1–888–344–7233 AT LEAST 72 HOURS PRIOR TO ANY CONSTRUCTION. NOTIFY THIS FIRM IN WRITING OF ANY AND ALL DISCREPANCIES PRIOR TO COMMENCING ANY WORK.

PROJECT TITLE:
#1441 COMMERCIAL STREET
WEYMOUTH, MASSACHUSETTS
NORFOLK COUNTY

SHEET TITLE:
EXISTING CONDITIONS PLAN

DATE	DRAWN BY	CHECKED BY	SCALE	PROJECT NO.	FILE NO.
2-27-2018	LGD	LGD/PH	1"=20'		

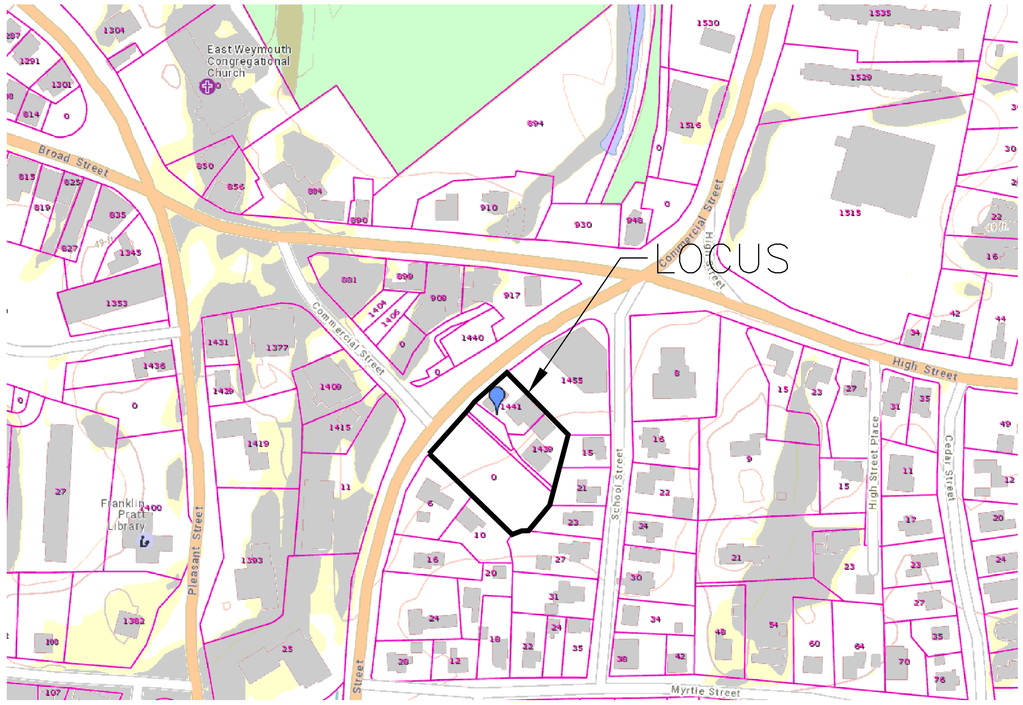
HOYT LAND SURVEYING
1287 WASHINGTON STREET
WEYMOUTH, MASSACHUSETTS
TEL: 781-682-9192

1

SITE LAYOUT

1441 COMMERCIAL STREET

Weymouth, Massachusetts



LOCUS MAP
1" = 100'

SHEET INDEX:

C-1 TITLE SHEET
C-2 LAYOUT PLAN
C-3 GRADING, DRAINAGE, AND UTILITY PLAN
C-4 EROSION CONTROL PLAN
C-5 DETAILS PLAN

REFRENCE PLAN:

EXISTING CONDITIONS PLAN
BY: HOYT LAND SURVEYING
DATED: 2/27/2018

OWNER/APPLICANT:
ANGJ, LLC
1441 COMMERCIAL STREET
WEYMOUTH, MA 02189

STRUCTURAL ENGINEER
WAM ASSOCIATES, INC
278 WASHINGTON STREET
WEYMOUTH, MA 02188
(781) 331-5898

LAND SURVEYOR:
HOYT LAND SURVEYING
1287 WASHINGTON STREET
WEYMOUTH, MA 02189
781-682-9192

CIVIL ENGINEER:
HARDY + MAN DESIGN GROUP PC
1285 WASHINGTON STREET
WEYMOUTH, MA 02189
(781) 335-1464

ARCHITECT
FISHER ASSOCIATES, INC
35 FISHER RO
WEYMOUTH, MA 02190
617-733-8404

ZONING:
BUSINESS-2

DATUM:
ALL ELEVATIONS ARE ON TOWN OF WEYMOUTH DATUM.

CONVERT FROM CITY OF WEYMOUTH
BASE TO NAVD 1988, SUBTRACT 6.63

SURVEY:
BASE PLAN IS BASED ON A FIELD SURVEY BY
HOYT LAND SURVEYING ON FENRUARY 27, 2018

GENERAL NOTES

1. NOTIFY DIG-SAFE AT 1-888-DIG-SAFE PRIOR TO EXCAVATION.

COMMONWEALTH OF MASSACHUSETTS
SHAWN P. HARDY
NO. 41650
CIVIL
REGISTERED PROFESSIONAL ENGINEER

REVISIONS:		
NO.:	COMMENTS:	DATE:

COVER SHEET
1441 COMMERCIAL STREET
WEYMOUTH, MASSACHUSETTS

DRAWN BY: TYG, JKY
DESIGNED BY: SPH
CHECKED BY: SPH

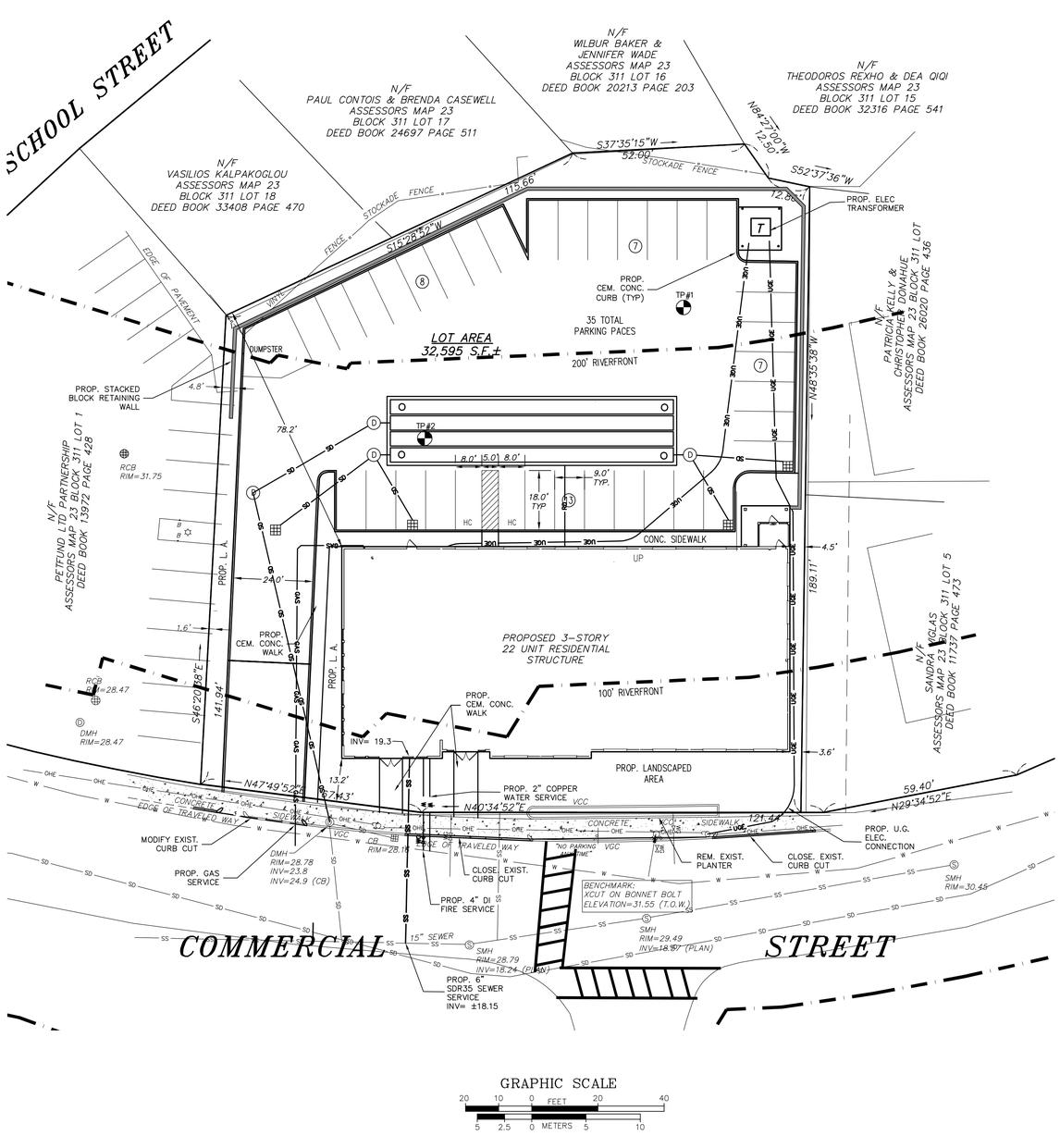
DATE: 10-20-2022
LATEST REV:

HARDY + MAN DESIGN GROUP, PC
CIVIL ENGINEERING & LAND DEVELOPMENT CONSULTING

1285 WASHINGTON STREET
WEYMOUTH, MA
(781) 335-1464

PREPARED FOR:
ANGJ, LLC
WEYMOUTH, MA

SHEET
C-1



GRAPHIC SCALE

20 10 0 FEET 20 40

5 2.5 0 METERS 5 10

GENERAL NOTES:

1. THE PROPERTY IS SHOWN AT THE TOWN OF WEYMOUTH ASSESSORS DEPARTMENT ON MAP 23, BLOCK 311 AS LOTS 2–4 AND 19 THEREON.

2. LOCUS TITLE IS RECORDED AT THE NORFOLK COUNTY REGISTRY OF DEEDS AS FOLLOWS:

   OWNER: ANGJ, LLC
   DEED BOOK 30204 PAGE 567

3. EXISTING CONDITIONS DETAIL AS SHOWN HEREON WAS DERIVED FROM ACTUAL FIELD LOCATION ON OR DURING FEBRUARY 27 OF 2018 BY HOYT LAND SURVEYING. THE ELEVATIONS DEPICTED HEREON ARE REFERENCED TO THE TOWN OF WEYMOUTH DATUM.

4. LOCATION AND DEPTH OF UNDERGROUND UTILITIES IS APPROXIMATE ONLY, AND IS NOT WARRANTED TO BE CORRECT. ALL EXISTING UTILITIES SHALL BE VERIFIED FOR SERVICE, SIZE, INVERT ELEVATION, LOCATIONS, ETC. PRIOR TO NEW CONNECTIONS TO OR RELOCATION OF SAME. CONTRACTOR MUST NOTIFY DIG-SAFE AT 1-888-344-7233 AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION. NOTIFY THIS FIRM IN WRITING OF ANY AND ALL DISCREPANCIES PRIOR TO COMMENCING ANY WORK.

5. LOCUS LIES IN ZONING DISTRICT BUSINESS 2.

6. LOCUS IS LOCATED IN A 'ZONE X', AS INDICATED ON THE FLOOD INSURANCE RATE MAP FOR THE THE TOWN OF WEYMOUTH, MAP NUMBER 25021C0233E HAVING AN EFFECTIVE DATE OF JULY 17, 2012.

SYMBOL LEGEND	
S	SEWER MANHOLE
	HYDRANT
D	DRAIN MANHOLE
	CATCH BASIN
	CATCH BASIN
	SIGN
	UTILITY POLE
GG	GAS GATE
WG	WATER GATE
W	MONITORING WELL
	LIGHT POLE
	BOLLARD
x31.2	SPOT ELEVATION
—OHE—	OVERHEAD ELECTRIC
—GAS—	GAS LINE
— SD —	DRAIN LINE
— SS —	SEWER LINE
— W —	WATER LINE
— 31 —	CONTOUR LINE
	TREE LINE
PPC	PRECAST CONCRETE CURB
MCC	MONOLITHIC CONCRETE CURB
LA	LANDSCAPE

COMMONWEALTH OF MASSACHUSETTS
SHAWN P. HARDY
NO. 41650
CIVIL
REGISTERED PROFESSIONAL ENGINEER

REVISIONS:		
NO.:	COMMENTS:	DATE:

SITE LAYOUT
1441 COMMERCIAL STREET
WEYMOUTH, MASSACHUSETTS

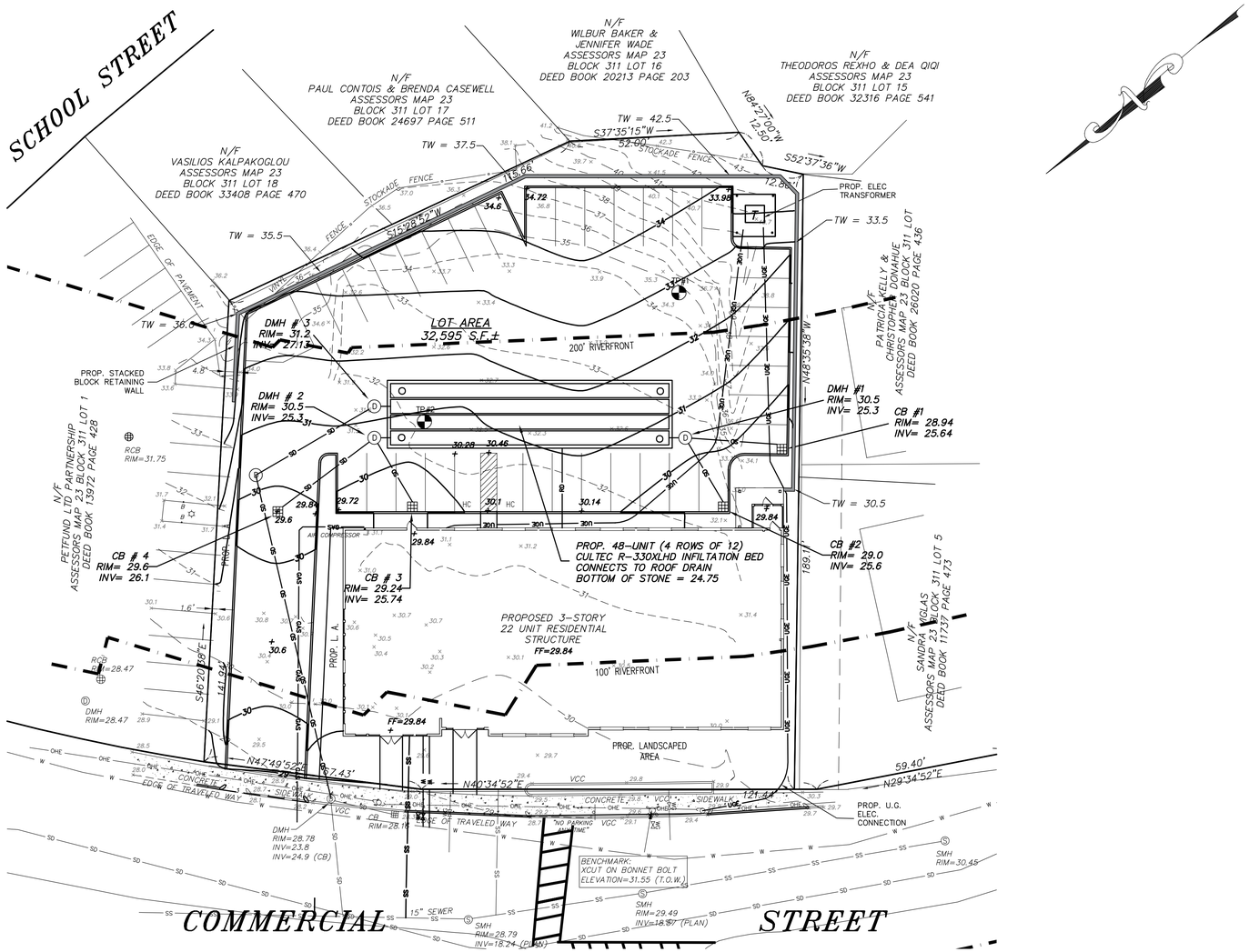
DRAWN BY: SPH TCN
DESIGNED BY: SPH
CHECKED BY: SPH

DATE: 10-20-2022
LATEST REV:

HARDY + MAN DESIGN GROUP, PC
CIVIL ENGINEERING & LAND DEVELOPMENT CONSULTING
1285 WASHINGTON STREET
WEYMOUTH, MA
(781) 335-1464

PREPARED FOR:
ANGJ, LLC.
WEYMOUTH, MA

SHEET
C-2



GRAPHIC SCALE

20 10 0 FEET 20 40

5 2.5 0 METERS 5 10

GENERAL NOTES:

1. THE PROPERTY IS SHOWN AT THE TOWN OF WEYMOUTH ASSESSORS DEPARTMENT ON MAP 23, BLOCK 311 AS LOTS 2-4 AND 19 THEREON.

2. LOCUS TITLE IS RECORDED AT THE NORFOLK COUNTY REGISTRY OF DEEDS AS FOLLOWS:

   OWNER: ANGJ, LLC
   DEED BOOK 30204 PAGE 567

3. EXISTING CONDITIONS DETAIL AS SHOWN HEREON WAS DERIVED FROM ACTUAL FIELD LOCATION ON OR DURING FEBRUARY OF 2018 BY THIS FIRM. THE ELEVATIONS DEPICTED HEREON ARE REFERENCED TO THE TOWN OF WEYMOUTH DATUM.

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5. LOCUS LIES IN ZONING DISTRICT BUSINESS 2.

6. LOCUS IS LOCATED IN A "ZONE X", AS INDICATED ON THE FLOOD INSURANCE RATE MAP FOR THE THE TOWN OF WEYMOUTH, MAP NUMBER 25021C0233E HAVING AN EFFECTIVE DATE OF JULY 17, 2012.

COMMONWEALTH OF MASSACHUSETTS
SHAWN P. HARDY
NO. 41650
CIVIL
REGISTERED PROFESSIONAL ENGINEER

REVISIONS:		
NO.:	COMMENTS:	DATE:

GRADING, DRAINAGE AND UTILITY PLAN
1441 COMMERCIAL STREET
WEYMOUTH, MASSACHUSETTS

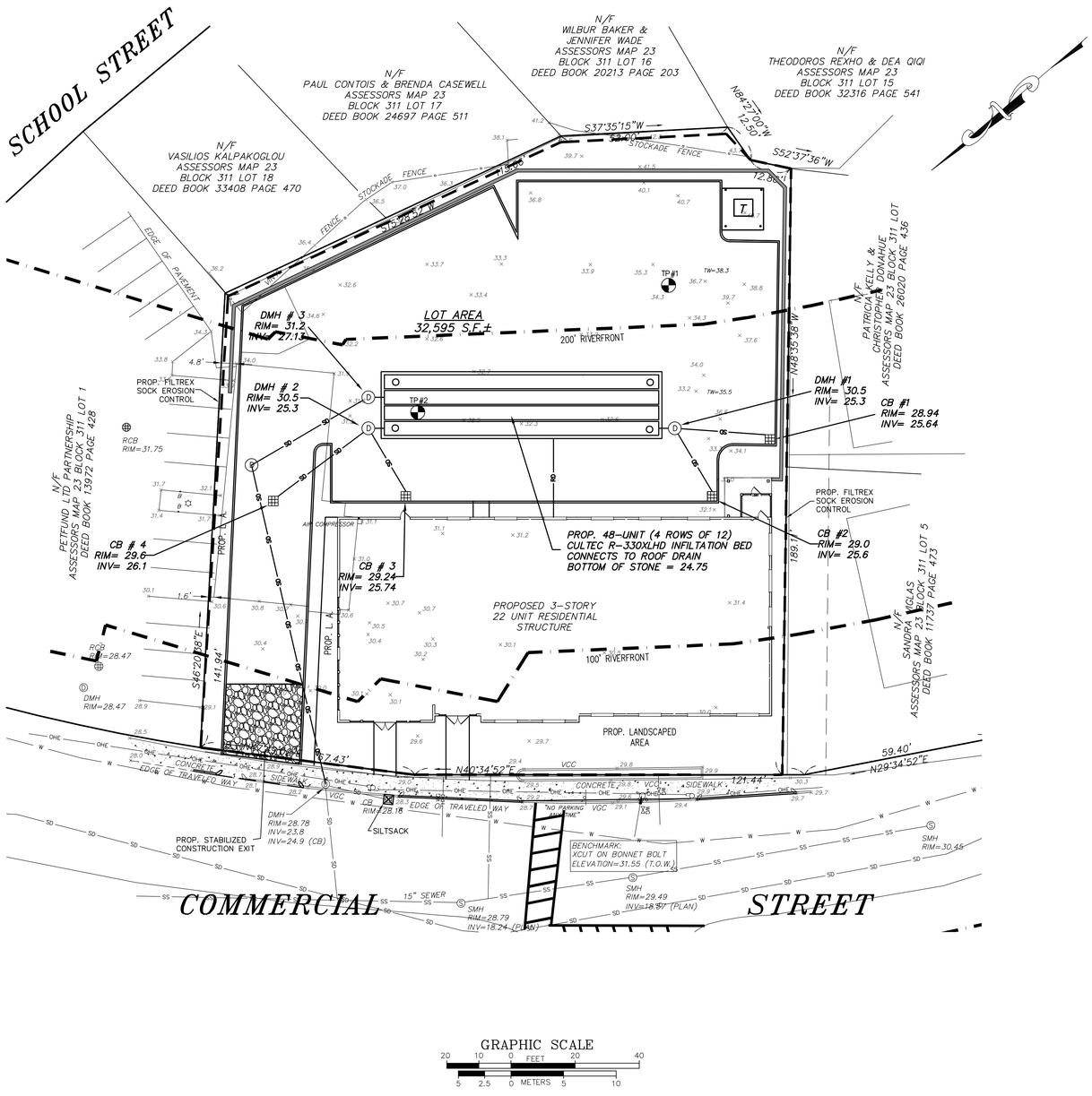
DRAWN BY: SPH TYG
DESIGNED BY: SPH
CHECKED BY: SPH

DATE: 10-20-2022
LATEST REV:

HARDY + MAN DESIGN GROUP, PC
CIVIL ENGINEERING & LAND DEVELOPMENT CONSULTING
1285 WASHINGTON STREET
WEYMOUTH, MA
(781) 335-1464

PREPARED FOR:
ANGJ, LLC
WEYMOUTH, MA

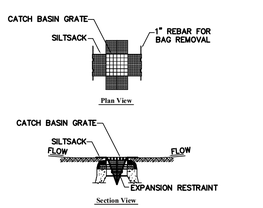
SHEET
C-3



GRAPHIC SCALE

20 10 0 FEET 20 40

5 2.5 0 METERS 5 10

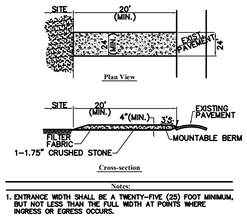


Notes:

1. INSTALL SILTSACK IN ALL CATCH BASINS WHERE INDICATED ON THE PLAN BEFORE COMMENCING WORK OR IN PAVED AREAS AFTER BINDER COURSE IS PLACED AND HAY BALES HAVE BEEN REMOVED.
2. GRATE TO BE PLACED OVER SILTSACK.
3. SILTSACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED. MAINTAIN UNTIL UPSTREAM AREAS HAVE BEEN PERMANENTLY STABILIZED

Siltsack Sediment Trap

N.T.S.

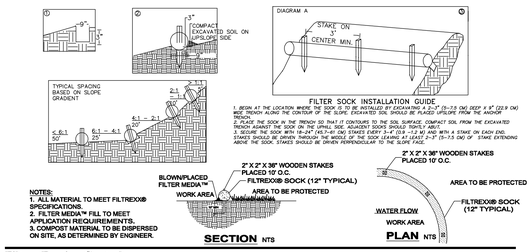


Notes:

1. ENTRANCE WIDTH SHALL BE A TWENTY-FIVE (25) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
2. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY. BERM SHALL BE PERMITTED. PERIODIC INSPECTION AND MAINTENANCE SHALL BE PROVIDED AS NEEDED.
3. STABILIZED CONSTRUCTION EXIT SHALL BE REMOVED PRIOR TO FINAL FINISH MATERIALS BEING INSTALLED.

Stabilized Construction Exit

N.T.S.



Filtrex Erosion Control

NTS

EROSION CONTROL NOTES

1. *PRIOR TO COMMENCING EARTH DISTURBANCE, INSTALL STAKED FILTER SOCK AND MAINTAIN THROUGHOUT ALL CONSTRUCTION.*
2. *ALL DISTURBED AREAS SHALL BE LOAMED AND SEEDED IMMEDIATELY UPON COMPLETION OF CONSTRUCTION.*
3. *ALL MATERIALS AND STOCKPILES SHALL BE STORED ON UPLAND AREAS. STOCKPILES SHALL BE SURROUNDED BY FILTER SOCK, SHALL HAVE HAVE SIDE SLOPES NO GREATER THAN 30%, AND SHALL BE SEEDED OR STABILIZED IF LEFT UNDISTURBED FOR TWO WEEKS OR MORE.*
4. *SEDIMENTATION CONTROL DEVICES SHALL BE INSPECTED AND MAINTAINED PRIOR TO ANY EVENTS AND PROMPTLY AFTER EACH RAINFALL.*
5. *ANY SLOPE STEEPER THAN 3:1 SHALL BE EQUIPPED WITH JUTE MESH SLOPE STABILIZATION.*
6. *ALL CATCH BASINS SHALL BE PROVIDED WITH FILTER SOCK DIKES UNTIL BASE COURSE IS IN PLACE.*
7. *FILTER SOCK FILLER MATERIAL SHALL BE COMPOSTED MULCH.*
8. *ALL UTILITIES SHALL BE LOCATED UNDERGROUND.*
9. *CONTRATOR TO PROVIDE A STABLIZED STONE LINE CONSTRUCTION ENTRNACE FOR CONSTRUCTION EQUIPMENTS TO ENTRANCE/EGRESS THE SITE.*

COMMONWEALTH OF MASSACHUSETTS
SHAWN P. HARDY
NO. 41650
CIVIL
REGISTERED PROFESSIONAL ENGINEER

REVISIONS:		
NO.:	COMMENTS:	DATE:

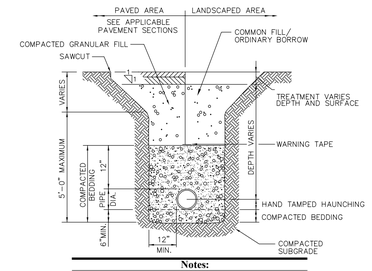
EROSION CONTROL PLAN
1441 COMMERCIAL STREET
WEYMOUTH, MASSACHUSETTS

DRAWN BY: SPH, TCN
DESIGNED BY: SPH
CHECKED BY: SPH
DATE: 10-20-2022
LATEST REV:

HARDY + MAN DESIGN GROUP, PC
CIVIL ENGINEERING & LAND DEVELOPMENT CONSULTING
1285 WASHINGTON STREET
WEYMOUTH, MA
(781) 335-1464

PREPARED FOR:
ANGJ, LLC
WEYMOUTH, MA

SHEET
C-4

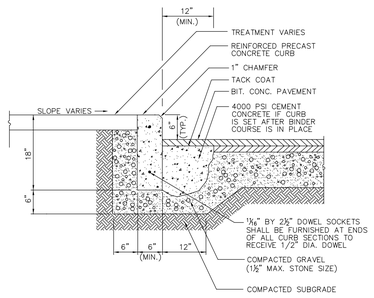


Notes:

1. WHERE UTILITY TRENCHES ARE CONSTRUCTED THROUGH DETENTION BASIN BERMS OR OTHER SUCH SPECIAL SECTIONS, PLACE TRENCH BACKFILL WITH MATERIALS SIMILAR TO THE SPECIAL SECTION REQUIREMENTS.
2. USE METALLIC TRACING/WARNING TAPE OVER ALL PIPES.
3. PAVEMENT SECTION TO CONFORM TO CITY OF QUINCY DEPARTMENT OF PUBLIC WORKS (DPW) SPECIFICATION.

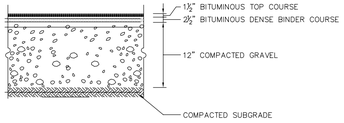
Utility Trench

N.T.S.



Precast Concrete Curb (PCC)

N.T.S.

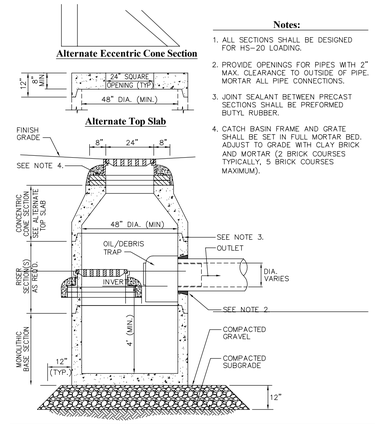


Note:

PAVEMENT SECTIONS ARE SUBJECT TO CHANGE AND WILL BE BASED ON THE RESULTS OF FURTHER GEOTECHNICAL INVESTIGATIONS.

Bituminous Concrete Pavement Section

N.T.S.

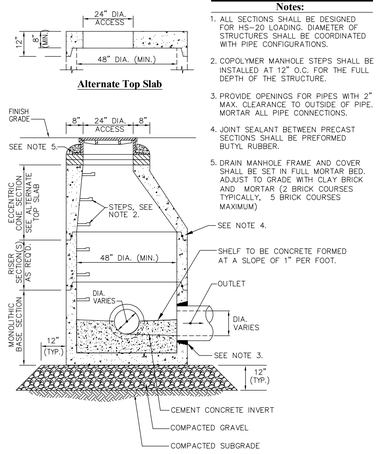


Notes:

1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
2. PROVIDE OPENINGS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
3. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
4. CATCH BASIN FRAME AND GRATE SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM).

Catch Basin (CB) With Oil/Debris Trap

N.T.S.

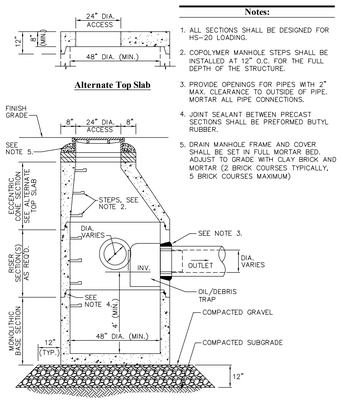


Notes:

1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING. DIAMETER OF STRUCTURES SHALL BE COORDINATED WITH PIPE CONFIGURATIONS.
2. COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.
3. PROVIDE OPENINGS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
5. DRAIN MANHOLE FRAME AND COVER SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM)

Drain Manhole (DMH)

N.T.S.

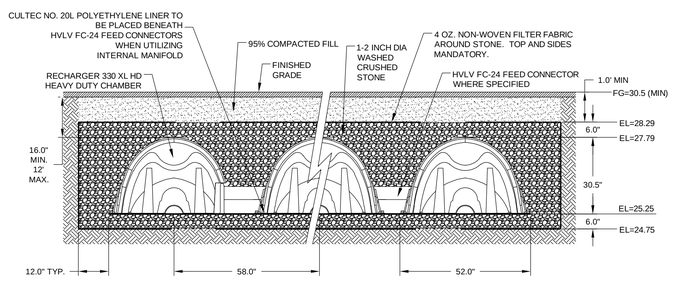


Notes:

1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
2. COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.
3. PROVIDE OPENINGS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
5. DRAIN MANHOLE FRAME AND COVER SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM)

Drain Manhole (DMH) with Oil Debris/Trap

N.T.S.



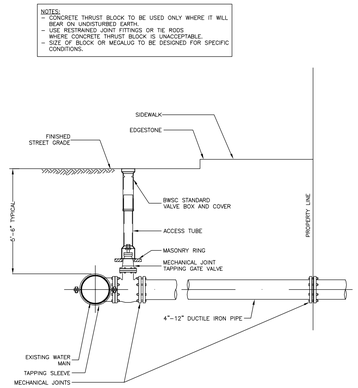
GENERAL NOTES

RECHARGER 330XL HD BY CULTEC, INC. OF BROOKFIELD, CT.
STORAGE PROVIDED = 11.32 CF/FT PER DESIGN UNIT.
REFER TO CULTEC, INC.'S CURRENT RECOMMENDED INSTALLATION GUIDELINES.
USE RECHARGER 330XL HD HEAVY DUTY FOR TRAFFIC AND/OR H-25 APPLICATIONS.

ALL RECHARGER 330XL HD HEAVY DUTY UNITS ARE MARKED WITH A COLOR STRIPE FORMED INTO THE PART ALONG THE LENGTH OF THE CHAMBER.
ALL RECHARGER 330XL HD CHAMBERS MUST BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.

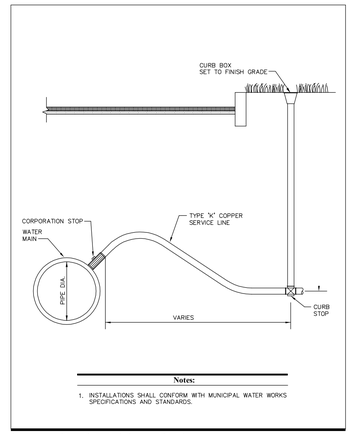
Cultec 330 XLHD Chambers

N.T.S.



Water Connection to Existing Main

N.T.S.



Notes:

1. INSTALLATIONS SHALL CONFORM WITH MUNICIPAL WATER WORKS SPECIFICATIONS AND STANDARDS.

Corporation/Curb Stop with Box

N.T.S.

COMMONWEALTH OF MASSACHUSETTS
SHAWN P. HARDY
NO. 41650
CIVIL
REGISTERED PROFESSIONAL ENGINEER

REVISIONS:		
NO.:	COMMENTS:	DATE:

DETAILS PLAN
1441 COMMERCIAL STREET
WEYMOUTH, MASSACHUSETTS

DRAWN BY: SPH, TYG
DESIGNED BY: SPH
CHECKED BY: SPH

DATE: 10-20-2022
LATEST REV:

HARDY + MAN DESIGN GROUP, PC
CIVIL ENGINEERING & LAND DEVELOPMENT CONSULTING
1285 WASHINGTON STREET
WEYMOUTH, MA
(781) 335-1464

PREPARED FOR:
ANGJ, LLC
WEYMOUTH, MA

SHEET
C-5

STORMWATER REPORT

For

1441 Commercial Street
Weymouth, MA 02189

Prepared For:

ANGJ, LLC
Weymouth, MA 02189

Prepared By:

HARDY + MAN
DESIGN GROUP, PC
CIVIL ENGINEERING &
LAND DEVELOPMENT CONSULTING

1285 Washington Street
Weymouth, MA 02189

October 24, 2022

COMMONWEALTH OF MASSACHUSETTS
SHAWN P.
HARDY
NO. 41650
CIVIL
REGISTERED
PROFESSIONAL ENGINEER

Existing Conditions
The subject property is an existing 32,595 square-foot lot located at 1441 Commercial Street in Weymouth, Massachusetts. The parcel is zoned business district 2 (BUS-2) and is the use is an existing gas station. Assessor's records designate the lot as Map 23, Block 311, Lot 2. The site is situated on Commercial Street, near the southeasterly intersection of Water Street and Commercial Street.

The topography of the site slopes from approximately elevation 43 at the right rear of the parcel to 29 at the front left corner. The majority of the existing lot is impervious (service station with bituminous pavement) with minor areas of gravel driveway, and landscaping.

According to test pits performed on June 25, 2021, the soils were very dry, with cobbles, a high percentage of gravel, and boulders. The soil is classified as well-drained, hydrologic group A. The site is within FEMA Flood Zone X, or Area of Minimal Flood Hazard.

Currently, no stormwater controls exist on the site and the topography directs stormwater flows overland to the front lot corner towards Commercial Street.

Proposed Conditions
The applicant proposes to construct a mixed-use building with appurtenances as depicted on the plan set titled "Site Layout 1441 Commercial Street, Weymouth, Massachusetts", dated October 20, 2022.

The first floor will consist of an approximately 1,600 SF commercial space and six (6) one-bedroom residential units. The upper two floors will have 16 residential unit for a total of 22 residential units.

A retaining wall is proposed in the rear of the lot which will vary from 0.75 feet to 8 feet tall. The proposed grade on the site will be lower than that of the existing.

Erosion and Sedimentation Control Measures
Erosion control measures to be employed include a staked filter sock type erosion control barrier as depicted on the site plan. The barrier shall be inspected daily and kept in place until such time that disturbed areas are re-vegetated or paved and are no longer a potential source of siltation.

A stabilized gravel construction entrance is proposed to minimize tracking of sediments onto the adjacent roadway. In addition, the contractor shall utilize a combination of water and calcium chloride, as needed, to minimize the migration of dust.

Stormwater Management
The current site has no stormwater controls. The topography of the land directs stormwater flows down slope to the front of the lot which is directed to Commercial Street.

This drainage analysis utilizes TR-55 drainage guidelines, which is an industry standard for urban hydrology small watersheds. To mitigate the proposed increase (±1,500 SF) in impervious area, the roof and driveway flows are to be directed to a series of 48 (4 rows of 12) Cultec 330 XLHD chambers as depicted on the proposed plan. The proposed chambers will provide approximately 3,100 cubic feet of storage below the outlet invert. The system has been sized to reduce site runoff rate and volume for the 2, 10, 25 and 100-year design storms.

The following table depicts the peak runoff rates and volumes for the existing and proposed conditions for each storm event. For reference, HydroCAD calculations are attached to this report..

Peak Discharge Rates (cfs)

	2-year	10-year	25-year	100-year
Existing Conditions	1.56	2.54	3.25	4.19
Proposed Conditions	0.14	0.28	0.39	0.82

Runoff Volume (af)

	2-year	10-year	25-year	100-year
Existing Conditions	0.111	0.181	0.232	0.302
Proposed Conditions	0.010	0.020	0.032	0.067

The proposed project complies with the Stormwater Management Standards as follows:

Standard 1: No New Untreated Discharges

The proposed improvements will not create any new untreated conveyances. Runoff from new pavement is directed towards a series of deep sump catch basins and manholes for conveyance to an infiltration basin that has been sized to infiltrate the required recharge volume.

Standard 2: Peak Rate Attenuation

As stated, the proposed redevelopment results in a decrease in off-site stormwater flows and volumes.

Standard 3: Recharge

The infiltration basin has been sized to accommodate the required recharge volume and 72 hour drawdown.

Standard 4: Water Quality

Supporting calculations have been provided to show that the required water quality volume and TSS removal have been met. An operation and maintenance plan has also been included in this submission to serve as a Long Term Pollution Prevention Plan. The plan is intended to maximize treatment of runoff from impervious areas.

Standard 5: Land Uses with Higher Pollutant Loads (LUHPPLs)

The site is not a LUHPPL.

Standard 6: Critical Areas

The project is not located within a critical area.

Standard 7: Redevelopment

Stormwater controls have been designed meet each of the required Stormwater Management Standards.

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

The Operation and Maintenance Plan included with this submittal will ensure proper maintenance of the pollution, erosion and sedimentation measures proposed during construction.

Standard 9: Operation and Maintenance Plan

An Operation and Maintenance Plan intended to ensure the continued proper functioning of the existing stormwater controls has been included with this submittal.

Standard 10: Prohibition of Illicit Discharges

An Illicit Discharge Statement will be provided prior to discharge to post-construction BMP's as required.

Conclusion

The proposed stormwater design utilizes the stormwater BMPs to provide stormwater treatment and control. The stormwater management system will reduce the stormwater runoff flow rate by providing an on-site infiltration system. This system is composed of Cultec chambers that have been sized to capture and reduce runoff for up to 100-year rainfall events. During construction, the proposed erosion control measures protect sedimentation from construction activities from migrating from the site onto the public street and abutting properties.

The proposed stormwater management and erosion control design of the proposed development will meet the Town of Weymouth Stormwater Ordinance and Mass DEP Stormwater Standards.

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

Checklist for Stormwater Report

A. Introduction

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

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

The Stormwater Report must include:

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

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

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

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

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

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

Checklist for Stormwater Report

B. Stormwater Checklist and Certification

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

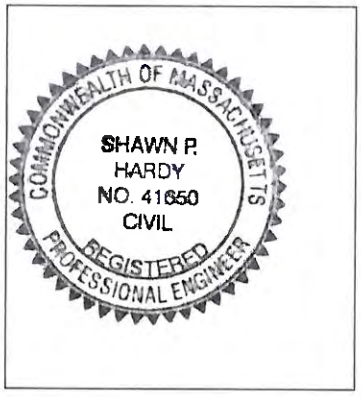
Note: Because stormwater requirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that the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

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

Registered Professional Engineer's Certification

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

Registered Professional Engineer Block and Signature



Signature and Date 10/24/2022

Checklist

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

☐ New development

☐ Redevelopment

☒ Mix of New Development and Redevelopment

Checklist for Stormwater Report

Checklist (continued)

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

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

Standard 1: No New Untreated Discharges

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

Checklist for Stormwater Report

Checklist (continued)

Standard 2: Peak Rate Attenuation

☐ Standard 2 waiver requested because the project is located in land subject to coastal storm flowage and stormwater discharge is to a wetland subject to coastal flooding.

☐ Evaluation provided to determine whether off-site flooding increases during the 100-year 24-hour storm.

☒ Calculations provided to show that post-development peak discharge rates do not exceed pre-development rates for the 2-year and 10-year 24-hour storms. If evaluation shows that off-site flooding increases during the 100-year 24-hour storm, calculations are also provided to show that post-development peak discharge rates do not exceed pre-development rates for the 100-year 24-hour storm.

Standard 3: Recharge

☒ Soil Analysis provided.

☒ Required Recharge Volume calculation provided.

☐ Required Recharge volume reduced through use of the LID site Design Credits.

☐ Sizing the infiltration, BMPs is based on the following method: Check the method used.

☐ Static ☒ Simple Dynamic ☐ Dynamic Field[1]

☐ Runoff from all impervious areas at the site discharging to the infiltration BMP.

☒ Runoff from all impervious areas at the site is *not* discharging to the infiltration BMP and calculations are provided showing that the drainage area contributing runoff to the infiltration BMPs is sufficient to generate the required recharge volume.

☒ Recharge BMPs have been sized to infiltrate the Required Recharge Volume.

☐ Recharge BMPs have been sized to infiltrate the Required Recharge Volume *only* to the maximum extent practicable for the following reason:

- ☐ Site is comprised solely of C and D soils and/or bedrock at the land surface
- ☐ M.G.L. c. 21E sites pursuant to 310 CMR 40.0000
- ☐ Solid Waste Landfill pursuant to 310 CMR 19.000
- ☐ Project is otherwise subject to Stormwater Management Standards only to the maximum extent practicable.

☒ Calculations showing that the infiltration BMPs will drain in 72 hours are provided.

☐ Property includes a M.G.L. c. 21E site or a solid waste landfill and a mounding analysis is included.

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

Checklist for Stormwater Report

Checklist (continued)

Standard 3: Recharge (continued)

☐ The infiltration BMP is used to attenuate peak flows during storms greater than or equal to the 10-year 24-hour storm and separation to seasonal high groundwater is less than 4 feet and a mounding analysis is provided.

☐ Documentation is provided showing that infiltration BMPs do not adversely impact nearby wetland resource areas.

Standard 4: Water Quality

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

- Good housekeeping practices;
- Provisions for storing materials and waste products inside or under cover;
- Vehicle washing controls;
- Requirements for routine inspections and maintenance of stormwater BMPs;
- Spill prevention and response plans;
- Provisions for maintenance of lawns, gardens, and other landscaped areas;
- Requirements for storage and use of fertilizers, herbicides, and pesticides;
- Pet waste management provisions;
- Provisions for operation and management of septic systems;
- Provisions for solid waste management;
- Snow disposal and plowing plans relative to Wetland Resource Areas;
- Winter Road Salt and/or Sand Use and Storage restrictions;
- Street sweeping schedules;
- Provisions for prevention of illicit discharges to the stormwater management system;
- Documentation that Stormwater BMPs are designed to provide for shutdown and containment in the event of a spill or discharges to or near critical areas or from LUHPPL;
- Training for staff or personnel involved with implementing Long-Term Pollution Prevention Plan;
- List of Emergency contacts for implementing Long-Term Pollution Prevention Plan.

☒ A Long-Term Pollution Prevention Plan is attached to Stormwater Report and is included as an attachment to the Wetlands Notice of Intent.

☒ Treatment BMPs subject to the 44% TSS removal pretreatment requirement and the one inch rule for calculating the water quality volume are included, and discharge:

- ☐ is within the Zone II or Interim Wellhead Protection Area
- ☐ is near or to other critical areas
- ☒ is within soils with a rapid infiltration rate (greater than 2.4 inches per hour)
- ☐ involves runoff from land uses with higher potential pollutant loads.

☐ The Required Water Quality Volume is reduced through use of the LID site Design Credits.

☒ Calculations documenting that the treatment train meets the 80% TSS removal requirement and, if applicable, the 44% TSS removal pretreatment requirement, are provided.

Checklist for Stormwater Report

Checklist (continued)

Standard 4: Water Quality (continued)

☒ The BMP is sized (and calculations provided) based on:

- ☒ The ½" or 1" Water Quality Volume or
- ☐ The equivalent flow rate associated with the Water Quality Volume and documentation is provided showing that the BMP treats the required water quality volume.

☐ The applicant proposes to use proprietary BMPs, and documentation supporting use of proprietary BMP and proposed TSS removal rate is provided. This documentation may be in the form of the propriety BMP checklist found in Volume 2, Chapter 4 of the Massachusetts Stormwater Handbook and submitting copies of the TARP Report, STEP Report, and/or other third party studies verifying performance of the proprietary BMPs.

☐ A TMDL exists that indicates a need to reduce pollutants other than TSS and documentation showing that the BMPs selected are consistent with the TMDL is provided.

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

☐ The NPDES Multi-Sector General Permit covers the land use and the Stormwater Pollution Prevention Plan (SWPPP) has been included with the Stormwater Report.

☐ The NPDES Multi-Sector General Permit covers the land use and the SWPPP will be submitted ***prior to*** the discharge of stormwater to the post-construction stormwater BMPs.

☐ The NPDES Multi-Sector General Permit does ***not*** cover the land use.

☐ LUHPPLs are located at the site and industry specific source control and pollution prevention measures have been proposed to reduce or eliminate the exposure of LUHPPLs to rain, snow, snow melt and runoff, and been included in the long term Pollution Prevention Plan.

☐ All exposure has been eliminated.

☐ All exposure has ***not*** been eliminated and all BMPs selected are on MassDEP LUHPPL list.

☐ The LUHPPL has the potential to generate runoff with moderate to higher concentrations of oil and grease (e.g. all parking lots with >1000 vehicle trips per day) and the treatment train includes an oil grit separator, a filtering bioretention area, a sand filter or equivalent.

Standard 6: Critical Areas

☐ The discharge is near or to a critical area and the treatment train includes only BMPs that MassDEP has approved for stormwater discharges to or near that particular class of critical area.

☐ Critical areas and BMPs are identified in the Stormwater Report.

Checklist for Stormwater Report

Checklist (continued)

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

☒ The project is subject to the Stormwater Management Standards only to the maximum Extent Practicable as a:

- ☐ Limited Project
- ☐ Small Residential Projects: 5-9 single family houses or 5-9 units in a multi-family development provided there is no discharge that may potentially affect a critical area.
- ☐ Small Residential Projects: 2-4 single family houses or 2-4 units in a multi-family development with a discharge to a critical area
- ☐ Marina and/or boatyard provided the hull painting, service and maintenance areas are protected from exposure to rain, snow, snow melt and runoff
- ☐ Bike Path and/or Foot Path
- ☐ Redevelopment Project
- ☒ Redevelopment portion of mix of new and redevelopment.

☐ Certain standards are not fully met (Standard No. 1, 8, 9, and 10 must always be fully met) and an explanation of why these standards are not met is contained in the Stormwater Report.

☐ The project involves redevelopment and a description of all measures that have been taken to improve existing conditions is provided in the Stormwater Report. The redevelopment checklist found in Volume 2 Chapter 3 of the Massachusetts Stormwater Handbook may be used to document that the proposed stormwater management system (a) complies with Standards 2, 3 and the pretreatment and structural BMP requirements of Standards 4-6 to the maximum extent practicable and (b) improves existing conditions.

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

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

- Narrative;
- Construction Period Operation and Maintenance Plan;
- Names of Persons or Entity Responsible for Plan Compliance;
- Construction Period Pollution Prevention Measures;
- Erosion and Sedimentation Control Plan Drawings;
- Detail drawings and specifications for erosion control BMPs, including sizing calculations;
- Vegetation Planning;
- Site Development Plan;
- Construction Sequencing Plan;
- Sequencing of Erosion and Sedimentation Controls;
- Operation and Maintenance of Erosion and Sedimentation Controls;
- Inspection Schedule;
- Maintenance Schedule;
- Inspection and Maintenance Log Form.

☒ A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan containing the information set forth above has been included in the Stormwater Report.

Checklist for Stormwater Report

Checklist (continued)

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

☐ The project is highly complex and information is included in the Stormwater Report that explains why it is not possible to submit the Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan with the application. A Construction Period Pollution Prevention and Erosion and Sedimentation Control has ***not*** been included in the Stormwater Report but will be submitted ***before*** land disturbance begins.

☐ The project is ***not*** covered by a NPDES Construction General Permit.

☐ The project is covered by a NPDES Construction General Permit and a copy of the SWPPP is in the Stormwater Report.

☐ The project is covered by a NPDES Construction General Permit but no SWPPP been submitted. The SWPPP will be submitted BEFORE land disturbance begins.

Standard 9: Operation and Maintenance Plan

☒ The Post Construction Operation and Maintenance Plan is included in the Stormwater Report and includes the following information:

- ☐ Name of the stormwater management system owners;
- ☐ Party responsible for operation and maintenance;
- ☐ Schedule for implementation of routine and non-routine maintenance tasks;
- ☐ Plan showing the location of all stormwater BMPs maintenance access areas;
- ☐ Description and delineation of public safety features;
- ☐ Estimated operation and maintenance budget; and
- ☐ Operation and Maintenance Log Form.

☐ The responsible party is ***not*** the owner of the parcel where the BMP is located and the Stormwater Report includes the following submissions:

- ☐ A copy of the legal instrument (deed, homeowner's association, utility trust or other legal entity) that establishes the terms of and legal responsibility for the operation and maintenance of the project site stormwater BMPs;
- ☐ A plan and easement deed that allows site access for the legal entity to operate and maintain BMP functions.

Standard 10: Prohibition of Illicit Discharges

☐ The Long-Term Pollution Prevention Plan includes measures to prevent illicit discharges;

☐ An Illicit Discharge Compliance Statement is attached;

☒ NO Illicit Discharge Compliance Statement is attached but will be submitted ***prior to*** the discharge of any stormwater to post-construction BMPs.

Soil Data

Commonwealth of Massachusetts
City/Town of Weymouth

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review (*minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TP1 (Hole #) | 6/25/2021 (Date) | 8:00AM (Time) | Rain 65 (Weather) | (Latitude) | (Longitude:)

1. Land Use: Commercial (gas station) (e.g., woodland, agricultural field, vacant lot, etc.) | little (Vegetation) | few (Surface Stones (e.g., cobbles, stones, boulders, etc.)) | 2% (Slope (%))

Description of Location:

2. Soil Parent Material: Urban Land | (Landform) | (Position on Landscape (SU, SH, BS, FS, TS))

3. Distances from: Open Water Body >200 feet | Drainage Way N/A feet | Wetlands >200 feet
Property Line +/- 40 feet | Drinking Water Well N/A feet | Other _____ feet

4. Unsuitable Materials Present: ☒ Yes ☐ No If Yes: ☐ Disturbed Soil ☒ Fill Material ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☐ Yes ☒ No If yes: _____ Depth Weeping from Pit _____ Depth Standing Water in Hole

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-30	Fill										Asphalt, gravel, bricks, etc
30-120	C	CSE S	10YR 4/4	N/A			>5%	Boulders			

Additional Notes:
No mottles, no weeping & no standing water

Commonwealth of Massachusetts
City/Town of Weymouth

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review (*minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: TP2 (Hole #) 6/25/202 1 8;00 AM (Time) Rain 65 (Weather) _____ (Latitude) _____ (Longitude:)

1. Land Use: Commercial (e.g., woodland, agricultural field, vacant lot, etc.) little (Vegetation) _____ (Surface Stones (e.g., cobbles, stones, boulders, etc.)) 2% (Slope (%))

Description of Location: _____

2. Soil Parent Material: Urban Land _____ (Landform) _____ (Position on Landscape (SU, SH, BS, FS, TS))

3. Distances from: Open Water Body >200 feet; Drainage Way N/A feet; Wetlands >200 feet; Property Line +/-60 feet; Drinking Water Well N/A feet; Other _____ feet

4. Unsuitable Materials Present: ☒ Yes ☐ No If Yes: ☐ Disturbed Soil ☒ Fill Material ☐ Weathered/Fractured Rock ☐ Bedrock

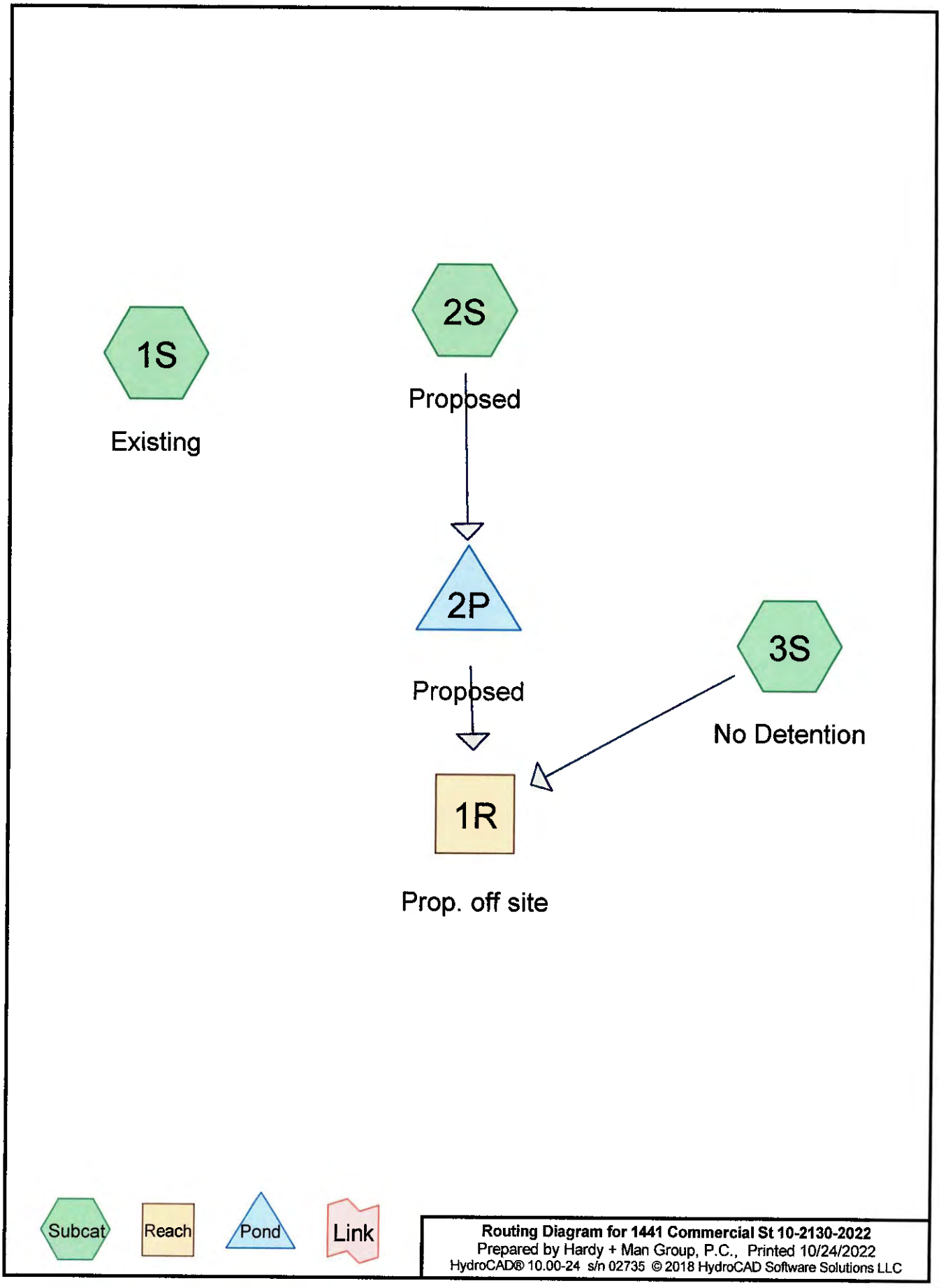
5. Groundwater Observed: ☐ Yes ☒ No If yes: _____ Depth Weeping from Pit _____ Depth Standing Water in Hole

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-72	Fill										gravel, concrete, bricks, etc
72-132	C	CSE S	10YR 4/4	N/A			>5%	2-5			

Additional Notes:
No mottles, no weeping & no standing water observed.

HydroCAD Documentation



Routing Diagram for 1441 Commercial St 10-2130-2022
Prepared by Hardy + Man Group, P.C., Printed 10/24/2022
HydroCAD® 10.00-24 s/n 02735 © 2018 HydroCAD Software Solutions LLC

Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Existing Runoff Area=32,595 sf 63.48% Impervious Runoff Depth=1.77"
Tc=5.0 min CN=83 Runoff=1.56 cfs 0.111 af

Subcatchment 2S: Proposed Runoff Area=26,809 sf 94.33% Impervious Runoff Depth=2.95"
Tc=5.0 min CN=96 Runoff=1.98 cfs 0.151 af

Subcatchment 3S: No Detention Runoff Area=5,786 sf 23.92% Impervious Runoff Depth=0.95"
Tc=5.0 min CN=70 Runoff=0.14 cfs 0.010 af

Reach 1R: Prop. off site Inflow=0.14 cfs 0.010 af
Outflow=0.14 cfs 0.010 af

Pond 2P: Proposed Peak Elev=26.07' Storage=1,613 cf Inflow=1.98 cfs 0.151 af
Discarded=0.40 cfs 0.151 af Primary=0.00 cfs 0.000 af Outflow=0.40 cfs 0.151 af

Total Runoff Area = 1.497 ac Runoff Volume = 0.272 af Average Runoff Depth = 2.18"
27.34% Pervious = 0.409 ac 72.66% Impervious = 1.087 ac

Summary for Subcatchment 1S: Existing

[49] Hint: Tc<2dt may require smaller dt

Runoff = 1.56 cfs @ 12.08 hrs, Volume= 0.111 af, Depth= 1.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 year Rainfall=3.40"

	Area (sf)	CN	Description
	2,623	98	Roofs, HSG A
	15,941	98	Paved parking, HSG A
	7,506	35	Brush, Fair, HSG A
*	2,126	98	concrete
	4,399	96	Gravel surface, HSG A
	32,595	83	Weighted Average
	11,905		36.52% Pervious Area
	20,690		63.48% Impervious Area

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

Summary for Subcatchment 2S: Proposed

[49] Hint: Tc<2dt may require smaller dt

Runoff = 1.98 cfs @ 12.07 hrs, Volume= 0.151 af, Depth= 2.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 year Rainfall=3.40"

	Area (sf)	CN	Description
	15,586	98	Paved parking, HSG A
	8,694	98	Roofs, HSG B
*	1,010	98	conc. walks
	1,519	61	>75% Grass cover, Good, HSG B
	26,809	96	Weighted Average
	1,519		5.67% Pervious Area
	25,290		94.33% Impervious Area

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

Summary for Subcatchment 3S: No Detention

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.14 cfs @ 12.09 hrs, Volume= 0.010 af, Depth= 0.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 year Rainfall=3.40"

	Area (sf)	CN	Description
	983	98	Paved parking, HSG B
	4,402	61	>75% Grass cover, Good, HSG B
*	401	98	conc walks
	5,786	70	Weighted Average
	4,402		76.08% Pervious Area
	1,384		23.92% Impervious Area

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

Summary for Reach 1R: Prop. off site

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.748 ac, 81.83% Impervious, Inflow Depth = 0.17" for 2 year event
Inflow = 0.14 cfs @ 12.09 hrs, Volume= 0.010 af
Outflow = 0.14 cfs @ 12.09 hrs, Volume= 0.010 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Summary for Pond 2P: Proposed

Inflow Area = 0.615 ac, 94.33% Impervious, Inflow Depth = 2.95" for 2 year event
Inflow = 1.98 cfs @ 12.07 hrs, Volume= 0.151 af
Outflow = 0.40 cfs @ 12.49 hrs, Volume= 0.151 af, Atten= 80%, Lag= 25.1 min
Discarded = 0.40 cfs @ 12.49 hrs, Volume= 0.151 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 26.07' @ 12.49 hrs Surf.Area= 1,823 sf Storage= 1,613 cf

Plug-Flow detention time= 22.1 min calculated for 0.151 af (100% of inflow)
Center-of-Mass det. time= 22.1 min (793.5 - 771.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	24.75'	1,563 cf	**20.83'W x 87.50'L x 3.54'H Field A** 6,456 cf Overall - 2,548 cf Embedded = 3,908 cf x 40.0% Voids
#2A	25.25'	2,548 cf	**Cultec R-330XLHD** x 48 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap

Row Length Adjustment= +1.50' x 7.45 sf x 4 rows

4,111 cf Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	24.75'	**8.270 in/hr Exfiltration over Wetted area**
#2	Primary	27.13'	**6.0" Round Culvert** L= 222.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 27.13' / 23.80' S= 0.0150 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf

Discarded OutFlow Max=0.40 cfs @ 12.49 hrs HW=26.07' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.40 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=24.75' (Free Discharge)
↑—**2=Culvert** (Controls 0.00 cfs)

Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Existing Runoff Area=32,595 sf 63.48% Impervious Runoff Depth=2.90"
Tc=5.0 min CN=83 Runoff=2.54 cfs 0.181 af

Subcatchment 2S: Proposed Runoff Area=26,809 sf 94.33% Impervious Runoff Depth=4.23"
Tc=5.0 min CN=96 Runoff=2.79 cfs 0.217 af

Subcatchment 3S: No Detention Runoff Area=5,786 sf 23.92% Impervious Runoff Depth=1.82"
Tc=5.0 min CN=70 Runoff=0.28 cfs 0.020 af

Reach 1R: Prop. off site Inflow=0.28 cfs 0.020 af
Outflow=0.28 cfs 0.020 af

Pond 2P: Proposed Peak Elev=26.85' Storage=2,718 cf Inflow=2.79 cfs 0.217 af
Discarded=0.44 cfs 0.217 af Primary=0.00 cfs 0.000 af Outflow=0.44 cfs 0.217 af

Total Runoff Area = 1.497 ac Runoff Volume = 0.418 af Average Runoff Depth = 3.35"
27.34% Pervious = 0.409 ac 72.66% Impervious = 1.087 ac

Summary for Subcatchment 1S: Existing

[49] Hint: Tc<2dt may require smaller dt

Runoff = 2.54 cfs @ 12.08 hrs, Volume= 0.181 af, Depth= 2.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 year Rainfall=4.70"

	Area (sf)	CN	Description
	2,623	98	Roofs, HSG A
	15,941	98	Paved parking, HSG A
	7,506	35	Brush, Fair, HSG A
*	2,126	98	concrete
	4,399	96	Gravel surface, HSG A
	32,595	83	Weighted Average
	11,905		36.52% Pervious Area
	20,690		63.48% Impervious Area

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

Summary for Subcatchment 2S: Proposed

[49] Hint: Tc<2dt may require smaller dt

Runoff = 2.79 cfs @ 12.07 hrs, Volume= 0.217 af, Depth= 4.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 year Rainfall=4.70"

	Area (sf)	CN	Description
	15,586	98	Paved parking, HSG A
	8,694	98	Roofs, HSG B
*	1,010	98	conc. walks
	1,519	61	>75% Grass cover, Good, HSG B
	26,809	96	Weighted Average
	1,519		5.67% Pervious Area
	25,290		94.33% Impervious Area

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

Summary for Subcatchment 3S: No Detention

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.28 cfs @ 12.08 hrs, Volume= 0.020 af, Depth= 1.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 year Rainfall=4.70"

	Area (sf)	CN	Description
	983	98	Paved parking, HSG B
	4,402	61	>75% Grass cover, Good, HSG B
*	401	98	conc walks
	5,786	70	Weighted Average
	4,402		76.08% Pervious Area
	1,384		23.92% Impervious Area

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

Summary for Reach 1R: Prop. off site

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.748 ac, 81.83% Impervious, Inflow Depth = 0.32" for 10 year event
Inflow = 0.28 cfs @ 12.08 hrs, Volume= 0.020 af
Outflow = 0.28 cfs @ 12.08 hrs, Volume= 0.020 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Summary for Pond 2P: Proposed

Inflow Area = 0.615 ac, 94.33% Impervious, Inflow Depth = 4.23" for 10 year event
Inflow = 2.79 cfs @ 12.07 hrs, Volume= 0.217 af
Outflow = 0.44 cfs @ 12.55 hrs, Volume= 0.217 af, Atten= 84%, Lag= 28.7 min
Discarded = 0.44 cfs @ 12.55 hrs, Volume= 0.217 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 26.85' @ 12.55 hrs Surf.Area= 1,823 sf Storage= 2,718 cf

Plug-Flow detention time= 38.7 min calculated for 0.217 af (100% of inflow)
Center-of-Mass det. time= 38.6 min (801.6 - 763.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	24.75'	1,563 cf	**20.83'W x 87.50'L x 3.54'H Field A** 6,456 cf Overall - 2,548 cf Embedded = 3,908 cf x 40.0% Voids
#2A	25.25'	2,548 cf	**Cultec R-330XLHD** x 48 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap

Row Length Adjustment= +1.50' x 7.45 sf x 4 rows

4,111 cf Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	24.75'	**8.270 in/hr Exfiltration over Wetted area**
#2	Primary	27.13'	**6.0" Round Culvert** L= 222.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 27.13' / 23.80' S= 0.0150 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf

Discarded OutFlow Max=0.44 cfs @ 12.55 hrs HW=26.85' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.44 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=24.75' (Free Discharge)
↑—**2=Culvert** (Controls 0.00 cfs)

Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Existing Runoff Area=32,595 sf 63.48% Impervious Runoff Depth=3.72"
Tc=5.0 min CN=83 Runoff=3.25 cfs 0.232 af

Subcatchment 2S: Proposed Runoff Area=26,809 sf 94.33% Impervious Runoff Depth=5.13"
Tc=5.0 min CN=96 Runoff=3.35 cfs 0.263 af

Subcatchment 3S: No Detention Runoff Area=5,786 sf 23.92% Impervious Runoff Depth=2.49"
Tc=5.0 min CN=70 Runoff=0.39 cfs 0.028 af

Reach 1R: Prop. off site Inflow=0.39 cfs 0.032 af
Outflow=0.39 cfs 0.032 af

Pond 2P: Proposed Peak Elev=27.41' Storage=3,415 cf Inflow=3.35 cfs 0.263 af
Discarded=0.46 cfs 0.258 af Primary=0.17 cfs 0.005 af Outflow=0.63 cfs 0.263 af

Total Runoff Area = 1.497 ac Runoff Volume = 0.523 af Average Runoff Depth = 4.19"
27.34% Pervious = 0.409 ac 72.66% Impervious = 1.087 ac

Summary for Subcatchment 1S: Existing

[49] Hint: Tc<2dt may require smaller dt

Runoff = 3.25 cfs @ 12.07 hrs, Volume= 0.232 af, Depth= 3.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 year Rainfall=5.60"

	Area (sf)	CN	Description
	2,623	98	Roofs, HSG A
	15,941	98	Paved parking, HSG A
	7,506	35	Brush, Fair, HSG A
*	2,126	98	concrete
	4,399	96	Gravel surface, HSG A
	32,595	83	Weighted Average
	11,905		36.52% Pervious Area
	20,690		63.48% Impervious Area

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

Summary for Subcatchment 2S: Proposed

[49] Hint: Tc<2dt may require smaller dt

Runoff = 3.35 cfs @ 12.07 hrs, Volume= 0.263 af, Depth= 5.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 year Rainfall=5.60"

	Area (sf)	CN	Description
	15,586	98	Paved parking, HSG A
	8,694	98	Roofs, HSG B
*	1,010	98	conc. walks
	1,519	61	>75% Grass cover, Good, HSG B
	26,809	96	Weighted Average
	1,519		5.67% Pervious Area
	25,290		94.33% Impervious Area

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

Summary for Subcatchment 3S: No Detention

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.39 cfs @ 12.08 hrs, Volume= 0.028 af, Depth= 2.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 year Rainfall=5.60"

	Area (sf)	CN	Description
	983	98	Paved parking, HSG B
	4,402	61	>75% Grass cover, Good, HSG B
*	401	98	conc walks
	5,786	70	Weighted Average
	4,402		76.08% Pervious Area
	1,384		23.92% Impervious Area

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

Summary for Reach 1R: Prop. off site

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.748 ac, 81.83% Impervious, Inflow Depth = 0.52" for 25 year event
Inflow = 0.39 cfs @ 12.08 hrs, Volume= 0.032 af
Outflow = 0.39 cfs @ 12.08 hrs, Volume= 0.032 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Summary for Pond 2P: Proposed

Inflow Area = 0.615 ac, 94.33% Impervious, Inflow Depth = 5.13" for 25 year event
Inflow = 3.35 cfs @ 12.07 hrs, Volume= 0.263 af
Outflow = 0.63 cfs @ 12.51 hrs, Volume= 0.263 af, Atten= 81%, Lag= 26.3 min
Discarded = 0.46 cfs @ 12.51 hrs, Volume= 0.258 af
Primary = 0.17 cfs @ 12.51 hrs, Volume= 0.005 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 27.41' @ 12.51 hrs Surf.Area= 1,823 sf Storage= 3,415 cf

Plug-Flow detention time= 46.8 min calculated for 0.263 af (100% of inflow)
Center-of-Mass det. time= 46.7 min (805.6 - 758.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	24.75'	1,563 cf	**20.83'W x 87.50'L x 3.54'H Field A** 6,456 cf Overall - 2,548 cf Embedded = 3,908 cf x 40.0% Voids
#2A	25.25'	2,548 cf	**Cultec R-330XLHD** x 48 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap

Row Length Adjustment= +1.50' x 7.45 sf x 4 rows

4,111 cf Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	24.75'	**8.270 in/hr Exfiltration over Wetted area**
#2	Primary	27.13'	**6.0" Round Culvert** L= 222.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 27.13' / 23.80' S= 0.0150 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf

Discarded OutFlow Max=0.46 cfs @ 12.51 hrs HW=27.41' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.46 cfs)

Primary OutFlow Max=0.16 cfs @ 12.51 hrs HW=27.41' (Free Discharge)
↑—**2=Culvert** (Inlet Controls 0.16 cfs @ 1.43 fps)

Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Existing Runoff Area=32,595 sf 63.48% Impervious Runoff Depth=4.84"
Tc=5.0 min CN=83 Runoff=4.19 cfs 0.302 af

Subcatchment 2S: Proposed Runoff Area=26,809 sf 94.33% Impervious Runoff Depth=6.32"
Tc=5.0 min CN=96 Runoff=4.09 cfs 0.324 af

Subcatchment 3S: No Detention Runoff Area=5,786 sf 23.92% Impervious Runoff Depth=3.45"
Tc=5.0 min CN=70 Runoff=0.54 cfs 0.038 af

Reach 1R: Prop. off site Inflow=0.82 cfs 0.067 af
Outflow=0.82 cfs 0.067 af

Pond 2P: Proposed Peak Elev=28.09' Storage=3,963 cf Inflow=4.09 cfs 0.324 af
Discarded=0.49 cfs 0.295 af Primary=0.63 cfs 0.029 af Outflow=1.12 cfs 0.324 af

Total Runoff Area = 1.497 ac Runoff Volume = 0.664 af Average Runoff Depth = 5.33"
27.34% Pervious = 0.409 ac 72.66% Impervious = 1.087 ac

Summary for Subcatchment 1S: Existing

[49] Hint: Tc<2dt may require smaller dt

Runoff = 4.19 cfs @ 12.07 hrs, Volume= 0.302 af, Depth= 4.84"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 year Rainfall=6.80"

	Area (sf)	CN	Description
	2,623	98	Roofs, HSG A
	15,941	98	Paved parking, HSG A
	7,506	35	Brush, Fair, HSG A
*	2,126	98	concrete
	4,399	96	Gravel surface, HSG A
	32,595	83	Weighted Average
	11,905		36.52% Pervious Area
	20,690		63.48% Impervious Area

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

Summary for Subcatchment 2S: Proposed

[49] Hint: Tc<2dt may require smaller dt

Runoff = 4.09 cfs @ 12.07 hrs, Volume= 0.324 af, Depth= 6.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 year Rainfall=6.80"

	Area (sf)	CN	Description
	15,586	98	Paved parking, HSG A
	8,694	98	Roofs, HSG B
*	1,010	98	conc. walks
	1,519	61	>75% Grass cover, Good, HSG B
	26,809	96	Weighted Average
	1,519		5.67% Pervious Area
	25,290		94.33% Impervious Area

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

Summary for Subcatchment 3S: No Detention

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.54 cfs @ 12.08 hrs, Volume= 0.038 af, Depth= 3.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 year Rainfall=6.80"

	Area (sf)	CN	Description
	983	98	Paved parking, HSG B
	4,402	61	>75% Grass cover, Good, HSG B
*	401	98	conc walks
	5,786	70	Weighted Average
	4,402		76.08% Pervious Area
	1,384		23.92% Impervious Area

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

Summary for Reach 1R: Prop. off site

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.748 ac, 81.83% Impervious, Inflow Depth = 1.08" for 100 year event
Inflow = 0.82 cfs @ 12.35 hrs, Volume= 0.067 af
Outflow = 0.82 cfs @ 12.35 hrs, Volume= 0.067 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Summary for Pond 2P: Proposed

Inflow Area = 0.615 ac, 94.33% Impervious, Inflow Depth = 6.32" for 100 year event
Inflow = 4.09 cfs @ 12.07 hrs, Volume= 0.324 af
Outflow = 1.12 cfs @ 12.41 hrs, Volume= 0.324 af, Atten= 73%, Lag= 20.5 min
Discarded = 0.49 cfs @ 12.41 hrs, Volume= 0.295 af
Primary = 0.63 cfs @ 12.41 hrs, Volume= 0.029 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 28.09' @ 12.41 hrs Surf.Area= 1,823 sf Storage= 3,963 cf

Plug-Flow detention time= 45.8 min calculated for 0.324 af (100% of inflow)
Center-of-Mass det. time= 45.7 min (800.4 - 754.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	24.75'	1,563 cf	**20.83'W x 87.50'L x 3.54'H Field A** 6,456 cf Overall - 2,548 cf Embedded = 3,908 cf x 40.0% Voids
#2A	25.25'	2,548 cf	**Cultec R-330XLHD** x 48 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap

Row Length Adjustment= +1.50' x 7.45 sf x 4 rows

4,111 cf Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	24.75'	**8.270 in/hr Exfiltration over Wetted area**
#2	Primary	27.13'	**6.0" Round Culvert** L= 222.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 27.13' / 23.80' S= 0.0150 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf

Discarded OutFlow Max=0.49 cfs @ 12.41 hrs HW=28.08' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.49 cfs)

Primary OutFlow Max=0.63 cfs @ 12.41 hrs HW=28.08' (Free Discharge)
↑—**2=Culvert** (Inlet Controls 0.63 cfs @ 3.19 fps)

Supporting Calculations

Infiltration Structure Sizing Calculations

Volume of Infiltration Systems

Infiltration System (48 Cultec 330 XLHD Chambers):
Chamber Storage + Stone Storage = 4,081 cf (HydroCAD Report)
3,100 cf below outlet invert

Massachusetts Stormwater Standards - Required Recharge Volume

Rv=F x Impervious Area
Where
Rv=Required Recharged Volume
F=Target Depth Factor, for Hydrologic Soil Type A = 0.6 inches
Impervious Area= 26,674 sf
Rv=0.6 inches x 1 ft/12 inches x 26,674 sf = 1,337.7 cf
1,337.88 cf << 3,100 cf Meets Standard

Volume of Contributing Runoff to Infiltration

Subcatchment 2S (proposed) to infiltration produces 0.151 AF of flow during the 2-year storm event.
0.151 AF = 6,577 cf >>1,337 cf required to contribute to infiltration. Meets standard

Time to Infiltrate – Simple Dynamic Method

See attached HydroCAD Hydrograph indicating dewater @22 hrs

Massachusetts Stormwater Standards - Required Recharge Volume
WQv=1.0" x Impervious Area
Where:
Impervious Area= 26,674 sf
WQv=1.0 inches x 1 ft/12 inches x 26,674 sf = 2,223 cf
12,233 cf < 3,100 cf Meets Standard

TSS Removal Rate
Parking Lot Sweeping - 5% Reduction - Overall Removal = 95% Remaining
Deep Sump Catch Basin – 25% Reduction = 71.3% (Pre-treatment) Remaining
Deep Sump Manhole – 25% Reduction = 53.4% (Pre-treatment) Remaining
Infiltration – 80% Reduction – Overall Removal = 89.3%

Hydrograph for Pond 2P: Proposed

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	
0.00	0.00	0	24.75	0.00	0.00	0.00	
1.00	0.00	0	24.75	0.00	0.00	0.00	
2.00	0.01	1	24.75	0.01	0.01	0.00	
3.00	0.02	1	24.75	0.02	0.02	0.00	
4.00	0.03	2	24.75	0.03	0.03	0.00	
5.00	0.04	3	24.75	0.04	0.04	0.00	
6.00	0.05	4	24.75	0.05	0.05	0.00	
7.00	0.07	5	24.76	0.07	0.07	0.00	
8.00	0.09	7	24.76	0.09	0.09	0.00	
9.00	0.14	10	24.76	0.14	0.14	0.00	
10.00	0.19	14	24.77	0.19	0.19	0.00	
11.00	0.29	21	24.78	0.29	0.29	0.00	
12.00	**2.86**	**1,560**	**26.04**	**0.40**	**0.40**	**0.00**	
13.00	**0.34**	**3,320**	**27.33**	**0.54**	**0.46**	**0.09**	
14.00	0.21	2,636	26.79	0.43	0.43	0.00	
15.00	0.16	1,788	26.19	0.41	0.41	0.00	
16.00	0.11	856	25.57	0.38	0.38	0.00	
17.00	0.09	7	24.76	0.09	0.09	0.00	
18.00	0.07	5	24.76	0.07	0.07	0.00	
19.00	0.06	5	24.76	0.06	0.06	0.00	
20.00	0.06	4	24.76	0.06	0.06	0.00	
21.00	0.05	4	24.76	0.05	0.05	0.00	
22.00	0.05	3	24.75	0.05	0.05	0.00	Dewater @ 22Hrs
23.00	0.04	3	24.75	0.04	0.04	0.00	
24.00	0.04	3	24.75	0.04	0.04	0.00	
25.00	0.00	0	24.75	0.00	0.00	0.00	
26.00	0.00	0	24.75	0.00	0.00	0.00	
27.00	0.00	0	24.75	0.00	0.00	0.00	
28.00	0.00	0	24.75	0.00	0.00	0.00	
29.00	0.00	0	24.75	0.00	0.00	0.00	
30.00	0.00	0	24.75	0.00	0.00	0.00	
31.00	0.00	0	24.75	0.00	0.00	0.00	
32.00	0.00	0	24.75	0.00	0.00	0.00	
33.00	0.00	0	24.75	0.00	0.00	0.00	
34.00	0.00	0	24.75	0.00	0.00	0.00	
35.00	0.00	0	24.75	0.00	0.00	0.00	
36.00	0.00	0	24.75	0.00	0.00	0.00	
37.00	0.00	0	24.75	0.00	0.00	0.00	
38.00	0.00	0	24.75	0.00	0.00	0.00	
39.00	0.00	0	24.75	0.00	0.00	0.00	
40.00	0.00	0	24.75	0.00	0.00	0.00	
41.00	0.00	0	24.75	0.00	0.00	0.00	
42.00	0.00	0	24.75	0.00	0.00	0.00	
43.00	0.00	0	24.75	0.00	0.00	0.00	
44.00	0.00	0	24.75	0.00	0.00	0.00	
45.00	0.00	0	24.75	0.00	0.00	0.00	
46.00	0.00	0	24.75	0.00	0.00	0.00	
47.00	0.00	0	24.75	0.00	0.00	0.00	
48.00	0.00	0	24.75	0.00	0.00	0.00	

Operation and Maintenance Plan

Stormwater Operation and Maintenance Plan
1441 Commercial Street
Weymouth, MA
October 24, 2022

Stormwater Management System Owner:
ANGJ, LLC.

The following Operation and Maintenance Plan is intended as a guide for maintaining the structural and non-structural BMP's post-construction. In order to document maintenance activities, the attached maintenance log should be kept on site. A minimum of two years' worth of records should be up to date and available for review and inspection, if requested by Town officials. Any transfer of ownership also includes the transfer of the maintenance obligation to the new owners. In order to ensure the proposed stormwater management system continues to function as designed and to prevent any adverse impacts down-gradient, proper maintenance is required.

Operation and Maintenance Plan During Construction

All erosion and sediment control measures must be in place prior to any disturbance.

Inlet Protection: Catch basins shall be protected from siltation during construction through the use of siltation fabric. The siltation fabric must be installed under the catch basin grates and the grates must be secured to prevent untreated seepage. The fabric should be inspected daily and immediately after a rainstorm. Sediment deposits must be removed promptly and fabric must be repaired as necessary.

Perimeter Silt Protection: A "Silt Sock" (or approved equal) perimeter fence must be installed around the perimeter of work limits and material stockpiles. Installation shall be in accordance with manufacturer specifications and attached details. Silt fence shall be inspected daily. Trapped sediments shall be removed and repairs shall be made promptly.

Stabilized Construction Entrance: A stabilized construction entrance must be installed at the entrance to the construction site. Entrance shall be made of 1 ½" crushed stone for a depth of four inches. Construction entrance shall be inspected daily and repairs shall be made promptly.

Operation and Maintenance Activities

General Housekeeping: Paved areas should be kept clear of debris or leaf buildup to prevent clogging of surface drains. All chemical and hazardous materials shall be stored in secured designated locations with spill protection.

Catch Basins and Dump Sump Drain Manhole Inspection and Cleaning: Catch basins and manholes shall be inspected at least four (4) times per year and cleaned a minimum of two (2) times per year. Inspections should include the frame and grate, outlet pipe, hood and overall structure. Cleaning of structures shall be conducted in the early spring (after winter sanding and before spring rains), if there are 18-inches of accumulated sediments or if a noticeable hydrocarbon sheen is present. The sumps shall be cleaned utilizing a vacuum or clamshell type device.

Infiltration Basin Inspection and Cleaning: The subsurface infiltration basins do not require regular maintenance if pretreatment devices (catch basins and deep sump drain manholes) are properly maintained. The systems have inspection ports that should be inspected when the other on-site stormwater devices are inspected. If sediment build-up within the infiltration system is found during inspection, the sediment shall be removed by vacuumed method through the inspection ports.

Snow and Ice: During winter snow season, snow shall be mechanically removed. Snow shall be stock piled at the landscape areas on-site where it can naturally melt. Snow melt runoff can then be slowly infiltrated into the ground or treated by the stormwater management system. If excessive snow encountered, the excessive snow shall be removed by a private contractor for off-site disposal. At no time snow shall be pushed off site to the public right of way, abutting lands or wetland areas.

O & M Budget: The annual overall O & M budget to maintain the BMP's to protect our water resources is set at $1,500 which include the maintenance and clean-out of the above BMP's. This budget is to be annually review and update to ensure the long-term performance of the system.