Request for an Amended Order of Conditions

for

54 High Street (Map: 13, Lot: 160)
Ashland, MA

DATE:
March 8, 2024
Rev. March 25, 2024

ADDRESSED TO:
Ashland Conservation Commission
101 Main Street
Ashland, MA 01721

PREPARED BY:
Goddard Consulting LLC
291 Main Street, Suite 8
Northborough, MA 01532

PREPARED FOR:
Charna Daly
7 Wilbur Drive
Ashland, MA 01721

GODDARD CONSULTING
Strategic Ecological Consulting

March 8, 2024
Rev. March 25, 2024

Ashland Conservation Commission
101 Main Street
Ashland, MA 01721

Re: Request for an Amended Order of Conditions - DEP File #095-0979
54 High Street (Map: 13, Lot: 160)
Ashland, MA 01721

Dear Ashland Conservation Commission,

On behalf of Charna Daly (the Applicant), Goddard Consulting, LLC (Goddard) is hereby submitting this Request for an Amended Order of Conditions for a previously approved single-family house development project involving the construction of a 1500 square foot single family house with associated driveway and septic system for the property known as 54 High Street in Ashland, MA (the Project Site).

The project was originally approved under an Order of Conditions issued by the Ashland Conservation Commission under DEP File #095-0979. However, work on the site was halted soon after the site was cleared and prepared for development, as an Enforcement Order was issued by the Ashland Conservation Commission dated 2/6/2023. In the attached enforcement order, a number of deviations from the Order of Conditions were documented and subsequently restored by the applicant. However, under the aforementioned Enforcement Order, through the duration of the fall and winter, the site was subject to review as a drainage pipe was found to discharge water onto 54 High Street, outletting from the adjacent property known as 98 High Street. It was the opinion of the Ashland Conservation Commission that the previous pathway of the water discharged onto the subject property would have carried across the lot, eventually reaching the delineated BVW system. Although conditions were no longer reviewable in the field, it was agreed upon that the ideal resolution for the site and the open order of Conditions would be to amend the permit to modify the location of the house and septic system. This would allow for the construction of a channel to transport water from the outlet pipe adjacent to 98 High Street and carry the water across the property toward the BVW system. Since the commencement of construction on the site, the flow path has begun to re-channelize due to the movement of water, providing a visual of the stream channel to be recreated and properly constructed. This stream construction serves to restore the movement of water through the property and will avoid water issues on the property once constructed. However, to carry out the necessary work, an Amended Order of Conditions is required for the approval of the proposed modifications to the project. The proposed house, driveway, and septic system locations require an amended approval to allow for the stream channel to be re-constructed. During the project redesign phase, impacts to resource areas were closely analyzed, and a reduced impact to resource areas is associated with the modified project, as the site's currently re-channelized flow path is proposed to be restored and revegetated, providing additional benefits to wildlife and water management over existing conditions.

This Amended application is a joint filing under the MA Wetlands Protection Act (WPA) and the Town of Ashland Wetlands Protection Bylaw for review and approval by the Ashland Conservation Commission. Titles of all enclosed documents are as follows:

- (WPA Form 3) Amended Notice of Intent Form
- Amended NOI Wetland Fee Transmittal Form
- Copy of Checks
- Certified Abutters List, Notification to Abutters, Affidavit of Service
- Orthophoto View of Site, Goddard Consulting LLC, 3/07/2024
- Orthophoto View of Site with NRCS Soil Survey, Goddard Consulting LLC, 3/07/2024
- USGS of Site, Goddard Consulting LLC, 3/07/2024
- Stream Construction Plan, Goddard Consulting LLC. Rev. 3/25/2024
- *Septic System Construction,* CIVILized Solutions. Rev 3/06/2024

Attached below is all supporting documentation for the amended permit request. If there are any questions regarding this submittal, please do not hesitate to reach out.

Sincerely,

Goddard Consulting, LLC

Andrew Thibault

Andrew Thibault, WPIT, WSA
Environmental Scientist

CC: Charna Daly, 7 Wilbur Drive, Ashland, MA 01721
MassDEP Northeast Regional Office, 150 Presidential Way, Woburn, MA 01801

EXISTING CONDITIONS

OVERVIEW

The site of the proposed project consists of one parcel of land, totaling +/- 31,413. The site borders High Street and is surrounded by existing residential properties. The subject parcel is cleared, as the site was approved for construction under DEP File #095-0979 before an Enforcement Order was issued, halting construction. As such, the site has been stabilized with erosion controls, and the entirety of the site was covered in straw to be left safely while amending the existing permit. Bordering Vegetated Wetlands are located along the northern and eastern portion of the property, associated with the bank of an intermittent stream channel that flows north from the eastern extent of the site. In addition, a drainage pipe outletting adjacent to 98 High Street was discovered early in the construction process, delivering water onto the subject parcel. It was determined that the historic flow path of this channel originally existed across the property, presenting water issues on the site until managed. Although conditions were no longer reviewable in the field, it was agreed upon that the ideal resolution for the site and the open order of Conditions would be to amend the permit to modify the location of the house and septic system. Since the commencement of construction on the site, the flow path has begun to re-channelize due to the movement of water, providing a visual of the stream channel to be recreated and properly constructed. As such, the stream construction plan is considered a reconstruction of the original stream channel and is designed to meet the sizing and orientation of the surrounding stream sections. This stream construction serves to restore the movement of water through the property and will avoid water issues on the property once constructed.

1.1 STORMWATER

Stormwater is not managed under existing conditions as the lot is undeveloped. Currently, the site is stabilized with erosion controls and straw spread across all cleared areas. The property is not subject to stormwater management, as the project is a single-family house development. However, as outlined above, the permit amendment seeks approval to construct a stream channel to handle the existing drainage pipe outlet and site runoff, restoring the historic flow path across the site. The installation of such a channel will provide a significant improvement of water management over the originally approved project under DEP File #095-0979.

1.2 RESOURCE AREAS ON-SITE

The site's wetland delineation was performed by Karon Skinner and was subsequently reviewed as part of the Notice of Intent Application. The wetland delineated identified the Bordering Vegetated Wetland systems found on the Northern and Eastern portions of the site. This BVW system spanned low-lying topography along an identified intermittent stream channel.

The original wetland delineation did not encompass the flow path stemming from the HDPE pipe adjacent to 98 High Street. This outlet pipe was discovered during the early construction stages, when the site was cleared for construction, and an enforcement order was subsequently issued. This amended NOI application now addresses this flow path, with the intent to construct a stream channel to replicate flow conditions across the front of the property.

1.2.1 Bank of Intermittent Stream

As stated in 310 CMR 10.54(a): "A Bank is the portion of the land surface which normally abuts and confines a water body. It occurs between a water body and a vegetated bordering wetland and adjacent flood plain, or, in the absence of these, it occurs between a water body and an upland.

A Bank may be partially or totally vegetated, or it may be comprised of exposed soil, gravel or stone.

(b) The physical characteristics of a Bank, as well as its location, as described in 310CMR 10.54(2)(a), are critical to the protection of the interests specified in 310 CMR 10.54(1). (c) The upper boundary of a Bank is the first observable break in the slope or the mean annual flood level, whichever is lower. The lower boundary of a Bank is the mean annual low flow level."

The delineated BVW system along the Eastern edge of the site surrounds an internal intermittent stream channel. This channel is interior of additional resource areas and was not delineated as part of the project, however its centerline has been shown on the site plans to approximate location and flow direction.

In addition, an intermittent stream channel through the previous flow path on the property is proposed to be reconstructed according to the attached Stream Construction Plan, prepared by Goddard Consulting, dated 3/25/2024. This stream construction plan is proposed to reconstruct a previous flow path that has begun to re-channelize due to water movement across the site. As the stream is beginning to re-channelize in the field, the previous movement of water can be identified in the field, and a proposed plan has been constructed to directly construct and recreate the correctly sized stream channel within this pathway. To match the characteristics of the historic flow path, the upgradient stream channel was inspected, measuring streambed length and height of banks. As such, the proposed intermittent stream channel will be constructed accordingly, and its buffer zones have been added to the site plans as a resource area.

1.2.2 Bordering Vegetated Wetland (BVW)

As stated in 310 CMR 10.55(2)(a), "Bordering Vegetated Wetlands are freshwater wetlands which border on creeks, rivers, streams, ponds and lakes. […] Bordering Vegetated Wetlands are areas where the soils are saturated and/or inundated such that they support a predominance of wetland indicator plants. The ground and surface water regime and the vegetation community which occur in each type of freshwater wetland are specified in M.G.L. c 131 sec. 40." The Bordering Vegetated Wetland system delineated with the proposed project lie to the east and north of the proposed development. These wetlands surround the intermittent stream channel along areas of low-lying topography. The wetland resources delineated cast a jurisdictional 100-Foot Buffer Zone.

1.2.3 Buffer Zone

A Buffer Zone is defined in 310 CMR 10.04 as the "area of land extending 100 feet horizontally outward from the boundary of any area specified in 310 CMR 10.02(1)(a)." The Bordering Vegetated Wetlands on and off-site cast a jurisdictional 100-Foot Buffer Zone. The town of Ashland additionally regulates 25-Foot No-Disturb from the edge of all delineated resource areas. The 50-Foot Buffer Zone is additionally displayed on the site plans for compliance with the proposed septic system.

According to the Mass GIS data layers for NHESP, this site is not mapped within Estimated and/or Priority Habitat of Rare Wildlife and has no mapped potential or certified vernal pools. The site is not located in an Area of Critical Environmental Concern (ACEC), Outstanding Resource Waters Area, or a jurisdictional FEMA Flood Zone. The majority of the site is mapped by the NRCS soil survey as Rainbow Silt Loam. The southeastern edge of the site, adjacent to the stream channel, is mapped as Ridgebury Fine Sandy Loam.

2.0 PROPOSED PROJECT MODIFICATIONS

2.1 GENERAL OVERVIEW

The applicant proposes to relocate the proposed house, driveway, and septic system from the originally approved location to allow for the space required to recreate the stream channel across the front portion of the lot. The proposed driveway now includes a crossing of the driveway over the constructed stream channel. The redesign has been conducted to provide the maximum net benefit to the site. The crossing is required to maintain the flow of water within the site limits, delivering water across its natural flow path to the existing wetland system. This design avoids discharging water into the drainage ditch along High Street, presenting issues with the local DPW. As designed, the project will capture water at the outlet pipe, transport within the site limits, cross under the driveway, and reach the wetlands to the North. In addition, the square footage of the proposed house is to be reduced to 1305 SF, down from the originally approved footprint of 1500 SF. The proposed house location has been shifted Northeast from the originally approved footprint. The relocation of the house has allowed for the septic system to be relocated to the East, outside of the constructed stream channel, as well as its respective 25 and 50-foot Buffer Zones.

Erosion and Sedimentation (E&S) controls, including silt fence, will be installed around the perimeter of the work area to minimize sediment migration downslope of the construction area. Straw wattles will be placed along the inside of the silt fence to aid in erosion control. These sedimentation controls are currently in place on the cleared lot and will be installed and maintained as needed during the construction process. The updated site plan, revised March 6, 2024, prepared by CIVILized Solutions, contains a site plan detail regarding the use of erosion controls.

3.0 REGULATORY COMPLIANCE WITH WETLANDS PROTECTION ACT

The project proposes construction of a single-family house, driveway, and septic system within the jurisdictional 100-foot Buffer Zone to Bordering Vegetated Wetlands, as well as the 100-Foot Buffer Zone of a proposed constructed stream channel. The modifications to the project now involve the relocation of the proposed house, driveway, and septic system to create space in the southwestern portion of the lot, allowing for construction of the stream channel. The septic system has been relocated to the east to remain outside of the 50-Foot Buffer Zones cast onto the project. The square footage of the proposed house has been reduced from the approved square footage of 1500 feet, down to 1305 square feet. The total impervious surface cover proposed to meet the project design has increased slightly, from 1510 square feet approved to 1558 SF. This will allow the project to be relocated interior of the site, and to create a proper crossing over the constructed stream channel. Details regarding the proposed stream relocation can be viewed in the attached Stream Construction Plan dated March 7, 2024, prepared by Goddard Consulting LLC.

The WPA Regulations [*310 CMR 10.02(2)(b)]* do not contain performance standards for Buffer Zone Alteration. All reasonable efforts to avoid, minimize and mitigate adverse impacts on the Buffer Zone have been considered, but the project design requires that the Buffer Zone be altered in order to achieve the desired project design. In order to minimize effects within the Buffer Zone, the project is proposed to relocate all structures to the interior portions of the site, allowing for the construction of a stream channel across the front portions of the lot. The amendments proposed to the project serve to further benefit the site beyond the originally approved footprint by restoring the historic flow path of water across the site, included with native plantings to further provide wildlife benefits.

3.1 REGULATORY COMPLIANCE WITH THE ASHLAND WETLANDS PROTECTION BYLAW

(3) *Performance Standards. The portion of a Buffer Zone extending 25 feet from the wetland, bank, or waterbody defining the Buffer Zone's inner edge, is designated a No Disturb Zone.*

(a) No Disturb Zone:

[1] Alterations, including but not limited to grading, landscaping, mowing, removing of vegetation, filling, excavating, operation of vehicles or machinery, and paving, shall not be permitted in a No Disturb Zone.

No alterations are proposed within the 25-Foot No Disturb Zone to Bordering Vegetated Wetlands. As outlined in the most recent site plan set, erosion control limits are proposed along the 25-Foot Buffer to Bordering Vegetated Wetlands to provide a limit of work where no grading, alterations, or work will occur beyond. The 25-Foot Buffer Zones shown from the proposed stream channel are shown as proposed buffers that will exist once the channel is constructed. However, the channel is not currently present in the field.

[2] Structures, including but not limited to porches, decks, pools, and sheds, shall not be constructed or placed within a No Disturb Zone.

No structures are proposed within the 25-Foot No Disturb Zone. The proposed relocation of the house to be constructed remains fully outside of the 25-Foot No Disturb.

[3] Notwithstanding any of the foregoing prohibitions, the Commission may allow disturbances, such as crossings, through a No Disturb Zone by waiver, as provided in § 348-3D of these regulations, when no other practicable alternative exists. Petitions for a waiver shall be included in writing in the Notice of Intent filed under the bylaw. The applicant shall provide information and evidence deemed satisfactory by the Commission that the work to be performed sufficiently protects or enhances wetland interests.

The proposed amendments to the aforementioned project will require a waiver for the construction of a crossing over the stream channel to be constructed. The stream channel is constructed to handle water fully within the project site so as to avoid discharges into the DPW operated drainage ditch along High Street. As such, the proposed stream is to be constructed across the site's frontage, passing under the driveway to connect to the existing BVW to the north.

(b) The rest of the Buffer Zone: No activity shall be permitted in the Buffer Zone that has the potential to harm resource areas, including No Disturb Zones, with respect to the interests of the bylaw.

It is the opinion of Goddard that the proposed amendments to the project under DEP File #095-0979 will result in net improvements to the site's Buffer Zone. The construction and planting of a naturalized stream channel will create an additional habitat type on the property, while simultaneously serving to manage water beyond the ability of existing conditions. '

4.0 PROJECT CHANGES FROM ORIGINALLY APPROVED LIMIT OF WORK

4.1 BUILDING FOOTPRINT

The square footage of the proposed house has been reduced from the approved square footage of 1500 feet, down to 1305 square feet. The original house footprint was proposed in the southcentral portion of the site and was aligned parallel to the property boundary. During the site re-design, the house footprint was shifted to the northeast to allow for the relocation of the septic system. During the relocating of the house, a new alignment has allowed for the reduction in square footage to total 1305 SF. Total coverage of the proposed house on the property relative to the lot size has been reduced from the approved 4.8% to 3.8% with the newly proposed design.

4.2 SEPTIC SYSTEM LOCATION

As outlined above, the septic system was originally proposed to be located in the Southwest portions of the site to be located at the furthest point away from the delineated Bordering Vegetated Wetlands. However, after the discovery of the outlet pipe adjacent to 98 High Street, it was determined that the flow path of the water would have naturally travelled through the location of the proposed septic system. To mitigate this issue, the septic system has been relocated to the east. The newly proposed septic system location, as outlined in the 3/06/2024 site plan prepared by CIVILized Solutions, falls outside of all 50-Foot Buffer Zones applicable on the site. The relocation has prepared adequate space for the construction of the stream channel, while keeping the final septic location out of the 50-Foot Buffer Zone to this constructed stream channel, as well as the 50-Foot Buffer to the Bordering Vegetated Wetlands. As outlined, the system will remain compliant, while ensuring all site mitigation can occur under an Amended Order of Conditions.

4.3 IMPERVIOUS SURFACE TOTALS

With the newly proposed design, total impervious cover of the lot has been only slightly increased to meet project design, from 1510 square feet approved to 1558 SF. The redesign of the property has required a new house and driveway location, including a crossing of the driveway over the constructed stream channel. The redesign has been conducted to provide the maximum net benefit to the site. The crossing is required to maintain the flow of water within the site limits, delivering water across its natural flow path to the existing wetland system. This design avoids discharging water into the drainage ditch along High Street, presenting issues with the local DPW. As designed, the project will capture water at the outlet pipe, transport within the site limits, cross under the driveway, and reach the wetlands to the North.

5. CONCLUSION

In summary, it is the opinion of Goddard Consulting that the proposed amendments to the project will result in overall site improvements compared to the originally approved project. The amendments to the project propose to reduce the footprint of the proposed house, while relocating the house, driveway, and septic system to allow for the construction of the aforementioned stream channel. The stream channel is proposed to be constructed, seeded, and planted to mimic that of the natural stream channel upgradient. As a result, the post-construction conditions will provide increased management of water, as well as an increase to wildlife benefits through the construction and planting of the stream channel. The proposed project meets all regulatory compliance standards under the Wetlands Protection Act and the Town of Ashland Wetlands Protection Bylaw. Therefore, Goddard Consulting respectfully requests that the Ashland Conservation Commission issue an Amended Order of Conditions approving the requested changes to the previously approved project.

Please do not hesitate to reach out to us with questions.

Sincerely,

Goddard Consulting, LLC

Andrew Thibault

Andrew Thibault, WPIT, WSA
Environmental Scientist

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 –Amended Notice of Intent

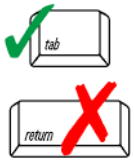
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40
And The Ashland Wetlands Protection Bylaw

Provided by MassDEP:
095-0979
MassDEP File Number

Document Transaction Number

Ashland
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):

54 High Street — a. Street Address
Ashland — b. City/Town
01721 — c. Zip Code

Latitude and Longitude:
42.25930 — d. Latitude
-71.48669 — e. Longitude

13.0 — f. Assessors Map/Plat Number
160.0 — g. Parcel /Lot Number

2. Applicant:

Charna — a. First Name
Daly — b. Last Name
c. Organization
7 Wilbur Drive — d. Street Address
Ashland — e. City/Town
MA — f. State
01721 — g. Zip Code
508-904-1104 — h. Phone Number
i. Fax Number
charnadaly@gmail.com — j. Email Address

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

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):

Andrew — a. First Name
Thibault — b. Last Name
Goddard Consulting, LLC — c. Company
291 Main Street, Suite 8 — d. Street Address
Northborough — e. City/Town
MA — f. State
01532 — g. Zip Code
508-393-3784 — h. Phone Number
i. Fax Number
andrew@goddardconsultingllc.com — j. Email address

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

N/A – See Local Filing Fee Page — a. Total Fee Paid
N/A — b. State Fee Paid
N/A – See Local Filing Fee Page — c. City/Town Fee Paid

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

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A. General Information (continued)

6. General Project Description:

The applicant is proposing to relocate the originally approved house, driveway, and septic system further to the northeast of the site to allow for the construction of a stream channel through the front of the property. The stream channel will originate at an outlet pipe adjacent to 98 High Street and carry water to the Bordering Vegetated Wetlands to the North.

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

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

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

1. ☐ Yes ☒ No

If yes, describe which limited project applies to this project. (See 310 CMR 10.24 and 10.53 for a complete list and description of limited project types)

2. Limited Project Type

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

8. Property recorded at the Registry of Deeds for:

a. County: Middlesex
b. Certificate # (if registered land):
c. Book: 81539
d. Page Number: 276

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

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

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

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

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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	Not Reviewable in Field (1. linear feet)	346 (2. linear feet)
b. ☐ Bordering Vegetated Wetland	1. square feet	2. square feet
c. ☒ Land Under Waterbodies and Waterways	Not Reviewable in Field (1. square feet); 3. cubic yards dredged	1000 (2. square feet)

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
d. ☐ Bordering Land Subject to Flooding	1. square feet; 3. cubic feet of flood storage lost	2. square feet; 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	1. Name of Waterway (if available) - **specify coastal or inland**	

2. Width of Riverfront Area (check one):

☐ 25 ft. - Designated Densely Developed Areas only

☐ 100 ft. - New agricultural projects only

☐ 200 ft. - All other projects

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

4. Proposed alteration of the Riverfront Area:

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

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

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

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

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

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

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Document Transaction Number
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B. Buffer Zone & Resource Area Impacts **(temporary & permanent)** (cont'd)

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

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

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

1 (a. number of new stream crossings) _____ b. number of replacement stream crossings _____

Massachusetts Department of Environmental Protection
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C. Other Applicable Standards and Requirements

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

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

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

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

2021
b. Date of map

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

c. Submit Supplemental Information for Endangered Species Review*

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

(a) within wetland Resource Area _____ percentage/acreage

(b) outside Resource Area _____ percentage/acreage

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

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

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

(b) ☐ Photographs representative of the site

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

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

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 –Amended Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40
And The Ashland Wetlands Protection Bylaw

Provided by MassDEP: 095-0979 (MassDEP File Number)
Document Transaction Number
Ashland (City/Town)

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

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

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

(d) ☐ Vegetation cover type map of site

(e) ☐ Project plans showing Priority & Estimated Habitat boundaries

(f) OR Check One of the Following

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

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

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

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

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

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

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

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

North Shore - Hull to New Hampshire border:

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

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

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 –Amended Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40
And The Ashland Wetlands Protection Bylaw

Provided by MassDEP: 095-0979
MassDEP File Number

Document Transaction Number

Ashland
City/Town

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

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

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

b. ACEC

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

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:
Trail with Seating Areas (Pervious Materials Proposed)

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 –Amended Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40
And The Ashland Wetlands Protection Bylaw

Provided by MassDEP:
095-0979
MassDEP File Number

Document Transaction Number

Ashland
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.

Septic System Construction
a. Plan Title

CIVILized Solutions
b. Prepared By

c. Signed and Stamped by

3/06/2024
d. Final Revision Date

e. Scale

Stream Construction Plan, Goddard Consulting LLC
f. Additional Plan or Document Title

Rev. 3/25/24
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:

See Local Filing Fee Page
2. Municipal Check Number

3. Check date

N/A
4. State Check Number

5. Check date

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 –Amended Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40
And The Ashland Wetlands Protection Bylaw

Provided by MassDEP:
095-0979
MassDEP File Number

Document Transaction Number

Ashland
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.

Charna Daly
1. Signature of Applicant (Charna Daly)

3/8/24
2. Date

3. Signature of Property Owner (if different)

4. Date

Andrew Thibault
5. Signature of Representative (Andrew Thibault, Goddard Consulting LLC)

3/8/2024
6. Date

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

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

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

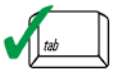
The original and copies must be sent simultaneously. Failure by the applicant to send copies in a timely manner may result in dismissal of the Notice of Intent.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

NOI Wetland Fee Transmittal Form

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

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



A. Applicant Information

1. Location of Project:

54 High Street	Ashland
a. Street Address	b. City/Town
N/A	N/A
c. Check number	d. Fee amount

2. Applicant Mailing Address:

Charna	Daly	
a. First Name	b. Last Name	
c. Organization		
7 Wilbur Drive		
d. Mailing Address		
Ashland	MA	01721
e. City/Town	f. State	g. Zip Code
508-904-1104		charnadaly@gmail.com
h. Phone Number	i. Fax Number	j. Email Address

3. Property Owner (if different):

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/Individual Activity Fee	Step 4/Subtotal Activity Fee
Amended NOI Request – Cat 2	1	N/A	N/A

Step 5/Total Project Fee: N/A

Step 6/Fee Payments:

Total Project Fee: See Local Filing Fees
a. Total Fee from Step 5

State share of filing Fee:
b. 1/2 Total Fee **less $**12.50

City/Town share of filling Fee: See Local Filing Fees
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.)

Town of Ashland Conservation Commission

LOCAL FILING FEE CALCULATION WORKSHEET

1. NOTICE OF INTENT (NOI)

C1: Work on Existing Single Family Lot This includes pools, additions, etc.	$110.00	_____
C2: Construction of Single Family House, Crossings for Driveways, etc.	$500.00	____ **X - Amended NOI**
C3: Commercial Building, Road Construction, etc.	$1050.00	_____
C4: Crossings for Development or Commercial Road, Bridge, etc.	$1450.00	_____
C5: Work on Docks, Piers, Dikes, or other Engineering Structures in inland resource areas	_____*$4= **Linear Feet**	_____
C6:Resource Area Delineation Review Includes boundary delineations for vegetated wetlands as part of a permit application (ANRAD/ RDA with delineations/ NOI with delineations) *single family lots limited to $200; $2000 limit for all others	_____*$2= **Linear Feet**	_____
All NOIs add 50% of the fee for work in Riverfront Area	_____*$0.5= **Above Fee**	_____

2. STORMWATER MANAGEMENT PERMIT

Basic Residential Application	$100.00	_____
Application for Residential Subdivision or Multifamily Development	$500.00	_____
Commercial Application	$750.00	_____
Notice of Completion for Non-Basic Residential	$150.00	_____
Permit Extension	$150.00	_____

True Copy Attest		$50.00	_____
Re-Inspection		$50.00	_____

3. OTHER PERMITS AND APPLICATIONS

Request for Determination of Applicability Without boundary delineation		$125.00	_____
Request for Permit Extension Not for Stormwater Management Permits		$100.00	_____
Amended Notice of Intent Significant Revisions		SEE NOI	**X - Amended NOI**
Certificate of Compliance Without boundary delineation	Single Family Lots All Other Projects	$100.00 $250.00	_____ _____
Reissuance/ True Copy Attest Not for Stormwater Management Permits		$50.00	_____

6. FILING FEE CALCULATION

Town Share of State Fees (See NOI Wetland Fee Transmittal Form) **(Check No. 1)**	**$ N/A - No WPA Fee**
Local Filing Fee Calculated Above (Check No.2)	**$ $500 - Cat 2 Amended NOI**
State Share of Filing Fee (See NOI Wetland Fee Transmittal Form) **TOTAL Due DEP (Check No. 3)**	$ **N/A - No State Fee**

7. ADVERTISING FEE (Paid by phone to newspaper) **TBD- Covered by Applicants**

The fee will be the exact amount the newspaper charges for that specific advertisement. Once the advertisement is placed with the paper by the Conservation Commission, the applicant will be notified of the cost and will be expected to contact the newspaper for payment within the specified deadline.

SCOTT M DALY
CHARNA M DALY

Fidelity Account®

4444

80-568/1012

3/8/24
Date

Pay to the Order of Town of Ashland $ 500.00

five hundred: Dollars

Photo Safe Deposit® Details on back

Fidelity INVESTMENTS

UMB Bank, N.A.
Kansas City, MO

For 54 High st

Charna Daly

Harland Clarke

March 5, 2024

To The Conservation Commission
54 High Street
Scott and Charna Daly
Abutters To Map 13 Parcel 160

PARCEL ID	PARCEL LOCATION	OWNER NAME 1	OWNER NAME 2	MAILING ADDRESS	CITY/TOWN	STATE	ZIP
014/012.0-0154-0000.0	12 RAMBLEWOOD DR	MONTES DE OCA MARCO ANTONIO	MONTES DE OCA CAITLIN DEWILDE	12 RAMBLEWOOD DR	ASHLAND	MA	01721
014/013.0-0024-0000.0	65 HIGH ST	NORFOLK FREDERICK J JR & REGINA M NORFOLK	TRUSTEES OF THE NORFOLK REALTY TRUST	65 HIGH ST	ASHLAND	MA	01721
014/013.0-0154-0000.0	0 MEMORIAL DR	ASHLAND RTD APARTMENTS LLC		P O BOX 300	ALTON	NH	03809
014/013.0-0155-0000.0	0 HIGH ST REAR	GROVER MARK R & NICKOLAS A	TRUSTEES OF THE MARK R GROVER IRREVOCABLE TRUST	36B MASHAPAUG RD	STURBRIDGE	MA	01566
014/013.0-0159-0000.0	98 HIGH ST	STEEVES FREDERICK J	JANICE M STEEVES	132 EAST MAIN ST APT 342	HOPKINTON	MA	01748
014/013.0-0163-0000.0	34 HIGH ST	HUFF MEREDITH	DANIEL HUFF	34 HIGH ST	ASHLAND	MA	01721

The above reflects the latest information available on our records.

Richard E. Ball, M.A.A.
Director of Assessing

3/6/24
Name

6 parcels/abutters

AFFIDAVIT OF SERVICE

Under the Massachusetts Wetlands Protection Act
And the Ashland Wetlands Protection Bylaw

(to be submitted to the Massachusetts Department of Environmental Protection and the Ashland Conservation Commission)

I, Andrew Thibault, hereby certify under the pains and penalties of perjury that on 3/08/2024 I gave notification to abutters in Compliance with the second paragraph of Massachusetts General Law Chapter 131, Section 40, and the DEP Guide to Abutter Notification dating April 8, 1994 in connection with the following matter:

A Notice of Intent was filed under the Massachusetts Wetlands Protection Act and the Ashland Wetlands Protection Bylaw by Charna Daly with the Ashland Conservation Commission on 3/08/2024 for property located at 54 High Street, Ashland, MA (Map 13, Lot 160). The applicant is proposing to relocate the originally approved house, driveway, and septic system further to the northeast of the site to allow for the construction of a stream channel through the front of the property. The stream channel will originate at an outlet pipe adjacent to 98 High Street and carry water to the Bordering Vegetated Wetlands to the North.

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

Andrew Thibault
(Name)

3/08/2024
(Date)

Town of Ashland
MASSACHUSETTS

Conservation Commission

NOTIFICATION TO ABUTTERS- Letter

A/An **Amended Notice of Intent Application** has been filed with the **Ashland Conservation Commission** pursuant to the *Wetlands Protection Act (M.G.L. c. 131 §40)*, *Wetlands Protection Act Regulations 310 C.M.R. 10.05 (4)(a)* and the *Wetlands Protection Bylaw Chapter 280 Section 9*, and/or the *Stormwater Management Regulations Chapter* 343.

The applicant is **Charna Daly**

The proposed project is located at **54 High Street, Ashland, MA** in Ashland, Massachusetts. The proposed project is:

The applicant is proposing to relocate the originally approved house, driveway, and septic system further to the northeast of the site to allow for the construction of a stream channel through the front of the property. The stream channel will originate at an outlet pipe adjacent to 98 High Street and carry water to the Bordering Vegetated Wetlands to the North.

The filing may be examined by electronic means only. For more information, or to request a pdf filing submittal, please call 508-532-7924, and ask for the Conservation Agent.

The public hearing is scheduled for Monday, **March 25, 2024**, at 7:05 p.m. (Note that all hearings are posted for 7:05 unless otherwise specified on the agenda. Hearings are taken in order of the posted agenda.). The hearing will be held using Zoom meetings, and the link for the meeting can be found on the posted agenda 48 hours before the hearing is scheduled to meet. Otherwise, further information of the public hearing can be obtained from the Ashland Conservation Commission, by calling 508-532-7924.

Date: 3/07/2024	GC Job Number: 014-036	Orthophoto View of Site 2021 Aerial View	0 30 60 Feet
GODDARD CONSULTING Strategic Ecological Consulting			1 in = 60 ft
		54 High Street Ashland, MA, 01721	Map: 13, Lot: 160
			Figure 2

Date: 3/07/2024	GC Job Number: 014-036	Orthophoto View of Site with NRCS Soil Survey	0 30 60 Feet
GODDARD CONSULTING Strategic Ecological Consulting		54 High Street Ashland, MA, 01721	1 in = 60 ft Map: 13, Lot: 160
			Figure 3

Date: 3/07/2024	GC Job Number: 014-036	USGS of Site	0 62.5 125 Feet
GODDARD CONSULTING Strategic Ecological Consulting			1 in = 125 ft
		54 High Street Ashland, MA, 01721	Map: 13, Lot: 160
			Figure 4

3/07/2024
Rev. 3/25/2024

Stream Construction Plan

54 High Street
Ashland, MA
Map 13, Lot 160

Submitted to:
Ashland Conservation Commission
101 Main Street.
Ashland, MA 01721

Prepared for:
Charna Daly
7 Wilbur Drive
Ashland, MA 01721

Prepared by:
Goddard Consulting LLC
291 Main Street, Suite 8
Northborough, MA 01532

1. Introduction

Goddard Consulting, LLC is pleased to submit this Stream Construction Plan on behalf of the applicant, Charna Daly. This plan describes the procedures and details for constructing the aforementioned intermittent stream channel, restoring a previous flow path within the proposed project at 54 High Street in Ashland, MA. The proposed stream channel is designed to take water discharged from an HDPE drainage pipe adjacent to the property known as 98 High Street and transport via a defined channel through the subject property to the BVW system to the north. This plan serves to recreate and restore a previous channel pathway that was impacted during the original construction process. Due to the natural movement of water across the lot, the flow path is beginning to re-channelize in the field. This document outlines the protocols needed to correctly recreate the channel, allowing for a channel to be built that matches the surrounding site conditions.

2. Constructed Stream Location

The proposed stream construction area is shown on the attached figure titled *Proposed Conditions, Stream Construction* dated 3/25/2024, prepared by Goddard Consulting LLC. The stream relocation area is located in the southwest corner of the property, originating at the HDPE outlet pipe. The proposed channel would be constructed across the entirety of the lot's frontage, spanning under the driveway, and delivering water to the delineated BVW system. This design allows for water to fully remain on-site, avoiding discharges into the existing swale along the right of way of High Street. This plan serves to recreate and restore a previous channel pathway that was impacted during the original construction process. This flow path is beginning to re-channelize in the field, and therefore the construction process below will reconstruct the stream to match surrounding site conditions. Although not reviewable in the field due to previous impacts, it is anticipated that the reconstructed stream channel will match or exceed the previous conditions of the site. The project proposes to construct approximately 346 linear feet of bank (approximately 1000 square feet), measuring both the eastern and western banks from the HDPE pipe outlet to the edge of the BVW, where the stream will inlet. The sizing of the stream channel was determined by sampling unimpacted locations upstream, utilizing the largest measurements to ensure adequate water carrying capacity is reached on-site.

3. Constructed Stream Sizing

To ensure the proposed stream channel is constructed to an adequate size, Goddard conducted a site visit on 3/04/2023 to conduct bankfull width, streambed, and bank height measurements of the upgradient channel. Immediately upgradient of the site, the stream's bankfull width varied from 5-6' dependent on sampling location. The interior streambed ranged from 3.5 – 4' dependent on location, and bank height ranged from 2-3.' To ensure the water carrying capacity of the constructed stream channel is adequately sized, it is preferable to mimic the maximum measurements taken within the sampling locations. As such, the constructed stream channel is proposed to measure 6' in bankfull width. The streambed will measure 4' across, and banks will be constructed 3' in height. The stream will be graded according to the attached site plan to ensure hydrologic connections carry through the entirety of the channel. As shown in the attached site plan set, portions of the constructed channel will exceed a 10% grade. To mitigate the velocity of water through the channel and assist in the prevention of scouring and erosion, natural stone check dams are proposed to be constructed within the steeper portions of the stream channel. Five check dams are proposed between the HDPE outlet pipe and the proposed driveway crossing and should be spaced between approximately 15-20' apart from one

another. Check dams will be constructed so that the top of the downstream check dam is at a similar elevation to the toe of the downstream dam. Precise locations of each check dam will be determined by the supervising wetland scientist at the time of construction. Check dams are proposed to be constructed out of natural rock material so as to maintain the integrity of a naturally restored stream channel. Check dams will not exceed beyond 1/3 of the height of the banks (approximately 1'). Check dams will be constructed so that the sides of the check dam exceed the height of the center of the check dam. Sides of all check dams will be imbedded into the banks for structural stability. Please see the attached figure titled *Proposed Conditions, Stream Construction* dated 3/25/2024, for approximate locations of proposed check dams.

Figure 1: View of existing stream composition upgradient

Figure 2: Streambed and bankfull width measurements

Figure 3: Additional streambed measurements. Mixed rock composition can be seen within streambed

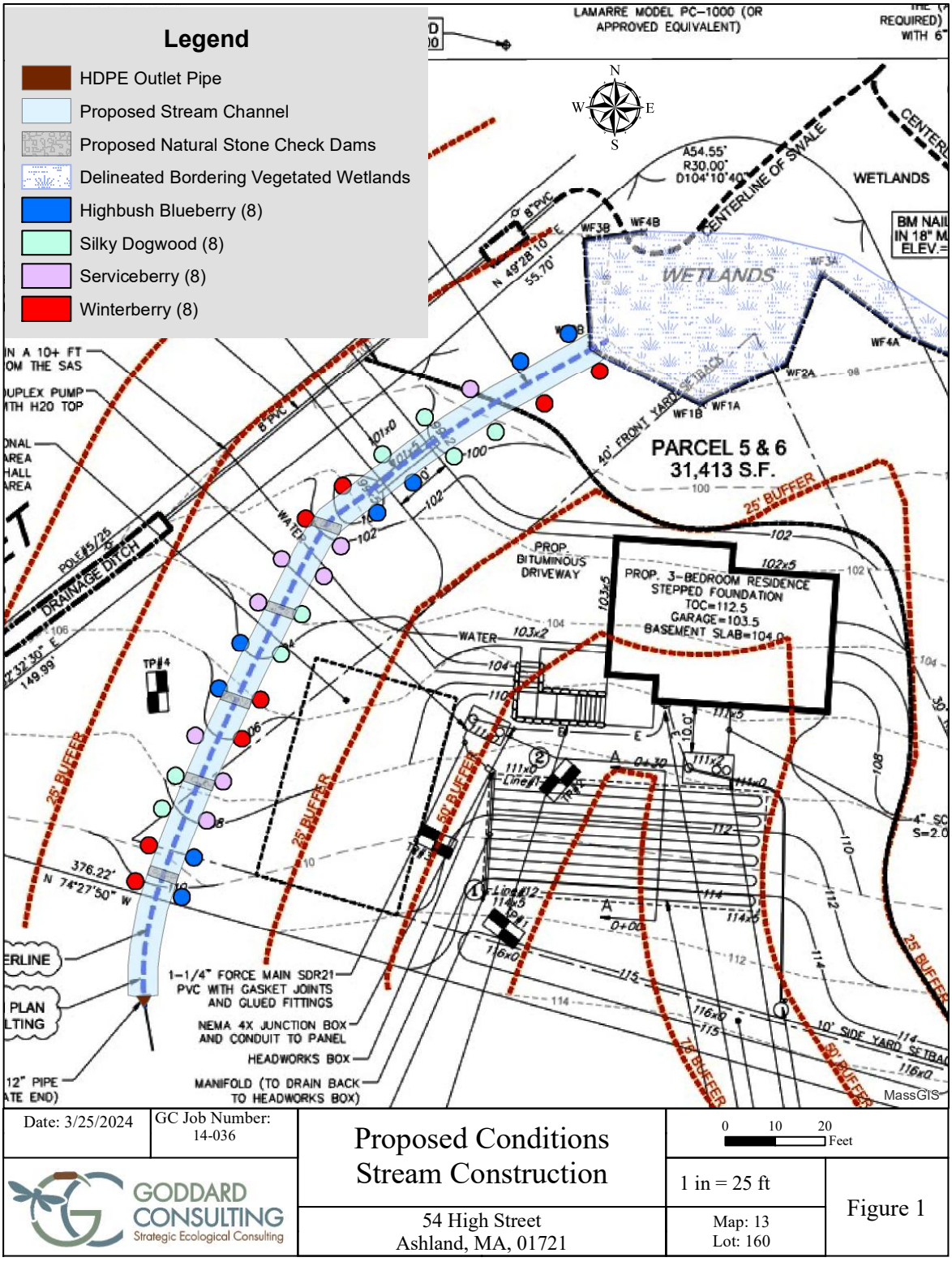


Figure 1. – Stream Construction, Sizing, and Associated Plantings

4. Intermittent Stream Construction Procedures

B. General Installation Procedures:

Supervision: All work shall be supervised by a qualified wetland scientist with a minimum of five years' experience. The supervisor shall submit monitoring reports to the issuing authorities as described below. Reports shall contain details of all work performed and photographs of completed conditions.

Timing: Work within the constructed stream shall take place ideally during low-flow to no-flow conditions, which is typically between June 15 and October 15. As the stream channel to be constructed is not yet located in the field and water from the outlet pipe is currently being diverted, water issues are not anticipated to become a problem during construction. However, if flow becomes a problem, the following will apply:

1. If flow is encountered, provide a temporary sandbag dam or pump system upstream to divert stream around the proposed construction area.
2. Provide a dewatering basin if pumping is required.

Step 1: Stake Limits of Work & Install ECB

Stake out limits of work for the stream restoration area and confirm tie ins to both the HDPE outlet pipe upgradient and the Bordering Vegetated Wetland system to the north. Erosion control barriers shall then be installed in the form of staked siltation fence and straw wattle (or similar invasive-free barrier) placed at the limit of work. These will remain in place and be maintained until the areas are completely stabilized. Wetland scientist shall have authority to require additional measures if deemed necessary.

Step 2: Excavation of stream channel

Excavation work on the stream channel will begin adjacent to the HDPE outlet pipe but must begin below the existing diversion trench. Beginning excavation in this zone will allow for the stream channel to be created before water from the pipe is connected to the channel, as the diversion trench will continue to move water (if any) away from the construction area. Performing the work in this manner will additionally allow for the installation of the required crossing before water is delivered into the channel. The diverted channel will remain in place to keep water out of the constructed stream channel until final grading and placing of material has occurred. An excavator shall cut the proposed channel from below the existing diversion trench and excavate the new channel with a construction level used to ensure that the stream will maintain a hydrologic connection between the two resource areas. The stream channel will be excavated from the diversion trench down to the outlet into the BVW system to the north. Topsoil will be stockpiled for re-use, while sub-soil will be removed and brought within non-jurisdictional areas or brought off site. All rocks found during excavation will be saved to place in the constructed stream channel, intended to mimic the conditions found within the upgradient stream. Channel and bed dimensions will be constructed to meet or exceed the upgradient channel (4' streambed width, 3' bank depth, 6' measured from top of bank to top of bank). Channel bed will be excavated 6" below final stream bed elevation, with final grade to be met using either on site or imported topsoil. Channel location will generally follow the site plan design but may slightly differ from

proposed plans depending on the purpose of protecting any native vegetation (within the unimpacted areas) and conditions encountered.

Step 3: Final Grading of Stream Bed and Bank

Upon removal of soil within the constructed channel the topsoil will be placed back on the constructed banks and stream bed. If supplemental soil is required soil may be amended with the primary source consisting of organic materials composted of leaf litter from a reputable source and having an organic content of between 12-20%. Slopes along Stream bed shall be graded to less than 2H:1V where practical and shall have erosion control mats installed as necessary. Final grading will match the proposed site plans.

Step 4: Installation of Natural Stone Check Dams

Once final grading of the constructed stream is complete, natural stone check dams will be installed according to the proposed plan. Five check dams are proposed between the HDPE outlet pipe adjacent to 98 High Street and the proposed driveway crossing, and should be spaced between approximately 15-20' apart from one another. Check dams will be constructed so that the top of the downstream check dam is at a similar elevation to the toe of the downstream dam. Precise locations of each check dam will be determined by the supervising wetland scientist at the time of construction. Check dams are proposed to be constructed out of natural rock material so as to maintain the integrity of a naturally restored stream channel. Check dams will not exceed beyond 1/3 of the height of the banks (approximately 1'). Check dams will be constructed so that the sides of the check dam exceed the height of the center of the check dam. Sides of all check dams will be imbedded into the banks for structural stability. Please see the attached figure titled *Proposed Conditions, Stream Construction* dated 3/25/2024, for approximate locations of proposed check dams.

Step 5: Streambed Construction: Add woody debris and stones

Prior to seeding, woody debris of various sizes when available should be placed randomly along the stream bed to mimic natural conditions, but not if they inhibit stream flow. Stones (~6"-12") should be placed randomly but at regular intervals (~4') to create a naturalized stream bed. Stones shall be used to create pools and steps within the stream, however, should not be placed in a manner that prevents stream flow during high flow events. To prevent excessive erosion of stream banks concentrations of boulders shall be placed along the outer banks of meanders within the stream. Material collected on-site is anticipated to be the source of all restoration material. If an import of stones for this purpose is required, it will consist only of clean material free of contaminants and invasive species. All stone shall be washed prior to placement.

Step 6: Disturbed areas seeding and planting

The bank and constructed stream bed will be seeded by hand with New England Wetlands Plants Wetmix or comparable seed mixture. Adjacent buffer zone shall be seeded with a New England Conservation/ Wildlife mix or comparable seed mixture. Seeding may need to be completed more than once to ensure good establishment of ground cover and will be monitored throughout construction to determine germination rates. Erosion mats will be uses where necessary to ensure bank stabilization. It

is preferable to install seed and plantings prior to the diversion of water to allow the seedmix to germinate and provide increased soil stabilization. By seeding prior to the installation of the crossing, the seedmix will germinate during the remaining work, limiting the downtime between the crossing installation and the diversion of water into the constructed channel.

Plantings will be installed according to the planting list outlined below. The selected native shrubs are designed to provide pollinator habitat and foraging through diverse fruit and nut production. The species have been hand selected due to their success around stream habitats. All plantings will be removed from burlap sacks, wire cages and plastic containers prior to planting. Each plant will have it roots loosened prior to planting to encourage root growth away from the planting bulb.

Step 7: Installation of Crossing

Once final grading is accomplished and the streambed is designed to mimic the upgradient conditions, the crossing for the driveway will be installed. This will allow for the construction of the driveway to occur before water enters the streambed, allowing for construction during dry conditions. The driveway crossing will be installed according to the attached site plan set, dated 3/6/24, prepared by CIVILized Solutions. As outlined above, the new channel is to be excavated with a construction level to ensure that the stream will maintain a hydrologic connection between the two resource areas. Two 12" ADS N-12 Dual Wall HDPE pipes are proposed under the driveway crossing to ensure adequate hydrologic connections below the driveway.

Step 8: Final excavation of stream inlet

Once final grading has been reached, streambed material added, and the seedmix and plantings are established, the final excavation shall be performed to connect the stream channel to the HDPE outlet pipe adjacent to 98 High Street. Final grading will be conducted to deliver the water directly onto the property. Concurrently, the existing diversion trench will be backfilled and graded according to the attached site plans.

Step 9: Restoration Monitoring
Monitoring reports shall be prepared for the stream construction areas by a qualified wetland scientist for a period of 2 additional years after installation. This monitoring program will consist of early summer or early fall inspections and will include photographs and details about the vitality of the stream channels. Monitoring reports shall be submitted to the issuing authority by October 30th of each monitoring year. Monitoring reports shall describe, using narratives, plans, and color photographs, the physical characteristics of the stream channel. Invasive species if present will be noted and removed. If required, monitoring reports will address and propose solutions to any other issues identified which would compromise restoration success.

C. Success Criterion:

a. Vegetative Coverage:
At least 75% of the surface area of the constructed stream banks shall be re-established with indigenous plant species within two growing seasons. If these areas do not meet the 75%* re-vegetation requirement by the end of the second growing season after installation, the Applicant shall submit a

remediation plan to the issuing authority for approval that will achieve, under the supervision of a wetland specialist, restoration goals. This plan must include an analysis of why the areas have not successfully re-vegetated and how the Applicant intends to resolve the problem.

*It should be noted that portions of the restored stream bed will consist of a muddy/gravel/rocky bottom and will experience flow which may prevent successful establishment of applied seed mix. This is designed to match the streambed material upgradient of the site, that similarly is not densely vegetated. Accordingly, these bottom streambed areas will not have 75% vegetative coverage and are not to be included in survival calculations.

5. **PLANTING LIST:**

Proposed Plantings for Streambed and Bank

Common Name	**Scientific Name**	**Number**	**Size**
Serviceberry	*Amelanchier canadensis*	8	3 gal. pot
Winterberry (FACW)	*Ilex verticillata*	8	3 gal. pot
Silky Dogwood	*Cornus amomum*	8	3 gal. pot
Highbush Blueberry	*Vaccinium corymbosum*	8	3 gal. pot
Seed Mix			
New England Wetland Plants WETMIX or equivalent*	*Constructed Stream Channel and Banks*	1	1 lbs
New England Wetland Plants CONSERVATION SEEDMIX or equivalent*	Disturbed areas around stream and access.	1	1 lbs

*Planting species and seedmixes may be substituted with Conservation Commission approval

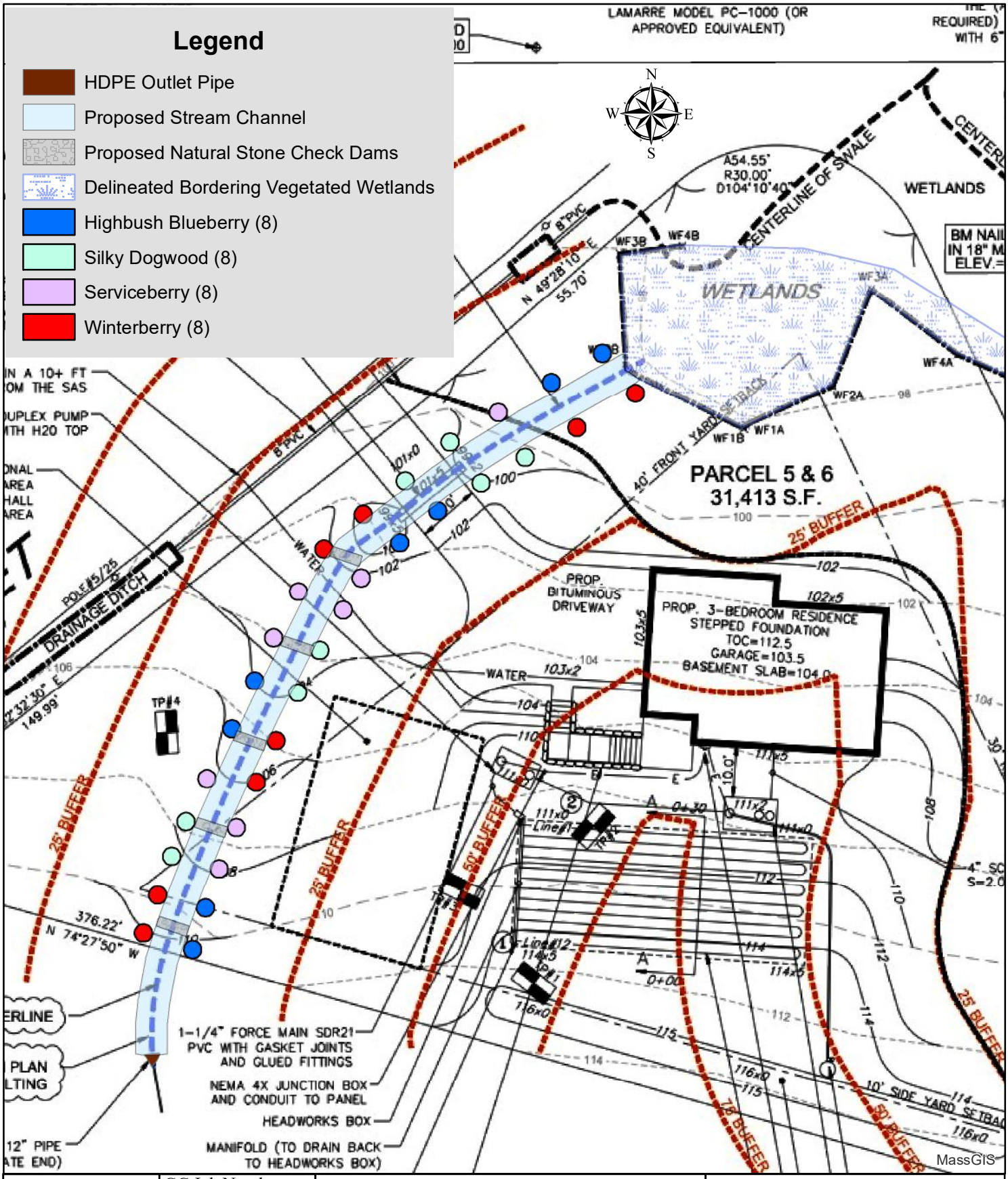
If there are any questions regarding the above-mentioned protocols, please do not hesitate to reach out.

Sincerely,

Goddard Consulting, LLC

Andrew Thibault

Andrew Thibault, WPIT, WSA
Environmental Scientist



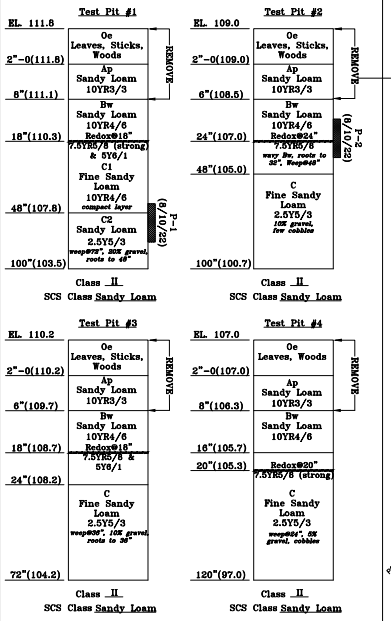
Date: 3/25/2024	GC Job Number: 14-036	Proposed Conditions Stream Construction	0 10 20 Feet
GODDARD CONSULTING Strategic Ecological Consulting		54 High Street Ashland, MA, 01721	1 in = 25 ft Map: 13 Lot: 160
			Figure 1

SOIL TEST PIT DATA

Perc. Test ▽ Observed Groundwater

Test Date: December 13, 2021 @ 9:10 am
Weather: 33°-Sunny/Clear
Test Pits: TP#1, TP#2, TP#3
Testing: Eric Dickinson, RS - CIVILized Solutions
Witness: Tom Ryder, PE - Ashland BOH Agent
Rajit Gupta, RS - Ashland Director of Public Health

Test Date: October 19, 2022 @ 12:20 pm
Weather: 52°-Sunny/Clear
Test Pit: TP#4
Testing: Eric Dickinson, RS - CIVILized Solutions
Witness: Rajit Gupta, RS - Ashland Director of Public Health



PERCOLATION TEST DATA

Percolation testing could not be performed during the original test date of December 13, 2021 due to groundwater intrusion. Percolation testing was performed on August 10, 2022.

Test Date: August 10, 2022 @ 8:30 am
Weather: 70°-Cloudy/Overcast
Test Pit: TP#1 & TP#2
Testing: Eric Dickinson, RS - CIVILized Solutions
Witness: Rajit Gupta, RS - Ashland Director of Public Health

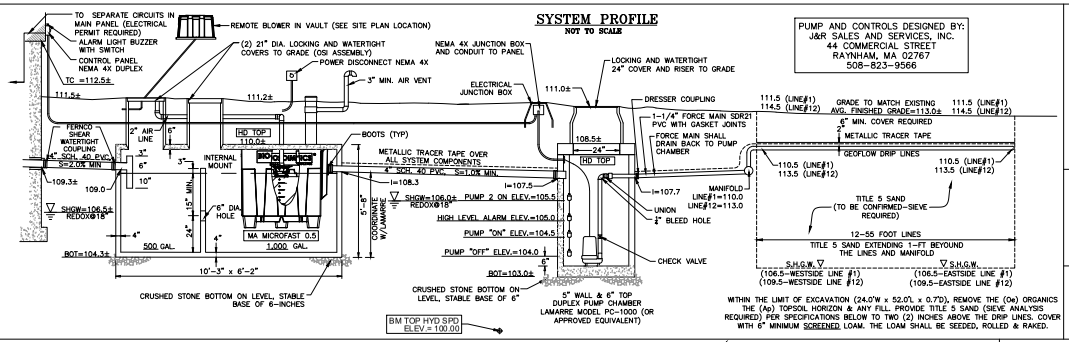
PERCOLATION TEST DATA		
Hole	P-1 (TP#1 (C2-Layer))	P-2 (TP#1 (Bw-Layer))
Depth (in.)	40"-58"	18"-36"
Presoak	9:43 am	9:46 am
Time @ 12"	9:59 am	10:04 am
9"	10:35 am	10:34 am
6"	12:24 pm	11:02 am
Time (9-6")	109 min.	28 min.
Rate (Min/")	40 mpi	10 mpi

I CERTIFY THAT I AM A LICENSED SOIL EVALUATOR (SE #13621), HAVING PASSED THE TRAINING AND TESTING REQUIREMENTS IN APRIL 2013.

ERIC I. DICKINSON DATE:

SYSTEM PROFILE

NOT TO SCALE



PUMP AND CONTROLS DESIGNED BY:
J&R SALES AND SERVICES, INC.
44 COMMERCIAL STREET
RAYNHAM, MA 02767
508-823-9566

WITHIN THE LIMIT OF EXCAVATION (24.0'W x 52.0'L x 0.7'D), REMOVE THE (Oe) ORGANICS THE (Ap) TOPSOIL HORIZON & ANY FILL. PROVIDE TITLE 5 SAND (SIEVE ANALYSIS REQUIRED) PER SPECIFICATIONS BELOW TO TWO (2) INCHES ABOVE THE DRIP LINES. COVER WITH 6" MINIMUM SCREENED LOAM. THE LOAM SHALL BE SEEDED, ROLLED & RAKED.

Septic Tank Notes (HD Top):
1. Septic Tank to be LaMarre 1500 FAST with HD top.
2. Septic Tank to withstand H-20 loading.
3. All pipe connections and concrete construction to be watertight. C.I.P. boots
4. Inlet and Outlet tees to be SCH 40 PVC. Tees to be centered under manhole cover.

Pump Chamber Notes (HD Top):
1. Pump Chamber shall be steel reinforced concrete.
2. Pump Chamber to withstand H-20 loading.
3. All pipe connections and concrete construction to be watertight. C.I.P. boots
4. Inlet and Outlet tees to be SCH 40 PVC. Tees to be centered under manhole cover.
5. Recommended manufacturer-Lamarre or approved equivalent.

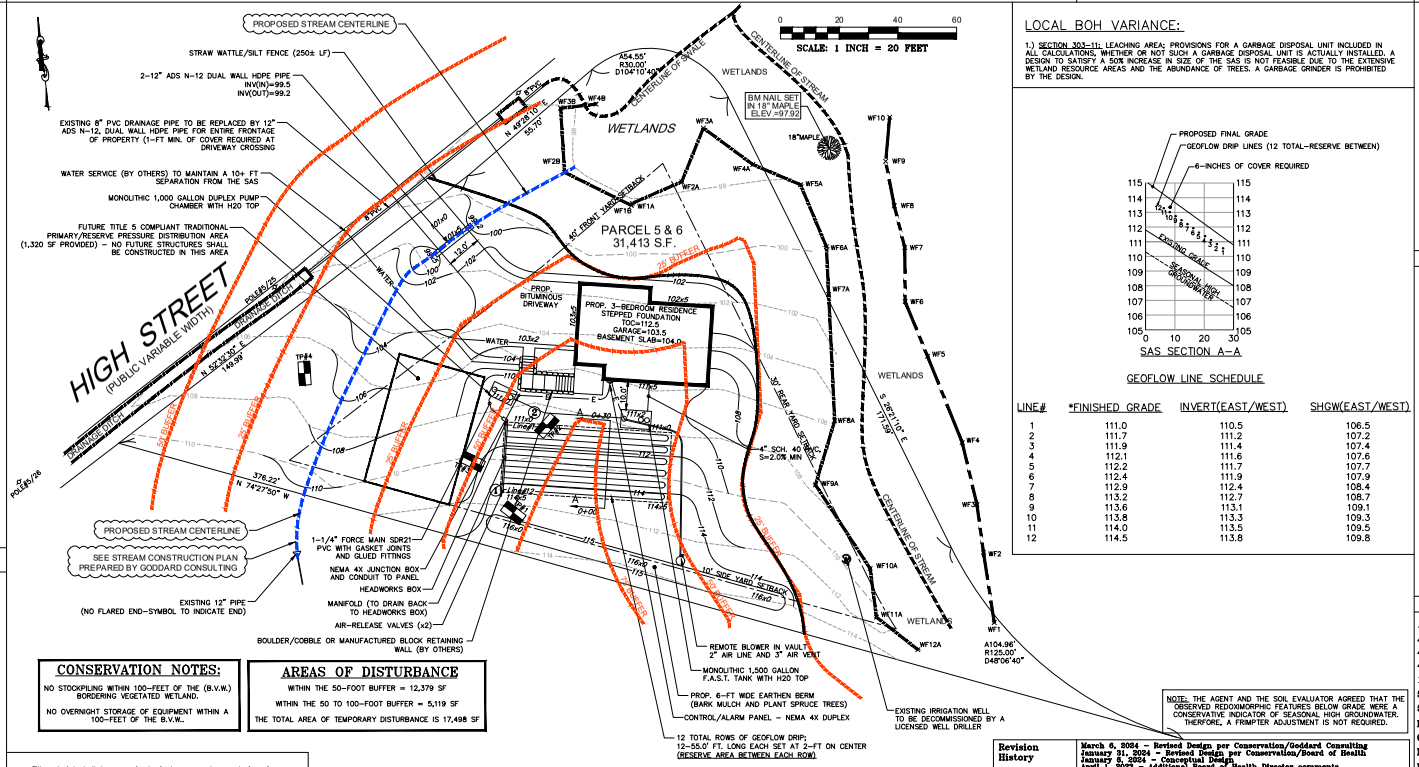
Buoyancy Check (HD Tops required on both):

FAST Tank (HD TOP Required):
Wgt. of Tank+Soil= 12,000+(10.25x8.15)(1.2)(100)=19,584# OK
Wgt. of Water Displaced= (10.25x8.15)(62.5)(62.4)=8,054# OK

Pump Chamber (HD TOP Required):
Wgt. of Tank+Soil= 11,000+(8.5x5.0)(2.5)(100)=21,750# OK
Wgt. of Water Displaced= (8.5x5.0)(3.0)(62.4)=8,060# OK

DEED RESTRICTION

DEED RECORDING - THE PROPOSED SYSTEM HAS BEEN SIZED TO ACCOMODATE A GARBAGE GRINDER, HOWEVER, IT HAS BEEN SUGGESTED THAT THE USE OF GARBAGE GRINDER CAN HARM THE SYSTEM. THEREFORE, A DEED RESTRICTION PROHIBITING THE USE OF A GARBAGE GRINDER IS REQUIRED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF COMPLIANCE.



LOCAL BOH VARIANCE:

1.) SECTION 303-11: LEACHING AREA; PROVISIONS FOR A GARBAGE DISPOSAL UNIT INCLUDED IN ALL CALCULATIONS, WHETHER OR NOT SUCH A GARBAGE DISPOSAL UNIT IS ACTUALLY INSTALLED. A DESIGN TO SATISFY A 50% INCREASE IN SIZE OF THE SAS IS NOT FEASIBLE DUE TO THE EXTENSIVE WETLAND RESOURCE AREAS AND THE ABUNDANCE OF TREES. A GARBAGE GRINDER IS PROHIBITED BY THE DESIGN.

GEOFLOW LINE SCHEDULE

LINE#	*FINISHED GRADE	INVERT(EAST/WEST)	SHGW(EAST/WEST)
1	111.0	110.5	106.5
2	111.7	111.2	107.2
3	111.9	111.4	107.4
4	112.1	111.6	107.6
5	112.2	111.7	107.7
6	112.4	111.9	107.9
7	112.9	112.4	108.4
8	113.2	112.7	108.7
9	113.6	113.1	109.1
10	113.8	113.3	109.3
11	114.0	113.5	109.5
12	114.5	113.8	109.8

NOTE: THE AGENT AND THE SOIL EVALUATOR AGREED THAT THE OBSERVED REDOXIMORPHIC FEATURES BELOW GRADE WERE A CONSERVATIVE INDICATOR OF SEASONAL HIGH GROUNDWATER. THEREFORE, A FRIMPTER ADJUSTMENT IS NOT REQUIRED.

CONSERVATION NOTES:

NO STOCKPILING WITHIN 100-FEET OF THE (B.V.W.) BORDERING VEGETATED WETLAND.

NO OVERNIGHT STORAGE OF EQUIPMENT WITHIN A 100-FEET OF THE B.V.W..

AREAS OF DISTURBANCE

WITHIN THE 50-FOOT BUFFER = 12,379 SF

WITHIN THE 50 TO 100-FOOT BUFFER = 5,119 SF

THE TOTAL AREA OF TEMPORARY DISTURBANCE IS 17,498 SF

Fill material shall be comprised of clean granular sand, free from organic matter and deleterious substances. Mixtures and layers of different classes of soils shall not be used. The fill shall not contain any material larger than two inches. A sieve analysis, using a #4 sieve, shall be performed on a representative sample of the fill delivered to the site. Up to 45% by weight of the fill sample may be retained on the #4 sieve. Sieve analysis also shall be performed on the fraction of the fill sample passing the #4 sieve, such analysis must demonstrate that the material meets each of the following specifications:

sieve size	effective particle size	% that must pass sieve
# 4	4.75 mm	100%
# 50	0.30 mm	10% - 100%
# 100	0.15 mm	0% - 20%
# 200	0.075 mm	0% - 5%

INTENSITY REGULATIONS

(TOWN OF ASHLAND ZONING BYLAWS, CHAPTER 282, SECTION 4.0)

ASSESSORS MAP 28.0 BLOCK 52

ZONED: RESIDENCE A (RA)
AREA: 30,000 SF
FRONTAGE: 150 FT
FRONT SETBACK: 40 FT
SIDE YARD SETBACK: 10 FT
REAR YARD SETBACK: 30 FT
BUILDING HEIGHT: 35 FT

THE WETLANDS WERE DELINEATED BY WETLANDS CONSULTANT: KARON SKINNER IN DECEMBER OF 2022

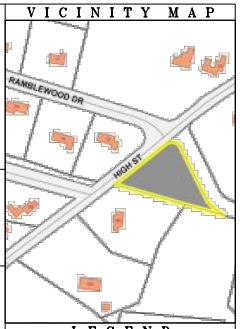
THE BASE PLAN, INCLUDING THE PROPERTY LINES AND EXISTING CONDITIONS, BY COLONIAL ENGINEERING, MEDWAY, MASSACHUSETTS. 508-533-1644.

Revision History
March 6, 2024 - Revised Design per Conservation/Goddard Consulting
January 31, 2024 - Revised Design per Conservation/Board of Health
January 5, 2024 - Conceptual Design
April 1, 2023 - Additional Board of Health Director comments
March 1, 2023 - Board of Health Director comments
January 17, 2023 - Conservation Commission comments
December 16, 2022 - Conservation Agent comments

DESIGNED: E.Dickinson, RS
CHECKED: EID
SCALE: 1"=20'
DATE: Nov. 11, 2022

PREPARED BY:
CIVILized Solutions
31 Smith Road
Hopkinton, MA 01748
P: 508.429.7192

VICINITY MAP



LEGEND

- New Meets Existing (N.M.E.)
- L.O.E. Limit of Excavation
- N.I.C. Not In Contract
- Test Pit
- Perc Hole
- Section A-A
- 99x1 Spot Elevation
- --99-- Existing Contour Elevation
- ---100--- Proposed Contour Elevation
- ▽ Groundwater
- S.H.GW Seasonal High Groundwater
- BG Below Grade
- Tree to be removed

DESIGN CRITERIA

DESIGN FLOW: Single-Family Residence
Proposed 3-bedrooms
3 Bedrooms @ 110 GPD/Br = 330 GPD
**GARBAGE GRINDER IS NOT PERMITTED

SEPTIC TANK:
Required 330 x 3 = 990 Gal
Provided: 1,500 Gal
(Use a 2-Compartment, F.A.S.T. Tank)

LEACHING FACILITY:
Design Perc Rate 40 Min./Inch
Soil Class III
Loading Rate 0.25 Gal/Day/SF
Assume: Geoflow Drip @ 2 SF/LF

REQUIRED:
330 GPD / 0.25 GPD/SF = 1,320 SF

PROVIDED: 12 ROWS/55 FEET LONG EACH
12 x 55.0' x 2.0'= 1,320 SF
= 1,344 SF (336 GPD) OK

SCHEDULE OF INVERT ELEVATIONS:

4"Ø Foundation (Proposed)	109.3
4"Ø F.A.S.T. Tank (IN)	109.0
4"Ø F.A.S.T. Tank (OUT)	108.3
4"Ø Pump Chamber (IN)	108.0
1-1/4"Ø Pump Chamber (OUT)	102.2
5/8"Ø Leaching Pipe (IN)	110.5
5/8"Ø Leaching Pipe (OUT)	113.5
Elev. at Bottom of Excavation	8" B.G.
Observed Groundwater Elev.	36" B.G.
High Groundwater Elev.	18" B.G.
Determination Method	Soil Morphology
B.O.H. Correction Factor	See Note

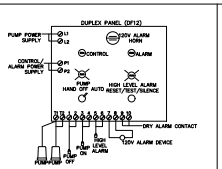
SEPTIC SYSTEM CONSTRUCTION

Lot 0 High Street
Ashland, Massachusetts

OWNER(S):
Charna Daly
7 Wilbur Drive
Ashland, MA 01728
Ph: 508-904-1104

ASSESSOR'S:
MAP 13.0
BLOCK 160.0

SHEET 1 OF 1



NOTES:

FULL DUPLEX PANEL SUPPLIED IN A NEMA4X ENCLOSURE.

RATED FOR 1PH 115 / 230 (MAX 0.25 HP)

CIRCUIT BREAKER PROVIDED FOR PUMP DISCONNECT.

PROVIDED WITH MANUAL PUMP CONTROL & PUMP RUN INDICATORS.

SEPARATE FUSES FOR ALARM AND CONTROL CIRCUITS.

SEPARATE CIRCUITS FOR ALARM & PUMPS.

General Notes:

1. This plan is for the construction of the sewage disposal facility ONLY.
2. All pipes shall be SCH 40 PVC or equivalent, unless otherwise noted.
3. Contractor shall call for inspections and approvals from the Board of Health and the Engineer after:
   a.) excavation
   b.) installation of system components
   c.) backfilling and final grading
4. Engineer shall certify installation and final grades on "As-built" plan. Contractor shall certify that installation conforms to approved As-built plan.
5. Prior to final backfill inspection, the contractor shall submit to B.O.H. a sketch with dimensions to system components from building corners and depth to access covers.
6. Contractor shall keep vehicles and materials off of the S.A.S. at all times.
7. No industrial wastes or categories are applicable.
8. Fill shall not be placed during rain or snow.
9. Excavation to be dry and scarified. Dewatering is required if fill is to be placed below groundwater.
10. No existing or proposed wells are within 200' of S.A.S., except as shown.
11. There are no known public wells or surface water supplies within 400 feet; private wells within 200 feet; inland banks or wetlands within 150 feet; no surface or subsurface drains of any kind except as shown, and no foundation drains. The work area is within the regulatory floodway and the 100-year floodplain.
12. Area is Nitrogen Sensitive. However, the on-site well shall be decommissioned.
13. All system components shall be marked with magnetic marking tape.

Construction Notes:

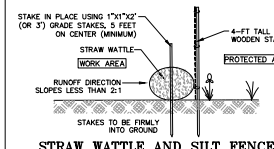
1. Within limit of excavation remove the (Oe) Organics, (Ap) topsoil, and other impervious material.
2. All construction materials and methods shall conform to D.E.P., Title 5 and the local Board of Health Regulations.
3. Contractor shall be responsible for locating any and all underground utilities within the limits of construction. This includes securing and paying for the services of the local utility and private companies to mark all underground utilities on the property. The Engineer does not guarantee that ALL utilities and subsurface structures are shown.
4. Sand shall be stockpiled at edge and pushed/cast inward over excavated area.
5. Contractor shall install and maintain flagging around the system until the Certificate of Compliance is issued.

WATERTIGHT REQUIREMENTS FOR GEOFLOW SYSTEMS

1. GEOFLOW DESIGN PLANS MUST REQUIRE WATERTIGHT TANKS
2. NO PLASTIC TANKS MAY BE USED; ONLY MONOLITHIC CONCRETE TANKS
3. RISERS ARE TO BE E-Z SET, CAST IN PLACE POLYPROPYLENE RISERS, OR CONCRETE RISERS SEALED WITH HYDRAULIC CEMENT
4. NO POLYETHYLENE PLASTIC RISERS MAY BE USED
5. PLEASE INCLUDE THE FOLLOWING SEALANT REQUIREMENT ON JOB PLANS: CONTRACTOR SHALL SUPPLY PREFORMED BUTYL RUBBER PREFORMED FLEXIBLE GASKET IN ACCORDANCE WITH ASTM C-990. SUPPLY SUFFICIENT CROSS SECTION TO ACHIEVE AT LEAST 50% COMPRESSION OF THE GASKET IN THE COMPLETED JOINT. SUPPLY AT LEAST THREE TEST REPORTS FROM INDEPENDENT THIRD PARTY SOURCES TO SHOW COMPLIANCE WITH ASTM C-990 SECTION 6.2.1 (PHYSICAL REQUIREMENTS) AND SECTION 10.1 (PERFORMANCE REQUIREMENTS FOR JOINTS) (I.E. CON SEAL OR EZ-STICK).
6. INLET/OUTLET TO FIELD MUST ALSO BE WATERTIGHT
7. IF ENTERING THROUGH AN E-Z SET RISER, A BULKHEAD FITTING CAN BE USED
8. IF ENTERING THROUGH THE SIDE OF THE TANK, TWO HOLES CAN BE DRILLED (ONE FOR SUPPLY LINE, ONE FOR RETURN LINE) AND SEALED WITH HYDRAULIC CEMENT
9. PRESS SEAL BOOTS CAN BE CAST IN PLACE FOR THE INLET/OUTLET AND ARE THE PREFERRED METHOD OF SEALANT WHEN ENTERING THROUGH THE SIDE OF THE TANK

GEOFLOW INSTALLATION GUIDELINES

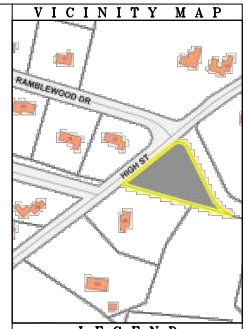
1. NO GEOFLOW INSTALLATIONS DECEMBER THRU MARCH
2. WHEN USING THE REMOVE/REPLACE METHOD, THE FIRST FEW INCHES OF TITLE V SAND SHOULD BE INTEGRATED WITH EXISTING SOILS
3. MINIMUM OF 6" OF HAY/STRAW SHOULD BE PLACED ON THE FIELD IF INSTALLED AFTER OCTOBER 1ST
4. CONTROL PANEL SHOULD BE MOUNTED IN AN ACCESSIBLE LOCATION, PREFERABLE OUTSIDE OR IN AN UNLOCKED BUILDING FOR EASE IN MAINTENANCE
5. ELECTRICAL JUNCTION BOXES SHOULD BE SEALED AND USE WATERTIGHT ELECTRICAL CONNECTIONS
6. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE GEOFLOW'S WATERTIGHT REQUIREMENTS ARE MET
7. J&R WILL NOT BE HELD RESPONSIBLE FOR ISSUES CAUSED BY INFILTRATION OR ITEMS NOT SUPPLIED BY J&R
8. FIELD AND MANIFOLDS MUST REMAIN EXPOSED UNTIL STARTUP IS COMPLETED



STRAW WATTLE AND SILT FENCE DETAIL
NOT TO SCALE

Revision History	March 6, 2024 - Revised Design per Conservation/Goddard Consulting January 31, 2024 - Revised Design per Conservation/Board of Health January 5, 2024 - Conceptual Design April 1, 2023 - Additional Board of Health Director comments March 1, 2023 - Board of Health Director comments January 17, 2023 - Conservation Commission comments December 16, 2022 - Conservation Agent comments
DESIGNED: E.Dickinson, RS	PREPARED BY:
CHECKED: EID	CIVILized Solutions 31 Smith Road Hopkinton, MA 01748 P: 508.429.7192
SCALE: None	
DATE: Nov. 11, 2022	

VICINITY MAP



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SEPTIC SYSTEM CONSTRUCTION
Lot 0 High Street
Ashland, Massachusetts

OWNER(S):
Charna Daly
7 Wilbur Drive
Ashland, MA 01728
Ph: 508-904-1104

ASSESSOR'S:
MAP 13.0
BLOCK 160.0

SHEET 2 OF 2