

7 Rockridge Storm Water Swale

EPB Permit – Narrative and Additional Information

John Bickley

Revision:0

Date July 11, 2024

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1. Project Summary

The property is a single family residence located on Rockridge Lane, where the lot is predominantly wetland. The lot area slopes down towards the dwelling. During periods of heavy rain, surface runoff water flows towards the dwelling causing damage to the foundation and flooding of the basement.

The proposed project is to create an 8" deep x 16" wide swale, approximately 125 feet long, to divert the waterflow around the base of the dwelling. Soil from the necessary excavation is to be stockpiled in identified locations and subsequently stabilized with vegetation.

The construction of the swale is to be concurrent with the demolition and subsequent re-building of the deck structure which is currently the subject of a separate Stamford Building Permit application.

For the duration of the project, sedimentation and erosion control devices will be installed and maintained per Connecticut Guidelines for Soil Erosion and Sediment Control (2002).

Land disturbance is to be kept to a minimum and the disturbed area will be regraded and seeded after construction has been completed.

A copy of the completed application form is included as Appendix A

2. EPB Permit Application

No. _____

City of Stamford
Environmental Protection Board
888 Washington Boulevard
Stamford, CT 06904
(203) 977-4028

APPLICATION FOR A PERMIT TO CONDUCT REGULATED ACTIVITIES

1. APPLICANT

Name of Applicant: ____ John Bickley / Mary Bickley ____

Home Address: ____ 7 Rockridge Lane, Stamford, CT 06903 ____

Telephone: ____ 440-382-9443 ____ Email address: ____ johnbbickley@aol.com ____

Business Address: ____ N/A ____

Business Phone: ____ N/A ____

Title of Project (if applicable): ____ 7 Rockridge Storm Water Swale ____

Applicant's Interest in the Property (check where appropriate)

Owner: ☒ Agent: ☐ Lessee: ☐ Lessor: ☐ Other: ☐ _____
(Specify)

2. OWNER

Name of Subject Property Owner: ____ John Bickley / Mary ____

Home Address: ____ 7 Rockridge Lane, Stamford, CT 06903 ____

Telephone: ____ 440-382-9443 ____ Email address: ____ johnbbickley@aol.com ____

Business Address: ____ N/A ____

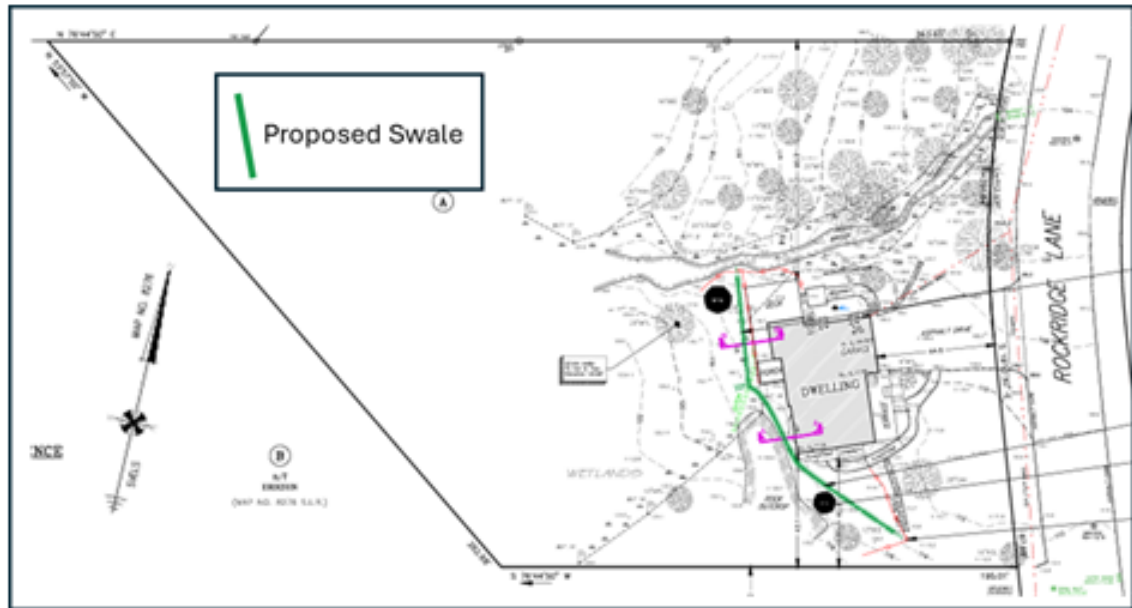
Business Phone: ____ N/A ____

If the applicant is not the owner of record, the owner must provide signed correspondence authorizing the applicant to file this application to conduct regulated activities.

3. LOCATION / DESCRIPTION

- a) Address of the subject property: _7 Rockridge Lane, Stamford, 06903
- b) Geographical location in sufficient detail to allow identification of the subject property on the "Inland Wetlands and Watercourses Map"
(include orientation sketch)

_ The project is to construct a swale on the southwest side of the dwelling, which in turn is located on the northeast end of the lot.



Lot Number: 001-9194 List Number: _____
Subdivision #: _____ T-Map Number: _____
Total Acreage: 1.25 Assessor's Card #: _____
Zone: RA-1 Block Number: _____

- c) Is the Property located within 500 feet of a Municipal Boundary?
Yes: (See Instructions Section III "Special Notification") No: _X_
- c) Is the Property located within a drinking water supply watershed?
Yes: (See Instructions Section III "Special Notification") No: _X_
- e) The Property is serviced by (check where appropriate)
Septic system: _X_ Sewer: / Private well: _X_ Municipal water:

4. REGULATED ACTIVITIES

- a) License is sought to conduct the following regulated activities
(check where appropriate)

Alteration: ___ Deposition: ___ Construction: X Removal: ___

Pollution: ___ Obstruction: ___ Other (Specify): _____

- b) The proposed activities will affect the following (check where appropriate)

Wetland soils: X Watercourse: ___ Open water: ___

Floodplain: ___ Open space/Conservation easement (CE): ___

Upland Review Area (URA) ¹: ___ Other (Specify): _____

- c) Purpose and brief description of the activities for which authorization is requested:

Creation of swale to divert stormwater around the perimeter of dwelling foundation to prevent erosion of the foundations and water damage to the dwelling _____

- d) Existing Conditions – Area Totals of Entire Property

i) Square feet of Wetlands: _____ Approx 29,000 sq ft

ii) Linear feet of Watercourse: _____ Approx 400 ft

iii) Square feet of Open water: _____ Approx 800 sq ft

iv) Square feet of Floodplain: _____ Approx 2400 sq ft _____

v) Square feet of Open space/CE: _____ Approx 25,600 sq ft _____

vi) Square feet of URA: _____

- e) Proposed Conditions – Total Area Affected

i) Square feet of Wetlands affected: _____ Approx 780 sq ft

ii) Linear feet of Watercourses affected: _____ Zero _____

iii) Square feet of Open water affected: _____ Zero _____

iv) Square feet of Floodplain affected: _____ Zero _____

v) Square feet of Open space/CE affected: _____ Approx 450 sq ft

vi) Square feet of URA affected: _____ Zero _____

vii) Square feet of Wetlands created: _____

¹ The Upland Review Area in non-drinking water supply watersheds is 25 feet from the edge of wetlands and watercourses. The Upland Review Area in the drinking water supply watersheds of the Miamus and upper Rippowam Rivers is 50 feet from the edge of wetlands and 100 feet from watercourses.

5. STANDARD NOTIFICATION REQUIREMENT

Names and addresses of individuals notified of this pending application as required by "The Inland Wetland and Watercourses Regulations of the City of Stamford" (*See Instructions Section II for details*)

Property owners within 250 feet of the boundaries of 7 Rockridge Lane:

Name 1	Name 2	Address		Unique ID
Michael Zanga		65 Northwood Lane	Stamford, CT 06903	000-9176
Louise Albin		40 Northwood Lane	Stamford, CT 06903	002-2485
Robin Norwich	William Norwich	60 Northwood Lane	Stamford, CT 06903	001-9541
Peter Psychopaidas	Jan Psychopaidas	66 Northwood Lane	Stamford, CT 06903	000-5278
Patricia Debenedictis		211 Barclay Drive	Stamford, CT 06903	002-4686
Elaine Arbizo		195 Barclay Drive	Stamford, CT 06903	001-8915
Swan Family Living Trust		183 Barclay Drive	Stamford, CT 06903	000-6696
Morgan Curran	Rosanna Curran	171 Barclay Drive	Stamford, CT 06903	000-5647
Carl Eriksen	Anne Eriksen	35 Rockridge Lane	Stamford, CT 06903	000-5279
Edward Garofalo		39 Rockridge Lane	Stamford, CT 06903	001-0324
Thomas Palen	Gail Palen	41 Rockridge Lane	Stamford, CT 06903	001-5701
Russel Fisher	Carolyn Fisher	59 Rockridge Lane	Stamford, CT 06903	002-4251
Charles Jangl	Lauren Jangl	44 Rockridge Lane	Stamford, CT 06903	001-1421
Martin Alger	Melissa Turk	42 Rockridge Lane	Stamford, CT 06903	002-2231
Joseph Rothman	Linda Rothman	8 Rockridge Lane	Stamford, CT 06903	000-4647

(Attach additional sheets if necessary)

GENERAL CONDITIONS

The undersigned applicant understands that this application is to be considered complete when all information and documents required by the agency have been submitted...

The agency may request additional information to properly evaluate the proposed activities pursuant to Section 5.5 of the "Inland Wetland and Watercourses Regulations of the City of Stamford." The applicant will be notified in writing of any further information required or when the application is deemed complete.

The undersigned warrants the truth of all statements contained herein and in all supporting documents according to the best of his/her knowledge.

The undersigned applicant hereby consents to necessary and proper inspections of the above property by authorized agents of the EPB.

Written signature 
Printed name John B Bickley

Date July 10, 2024

Written signature 
Printed name Mary Bickley

Date July 10, 2024

See also file: 7 Rockridge Site Development Plan 7-11-24.pdf



4. Aerial Image

7 Rockridge Lane plot outlined in orange



5. Project Narrative

5.1. Purpose

The goal of the project is to divert stormwater that flows down the hillside around the dwelling structure in order to reduce damage and ongoing erosion of the foundation of the dwelling.

The proposed swale will be constructed within 10 feet of the dwelling and have minimal impact on the wetland area to which it abuts. Comprising a bed of river stone, the appearance of the swale will fit in with the surrounding rocky outcrop landscape.

The swale will direct water away from a local high-point (denoted HP on the plan) in two directions: To the northwest it will empty into an existing brook. To the southeast it will empty across existing flowerbeds into well-drained soil.

5.2. Swale Detail

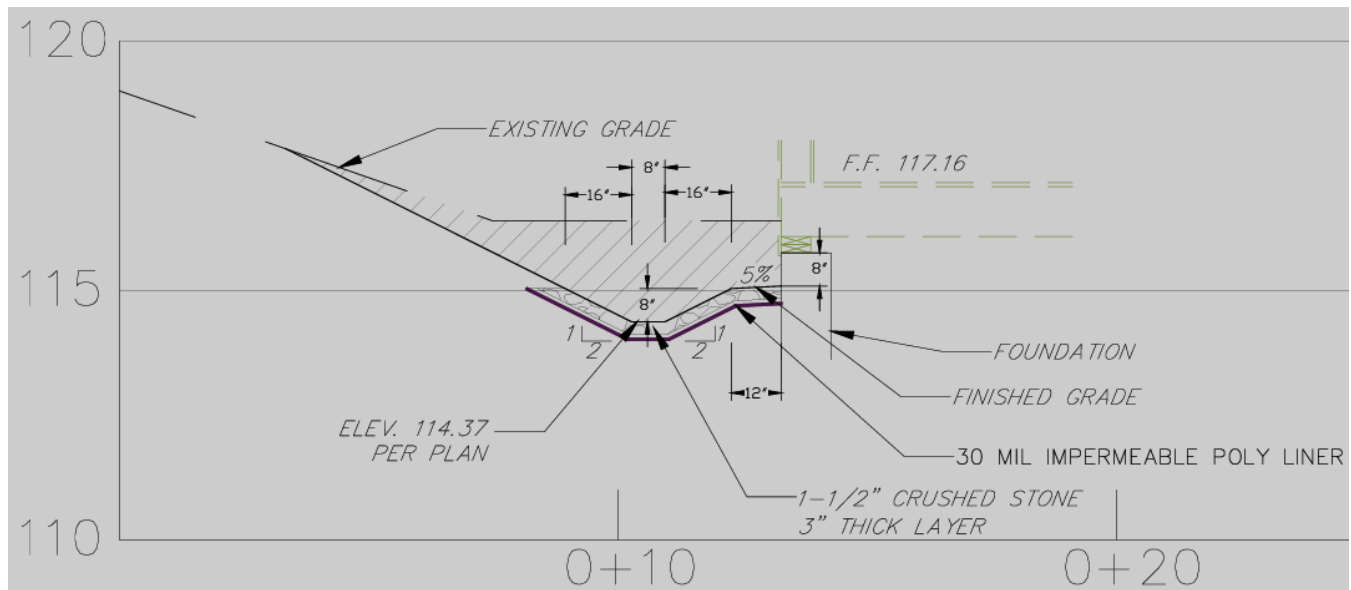
The swale is designed with capacity for 100 YR storm conditions, resulting in a cross section of 8' x 16". It will be constructed with a 30 mil impermeable poly liner with a 3 inch thick base of 1-1/2" crushed stone.

Refer also to a survey entitled "Improvement Location Survey, prepared for John Bickley, 7 Rockridge Lane Stamford Connecticut" by Land Surveying Services, LLC.

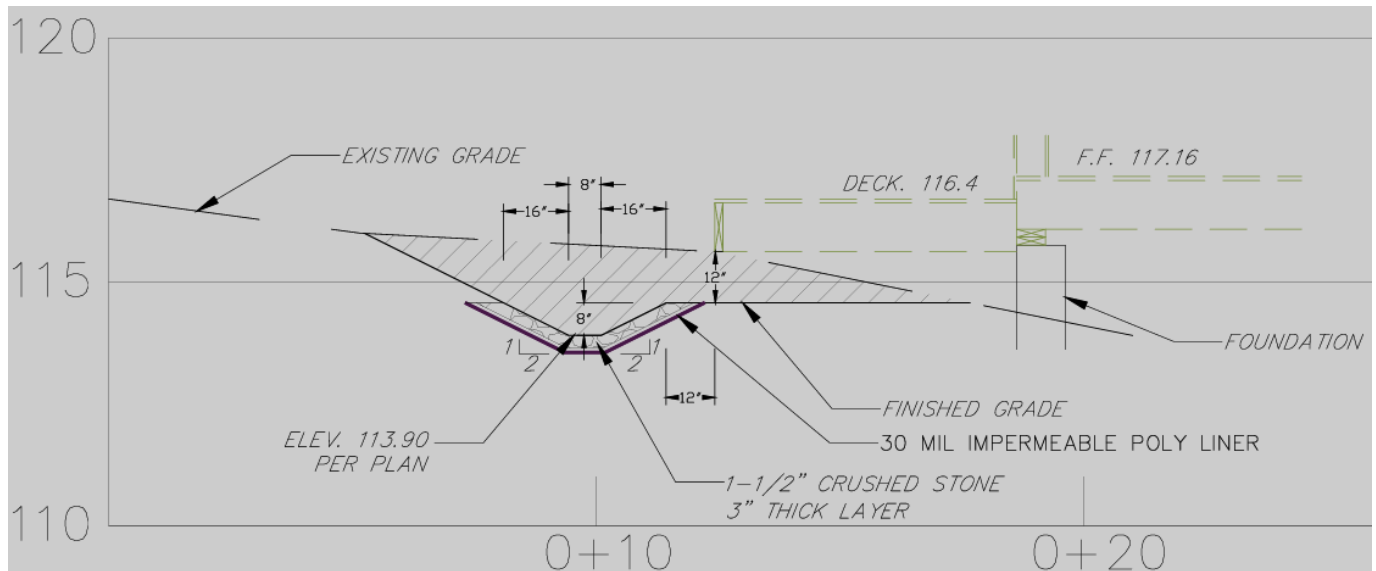
See File: Improvement Location Survey.pdf

Cross sections of the proposed swale are shown below:

5.2.1. Southeast Swale Section



5.2.2. Northwest Swale Section

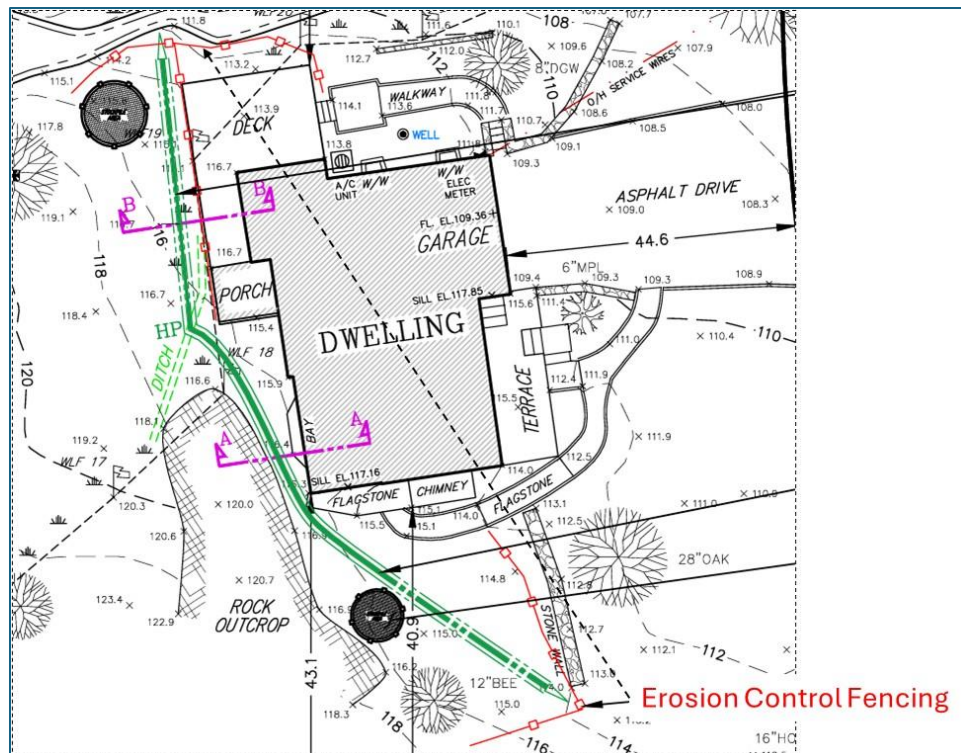


5.3. Construction Methods

Due to the predominance of rocky outcrops, all work is to be completed by hand, with no machinery to be in site. Removed material is to be deposited off site.

5.4. Erosion and Sedimentation Controls

Erosion control fences will be installed downslope of all construction activities as indicated by red lines in the plan section below:



No clearing or grading may be done in any area until the erosion control devices for that area, as shown on the plan, are in place and functional.

All sediment and erosion control devices and provisions shall be maintained in operational condition by the contractor until final acceptance of the project.

No changes of this soil erosion and sediment control plan may be made without prior approval of the supervising engineer.

The contractor may provide alternate means of sediment control, but he may not eliminate placement of protection in the areas indicated hereon.

Natural vegetation shall be maintained and protected where practical.

Land disturbance is to be kept to a minimum. Re—establishment and/or stabilization of disturbed areas shall be scheduled as soon as practical.

Erosion controls shall be monitored periodically to verify that they are maintained in effective working order. If, during construction, additional control measures are necessary, they shall be installed by that contractor.

The contractor shall re—grade, topsoil, and seed all disturbed areas immediately after construction has been completed.

Sediment fencing shall be installed where required prior to commencing construction, and shall remain in place for the duration of the project. Fencing shall be Propex Silt Stop (TM) as manufactured by Amoco, or engineer approved equivalent.

Sediment or debris shall be removed from the drainage pipes and structures as it accumulates during construction. It shall be disposed of in a manner which is consistent with the intent of this plan.

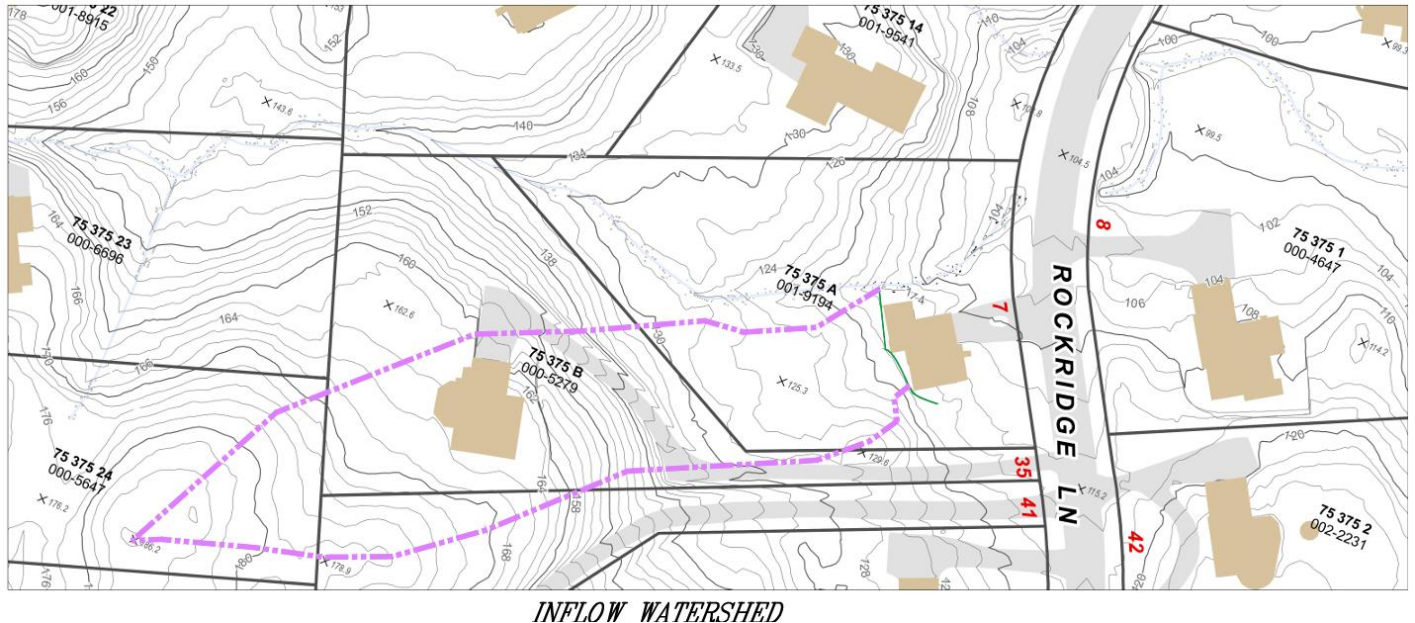
5.5. Alternatives Considered

The proposed location of the swale, within 10 feet of the dwelling, maximizes the effectiveness of the water diversion in protecting the dwelling and also reduces any impact on the existing upslope wetland area.

While a single-direction swale emptying into the existing brook in the northeast would be preferred, the surrounding topography does not support the required slope conditions without extensive excavation, which is made virtually impossible by the rocky terrain and the lack of access for construction machinery.

6. Wetland Considerations

An area plot showing the topography and inflow watershed is copied below:



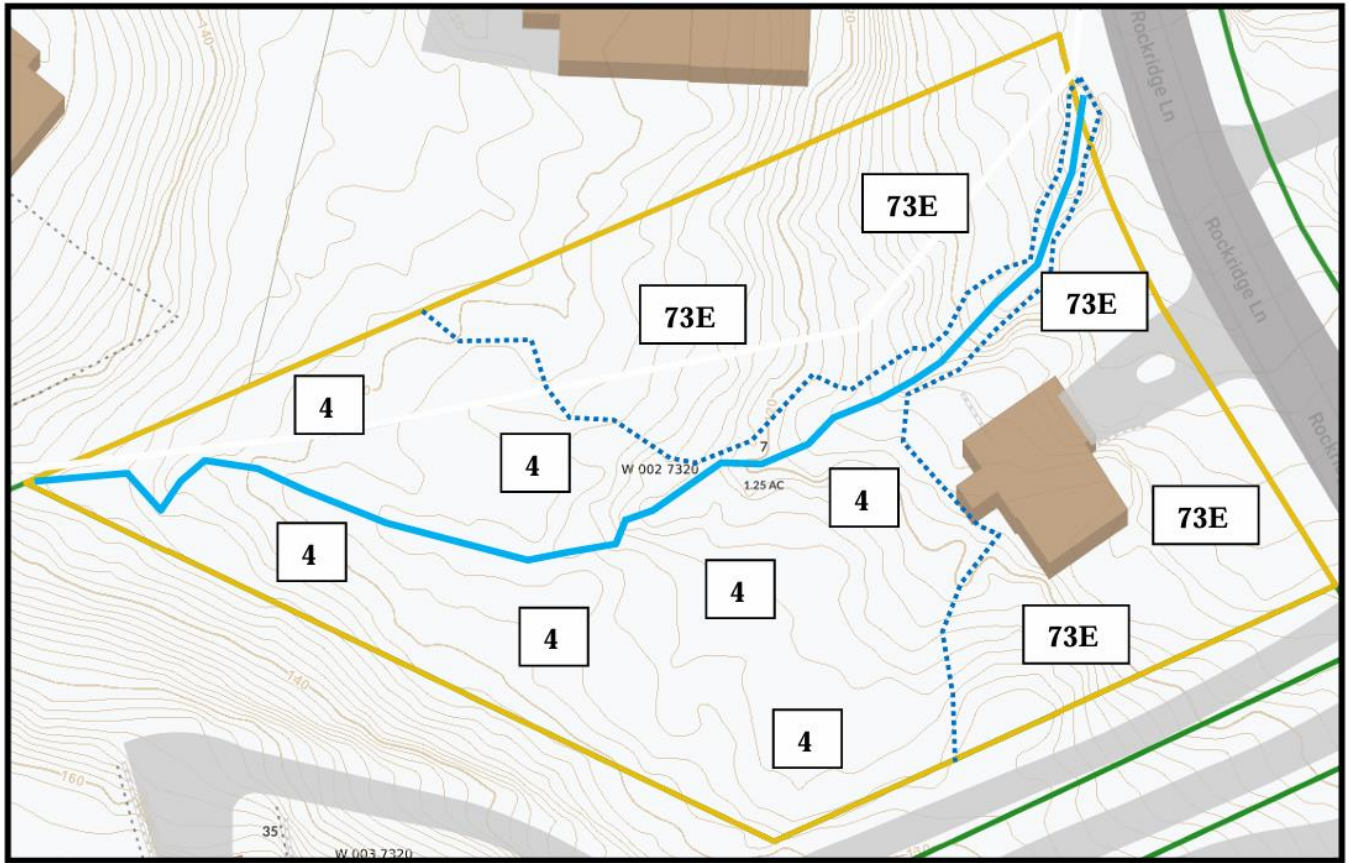
For the property at 77 Rockridge Lane, A Wetland Delineation study was performed by Aleksandra Moch.

See file: Soil Report WD 7 Rockridge Lane.pdf

The report states that the areas marked in the field consists of a wetland/watercourse system. A red maple swamp is situated on atop of a hill within a shallow depression. This system is being sustained by a perched groundwater aquifer. A perennial stream crosses the wetland collecting the overflow. The area is maintained in its natural state with a dense cover of boulders and skunk cabbage at the bottom of the swamp.

In the figure below, areas marked [4] are comprised of Leicester fine sandy loam. The Leicester series consists of very deep, poorly drained soils formed in coarse-loamy till. They are nearly level or gently sloping soils in drainageways and low-lying positions on hills.

Areas marked [73E] are characterized as Charlton-Chatfield complex, 15 to 45 percent slopes, very rocky Charlton: soil is found over the hills and ridges. The parent material consist of coarse loamy melt-out till derived from granite and/or schist and/or gneiss. The depth to restrictive layer is more than 80 inches. This is a well-drained soil series with ground water table at 80 inches.

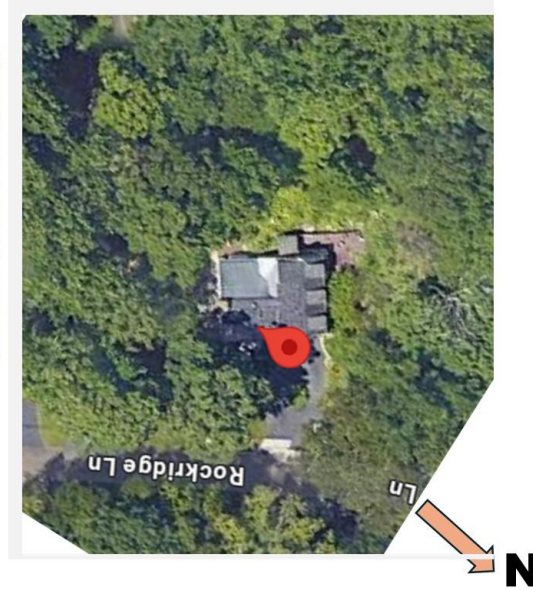


The location of the swale close to the perimeter of the dwelling virtually follows the delineation between the soil types at the edge of the wetland. As such, the proposed swale is expected to have negligible impact on the wetland area up-slope of the planned construction.

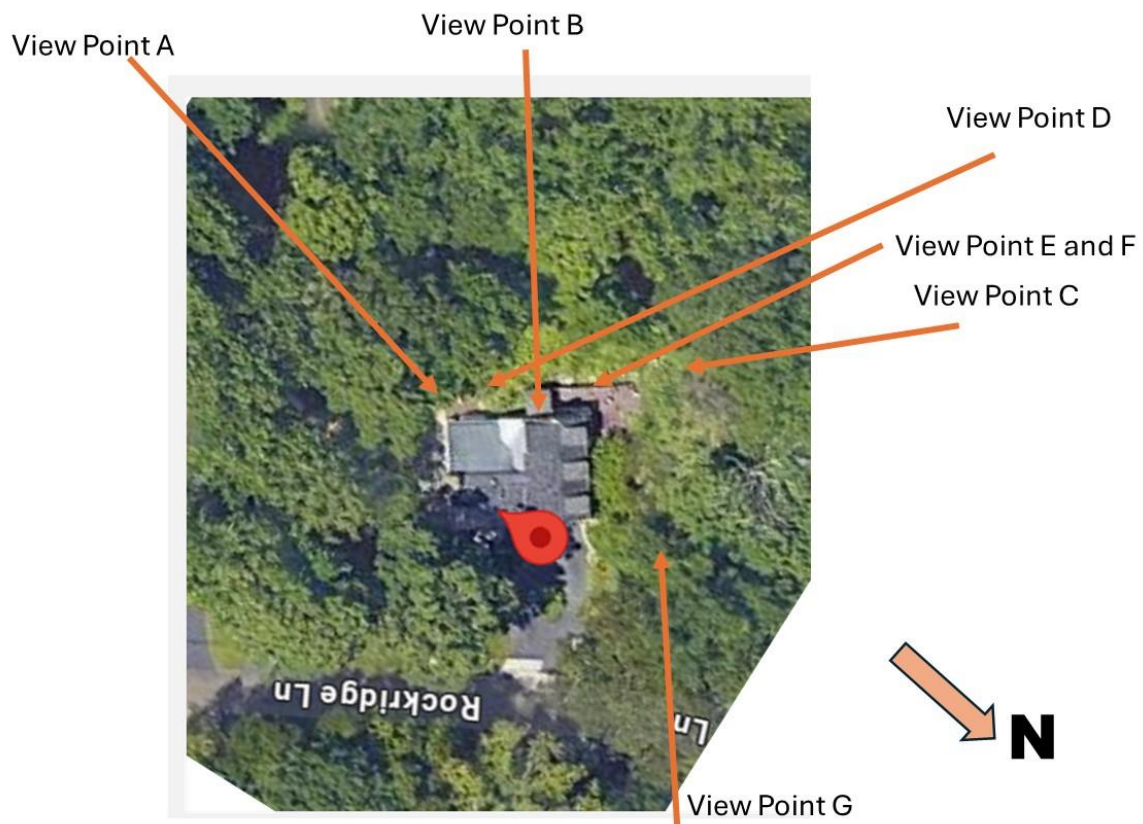
7. Photographs of the Project Area

Photographs taken earlier in the year with features were less obscured by vegetation growth

Lot Plan



7.1. Northwest Waterflow - Picture Viewpoints



7.1.1. Viewpoint A – Rear of House



7.1.2. Viewpoint B - Rear of House



Water flow



7.1.3. Viewpoint C - Side Rear of House



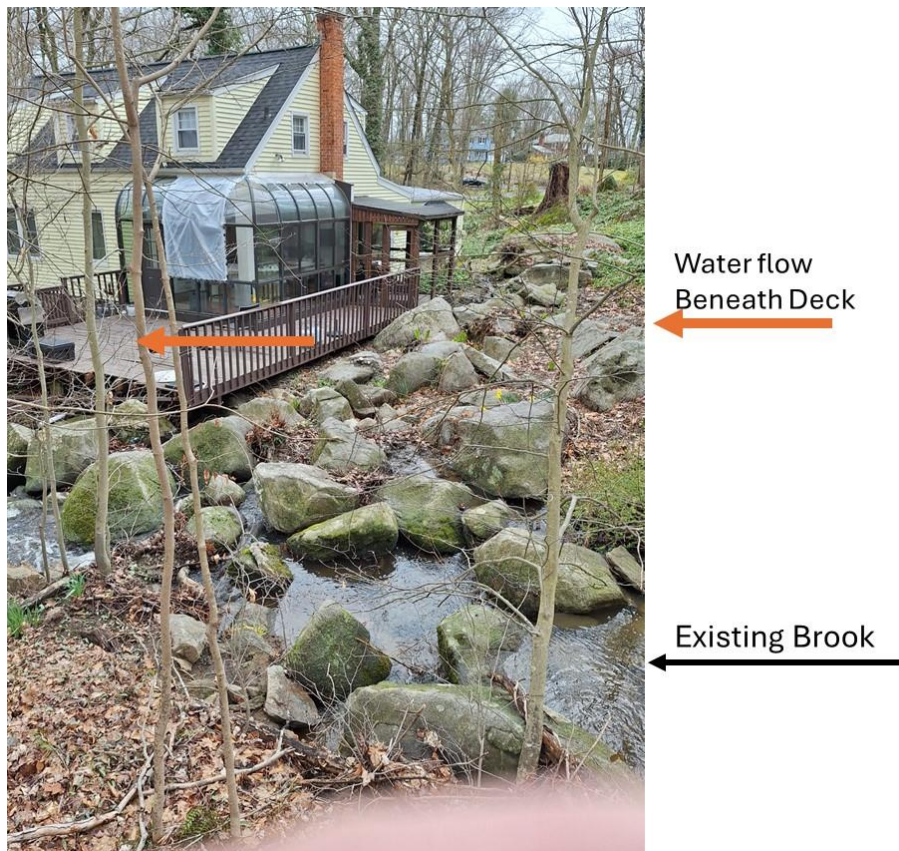
7.1.4. Viewpoint D - Rear of house with water flow to South



7.1.5. Viewpoint E - Along back of house. Water Flow to North



7.1.6. Viewpoint F - Water Flows from rear of house beneath deck

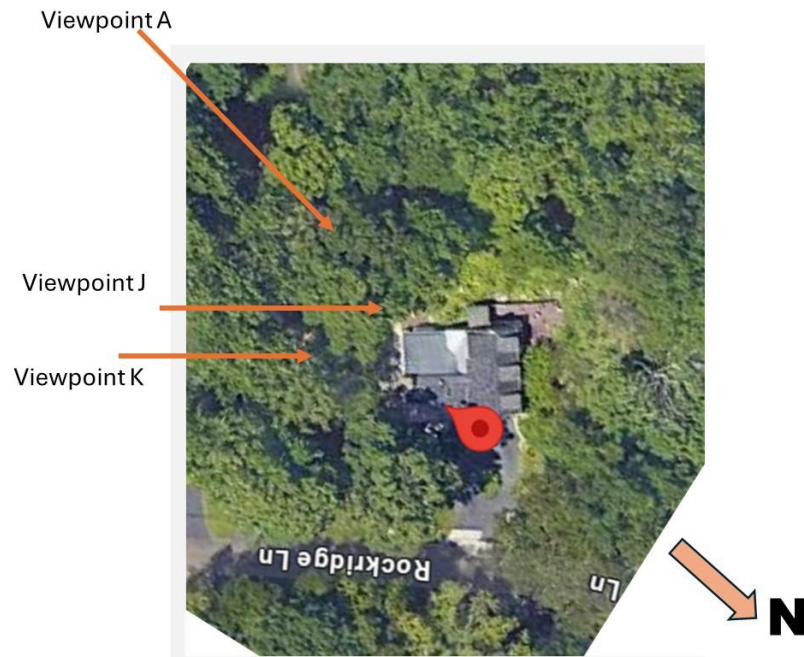


7.1.7. Viewpoint G - Proximity of brook for diverted water



← Brook

7.2. Southeast Waterflow - Picture Viewpoints



Viewpoint A - Rear of house - Southeast Waterflow



Viewpoint J - Path of Water at Rear of House



Viewpoint K - Elevation at side of House

Proposed path and outpoint point for southeast swale shown



Path of Southeast Swale

Swale Output Point
(Approx)

8. Further Information and Project Contacts

Electronic copies of this application, together with all documents required by the City of Stamford Environmental Protection Board, have been filed with the EPB.

- 7 Rockridge La EPB Permit Application 7-10-24.pdf
- 7 Rockridge Site Development Plan 7-11-24.pdf
- Improvement Location Survey.pdf
- Soil Report WD 7 Rockridge Lane.pdf
- 7 Rockridge La Property Deed.pdf
- Part II Statewide Inland Wetland Reporting Form.pdf
- Neighbor Notification Letter - Recipient List and Proof of Mailing.pdf

Please direct any questions or comments to John Bickley, Project Applicant, who will facilitate communications with the appropriate professional contributors to this proposal.

John Bickley. Tel 440-382-9443 Email johnbbickley@aol.com

Thank You !