

**REQUEST FOR SITE PLAN APPROVAL OF  
PROPOSED PICKLEBALL COURTS LOCATED AT  
51 DANIELS AVENUE**

**MAY 7, 2025**

Kate Ericson  
[kericson@learn.k12.ct.us](mailto:kericson@learn.k12.ct.us)  
Executive Director  
LEARN  
44 Hatchetts Hill Road  
Old Lyme, CT 06371  
Phone: 860 434 4800

Dean Gustafson, Soil Scientist  
[dgustafson@allpointstech.com](mailto:dgustafson@allpointstech.com)  
567 Vauxhall Street Extension – Suite 311  
Waterford, CT 06385  
Phone: 860 552 2033

Mark Vertucci PE, PTOE  
[mark.vertucci@fando.com](mailto:mark.vertucci@fando.com)  
One Financial Plaza, 15<sup>th</sup> Floor  
Hartford, CT 06103  
Phone: (860) 783 4756

Katelyn Chapin AIA  
[kchapin@newmanarchitects.com](mailto:kchapin@newmanarchitects.com)  
Newman Architects  
265 Church Street, 15<sup>th</sup> Floor  
New Haven, CT 06510  
Phone:

Kathryn Gagnon PE, LEED AP  
[kgagnon@Langan.com](mailto:kgagnon@Langan.com)  
Long Wharf Maritime Center  
555 Long Wharf Drive, 9th Floor  
New Haven, CT 06511-6107  
Phone: (203) 562 5771

Matthew Ranelli, Esq., LEED AP  
[mraneli@goodwin.com](mailto:mraneli@goodwin.com)  
Shipman & Goodwin LLP  
265 Church Street, 12<sup>th</sup> Floor  
New Haven, CT 06510  
PHONE: (860) 251-5748

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5. Plan Sheet L04.01 showing enhanced landscaping plan, photo reduced to 11" x 17"
6. Environmental Assessment Report (excerpt), prepared by All-Points Technology Corp., dated May 1, 2025
7. Stormwater Management Report (excerpt), prepared by Langan, dated May 1, 2025
8. Narrative Response to Pre-Application Review Comments from Town Professional Staff.
9. Notification letter to Waterford Utilities Commission/Water Company

### SUBMITTED SEPARATELY

Full Size Plan Sets

Stormwater Management Report, prepared by Langan, dated May 1, 2025.

Environmental Assessment Report, prepared by All-Points Technology Corp. dated May 1, 2025



# **TAB 1**

# SHIPMAN

Matt Ranelli  
Phone: (203) 836-2805  
MRanelli@goodwin.com

265 Church Street  
Suite 1207  
New Haven, CT 06510

May 7, 2024

Greg Massad, Chair and  
Commission Members  
Waterford Planning & Zoning Commission  
15 Rope Ferry Road  
Waterford, CT 06385

Jonathan Mullen  
Planning Director  
Mark Wujewicz  
Planner  
15 Rope Ferry Road  
Waterford, CT 06385

Re: Request For Site Plan Approval of Proposed Pickleball Courts; 51 Daniels  
Avenue, Waterford CT

Dear Chair Massad and Commission Members:

On behalf of our client, LEARN Regional Education Service Center ("LEARN"), we are pleased to submit to the Planning & Zoning Commission this application for site plan approval of two proposed pickleball courts to be located at 51 Daniels Avenue (the former Southwest School) in Waterford. As discussed in greater detail below, the proposed plan calls for LEARN to construct two pickleball courts for the Town of Waterford in the northeast corner of what is currently 51 Daniels Avenue and will be owned and operated by the Town for the use by Town residents. The site is zoned R-40 which also for public open space/playgrounds under Section 5.1.4 of the Regulations by site plan approval and is consistent with the Town Plan of Conservation and Development.

## The Proposed Project and Statement of Use

LEARN is a Connecticut regional educational service center<sup>1</sup> that provides educational resources, programs and services to help meet the needs of the towns it serves, including Waterford. The Town of Waterford has agreed to sell a ±15.36-acre portion of the former Southwest School site at 51 Daniel Avenue to LEARN for the purpose of constructing new school facility which is the subject of a companion application filed simultaneously with this application. The Town of Waterford will retain a ±3.96-acre portion of the 51 Daniels Avenue

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<sup>1</sup> Regional educational service centers were authorized by state statute starting in 1972 and based on voluntary partnerships with local towns and schools. LEARN serves Waterford and parts of other nearby towns.

site to be merged with adjacent Town-owned open space land and in part for recreational use to construct two new pickleball courts – which is the subject of this site plan application. The areas to be sold to LEARN and the areas to be retained by the Town are shown on plan sheet CS100 (attached at Tab 3).

The Town of Waterford will retain nearly four acres of the former Southwest School site to be added to abutting town-owned open spaces to enhance the available open space. The plan also calls for the additional of two pickleball courts in the area of the retained land that is closest to Daniels Avenue to provide additional recreational facilities for the nearby community and Town residents as a whole.

The proposed plan was designed to fit within the Town land, avoid placing the courts in the upland review area of the nearby wetlands and minimize disturbance. The proposed site plan layout for the pickleball courts is shown on plan sheets CS101 (attached at Tab 4) and landscape plan (attached at Tab 5). There are no buildings proposed on the site but the addition of open space and two pickleball courts is in keeping with the neighborhood, and open space and recreational elements of the former school.

#### Consistent with the Plan of Conservation and Development

The proposed plan is consistent with the Waterford Plan of Conservation and Development (POCD) (2012). The POCD future land use map (p. 81) identifies the site for future institutional and community use (as does the Regional POCD). The POCD implementation plan call for the site to be considered as a possible future school site and for recreation fields. The proposed plan satisfies both goals the first by selling a portion of the site to LEARN to develop a school and the second by the town retaining ownership of a portion of the site for increased open space recreation and adding two pickleball courts. In addition, the proposed plan advances several other goals contained in the POCD including preserving natural resources (p. 16), increasing open space (p.25) and meeting community needs (p.67). The proposed landscaping plan will also enhance the existing wetland area over existing conditions.

#### Wetlands

LEARN has filed a wetland application for a determination of no regulated activities or of non-regulated activities for the pickleball courts which is pending with the Conservation Commission. The proposed plan does not contain any direct wetland or vernal pool activities and no permanent disturbance in the 100-foot upland review area. LEARN's wetland expert, Dean Gustafson of All-Points Technology reviewed the plans, made detailed recommendations for enhance plantings in the upland review area to address the temporary disturbance and grading and concluded that the proposed activities will not adversely impact the wetlands or vernal pool. Mr. Gustafson's report is attached at Tab 6.

#### Stormwater Management

As detailed in the LEARN's stormwater report prepared by, Langan,(attached at Tab 7) the proposed stormwater plan involves low impact development techniques consistent with the Waterford Stormwater Ordinance but no structural stormwater management because the



pickleball courts do not introduce any sources of pollution such as vehicles, road sand or salt. Working in concert with LEARN's wetland expert, the stormwater management design prioritized enhancing natural conditions including recommended plantings in the upland review area to improve the upland quality and using LID techniques to direct stormwater to vegetated areas while restricting disturbance and maintaining topography. The stormwater plan maintains or slightly reduced peak rates of runoff for all storm events with no increases up to and including the 100-year storm.

#### Conclusion

Based on the above, LEARN respectfully requests that the Commission grant site plan approval for the proposed pickleball courts. We have not included an application fee for this application because the Town is the owner of the site and co-applicant; however, if it is later determined that an application fee is appropriate, please let us know and we will pay it promptly. We look forward to the opportunity to present LEARN's application to you at the Commission next meeting. Thank you for consideration.

Sincerely,

*Matthew Ranelli*  
Matthew Ranelli

Enclosures

# **TAB 2**



# Town of Waterford

Department of Planning and Development

www.waterfordct.org

## Office Use Only

Date Submitted: \_\_\_\_\_

Processed By: \_\_\_\_\_

App. No.: \_\_\_\_\_

Total Fee: \$ \_\_\_\_\_

Electronic Submission

Waived: \_\_\_\_\_ Yes \_\_\_\_\_ No

## PZC Form 1

### Planning and Zoning Application

#### 1. Type of Application(s), Use and Property Information (check all that apply)

- |                                                                    |                                                               |                                                       |
|--------------------------------------------------------------------|---------------------------------------------------------------|-------------------------------------------------------|
| <input type="checkbox"/> Informal Staff Review                     | <input checked="" type="checkbox"/> Site Plan/Design Review   | <input type="checkbox"/> Municipal Project (CGS§8-24) |
| <input type="checkbox"/> Special Permit/Design Review <sup>1</sup> | <input type="checkbox"/> Subdivision /Resubdivision           | <input type="checkbox"/> Lot line Adjustment          |
| <input type="checkbox"/> Zoning Map Change                         | <input type="checkbox"/> Regulation Amendment(s)              | <input type="checkbox"/> New District                 |
| <input type="checkbox"/> Multifamily Development                   | <input type="checkbox"/> Coastal Area Management <sup>2</sup> | <input type="checkbox"/> Earth Excavation             |
| <input type="checkbox"/> Flood Hazard Area                         | <input type="checkbox"/> Other: _____                         | <input type="checkbox"/> Other: _____                 |

Specify all uses and corresponding section for which this application applies<sup>3</sup>:

Use: Public playground/pickleball courts Section: 5.1.4

Use: \_\_\_\_\_ Section: \_\_\_\_\_

Use: \_\_\_\_\_ Section: \_\_\_\_\_

Name of proposed development/subdivision: \_\_\_\_\_ If subdivision how many lots?: \_\_\_\_\_

If applicable, are roadways proposed to be private, public or both:

☐ Private

☐ Public

☐ Both<sup>4</sup>

#### Parcel 1

Map/Block/Lot: 143 /1783 / /

Street No. & Name: 51 Daniels Avenue

Size SF/AC: 172,497 SF / 3.96 ac

Zoning District(s): R-40

#### Parcel 2

Map/Block/Lot: / / / /

Street No. & Name: \_\_\_\_\_

Size SF/AC: /

Zoning District(s): \_\_\_\_\_

<sup>1</sup> Include a completed list of property owners with Parcel ID, name, address and mailing address. It is the applicant's responsibility to distribute all notices certified return receipt. Evidence of mailing shall be submitted prior to the start of the hearing. Failure to do so will delay the opening of the hearing.

<sup>2</sup> Coastal Site Plan reviews under Coastal Area Management §25.4 must submit a completed PZC Form 2 in addition to this PZC Form 1.

<sup>3</sup> The use listed must correspond to the exact use term noted within the zoning district as a permitted use allowed through site plan or special permit.

<sup>4</sup> A plan must accompany the application clearly delineating the limits of public and private roads.



## 2. Applicant Information

Name: Katherine Ericson **Applicant's Authority to File Application<sup>5</sup>**  
Title: Executive Director ☐ Legal Owner of Record  
Company: LEARN ☐ Power of Attorney  
Address: 44 Hatchetts Hill Rd. ☒ Contract to Purchase  
City/State: Old Lyme, CT ☐ Other \_\_\_\_\_  
Zip Code: 06371  
Telephone: 860.434.4800x1345 Fax: \_\_\_\_\_ Email: kericson@learn.k12.ct.us

## 3. Agent Information; if applicable

Name: Matt Ranelli **Specify Nature of Agent**  
Title: Partner ☒ Attorney  
Company: Shipman & Goodwin LLP ☐ Civil Engineer  
Address: 265 Church Street, Suite 1207 ☐ Land Surveyor  
City/State: New Haven, CT ☐ Design Professional; \_\_\_\_\_  
Zip Code: 06510 ☐ Other: \_\_\_\_\_  
Bar/License/Reg. No.: \_\_\_\_\_  
Telephone: 203-668-1519 Fax: \_\_\_\_\_ Email: MRanelli@goodwin.com

## 4. Property Owner(s) and Parcel(s) Information

Is owner co-applicant? ☒ Yes ☐ No

*Note: If landowner is an LLC, Corporation, Trust or other legal entity, attach the names, addresses and title of each member or officer, including agent(s). If same as applicant list 'Same'.*

|                                        |                   |
|----------------------------------------|-------------------|
| Name: <u>Hon. Robert Brule</u>         | Name: _____       |
| Title: <u>First Selectman</u>          | Title: _____      |
| Company: <u>Town of Waterford</u>      | Company: _____    |
| Address: <u>15 Rope Ferry Road</u>     | Address: _____    |
| City/State: <u>Waterford, CT</u>       | City/State: _____ |
| Zip Code: <u>06385</u>                 | Zip Code: _____   |
| Telephone: <u>860.442.0553</u>         | Telephone: _____  |
| Fax: _____                             | Fax: _____        |
| Email: <u>firstsel@waterfordct.org</u> | Email: _____      |

<sup>5</sup> Applicant must submit evidence attesting to the authority to file application (i.e. deed, option for purchase, etc.)

## 5. Statement of Use

Attached a typed statement of use in conformance with the Zoning Regulations as described in Section 22.4.2. In addition include all hours and days of operation, size of buildings and number of stories, utilities servicing the parcel, variances received, number of employee and structures to be demolished.

## 6. Statement of Design Compatibility (Site Plans and Special Permits only)

Attach a statement describing how the building and site design is compatible with the neighborhood, character of Waterford and Zoning Regulations.

## 10. Consistency with Adopted Plan of Preservation, Conservation and Development (all applications)

Attach a statement attesting to how the proposed use, zone change, amendment or design is consistent with the most recent adopted Plan of Preservation, Conservation and Development (the Plan). Note relevant Plan section numbers and pages.

## 7. Natural and Cultural Resources

| Yes                                 | No                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                      | % of Property   |
|-------------------------------------|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|-----------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/>            | a. Are inland wetlands present on site?                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Total SF/AC <u>625 SF / 0.014 ac</u> | <u>&lt;0.5%</u> |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | b. Are tidal wetlands present on site?                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Total SF/AC _____ / _____            | _____           |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | c. Are their known or suspected vernal pools on the property?                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                      |                 |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | d. CT DEEP NDDDB: Are endangered, threatened or species of special concern suspected to be located on the property? <i>Applicant must attach an 8 1/2 x 11 map of the most current CT DEEP Natural Diversity Database with site clearly identified regardless of response provided. If you answered yes to item d., attach a letter from CT DEEP stating the name of the specie(s) that are suspected to be on the property. See Section 22 of the Zoning Regulations for additional information.</i> |                                      |                 |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | e. Are floodplains or flood hazard areas on the property?                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                      |                 |
|                                     |                                     | Identify: _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                      |                 |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | f. Is the property located within a local, state or national historic district?                                                                                                                                                                                                                                                                                                                                                                                                                       |                                      |                 |
|                                     |                                     | If yes identify district name: _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                      |                 |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> | g. Does the site possess any structures or sites listed on the local, state or national register of historic landmarks?                                                                                                                                                                                                                                                                                                                                                                               |                                      |                 |
|                                     |                                     | If yes, identify: _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                      |                 |

## 8. Additional Information

Yes No

- ☐ ☒ a. Is any part of the site within 500' of the Town line? Which town: \_\_\_\_\_
- ☐ ☒ b. Will any egress or ingress for the property use streets within an adjoining municipality?
- ☐ ☒ c. Is any work proposed in wetlands or watercourses? Explain in Statement of Use
- ☒ ☐ d. Is any work proposed within 100 feet of a wetlands or watercourse? Explain in Statement of Use
- ☐ ☒ e. Is any work proposed within a floodplain or flood hazard area? Explain in Statement of Use
- ☒ ☐ f. Is public water available or proposed to the site? Identify: Public water service available
- ☒ ☐ g. Are public sanitary sewers available or proposed to the site? Identify: Sanitary sewer service available  
Telephone & Electric
- ☒ ☐ h. Is there a utility, drainage or other easement(s) on the site? Specify: distribution easements (see  
survey/CS100)
- ☒ ☐ i. Is open space proposed on the property?

How much open space is proposed (SF/AC)? \_\_\_\_\_ / \_\_\_\_\_ Percent of property(s) \_\_\_\_\_

Use and purpose of open space: The entire site (appx. 3.9 acres) will be added to  
abutting town-owned open space

## 9. Previous Land Use Permits Associated with the Property(s)

Have previous permits been issued for the Property: ☒ Yes ☐ No (List singularly; attached additional pages if necessary)

| <u>Date Issued</u> | <u>Issuing Agency</u>          | <u>Approved Use/Activity</u> |
|--------------------|--------------------------------|------------------------------|
| <u>2012</u>        | <u>Conservation Commission</u> | <u>Regulated activities</u>  |
| _____              | _____                          | _____                        |
| _____              | _____                          | _____                        |
| _____              | _____                          | _____                        |
| _____              | _____                          | _____                        |
| _____              | _____                          | _____                        |

**9. Change of Zone, Regulation Amendment or New Zoning District, if applicable**

Yes      No

- ☐ ☒ a. Is this application for a new zoning district and/or regulation not presently established within the Zoning Regulations? If a new zoning district, distinguish type of zone proposed:

- ☐ Fixed Zone  
☐ Floating Zone  
☐ Overlay Zone

Identify proposed zone name: \_\_\_\_\_

For new regulations, list proposed section number(s) and titles(s):

- i. \_\_\_\_\_  
ii. \_\_\_\_\_  
iii. \_\_\_\_\_

- ☐ ☒ b. Is this application an amendment to an existing regulation? Attach proposed amendments, clearly noting any deletions, modifications or additions. List sections proposed to be modified:

- i. \_\_\_\_\_  
ii. \_\_\_\_\_  
iii. \_\_\_\_\_

- ☐ ☒ c. Is this application for a change to a district already established within the regulations? Identify:

\_\_\_\_\_

Supporting materials:

For new zoning districts or a change in zone provide a legal description of the land involved in the zone district change including the following:

- Location map at 1"=1000'
- Accurate description and acreage of tract(s) to be changed with existing buildings and uses
- Show existing features including but not limited to contours at two-foot intervals, wetlands and watercourses, flood plains, all improvements and structures,
- All lots or parts of lots contained in an area within 500 feet in all directions of the zone change tract
- All lots shown in this area and within the zone change tract shall contain the name and address of owners as recorded in the Assessor's records and shall show the nature of use
- North point, and distance along road from nearest road intersection.
- Scale of map(s)



## 11. Bulk Zoning Requirements Table

Complete the following table, which must also be included on applicable drawings:

| Zoning District(s): <u>R-40</u> |           |                                            |
|---------------------------------|-----------|--------------------------------------------|
| Item                            | Required  | Proposed                                   |
| Minimum Lot Size                | 40,000 SF | 185,581 SF                                 |
| Frontage                        | 100 SF    | 186 SF                                     |
| Front Yard                      | 50 SF     | 211 SF                                     |
| Side Yard                       | 25 SF     | N/A                                        |
| Rear Yard                       | 50 SF     | N/A                                        |
| Building Line                   | N/A       | N/A                                        |
| Building Coverage               | 20 %      | 0%                                         |
| Parking <sup>6</sup>            | 0         | 8 spaces: 7 standard spaces & 1 ADA spaces |
| Landscaping                     | N/A       | N/A                                        |
| Impermeable Coverage            | N/A       | N/A                                        |
|                                 |           |                                            |
|                                 |           |                                            |

<sup>6</sup> Attach method used to determine the number of parking spaces required.

### 13. Planning, Design and Engineering Team

Provide a list of all professionals responsible for the project. Additional pages attached, if necessary: ☒ Yes ☐ No

Discipline: Architecture Telephone: 475-441-7256  
Name: Katelyn Chapin Fax: \_\_\_\_\_  
Company: Newman Architects Email: kchapin@newmanarchitects.com  
License(s)/ Accreditation No(s): Architect Partner in Charge license would be used

Discipline: MEP Telephone: 860-681-2739  
Name: Eric Gebrian Fax: \_\_\_\_\_  
Company: CES Email: egebrian@ceseng.com  
Licenses and/or Accreditation No(s): Mechanical Engineer Partner in Charge license would be used

Discipline: Civil & Hazmat Telephone: 203-784-3046  
Name: Katy Gagnon Fax: \_\_\_\_\_  
Company: Langan Email: kgagnon@langan.com  
Licenses and/or Accreditation No(s): Civil Engineer Partner in Charge license would be used

Discipline: Environmental & Traffic Telephone: 806-707-9184  
Name: Melissa Norback Fax: \_\_\_\_\_  
Company: Fuss & O'Neill Email: Melissa.Norback@fando.com  
Licenses and/or Accreditation No(s): Senior Hydrogeologist Partner in Charge license would be used

Discipline: Landscape Architect Telephone: 402-449-0858  
Name: Anne Machian Fax: \_\_\_\_\_  
Company: RDG Planning & Design Email: amachian@rdgusa.com  
Licenses and/or Accreditation No(s): Landscape Architect Partner in Charge license would be used

#### 14. Supporting Documentation

Itemize, including additional attachments, all information provided in support of the application. Titles, dates and sheet/map numbers shall correspond exactly with the corresponding information provided.

Additional pages attached, if necessary: ☐ Yes ☐ No

Waterford P&Z Submission - Drawings

Traffic Impact Study

Stormwater Management Report

General Application

Wetland Report Dated May 1, 2025

Response to Town Professional Staff Comments

#### 15. For Informal Staff Review Use Only

*Sec. 7-159b – Pre-application review of use of property. Notwithstanding any other provision of the general statutes, prior to the submission of an application for use of property under chapters 124, 126, 440 and 541 or any other provision of the general statutes authorizing an authority, commission, department or agency of a municipality to issue a permit or approval for use of such property, such authority, commission, department or agency or authorized agent thereof may separately, jointly, or in any combination, conduct a pre-application review of a proposed project with the applicant at the applicant's request. Such pre-application review and any results or information obtained from it may not be appealed under any provision of the general statutes, and shall not be binding on the applicant or any authority, commission, department, agency or other official having jurisdiction to review the proposed project.*

I have read and understand the above provision of the Connecticut General Statutes and understand and agree that whatever discussion, comments and/or recommendations are made through this review are non-binding upon the parties.

Further, I acknowledge and agree that this pre-application review meeting is being conducted prior to and in anticipation of a formal application to the Waterford Planning and Zoning Commission or Conservation Commission to obtain feedback and response to the proposal or design, as it exists on this date, in the interest of preparing an application consistent with the Subdivision, Zoning or Wetlands regulations of the Town of Waterford as the case may be.

Signature

Printed Name

Date

Katherine Ericson  
Applicant

Katherine Ericson

5/5/2025

  
Agent

MATT RANELLI

5/7/25

Land Owner

PURCHASE & SALE AGREEMENT ON FILE AT TOWN HALL  
Land Owner



|                                            |  |
|--------------------------------------------|--|
| <b>16. Technical Assistance Review Fee</b> |  |
|--------------------------------------------|--|

In accordance with the Waterford Code of Ordinance Chapter 16.08, the Commission may require third party technical assistance review for the evaluation of applications associated with but not limited to site plans, special permits, zone change and regulation amendments and may collect payment for costs associated with the review. This includes but is not limited to civil engineering, architecture, legal assistance, traffic engineering and environmental protection.

## 17. Acknowledgements; All applications

## Application Content

The undersigned hereby acknowledges that this application and statements submitted herewith are true to the best of my knowledge and approval of the application is contingent upon compliance with all requirements of said regulations.

### *Right of Entry and Inspection*

The undersigned hereby authorizes the Waterford Planning and Zoning Commission or its agents, to enter the subject property for the purposes of inspection and enforcement for the said Zoning Regulations until receipt of final Certificate of Occupancy and Certificate of Zoning Compliance.

### Electronic Data Accuracy and Transmission

If applicable, the undersigned hereby acknowledges that all electronic data submitted as part of this application is an accurate and true representation of all paper transmissions provided as part of this application and may be transmitted publically when requested and all applicable fees are paid in full by the requesting party.

**Signature**

Printed Name

Date \_\_\_\_\_

Katherine Ericson  
Applicant

Katherine Ericson

5/5/2025

Agent

MIT RAVELLI

5/7/25

Land Owner

Purchase & Sale Agreement on file at Town Hall



### 13. Planning, Design and Engineering Team

Provide a list of all professionals responsible for the project. Additional pages attached, if necessary: ☒ Yes ☐ No

Discipline: Architecture - Interiors

Telephone: 402-449-0836

Name: Ed Buglewicz

Fax: \_\_\_\_\_

Company: RDG Planning & Design Architects

Email: ebuglewicz@rdgusa.com

License(s)/  
Accreditations: Architect

License(s)/  
Accreditation No(s): Will not be stamping drawings

Discipline: \_\_\_\_\_

Telephone: \_\_\_\_\_

Name: \_\_\_\_\_

Fax: \_\_\_\_\_

Company: \_\_\_\_\_

Email: \_\_\_\_\_

Licenses and/or  
Accreditations: \_\_\_\_\_

License/  
Accreditation No(s): \_\_\_\_\_

Discipline: \_\_\_\_\_

Telephone: \_\_\_\_\_

Name: \_\_\_\_\_

Fax: \_\_\_\_\_

Company: \_\_\_\_\_

Email: \_\_\_\_\_

Licenses and/or  
Accreditations: \_\_\_\_\_

License/  
Accreditation No(s): \_\_\_\_\_

Discipline: \_\_\_\_\_

Telephone: \_\_\_\_\_

Name: \_\_\_\_\_

Fax: \_\_\_\_\_

Company: \_\_\_\_\_

Email: \_\_\_\_\_

Licenses and/or  
Accreditations: \_\_\_\_\_

License/  
Accreditation No(s): \_\_\_\_\_

Discipline: \_\_\_\_\_

Telephone: \_\_\_\_\_

Name: \_\_\_\_\_

Fax: \_\_\_\_\_

Company: \_\_\_\_\_

Email: \_\_\_\_\_

Licenses and/or  
Accreditations: \_\_\_\_\_

License/  
Accreditation No(s): \_\_\_\_\_



# Natural Diversity Data Base Areas

WATERFORD, CT

December 2024

-  State and Federal Listed Species
-  Critical Habitat
-  Town Boundary

NOTE: This map shows known locations of State and Federal Listed Species and Critical Habitats. Information on listed species is collected and compiled by the Natural Diversity Data Base (NDDB) from a variety of data sources. Exact locations of species have been buffered to produce the generalized locations.

This map is intended for use as a preliminary screening tool for conducting a Natural Diversity Data Base Review Request. To use the map, locate the project boundaries and any additional affected areas. If the project is within a hatched area there may be a potential conflict with a listed species. For more information, use DEEP ezFile <https://files.deep.ct.gov/DEEPPortal/> to submit a Request for Natural Diversity Data Base State Listed Species Review or Site Assessment. More detailed instructions are provided along with the request form on our website.

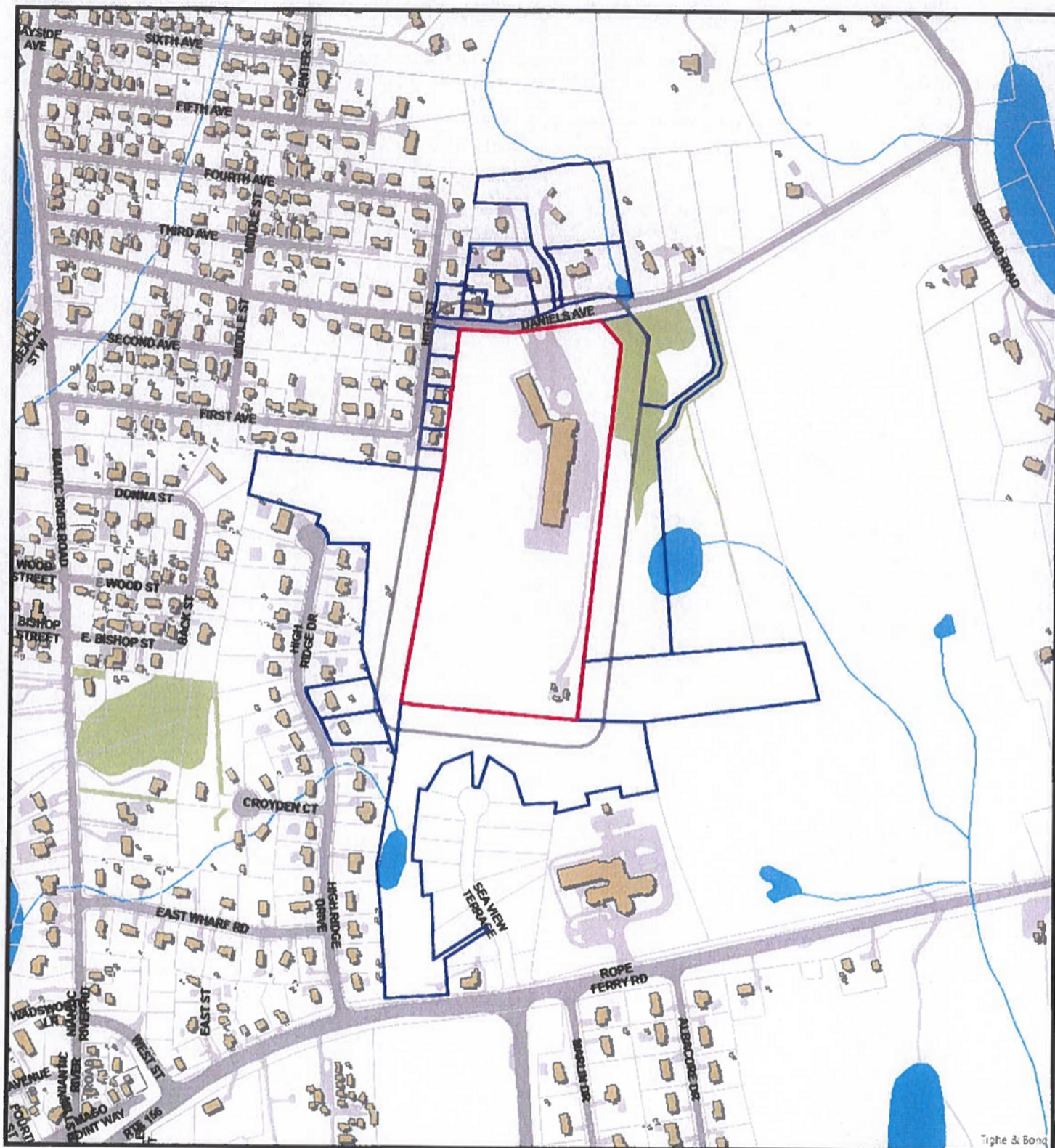
<https://portal.ct.gov/deep-nddbrequest>

Use the CTECO Interactive Map Viewers at <http://cteco.uconn.edu> to more precisely search for and locate a site and to view aerial imagery with NDDB Areas.

QUESTIONS: Department of Energy and Environmental Protection (DEEP)  
79 Elm St, Hartford, CT 06106  
email: [deep.nddbrequest@ct.gov](mailto:deep.nddbrequest@ct.gov)  
Phone: (860) 424-3011







## 100-Foot Abutters Map

5/6/2025 5:40:08 PM

Scale: 1"=500'

Scale is approximate

The information depicted on this map is for planning purposes only. It is not adequate for legal boundary definition, regulatory interpretation, or parcel-level analyses.



| Parcel ID | Owner                               | Mailing Address     | Mailing City | Mailing Zip Address          |
|-----------|-------------------------------------|---------------------|--------------|------------------------------|
| 153200    | APARICIO VIRGILIO M & CARLA         | 50 DANIELS AVE      | WATERFORD    | CT 06385 50 DANIELS AVENUE   |
| 305300    | GUIDO MARK A & PAULA A              | 9 HIGH ST           | WATERFORD    | CT 06385 9 HIGH STREET       |
| 153100    | HUGHES SEAN P + PEREIRA ALYSSA B    | 48 DANIELS AVENUE   | WATERFORD    | CT 06385 48 DANIELS AVENUE   |
| 153500    | KELLERSTEDT ROY & CYNTHIA L         | 54 DANIELS AVE      | WATERFORD    | CT 06385 54 DANIELS AVENUE   |
| 305200    | LATHROP TODD R & VICKIE L           | 7 HIGH ST           | WATERFORD    | CT 06385 7 HIGH STREET       |
| 153920    | MAHEU SPENCER & KIRDZIK MELISSA     | 63 DANIELS AVE      | WATERFORD    | CT 06385 63 DANIELS AVENUE   |
| 153950    | OPEN SPACE                          |                     |              | 65R DANIELS AVENUE           |
| 662299    | OPEN SPACE & MACKENZIE FARM HOMEOWN | 12 SEA VIEW TERRACE | WATERFORD    | CT 06385 21 SEA VIEW TERRACE |
| 154300    | PARIS JASON                         | P O BOX 919         | WATERFORD    | CT 06385 52A DANIELS AVENUE  |
| 153400    | PARIS JASON M                       | P O BOX 919         | WATERFORD    | CT 06385 52 DANIELS AVENUE   |
| 303100    | PECK THOMAS O                       | 19 HIGH RIDGE DR    | WATERFORD    | CT 06385 19 HIGH RIDGE DRIVE |
| 153600    | PERKINS BARBARA & MORANGE KELCEY    | 56 DANIELS AVENUE   | WATERFORD    | CT 06385 56 DANIELS AVENUE   |
| 305100    | SAPIA MELISSA J & JOHN              | 5 HIGH STREET       | WATERFORD    | CT 06385 5 HIGH STREET       |
| 305700    | SGANDURRA JAMES J                   | 11 HIGH STREET      | WATERFORD    | CT 06385 15 HIGH STREET      |
| 305500    | SGANDURRA JAMES J                   | 11 HIGH STREET      | WATERFORD    | CT 06385 11 HIGH STREET      |
| 303300    | VON ACHEN PATRICIA J                | 21 HIGH RIDGE DR    | WATERFORD    | CT 06385 21 HIGH RIDGE DRIVE |
| 153300    | WATERFORD TOWN OF                   | 15 ROPE FERRY RD    | WATERFORD    | CT 06385 51 DANIELS AVENUE   |
| 304500    | WATERFORD TOWN OF                   | 15 ROPE FERRY DR    | WATERFORD    | CT 06385 33 HIGH RIDGE DRIVE |



# TAB 3

| ZONING CHART                                  |                   |                                     |           |                    |
|-----------------------------------------------|-------------------|-------------------------------------|-----------|--------------------|
| ZONE: LOW DENSITY RESIDENTIAL DISTRICT (R-40) |                   |                                     |           |                    |
| LAND USE: PUBLIC SCHOOL                       |                   |                                     |           |                    |
| PARCEL AREA: ±15.36 ACRES                     |                   | TOTAL BUILDING FOOTPRINT ±88,900 SF |           |                    |
| CRITERIA                                      | REQUIRED          | EXISTING                            | PROPOSED  | SECTION            |
| LOT/BUILDING                                  |                   |                                     |           |                    |
| MIN. LOT AREA (SQ. FT.)                       | 40,000            | 854,656                             | 669,075   | 5.1                |
| MIN. FRONTAGE (FT.)                           | 100               | 348                                 | 348       | 5.3                |
| MIN. LOT WIDTH (FT.)                          | 125               | 568                                 | 409       | 5.3                |
| FRONT YARD SETBACK (FT.)                      | 50                | 139                                 | 312       | 5.4.1              |
| SIDE YARD SETBACK (FT.)                       | 25                | 125                                 | 52        | 5.4.2              |
| REAR YARD SETBACK (FT.)                       | 50                | 712                                 | 464       | 5.4.3              |
| MAX. BUILDING COVERAGE (%)                    | 20                | 4.90%                               | 12.99%    | 5.5                |
| MAX. BUILDING HEIGHT (FT.)                    | 35                | -                                   | <35       | 5.6                |
| PARKING                                       |                   |                                     |           |                    |
| MIN. STANDARD SPACE DIMENSIONS (FT.)          | 9 x 18            | -                                   | 9 x 18    | 20.2a              |
| MIN. NUMBER OF STANDARD SPACES                | 66 <sup>1/2</sup> | 89                                  | 233       | 20.3a              |
| MIN. NUMBER OF ACCESSIBLE SPACES              | 7 (2 VAN)         | -                                   | 7 (6 VAN) | 2010 ADA STANDARDS |
| MIN. NUMBER OF EV SPACES                      | 47 <sup>1/2</sup> | -                                   | 47        | CT CLEAN AIR ACT   |

3. PROVIDE LEVEL TWO EV CHARGERS IN AT LEAST 20% OF PARKING SPOTS



|                   |            |
|-------------------|------------|
| OVERALL SITE PLAN |            |
| SCALE             | DRAWING BY |
| As indicated      | BTW        |
| DATE              | CHECKED BY |
| 05/05/2025        | KEG        |
| GRAPHICAL NUMBER  |            |
| CS100             |            |

# **TAB 4**



|                             | EXISTING | PROPOSED |
|-----------------------------|----------|----------|
| PROPERTY LINE               |          |          |
| WETLAND LIMIT               |          |          |
| WETLAND POOL LIMIT          |          |          |
| UPLAND REVIEW AREA LIMIT    |          |          |
| WETLAND POOL ENVELOPE LIMIT |          |          |
| CURB LINE                   |          |          |
| FLUSH CURB LINE             |          |          |
| TRAFFIC SIGN                |          |          |
| CONCRETE SIDEWALK           |          |          |
| MINOR CONTOUR               |          |          |
| MAJOR CONTOUR               |          |          |
| SPOT GRADE                  |          |          |
| STORM LINE                  |          |          |
| CATCH BASIN                 |          |          |
| LIMIT OF DISTURBANCE        |          |          |
| SILT FENCE & STRAW BATTLE   |          |          |
| EXISTING INLET PROTECTION   |          |          |

1. EXISTING AND TOPOGRAPHIC INFORMATION OBTAINED FROM A PLAN TITLED "LOT LINE MODIFICATION SURVEY" PREPARED BY GENESCO, DATED MARCH 28, 2024.
2. THE SITE IS LOCATED WITHIN ZONE K, AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, PER FEMA MAP 09010C483J FOR NEW LONDON COUNTY. EFFECTIVE DATE AUGUST 5, 2013
3. THE PROPOSED BUILDING FOOTPRINT WAS RECEIVED ELECTRONICALLY FROM NEWMAN ARCHITECTS IN APRIL 2025
4. VERNAL POOL DELINEATION WAS RECEIVED ELECTRONICALLY FROM ALL POINTS TECHNOLOGY IN APRIL 2025

| ZONE: LOW DENSITY RESIDENTIAL DISTRICT (R-40) |          |          |          |                    |
|-----------------------------------------------|----------|----------|----------|--------------------|
| LAND USE: PUBLIC PARK                         |          |          |          |                    |
| PARCEL AREA: 4.26 ACRES                       |          |          |          |                    |
| CRITERIA                                      | REQUIRED | EXISTING | PROPOSED | SECTION            |
| LOT/BUILDING                                  |          |          |          |                    |
| MIN. LOT AREA [SQ. FT.]                       | 40,000   | 554,656  | 185,581  | 5.1                |
| MIN. FRONTAGE [FT.]                           | 100      | 534      | 186      | 5.3                |
| MIN. LOT WIDTH [FT.]                          | 125      | 568      | 211      | 5.3                |
| FRONT YARD SETBACK [FT.]                      | 50       | 139      | N/A      | 5.4.1              |
| SIDE YARD SETBACK [FT.]                       | 25       | 125      | N/A      | 5.4.2              |
| REAR YARD SETBACK [FT.]                       | 50       | 712      | N/A      | 5.4.3              |
| MAX. BUILDING COVERAGE [%]                    | 20       | 4.90%    | 0%       | 5.5                |
| MAX. BUILDING HEIGHT [FT.]                    | 35       | -        | N/A      | 5.6                |
| PARKING                                       |          |          |          |                    |
| MIN. STANDARD SPACE DIMENSIONS [FT.]          | 9 x 18   | -        | 9 x 18   | 20.2a              |
| MIN. NUMBER OF STANDARD SPACES                | N/A      | -        | 8        | -                  |
| MIN. NUMBER OF ACCESSIBLE SPACES              | 1        | -        | 1 VAN    | 2010 ADA STANDARDS |

| PROPOSED DEVELOPMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   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| <p>1. CONSTRUCTION WILL INCLUDE EARTHWORK, CURBING, PAVING, UTILITY INSTALLATION, LANDSCAPING AND BUILDING CONSTRUCTION. ALL DEVOLUTION DEBRIS AND SOIL REMOVAL RELATED TO CONSTRUCTION SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH APPLICABLE STATE AND LOCAL LAWS GOVERNING SUCH ACTIVITIES.</p> <p>2. THE DETAINED EROSION AND SEDIMENT CONTROL MEASURES ARE SHOWN WITHIN THIS PLANSET. THE PROPOSED MEASURES HAVE BEEN DESIGNED TO PREVENT THE MIGRATION OF SOIL SEDIMENT FROM THE SITE.</p> <p><b>SOIL EROSION AND SEDIMENT CONTROL NOTES</b></p> <p>1. THE SOIL AND SEDIMENT CONTROL PRACTICES MUST BE INSTALLED IN ACCORDANCE WITH THE LOCAL GOVERNING AUTHORITY AND THE CONNECTICUT CODES ON SOIL AND WATER CONSERVATION AND THE 2024 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL.</p> <p>2. EROSION AND SEDIMENT CONTROL DEVICES MUST BE INSTALLED PRIOR TO START OF DEMOLITION AND CONSTRUCTION AND DISBURSMENT OF SITE CONTRIBUTORY DRAINAGE AREAS. THE OWNER OR ITS CONTRACTOR SHALL INSPECT, REPAIR AND REMOVE ALL SEDIMENT AND EROSION CONTROL DEVICES, AS INDICATED HEREIN.</p> <p>3. DISPOSAL OF COLLECTED SEDIMENT SHALL BE MADE TO AREA DESIGNATED BY THE OWNER'S SOIL ENGINEER.</p> <p>4. FILTER FABRIC/SLT FENCE WILL BE INSTALLED ALONG THE TOE OF ALL CRITICAL CUT AND FILL SLOPES.</p> <p>5. ALL TOPSOIL NOT TO BE USED FOR FINAL GRADING/LANDSCAPED AREAS SHALL BE REMOVED FROM THE SITE IMMEDIATELY, IN ACCORDANCE WITH APPLICABLE STATE AND LOCAL LAW. ALL TOPSOIL TO BE USED IN UNDESIGNED AREAS SHALL BE STORED/STOCKPILED IN ACCORDANCE WITH APPLICABLE STATE AND LOCAL LAW STANDARDS.</p> <p>6. ALL AREAS WITHIN 500 FEET OF AN INHABITED DWELLING SHALL BE METTED AS NECESSARY TO PROVIDE DUST CONTROL.</p> <p>7. SEDIMENT DISPOSAL AREAS AND TOPSOIL STOCKPILES NOT SCHEDULED FOR CONSTRUCTION ACTIVITIES WITHIN THIRTY (30) DAYS OF DISTURBANCE SHALL BE STABILIZED AS FOLLOWS:</p> <p>A. GROUND LIME/STOCKPILES AT A RATE OF 135 LBS. PER 1,000 SF</p> <p>B. FERTILIZER AT A RATE OF 14 LBS. PER 1,000 SF USING A 10-20-10 ANALYSIS OR AN EQUIVALENT</p> <p>C. ANNUAL RYE GRASS SEEDING APPLIED AT A RATE OF NOT LESS THAN 1 LB. PER 1,000 SF</p> <p>D. MULCH ALL NEWLY SEEDDED AREAS WITHIN 80 LBS. OF SALT-HAY OR SMALL GRASS STRAW PER 1,000 SF</p> <p>8. BETWEEN OCTOBER 15 AND MARCH 15, WHEN DISTURBED AREAS ARE SCHEDULED FOR IMMEDIATE LANDSCAPING, THEY MAY BE MULCHED AND SEEDED PER ITEM D ABOVE.</p> <p>9. PAYMENT BASE COURSE MUST BE PLACED IN ALL NEW ROADWAY AREAS UPON COMPLETION OF FINE GRADING.</p> | <p>10. THE CONTRACTOR IS RESPONSIBLE FOR ALL PAVED ROADWAYS, ON AND OFF-SITE, WHICH MUST BE KEPT FREE OF SITE GENERATED SEDIMENT AT ALL TIMES. DUST SHALL BE CONTROLLED BY SPRINKLING OR OTHER APPROVED METHOD.</p> <p>11. SLT FENCE'S AND BARRIERS MUST BE CLEANED OR REPLACED PERIODICALLY TO REMOVE BUILT-UP SLT.</p> <p>12. ALL EROSION AND SEDIMENT CONTROL DEVICES MUST BE INSPECTED ON A DAILY BASIS AND CLEANED IMMEDIATELY AFTER EACH STORM.</p> <p>13. ALL EXPOSED SURFACES WILL BE TREATED WITH TOPSOIL PER THE LANDSCAPE PLANS PRIOR TO FINAL STABILIZATION.</p> <p>14. PERMANENT VEGETATION IS TO BE SEED OR SOODED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING. MULCH AS NECESSARY FOR SEED PROTECTION AND ESTABLISHMENT. LIME AND FERTILIZE PRIOR TO PERMANENT SEEDING.</p> <p>15. SOIL EROSION AND SEDIMENT CONTROL SHALL INCLUDE, BUT NOT BE LIMITED TO, OMISSIONS, ERRORS, OR FIELD OPERATIONS IMMEDIATELY AND IN ACCORDANCE WITH THE ABOVE MEASURES. THE CONTRACTOR SHALL BE RESPONSIBLE TO CORRECT ANY OMISSIONS, ERRORS, OR FIELD OPERATIONS IMMEDIATELY AND IN ACCORDANCE WITH THE GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL.</p> <p>16. ANY CONVEYANCE OF THIS PROJECT PRIOR TO ITS COMPLETION WILL TRANSFER FULL RESPONSIBILITY FOR COMPLIANCE WITH THE CERTIFIED PLAN TO ANY SUBSEQUENT OWNERS.</p> <p>17. PERMANENT</p> <p>A. MATERIALS SPECIFICATION: LAMN AREAS:</p> <p>a. SOIL</p> <p>1. ANY SOIL HAVING A pH OF 4 OR LOWER CONTAINING ION SULFIDES SHALL BE COVERED WITH A MINIMUM OF TWELVE INCHES OF SOIL HAVING A pH OF FIVE OR MORE PRIOR TO SEED BED PREPARATION.</p> <p>2. LIME</p> <p>1. THREE TONS PER ACRE GROUND LIMESTONE INCORPORATED FOUR INCHES INTO SOIL.</p> <p>C. FERTILIZER</p> <p>1. 500 LBS. PER ACRES 10-20-10 INCORPORATED FOUR INCHES INTO SOIL.</p> <p>D. SEED</p> <p>1. DATES 4/15-6/15 AND 9/15-10/15: 30 LBS OF KENTUCKY 31 TALL FESCUE, 30 LBS OF SPREADING FESCUE, 30 LBS OF KENTUCKY BLUEGRASS PER ACRE.</p> <p>2. SHADE AREAS</p> <p>1. 10 LBS OF SPREADING FESCUE, 15 LBS OF CHEWINGS REE FESCUE, 30 LBS KENTUCKY BLUEGRASS, AND 10 LBS OF PERENNIAL RYE GRASS PER ACRE. MULCH SHOULD BE APPLIED AFTER SEEDING FOR ADDED PROTECTION.</p> <p>B. MULCHING SHALL BE DONE AT THE RATE OF SEVENTY TO NINETY POUNDS (70-90 LBS) PER 1,000 SQUARE FEET WITH UNDRIVE FERTILIZER.</p> <p>C. LIQUID MULCH BINDERS MUST BE USED TO ANCHOR SALT-HAY, HAY OR STRAW MULCHES.</p> <p>D. APPLICATIONS SHOULD BE HEAVIER AT EDGES WHERE WIND CATCHES THE MULCH IN VALLEYS AND AT CREATED BANKS. REMAINDER OF AREA SHOULD BE UNIFORM IN APPEARANCE.</p> | <p>b. USE ONE OF THE FOLLOWING: SYNTHETIC OR ORGANIC BINDERS, BINDERS SUCH AS CURASOL, DCA-70, RETRO SET, TERRA TRAC, HYDRO MULCH AND AEROSPRAY MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER OF ANCHOR MULCH OR BINDERS. BINDERS CONTAINING PETROLEUM PRODUCTS SHALL NOT BE USED.</p> <p><b>NOTE:</b> ALL NAMES GIVEN ABOVE ARE REGISTERED TRADE NAMES. THIS DOES NOT CONSTITUTE A RECOMMENDATION OF THESE TO THE EXCLUSION OF OTHER PRODUCTS.</p> <p>D. FILL MATERIAL SHALL BE FREE FROM DEBRIS, PERISHABLE OR COMBUSTIBLE MATERIAL AND PROTEIN OR WEET EARTH OR STONES LARGER THAN THREE INCHES IN MAXIMUM DIMENSION.</p> <p>E. CONSTRUCTION AREAS SHALL BE PERIODICALLY SPRAYED WITH WATER UNTIL THE SURFACE IS MOIST TO CONTROL THE GENERATION OF DUST.</p> <p>F. ALL REVISIONS AFTER APPROVAL HAS BEEN GRANTED SHALL BE FORWARDED TO THE APPROPRIATE DISTRICT FOR REVIEW.</p> <p>G. THE LOCAL GOVERNING AUTHORITY SHALL RECEIVE WRITTEN NOTIFICATION SEVENTY TWO HOURS BEFORE THE START OF ANY CONSTRUCTION.</p> <p>H. SEEDING PREPARATION:</p> <p>C. TOPSOIL SHOULD BE A MINIMUM OF SIX INCHES DEEP (COMPACTED) BEFORE SEEDING.</p> <p>D. HAVE TOPSOIL TESTED FOR pH, AND LIME AS NECESSARY TO ACHIEVE pH OF 6.5. APPLY FERTILIZER AT A RATE OF 300 POUNDS PER ACRE (OR SEVEN POUNDS PER 1,000 SQUARE FEET) USING 10-20-10 INCORPORATED 4-6 INCHES INTO SOIL. 30-0-0 PER ACRE OF SLOW RELEASE NITROGEN MAY BE USED IN LIEU OF TOP DRESSING.</p> <p>E. WORK LIME AND FERTILIZER INTO SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF FOUR INCHES WITH A DISC, SPRINGTOOTH HARROW OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISCING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE ALL CLAY OR SILTY SOILS AND COARSE SANDS SHOULD BE ROLLED TO FIRM THE SEED BED WHEREVER FEASIBLE.</p> <p>F. REMOVE FROM THE SURFACE ALL STONES ONE INCH OR LARGER IN ANY DIMENSION. REMOVE ALL OTHER DEBRIS, SUCH AS WRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLOUDS, LIMBS, OR OTHER UNDESIRABLE MATERIAL.</p> <p>G. INSPECT SEED BED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT SOIL COMPACT, THE AREA MUST BE REILLED AND FIRMED AS ABOVE.</p> <p><b>CONVEYANCE OF SOIL EROSION AND SEDIMENT CONTROL NARRATIVE</b></p> <p>1. THE GENERAL CONTRACTOR SHALL DESIGNATE PERSONNEL FOR 24-HOUR EMERGENCY RESPONSE IN THE EVENT OF SEVERE WEATHER AND INCREASED POTENTIAL FOR SEVERE EROSION. CONTRACTOR TO PROVIDE NAME AND PHONE NUMBER OF INDIVIDUAL TO THE PLANNING AND ZONING COMMISSION PRIOR TO THE START OF CONSTRUCTION.</p> <p>2. THE GENERAL CONTRACTOR IS REQUIRED TO MAINTAIN ON SITE OR HAVE THE ABILITY TO REMOVE WITHIN 12 HOURS THE FOLLOWING MATERIALS IN THE EVENT THAT THERE ARE DEFICIENCIES IN THE SEED MEASURES:</p> <p>A. 25% OF THE INSTALLED LENGTH OF SLT FENCE</p> <p>B. EQUIVALENT TONNAGE OF STONE FOR STABILIZATION OF 1 STABILIZATION ENTRANCE STONE COULD BE USED FOR SLOPE REPAIRS, ENERGY DISSIPATOR ENHANCEMENTS, ETC.</p> <p>C. HEAVY EQUIPMENT CAPABLE OF TRENCHING/EXCAVATING LARGE AREAS TO OVERTURN AND CONTROL RUNOFF IN A CONTROLLED MANNER.</p> <p>D. HAVE DESIGNATED A HYDRO-SEED CONTRACTOR CAPABLE OF RESPONDING TO THE</p> |

- 1 ALL PROPOSED STORM DRAINAGE PIPING TO UTILIZE SOL-NIGHT JOINTS
- 2 LOCATIONS AND ELEVATIONS OF ROOF LEADERS SHOULD BE COORDINATED WITH ARCHITECTURAL & MEP DRAWINGS PRIOR TO CONSTRUCTION.
- 3 CLEANOUTS SHALL BE PROVIDED FLUSH TO GRADE AT ALL LOCATIONS OF ROOF DRAIN INTERSECTIONS, BENDS AND UPSTREAM ENDS
- 4 ALL REQUIRED STORM LATERALS SERVING THE BUILDINGS SHALL BE COORDINATED AND CONSTRUCTED TO WITHIN FIVE FEET OF EACH BUILDING LATERAL ENTRANCE LOCATION AT THE INVENTS NOTED. ANY NECESSARY EXTENSIONS, RELOCATIONS, OR CORRECTIONS WITHIN FIVE FEET OF THE BUILDING NECESSARY TO COMPLETE CONNECTION OF LATERALS TO THE BUILDINGS SHALL BE MADE BY THE BUILDING CONTRACTOR
- 5 THE SIZES OF ALL DRAINAGE STRUCTURES HAVE BEEN DESIGNED TO ACCOMMODATE PIPE SIZES AND CONFIGURATIONS AS SHOWN IN THE EXIST. THAT PIPE SIZES OR CONFIGURATIONS ARE PROPOSED TO BE MODIFIED BY THE CONTRACTOR, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING APPROPRIATE SIZED STRUCTURES INCLUDING SHOP DRAWINGS AND SUBMITTALS.
- 6 STORM DRAINAGE PIPING INSTALLATION SHALL COMMENCE AT THE FURTHEST DOWNSTREAM POINT AND PROCEED UPSTREAM "IN THE DR"
- 7 EXISTING STORMWATER DRAINAGE STRUCTURES AND PIPES ARE TO REMAIN UNTIL THE PROPOSED SYSTEM IS INSTALLED AND OPERATIONAL IN ACCORDANCE WITH NOTE 6. REMOVAL OF THE EXISTING SYSTEM SHALL BE IN ACCORDANCE WITH ALL UCMH STANDARD PRACTICES.
- 8 ALL SIDEWALKS TO BE CONSTRUCTED WITH 1% MINIMUM (2% MAXIMUM) CROSS SLOPE. SIDEWALKS ADJACENT TO THE BUILDING SHALL BE PITCHED TO THE CURBLINE.

**NEWMAN ARCHITECTS, PC**  
265 Church Street, 15th Floor  
New Haven, CT 06510  
203.772.1990 Fax 203.772.1997  
[www.newmanarchitects.com](http://www.newmanarchitects.com)

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**CLIENT**  
LEARN  
44 HATCHETTS HILL ROAD  
OLD LYME, CT 06371  
860-434-4800

ARCHITECTURAL CONSULTANT & LANDSCAPE ARCHITECT  
RDG PLANNING & DESIGN  
1302 HOWARD STREET  
OMAHA, NE 68102  
T 402.392.0133  
PLANNING • DESIGN

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NEW LONDON, CT 06320  
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MEFPF ENGINEER  
CES  
811 MIDDLE STREET  
MIDDLETOWN, CT 06457  
860-832-1682

**ACOUSTICAL ENGINEER**  
**JAFFE HOLDEN**  
 114A WASHINGTON ST. SUITE 2  
 NORWALK, CT 06854  
 (203) 838-1167

**TECH FF&E**  
D'AGOSTINO & ASSOCIATES  
477 MAIN ST  
MONROE, CT 06468  
(203) 497-3064

**SUSTAINABILITY CONSULTANT**  
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CONCORD, MA 01742  
(617) 366-8073

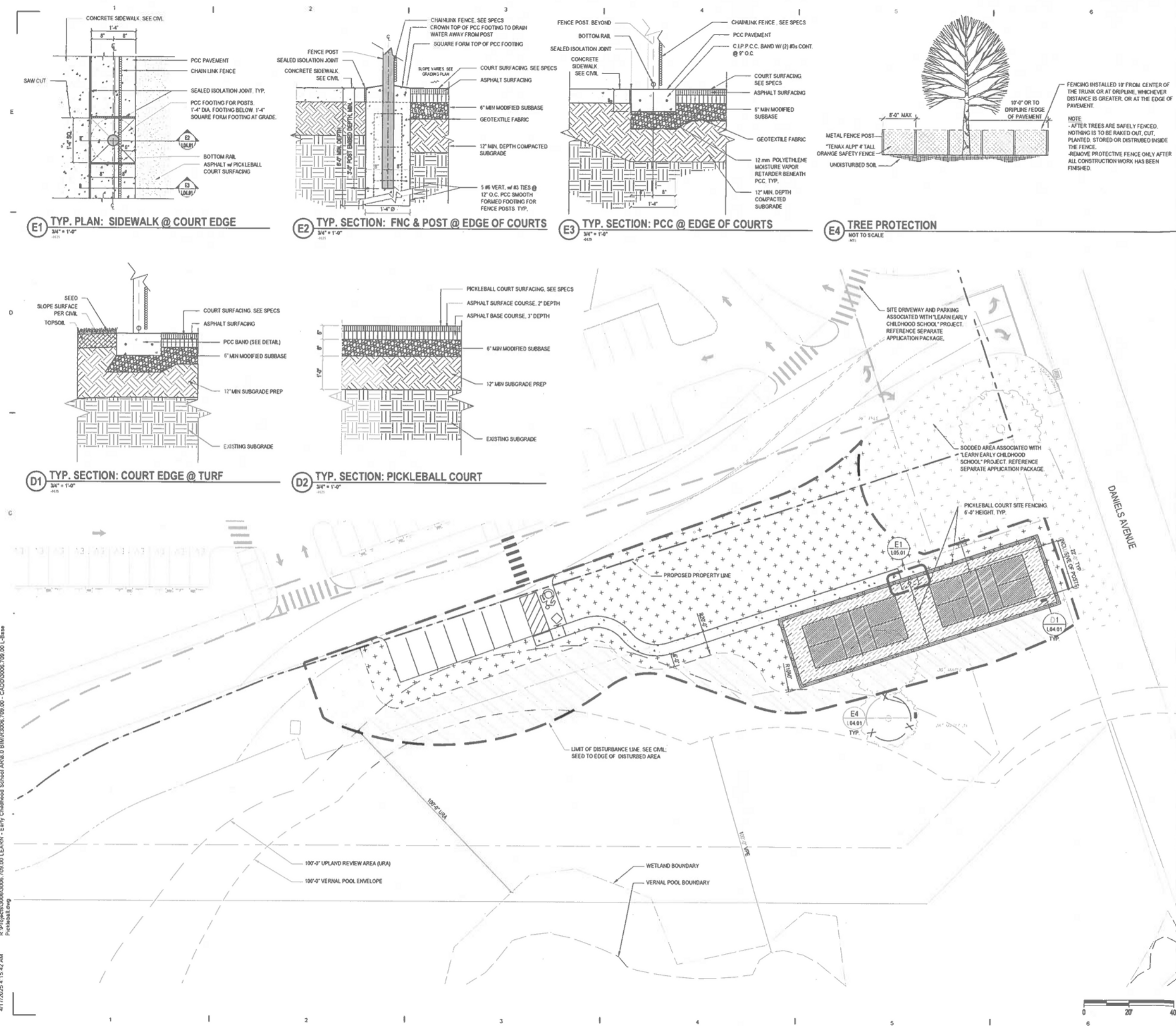
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|                       |                                        |
|-----------------------|----------------------------------------|
| PROJECT ADDRESS       | 51 DANIELS AVE,<br>WATERFORD, CT 06385 |
| STAFF PROJECT NUMBER  | 245-0090 MAG/N/PF                      |
| NEWMAN PROJECT NUMBER | 20240069                               |

|                              |                          |
|------------------------------|--------------------------|
| SCALE<br><b>As indicated</b> | DRAWN BY<br><b>BTW</b>   |
| DATE<br><b>05/05/2025</b>    | CHECKED BY<br><b>KEG</b> |

CS101

# **TAB 5**



E1 TYP. PLAN: SIDEWALK @ COURT EDGE  
3/4" = 1'-0"

E2 TYP. SECTION: FNC & POST @ EDGE OF COURTS  
3/4" = 1'-0"

E3 TYP. SECTION: PCC @ EDGE OF COURTS  
3/4" = 1'-0"

E4 TREE PROTECTION  
NOT TO SCALE

D1 TYP. SECTION: COURT EDGE @ TURF  
3/4" = 1'-0"

D2 TYP. SECTION: PICKLEBALL COURT  
3/4" = 1'-0"

NOTE: REFER TO SHEET G0.00 FOR SYMBOLS & ABBREVIATIONS AND SHEET G0.01 FOR GENERAL NOTES.

### SITE PLANTING PLAN NOTES

1. Finish grades in all landscape areas are to be reviewed by the Landscape Architect prior to any seeding, sodding, or planting. The Contractor shall submit a written request for review (5) days prior to the desired date of review. No compensation for re-seeding, re-sodding, or re-planting of an area requiring remedial grading shall be allowed resulting from failure to comply with this requirement.
2. The Contractor shall preserve areas of existing vegetation, including grass, that occur within the Contract Limits but are not needed for construction. Repair all of these existing areas to their original condition which are disturbed during construction at no cost to the Owner.
3. All areas disturbed during construction, outside of the Contract Limits, shall be repaired to their original condition at no expense to the Owner.
4. Prior to planting, verify that soil adjacent to pavements and curbs are at the correct elevation to assure a level transition from the pavement to the mulched beds. No compensation for removal and replacement of installed plants and mulch, due to unacceptable transition from one surface to the other (i.e. plant bed too high or too low) will be allowed resulting from failure to comply with this requirement.
5. The Landscape Contractor shall be responsible for all trees to be straight and vertical at the time of the final inspection scheduled at the end of the one year warranty period. Should the Contractor choose to stake or guy the trees, staking and guying shall be placed per the Contract Documents and the Contractor is responsible for removing and off-site disposal of all stakes, wires, cables, and anchors immediately before the one year warranty inspection.
6. The 8,000 SF enhancement area will consist of planting with select native shrubs and trees following grading activities and placement of topsoil to establish a dense buffer of woody plants that will enhance water quality and wildlife habitat functions for the adjacent wetland and vernal pool habitat.
7. Planting stock used in the enhancement area shall be inspected for pests, disease and overall health to ensure suitable specimens are used. Unsuitable specimens will be rejected and replaced with suitable specimens. Any planting substitutions must be approved by the Project Wetland Scientist. All woody plant stock shall be container-grown or burlap balled. Deviations to the planting plan must be approved by the Project Wetland Scientist. Only plant materials native and indigenous to Connecticut shall be used. Invasive plant species will not be used in the mitigation area.
8. Understorey enhancement area with a New England Conservation/Wildlife Seed Mix (New England Wetland Plants, Inc. or approved equivalent). Seed mix shall be applied at the manufacturer's recommended seeding rate and protected with a weed-free straw mulch or hydroseeded with a bonded fiber matrix. Permanent cover of native grasses and forbs will provide both good erosion control and wildlife habitat value.
9. All plant materials installed shall meet or exceed the specifications of the "American Standards for Nursery Stock" by the American Association of Nurserymen. All plant materials shall be guaranteed for one year following date of final acceptance. No cultivars of the native plants identified in the planting schedule shall be used unless approved by the Project Wetland Scientist.
10. Tree and shrub spacing is provided for general purposes. Actual locations of plants to be adjusted in the field based on available space. The Project Wetland Scientist will assist in selecting planting locations and spacing to simulate natural growth patterns.
11. Plant black chokeberry, serviceberry, and bayberry along edge of clearing as species prefer full sun in order to set heavier fruit. All other trees and shrubs are shade tolerant.

TABLE 1 - PLANTING SCHEDULE

| Quantity | Botanical Name               | Common Name      | Size | Spacing    |
|----------|------------------------------|------------------|------|------------|
| 10       | <i>Acer rubra</i>            | Red Maple        | 6-8" | 10-20 feet |
| 20       | <i>Ambrosia canadensis</i>   | Servicetree      | 3-4" | 7-10 feet  |
| 40       | <i>Cornus canadensis</i>     | Gray Dogwood     | 3-4" | 7-10 feet  |
| 40       | <i>Hieracium perfoliatum</i> | Bayberry         | 3-4" | 7-10 feet  |
| 40       | <i>Phytolacca americana</i>  | Black Chokeberry | 3-4" | 7-10 feet  |
| 40       | <i>Viburnum lentago</i>      | Hannyberry       | 3-4" | 7-10 feet  |

### MATERIALS LEGEND

|  |                                                                                                   |  |                                      |
|--|---------------------------------------------------------------------------------------------------|--|--------------------------------------|
|  | TREE                                                                                              |  | PROPOSED PROPERTY LINE               |
|  | FENCE                                                                                             |  | PICKLEBALL COURT SURFACING COLOR ONE |
|  | CONCRETE TRAILS AND SIDEWALKS                                                                     |  | PICKLEBALL COURT SURFACING COLOR TWO |
|  | SOIL                                                                                              |  |                                      |
|  | NEW ENGLAND CONSERVATION/WILDLIFE SEED MIX AS MANUFACTURED BY NEW ENGLAND WETLAND PLANTS, INC.    |  |                                      |
|  | 8,000 SF UPLAND REVIEW/VERNAL POOL FOREST/FISHAL DAM/ENHANCEMENT AREA. SEE TABLE 1 FOR QUANTITIES |  |                                      |

# NEWMAN

NEWMAN ARCHITECTS, PC  
265 Church Street, 15th Floor  
New Haven, CT 06510  
203.772.1990 Fax 203.772.1997  
www.newmanarchitects.com

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(203) 497-3064

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CONCORD, MA 01742  
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**PROJECT NAME**  
**WATERFORD PICKLEBALL COURTS AND PARKING**

**PROJECT ADDRESS**  
51 DANIELS AVE.  
WATERFORD, CT 06385

**STATE PROJECT NUMBER**  
245-0090 MAG/N/PF

**NEWMAN PROJECT NUMBER**  
20240069

**DRAWING TITLE**  
**OVERALL SITE LANDSCAPE PLAN**

|                           |                         |
|---------------------------|-------------------------|
| <b>SCALE</b><br>1" = 20'  | <b>DRAWN BY</b><br>EH   |
| <b>DATE</b><br>05/05/2025 | <b>CHECKED BY</b><br>AM |

**DRAWING NUMBER**  
**L04.01**



# **TAB 6**



## WETLAND ASSESSMENT

May 1, 2025

Katy Gagnon, Senior Project Manager  
Langan Engineering and Environmental Services  
Long Wharf Maritime Center  
555 Long Wharf Drive  
New Haven, CT 06511

Re: Waterford Pickleball Courts and Parking  
51 Daniels Avenue, Waterford, Connecticut  
APT Job No: CT3611350

Dear Ms. Gagnon,

All-Points Technology Corporation, P.C. ("APT") understands that the Town of Waterford is acquiring  $\pm 3.96$  acres of a  $\pm 19.32$ -acre parcel at 51 Daniels Avenue in Waterford, Connecticut to be utilized for two pickleball courts, eight (8) associated parking space and a concrete sidewalk to provide pedestrian access to the proposed courts (the "Project"). This wetland and vernal pool assessment report supplements other materials submitted under separate cover by others as part of the Waterford Conservation Commission ("WCC") Application for Permit ("Application"). This document provides an assessment of one (1) wetland and embedded vernal pool located proximate to the Project, which includes a description of the functions and values of the wetland and vernal pool, a discussion of the Project's proposed activities located in the upland review area and nearby, and an analysis of potential resource impacts associated with the proposed regulated activities. The findings of this report are based on inspections performed of the Project area and nearby wetland/vernal pool resource on September 24, 2024 and April 12, 2025 and review of project site plans prepared by Langan Engineering, dated May 1, 2025, for the Application.

The Project area consists of a  $\pm 3.96$ -acre area comprised primarily of maintained lawn immediately east of existing bituminous paved parking and access associated with the vacant school. The eastern edge of the Project area just encroaches into an upland forest that buffers the nearby wetland. A single wetland complex, Wetland 1, and imbedded vernal pool, Vernal Pool 1, are mainly off the eastern property boundary with the majority of the resource located site on abutting parcels. The proposed Project's development activities will avoid any direct impact to this resource area.

### **Wetland Resources**

Matthew Gustafson and Emily Perko, Connecticut registered Soil Scientists with APT, performed a wetland inspection of the subject property on September 24, 2024 to identify and delineate wetland resources located on and immediately proximate to the subject property. The wetland delineation methodology was performed in accordance with the Connecticut Inland Wetlands and Watercourses Act. A copy of the Wetland Inspection report, dated October 18, 2024, is enclosed along with representative photographs of the wetland features

Wetland 1 was identified on the subject property located along the eastern property boundary with the majority of the resource located off-property. Imbedded within this system breeding of vernal pool species was also confirmed during a follow-up investigation performed on April 12, 2025. This area was surveyed based on the limits of inundation observed during the spring inspection. A detailed description of wetland and vernal pool resources identified is provided below.

### **Wetland Description**

Wetland 1 is located in the northeastern portion of the subject property, primarily located on the adjacent parcel, consisting of a forested complex dominated by red maple and black gum, with co-dominant of swamp white oak. The understory contains sweet pepperbush and highbush blueberry with multiflora rose along the delineated wetland boundary. The complex is characterized by seasonally saturated edges with a distinct slope break separation to the abutting upland forest to the west that is located on the property. A relatively large depressional area located entirely off the subject property is present within the interior of the wetland generally devoid of vegetation and presents indicators that a foot or more of inundation is present during peak flooding periods. Indicators include buttressed roots and moss trim lines. This depressional area was re-evaluated during the April 12, 2025 inspection to verify vernal pool breeding activity, during which time two (2) vernal pool indicator species spotted salamander (*Ambystoma maculatum*) and wood frog (*Lithobates sylvaticus*) were observed breeding within the flooded extents. Two distinct pockets of breeding within the central and southern portions of the flooded areas were observed with water depths ranging from 1.5 to 3 feet.

### **Soil Classification**

Soil survey information obtained from the Natural Resources Conservation Service ("NRCS") did not identify wetland soil types either within or proximate to the Project area. However, wetlands were encountered during the wetland investigation along the eastern property boundary near the Project area. Based on available information collected during the wetland investigation the mapped wetland soil associated with the wetlands are predominately Ridgebury, Leicester and Whitman soils. Upland soils were examined along the wetland boundary and more distant upland areas during the site investigation. Those soils are dominated by the Udorthents-Urban land complex within existing developed associated with the vacant school and Charlton-Chatfield complex in the undeveloped areas. Detailed descriptions of wetland and upland soil types are provided below.

#### **Wetland Soils:**

**Ridgebury, Leicester and Whitman (Soil Unit 3)** soils consist of very deep, poorly to very drained soils formed in coarse-loamy or lodgement till. They are nearly level or gently sloping soils in depressions, drainageways, and low-lying positions on hills. A perched water table, or excess seepage water, is at or near the surface much of the year.

#### **Upland Soils:**

**Charlton-Chatfield Complex (73)** consists of very deep, well drained soils formed in loamy melt-out till. They are moderately deep to bedrock. They are nearly level to very steep soils on moraines, hills, and ridges.

**Udorthents-Urban Land Complex (306)** is a miscellaneous land type consisting mostly of disturbed soils (cutting, filling & grading) such that the original soil profile can no longer be discerned, buildings, paved roads and parking lots.



## **Wetland Evaluation**

There are many methods of evaluating wetlands, all incorporating different parameters to assess these resources. This study uses methodology recommended by the Corps, *The Highway Methodology Workbook Supplement, Wetland Functions and Values: A Descriptive Approach* issued by the Corps, dated September 1999. This evaluation provides a qualitative approach in which wetland functions can be considered Principal, Secondary, or unlikely to be provided at a significant level. Functions and values can be Principal if they are an important physical component of a wetland ecosystem (function only), and/or are considered of special value to society, from a local, regional, and/or national perspective. The Corps recommends that wetland values and functions be determined through "best professional judgment" based on a qualitative description of the physical attributes of wetlands and the functions and values exhibited.

The basis for APT's determination of this qualitative approach relies on over 35 years of field experience and extensive knowledge of other scientific methods used for wetland evaluation purposes.

These functions and values can be grouped into four basic categories as follows:

### **Biological Functions**

**Fish and Shellfish Habitat** — This function considers the effectiveness of seasonal or permanent waterbodies associated with the wetland in question for fish and shellfish habitat.

**Wildlife Habitat** — This function considers the effectiveness of the wetland to provide habitat for various types and populations of animals typically associated with wetlands and the wetland edge.

**Production Export (Nutrient)** — This function relates to the effectiveness of the wetland to produce food or usable products for humans or other living organisms.

### **Hydrologic Functions**

**Floodflow Alteration (Storage & Desynchronization)** — This function considers the effectiveness of the wetland in reducing flood damage by attenuation of floodwaters for prolonged periods following precipitation events.

**Groundwater Recharge/Discharge** — This function considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. Recharge should relate to the potential for the wetland to contribute water to an aquifer. Discharge should relate to the potential for the wetland to serve as an area where groundwater can be discharged to the surface.

### **Water Quality Functions**

**Sediment/Toxicant/Pathogen Retention** — This function reduces or prevents degradation of water quality. It relates to the effectiveness of the wetland as a trap for sediments, toxicants, or pathogens.

**Nutrient Removal/Retention/Transformation** — This function relates to the effectiveness of the wetland to prevent adverse effects of excess nutrients entering aquifers or surface waters such as ponds, lakes, streams, rivers, or estuaries.

**Sediment/Shoreline Stabilization** — This function relates to the effectiveness of a wetland to stabilize streambanks and shorelines against erosion.

## Societal Values

**Recreation (Consumptive and Non-Consumptive)** — This value considers the effectiveness of the wetland and associated watercourses to provide recreational opportunities such as canoeing, boating, fishing, hunting, and other active or passive recreational activities. Consumptive activities consume or diminish the plants, animals, or other resources that are intrinsic to the wetland, whereas non-consumptive activities do not.

**Educational/Scientific Value** — This value considers the effectiveness of the wetland as a site for an "outdoor classroom" or as a location for scientific study or research.

**Uniqueness/Heritage** — This value relates to the effectiveness of the wetland or its associated waterbodies to produce certain special values. Special values may include such things as archaeological sites, unusual aesthetic quality, historical events, or unique plants, animals, or geologic features.

**Visual Quality/Aesthetics** — This value relates to the visual and aesthetic qualities of the wetland.

**Threatened or Endangered Species Habitat** — This value relates to the effectiveness of the wetland or associated waterbodies to support threatened, endangered or special concern species.

The degree to which a wetland provides each of these functions is determined by one or more of the following factors: landscape position, substrate, hydrology, vegetation, history of disturbance, and size. Each wetland may provide one or more of the listed functions at Principal levels.

The determining factors that affect the level of function provided by a wetland can often be broken into two categories. The effectiveness of a wetland to provide a specified function is generally dependent on factors within the wetland whereas the opportunity to provide a function is often influenced by the wetland's position in the landscape and adjacent land uses. For example, a depressed wetland with a restricted outlet may be considered highly effective in trapping sediment due to the long residence time of runoff water passing through the system. If this wetland is located in gently sloping woodland, however, there is no significant source of sediment in the runoff therefore the wetland is considered to have a small opportunity of providing this function.

A summary description of functions and values is provided below.

### **Biological Functions:**

The ecological integrity of Wetland 1 has been compromised due to proximity to developed areas indicative of the bordering invasive species. Fragmented upland habitat buffering this wetland has occurred with the existing school development to the west, Daniels Avenue to the north and residential properties to the east. As a result, wildlife utilization would largely be used by generalists and species habituated to the high level of human activity that exists both on the subject property and in the surrounding area. This wetland maintains sufficient hydrology to support vernal pool breeding habitat throughout the complex but does not maintain permanent inundation to support finfish habitat. Although the ecological integrity has been compromised, wildlife habitat function is supported within Wetland 1 at a Principal level due largely to confirmed breeding by two obligate vernal pool species.

The wetland consists of a common vegetative class of palustrine forest cover type with shrub and herbaceous understory. However, there is not a large diversity of wetland cover types so there is a limited potential to produce food for several different types of wildlife that require diverse or specific wetland habitats beyond the forest habitat that is present. Therefore, this wetland is assessed as supporting the production export (nutrient) function at a Secondary level based on the fruit bearing shrubs observed in the resource.

#### **Hydrologic Functions:**

Wetland 1 does not border a perennial watercourse with an active floodplain, floodflow alteration is only supported at a Secondary level within Wetland 1 due to the potential for this system to support flood storage from stormwater runoff since it essentially functions as a confined basin. This wetland receives groundwater discharges from hillside seepage providing the potential for both water discharge and recharge to the local groundwater. Due to this factor, the wetland was assessed as supporting the groundwater discharge/recharge function at a Principal level.

#### **Water Quality:**

The developed surrounding environment provides an opportunity for this wetland to provide sediment/toxicant/pathogen retention and nutrient removal/retention/transformation functions. This wetland currently receives some stormwater flow from the subject property and adjacent school development through sheet flow. Based on the resource size and location of Wetland 1 there is a potential to support these water quality functions but the size limits the function to a Secondary level. Wetland 1 does not have the potential for sediment/shoreline stabilization since it does not border on a perennial stream or open water body that would generate high flow velocities during storm events or wave action.

#### **Societal Values:**

Wetland 1, consisting of a forested wetland type that supports vernal pool habitat is easily accessible by the public, and is associated with a school, supports an opportunity for various societal values. However, due to a lack of hunting or fishing opportunities, this wetland supports recreation value at a Secondary level. This wetland supports educational/scientific value at a Principal level due to the ease of access, proximity to a unique wetland habitat with breeding by vernal pool species, and future use of the property as a public school. In addition, this wetland supports visual/aesthetics value at a Secondary level due to the proximity of development and obstructive intervening vegetation from any publicly viewable areas. The uniqueness/heritage value of this wetland is diminished by the lack of: archaeological sites; unusual aesthetic quality; historical events; or unique plants, animals, or geologic features. As such, Wetland 1 does not support the uniqueness/heritage value at a Principle or Secondary level.

Urban wetland quality values are supported by Wetland 1 at a Secondary level, since this wetland is generally surrounded by development but does support some habitat for wildlife particularly for vernal pool species.



### **Threatened or Endangered Species Habitat:**

No State-listed Threatened, Endangered or Special Concern species are known to utilize the subject property, or its wetlands based on available mapping (December 2024) from the Connecticut Department of Energy & Environmental Protection ("DEEP") Natural Diversity Data Base ("NDDDB"). The nearest NDDDB buffer area is located  $\pm 0.18$  mile to the northeast in nearby Millstone Brook riparian corridor. As such, consultation with DEEP NDDDB is not required for this project. Due to the relatively small forest patch size, limited size of the wetland resource, development on the subject property and abutting properties, the potential wildlife habitat value for rare species would be limited and is not considered to be supported at either a Principle or Secondary level.

### **Proposed Activities**

The following section summarizes development activities. The WCC regulates activities in wetland and watercourses and upland areas within 100 feet of wetlands and watercourses, known as an upland review area ("URA") that are likely to impact wetlands and watercourses and not otherwise deemed as-of-right or non-regulated activities.

The proposed development will avoid direct impacts to Wetland 1 and Vernal Pool 1. However, the proposed Project will require temporary disturbances in the URA such as limited vegetation clearing, grubbing, and grading to accommodate the pickleball courts and parking area. Such activities will result in  $\pm 3,870$  SF of work within the 100-foot URA with the closest activity  $\pm 63$  feet from the nearest wetland area. Please note that proposed activities in the URA do not include any impervious surfaces or stormwater management features and are limited mainly to minor grading activities. Those areas will be restored with native trees, shrubs and herbaceous plants and grasses as discussed in detail in the mitigation section of this report. In addition, minimal disturbance would result within 100 feet of the vernal pool edge, also known as the vernal pool envelope ("VPE"). Although there is a slight encroachment into the VPE, the development would not impact primary migratory corridors of two identified vernal pool species; this topic is discussed in greater detail in the subsequent section.

### **Wetland and Vernal Pool Impact Analysis**

The fundamental concept of wetland and vernal pool impact analysis is based on the precept that wetland and vernal pool impacts should first be avoided where possible. Secondly, if practicable alternatives do not exist to avoid wetland impacts, then impacts should be minimized. Thirdly, mitigation should be considered for unavoidable wetland impacts, with consideration given to the loss of wetland functions and values that are important to the local region.

As previously discussed, the pickleball court development will avoid any direct impact to wetland or vernal pool resources. Areas of proposed activity within the 100-foot URA to Wetland 1 consist of vegetation clearing, grubbing and regrading needed for the installation of eight (8) parking spaces, two pickleball courts, and a concrete sidewalk. The parking area, sidewalk, and courts, both impervious surfaces, are located outside of the 100-foot URA. Upland review areas can serve a number of important functions that support wetlands and watercourses including water quality protection (erosion control and sediment, nutrient, biological and toxics removal), hydrologic event modification and wildlife habitat. While portions of the upland edge forest will be removed to accommodate for the development, the majority of the development area consists of maintained lawn which experiences routine disturbance and maintenance, such functions are not being supported in a significant capacity.

Construction and operation of the courts would not result in direct physical impact to Vernal Pool 1; however, minor grading will just encroach within 100 feet of the vernal pool edge, also known as the vernal pool envelope ("VPE"). It is widely documented that vernal pool dependent amphibians are not solely reliant upon the actual vernal pool, which is limited to use for breeding and egg/larval development, and require surrounding upland forest habitat for most of their adult lives. Intact forest represents the highest value, or optimal, habitat within the VPE and adjacent areas to support breeding opportunities for the various obligate vernal pool indicator species that rely on forested habitat (e.g., wood frog and spotted salamander). The US Army Corps of Engineers New England District's *Vernal Pool Best Management Practices* ("BMPs") also establish the concept of "directional corridors" (identified herein as "Migratory Corridors"). Identification of Migratory Corridors allow a project to evaluate potential impacts to optimal pool-breeding amphibian habitat that focuses on conserving the most essential habitats which link breeding pools, forested wetlands, and forested uplands. These interrelated habitats form essential migratory corridors at a landscape scale level. The location of Migratory Corridors is established through an evaluation of both wetland and terrestrial habitat structure qualities (e.g., vegetative cover types, width of vegetated buffer, soil surface moisture, thickness of duff layer, abundance of cover objects, etc.) that determines the locations of "Suitable Non-Breeding Habitat" and "Non-Habitat" in proximity to the vernal pool. Non-habitat areas such as developed areas, maintained lawn, and large expanses of impervious surface do not support Migratory Corridors due to the lack of sufficient vegetative conditions which are often associated with higher levels of predation and high level of human activity that can result in direct mortality. For the subject property which is dominated by the existing school development and includes the school building, relatively large areas of paved parking and access, and regularly maintained athletic fields and lawn, represents a large area of Non-Habitat located west of Vernal Pool 1. This large area of Non-Habitat provides no vegetative cover for migratory wood frogs or salamanders, which would expose these amphibians to desiccation and high levels of predation. This existing development separates the vernal pool habitat from other forested areas thereby eliminating a potential Migratory Corridor to the west.

Migratory Corridors occur in areas that link vernal pools and Suitable Non-Breeding Habitat, which consists of both forested wetland and upland habitats. The principal Migratory Corridors associated with Vernal Pool 1 are located to the south and east of the resource area linking adjacent and somewhat continuous upland and wetland forested habitats. Although residential properties are located proximate to these principal Migratory Corridors, there is significantly less landscape-level anthropogenic changes when compared to the expansive school development, that still maintains a relatively large forested habitat block to accommodate these Migratory Corridors. The proposed redevelopment does not intercept this Migratory Corridor.

There is the potential for short term wetland impacts during construction due to the proximity of wetland resources and proposed site work associated with grading and vegetation removal activities. The potential for these short-term impacts is mitigated with the implementation and maintenance of a comprehensive soil erosion and sediment control plan, as detailed on the separately attached project site plans that were developed in accordance with *2024 Connecticut Guidelines For Soil Erosion and Sediment Control*. The installation of silt fence and employment of additional erosion control Best Management Practices ("BMPs") would function as an effective isolation barrier for possible migrating herpetofauna from encountering construction. Additionally, a Wetland and Vernal Pool Protection Plan will include contractor education and awareness signage of the nearby sensitive wetland resources, including the vernal pool habitat and associated herpetofauna (i.e., wood frog, salamanders, turtles, snakes, etc.) that could be encountered.

## **Mitigation**

Due to the proposed development located in proximity to Wetland and Vernal Pool 1 and encroaching into the URA, an upland review area/vernal pool terrestrial enhancement area is proposed. Careful consideration has been given to devising a mitigation plan that enhances the wetlands functions and values, particularly wildlife habitat that would most benefit the vernal pool habitat, through enhancing critical upland. To compensate for the unavoidable temporary URA activities totaling  $\pm 3,870$  SF, a mitigation plan consisting of planting areas that will be altered with grading activities and associated vegetation removal is proposed. Enhancement of  $\pm 8,000$  SF of the 100-foot URA and adjacent areas will consist of planting with various native trees and shrubs that will be under sown with a native conservation/wildlife seed mix. The proposed planting plan not only improves wildlife habitat functions it also provides both good erosion control. This mitigation plan will support a variety of wetland functions and values with a primary focus on improving wildlife habitat and providing wooded terrestrial habitat to support the vernal pool habitat contained within Wetland 1. The variety of native shrubs selected for the enhancement area produce flowers that are attractive to pollinator species (also enhances the aesthetic value) and fruits that provides a wildlife food source. Water quality functions will also be enhanced in a secondary capacity along with aesthetics value with use of a wide variety of flowering plants. With the enhancement area supporting important functions and values to the URA, both Wetland 1 and its associated vernal pool habitat functions and values will be improved.

The URA proposed for enhancement is depicted in the separately attached project site plans. A summary of the mitigation plan is provided below, including planting schedules, construction sequencing notes, and construction and long-term post construction monitoring of the mitigation area.

**Table 1: Planting Schedule - Upland Review/Vernal Pool Terrestrial Enhancement Area**

| <b>Quantity</b> | <b>Botanical Name</b>         | <b>Common Name</b> | <b>Size</b> | <b>Spacing</b> |
|-----------------|-------------------------------|--------------------|-------------|----------------|
| 10              | <i>Acer rubra</i>             | Red Maple          | 6-8'        | 10-20 feet     |
| 20              | <i>Amelanchier canadensis</i> | Serviceberry       | 3-4'        | 7-10 feet      |
| 40              | <i>Cornus racemosa</i>        | Gray Dogwood       | 3-4'        | 7-10 feet      |
| 40              | <i>Morella pensylvanica</i>   | Bayberry           | 3-4'        | 7-10 feet      |
| 40              | <i>Photinia melanocarpa</i>   | Black chokeberry   | 3-4'        | 7-10 feet      |
| 40              | <i>Viburnum lentago</i>       | Nannyberry         | 3-4'        | 7-10 feet      |

### **Planting Schedule Notes:**

1. The  $\pm 8,000$  SF enhancement area will consist of planting with select native shrubs and trees following grading activities and placement of topsoil to establish a dense buffer of woody plants that will enhance water quality and wildlife habitat functions for the adjacent wetland and vernal pool habitat.
2. Planting stock used in the enhancement area shall be inspected for pests, disease and overall health to ensure suitable specimens are used. Unsuitable specimens will be rejected and replaced with suitable specimens. Any planting substitutions must be approved by the Project Wetland Scientist. All woody plant stock shall be container-grown or burlap balled. Deviations to the planting plan must be approved by the Project Wetland Scientist. Only plant materials native and indigenous to Connecticut shall be used. Invasive plant species will not be used in the mitigation area.
3. Under sow enhancement area with a New England Conservation/Wildlife Seed Mix (New England Wetland Plants, Inc., or approved equivalent). Seed mix shall be applied at the manufacturer's recommended seeding rate and protected with a weed-free straw mulch or hydroseeded with a



bonded fiber matrix. Permanent cover of native grasses and forbs will provide both good erosion control and wildlife habitat value.

4. All plant materials installed shall meet or exceed the specifications of the "American Standards for Nursery Stock" by the American Association of Nurserymen. All plant materials shall be guaranteed for one year following date of final acceptance. No cultivars of the native plants identified in the planting schedule shall be used unless approved by the Project Wetland Scientist.
5. Tree and shrub spacing is provided for general purposes. Actual locations of plants to be adjusted in the field based on available space. The Project Wetland Scientist will assist in selecting planting locations and spacing to simulate nature growth patterns.
6. Plant black chokeberry, serviceberry, and bayberry along edge of clearing as species prefer full sun in order to set heavier fruit. All other trees and shrubs are shade tolerant.

#### Mitigation Monitoring Success Standards and Reporting Notes:

1. The buffer enhancement area will be assessed using three success standards as described; Success standard 1: any soils disturbed by enhancement activities are stabilized and no significant erosion or sediment deposition is observed 2: at least 75% of the aerial surface of the enhancement areas are established with native species, including 50% aerial cover by native shrubs and 75% herbaceous species 3: control of non-native invasive woody shrub species with less than 10% total aerial coverage by the end of the monitoring period.
2. A report will be prepared documenting implementation of the upland enhancement plan, including planting of native species.
3. Monitoring of the upland enhancement area will be performed for period of two years starting the first full growing season following project completion and native planting activities. Monitoring will occur once each growing season, once in the spring and again in the late summer/early fall. An annual monitoring report will provide an assessment of the conditions of the enhancement area, measuring success against the three success standards. The monitoring report will include representative photographs, the percent survival of planted tree and shrubs and will also include observations of vegetation health and development along with any wildlife observations. The report will also document corrective actions taken to address non-compliance with the success standards. If following completion of this two-year monitoring period not all of the success standards are satisfied, recommendations for additional monitoring/corrective actions will be included in the final report.

#### **Wetland and Vernal Pool Protection Plan**

As a result of the proposed development's location in the vicinity of wetlands and vernal pool, the following protection plan is provided to avoid unintentional impact to wetland and vernal pool habitats and associated herpetofauna during construction activities. Complete details of the recommended wetland and vernal pool are enclosed with a summary provided below. Upon permit approval, this protection plan will be incorporated into the construction drawings to ensure the Contractor is fully aware of the project's environmentally sensitive setting and the required protection measures.

A wetland scientist from APT experienced in compliance monitoring of construction activities will serve as the Environmental Monitor for this project to ensure that the following BMPs are implemented properly. The proposed wetland and vernal pool protection program consists of several components including: periodic inspection and maintenance of erosion controls and isolation structures; education of all contractors and sub-contractors prior to initiation of work on the site; protective measures; wildlife sweeps to remove any wildlife from work areas; and reporting.

APT recommends establishing a wetland and vernal pool protection program consisting of contractor awareness training prior to initiation of construction activities. The contractor training session would stress the sensitive nature of the project, what species might be encountered and what to do if they are present. In addition, the wetland protection program would include an initial inspection of the silt fence erosion and sedimentation controls that will serve double duty as a restrictive barrier to possible species dispersal into the construction site from the nearby wetland and vernal pool. Provided the wetland protection program is properly implemented during construction, it is APT's opinion that potential short-term impacts to nearby wetland and vernal pool resources would not occur.

### **Summary and Conclusion**

The proposed pickleball court development will not directly impact wetland or vernal pool resources. In addition, activities proposed in the 100-foot URA will be limited to minor grading and vegetation removal activities primarily located in areas immediately adjacent to the existing school development. A comprehensive suite of erosion and sedimentation control measures in addition to a Wetland and Vernal Pool Protection Plan will be implemented during construction to prevent direct and indirect impacts to nearby wetland and vernal pool resources during construction. In addition, to compensate for the temporary encroachment of  $\pm 3,870$  SF into the 100-foot URA, a comprehensive mitigation plan that will provide  $\pm 8,000$  SF of an upland review/vernal pool terrestrial enhancement area will improve functions and values supporting the nearby wetland and vernal pool habitat.

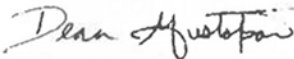
Considering the proposed development activities avoid any direct wetland and vernal pool impact, work is limited to the outer URA, and extensive protection, conservation, and mitigation measures will be employed both during and following construction activities, it is our professional opinion that no likely adverse impact to wetland and vernal pool resources would result.

Based on the findings of this assessment, we respectfully request that the Town of Waterford Conservation Commission serving as the Inland Wetlands Agency find this project and the various conservation and mitigation measures are adequately protective of the interests contained in the Town of Waterford Inland Wetlands and Watercourses Regulations and issue a wetland permit approving the proposed regulated activity.

If you have any questions regarding the above-referenced information, please feel free to contact me by telephone at (860) 552-2033 or at [dgustafson@allpointstech.com](mailto:dgustafson@allpointstech.com).

Sincerely,

All-Points Technology Corporation, P.C.



Dean Gustafson  
Professional Soil Scientist  
Senior Wetland Scientist

Enclosures

# Wetland and Vernal Pool Protection Program

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## **ENVIRONMENTAL NOTES - RESOURCES PROTECTION PROGRAM**

### **WETLAND AND VERNAL POOL PROTECTION MEASURES**

As a result of the project's location in the vicinity of sensitive habitats including wetland resources and vernal pool habitat, the following Protection Program shall be implemented by the Contractor to avoid unintentional impacts to proximate wetland and vernal pool resources during construction activities. Details of protection measures to be implemented in association with construction and maintenance of the facility are provided below.

It is of the utmost importance that the Contractor complies with the requirement for the installation of protective measures and the education of its employees and subcontractors performing work on the project site. The protection measures shall be implemented and maintained throughout the duration of construction activities until permanent stabilization of site soils has occurred.

All-Points Technology Corporation, P.C. ("APT") will serve as the Environmental Monitor for this project to ensure that these protection measures are implemented properly and will provide an education session on the project's proximity to sensitive wetlands prior to the start of construction activities. The Contractor shall contact Dean Gustafson, Senior Wetland Scientist at APT, at least 5 business days prior to the pre-construction meeting. Mr. Gustafson can be reached by phone at (860) 552-2033 or via email at [dgustafson@allpointstech.com](mailto:dgustafson@allpointstech.com).

This resources protection program consists of several components including: education of all contractors and sub-contractors prior to initiation of work on the site; installation of erosion controls; petroleum materials storage and spill prevention; protective measures; wetland and vernal pool protection measures; herbicide, pesticide, and salt restrictions; and reporting.

#### **1. Contractor Education:**

- a. Prior to work on site, the Contractor shall attend an educational session at the pre-construction meeting with APT. This orientation and educational session will consist of an introductory meeting with APT to emphasize the environmentally sensitive nature of the project, the various wetland and vernal pool resources, and the requirement to diligently follow the Protective Measures as described in sections below. Workers will also be provided information regarding the identification of turtles, snakes, and common herpetofauna that could be encountered. The meeting will further emphasize the non-aggressive nature of these species, the absence of need to destroy such animals and the need to follow Protective Measures as described in following sections.
- b. The Town of Waterford Environmental Planner will be notified a minimum of 72 hours in advance of the pre-construction meeting with an invitation to attend.
- c. The Contractor will designate a member of its crew as the Project Monitor to be responsible for the periodic "sweeps" for turtles and other herpetofauna within the construction zone each morning and for any ground disturbance work. This individual will receive more intense training from APT on the identification and protection of herpetofauna in order to perform sweeps. Any herpetofauna

discovered would be translocated outside the work zone in the general direction the animal was oriented.

- d. The Contractor's Project Monitor will be provided with cell phone and email contacts for APT personnel. Educational poster materials will be provided by APT and displayed on the job site to maintain worker awareness as the project progresses.
- e. APT will also post Caution Signs throughout the project site for the duration of the construction project providing notice of the environmentally sensitive nature of the work area, the potential for encountering various amphibians and reptiles and precautions to be taken to avoid injury to or mortality of these animals.
- f. If any rare species are encountered, the Contractor shall immediately cease all work, avoid any disturbance to the species, and contact APT.

## **2. Erosion and Sedimentation Controls/Isolation Barriers**

- a. Plastic netting used in a variety of erosion control products (i.e., erosion control blankets, fiber rolls [wattles], reinforced silt fence) has been found to entangle wildlife, including reptiles, amphibians, birds and small mammals. No permanent erosion control products or reinforced silt fence will be used on the project. Temporary erosion control products that will be exposed at the ground surface and represent a potential for wildlife entanglement will use either erosion control blankets and fiber rolls composed of processed fibers mechanically bound together to form a continuous matrix (netless) or netting composed of planar woven natural biodegradable fiber to avoid/minimize wildlife entanglement.
- b. Exclusionary fencing shall be at least 20 inches tall and must be secured to and remain in contact with the ground and be regularly maintained by the contractor (at least bi-weekly and after major weather events) to secure any gaps or openings at ground level that may let animal pass through.
- c. The extent of the erosion controls will be as shown on the site plans. The Contractor shall have additional sedimentation and erosion controls stockpiled on site should field or construction conditions warrant extending devices. In addition to the Contractor making these determinations, requests for additional controls will also be at the discretion of the Environmental Monitor.
- d. Installation of sedimentation and erosion controls, required for erosion control compliance and creation of a barrier to possible migrating/dispersing turtles, shall be performed by the Contractor following clearing activities and prior to any earthwork. The Environmental Monitor will inspect the work zone area prior to and following erosion control barrier installation to ensure the area is free of amphibians and reptiles and document barriers have been satisfactorily installed. The intent of the barrier is to segregate the majority of the work zone and isolate it from nesting/foraging/migrating/dispersing turtles, snakes and other herpetofauna. Oftentimes complete isolation of a work zone is not feasible due to accessibility needs and locations of staging/material storage areas, etc. Although the barriers may not completely isolate the work zone, they will be positioned to deflect

migrating/dispersal routes away from the work zone to minimize potential encounters with turtles, snakes and other herpetofauna.

- e. The Contractor shall be responsible for daily inspections of the sedimentation and erosion controls for tears or breaches and accumulation levels of sediment, particularly following storm events that generate a discharge, as defined by and in accordance with applicable local, state and federal regulations. The Contractor shall notify the APT Environmental Monitor within 24 hours of any breaches of the sedimentation and erosion controls and any sediment releases beyond the perimeter controls that impact wetlands, watercourses, or areas within 100 feet of wetlands. The APT Environmental Monitor will provide periodic inspections of the sedimentation and erosion controls throughout the duration of construction activities only as it pertains to their function to protect nearby wetlands. Such inspections will generally occur once per month. The frequency of monitoring may increase depending upon site conditions, level of construction activities in proximity to sensitive receptors, or at the request of regulatory agencies. If the Environmental Monitor is notified by the Contractor of a sediment release, an inspection will be scheduled specifically to investigate and evaluate possible impacts to wetland resources.
- f. Third party monitoring of sedimentation and erosion controls will be performed by other parties, as necessary, under applicable local, state and/or federal regulations and permit conditions.
- g. No equipment, vehicles or construction materials shall be stored within 100 feet of wetland or watercourse resources.
- h. All silt fencing and other erosion control devices shall be removed within 30 days of completion of work and permanent stabilization of site soils. If fiber rolls/wattles, straw bales, or other natural material erosion control products are used, such devices will not be left in place to biodegrade and shall be promptly removed after soils are stable so as not to create a barrier to wildlife movement. Seed from seeding of soils should not spread over fiber rolls/wattles as it makes them harder to remove once soils are stabilized by vegetation.

### **3. Petroleum Materials Storage and Spill Prevention**

- a. Certain precautions are necessary to store petroleum materials, refuel and contain and properly clean up any inadvertent fuel or petroleum (i.e., oil, hydraulic fluid, etc.) spill due to the project's location in proximity to wetland resources.
- b. If a Spill Prevention Control and Countermeasure (SPCC) Plan for this project, per the requirements of 40 CFR 112, has been developed for this facility, please refer to the SPCC for specific requirements. Basic requirements for petroleum materials storage and spill prevention are provided below. In the event these basic requirements contradict the SPCC, the Contractor shall rely on requirements provided in the SPCC.
- c. A spill containment kit consisting of a sufficient supply of absorbent pads and absorbent material will be maintained by the Contractor at the construction site

throughout the duration of the project. In addition, a waste drum will be kept on site to contain any used absorbent pads/material for proper and timely disposal off site in accordance with applicable local, state and federal laws.

- d. The service of machinery shall not occur within 100 feet of wetlands or watercourses.
- e. At a minimum, the following petroleum and hazardous materials storage and refueling restrictions and spill response procedures will be adhered to by the Contractor.
  - i. Petroleum and Hazardous Materials Storage and Refueling
    - 1. Refueling of vehicles or machinery shall occur a minimum of 100 feet from wetlands and shall take place on an impervious pad with secondary containment designed to contain fuels.
    - 2. Any fuel or hazardous materials that must be kept on site shall be stored on an impervious surface utilizing secondary containment a minimum of 100 feet from wetlands.
  - ii. Initial Spill Response Procedures
    - 1. Stop operations and shut off equipment.
    - 2. Remove any sources of spark or flame.
    - 3. Contain the source of the spill.
    - 4. Determine the approximate volume of the spill.
    - 5. Identify the location of natural flow paths to prevent the release of the spill to sensitive nearby wetlands and vernal pool.
    - 6. Ensure that fellow workers are notified of the spill.
  - iii. Spill Clean Up & Containment
    - 1. Obtain spill response materials from the on-site spill response kit. Place absorbent materials directly on the release area.
    - 2. Limit the spread of the spill by placing absorbent materials around the perimeter of the spill.
    - 3. Isolate and eliminate the spill source.
    - 4. Contact appropriate local, state and/or federal agencies, as necessary.
    - 5. Contact a disposal company to properly dispose of contaminated materials.
  - iv. Reporting
    - 1. Complete an incident report.
    - 2. Submit a completed incident report to local, state and federal agencies, as necessary, including the Town of Waterford.

#### **4. Wetland and Vernal Pool Protective Measures**

- a. A thorough cover search of the construction area will be performed by APT's Environmental Monitor prior to and following installation of the silt fencing barrier to remove any wildlife from the work zone prior to the initiation of any vegetation removal and construction activities. Any wildlife discovered would be translocated outside the work zone in the general direction the animal was oriented. Periodic



inspections will be performed by APT's Environmental Monitor throughout the duration of the construction, generally on a monthly basis.

- b. Any stormwater management features, ruts or artificial depressions that could hold water created intentionally or unintentionally by site clearing/construction activities will be properly filled in and permanently stabilized with vegetation to avoid the creation of "decoy pools" that could intercept amphibians potentially moving through the project area. Stormwater management features such as level spreaders will be carefully reviewed in the field to ensure that standing water does not endure for more than a 24-hour period to avoid creation of decoy pools and may be subject to field design changes. Any such proposed design changes will be reviewed by the design engineer to ensure stormwater management functions are maintained.
- c. Erosion control measures will be removed no later than 30 days following final site stabilization so as not to impede wildlife movements.

## **5. Reporting**

- a. A Compliance Monitoring Report (brief narrative and applicable photos) documenting each APT inspection will be submitted by APT to the Permittee and its Contractor for compliance verification of these protection measures. These reports are not to be used to document compliance with any other permit agency approval conditions (i.e., CTDEEP Stormwater Permit monitoring, etc.). Any non-compliance observations of erosion control measures or evidence of erosion or sediment release will be immediately reported to the Permittee and its Contractor and included in the reports. Any observations of rare species, resource impacts, or corrective actions will be included in the reports.
- a. Following completion of the construction project, APT will provide a final Compliance Monitoring Report to the Permittee documenting implementation of this wetland and vernal pool protection program and monitoring observations. The Permittee is responsible for providing a copy of the final Compliance Monitoring Report to the Town of Waterford Environmental Planner for compliance verification.
- b. Any observations of rare species will be reported to CTDEEP NDDDB by APT on the appropriate reporting form, with photo-documentation (if possible) and specific information on the location and disposition of the animal.

# Photo Documentation

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**Photo 1: Overview of Wetland 1 looking southeast.**



**Photo 2: View of southern portion of Wetland 1 looking south at potential vernal pool.**





**Photo 3: View of Wetland 1's southern vernal pool habitat looking south.**



**Photo 4: View of wood frog egg masses in Vernal Pool 1.**





**Photo 5: View of spotted salamander egg mass in Vernal Pool 1.**



**Photo 6: View of wetland and vernal pool upland enhancement area looking east;  
Wetland 1 and Vernal Pool 1 in background in forested area.**

### **General Background**

Dean Gustafson has been the lead wetland and soil scientist on more than 1,500 development projects in Connecticut and Western Massachusetts since 1988. His background includes NEPA/CEPA documentation, wetlands, water-quality investigations, coastal-zone-management studies, and natural-resource and ecological evaluations. Mr. Gustafson has expertise in wetland identification, soil mapping, soil classification, vegetative and hydrology surveys, and wetland impact assessment, mitigation design, and mitigation construction oversight. He has extensive experience in local, state, and federal wetland permitting, including having worked on over 150 Connecticut Siting Council dockets and providing expert testimony at Council hearings. Mr. Gustafson has consulted on numerous projects that involve soils-related issues such as erosion and sediment control planning, vegetative soil stabilization and storm water management BMP evaluation and selection. Mr. Gustafson's water quality experience includes stormwater studies for compliance with National Pollution Discharge Elimination System (NPDES), Section 401 Water Quality Certification, and the 2004 Connecticut DEP Stormwater Quality Manual. He has also served as the Environmental Compliance Monitor on numerous construction projects to ensure compliance with wetland, vernal pool, and rare species protections as conditioned by various local, state and federal regulatory agency authorizations.

In addition to wetland consulting, his expertise as a wetland biologist includes the identification of flora and fauna and evaluation of wildlife habitat functions in both wetland and terrestrial systems, including focused avian, mammalian, invertebrate and herpetofauna surveys using both active and passive methods. Mr. Gustafson also performs targeted surveys for sensitive, rare and listed species that have resolved numerous potential rare species conflicts with proposed developments in coordination with state and federal agencies. In addition, Mr. Gustafson has extensive experience in performing herpetological surveys, including vernal pool investigations and evaluations.

### **Representative Projects**

#### **Industrial Developments, CT and MA**

Managed wetland and rare species permitting for several large industrial developments for national Fortune 100 tenants in Connecticut and Massachusetts. Services included performing wetland, vernal pool, rare species and terrestrial impact evaluation studies, preparation of assessment documents, and development of mitigation plans. Responsible for preparation of local, state and federal wetland permits and securing agency authorizations. Projects also included conducting extensive rare species surveys, consultation with state wildlife agencies, preparation of conservation and mitigation plans, and securing agency authorizations. Permitted more than 6 million square feet of industrial warehouse space in Connecticut.

#### **CT Commercial Solar Projects**

Served as the lead wetland scientist and biologist for the development of numerous commercial-scale solar facilities throughout Connecticut. Project responsibilities included wetland delineation, function and value assessment, wetland mitigation design, federal wetland permit preparation, rare species surveys and consultations with the Connecticut Department of Energy & Environmental Protection Natural Diversity Data Base, vernal pool surveys, project impact evaluations, construction and wetland mitigation monitoring and Siting Council petition support.

#### **Siting, Licensing and Permitting Consulting Services – Eversource Energy**

Since 2016, Dean has assisted Eversource Energy in a variety of projects, providing and overseeing: natural resources inventories of existing flora and fauna, habitat evaluations, wetland delineations and impact analyses, vernal pool surveys, rare species surveys, archaeological and cultural investigations, visual analyses, preparation of technical documents (including applications to the Siting Council, municipalities, and state and federal regulatory agencies), and preparation of state and federal



underground utility installations, and existing facilities requiring upgrades. Dean assisted with pre-acquisition due diligence activities; site development feasibility assessments; natural resources inventories of existing flora and fauna; vernal pool studies and assessments; habitat evaluations; wetland delineations, assessments, mitigation designs, and permit compliance monitoring; site layout and design evaluations; erosion and sediment control planning and construction monitoring; vegetative soil stabilization and storm water management BMP evaluations and selection; preparation of technical documents; and, coordination with State and local agencies.

**CPV Towantic Energy Center, Oxford, CT**

Lead scientist responsible for performing wetland investigations, wetland evaluations, wetland mitigation design and rare species surveys for a proposed 785 MW dual-fueled combined cycle electric generating facility. Prepared the federal wetland permit application and secured Section 404 and 401 authorizations from the Army Corps of Engineers New England Division and Connecticut Department of Energy & Environmental Protection, respectively. Also responsible for developing a wetland mitigation plan, which consisted of two constructed stormwater wetland systems to compensate for the project's unavoidable wetland impacts, as well as coordinating regulatory approval for payment into the Audubon CT In Lieu Fee Wetland Mitigation Program. Also provided supporting application materials to the Connecticut Siting Council and expert testimony at numerous hearings.

**National Retailer, Rocky Hill, CT**

Responsible for wetland permitting of a multi-tenant retail development resulting in significant unavoidable wetland impacts and the creation of a wetland mitigation area exceeding 1 acre in size. Wetland permits were secured from the Rocky Hill Wetland Agency, CTDEP and U.S. Army Corps of Engineers for wetland impacts and wetland mitigation area.

**Telecommunications Carrier Wetland Compliance Program**

Project Manager for major telecommunications carrier's wetland compliance program. Responsible for wetland delineation, assessment, mitigation and alternatives analysis, habitat evaluations, vernal pool identification and assessment, design review for permit feasibility, and successful permitting of over 100 wireless telecommunications facilities with local wetland/conservation commissions in the Connecticut, Massachusetts, and Rhode Island market areas including Connecticut Siting Council application and hearing support. Responsible for erosion and sediment control planning and construction monitoring for projects in Connecticut and Massachusetts that represent a potential to impact sensitive wetland and rare species resources during construction.

**Connecticut DOT West Haven/Orange Railroad Station, Environmental Assessment**

Task manager for assessing natural resources, including wetlands, floodplain, aquatic habitats, and wildlife, associated with a proposed railroad station at one of two possible sites. Prepared technical documents in support of Draft Federal Environmental Assessment/Draft State Environmental Impact Evaluation.

**Education**

B.S. University of Massachusetts, Plant and Soil Sciences

Graduate coursework, University of New Hampshire

**Affiliations**

Member, Town of Lebanon, CT Inland Wetlands and Watercourses Commission (since 1995)

**Registrations**

Professional Soil Scientist, Society of Soil Scientists of Southern New England (since 1988)

Connecticut Association of Wetland Scientists

Association of Massachusetts Wetland Scientists



# **TAB 7**

01 May 2025

Gary Schneider  
Town of Waterford  
1000 Hartford Turnpike  
Waterford, CT 06385

**RE: Stormwater Management Report  
Waterford Pickleball Courts and Parking  
Waterford, Connecticut  
Langan Project No.: 140310301**

Dear Mr. Schneider:

This report provides an analysis of the proposed peak runoff discharges and the engineering design for the proposed stormwater management design for the proposed pickleball courts and parking at 51 Daniels Avenue. This report and design of the pickleball courts and parking has been prepared in conjunction with the LEARN Early Childhood School Project. As such, the "existing conditions" this report describes assumes the LEARN school building, site and stormwater improvements have been constructed. Refer to the report titled "Stormwater Management Report" for the LEARN Early Childhood School Project for additional information.

## PROJECT DESCRIPTION

### Existing Conditions

The project site is located at 51 Daniels Avenue in Waterford, CT; see Figure 1. The existing overall parcel is approximately 19.32 acres. LEARN is acquiring 15.36 acres of the existing parcel to be utilized for a proposed elementary school. The remaining 3.96 acres will be retained by the Town of Waterford. The pickleball courts will be located on the northeastern corner of this revised 3.96 acre parcel. This portion of the site is currently occupied by existing grassy and wooded areas. The parcel is located within the Niantic River subregional drainage basin. The parcel area does not contain any known locations of State and Federal Listed Species and Critical Habitats per the CT Natural Diversity Data Base Areas map of Waterford, CT dated December 2024. To the north, the site is bordered by Daniels Avenue, to the east by wooded areas and residential properties, and to the south and west by the proposed LEARN school. All stormwater from this project site flows overland towards the off-site wetland pool to the west. No permanent site features will be located within the 100-ft upland review area and no direct impacts are proposed.

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Study of New London County, Connecticut map number 09011C0483J with an effective date of August 5, 2013, the proposed development is located within Zone X (Unshaded). Zone X (Unshaded) is considered a Low-Risk Area and described by FEMA as areas outside the 0.2-percent-annual-chance flood. No base flood elevations or base flood depths are shown within these zones; see Figure 2.

According to the USDA Natural Resources Conservation Service Web Soil Survey, the site's soil type varies throughout. The site is mostly classified as either Urban land with a D hydrologic rating and Charlton-Chatfield complex with a B hydrologic rating.

### Proposed Project

The proposed project consists of the construction of two pickleball courts with parking and sidewalk access. Additional improvements additional native plantings to provide an enhanced landscape buffer to the vernal pool. A summary of the change in impervious is shown below.

**Project Site Impervious Cover [SF]**

| Existing Conditions | Proposed Conditions | Net Increase |
|---------------------|---------------------|--------------|
| ±0                  | ±4,750              | ±4,750       |

The site has been designed to maintain existing site hydrology to the maximum extent practicable. Stormwater runoff from the pickleball courts and sidewalk will continue to sheet flow towards the enhanced landscaped area before eventually continuing to discharge to the existing wetland. These impervious areas will be inaccessible to vehicular traffic.

See sheet titled "Site, grading, drainage, & sesc plan" for additional information.

### PEAK RUNOFF ANALYSIS (See Appendices A & B)

The stormwater management system is designed to control the rate runoff from the site's watersheds to be equal or less than existing conditions up to, and including, a 100-year design storm event.

The peak runoff discharges for the existing and proposed conditions were analyzed using Soil Conservation Service (SCS) methodology which outlines procedures for calculating peak rates of runoff resulting from precipitation events as well as procedures for developing runoff hydrographs. The entire site was included in the analysis; see Figures EXWS and PRWS. Values for area, curve number (CN), and a time of concentration were calculated for the existing and proposed conditions.



The curve number is a land sensitive coefficient that dictates the relationship between total rainfall depth and direct storm runoff. The soils within the watershed are divided into hydrologic soil groups (A, B, C, and D). The SCS classification system evaluates the runoff potential of a soil according to its infiltration and transmission rates. "A" soils have the lowest runoff potential, while "D" soils have the greatest runoff potential. Soils within the project area are predominantly "B" and "D" hydrologic rating.

The time of concentration ( $T_c$ ) is defined as the time for runoff to travel from the hydraulically most distant point in the watershed to a point of interest. Values of time of concentration were determined for existing and proposed conditions based on land cover and slope of the flow path using methods outlined in TR-55.

For this study, a 24-hour NOAA D rainfall distribution was used to determine the peak flow rate to all points of discharge from the site. Precipitation data used for the various storm events is based on the "NOAA Atlas 14 Point Precipitation Frequency Estimates: CT" for the location as shown in Graphic 1. A summary of all rainfall data utilized in the analysis for this site is provided below and a complete compilation of data provided by NOAA for this location is included in Appendix C.

**Graphic 1. NOAA Rainfall Data Location Map**



NOAA Precipitation Depth per Average Recurrence Interval [in]

| Duration | 2-Year | 10-Year | 25-Year | 100-Year |
|----------|--------|---------|---------|----------|
| 24-hour  | 3.44   | 5.14    | 6.21    | 7.85     |

#### Existing Condition (See Appendix A)

The project area's existing drainage conditions were analyzed as a single watershed (See Drawing EXWS).

Existing Watershed 1 is approximately 1.07 acres and consists mostly of grassy and wooded areas. Stormwater runoff from this watershed flows overland to the east and towards the off-site wetland.

#### Proposed Condition (See Appendix B)

In the proposed condition, the site hydrology has been designed to match existing conditions to the maximum extent possible, and all watershed design points remain the same.

Proposed Watershed 1 is about 1.05 acres and consists mostly of grassy and wooded areas. Stormwater from these areas will continue to flow overland to the east and towards the off-site wetland.

On-site infiltration test was performed on April 16<sup>th</sup>, 2025, by Langan Engineering. Refer to Appendix D for test locations, results and test pit information.

Site Discharge Peak Flow Comparison for WS-1 (CF)

| Storm    | Current | Proposed | Delta | % Reduction |
|----------|---------|----------|-------|-------------|
| 2-Year   | 1.27    | 1.27     | -     | -           |
| 10-Year  | 2.69    | 2.63     | -0.06 | -2%         |
| 25-Year  | 3.66    | 3.55     | -0.11 | -3%         |
| 100-Year | 5.18    | 5.00     | -0.13 | -3%         |

As can be seen from the tables above, existing site hydrology has been maintained up to and including the 100-year storm.

## STORMWATER QUALITY

All-Points Technology has identified an embedded vernal pool within the off-site wetland. The wetland assessment, see report titled "Wetland Assessment – Waterford Pickleball Courts and Parking" prepared by All-Points Technology, dated May 01, 2025, for additional information.

Per the recommendations of the Wetland Assessment, no *structural* water quality improvements are proposed for this project based on two considerations.: (1) the proposed pickleball courts will not introduce any pollution sources such as vehicles, sand or salt and (2) the increased environmental benefits of maintaining the 100-foot upland review areas and vernal pool envelope. This design prioritizes avoiding any disturbances within these areas, including the exclusion of stormwater structures, pipes, and detention systems. Instead, the project will implement LID improvements per Section 25.6.5.1 of the Town of Waterford Zoning Regulations. LID techniques such as directing flows to vegetated areas, encouraging sheet flow through vegetated areas, increasing vegetation, restricting ground disturbance, and maintain existing topography and drainage.

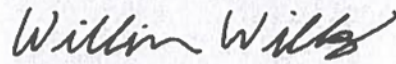
Stormwater runoff from the proposed pickleball courts is not expected to contribute pollutant loads, as the area will not support vehicular traffic and as such, no structural stormwater treatment devices are necessary. Additionally, it was recommended to avoid any stormwater basin within close proximity to the vernal pool due to the potential creation of a "decoy vernal pool". This would pose a significant risk to unsuccessful vernal species breeding.

## CONCLUSION

The proposed project has been designed to maintain existing drainage patterns to the greatest extent practicable. Stormwater runoff from the site has mimics existing hydrology with no increase in peak flow rates. This Langan report confirms that the proposed project, as designed, effectively manages the stormwater runoff for the proposed development. Please refer to the Drawings for additional drainage information.



Sincerely,  
**Langan Engineering and Environmental Services, LLC**



Bill Willsey, P.E.  
Senior Staff Engineer



Kathryn Gagnon, P.E., LEED AP  
Senior Project Manager

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**LIST OF DRAWINGS**

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| <b>EXWS</b> | <b>Existing Watershed Map</b> |
| <b>PRWS</b> | <b>Proposed Watershed Map</b> |

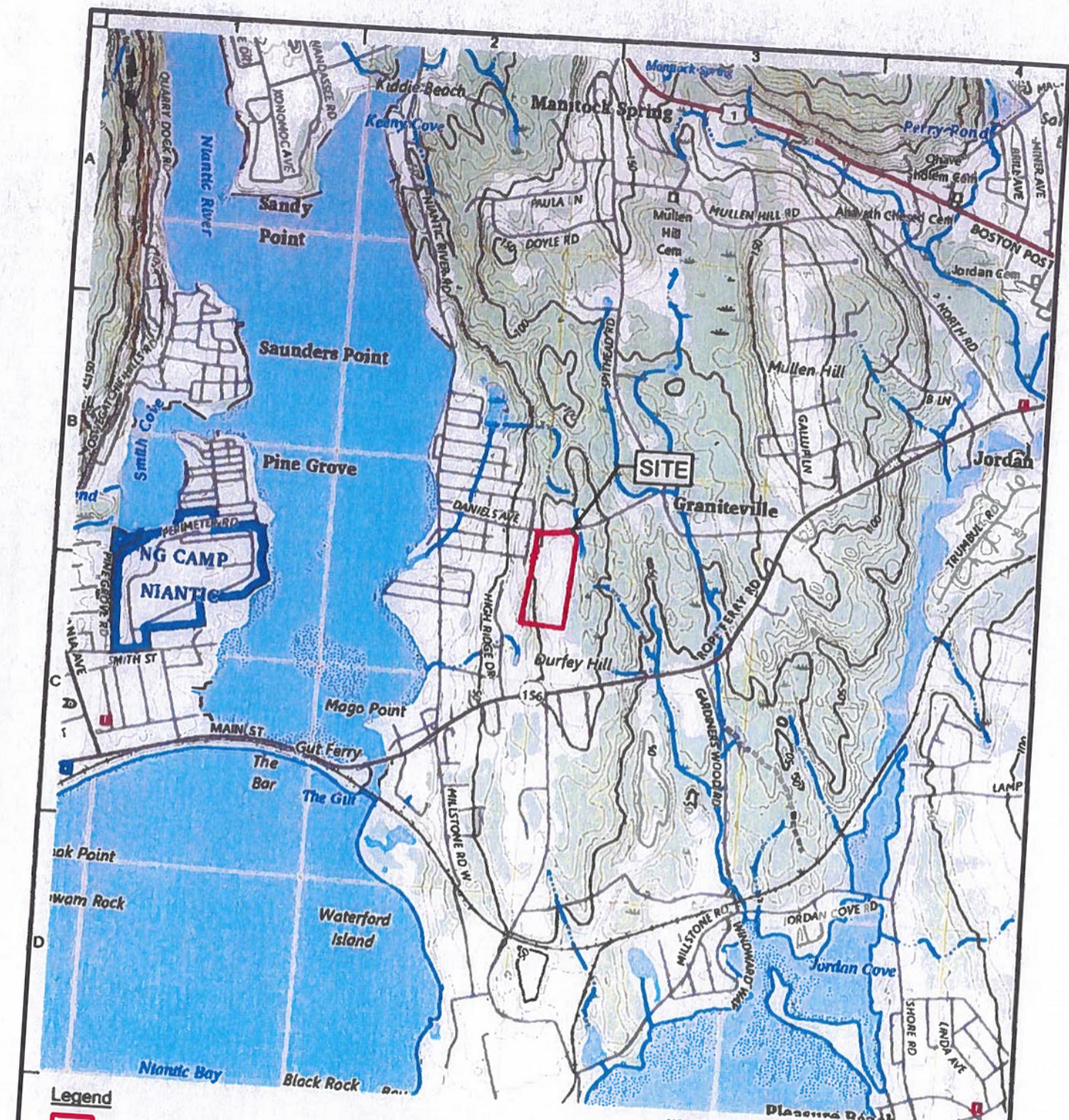
**REFERENCE DRAWINGS**

|              |                                                 |
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|                   |                                                   |
|-------------------|---------------------------------------------------|
| <b>Appendix A</b> | <b>Existing Stormwater Discharge Calculations</b> |
| <b>Appendix B</b> | <b>Proposed Stormwater Discharge Calculations</b> |
| <b>Appendix C</b> | <b>NOAA Rainfall Data</b>                         |
| <b>Appendix D</b> | <b>Test Pit &amp; Infiltration Logs</b>           |





**Legend**

Approximate Site Boundary



**NOTES**  
 1. BASEMAP ADAPTED FROM UNITED STATES GEOLOGICAL SURVEY (USGS) 7.5-MINUTE SERIES TOPOGRAPHICAL MAPS NIANCTIC CONNECTICUT, QUADRANGLE, DATED 2024

**LANGAN**

Long Wharf Maritime Center 555 Long Wharf Drive  
 New Haven, CT 06511  
 T 203 562 5771 F 203 788 8142 www.langan.com

Langen Engineering & Environmental Services, Inc.  
 Langen Engineering, Environmental Surveying  
 Landscape Architecture and Geology DPC  
 Langen International LLC  
 Collectively known as Langan

Project

**LEARN SCHOOL**

51 DANIELS AVENUE

WATERFORD

CONNECTICUT

Figure Title

**SITE LOCATION  
 MAP**

Project No.  
**140310301**

Date  
**3/18/2025**

Scale  
**1"=2,000'**

Drawn By  
**MG**

Submission Date

Figure No

**1**



**TAB 8**

**LEARN Response to Town Professional Staff Comments  
New School – 51 Daniels Avenue**

LEARN appreciates the opportunity to benefit from the Town of Waterford's pre-application review process. LEARN submitted draft plans to the Town professional staff on March 27, 2024. We received consolidated comments from the Waterford staff on April 9, 2025 regarding LEARN's Preliminary Application for its proposed new school project and pickleball courts to be located at 51 Daniels Avenue. The respective staff comments are below followed by LEARN's narrative response to each comment and references to the updated plans and reports as needed.

For ease of review, the Town professional staff comments are in *italics* and the Learn responses are in **bold**.

A. Department Date  
Traffic 4/8/25

I. Chief of Police Balestracci

1. *As far as my concerns, several schools in Waterford have poor entrance/exit, parking and traffic flow designs. The following schools have significant challenges which create congestion on local roads, the requirement for daily police or school staff management and safety concerns: Clark Lane Middle School, The Friendship School, Great Neck Elementary School and Quaker Hill Elementary School. When built, it was more common for students to ride school buses. In today's environment, students are commonly dropped-off and picked-up by family in personal cars. This change in behavior has amplified challenges already created by school entrances and exits being placed too close together on heavily travelled roads and general parking being within the bus and parent travel areas for drop-off and pick-up. As family members arrive at varied times to try and get ahead of traffic delays, the challenges are compounded.*

*In review of the draft Friendship School design, I find the school bus queue area to be too short in length, too close to Daniels Avenue, too close to the main roadway into the rear lot and positioned to transition students on and off the bus in an area which requires them to cross a travel lane for parking. This creates potential concerns for traffic backing up as the buses turn into the area designated as the bus drop-off area, which could in-turn back up traffic onto Daniels Avenue and prevent other vehicles from continuing towards the rear of the school.*

*At the rear of the school, where it is designated parent drop-off, it requires traffic to cross the line of cars waiting in line to drop-off or pick-up. Although there would be markings on the pavement to prevent blocking of that intersection, our experience shows many drivers fail to follow these markings and police and/or staff management is required daily to prevent gridlock, again compounding delays and safety concerns.*

*I also looked at the design in terms of school safety. Although I am not an architect, I find the overall design challenging. The layout creates a significant number of entry/exit points to manage, controlled access points to the school at extreme opposite ends which reduces staff and school safety monitors from one focus point to two, and outdoor recreational areas confined between the building and a fence which makes emergency egress limited in worst case scenarios.*

**RESPONSE: The school bus drop-off and pick-up area as well as the parent drop off areas**

were planned to accommodate the anticipated trip generation for the two components of the site (1) an Infant/Toddler Center and (2) a Pre-K – Grade 2 elementary school. As part of its design process LEARN's design team drew on industry standards, its experience with other school projects as well as LEARN own experience with the Friendship School. As the owner and operator of the future school, LEARN is fully incented to design for and provide the best site access and circulation possible on the site. LEARN values the Police Chief comments and has expanded the bus drop-off and pick-up queuing area to accommodate 11 school buses. The expanded area is shown on plan sheet CS102. The expanded queuing can now accommodate queuing storage for 11 school buses and 87-105 cars and 11 school buses. LEARN does not anticipate the need for all of these spaces, taking a conservative approach, they provide an adequate storage to handle high volume events.

LEARN can also manage traffic volumes by controlling start and finish time for various programs. Currently, the infant/toddler program is anticipated to operate from 7 am to 5 pm, Monday-Friday, year-round. Because the infant/toddler program requires parents to bring the children into the school, parents will park their vehicles in the designated infant/toddler drop-off stalls and walk the infants and toddlers to the main (north) entrance for this program. After checking in at the administration deck, the parents will walk the child to his or her classroom. The infant/toddler drop-off should be completed prior to the start time for the elementary school program. The elementary school is anticipated to operate from 9:15 – 3:30 on weekdays, following the school year calendar. Students will arrive via bus (at the north lot) or by parent drop off (at the south lot).

#### **Bus Queuing**

The Bus drop-off and queuing area has been expanded and reconfigured based on the Police Chief's comments to hold nine buses for loading/unloading at the same time and two reserve spaces for buses waiting to load or unload. With this new property, LEARN will be transitioning to a hub busing strategy with the support of buses from Waterford and New London. The bus drop-off zone has been reconfigured and relocated to accommodate 9 buses concurrently loading/unloading. The bus drop off island has been removed, allowing students to exit directly to a sidewalk with no need to cross traffic of any kind to ensure student and faculty safety. The north parking lot area also includes ADA parking and van drop off consistent with the spaces required by law.

#### **Parent Drop-Off Area**

Based on LEARN's experience with other regional school facilities, LEARN anticipates a significant portion of students will use the bus service. However, LEARN also recognizes, as noted in the comments, that frequently parents elect to drive their children to school. LEARN has designed the school to provide parent drop-off and pick-up in the rear (south) parking lots to provide large queuing storage areas and avoid conflict with the buses. As noted, the In total, the revised design can accommodate queuing of 85 -105 cars. LEARN does not anticipate queues of that length but the site can safely accommodate them. As design professionals, we anticipate that parents will observe the crossings at the marked intersection along with the support of signage that instruct drivers to not block the intersection. LEARN intends to communicate the traffic flow pattern in advance of the first day of school through its school orientation materials and presentations. If the rules are not



followed, LEARN will assign a staff member and/or consult with the police to best monitor the intersection to avoid any potential bottleneck concerns. In addition, staff members will be stationed at the south entry to assist in getting students out of and into their car to ensure an orderly process.

### **School Design**

The school is placed on the rectangular site to optimize the site's natural features while organizing the program into wings that support the culture around grade level teams. The Infant/Toddler entry is staffed by a separate administrative team from the elementary school. The staff at the front desk will control entry into that portion of the building. The main north entry of the school is located adjacent to the main administrative suite. The staff at this desk will have visual and electronic surveillance of the entry drive and all entry points. Any visitor at the school will need to enter the building at the north entrance.

The south entrance is predominately used at the beginning and end of the day to accommodate parent drop off/pick up. Similar to the system currently in place at the Friendship School, parents drop off/pick up their student in the designated area. A member of the LEARN team will greet each child at the vehicle. Parents do not get out of the car. Once the LEARN staff member has a small group of children, they will swipe their keycard to gain access into the south vestibule. Signage will be posted that directs visitors to the north entry. In the event a visitor does not follow the signage, there is an intercom at the south entrance and the administrative staff will direct the visitor to the north entry. No visitors will be granted access into the south entrance of the school.

The building shape creates courtyard environments that are ideal for early learners to safely and securely play outdoors. The playgrounds and outdoor learning environments to the west open to the landscape for the youngest learners in Pre-K through Kindergarten classrooms. The grade 1 and 2 playground opens to the east. All outdoor play areas are protected with a 6' fence that includes a secure gate that can accommodate the egress capacity.

2. *One additional area that should be mentioned in this project is the intersection of Daniels Avenue and Spithead Road. This T-shaped intersection is currently controlled with one Stop sign on Daniels Ave. The line of site from Daniels Ave. to Spithead Road, specifically if looking north, is very limited. With an increase in vehicles and several school buses likely to use that section of road, I strongly suggest improvements to the off-road grading at that intersection or the request for a three-way Stop sign controlled intersection to the Local Traffic Authority. Current traffic levels do not call for changes, however with the school being constructed, I do believe action is required here.*

**RESPONSE:** Based on the comment above, Intersection sight distances were measured at the intersection of Daniels Avenue at Spithead Road in accordance with criteria set forth in the 2003 CTDOT Highway Design Manual on the morning of April 16th, 2024, by Fuss & O'Neill. Intersection sight distance is measured from a point 15 feet back from the edge of travel-way at a height of 3.5 feet, the standard height of a driver's eye.

Spithead Road has a posted speed limit of 30 miles per hour in the southbound direction and

a posted speed limit of 25 miles per hour in the northbound direction in the vicinity of the intersection. Therefore, a design speed of 30 and 35 miles per hour was utilized for analysis.

For the design speed of 30 miles per hour on Spithead Road, the following intersection sight distances are required as it pertains to their respective vehicle turning right onto a two-lane facility:

- 335 feet of intersection sight distance for a passenger car
- 420 feet of intersection sight distance for a single-unity truck

For the design speed of 35 miles per hour on Spithead Road, the following intersection sight distances are required as it pertains to their respective vehicle turning left onto a two-lane facility

- 390 feet of intersection sight distance for a passenger car
- 490 feet of intersection sight distance for a single-unity truck

Under the existing intersection geometry and existing traffic control (stop control on Daniels Avenue approach only), there have been no identifiable crash patterns and no abnormal crash frequencies observed at the intersection of Spithead Road and Daniel Avenue. As noted in the Traffic Impact Study, the intersection has averaged one crash per year over the latest three years of available data. While the intersection has been operating safely, representatives of Fuss & O'Neill measured intersection sight distances from the Daniels Avenue approach to Spithead Road in accordance with criteria set forth in the 2003 CTDOT Highway Design Manual on the morning of April 16th, 2024.

Approximately 230 feet of intersection sight distance is provided looking left from Daniels Avenue (north) which falls short of CTDOT requirements for a 35 mile per hour design speed due to existing vegetation, a berm, and the horizontal curvature of Spithead Road north of the intersection. Upon removal of the vegetation along the roadway, intersection sight distance can be improved slightly but it is still expected to fall below the threshold due to the horizontal curve constraints along the existing roadway. Looking right out of Daniels Avenue, there is approximately 330 feet of intersection sight distance provided looking south along Spithead Road which also falls short of CTDOT requirements for a 30 mile per hour design speed due to existing horizontal and vertical curve constraints.

Given these constraints and noted concern of the local traffic authority above for safe egress of both passenger cars and single unit trucks/busses onto Spithead Road, we recommend that the intersection be converted to an all-way stop-controlled intersection by adding stop and stop ahead signs on both Spithead approaches that are in accordance with MUTCD distance guidelines.

## **II. Officer Devine - Traffic Officer**

### **1. *Parking Lot for Bus Drop-Off and Pickup:***

#### **a. *Length for Buses:***

- i. *The proposed bus parking lot may not be long enough to accommodate the buses without backing up into the roadway. If buses back up, they could obstruct traffic, causing potential traffic jams, delays, and safety concerns for vehicles trying to access the school or the surrounding area. Currently eleven (11) busses and two (2) vans are utilized for pickup and drop off.*

**RESPONSE:** See response #1 above. The site plan has been revised to expand the bus drop-off area to allow for active loading/unloading for up to 9 full-size school buses. An additional 2 parking spaces for buses have been provided within the bus loop should overflow parking be required. The intent is that loading/unloading would only occur along the curb. The maximum number of buses that should serve the site is anticipated to be 11.

*b. Parking Spots on the Right Side of the Bus Drop-Off/Pickup Canopy:*

- i. The placement of parking spots on the right side of the bus drop-off and pickup canopy could create a potential problem if any vehicles are in that portion of the parking lot when busses are stopped. The vehicles would not be able to exit the lot when the busses are stopped with the red flashing lights and stop signs active. Vehicles located in this lot may not be able to see the flashing red lights or stop signs for the busses, since they would be traveling parallel to the busses on the right side of the busses, opposite side of the stop signs. Exiting vehicles would have to cross in front of busses, which would be a violation if the bus had its red lights and stop signs active. Vehicles attempting to pull in to this lot could also cause additional traffic backing busses up since they would be utilizing the same entrance and exit. This may block the flow of buses, leading to potential safety hazards for children and delays in pick-up and drop-off.*

**RESPONSE:** See response #1 above. Bus queueing, parking and circulation in the north lot has been revised extensively to address the comment in part by providing a fully separate queuing lane for the buses. See CS102 for an updated site plan.

*c. Bus Drop Off/Pickup Canopy Location:*

- i. The dropping off or picking up children, in the bus area drop off and pickup area, leaves where children need to cross a travel lane in the parking lot to reach or exit the school. This could lead to pedestrians walking through vehicle traffic, increasing the likelihood of accidents or near misses. The safety of students and adults crossing the lot should be a significant consideration in the design. The location also lead to the possibility of having traffic on both sides of the canopied island, which is a safety concern with groups of young children exiting or entering busses on this island.*

**RESPONSE:** See response #1 above. Bus queueing, parking and circulation in the north lot has been revised extensively to allow students to disembark from the buses directly onto the sidewalk and enter the school with the need to cross any traffic. See CS102 for an updated site plan.

*2. Flow of Traffic for Drop-Off and Pickup:*

*a. Traffic Loop Design:*

- i. The current design calls for vehicles to drive to the back of the building, follow a loop, and then cross the queue of vehicles, from which they came, in the drop off/pick up line before heading back out to the exit. This could cause significant traffic congestion, especially during peak hours when the drop-off and pick-up lines are long.*



**RESPONSE:** See response #1. The site has been designed to provide queueing space for about 100 cars on site and 11 buses. LEARN does not anticipate queues of that length but the site can safely accommodate them. As design professionals, we anticipate that parents will observe the crossings at the marked intersection along with the support of signage that instruct drivers to not block the intersection. LEARN intends to communicate the traffic flow pattern in advance of the first day of school through its school orientation materials and presentations. If the rules are not followed, LEARN will assign a staff member and/or consult with the police to best monitor the intersection to avoid any potential bottleneck concerns. In addition, staff members will be stationed at the south entry to assist in getting students out of and into their car to ensure an orderly process.

*b. Impact on Teachers and Staff:*

- i. If teachers or staff members need to park in the rear lot, they may be caught in the same traffic line as parents dropping off or picking up students. This could further exacerbate congestion, causing delays for both teachers and parents. If teachers are trying to park during busy drop-off and pick-up times, it could create additional backups, especially if staff parking spaces are located in a high-traffic area.*

**RESPONSE:** Staff is required to arrive prior to the school day and ahead of drop-off. Staff will be trained and scheduled to arrive ahead of drop off hours and will naturally leave after pick-up hours. Staff will also be able to access the parking area by taking a right at the stop sign prior to reaching the queueing lanes.

III. Recommendations:

1. *Bus Parking Length:*

*It may be necessary to adjust the bus parking lot length or design to ensure that buses do not back up into the roadway. Consideration should also be given to the width of lanes to allow for smoother flow of traffic.*

**RESPONSE:** The bus parking length has been increased and the area redesigned to que and load or unload nine buses simultaneously and widened in areas to provide reserve space for two additional buses within the bus loop should overflow parking be required. The intent is that loading/unloading would only occur along the curb. The maximum number of buses that should serve the site is anticipated to be 11.

- 2. Re-evaluate the Bus Drop Off Location to avoid dropping children off on an island that could potentially have traffic on either side. Dropping off as close as possible to an entrance would be preferred, and avoiding having groups of youth crossing at marked and unmarked crossing areas in the parking lot.*

**RESPONSE:** See response #1. The site plan has been revised to eliminate the drop-off island and instead provide drop-off directly to the sidewalk for all buses without the need to cross any travel way.

3. *Re-evaluating the Car Loop Design: Redesigning the drop-off/pick-up loop to prevent vehicles from crossing the bus area and creating better separation between buses and cars could reduce congestion and enhance safety. A one way loop around the school could ease the flow of traffic, allowing two way traffic at the front entrance into the front parking lot area and pickle ball court.*

**RESPONSE:** See response directly above. All vehicle crossing between the buses and cars has been eliminated. See CS102 for an updated site plan.

B. 

|                       |             |
|-----------------------|-------------|
| <u>Department</u>     | <u>Date</u> |
| Environmental Planner | 4/9/25      |

1. *Recommend test holes be conducted in areas proposed for subsurface detention. Field percolation rate verifications for subsurface units and proposed bio-swale / bio-retention area.*

**RESPONSE:** Test pits and percolation tests were performed on 4/16/25 and results have been provided in Appendix F of the Stormwater Management Report submitted with the revised application materials. Based on the percolation test data the stormwater system as designed will achieve peak flow rate reduction of greater than 50 percent for the two-year storm in each of the three watersheds on site and for the site as a whole as recommended in the 2024 CT Stormwater Manual. Additionally, the proposed system will improve over existing conditions by providing significant reductions in peak flow rates for all storm events up to and including the 100-year storm.

2. *Soil hydrologic class D, soil infiltration not anticipated, so units basically detention*

**RESPONSE:** Test pits and percolation tests were performed in the areas of the proposed detention systems. The design is based on the test results, as detailed in the Stormwater Management Report. To be conservative, a 50 percent reduction was applied to the slowest percolation test results.

3. *What measures are proposed for water quality treatment and pre-treatment?*

**RESPONSE:** Proposed stormwater quality measures to improve the site include water quality units, catch basins with sumps, above and below-ground infiltration systems. The system will increase the stormwater quality.

4. *Any consideration of breaking up IA into smaller discharge or treatment points such as rain gardens before discharging towards municipal system? LID implementation?*

**RESPONSE:** The design has been optimized to address stormwater management needs while providing sufficient programming space for the school in light of the decreased acreage that LEARN is acquiring and to minimize disturbance to the extent possible.

5. *Plans will require design specifications/details for the bioswale construction. Recommend designing this a wet bioretention design to maximize pollutant renovation before discharge to municipal stormwater system. The receiving coastal water (Niantic River) is listed by the State as impaired for bacteria & nitrogen loading.*

**RESPONSE:** The western stormwater management area has been redesigned based on field data, investigation and the confirmation of the proposed property line. It is not designed as a wet basin due to it's proximity to the school. It primarily receives roof water. Detail of the basin is shown on CG503 and a description of the stormwater quality measures proposed is included as a section in the Stormwater Management Report.

6. *Detail should indicate elevations, typical cross-section, substrate material type and depth, seed mixture/planting plan, temporary erosion control measures proposed until vegetative cover is established.*

**RESPONSE:** The plans have been updated to include additional details regarding measures to install and stabilize the substrate materials. Details have been provided in the CG and CE series of plans and details as well as the construction sequence on CS003.

7. *Staff recommends examination of existing soil saturation in the area of the proposed swale as it will potentially affect available storage depth and duration of retention for water quality renovation.*

**RESPONSE:** As noted, percolation testing was performed and the design has been adjusted based on testing results.

8. *Concern with proposed new outlet at SW end of site from sub-surface detention chambers. Provide calculated peak flows and volumes for 2, 10, & 25-year storms and address measures to reduce concentrated flows down-gradient. From drainage report appendix printouts, discharge at this outlet for the 10 and 25-year storm events is 12 cfs and 16 cfs. Outlet controls needed. Receiving hillside is primarily a groundwater discharge zone with limited ability to absorb surface flows for a large part of the year. Recommend incorporating a level spreader to diffuse flows at this outlet.*

**RESPONSE:** Overflow discharge from the southern underground detention system has been rerouted to direct water away from the southern/southeastern property line. Additional outlet protection has been detailed, including a scour hole and level spreader.

9. *An Impact assessment from this discharge on the downslope shallow stormwater swale, located along rear property lines of homes on High Ridge Road, and its conveyance capacity may be required to assure no off-site residential impacts. Existing swale conveyance flows north along*



*the rear property line of homes on High Ridge Road, then directly west between two homes (and in-ground pools) into a manhole. It receives stormwater run-off from the (2) treatment basins at the southern abutting Sea View Terrace subdivision.*

**RESPONSE:** Overflow discharge from the southern underground detention system has been rerouted to direct water away from the southern/southeastern property line. Additional outlet protection has been detailed, including a scour hole and level spreader.

10. *Application will need a stormwater management / maintenance plan and a narrative as to how the design meets the requirements of Section 25.6 of the Zoning Regulations and meets the definition of "Maximum Extent Achievable" for LID implementation and water quality renovation per the State Stormwater Quality Manual.*

**RESPONSE:** A Stormwater Management System Operation and Maintenance Plan has been provided as Appendix G of the Stormwater Report.

11. *A letter report regarding the on-site and adjacent wetland / vernal pool resource and potential project impacts to the wetland is recommended to accompany the application.*

**RESPONSE:** A Wetland Assessment Report from LEARN's expert, Dean Gustafson of All-Points has been provided under separate cover. The Report concludes that there are no proposed direct wetland or vernal pool activities and that the minor activities in the far ends of the upland review area will not adversely impact the wetlands or vernal pool. The Report makes some recommendations including vegetative enhancements in the upland review area all of which are accepted.

12. *Site plans should include a construction sequencing narrative identifying major site work phases, temporary construction stormwater control measures, time estimate for application of permanent seeding to stabilize competed phases and reduce extent of overall land disturbance, and when the stormwater treatment measures are to be completed and connected to the site drainage system.*

**RESPONSE:** Phasing and Construction sequencing are provided, see CS003.

13. *Temporary sediment traps may be necessary to reduce sedimentation impacts to down-gradient properties and the proposed permanent bio-swale. If proposed include size and typical detail in plan set.*

**RESPONSE:** The use of temporary sediment traps is contractor means and methods. The Contractor will be required to conform with the CT DEEP General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction. If they feel they need temporary sediment traps to satisfy the requirements, they should be provided.

14. *Clarify Soil Erosion Control Note #15.*

**RESPONSE:** The note has been revised to read: The contractor shall correct any omissions, errors, or field operations immediately and in accordance with the guidelines for soil erosion and sediment control.

15. *Clarify if rain gardens are proposed as noted on the narrative sheet.*

**RESPONSE:** Based on the considerations discussed above regarding the test pit and percolation test results and the need for school programming space as compounded by the area of the existing site being retained by the Town, rain gardens, although generally supported, have not been proposed.

16. *If the pickle ball courts are remaining as part of the overall project site plan application, the limits of disturbance and extent of site grading and construction activity for this amenity must be shown on the overall site plan sheets and the grading and S&E control plan sheets. This is located within the upland review area of an inland wetland that is partially on the subject property and is an off-site vernal pool breeding area.*

**RESPONSE:** The pickleball court design has been submitted as a separate application package because the pickleball courts will be located on the portion of the site to be retained by the Town and will be owned and operated by the Town. A separate wetland assessment has been provided as a part of the pickleball court application. LEARN's expert, Dean Gustafson of All-Points evaluated the proposed pickleball courts and concluded that there are no proposed direct wetland or vernal pool activities and that the minor activities in the far ends of the upland review area will not adversely impact the wetlands or vernal pool. The Report makes some recommendations including vegetative enhancements in the upland review area all of which are accepted by LEARN.

17. *As noted, the site work will require registration for a CT DEEP General Permit for Construction Stormwater discharge.*

**RESPONSE:** Acknowledged. The project will be registered to the CT DEEP General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction prior to the start of construction.

C. 

|                   |             |
|-------------------|-------------|
| <u>Department</u> | <u>Date</u> |
| Planner           | 4/11/25     |

1. *Provide Boundary Plan prepared by a licensed surveyor.*

**RESPONSE:** See the boundary plan prepared by LEARN's surveyor at sheets SV.01, SV.02, and SV.03 which have been added to the set.

2. *Provide Natural Diversity Database Review documentation.*

**RESPONSE:** The Natural Diversity Database Review documentation is included in the Wetland

Assessment Report filed with the application. The NDDB review revealed no threatened, endangered or special concern speciation in the project location.

3. *Provide reasoning and support documentation relating to the number of parking spaces proposed for the project.*

**RESPONSE:** LEARN is a museum themed elementary magnet school. Between the infant/toddler program and elementary school, LEARN anticipates 125 teachers and staff on a day-to-day basis. The additional parking spots can accommodate Infant/Toddler drop offs that require a vehicle to park and the child is dropped off inside the classroom as well as daily visitors who will park in the north lot. The plan calls for 233 parking spaces.

To confirm the adequacy of the parking, the number of parking spaces proposed for the project was crosschecked with guidance provided in the ITE Parking Generation Manual, 6th edition, 2023. This manual is a nationwide industry-accepted resource for determining parking generation. Following review of land use code 536 (Charter Elementary School), the manual reports an average peak parking demand of 0.18 parking spaces per student during the weekdays. This equates to 95 parking spaces attributable to a 526-student charter elementary school. Additionally, parking spaces attributable to land use code 565 (Day Care Center) were calculated and the manual reports an average peak parking demand of 0.25 parking spaces per student during the weekdays. This equates to 12 parking spaces attributable to a 48-student day care center.

The ITE Parking Generation Manual indicates the proposed development will require a total of 107 parking spaces. The proposed development is designed to provide 243 parking spaces, which is in excess of what is necessary based on the ITE Parking Generation Manual during the peak parking demand. The excess parking spaces were established based on neighboring school experience as it relates to faculty and special event needs.

4. *Monument sign shall be no closer than 10 feet to the property line.*

**RESPONSE:** Reference updated site plans to reflect the revised location of the monument sign. Sign is more than 10' from property line, dimension has been added to Site Plan II, CS102.

5. *Angled parking spaces of 60 degree shall have a minimum access drive width of 18'.*

**RESPONSE:** Site Plan II has been updated to address this comment. See plan sheet CS102.

6. *Drainage infrastructure proposed in the Northwest corner of the property accommodating the storm water detention swale occurs within the parcel to be retained by the Town. Will there be a drainage easement or consider relocating the work onto School property?*

**RESPONSE:** Grading and drainage has been updated based on the confirmed proposed



property line. The swale will not cross onto the town retained parcel. Please see plan sheet CG102.

7. *Provide screening for RTU's.*

**RESPONSE:** Reference updated roof plan to reflect the revised location of the screening at the roof top units so they will not be visible from the public right of way.

8. *Clarify whether the LOS and Queue Length Summaries for Daniels Avenue at Site Driveway need to include a Daniels Avenue Eastbound Right Turn into the site driveway, which may be impacted given the shortened entrance drive length prior to busses entering the drop-off queue. Are the anticipated number of busses that will be queuing for drop off and pick up taken into account in these calculations and models?*

**RESPONSE:** The capacity analysis for the unsignalized driveway of Daniels Avenue at Site Driveway was conducted using Synchro Professional Software, version 11.0 which analyzes aspects such as level of service (LOS), 95th percentile design queue lengths, and delay at intersections within the study network. Factors like these were what we used to determine any necessary offsite improvements across the network. Based on these reports provided in the Appendices of the Traffic Impact Study, an eastbound right turn lane was not deemed necessary when analyzing the capacity or queue length analyses. The eastbound and westbound approaches did not deteriorate below a LOS A with the additional site traffic added to the network and did not have any significant queueing increases either. Therefore, construction of an eastbound right turn operational lane into the property was not proposed and we do not recommend the addition of an additional operational lane on Daniels Avenue solely based on the possibility of a queue spillback due to internal site congestion issues.

With respect to the ingress of the site driveway, it is noted that the Synchro analysis does take into consideration any internal congestion within the development (i.e. bus drop off/pick up conflicts or internal queueing). However, in response to the staff comments above as they relate to internal site congestion, the location of the bus drop-off/pick up location has been shifted and adequate queue space has been provided for the maximum number of busses expected on site at any given time. In addition, as noted above, LEARN will communicate the traffic flow pattern in advance of the first day of school and have approximately 15 staff members stationed at the south entry to assist in getting students out of and into their car. Should any on-site concerns occur, LEARN will assign a staff member to monitor site operations to avoid any potential bottleneck concerns.

|                      |             |
|----------------------|-------------|
| D. <u>Department</u> | <u>Date</u> |
| Public Works         | 4/11/25     |

I. *General Comments:*

1. *Before work begins on the project, a site access permit is required from DPW.*

**RESPONSE:** Acknowledged. LEARN will request a site access permit from DPW prior to the start of work.

2. *Any work that is performed within the Towns ROW, an excavation permit is required from DPW.*

**RESPONSE:** Acknowledged. LEARN will request a site access permit from DPW prior to the start of work.

3. *Any work within the roadway would require repair per the towns street use regulations.*

**RESPONSE:** Acknowledged.

4. *The Drainage discharge at the rear of the site at FES 123. (Point Discharge) Down gradient of this is a swale that takes runoff from Sea View Terrace. Any way to keep the drainage on site/Slow it down on site? (LID, sed Basins? Infiltration Basin) So not to impact the other properties.*

**RESPONSE:** Overflow discharge from the southern underground detention system has been rerouted to direct water away from the southern/southeastern property line.

5. *At the north end of site tying into the towns' drainage system (multiple locations) Can the existing system accommodate the additional drainage into the system?*

**RESPONSE:** Peak flow to Daniels Avenue has been reduced by at least 20% in the proposed condition, through the 100-year storm, as detailed in the Stormwater Management Report.

6. *With school time drop offs and pickups will there be any backups onto the town road? The drop off area could get backed up and the over flow would probably end up on Daniels Ave. Could become a safety issue.*

**RESPONSE:** See response #1. The site has been redesigned to expand queuing capacity and improve drop-off areas to prevent overflow and back up onto the public road. The site now provides queuing space for approximately 100 cars on site and 11 buses. A queuing diagram has been provided as part of this application submission.

**II.** *All comments refer to plan CS-102*

1. *Sidewalk to the right (east) of the driveway, the walk should be a concrete ADA ramp and 5' sidewalk.*

**RESPONSE:** The plan has been updated to provide be a concrete ADA ramp and 5' sidewalk.

2. *To the east of the driveway is a painted crosswalk. If required, ADA ramps shall be constructed, if not, the painted crosswalk and signage shall be removed.*

**RESPONSE:** Site Plan II, CS102, has been updated.

3. *Replace or infill Daniels Ave traffic markings that at affected by the new driveway entrance.*

**RESPONSE:** Site Plan II, CS102, has been updated.

4. *To the west of the driveway, the curbing shall be concrete to match the existing curbing. Carry the replacement past the existing asphalt sidewalk from the site.*

**RESPONSE:** The plan has been updated to satisfy this comment.

5. *Remove the existing asphalt sidewalk from the site that is within the right of way west of the driveway.*

**RESPONSE:** Site Plan II, CS102, has been updated.

6. *Far west of the driveway is a concrete sidewalk that is to intersect with the existing asphalt sidewalk. Not clear how that intersection will be constructed.*

**RESPONSE:** Site Plan II, CS102, has been updated.

**III.** *Comments refer to plan CG-102*

1. *Shows 2-15 inch HOPE pipes being tied into existing street 15 inch drainage pipe.*
  - a. *Statement from the engineer that the existing street system will accommodate the discharge into our system.*
  - b. *If so, Both discharges will need a clear water permit from the Town.*

**RESPONSE:** Peak flow to Daniels Avenue has been reduced by at least 20% in the proposed condition, through the 100-year storm, as detailed in the Stormwater Management Report. Any required permits will be obtained.

2. *The far west drainage system will need an easement from the Town.*

**RESPONSE:** Grading and drainage has been updated based on the confirmed proposed property line and will not cross the parcel boundary onto the land retained by the Town. Please see plan sheet CG102.

| <u>E.</u> | <u>Department</u>  | <u>Date</u> |
|-----------|--------------------|-------------|
|           | Utility Commission | 4/14/25     |

1. *Please use Waterford Utility Commission sewer and water details, no details were included in this submission.*

**RESPONSE:** Waterford Utility Commission sewer and water details have been added to the plans.

2. *Please provide the reasoning surrounding the proposed installation of a new manhole rather than either utilizing an existing lateral (the existing building was connected through the rear of the parcel) or coring an existing manhole present on Daniels Ave.*
  - a. *If the intent is to set a new manhole, please provide a detail for the connection along with a narrative describing the intended process for making said connection.*

**RESPONSE:** The design team has limited information on the existing lateral and based on the proposed design, a new lateral to the road is the preferred solution. We are proposing a doghouse manhole connection which should have limited to no impact to the existing system while being installed.

3. *Information regarding intended grease interceptor should be provided via detail and information regarding sizing selection should be provided.*

**RESPONSE:** Detail information regarding intended grease interceptor has been added to the plan set (see sheet CU503).

4. *All water and sewer within property line should adhere to plumbing code, including required minimum cover.*

**RESPONSE:** Acknowledged.

5. *No information regarding proposed onsite manholes, nor the proposed manhole in the right of way are provided: top of frame, inverts, slope and material type are required on a plan and profile sheet.*

**RESPONSE:** Utility Plans have been updated (see plan sheets CU100, CU101 and CU102).



6. *Please identify / callout fire and domestic water services individually including material type and size. There is a 12" water line on Daniels Ave – as a point of reference.*

**RESPONSE:** The plans have been updated to include the requested information.

7. *The proposed domestic water service appears to exceed 150' from the street line to the point where the line enters the building. A meter pit is required if the length of piping exceeds 150'.*

**RESPONSE:** The plans have been updated as requested including the addition of a meter pit.

8. *The fire loop has two hydrants off of the line and the fire service goes into the back of the building, are the proposed hydrants intended to be private, if so a maintenance agreement may be required.*

**RESPONSE:** The hydrants will be private – we will coordinate a maintenance agreement if required.

9. *Please update notes to reflect that the building(s) will not remain open during construction and there is no force main connection or flows to be maintained.*

**RESPONSE:** The existing building will be demolished the summer of 2025 and therefore there will not be only remaining structures on site during the construction of the new school. The plan notes have been updated accordingly.

# TAB 9

# SHIPMAN

Matt Ranelli  
Phone: (203) 836-2805  
MRanelli@goodwin.com

265 Church Street  
Suite 1207  
New Haven, CT 06510

May 2, 2025

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Jill Stevens  
Director of Utilities  
Waterford Utility Commission  
15 Rope Ferry Road  
Waterford, CT 06385

Re: Notice Pursuant To Conn. Gen. Stat. §§ 8-3i And 22a-42f Of Application For Determination Of No Regulated Activities Or, In The Alternative, Approval Of Regulated Activities Associated With A Proposed New School Facility At 51 Daniels Avenue, Waterford, Connecticut

Dear Director Stevens:

Pursuant to Conn. Gen. Stat. §§ 8-3i and 22a-42f, we are writing to inform you of an application filed on behalf of our client LEARN Regional Educational Service Center to construct a new school facility on property located at 51 Daniels Avenue in Waterford, Connecticut. The application was filed with the appropriate Waterford land use agencies and is available at the Waterford Town Hall, 15 Rope Ferry Rd, Waterford, CT 06385.

If you have any questions regarding this application or would like a courtesy copy, please contact me at (860) 251-5748.

Sincerely,

*Matthew Ranelli*  
Matthew Ranelli

GMR:mm

Error! Unknown document property name.