



FUSS & O'NEILL

February 13, 2019

Mr. Dennis Goderre ASLA, AICP CUD  
City Planner  
City of Groton  
195 Meridian Street  
Groton, CT 06340

Re: South Yard Assembly Building – Special Permit, Site Plan and CAM Applications  
General Dynamics Electric Boat Shipyard  
Fuss & O'Neill Reference No. 1997570.A11

Dear Mr. Goderre:

On behalf of Electric Boat Corporation, please find plans and details in support of a Special Permit, Site Plan and CAM Application for the proposed South Yard Assembly Building located at 75 Eastern Point Road. Included with this submission is the following:

- A completed Application (Form 1, Form A, Zoning Table & Checklist) for the City of Groton (8 copies)
- Stormwater Management Report (4 Copies)
- Geotechnical Report (4 copies)
- A completed CAM Application (Form B) (8 copies)
- A completed Flood Development Permit Application (Form C) (8 copies)
- A check for application fees in the amount of \$1,440.00
- A plan set entitled, "South Yard Assembly Building", dated 02/13/2019 (8 copies)

A check for Technical Review Services (BL Companies) in the amount of \$190,500 will be submitted by Electric Boat directly.

Please do not hesitate to contact us with any questions or comments regarding this information.

Sincerely,

Kristen E. Solloway, PE  
Vice President

Enclosures: Listed above

c: Paul Harren, Electric Boat Corporation

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Corres.

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Manchester, CT  
06040

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California

Connecticut

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Massachusetts

New Hampshire

Rhode Island

Vermont

Application No.: \_\_\_\_\_

FOR OFFICE USE ONLY Fee Paid: \_\_\_\_\_ Date of Submission: \_\_\_\_\_

Final Action: Approved: \_\_\_\_\_ Denied: \_\_\_\_\_ Withdrawn: \_\_\_\_\_ Date of Action: \_\_\_\_\_  
Approved w/ Conditions: \_\_\_\_\_ Action By: \_\_\_\_\_



**City of Groton, CT**  
**Department of Planning & Economic Development**

**Form 1 - Planning and Zoning Application**

*Submit all applications and fees in person at the  
Building and Zoning Department, 295 Meridian St, Groton, CT 06340  
M-F between 8:00AM – 4:30PM.*

*For more information please visit us at the above address or call to schedule an appointment:  
City Planner: 860-446-4169, Dennis Goderre, ASLA, AICP CUD*

**Important Considerations**

Applications that require Planning and Zoning Commission review must be submitted three (3) weeks in advance of a regularly scheduled meeting date. See the Planning and Zoning webpage for schedules. Eight copies of all application materials shall be submitted unless otherwise directed by staff. PDF of all application material shall accompany the submission and all fees paid at time of application.

The application will be received at the next regularly scheduled meeting that follows the date of submission. If the meeting is canceled, the date of receipt will remain the date the meeting would have occurred. The Commission will not review the application at this meeting. The Commission will review the application, and if appropriate, take action to approve or deny the application at the following meeting (approximately six (6) weeks following the date of submission). This will allow time for staff review and the applicant to respond to staff comments. More time may be warranted. If a public hearing is required, the hearing may not occur until the second meeting following the date of receipt.

NOTE: Prior to making application a Pre-application meeting is recommended as outlined in Section 9.1 of the Zoning Regulations.

**Application Type**

Select all application(s)<sup>1</sup> you are applying for and attach the completed form(s) as referenced:

- |  |  |
|--|--|
| <input type="checkbox"/> Zoning Permit (Form A)                                | <input type="checkbox"/> Subdivision/Lot Line Revision (Form D)          |
| <input checked="" type="checkbox"/> Site Plan (Form A inc. Zoning Table)       | <input type="checkbox"/> Lot Combination (Form D)                        |
| <input checked="" type="checkbox"/> Special Permit (Form A) (See footnote one) | <input type="checkbox"/> Zoning Amendment (Map) (Form E)                 |
| <input checked="" type="checkbox"/> Coastal Area Management (Form A and B)     | <input type="checkbox"/> Zoning Amendment (Text) (Form E)                |
| <input checked="" type="checkbox"/> Floodplain Development (Form A and C)      | <input type="checkbox"/> Site Plan Subdivision – Major Mod. <sup>2</sup> |

<sup>1</sup> If new exterior building construction or site improvements are proposed a Site Plan approval is required in addition to a Special Permit

<sup>2</sup> Utilize all relevant forms resubmitting as required above.

Application No.: \_\_\_\_\_

### Property Information

Property Address<sup>3</sup>:

75 Eastern Point Road Groton, CT 06340

Property Size: 74.89 Acres \_\_\_\_\_ SF In flood zone: Yes<sup>4</sup>  No  In CAM Zone: Yes<sup>5</sup>  No

Zoning District(s): Industrial / Technology Zone

Parcel ID 168810379073 Information can be obtained at <http://maps.groton-ct.gov/apps/GrotonViewer/>

*If more than one property is part of the project, separate application forms and fees must be submitted for each property.*

### Property Owner Information

Name(s): Electric Boat Corporation

Street Address: 75 Eastern Point Road

City: Groton

State: Connecticut

Zip Code: 06340

Phone: \_\_\_\_\_

Mobile: \_\_\_\_\_

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

### Applicant Information

*Note: Designer/representative/architect/engineer is NOT the applicant (see Agent contact information below).*

Please check if Applicant is the same as Property Owner

Name: Paul Harren

Company: Electric Boat Corporation

Address: 75 Eastern Point Road

City: Groton

State: CT

Zip Code: 06340

Phone: (860)433-5947

Mobile: (860)750-3682

Email: pharren@gdeb.com

### Agent/Primary Point of Contact (may be designer/representative/architect/engineer)

Name: Kristen Solloway

Company: Fuss & O'Neill, Inc.

Address: 146 Hartford Rd

City: Manchester

State: CT

Zip Code: 06040

Phone: (860)646-2469 x5344

Mobile: (860)655-8026

Email: ksolloway@fando.com

<sup>3</sup> Address shall correspond to the address identified on the Assessor's Property Information <http://maps.groton-ct.gov/apps/GrotonViewer/>

<sup>4</sup> If within a Flood Protection Overlay Zone Form C must accompany this application. See Section 5.3 FP Overlay Zone

<sup>5</sup> If in a CAM area Form B must accompany this application. See Section 5.2 CAM Zone

**Signatures (all owners)**

By signing below it is acknowledge that;

1. This entire application must be completed, signed, and submitted with the required fee(s) and map(s) prepared in accordance with the applicable regulations or the application may be deemed incomplete or be denied;
2. This application constitutes the property owner's permission for the commission or its staff to enter the property for the purpose of inspection;
3. The applicant agrees to pay all additional fees and/or address such costs deemed necessary by the Department of Planning and Economic Development as described in the City Fee Ordinance; and
4. That the information provided herein and any supplemental information that may be provided in support of the application is accurate to the best of my knowledge and truthfully represents the information it is intended to support, including but not limited to, property descriptions, use descriptions, calculations, and methods and means of construction and all representations made.

Applicant: Paul Harren Date: 2/12/19

Printed Name: Paul Harren

Agent: Kristen Solloway Date: 2/13/2019

Printed Name: Kristen Solloway

Owner(s) of Record:

Owner: \_\_\_\_\_ Date: \_\_\_\_\_

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

If held in a Trust, name of Trust: \_\_\_\_\_

Owner: \_\_\_\_\_ Date: \_\_\_\_\_

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

Owner: \_\_\_\_\_ Date: \_\_\_\_\_

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



**City of Groton  
Department of Planning & Economic Development**

**Form A: Zoning Permit, Site Plan and Special Permit**

Refer to Section 9 Administrative Provisions of the Zoning Regulations for all application procedures in addition to those listed upon this form.

**The Form A - Zoning Table must be attached to this form.**

**District**

Zoning District(s): 1. I / T \_\_\_\_\_ 2. \_\_\_\_\_

**Proposed Use**

List the Principal Use(s) you are requesting permits for (See applicable district regulation):

- |                          |          |
|--------------------------|----------|
| 1. <u>I / T #4</u> _____ | 3. _____ |
| 2. _____                 | 4. _____ |

List the Accessory Use(s) you are requesting permits for (See applicable district regulation):

- |          |          |
|----------|----------|
| 1. _____ | 3. _____ |
| 2. _____ | 4. _____ |

**Project Narrative**

On the following page describe the proposed project/request being as detailed as possible. The Project narrative helps to establish the use(s) listed above for which the permit will be issued. At minimum, it shall include the following information:

- a. Describe the nature of use(s) and associated activities. Be as detailed as possible.
- b. Describe all natural resources including but not limited to inland wetlands, flood areas and coastal resources as defined in C.G.S. Section 22a-93
- c. Methods, timing, schedule, sequence of construction and staging
- d. SF of existing and proposed buildings; Number of stories of buildings/additions
- e. Number of employees
- f. Description of utilities
- g. Number of parcels upon which improvements are proposed
- h. Quantity of parking required and proposed and itemized by principal use
- i. Hours of operation
- j. Number of residential units
- k. For mixed use, breakdown by SF of each use and number of residential units
- l. *For Special Permits, provide a separate narrative explaining how the application addresses each Special Permit Criteria explained in Section 9.4.D.*



## Special Permit Narrative

The following items are being requested as part of the Special Permit Application:

### 1. Section 4.4.E – Dimensional Standards (Building Height):

Electric Boat is within the IT – Industrial/Technology Zone. ***“Section 4.4.E – Dimensional Standards states the Maximum Building Height is 75 feet and the Commission may, by Special Permit, authorize a building height above 75 feet when such additional height is needed for a specific manufacturing process or operational consideration.”***

Due to the size of the new Columbia Class Submarine which is longer and taller than previous classes of submarines the building is required to be a maximum of 160 ft. in height. The top of roof is at 145 ft. – 8 in. with a moffit ridge vent of another 10 to 15 ft. maximum. This is to allow space for construction of the submarine, the indoor crane and room for trades’ crews to work on and above the submarine.

There will be a boiler stack associated with this building. The height of the boiler stack is required to be 10 ft. above the roof, thus the maximum height will be 170 ft. ***Section 8.2.B1 states “The height provision of these Regulation shall not apply to the erection of church spires, belfries, towers designated exclusively for ornamental purposes, flagstaffs, chimneys, flues or gas holders.”*** The boiler stack is considered a chimney and therefore, is exempt from the height provisions.

### 2. Section 7.6 Outdoor Lighting

Section 7.6.C.2 states ***“In all non-residential districts and in all areas adjacent to a residential lot, no externally-mounted direct light source shall be visible at the lot line at ground level or above. The direct illumination measured at the lot line shall be zero (0.0) foot-candles, excluding driveway entrances.”*** The wall mounted light fixture on the east side of the SYAB will include a glare shield so the light source will not be visible at the lot line. In addition, the direct illumination at the lot line shall not exceed 0.0 foot-candles. The wall mounted light fixtures on the west side of the building will be a full cut off light fixture. All pole mounted lights will be full cut off fixtures.

Section 7.6.C.5 states ***“the height of luminaries, except streetlights in public right-of-ways, shall be minimum height necessary to provide adequate illumination, but shall not exceed a height of eighteen (18) feet. The height of a luminaire shall be measured from the finished grade (not the top of a supporting concrete base) to the bottom. “***

***Section 7.6.D.3. – The Commission may, by special permit, allow lighting that does not complete with the requirements of this Section provided the Commission determine, in its sole discretion, that such proposed lighting is consistent with the purpose of these Regulation. a. That an extraordinary need for security exists because of a history of vandalism or other objective means.***

Due to the high security and operations of the facility, it is not feasible to have standard pole mounted lights that comply with the City regulations. In order to ensure there is adequate lighting to safely maneuver components in the yard, it is necessary to have wall mounted lighting above the 18 ft. height requirement. Wall mounted lights will be provided on all sides of the building. There will be 20 foot high lights on the west side, 40 foot and 8 foot high lights on the east side and 40 foot high lights on the north and south sides of the building. The 20 ft. and 40 ft. lights are higher than the 18 ft. high allowable light, however, the top of the 40 foot high wall mounted lights will be 15 ft. below Eastern Point Road. Lighting levels will be diminished to 0.2 foot candles 180 ft. east of the building. It should be noted that the property line is another 337 ft. east and the property line is 552 ft. east of the SYAB.

Other site lighting on poles will be mounted on either 15 ft. or 18 ft. poles which complies with these regulations.

### 3. Section 7.7.C.1 Stormwater Management

This Section states *“Unless modified by the Commission as provided in Section 7.7.D below, and development within the City of Groton shall implement the following provisions of Chapter 7 of the Connecticut Stormwater Quality Manual (CSQM) as amended:*

*a. Pollutant Reduction (CSQM Section 7.4).*

We are not treating stormwater runoff from the roof of the SYAB. The building is located over the Thames River and has no significant sources of pollution that may adversely impact stormwater quality. The water quality of the discharge will be monitored as a requirement of State stormwater permitting.

*b. Groundwater Recharge and Runoff Volume Reduction (CSQM Section 7.5).*

We cannot infiltrate stormwater at this site. Bedrock is present at shallow depths, and the project area is located in a congested industrial setting in a tidal zone along the Thames River. We are proposing to use secondary treatment methods including deep sump catch basins and hydrodynamic separators sized to treat the water quality flow (WQF).

*c. Peak Flow Control (CSQM Section 7.6) for the 10-year, 25-year, and 100-year storm events.*

We cannot provide subsurface detention at this site to mitigate the slight increase in peak flow rates. Bedrock is present at shallow depths, and the project area is located in a congested industrial setting in a tidal zone along the Thames River.

#### **Project Narrative:**

*a. Describe the nature of use(s) and associated activities. Be as detailed as possible.*

Electric Boat Corporation (EB), the nation's premier manufacturer of submarines for the United States Navy, will design and build the Columbia class submarine, the next-generation of ballistic-missile submarines, to replace the Ohio class submarines scheduled for retirement starting in 2027. This next generation of submarines will be constructed at the EB shipyard facility located at 75 Eastern Point Road in Groton, Connecticut.

In order to meet the demand and delivery schedule for this critical national defense asset, as required by the United States Navy, EB has prepared and implemented a Facility Master Plan (FMP) with an accelerated schedule for design and construction of a new, state-of-the-art manufacturing facility on the southern portion of their property. This new facility will allow for construction of the Columbia class submarines while the Virginia class submarines are constructed in the existing facilities.

The proposed manufacturing facility is located in the South Yard Assembly Building (SYAB). The facility will allow for efficient construction and launching of the new submarines. The SYAB is a 624-ft. long and 317-ft. wide steel structure that is founded on concrete filled steel tube piles that extend as much as 90 ft. to bedrock. The structure projects out over the New London Harbor portion of the Thames River. Bulkheads and piers are located on either side of the structure to allow for docking of transport barges and shuttles delivering materials and modules for the submarines. The SYAB is supported by a Utility Building adjoining to the east. The Utility Building will provide new utility services drawing from existing facility utilities and also from public utilities located in Eastern Point Road. A future module outfitting building is also planned to house module fit-up and testing facilities, as well as provide trade-related support spaces.

EB's FMP includes construction of the following facility improvements:

- SYAB – A new manufacturing building founded on steel piles over the harbor to allow for construction of two Columbia class submarines concurrently.
- Module Outfitting Building – A future building to be located east of the SYAB for testing of system modules and to provide trade-related support spaces.
- Utility Building and Utility Connections – A utility building to house primary utility infrastructure to support the SYAB and the future Module Outfitting Building. New utility connections for the utility building will come from existing facility utilities as well as public utilities in Eastern Point Road.
- Bulkheads and Piers – Constructed on the north and south sides of the SYAB to allow barges to deliver materials and modules for construction of the submarines.
- Floating Dry Dock – A floating dry dock (FDD) located to the south of the SYAB to move completed submarines from the SYAB into position for launching.
- Submerging Basin – A dredged area adjacent to the FDD that will provide the required draft to launch the completed submarines.
- Wastewater Pump Station – A wastewater pump station adjacent to the SYAB with sufficient capacity to support ship building and testing activities pumping wastewater up to sanitary sewer main located in Eastern Point Road.
- Electrical Receiving Station – An electrical receiving station constructed along Eastern Point Road and fed from the Groton Utilities power distribution system to provide sufficient power to the SYAB and future Module Outfitting Building.

- Railroad Track Renovations – Renovations to the existing railroad tracks that enter the site from the south utilized to deliver materials and components for construction of the submarines.
- Construction Road – A construction road providing access from Eastern Point Road. The construction road will run along the southern edge of the property and then over a portion of existing railroad tracks to allow for deliveries during construction.
- Stormwater Management – Replacement of existing stormwater management systems and implementation of new stormwater systems designed to remove oils and suspended solids from runoff prior to discharge to the Thames River.

The 74.89 acre property is bounded by Eastern Point Road to the east and residential areas beyond, Thames Street to the north, the Thames River (New London Harbor) to the west, and the Buckeye Terminal petroleum storage facility to the south.

***b. Describe all the natural resources including but not limited to inland wetlands, flood areas and coastal resources as defined in C.G.S. Section 22a-93***

**Wetlands Description**

As depicted in Figure 1, three wetlands (A, B, and C) and two watercourses (1 and 2) were delineated in the South Yard Project Area

**Wetland A** is an approximately 375-sq ft feature located along the southern site boundary that meets both the ACOE and City definition of a wetland. Wetland A is a man-made feature created as a transition between an underground stormwater pipe outlet and a culvert under an existing railroad line. Wetland A is located in a nearly level area, between the base of a steep slope to the east and the base of railroad fill to the west. The vegetation is predominantly hydrophytic emergent marsh species with sparse shrubs along the periphery. The dominant herbaceous vegetative species are common reed (*Phragmites australis*), spotted touch-me-not (*Impatiens capensis*), slender-leaved goldenrod (*Euthamia caroliniana*), river-bank grape (*Vitis riparia*), climbing nightshade (*Solanum dulcamara*), eastern poison ivy (*Toxicodendron radicans*), and dock-leaf smartweed (*Persicaria lapathifolia*). The dominant shrub species on the wetland periphery are gray willow (*Salix bebbiana*) and black elder (*Sambucus nigra*). Soils are poorly drained and comprise mucky sand overlying coarse loamy sand. The underlying mineral soil component directly below the dark, mucky surface exhibits a depleted matrix with redoximorphic concentrations, which classify it as a hydric soil (Depleted Below Dark Surface) according to the ACOE delineation manual. At the time of the delineation, evidence of wetland hydrology included surface water/saturation, sparsely vegetated concave surface, water-stained leaves, oxidized rhizospheres, the presence of iron reduction, and several other secondary hydrologic indicators.

**Wetland B** is an approximately 864-sq ft isolated depression located at the base of the steep slope to the east and the railroad fill to the west that meets both the ACOE and City definitions of a wetland. The sources of hydrology are apparently a stormwater outlet pipe upslope to the east and the seasonal high water table. This is a mowed/maintained man-made feature that is functioning as a wetland. It is primarily devoid of vegetation; however, there are sedge species (*Carex* sp.) along the periphery. Stantec was unable to identify the sedge species because they were mowed at the time of the field delineation. Soils are a poorly drained, thin, mucky, sandy surface overlying a horizon of loamy sand and silt loam.

Deeper horizons appeared to be natural, buried soil so the uppermost horizons appeared to be fill that has developed hydric soil characteristics over time. The underlying mineral soil component directly below the mucky surface exhibits a depleted matrix with redoximorphic concentrations, which classify it as a hydric soil (Redox Depressions). At the time of the delineation, evidence of wetland hydrology included saturation, sparsely vegetated concave surface, water-stained leaves, oxidized rhizospheres, the presence of iron reduction, and several other secondary hydrologic indicators.

**Wetland C** is an approximately 500-sq ft. isolated depression located between a cut bedrock face and the railroad tracks within the railroad fill, and it meets both the ACOE and City definition of a wetland. The source of hydrology is apparently the seasonal high water table. This is a maintained man-made feature that is functionally a wetland. It is primarily devoid of vegetation; however, there are *Carex* species along the periphery. Stantec nor Fuss & O'Neill were unable to identify the sedge species because they were mowed at the time of the field delineation. Soils are poorly drained and classified as a hydric soil (Histic Epipedon), with approximately 9 inches of muck overlying bedrock. At the time of the delineation, evidence of wetland hydrology included saturation, sparsely vegetated concave surface, water-stained leaves, oxidized rhizospheres, the presence of iron reduction, and several secondary hydrologic indicators.

**Watercourse A** is located along the southern property boundary whose hydrology is provide for Wetland A discharge via a culvert. The watercourse begins at the culvert outlet on the western side of the railroad and flows westerly to where it discharges to the Thames River. Watercourse A is a narrow feature (1 to 3 ft. wide) that functions primarily for stormwater conveyance. It has a defined channel created by the action of flowing water and a mineral substrate consisting of cobbles, sand, and gravel that is primarily devoid of upland vegetation.

**Watercourse B** was previously delineated by Stantec on September 19, 2016. It is a manmade ditch that receives stormwater runoff from adjacent developed areas (i.e., roads, parking areas, and other impervious surfaces) and from a drainage pipe outlet at its northern end. The eastern and southern sides consist of a vertical, blasted, bedrock wall that is over 20 ft. in height on the east and tapers to ground elevation to the south. The opposite side is bordered by a paved and concrete staging area. Between the bedrock wall and paved staging area this stormwater drainage ditch is approximately 4 to 5 ft. wide and 3 ft. in depth with sparse sediment deposition from runoff and hydrophytic vegetation. The ditch terminates at and empties into a drainage culvert that passes under the rail line and discharges directly into the Thames River. While the majority of this feature does not meet the City's definition of a watercourse, consultation with City Planning and Zoning Commission representatives in 2016 indicated that Watercourse B is a jurisdictional watercourse under the Regulations for the Preservation of Inland Wetlands and Watercourses. Watercourse B does not meet the ACOE definition of a Waters of the United States because the watercourse does not contain an ordinary high water mark as the channel is artificially created by excavation in bedrock and was not established by fluctuations of water and, therefore, will only be jurisdictional by the City.

In summary, Watercourse A and the three wetlands within the delineated area meet the ACOE definition of a Waters of the United States and the City's definition of Inland Wetland or Inland Watercourse. Watercourse B does not meet the ACOE definition of a Waters of the United States, but does meet the City's definition of a watercourse.

No tidal wetlands were identified within the delineation area.

A Wetlands application was submitted to the City's Conservation Commission simultaneously with this submission.



**Figure 1. Baseline surveys completed in the South Yard Project Area**

### Flood Areas

The SYAB is located approximately 160' south of Building 132, the northeastern portion of the building will be situated on land and the balance will be constructed over the Thames River. A supporting Utility Building will be located east and adjacent to the SYAB. This part of the south yard is partially within the FEMA 100-year floodplain (AE zone) and VE zone (an area with additional hazards due to storm induced wave action). The Base Flood Elevation (BFE) of the AE zone is 11' while the BFE of the VE Zone is 14'. The Utility Building will fall within Flood Design Class 2, which requires buildings to have a finished flood elevation of 1 foot above the BFE. Therefore, the minimum finish floor elevation (NAVD 88 datum) of that building is 16.7', which is compliant with the City's Flood Protection Overlay Zone regulations.

Electric Boat was granted relief from the following provisions in Section 5.3 FP - Flood Protection Overlay Zone Regulations at the City of Groton Zoning Board of Appeals meeting on January 29, 2019:

**1. Sections 5.3.G. and 5.3.H Requirements in Zones A and AE**

**5.3.G.2 – Non-Residential – All new construction ... of non-residential structures shall have the lowest floor ... elevated, dry flood-proofed, or wet flood-proofed to or above the base flood elevation plus one foot ....**

**5.3.H.3 – All new construction .... shall be elevated so that the bottom of the lowest supporting horizontal member .... is located above the base flood elevation plus one foot, with all space below the lowest supporting member open as not to impede the flow of water.**

Due to launching and receiving requirements, the SYAB needs to be set at elevation 12.5' (15.13 EBF) and the bottom of the lowest supporting horizontal member of the utility tunnels will be at elevation - 0.75'. These are below the BFE of 14.0' for the VE zone.

ASCE 24-14 Section 6.3.1.3 states that wet flood-proofing of enclosed areas below the flood elevations shall be limited to structures that are functionally dependent and in close proximity to the water. A “Functionally Dependent Use or Facility” is defined in Section 5.3.d of the Zoning Regulations as:

*A use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers and ship building and ship repair facilities. The term does not include seafood processing facilities, long term storage, manufacturing or sales or service facilities.*

The SYAB falls within this definition as it is a ship building facility.

**2. Section 5.3.H Requirements in Zone VE (Coastal High Hazard Areas)**

**5.3.H.2 - All new construction ... shall be located landward of the reach of the Connecticut Coastal Jurisdiction Line as defined in CGS 22a-359 as amended by Public Act 12-101.**

The Connecticut Coastal Jurisdiction Line is located at elevation 2.1'. The majority of the Assembly Building is beyond this limit.

The Electric Boat property is not in a floodway, so provisions concerning issues related to impacts on floodways are not applicable.

**Coastal Resources**

The Electric Boat property falls within the 1000-foot Coastal Boundary and is subject to the provisions of Chapter 444 of the Connecticut General Statutes (CGS Section 22a-90 through 22a-115)

This project is exempt from the Coastal Resource Setback per Section 5.2.D.2 (b) of the Zoning Regulations as it is a water-dependent use.

See CAM Form B for full Coastal Resource discussion.

***c. Methods, timing, schedule, sequence of construction and staging***

Sequence of Construction/Schedule (Preliminary)

Mobilization – July/Aug 2019  
Sitework & Utilities – Sept. 2019  
Bulkheads  
In Water Caissons – Oct. 2019  
Deck Placement  
Land Caissons  
Structural Steel – Aug. 2020  
Roofing & Siding  
Mezzanines  
Mechanical, Electrical & Plumbing  
Crane Installation  
Fitout  
Building Completion – by July 2023  
Dredge Submergence Basin - 2024

Hours

Normal working hours are anticipated to be from 7:00 AM to 3:30 PM. Typical workdays for water side activities will go longer than 3:30 PM. For this work we anticipate working long shifts and having a 2nd shift, along with working Saturdays and Sundays in order to meet schedule. If a second shift is utilized, it is envisioned that there will be two – 10 hour shifts with the work period from 6:00 AM to 2:00 AM.

Material Delivery

Construction deliveries over land will come into the site via a temporary construction access road along the southern property line. Construction gates will open up at 6:00 AM and close at 5:00 PM. Construction deliveries will occur throughout the work day. Additionally, large/oversized material and equipment deliveries will be coordinated with the City of Groton so as to minimize impacts. Occasionally, evening/off hour deliveries may be utilized as required to minimize impacts. To the extent practicable, as many large deliveries as possible will be made from barges on the river.

Construction Office Location

A construction field office will be located onsite. The final location is still yet to be determined. It is anticipated that the field office trailers will be at the southernmost end of the jobsite adjacent to the temporary construction road and railroad tracks.

### Parking

Construction worker parking will be offsite. Locations are still being evaluated and once a site is determined it will be provided to the City.

### Lighting

During Construction, fixed temporary light poles will be placed around the site perimeter for safety and security. It is anticipated that this lighting will not exceed night time lighting levels that exists at the current facility. Temporary light plants will be utilized as required to safely complete the specific work activity during the night time hours. Light plants will be localized to areas where specific work activities are occurring that require temp lighting, including work on the river.

### Stockpile and Storage of Materials

There is limited onsite space for the stockpiling and storage of materials. It is planned to have material deliveries scheduled on an as needed basis. It is anticipated that a significant amount of material will be barged to the site and will remain on barges until material is ready to be installed, especially for the foundation and deck construction phase.

### Blasting

A Blasting Plan will be submitted to City of Groton for approval prior to Construction. The following will be required:

1. The Contractor will be required to comply with applicable requirements in NFPA 495, "Explosive Materials Code," and prepare a blasting plan reporting the following:
  - a. Types of explosive and sizes of charge to be used in each area of rock removal, types of blasting mats, sequence of blasting operations, and procedures that will prevent damage to site improvements and structures on project site and adjacent properties.
  - b. Seismographic monitoring during blasting operations.
2. An independent testing agency, acceptable to authorities having jurisdiction, experienced in seismic surveys and blasting procedures shall perform the following services:
  - a. Report types of explosive and sizes of charge to be used in each of rock removal, types of blasting mats, sequence of blasting operations, and procedures that will prevent damage to site improvements and structures on project site and adjacent properties.
  - b. Seismic monitoring during blasting operations.
3. Geotechnical Testing Agency qualifications shall be according to ASTM E 329 and ASTM D 37470 for testing indicated.
4. A pre-excavation conference shall be conducted at the site.

### Concrete Supply

Creation of an on-site batch plant is not anticipated at this time due to limited space and the noise and dust that would be created. The current plan is to use local redi-mix suppliers. Ready Mix concrete deliveries will be coordinated with the City of Groton to minimize traffic impact(s).

### ***d. SF of existing and proposed buildings; Number of stories of buildings/additions***

See attached Exhibit 1 for a list of existing buildings square footages. The proposed SYAB is 624 feet long and 317 feet wide (197,808 sf). The building is one story with a mezzanine with a maximum

building height of 160 ft. The top of roof is at 145 ft. – 8 in. with a moffit ridge vent of another 10 to 15 ft. maximum.

***e. Number of employees***

Electric Boat currently staffs approximately 8,000 employees including on-site Navy personnel and long-term vendors at their Groton Shipyard facility. The trades are spread over three (3) shifts in their Groton shipyard. The table on the following page outlines the anticipated employee projections over the next ten (10) years. These projections are approximate and based on certain expectation of future work and production schedule which has not yet been contracted with the Navy.

**Electric Boat Groton Shipyard Employee\* Projections**

Year	Employees			
	Total	1st Shift	2nd Shift	3rd Shift
2019	8,000	6,600	1,100	300
2020	8,000	6,400	1,300	300
2021	8,300	6,400	1,500	400
2022	8,300	6,600	1,400	300
2023	8,500	6,700	1,400	400
2024	8,900	7,000	1,500	400
2025	9,000	7,200	1,400	400
2026	9,100	7,000	1,700	400
2027	9,700	7,600	1,700	400
2028	10,100	7,600	2,000	500
2029	10,900	8,200	2,200	500
2030	10,200	7,800	1,900	500

\*Includes on-site Navy personnel and long-term vendors

***f. Description of utilities***

Storm Water Management

The project area currently contains a variety of buildings and material storage areas and is mostly paved with bituminous concrete. Stormwater runoff generally flows to the west across the site following the surface topography toward the Thames River. A network of catch basins and storm sewers captures and conveys stormwater runoff and discharges it through a series of outfall pipes directly to the Thames River. These improvements will be removed or relocated to make room for the SYAB and associated infrastructure.

The elevation of Eastern Point Road is approximately 50 feet higher than the average grade of the South Yard where the SYAB and Utility Build are proposed. The ground surface generally slopes down steeply

heading west from the roadway toward the South Yard at the edge of the river. The eastern portion of the South Yard includes a level area formed by a significant cut into the slope and the underlying bedrock. At the base of this rock cut face is a drainage trench (Watercourse B) that captures stormwater runoff and some groundwater seeping from the rock face. In addition, there are two storm sewers that extend down the rock face and discharge into this drainage trench. The sewers convey stormwater from portions of Eastern Point Road and a 90-acre residential watershed to the east of the road. The discharge for this off-site water is recorded in a drainage easement in favor of the State of Connecticut, because Eastern Point Road is a State highway (SR 349). The Connecticut Department of Transportation (CTDOT) maintains a hydrodynamic separator located in an easement in EB Parking Lot J adjacent to the road to treat the runoff prior to discharge into the drainage trench. At the end of the drainage trench is a concrete headwall with a storm sewer to convey the water to the Thames River. An overflow pipe is also connected to the headwall. During larger storm events the drainage trench can be over loaded with off-site runoff leading to localized flooding in the South Yard.

The existing storm sewers and catch basins within the project area will be replaced with a new network of storm sewers and catch basins designed to capture stormwater runoff from the paved areas. A total of four hydrodynamic separators will be installed to remove oil and suspended solids from the runoff prior to discharge.

Existing sewer outfalls that discharge to the Thames River located within the proposed footprint of the SYAB will be relocated and/or combined into two new outfalls. The northern Outfall 27A will be a 30-inch RCP sewer extending through the north bulkhead. This sewer will convey runoff from the northern portion of the project area. The end of the sewer pipe will be equipped with a security grate. The southern Outfall 33A will be a 60-inch RCP sewer conveying site runoff from the southern portion of the project area as well as flow from the drainage trench. The sewer will extend through the south bulkhead and will also have a security grate.

New bituminous pavement will be installed throughout the project area. The new pavement and base materials will be designed for the heavy loads of equipment within the yard. The majority of the South Yard (the area between the southern property line and Building 132) is currently impervious surfaces (56.5% of the total area). The proposed SYAB landward layout will result in an increase of 88,600 square feet of impervious area (8.5 %) over existing conditions. The increase occurs mostly along the edge of the river where existing vegetated and rocky areas will be replaced by the SYAB.

The storm sewers extending from Eastern Point Road and down the rock face into the drainage trench will be replaced with new piping and supports. A 42-inch high concrete wall will also be installed along the edge of the drainage trench to contain the stormwater during larger storm events and prevent localized flooding in the South Yard. Stormwater runoff impounded behind the wall will be collected with a new series of drains.

A construction road will be installed to allow delivery trucks to access the project area from the south without disrupting other facility operations and queuing on Eastern Point Road. The road will extend from Eastern Point Road, run along the southern property line through existing EB Parking Lot S, and extend down to the railroad tracks running along the edge of the river. The railroad tracks will remain active, but will be flooded with ballast (crushed stone) to allow trucks to travel north over them and into

the South Yard. The portion of road extending from the existing Parking Lot S down to the railroad tracks is currently vegetated land with 8-10 percent slope. The roadway constructed in this area will be paved with bituminous concrete and equipped with two sets of catch basins and a hydrodynamic separator to collect stormwater runoff and treat it before discharging to adjacent Wetland Area A.

The railroad tracks will be renovated following completion of the SYAB including reconstruction of ballast, and replacement of concrete rail ties and underdrains. A new Outfall 33B for the underdrains is proposed midway along the new tracks to ensure proper drainage. The new outfall will discharge to the ground surface in the wooded area just west of the tracks.

Fuss & O'Neill evaluated the pre- and post-hydrologic conditions for the site. The proposed site plan has a slight increase in impervious surface which will result in a slight increase in peak discharge rates. The increase is not considered significant given the tidal setting. Subsurface detention to attenuate peak discharge rates is not possible due to the shallow depth to bedrock and the congested industrial setting along the river.

A full stormwater management report is attached to this submission.

#### Water Service

Domestic water will be provided from the Groton Utilities (GU) 12-inch water main in Eastern Point Road. An 8-inch ductile iron service line will provide 1,000 gallons per minute. The service line will extend from the water main down the hill to the Utility Building. A meter pit will be provided at the edge of the roadway behind the existing chain link fence. GU will be provided a gate key for access. The service line will cross under existing rail tracks at the site. The crossing will require a reinforced concrete protection slab, a casing pipe and shutoff valves in accordance with AREMA requirements.

Fire protection water will be provided by an extension of the existing 10-inch fire protection main at the site. The existing main currently terminates just north of the project area adjacent to Building 132. The fire main will be extended south past the SYAB and Utility Building to the FDD area. A fire service will be extended into the Utility Building, and a fire pump will be utilized to provide the required flow and pressure for the SYAB. A series of 3 hydrants will be provided in the project area with final locations specified by EB and City fire marshals.

#### Sanitary Sewers

The SYAB will utilize a new pump station and new 6-inch force main extending north through the site and then east to Eastern Point Road adjacent to Building 88. The design is based on a peak flow rate of 680 gallon per minute (gpm) though average daily flows are expected to be much lower. The force main will discharge into a manhole adjacent to Eastern Point Road which then gravity drains to a manhole in the roadway. The sewer main in the roadway is a 15-inch gravity sewer main that runs north. The gravity sewers in Eastern Point Road have been analyzed and determined to have sufficient capacity for the anticipated flows.

### Gas Service

Gas service for the SYAB will be provided by a new service line extending from the Eversource gas main in Eastern Point Road. The gas service line will be installed adjacent to the new water service line. The gas service line will provide 150,000 SCFH for the project. A meter pad will be provided at the edge of the roadway adjacent to the water meter pit.

### Electrical and Tele/Data

Electrical service will be provided by a new receiving station constructed adjacent to Eastern Point Road. The receiving station will include switch gear and transformers to provide 20 MVA of power to the SYAB.

The receiving station will also supply power to the floating dry dock area. The mooring dock will be equipped with a power subpanel.

### ***g. Number of parcels upon which improvements are proposed***

The proposed improvements are on one (1) parcel.

### ***h. Quantity of parking required and proposed and itemized by principal use***

Electric Boat has 3,800 parking spaces for 6,600 first shift employees including on-site Navy personnel and long term vendors. This complies with Section 7.1.B.7.a. This section states for Manufacturing and Industrial establishments, there must be "1 space for each 3 employees on the maximum work shift..." As required by this section, Electric Boat, since it has more than 100 employees, will submit a semi-annual affidavit certifying the number of employees on each work shift.

See Exhibit 2 for a map of Electric Boat parking and the table below for an outline of parking requirements based on employee projections for the next (10) years. The South Yard Assembly Building generated parking will not begin until 2024 and is offset by shifts in workforce based on production needs.

**Parking Requirements for EB Groton Shipyard Facility based on  
Employee Projections**

Year	Employees		Existing* Parking Spaces	Req. Parking Spaces (City of Groton)
	Total	1st Shift	EB Total	
2019	8,000	6,600	3,800	2,200
2020	8,000	6,400	3,800	2,140
2021	8,300	6,400	3,800	2,140
2022	8,300	6,600	3,800	2,200
2023	8,500	6,700	3,800	2,240
2024	8,900	7,000	3,800	2,340
2025	9,000	7,200	3,800	2,400
2026	9,100	7,000	3,800	2,340
2027	9,700	7,600	3,800	2,540
2028	10,100	7,600	3,800	2,540
2029	10,900	8,200	3,800	2,740
2030	10,200	7,800	3,800	2,600

\*Owned or controlled by EB (does not include private spaces)

***i. Hours of operation***

Electric Boat's core hours of operation are 8:00 a.m. to 5:00 p.m. The trade's employees work 3 shifts according to the following staggered work hours:

1<sup>st</sup> Shift: 6:30 a.m. - 8:30 a.m. to 3:00 p.m. – 5:00 p.m.

2<sup>nd</sup> Shift: 2:30 p.m. - 5:00 p.m. to 10:30 p.m. – 1:30 a.m.

3<sup>rd</sup> Shift: 10:30 p.m. - 12:00 a.m. to 7:00 a.m. – 8:30 a.m.

Construction Hours will be 7:00 am to 5:00 pm, Monday through Friday. Hours may be adjusted if the construction schedule dictates additional work hours such as a longer day or weekend work.

***j. Number of residential units***

Not applicable

***k. For mixed use, breakdown by SF of each use and number of residential units***

Not applicable

***1. For Special Permits, provide a separate narrative explaining how the application addresses each Special Permit Criteria explained in Section 9.4.D.***

As an industrial use proposed in the IT Zone, the project is consistent with the Zoning Regulations, the Plan of Conservation and Development, and is in harmony with other uses on the property and in the district. To the extent practicable at this previously developed industrial site, consideration has been given to the protection of environmental resources, including the mitigation of impacts that could not be avoided. The project will not have a detrimental effect on neighboring properties and will not result in any nuisances to the surrounding area, in that the proposed use is identical to existing uses on the site and will not result in any new off-site impacts. Moreover, the design of the building is in keeping with existing large assembly buildings on the EB property and therefore suitable in relation to current site characteristics. As evidenced by the traffic study, the streets in the area can accommodate the traffic that may eventually increase due to the construction of the project when EB employment increases in future years. The application materials support a finding that there are adequate public utilities and services for the project, and that such utilities and services will not be overburdened. The commitment of EB and the Navy to the development of the new Columbia class of submarines indicates that there is a long-term commitment to the sustained maintenance of the project.

**Performance Standards**

***7.8.B General Standard***

- 1. No building or use shall create any dangerous, injurious, noxious, or otherwise objectionable fire, explosive, or other hazard; noise or vibration; smoke, dust, odor or other form of air pollution; heat, cold, dampness, electromagnetic or other substance, condition or element in such manner, or in such amount, as to adversely affect the reasonable use of the surrounding area or adjoining premises (referred to herein as “dangerous or objectionable elements”); except in accordance with the performance standards set forth hereinafter.***

Electric Boat complies with this provision with its current industrial activities and, as described in more detail below, will do so as well after the construction of the SYAB and Utility Building and production of the Columbia class submarines is underway.

- 2. In addition to the performance standards set forth hereinafter, all relevant provisions of any other Federal, State and City laws and Regulations shall also apply.***

Electric Boat complies with numerous State and Federal permits regarding emissions and other discharges. There will be no discharges that are not in accordance with State or Federal statutes and regulations.

***Section 7.8.C Standards for Dangerous or Objectionable Elements –***

- 1. There will be no discharges of smoke, fly ash and other dusts, gases, fumes, odors or other dust-producing substances except in accordance with State or Federal statutes and regulations thereunder.***

Electric Boat complies with numerous State and Federal permits regarding emissions and other discharges. There will be no discharges that are not in accordance with State or Federal statutes and regulations.

- 2. All activities involving, and all storage of, inflammable and explosive materials shall be protected at any point, with adequate safety devices protecting against the hazard of fire and explosion and with adequate fire-fighting and fire-suppression equipment and devices.***

All activities will be in accordance with State Building and Fire Codes or modification thereto, as well as all Federal health and safety codes.

- 3. Heat, defined as thermal energy of a radiative, conductive or convective nature, emitted at the lot line by any use or facility shall not exceed the temperatures tolerable to plant or animal life.***

Heat will not be emitted at the lot as the east side of the building is 552 ft. from the lot line and plant and animal life will not be impaired by temperatures from this facility.

- 4. No activities shall be permitted which emit dangerous radioactivity at any point, or any equipment other than that of the creator of such disturbance.***

Electric Boat complies with all Federal requirements for radioactive materials and follows a strict radiation program.

- 5. The maximum sound pressure level radiated at the lot or street line by any use or facility shall not exceed the values tolerable in a specifically affected residential neighborhood, unless such levels are specifically authorized as an integral part of a Special Permit approval and Site Plan Approval.***

A noise study is being performed and will be submitted upon completion.

- 6. No vibration will be detected without instruments at the lot or street line.***

There will be no vibrational impacts at the property line.

7. *There will be no glare caused by direct or specifically reflected rays from incandescent, fluorescent, or arc lighting, or caused from high temperature processes, such as welding or metallurgical refining, or caused by diffuse reflection from surface, such as a wall or roof of a structure, shall not be permitted at or beyond a lot line.*

The lot line is 552 ft. from the eastern edge of the SYAB. There will be no glare or reflections at or beyond the lot line.

8. *There will be no discharge or deposit at any point into any sanitary sewerage systems, waterbodies, watercourses, or into the ground and materials of such quantity, nature or temperature that will contaminate any water or land or otherwise cause the emission of dangerous or objectionable elements, except in accordance with the State and City Health and/or Sanitary Code.*

All discharges into the sanitary sewer will be in accordance with State and City Health Codes.

9. *There will be no waste materials used for fill.*

The site is a net export project which means more material will be taken off site than will be required for fill.

10. *The following detailed Erosion & Sediment control plan has been prepared for the site.*

During construction, measures will be taken to reduce erosion and manage sedimentation from disturbed surfaces. The following BMPs will be employed:

- Stormwater collection structures will be fitted with filter fabric inserts to remove sediments from the runoff prior to entering the receiving drainage systems.
- Silt fence or turbidity socks will be installed at clearing limits and the down-gradient perimeter of the disturbed portion of the site.
- Silt fence backed by hay bales will be installed around the perimeter of on-site soil stockpiles.
- Construction entrances will be installed at main points of entry to prevent tracking of sediment into local roads.
- Temporary sediment traps will be installed to capture and store on-site sediments found in runoff during construction.
- Erosion control blankets will be installed on selected disturbed slopes 3(H):1(V) or steeper.

These BMPs will protect adjacent wetlands and downstream stormwater collection systems following construction. E&S control details and narratives for construction periods are provided in the site plans. Temporary Sediment Trap Sizing calculations are included on the Erosion and Sediment Control Plans (separate bound). Erosion and sediment control details and procedures are consistent with the 2002 Guidelines for Soil Erosion and Sedimentation Control (CTDEEP Bulletin 34), and City requirements.

**EXHIBIT 1 BUILDING SQUARE FOOTAGES (Updated 02-07-17)**

BUILDING NO.	TITLE	FOOT PRINT SQUARE FOOTAGE	% OF PROPERTY TOTAL PROPERTY (111.88 ACRES)	% OF PROPERTY WEST OF EASTERN POINT ROAD (74.8 ACRES)	% OF PROPERTY EAST OF EASTERN POINT ROAD (37.08 ACRES)	FLOOR NO.	GROSS FLOOR SQUARE FOOTAGE	TOTAL GROSS SQUARE FOOTAGE
001	CENTRAL SHOP	79,881	1.6391	2.4516	0.0000	1st	79,881 SQ. FT.	128,306 SQ. FT.
						2nd	48,425 SQ. FT.	
001A	SHIPYARD WORK CONTROL CENTER (SWCC)	5,698	0.1169	0.1749	0.0000	1st	5,648 SQ. FT.	16,994 SQ. FT.
						2nd	5,648 SQ. FT.	
						Basement	5,698 SQ. FT.	
003A	PAINTER MANAGEMENT	1,114	0.0229	0.0342	0.0000	1st	1,114 SQ. FT.	2,228 SQ. FT.
						2nd	1,114 SQ. FT.	
001B	SHEETMETAL / PLANNING	9,256	0.1899	0.2841	0.0000	1st	9,256 SQ. FT.	17,726 SQ. FT.
						2nd	8,470 SQ. FT.	
001D	POWER HOUSE	7,115	0.1460	0.2184	0.0000	1st	7,115 SQ. FT.	7,115 SQ. FT.
001E	MAINTENANCE	10,156	0.2084	0.3117	0.0000	1st	8,498 SQ. FT.	19,125 SQ. FT.
						2nd	8,275 SQ. FT.	
						Mezzanine	2,352 SQ. FT.	
003	HEATING PLANT	4,208	0.0863	0.1291	0.0000	1st	4,208 SQ. FT.	4,208 SQ. FT.
004	R&D, ENGINEERING & LABS	28,909	0.5932	0.8873	0.0000	Basement	8,576 SQ. FT.	80,546 SQ. FT.
						1st	28,909 SQ. FT.	
						2nd	13,148 SQ. FT.	
						Offices Over Lab Area	2,465 SQ. FT.	
						Ivory Tower	1,200 SQ. FT.	
						3rd	13,100 SQ. FT.	
4th	13,148 SQ. FT.							
007	INDUSTRIAL HYGIENE / SAFETY	3,015	0.0619	0.0925	0.0000	1st	3,015 SQ. FT.	6,030 SQ. FT.
						Basement	3,015 SQ. FT.	
008N	GRAVING DOCK SUPPORT BUILDING	8,307	0.1705	0.2550	0.0000	1st	8,307 SQ. FT.	24,921 SQ. FT.
						2nd	8,307 SQ. FT.	
						3rd	8,307 SQ. FT.	
008S	GRAVING DOCK SUPPORT BUILDING	6,715	0.1378	0.2061	0.0000	1st	6,715 SQ. FT.	20,145 SQ. FT.
						2nd	6,715 SQ. FT.	
						3rd	6,715 SQ. FT.	
009	350KW GENERATOR ROOM	226	0.0046	0.0069	0.0000	1st	226 SQ. FT.	226 SQ. FT.
010	PIER "A"	7,956	0.1633	0.2442	0.0000	Concrete Area	7,956 SQ. FT.	7,956 SQ. FT.
011	MAIN GATE	1,052	0.0216	0.0323	0.0000	1st	1,052 SQ. FT.	1,052 SQ. FT.
012	SECURITY GUARD TOWER SOUTH YARD	100	0.0021	0.0031	0.0000		100 SQ. FT.	100 SQ. FT.
013	SECURITY GUARD TOWER G/D #3	PART OF BUILDING #263	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE		100 SQ. FT.	100 SQ. FT.
015	MISSILE TUBE PROTOTYPE HULL SECTION NOT INCLUDED	1,233	0.0253	0.0378	0.0000	1st	1,233 SQ. FT.	3,279 SQ. FT.
						2nd	1,023 SQ. FT.	
						3rd	1,023 SQ. FT.	
016	MOCKUP BUILDING	14,044	0.2882	0.4310	0.0000	1st	14,044 SQ. FT.	21,607 SQ. FT.
						2nd	7,563 SQ. FT.	
016A	MOCKUP BUILDING	1,652	0.0339	0.0507	0.0000	1st	1,652 SQ. FT.	1,652 SQ. FT.
016J	MOCKUP BUILDING	34,139	0.7005	1.0478	0.0000		34,139 SQ. FT.	37,322 SQ. FT.
						Toilets (Mezzanine)	480 SQ. FT.	
						2nd Deck	2,703 SQ. FT.	
016J ADDITION	MOCKUP BUILDING	9,730	0.1997	0.2986	0.0000	1st	9,730 SQ. FT.	10,884 SQ. FT.
Mezzanine	1,154 SQ. FT.							
018A	PORTABLE TRAILER	1,335	0.0274	0.0410	0.0000	1st	1,335 SQ. FT.	1,335 SQ. FT.
018B	PORTABLE TRAILER	1,335	0.0274	0.0410	0.0000	1st	1,335 SQ. FT.	1,335 SQ. FT.
018C	PORTABLE TRAILER	1,335	0.0274	0.0410	0.0000	1st	1,335 SQ. FT.	1,335 SQ. FT.
020	DOCKMASTER BLDG.	473	PART OF GRAVING DOCK #1 BLDG. #155	PART OF GRAVING DOCK #1 BLDG. #155	0.0000	1st	473 SQ. FT.	473 SQ. FT.
021	OLD EL-BOLERO	2,515	0.0516	0.0772	0.0000	1st	2,515 SQ. FT.	4,919 SQ. FT.
						Basement	2,404 SQ. FT.	
023	FIRE HOUSE	9,276	0.1903	0.2847	0.0000	1st	9,276 SQ. FT.	9,276 SQ. FT.
026	DEPT 252 POLY SHOP	PART OF BUILDING #105	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	1st	2,405 SQ. FT.	7,215 SQ. FT.
						2nd	2,405 SQ. FT.	
						3rd	2,405 SQ. FT.	

**EXHIBIT 1 BUILDING SQUARE FOOTAGES (Updated 02-07-17)**

BUILDING NO.	TITLE	FOOT PRINT SQUARE FOOTAGE	% OF PROPERTY TOTAL PROPERTY (111.88 ACRES)	% OF PROPERTY WEST OF EASTERN POINT ROAD (74.8 ACRES)	% OF PROPERTY EAST OF EASTERN POINT ROAD (37.08 ACRES)	FLOOR NO.	GROSS FLOOR SQUARE FOOTAGE	TOTAL GROSS SQUARE FOOTAGE
029	LEAD WORKERS SHOWER FACILITY	4,350	0.0893	0.1335	0.0000	1st	4,350 SQ. FT.	8,236 SQ. FT.
						2nd	3,886 SQ. FT.	
030	SHEET METAL SHOP & ELECTRONICS LAB	16,097	0.3303	0.4940	0.0000	1st	16,097 SQ. FT.	26,228 SQ. FT.
						2nd	10,131 SQ. FT.	
032	COATS FACILITY	29,273	0.6007	0.8984	0.0000	1st	28,122 SQ. FT.	64,680 SQ. FT.
						2nd	17,870 SQ. FT.	
						3rd	16,658 SQ. FT.	
						Machine Rm.	2,030 SQ. FT.	
035	EDUCATION SERVICES ACCOUNTING	11,557	0.2371	0.0000	0.7155	1st	10,921 SQ. FT.	22,478 SQ. FT.
						Basement	11,557 SQ. FT.	
036	WIND TUNNEL	1,066	0.0219	0.0327	0.0000	1st	1,066 SQ. FT.	1,066 SQ. FT.
038	ELECTRICAL SHOP	12,478	0.2560	0.3830	0.0000	1st	12,478 SQ. FT.	14,178 SQ. FT.
						2nd	1,700 SQ. FT.	
045	CSC OFFICES (Demo 2009)		0.0000	0.0000	0.0000	1st		
						2nd		
						3rd		
						Basement		
045A	DCAA TECHNICAL PUBLICATIONS	7,711	0.1582	0.0000	0.4774	1st	7,711 SQ. FT.	14,711 SQ. FT.
						2nd	7,000 SQ. FT.	
047	FAIRWATER STORE	6,535	0.1341	0.0000	0.4046	1st	6,535 SQ. FT.	8,235 SQ. FT.
						2nd	1,700 SQ. FT.	
051	JOINER SHOP	12,875	0.2642	0.3951	0.0000	1st	12,875 SQ. FT.	13,775 SQ. FT.
						2nd	900 SQ. FT.	
053	SAFETY OFFICE	916	0.0188	0.0281	0.0000	1st	916 SQ. FT.	1,832 SQ. FT.
						2nd	916 SQ. FT.	
055	CONTROLLED INDUSTRIAL FACILITY	8,306	0.1704	0.2549	0.0000	1st	8,306 SQ. FT.	10,424 SQ. FT.
						2nd	2,118 SQ. FT.	
056	IDD TRAILER	1,440				1st	1,440 SQ. FT.	
057	IDD TRAILER	1,440				1st	1,440 SQ. FT.	
058	IDD TRAILER	1,440				1st	1,440 SQ. FT.	
061	MAJOR COMPONENT ASSEMBLY BUILDING	22,340	0.4584	0.6856	0.0000	1st	22,340 SQ. FT.	24,806 SQ. FT.
						Mezzanine	1,285 SQ. FT.	
						Mech. Rm	1,181 SQ. FT.	
063	260 SUPPORT BUILDING	2,188	0.0449	0.0672	0.0000	1st	2,188 SQ. FT.	4,376 SQ. FT.
						2nd	2,188 SQ. FT.	
064	Co2 STORAGE	448	0.0092	0.0137	0.0000	Fenced-in Area	448 SQ. FT.	448 SQ. FT.
067	RIGGERS LOFT LIFTING & HANDLING	8,351	0.1714	0.2563	0.0000	1st	8,351 SQ. FT.	16,702 SQ. FT.
						2nd	8,351 SQ. FT.	
068	FLEET FUELING STATION & FUEL TANKS	800	0.0164	0.0246	0.0000	Canopy	800 SQ. FT.	800 SQ. FT.
069	MAINTENANCE STORAGE AREA ATTACHED TO BUILDING #3	1,669	0.0342	0.0512	0.0000	1st	1,669 SQ. FT.	2,221 SQ. FT.
						2nd	552 SQ. FT.	
070	OFFICES	5,125	0.1052	0.1573	0.0000	1st	5,125 SQ. FT.	5,125 SQ. FT.
071	MAINTENANCE STORAGE	1,155	0.0237	0.0354	0.0000	1st	1,155 SQ. FT.	1,155 SQ. FT.
075	PHYSICAL THERAPY	1,169	0.0240	0.0359	0.0000	1st	1,169 SQ. FT.	1,169 SQ. FT.
078	OFFICES	4,594	0.0943	0.1410	0.0000	1st	3,791 SQ. FT.	7,313 SQ. FT.
						Basement	3,522 SQ. FT.	
080	NAVY CREW FACILITY	17,603	0.3612	0.5403	0.0000	1st	17,603 SQ. FT.	35,206 SQ. FT.
						2nd	17,603 SQ. FT.	
081	SOUTH YARD MAIL SCREENING FACILITY	1,073	0.0220	0.0329	0.0000	Trailers	2 TRAILERS @ 280 SQ. FT. EACH PLUS LOADING PLATFORM	1,073 SQ. FT.
084	FLEET SERVICES TRANSPORTATION OFFICES	7,984	0.1638	0.2450	0.0000	1st	7,984 SQ. FT.	9,503 SQ. FT.
						2nd	1,519 SQ. FT.	
085	TRADE OFFICES (FOR DRAWING SEE BUILDING 038)	4,617	0.0947	0.1417	0.0000	1st	4,617 SQ. FT.	6,992 SQ. FT.
						2nd	2,375 SQ. FT.	
086	MAINTENANCE PAINT SHOP	1,960	0.0402	0.0602	0.0000	1st	1,960 SQ. FT.	3,920 SQ. FT.
						2nd	1,960 SQ. FT.	
087	SOUTH YARD FIRE PUMP	681	0.0140	0.0209	0.0000	Pump House	681 SQ. FT.	681 SQ. FT.

**EXHIBIT 1 BUILDING SQUARE FOOTAGES (Updated 02-07-17)**

BUILDING NO.	TITLE	FOOT PRINT SQUARE FOOTAGE	% OF PROPERTY TOTAL PROPERTY (111.88 ACRES)	% OF PROPERTY WEST OF EASTERN POINT ROAD (74.8 ACRES)	% OF PROPERTY EAST OF EASTERN POINT ROAD (37.08 ACRES)	FLOOR NO.	GROSS FLOOR SQUARE FOOTAGE	TOTAL GROSS SQUARE FOOTAGE
087	STATION	860	0.0176	0.0264	0.0000	Tank	860 SQ. FT.	860 SQ. FT.
088	TECHNOLOGY CENTER	28,136	0.5773	0.8635	0.0000	1st	24,843 SQ. FT.	245,174 SQ. FT.
						2nd	25,882 SQ. FT.	
						3rd	27,259 SQ. FT.	
						4th	25,056 SQ. FT.	
						5th	23,689 SQ. FT.	
						6th	23,689 SQ. FT.	
						7th	23,689 SQ. FT.	
						8th	23,689 SQ. FT.	
091	OFFICES	5,128	0.1052	0.1574	0.0000	1st	5,128 SQ. FT.	10,256 SQ. FT.
						2nd	5,128 SQ. FT.	
092	PROPANE STORAGE AREA	1,215	0.0249	0.0373	0.0000	Fenced-in Area	1,215 SQ. FT.	1,215 SQ. FT.
093	WELD SCHOOL	PART OF BUILDING #256	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	1st	450 SQ. FT.	900 SQ. FT.
						2nd	450 SQ. FT.	
094	BATTERY BUILDING	174	0.0036	0.0053	0.0000	1st	174 SQ. FT.	174 SQ. FT.
095	MOCKUP BUILDING	900	0.0185	0.0276	0.0000	1st	900 SQ. FT.	900 SQ. FT.
097	OCCUPATIONAL HEALTH CLINIC AND OFFICES	12,486	0.2562	0.3832	0.0000	1st	12,486 SQ. FT.	51,960 SQ. FT.
						2nd	12,486 SQ. FT.	
						3rd	12,486 SQ. FT.	
						4th	12,486 SQ. FT.	
098	CRANE REPAIR	1,267	0.0260	0.0389	0.0000	1st	1,267 SQ. FT.	1,267 SQ. FT.
104	SERVICE BUILDING	1,005	0.0206	0.0308	0.0000	1st	1,005 SQ. FT.	2,010 SQ. FT.
						2nd	1,005 SQ. FT.	
105	NORTH YARD BAYS	79,109	1.6233	2.4280	0.0000	1st	79,109 SQ. FT.	79,109 SQ. FT.
106	NORTH YARD WAYS	93,212	1.9126	2.8608	0.0000	1st	93,212 SQ. FT.	93,212 SQ. FT.
107	CARPENTERS SHOP & OFFICES	PART OF BUILDING #105	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	1st	3,308 SQ. FT.	5,975 SQ. FT.
						2nd	2,667 SQ. FT.	
109	STO SHOP & OFFICES	11,163	0.2291	0.3426	0.0000	1st	11,163 SQ. FT.	22,326 SQ. FT.
						2nd	11,163 SQ. FT.	
110	PROPANE FILLING STATION	273	0.0056	0.0084	0.0000	Canopy Area	273 SQ. FT.	273 SQ. FT.
111	LP AIR COMPRESSOR COOLING TOWERS	350	0.0072	0.0107	0.0000		350 SQ. FT.	350 SQ. FT.
112	OFFICE	658	0.0135	0.0202	0.0000	1st	658 SQ. FT.	658 SQ. FT.
113	PIPE SHOP & OFFICES	11,303	0.2319	0.3469	0.0000	1st	9,470 SQ. FT.	14,190 SQ. FT.
						2nd	2,887 SQ. FT.	
						Shed	1,833 SQ. FT.	
114	SECURITY BOAT DOCK	739	0.0152	0.0227	0.0000		739 SQ. FT.	739 SQ. FT.
115	PIER "C"	10,220	0.0000	0.0000	0.0000		10,220 SQ. FT.	10,220 SQ. FT.
116	PIER "D"	37,470	0.0000	0.0000	0.0000		37,470 SQ. FT.	37,470 SQ. FT.
119	MAIN STORES & OFFICES	9,600	0.1970	0.2946	0.0000	1st	9,600 SQ. FT.	19,676 SQ. FT.
						Mezzanine	476 SQ. FT.	
						2nd	9,600 SQ. FT.	
120	NORTH YARD 35 KV SWITCHGEAR ENCLOSURE	1,024	0.0210	0.0314	0.0000	1st	1,024 SQ. FT.	1,024 SQ. FT.
124	TIME CLOCK STATION S.Y.	250	0.0051	0.0077	0.0000	1st	250 SQ. FT.	250 SQ. FT.
126	POWER HOUSE HEATING PLANT	4,333	0.0889	0.1330	0.0000	1st	4,333 SQ. FT.	4,333 SQ. FT.
127	PRIMARY TRANSFORMER STATION	5,400	0.1108	0.1657	0.0000	Fenced-in Area	5,400 SQ. FT.	5,400 SQ. FT.
128	NUCLEAR PIPE SHOP	9,937	0.2039	0.3050	0.0000	1st	9,937 SQ. FT.	10,870 SQ. FT.
						Mezzanine	933 SQ. FT.	
129	WAREHOUSE & ENGINEERING OFFICES	40,332	0.8276	1.2378	0.0000	1st	40,332 SQ. FT.	85,438 SQ. FT.
						Mezzanine Storage	4,364 SQ. FT.	
						Mezzanine Offices	410 SQ. FT.	

**EXHIBIT 1 BUILDING SQUARE FOOTAGES (Updated 02-07-17)**

BUILDING NO.	TITLE	FOOT PRINT SQUARE FOOTAGE	% OF PROPERTY TOTAL PROPERTY (111.88 ACRES)	% OF PROPERTY WEST OF EASTERN POINT ROAD (74.8 ACRES)	% OF PROPERTY EAST OF EASTERN POINT ROAD (37.08 ACRES)	FLOOR NO.	GROSS FLOOR SQUARE FOOTAGE	TOTAL GROSS SQUARE FOOTAGE
						2nd	40,332 SQ. FT.	
130	RECEIVING, TRAINING & OFFICES	22,746	0.4667	0.6981	0.0000	1st	22,746 SQ. FT.	38,130 SQ. FT.
						2nd	15,384 SQ. FT.	
131	MATERIAL STORAGE	44,086	0.9046	1.3531	0.0000	1st	44,086 SQ. FT.	44,086 SQ. FT.
132	SOUTH YARD WAREHOUSE	36,747	0.7540	1.1278	0.0000	1st	36,747 SQ. FT.	36,747 SQ. FT.
134	OFFICE	890	0.0183	0.0273	0.0000	1st	890 SQ. FT.	890 SQ. FT.
135	RESEARCH & DEVELOPMENT	3,214	0.0659	0.0986	0.0000	1st	3,062 SQ. FT.	8,339 SQ. FT.
						2nd	2,063 SQ. FT.	
						Basement	3,214 SQ. FT.	
137	STORAGE & TRAINING	1,143	0.0235	0.0351	0.0000	1st	1,143 SQ. FT.	1,143 SQ. FT.
139	HYDROSTATIC TEST AREA	787	0.0161	0.0242	0.0000	Slab Area	787 SQ. FT.	787 SQ. FT.
140	RECTIFIER BUILDING G.D.#2	360	0.0074	0.0110	0.0000	1st	360 SQ. FT.	360 SQ. FT.
141	NORTH YARD OXYGEN STORAGE	1,166	0.0239	0.0358	0.0000	Fenced-in Area	1,166 SQ. FT.	1,166 SQ. FT.
147	AIR CONDITIONING MAINTENANCE	1,271	0.0261	0.0390	0.0000	1st	1,132 SQ. FT.	2,264 SQ. FT.
						2nd	1,132 SQ. FT.	
153	SEWAGE PUMPING STATION	206	0.0042	0.0063	0.0000	1st	206 SQ. FT.	206 SQ. FT.
154	RAD STORES LAGERS & RADCON OFFICES	27,842	0.5713	0.8545	1.7238	1st	27,842 SQ. FT.	58,380 SQ. FT.
						2nd	8,371 SQ. FT.	
						3rd	22,167 SQ. FT.	
155	GRAVING DOCK #1	96,100	0.0000	0.0000	0.0000	Center Wing Wall	26,700 SQ. FT.	26,700 SQ. FT.
						South wing Wall	26,400 SQ. FT.	26,400 SQ. FT.
						Basin	43,000 SQ. FT.	43,000 SQ. FT.
156	G.D. #1 & 2 SWITCH GEAR	884	0.0181	0.0271	0.0000	Fenced-in Area	884 SQ. FT.	884 SQ. FT.
159	NUCLEAR REPAIR FACILITY (Demo 09)		0.0000	0.0000	0.0000	1st		
						2nd		
162	SHT SUPPORT	2,869	0.0589	0.0881	0.0000	1st	2,869 SQ. FT.	2,869 SQ. FT.
163	G/D SEWAGE PUMP HOUSE	72	0.0015	0.0022	0.0000	1st	72 SQ. FT.	72 SQ. FT.
164	SYNTACTIC FOAM FACILITY	269	0.0055	0.0083	0.0167	1st	269 SQ. FT.	538 SQ. FT.
						2nd	269 SQ. FT.	
165	WATER METER ENCLOSURE	242	0.0050	0.0074	0.0000	1st	242 SQ. FT.	242 SQ. FT.
166	HAZARDOUS WASTE ACCUMULATION AREA	4,045	0.0830	0.1241	0.0000	1st	4,045 SQ. FT.	4,045 SQ. FT.
168	WATER METER PIT N.Y.	244	0.0050	0.0075	0.0000	1st	244 SQ. FT.	244 SQ. FT.
169	RADCON TRAINING	2,953	0.0606	0.0906	0.0000	1st	2,953 SQ. FT.	5,906 SQ. FT.
						2nd	2,953 SQ. FT.	
170	LUMBER STORES	2,800	0.0575	0.0859	0.0000	1st	2,800 SQ. FT.	2,800 SQ. FT.
176	FUEL OIL STORAGE	860	0.0176	0.0264	0.0000	Containment Area	860 SQ. FT.	860 SQ. FT.
179	LUMBER MECHANICAL SHED	1,680	0.0345	0.0516	0.0000	1st	1,680 SQ. FT.	1,680 SQ. FT.
180	PURE WATER FACILITY	1,439	0.0295	0.0442	0.0000	1st	1,439 SQ. FT.	1,439 SQ. FT.
181	LUMBER STORAGE OFFICE	100	0.0021	0.0031	0.0000	1st	100 SQ. FT.	100 SQ. FT.
182	NORTH YARD WAREHOUSE	11,752	0.2411	0.3607	0.0000	1st	11,752 SQ. FT.	12,571 SQ. FT.
						2nd	819 SQ. FT.	
184	X-RAY, SHOPS & ENGINEERING OFFICES	17,770	0.3646	0.5454	0.0000	1st	17,770 SQ. FT.	53,310 SQ. FT.
						2nd	17,770 SQ. FT.	
						3rd	17,770 SQ. FT.	
185	SEWAGE PUMP HOUSE	182	0.0037	0.0056	0.0000	1st	182 SQ. FT.	182 SQ. FT.
187	WATER TREATMENT SWITCH GEAR	1,600	0.0328	0.0491	0.0000	Fenced-in Area	1,600 SQ. FT.	1,600 SQ. FT.
188	MAINTENANCE CUSTODIANS	967	0.0198	0.0297	0.0000	1st	967 SQ. FT.	1,662 SQ. FT.
						2nd	695 SQ. FT.	
189	ENGINEERING & HUMAN	12,222	0.2326	0.4002	0.0000	1st	13,333 SQ. FT.	25,702 SQ. FT.
						2nd	10,869 SQ. FT.	

**EXHIBIT 1 BUILDING SQUARE FOOTAGES (Updated 02-07-17)**

BUILDING NO.	TITLE	FOOT PRINT SQUARE FOOTAGE	% OF PROPERTY TOTAL PROPERTY (111.88 ACRES)	% OF PROPERTY WEST OF EASTERN POINT ROAD (74.8 ACRES)	% OF PROPERTY EAST OF EASTERN POINT ROAD (37.08 ACRES)	FLOOR NO.	GROSS FLOOR SQUARE FOOTAGE	TOTAL GROSS SQUARE FOOTAGE
189	RESOURCES	10,350	0.2750	0.4002	0.0000	Basement	10,837 SQ. FT.	55,702 SQ. FT.
						Sub-Bsmt	4,663 SQ. FT.	
194	MAIN YARD PRIMARY TRANSFORMER STATION	5,422	0.1113	0.1664	0.0000	Fenced-in Area	5,422 SQ. FT.	5,422 SQ. FT.
195	THAMES PARKING GARAGE OFFICE	5,181 (LEASED)	0.0000	0.0000	0.0000	1st	5,181 SQ. FT.	5,181 SQ. FT.
197	NUCLEAR ENGINEERING	29,854	0.6126	0.9163	0.0000	1st	29,854 SQ. FT.	148,301 SQ. FT.
						2nd	29,854 SQ. FT.	
						3rd	29,854 SQ. FT.	
						4th	29,854 SQ. FT.	
						Basement	21,872 SQ. FT.	
200	SOUTH YARD 35KV SWITCHGEAR ENCLOSURE	1,440	0.0295	0.0442	0.0000	1st	1,440 SQ. FT.	1,440 SQ. FT.
201	PIER "E"	18,480	0.0000	0.0000	0.0000	Pier	18,480 SQ. FT.	18,480 SQ. FT.
204	GRIT BLAST AREA	326	0.0067	0.0100	0.0000	1st	326 SQ. FT.	326 SQ. FT.
210	SECURITY	3,850	0.0790	0.1182	0.0000	1st	3,850 SQ. FT.	7,612 SQ. FT.
						Basement	3,762 SQ. FT.	
211	LEAD SUPPLIES (NO DRAWING FILES EXIST)	PART OF BUILDING #105	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	1st	1,342 SQ. FT.	1,342 SQ. FT.
212	PAINT FACILITIES	9,209	0.1890	0.2826	0.0000	1st	9,209 SQ. FT.	9,209 SQ. FT.
214	SALT WATER SUCTION PUMP HOUSE	331	0.0068	0.0102	0.0000	1st	331 SQ. FT.	331 SQ. FT.
217	HEATING PLANT NORTH YARD	1,588	0.0326	0.0487	0.0000	Bldg. #1	921 SQ. FT.	1,588 sq. ft.
						Bldg. #2	667 SQ. FT.	
220	SIBERIA DOCK	5,660	0.0000	0.0000	0.0000	Pier	5,600 SQ. FT.	
221	ENGINEERING BUILDING	34,338	0.7046	0.0000	2.1259	1st	34,050 SQ. FT.	170,988 SQ. FT.
						2nd	34,200 SQ. FT.	
						3rd	34,200 SQ. FT.	
						4th	34,200 SQ. FT.	
						Basement	34,338 SQ. FT.	
222	GRAVING DOCK #2	102,500 NOT INCLUDING CENTER WING WALL	0.0000	0.0000	0.0000	Center wing Wall	26,700 SQ. FT.	26,700 SQ. FT.
						North Wing Wall	35,000 SQ. FT.	35,000 SQ. FT.
						Basin	67,500 SQ. FT.	67,500 SQ. FT.
223	PARKING LOTS (AREAS ARE APPROXIMATE) LOTS "E", "F", "G" & "J" PRIOR TO EASTERN POINT ROAD WORK "S" LOT DOES NOT INCLUDE LEASED HESS LOT	742,000	15.2253	0.0000	18.6975	"B"	302,000	742,000 SQ. FT.
				0.0000	8.7296	"E"	141,000	
				0.0000	6.8722	"F"	111,000	
				0.0000	7.4914	"G"	121,000	
				0.4297	0.0000	"J"	14,000	
				1.6266	0.0000	"S"	53,000	
232	WAREHOUSE	1,707	0.0350	0.0524	0.0000	1st	1,707 SQ. FT.	2,407 SQ. FT.
						Mezzanine	700 SQ. FT.	
238	WASTE WATER TREATMENT FACILITY	3,900	0.0800	0.1197	0.0000	1st	3,900 SQ. FT.	3,900 SQ. FT.
241	ARGON & NITROGEN PUMPING STATION	1,000	0.0205	0.0307	0.0000	Fenced-in area	1,000 SQ. FT.	1,000 SQ. FT.
244	WET DOCK CAFETERIA	9,783	0.2007	0.3003	0.0000	1st	9,783 SQ. FT.	11,068 SQ. FT.
						2nd	1,285 SQ. FT.	
245	NORTH YARD FIRE PUMPING STATION	496	0.0102	0.0152	0.0000	1st	496 SQ. FT.	496 SQ. FT.
246	MAIN YARD SEWAGE PUMPING STATION	256	0.0053	0.0079	0.0000	1st	256 SQ. FT.	256 SQ. FT.
247	INTERMEDIATE SEWAGE PUMPING STATION	256	0.0053	0.0079	0.0000	1st	256 SQ. FT.	256 SQ. FT.
248	PURE WATER TANKS	1,112	0.0228	0.0341	0.0000	Pit Area	1,112 SQ. FT.	1,112 SQ. FT.
250	EXPLOSION PROOF WAREHOUSE	10,000	0.2052	0.3069	0.0000	1st	10,000 SQ. FT.	11,250 SQ. FT.
						Mezzanine	1,250 SQ. FT.	
252	N. Y. SEWAGE PUMPING STATION	132	0.0027	0.0041	0.0082	1st	132 SQ. FT.	132 SQ. FT.



PARKING SUMMARY

OWNER	NUMBER OF PARKING SPACES
ELECTRIC BOAT CORP	3,818
THIRD PARTY	1,128



RELOCATED BUILDINGS  
#170 & #179

LEGEND	
	500' PROPERTY LINE OFFSET FOR PARKING FACILITIES (CITY OF GROTON PARKING REGULATIONS)
	ELECTRIC BOAT PROPERTY LINE
	PROPERTY LINE
	THIRD PARTY PARKING LOTS
	TO BE DEMOLISHED
	TO BE RELOCATED
	ELECTRIC BOAT BUILDING NUMBER (BUILDING SUMMARY UNDER SEPARATE COVER)

File Path: J:\DWG\97570A11\CivilTraffic\Figures\1997570A11\_Parking Map.dwg Layout: P-MAP Plotted: Wed, February 13, 2019 - 1:58 PM User: mmanconi  
MS VIEW: Plotter: DWG TO PDF PC3 CTB File: FO.STB LAYER STATE:

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

SEAL

SEAL

SCALE:  
HORIZ.: 1" = 150'  
VERT.:  
DATUM:  
HORIZ.:  
VERT.:  
150 75 0 150  
GRAPHIC SCALE

**FUSS & O'NEILL**  
146 HARTFORD ROAD  
MANCHESTER, CONNECTICUT 06040  
860.646.2469  
www.fando.com

ELECTRIC BOAT CORPORATION  
PARKING INVENTORY  
75 EASTERN POINT ROAD  
GROTON CONNECTICUT

PROJ. No.: 1997570.A11  
DATE: FEBRUARY 2019  
**EXHIBIT-2**



**City of Groton, CT**  
**Department of Planning & Economic Development**  
**Form A - Zoning Table**

NOTE: Attach this form to the end of Form A Application and provide upon submitted site plan.

Item	Required	Proposed
Lot Area	40,000 SF	2,884,000 SF ±
Lot Width	100 FT	4,578 FT ±
Front Yard Setback (Min)	30 FT	30 FT
Front Yard Setback (Max)	N/A	N/A
Side Yard Setback N/S	15 FT	127 FT ±
Side Yard Setback E/W	N/A	N/A
Rear Yard Setback	30 FT	Not Required
Building Coverage	70%	20%
Building Height	75 FT	160 FT
Building Width*	N/A	N/A
Total Impervious Coverage*	N/A	N/A
Existing Impervious Coverage*	N/A	N/A
Parking Provided (mixed uses complete below)	2,680 spaces	3818
Use 1:	ADA Spaces	37 spaces
Use 2:	Standard Spaces	2,643 spaces
Use 3:		

\*Not included in dimensional standards for IT (Industrial/Technology) District.  
 (Section 4.4.E of the Zoning Regulations)



**City of Groton  
Department of Planning & Economic Development**

**Form B: Coastal Area Management**

Refer to Section 5.2 CAM of the Zoning Regulations and CGS Sections 22a-90- through 22a-115

The CAM Boundary is depicted upon the Groton City Zoning Map

**a. Coastal Resources Narrative**

Provide a narrative describing all coastal resources as defined in C.G.S. Section 22a-93 with an accompanying site plan depicting the location of all resources.

[See attached.](#)

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**B. Assessment of Project Suitability: Capability of Resources to Accommodate the Proposed Use**

1. Identify any and all coastal resource policies applicable to the proposed project as identified in C.G.S. Section 22a-92 (b) (2) and the *CT Coastal Management Manual*.

[See attached.](#)

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2. Identify any and all coastal use policies applicable to the proposed project as identified in C.G.S. Section 22a-92 (b) (1) and the *CT Coastal Management Manual*.

[See attached.](#)

3. Describe how the proposed project is consistent with all of the coastal policies identified above (i.e., describe the extent to which the project complies or conflicts with each policy). Note: If a project conflicts with any policy, the project should be modified to reduce or eliminate the conflict.

[See attached.](#)

### **c. Potential Beneficial and Adverse Impacts and Methods of Mitigation**

1. Identify and describe the potential adverse impacts (as defined C.G.S. Section 22a-93 (15)) and potential beneficial impacts of the project on coastal resources.

[See attached.](#)

**ITEM 2 and 3 BELOW FOR WATERFRONT PROPERTY ONLY:**

2. Is the project a water dependent use as defined in C.G.S. Section 22a-93 (16)? If so, explain why.

\_\_\_\_\_

This project is a "boat building facility" and includes "industrial uses dependent upon water-borne transportation" thus this project meets the definition of a water-dependent use.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

3. Describe the impacts or effects (either positive or negative) that the project will have on future water dependent uses or development on, and adjacent to this site. (Adverse impacts on future water dependent development opportunities are described in C.G.S. Section 22a-93 (17)).

The project will have a positive effect on the applicant's ability to continue and improve upon its water-dependent industrial uses as the premier designer and builder of submarines for the United States Navy. There are no anticipated adverse impacts on future water-dependent uses or development.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

4. Describe the proposed measures to mitigate (reduce or eliminate) any adverse impacts on coastal resources described in c.1 and, if applicable, on future water dependent developments opportunities described in c.3.

CT DEEP has determined that the proposed South Yard FMP will result in 295,000 square feet of direct, permanent impacts to coastal resources and associated anadromous fisheries habitat. To mitigate for the permanent impacts, EB has worked with CT DEEP Fisheries Division to identify compensatory restoration projects. CT DEEP has identified four (4) priority habitat enhancement projects that would reconnect miles of fish habitat that are currently inaccessible and, therefore, not productive. These restoration projects are active and would be ready for implementation within approximately the next 12 months.

In addition to the four priority projects listed above, CT DEEP has identified 22 additional habitat enhancement projects. These projects have been identified in the event that one or more of the priority projects cannot be implemented due to unresolvable issues associated with, but not limited to, land ownership, design obstructions, time of year restrictions, and/or permitting.

**D. Demonstration of the Acceptability of Remaining or Unmitigated Adverse Impacts on Coastal Resources and Future Water Dependent Uses and Development**

1. Describe any adverse impacts that remain after employing all reasonable mitigation measures.

None

2. Explain why these other remaining adverse impacts were not mitigated.

None

3. Explain why the Commission reviewing this application should find these remaining adverse impacts to be acceptable.

N/A

**SUPPORTING MATERIALS/DOCUMENTATION**

The Commission or Board may request the submission of such additional information that it deems necessary in order to reach a decision on the application. Include any additional information required by the Commission, and list any supplemental materials (plans, reports, etc.) that are being submitted in support of this application.

**a. Coastal Resources Narrative:**

The applicant proposes to construct building and pier infrastructure necessary to meet naval production needs. The building will be 624 feet long by 317 feet wide and supported by an approximately 3-foot thick concrete deck that will be formed and constructed on drilled shaft piers. The overwater portion of the building will be supported by approximately 450 drilled shafts founded on submerged bedrock. Shafts will be 3-4 feet in diameter and spaced 20-25 feet on center. This activity will result in approximately 5,000 square feet of impact to the river bottom. The facility deck will be set at an elevation of 12.5 feet (NAVD88) and will extend to support component delivery by barge. The building will overshadow approximately 180,000 square feet of nearshore waters and benthic habitat.

In addition to building construction, an approximately 95,000 square foot floating dry dock will be positioned along the shoreline. The dry dock will be tethered to submerged anchor points in the Thames River and fender dolphins along the shoreline. When submarines are launched, the dry dock will be moved to the submerging basin in the Thames River for approximately one month per year until the submarine launch is complete. Permanent anchor points for the submerging basin will be located along the eastern edge of the navigational channel and along the southern shoreline. Permanent anchor points and dolphins for the floating dry dock will require the placement of approximately 630 square feet of fill in nearshore waters.

A support and transport vessel (Sea Shuttle) berthing area will be located on the northwest side of the proposed Assembly Building. Three Sea Shuttle bearing plates will each be supported by one steel plate cylinder, precast bearing pad, bearing plate block, and jack-up system. The area beneath each support system will be dredged to bedrock and backfilled with crushed stone. Permanent anchor points and dolphins for the Sea Shuttle will require the placement of approximately 1,530 square feet of fill in nearshore waters.

The succeeding table provides an expanded description of the expected impacts on coastal and aquatic resources on or adjacent to the site.

Coastal/Aquatic Resources	On-Site	Adjacent	Comments
Rocky Shorefront	X	X	This coastal resource was identified on-site. This coastal resource will not be affected by the FMP and activity in the South Yard project area.

Coastal/Aquatic Resources	On-Site	Adjacent	Comments
Freshwater Wetlands and Watercourses	X	X	This coastal resource was identified on-site and adjacent to the site. Impacts to this resource are assessed in the context of Structures, Dredges and Fills, and 401 Water Quality Certification ascribed to this permit application. Permanent fill of 1,750 square feet of freshwater wetlands and watercourse are anticipated on the site as a result of construction of a new service road. The City of Groton Conservation Commission has specific jurisdiction of this inland resource.
Estuarine Embayments		X	This coastal resource area is mapped adjacent to the site. Temporary impacts to water quality as a result of unconfined dredging may occur.
Coastal Hazard Area	X	X	This coastal resource category is located on-site and adjacent to the site. It includes land inundated during coastal storm events, or subject to erosion caused by such events, and includes areas within the Federal Emergency Management Agency (FEMA) zones AE and VE. Terrestrial areas in the South Yard Project Area are identified in Flood Insurance Rate Maps 0502J and 0504J and are currently occupied by existing infrastructure and impervious surfaces that are expected to be modified as part of the proposed FMP activities.
Developed Shorefront	X	X	This coastal resource area is located on-site and adjacent to the site. This category includes harbor areas that have been highly engineered and developed, such as the one located at the site. Shoreline stabilization will result in permanent impacts to 1,250 linear feet of developed shorefront at the Site. Specifically, the proposed FMP activities include construction of a new bulkhead. In addition, riprap maintenance/repair activities will occur over an area of 11,050 square feet beneath the proposed over-water building.

Coastal/Aquatic Resources	On-Site	Adjacent	Comments
Nearshore Waters	X	X	This coastal resource area is mapped as present on-site and adjacent to the site. This coastal resource area includes the water and substrate located between mean high water and a depth along the 10-meter contour. Permanent impact of approximately 2,910 square feet will occur as a result of shoreline stabilization (bulkhead). Approximately 12,000 square feet will occur as a result of the building support shafts and vessel berthing infrastructure. The over-water building will result in permanent shading of 180,000 square feet. Temporary impact of approximately 813,250 square feet will occur as a result of dredging for the dry dock primary location, transport vessel berthing areas, and a portion of the submerging basin. Temporary impacts to water quality as a result of unconfined dredging may occur.
Offshore Waters	X	X	This coastal resource area is mapped as present on-site and adjacent to the site. This coastal resource area includes the water and substrate located seaward of the 10-meter contour. Temporary impact of approximately 110,000 square feet as a result of dredging for a portion of the submerging basin is anticipated. Temporary impacts to water quality as a result of unconfined dredging may occur.
Shorelands	X	X	This coastal resource area is mapped as present on-site and adjacent to the site. Proposed project activities will occur within this resource area. Specifically, the proposed FMP activities in terrestrial areas in the South Yard Project Area are identified within the shoreland boundary are currently occupied by existing infrastructure and impervious surfaces that are expected to be modified as part of the proposed FMP activities. Impacts to this resource are assessed in the context of Structures, Dredging and Fills, and 401 Water Quality Certification ascribed to this permit application. Project activities in the adjacent upland are also subject coastal consistency review by the City of Groton Planning & Zoning Commission through coastal site plan review.

Coastal/Aquatic Resources	On-Site	Adjacent	Comments
Shellfish Concentration Areas	X	X	This coastal resource area is mapped as present on-site and adjacent to the site. The CT DEEP has designated the area in the vicinity of the proposed project as a shellfish concentration area for the hard clam ( <i>Mercenaria mercenaria</i> ). The harvest of shellfish in the South Yard Project Area and is prohibited due to potential for public health risks and no recreational or commercial fishing for this species occurs in this location due to an established security zone. Accordingly, CT DEEP has determined that the proposed activity will not adversely impact the shellfish resources present.
Wildlife Resources and Habitat	X	X	This coastal resource area has been identified on-site and adjacent to the site. <i>Attachment M1</i> provides documentation and discussion of effects on shorebirds, waterfowl and raptors. The CT DEEP has indicated that the blueback herring, a State Special Concern species, has been observed in the vicinity of the project site. Increased noise, water turbidity, vessel traffic, and overall human presence associated with dredging and construction activities will likely displace shorebirds, waterfowl, and fish on a temporary basis. The vegetation that will be removed from the area between the existing storage yard and proposed bulkhead provides little habitat value. Additionally, due to the developed nature of the upland area of the Site and on-going activities at the South Yard, permanent negative impacts to this resource are not expected.
Benthic (bottom) Habitat	X	X	This resource area has been identified on-site and adjacent to the site. A summary of benthic macroinvertebrate sampling results is provided in <i>Attachment M1</i> . Permanent impact as a result of shoreline stabilization (bulkhead), building support shafts, and vessel berthing structures (approximately 7,910 square feet) will occur. Temporary impacts to water quality as a result of unconfined dredging may temporarily impact benthic habitat in the project vicinity.

Coastal/Aquatic Resources	On-Site	Adjacent	Comments
Indigenous Aquatic Life (including shellfish and finfish)	X	X	This resource has been identified on-site and adjacent to the site. A summary of indigenous aquatic life is provided in <i>Attachment M1</i> . Shifts in fish abundance and/or diversity is expected under the shaded portions of the Assembly Building. Less mobile non-fish species such as benthic macroinvertebrates and shellfish are less likely to be negatively impacted by shading. Temporary impacts to water quality as a result of unconfined dredging may temporarily impact aquatic life in the project vicinity. Mobile aquatic species will be temporarily displaced during active dredging, but are expected to return post dredging. Rapid recolonization of benthic dwellers is expected following dredge activities. Finfish species, including blueback herring, winter flounder and sturgeon may be affected as discussed in <i>Attachment M7</i> . Based on conversations with DEEP, Electric Boat will pay a set fee into an escrow account, which will be used to fund local fisheries habitat mitigation projects ( <i>Attachment M8</i> ).
Submerged Aquatic Vegetation	X	X	This resource has been identified on-site and adjacent to the site. Eelgrass ( <i>Zostera marina</i> ) was identified on-site but south of the proposed construction and dredging area. Documentation of the presence of <i>Zostera marina</i> is provided for the project area in <i>Attachment M1</i> . The existing beds are outside of the proposed activity and no impact is anticipated.

**b. Assessment of Project Suitability: Capability of Resources to Accommodate the Proposed Use**

1. Identify any and all coastal resource policies applicable to the proposed project as identified in C.G.S. Section 22a-92(b)(2) and the *CT Coastal Management Manual*.
2. Identify any and all coastal resource policies applicable to the proposed project as identified in C.G.S. Section 22a-92(b)(1) and the *CT Coastal Management Manual*.
3. Describe how the proposed project is consistent with all of the coastal policies identified above (i.e., describe the extent to which the project complies or conflicts with each policy).  
Note: if a project conflicts with any policy, the project should be modified to reduce or eliminate the conflict.

The Connecticut Coastal Management Act (CCMA) is codified in Chapter 444 of the Connecticut General Statutes (CGS), Sections 22a– 90 through 22a– 113. The Act defines coastal resources and boundaries and municipal and state obligations to protect coastal zones. The subsection most relevant to the compliance of a

particular project with the Act is CGS 22a-92: Legislative Goals and Policies. The following narrative lists the specific legislative goals and policies enumerated in CGS 22a-92, and specifies how the Electric Boat FMP project complies with all relevant subsections. Support for compliance with the legislative goals is provided in other attachments as referenced below.

*22a-92(a) The following general goals and policies are established by this chapter:*

*(1) To ensure that the development, preservation or use of the land and water resources of the coastal area proceeds in a manner consistent with the rights of private property owners and the capability of the land and water resources to support development, preservation or use without significantly disrupting either the natural environment or sound economic growth;*

The project **is compliant** with this subsection of 22a-92. The area is historically developed, thereby limiting disruption to the natural environment and currently, supports a water-dependent use. The proposed project provides sound economic benefits to the area and the State of Connecticut by increasing the number of high-skill, high-paying jobs that will last for decades.

*(2) To preserve and enhance coastal resources in accordance with the policies established by chapters 439, 440, 446i, 446k, 447, 474 and 477;*

The project **is compliant** with this subsection of 22a-92. Specifically:

With regards to the policies of Chapter 239 as they relate to coastal resources, the Electric Boat is working with the State of Connecticut in “cooperation with the federal government, regions, local governments, other public and private organizations and concerned individuals...to manage the basic resources of air, land and water to the end that the state may fulfill its responsibility as trustee of the environment for the present and future generations.” (C.G.S. § 22a-1). Furthermore, to meet the specific needs of the Electric Boat FMP, the applicant is using “all practicable means and measures in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Connecticut residents.” (C.G.S. § 22a-1a). The proposed project avoids and minimizes impacts to air, land and water while providing sound economic benefits to the area and the State of Connecticut.

With regards to the policies of Chapter 440 as they relate to coastal resources, it is “the public policy of this state to preserve tidal wetlands and to prevent the despoliation and destruction thereof.”(C.G.S. § 22a-28) Additionally, it is also the public policy of the state “to protect the citizens of the state by making provisions for the protection, preservation, maintenance and use of the inland wetlands and watercourses...by providing an orderly process to balance the need for the economic growth of the state and the use of its land with the need to protect its environment and ecology...” (C.G.S. § 22a-35). Since there are no tidal wetlands present on site or adjacent to the site where the Electric Boat FMP project is being proposed, there will be no impacts to those coastal resources. To the extent that is feasible and prudent alternatives were considered, Electric Boat has avoided and minimized impacts to inland wetlands and watercourse on and adjacent to the site. Furthermore, Electric Boat will coordinate with the authorized regulatory bodies to ensure that the policies of this Chapter will be met.

With regards to the policies of Chapter 446i as they relate to coastal resources and specifically water resources as stated in C.G.S. § 22a-366, the Electric Boat FMP project will not require the diversion of water as defined in C.G.S. § 22a-367(2) . Also, as designated in C.G.S. § 22a-380, the Electric Boat FMP project will not alter, degrade or otherwise adversely affect water supply watersheds, surface water sources or groundwater sources as these are not located on or adjacent to the site.

With regards to the policies of Chapter 446k as they relate to coastal resources, existing or anticipated sources of pollution originating from the Electric Boat FMP project will be managed in a manner consistent with C.G.S. § 22a-422 and associated waste water laws and regulation. Specifically, wastewater will not be managed on site. Rather, wastewater will continue to be collected and pumped off site, and incorporated by the City of Groton wastewater treatment system.

With regards to the policies of Chapter 447 as they relate to coastal resources, there are no designated natural area preserves on or adjacent to the Electric Boat FMP project site.

With regards to the policies of Chapter 474 as they relate to coastal resources, the Electric Boat FMP project will not affect the adequate supply of pure (drinking) water or land necessary to protect an adequate supply of pure water. (C.G.S. § 25-37a) Specifically, the project site is located in a historically industrial area and is not nor has not been identified as a source or watershed to a source of pure water.

With regards to the policies of Chapter 477 as they relate to coastal resources, the Electric Boat FMP project is located in federally-designated flood zones, it is not an area on or near shores or beaches that has been or is subject to construction of protective works designed to prevent loss of life, property and revenue to municipalities and the state from taxation. (C.G.S. § 25-69).

*(3) To give high priority and preference to uses and facilities which are dependent upon proximity to the water or the shorelands immediately adjacent to marine and tidal waters;*

The project **is compliant** with this subsection of 22a-92 as the project is a water dependent use.

*(4) To resolve conflicts between competing uses on the shorelands adjacent to marine and tidal waters by giving preference to uses that minimize adverse impacts on natural coastal resources while providing long term and stable economic benefits;*

The project is compliant with this subsection of 22a-92. There are minimal natural resources affected in this shoreland and the project provides long term economic benefits to area and the State of Connecticut by increasing the number of high-skill, high-paying jobs that will last for decades.

*(5) To consider in the planning process the potential impact of a rise in sea level, coastal flooding and erosion patterns on coastal development so as to minimize damage to and destruction of life and property and minimize the necessity of public expenditure and shoreline armoring to protect future new development from such hazards;*

The project **is compliant** with this subsection of 22a-92. The proposed bulkhead will minimize coastal flooding and erosion. The proposed building and decks are designed to withstand the 100-

year storm while allowing functionally-dependent water uses to occur that are protected from future hazards.

*(6) To encourage public access to the waters of Long Island Sound by expansion, development and effective utilization of state– owned recreational facilities within the coastal area that are consistent with sound resource conservation procedures and constitutionally protected rights of private property owners;*

This subsection of 22a-92 **is not applicable** to this project. The land is not state owned and an existing security zone that prohibits public navigation near Electric Boat facilities (see 33 C.F.R. §§ 165.30, 165.33, 165.154).

*(7) To conduct, sponsor and assist research in coastal matters to improve the data base upon which coastal land and water use decisions are made;*

This subsection of 22a-92 **is not applicable** to this project. The proposed project is not a research-related project.

*(8) To coordinate the activities of public agencies to ensure that state expenditures enhance development while affording maximum protection to natural coastal resources and processes in a manner consistent with the state plan for conservation and development adopted pursuant to part I of chapter 297;*

The project **is compliant** with this subsection of 22a-92. The project complies with the State Plan of Conservation and Development.

*(9) To coordinate planning and regulatory activities of public agencies at all levels of government to ensure maximum protection of coastal resources while minimizing conflicts and disruption of economic development; and*

The project **is compliant** with this subsection of 22a-92. The proposed project is being coordinated at all levels of government, coastal resources are protected to the greatest extent practicable, and the project will result in economic development, with no economic disruption.

*(10) To ensure that the state and the coastal municipalities provide adequate planning for facilities and resources which are in the national interest as defined in section 22a– 93 and to ensure that any restrictions or exclusions of such facilities or uses are reasonable. Reasonable grounds for the restriction or exclusion of a facility or use in the national interest shall include a finding that such a facility or use: (A) May reasonably be sited outside the coastal boundary; (B) fails to meet any applicable federal and state environmental, health or safety standard or (C) unreasonably restricts physical or visual access to coastal waters. This policy does not exempt any nonfederal facility in use from any applicable state or local regulatory or permit program nor does it exempt any federal facility or use from the federal consistency requirements of Section 307 of the federal Coastal Zone Management Act.*

This subsection of 22a-92 **is not applicable** to this project. The project does not meet the definition of “Facilities and resources which are in the national interest” as defined by CGS 22a 93(14). However, the project does support the national interest in that it is one of only two locations at which submarines can be manufactured in the country, it may not be sited outside the coastal

boundary, it meets all applicable federal and state environmental, health and safety standards, and it does not unreasonable restrict physical or visual access to coastal waters.

*(b) In addition to the policies stated in subsection (a) of this section, the following policies are established for federal, state and municipal agencies in carrying out their responsibilities under this chapter:*

*(1) Policies concerning development, facilities and uses within the coastal boundary are:*

*(A) To manage uses in the coastal boundary through existing municipal planning, zoning and other local regulatory authorities and through existing state structures, dredging, wetlands, and other state siting and regulatory authorities, giving highest priority and preference to water– dependent uses and facilities in shorefront areas;*

The project **is compliant** with this subsection of 22a-92. Project will be subject to local and state regulatory review, and provides a specific and requisite water dependent use.

*(B) to locate and phase sewer and water lines so as to encourage concentrated development in areas which are suitable for development; and to disapprove extension of sewer and water services into developed and undeveloped beaches, barrier beaches and tidal wetlands except that, when necessary to abate existing sources of pollution, sewers that will accommodate existing uses with limited excess capacity may be used;*

This subsection of 22a-92 **is not applicable** to this project. The project is not utility related.

*(C) to promote, through existing state and local planning, development, promotional and regulatory authorities, the development, reuse or redevelopment of existing urban and commercial fishing ports giving highest priority and preference to water dependent uses, including but not limited to commercial and recreational fishing and boating uses; to disallow uses which unreasonably congest navigation channels, or unreasonably preclude boating support facilities elsewhere in a port or harbor; and to minimize the risk of oil and chemical spills at port facilities;*

The project **is compliant** with this subsection of 22a-92. Proposed project will not unreasonably congest navigation channels, nor unreasonably preclude boating support facilities elsewhere in a port or harbor, and facility management is already conducted to minimize the risk of oil and chemical spills and those activities will continue during construction and operation.

*(D) to require that structures in tidal wetlands and coastal waters be designed, constructed and maintained to minimize adverse impacts on coastal resources, circulation and sedimentation patterns, water quality, and flooding and erosion, to reduce to the maximum extent practicable the use of fill, and to reduce conflicts with the riparian rights of adjacent landowners;*

The project **is compliant** with this subsection of 22a-92. Adverse impacts have been minimized to the extent practicable. Impacts on sedimentation patterns, water quality, and flooding and erosion are nonexistent, temporary, or minimized to the greatest extent possible. The use of fill has been reduced to the maximum extent practicable and is needed to support the new building. There should be no conflicts with the riparian rights of the southerly adjacent landowner, in that the two properties have a riparian boundary line agreement and the activities proposed in this application will not impact the adjacent owner's ability to exercise its littoral rights in its side of the littoral boundary. Also, there are no activities proposed in tidal wetlands. Hydrodynamic modeling indicates minimal impact to circulation (See Attachment M3).

*(E) to disallow the siting within the coastal boundary of new tank farms and other new fuel and chemical storage facilities which can reasonably be located inland and to require any new storage tanks which must be located within the coastal boundary to abut existing storage tanks or to be located in urban industrial areas and to be adequately protected against floods and spills;*

This subsection of 22a-92 **is not applicable** to this project. The project is not a tank farm.

*(F) to make use of rehabilitation, upgrading and improvement of existing transportation facilities as the primary means of meeting transportation needs in the coastal area;*

This subsection of 22a-92 **is not applicable** to this project. The project is not a transportation facility.

*(G) to encourage increased recreational boating use of coastal waters, where feasible, by (i) providing additional berthing space in existing harbors, (ii) limiting non- water- dependent land uses that preclude boating support facilities, (iii) increasing state- owned launching facilities, and (iv) providing for new boating facilities in natural harbors, new protected water areas and in areas dredged from dry land;*

This subsection of 22a-92 **is not applicable** to this project. The project does not include or effect recreational boating use.

*(H) to protect coastal resources by requiring, where feasible, that such boating uses and facilities (i) minimize disruption or degradation of natural coastal resources, (ii) utilize existing altered, developed or redevelopment areas, (iii) are located to assure optimal distribution of state- owned facilities to the state- wide boating public and (iv) utilize ramps and dry storage rather than slips in environmentally sensitive areas;*

This subsection of 22a-92 **is not applicable** to this project. The project does not include or effect recreational boating use.

*(I) to protect and where feasible, upgrade facilities serving the commercial fishing and recreational boating industries; to maintain existing authorized commercial fishing and recreational boating harbor space unless the demand for these facilities no longer exists or adequate space has been provided; to design and locate, where feasible, proposed recreational boating facilities in a manner which does not interfere with the needs of the commercial fishing industry; and*

The project **is compliant** with this subsection of 22a-92. The project will not conflict with commercial fishing or recreational industries.

*(J) to require reasonable mitigation measures where development would adversely impact historical, archaeological, or paleontological resources that have been designated by the state historic preservation officer.*

The project **is compliant** with this subsection of 22a-92. There is little to no potential for intact archaeological deposits or significant underwater cultural resources to occur in the project area (See Attachment M3).

*(K) to encourage the cooperative use of confined aquatic disposal cells for dredged material in appropriate circumstances.*

The project is **compliant** with this subsection of 22a-92. The use of confined aquatic disposal cells for dredged material was considered as part of the Alternative Analysis (Attachment M5) and rejected for the reasons stated therein.

*(2) Policies concerning coastal land and water resources within the coastal boundary are:*

*(A) to manage coastal bluffs and escarpments so as to preserve their slope and toe; to discourage uses which do not permit continued natural rates of erosion and to disapprove uses that accelerate slope erosion and alter essential patterns and supply of sediments to the littoral transport system;*

This subsection of 22a-92 is **not applicable** to this project. Coastal bluffs are not present at the project site.

*(B) to manage rocky shorefronts so as to ensure that development proceeds in a manner which does not irreparably reduce the capability of the system to support a healthy intertidal biological community; to provide feeding grounds and refuge for shorebirds and finfish, and to dissipate and absorb storm and wave energies;*

The project is **compliant** with this subsection of 22a-92. Rocky shorefront will not be impacted by the project (see Attachment M1)

*(C) to preserve the dynamic form and integrity of natural beach systems in order to provide critical wildlife habitats, a reservoir for sand supply, a buffer for coastal flooding and erosion, and valuable recreational opportunities; to ensure that coastal uses are compatible with the capabilities of the system and do not unreasonably interfere with natural processes of erosion and sedimentation, and to encourage the restoration and enhancement of disturbed or modified beach systems;*

This subsection of 22a-92 is **not applicable** to this project. No natural beach systems are present at the project site.

*(D) to manage intertidal flats so as to preserve their value as a nutrient source and reservoir, a healthy shellfish habitat and a valuable feeding area for invertebrates, fish and shorebirds; to encourage the restoration and enhancement of degraded intertidal flats; to allow coastal uses that minimize change in the natural current flows, depth, slope, sedimentation, and nutrient storage functions and to disallow uses that substantially accelerate erosion or lead to significant despoliation of tidal flats;*

This subsection of 22a-92 is **not applicable** to this project. No intertidal flats are present at the project site.

*(E) to preserve tidal wetlands and to prevent the despoliation and destruction thereof in order to maintain their vital natural functions; to encourage the rehabilitation and restoration of degraded tidal wetlands and where feasible and environmentally acceptable, to encourage the creation of wetlands for the purposes of shellfish and finfish management, habitat creation and dredge spoil disposal;*

This subsection of 22a-92 is **not applicable** to this project. No tidal wetlands present at the project site.

*(F) to manage coastal hazard areas so as to ensure that development proceeds in such a manner that hazards to life and property are minimized and to promote nonstructural solutions to flood and erosion problems except in those instances where structural alternatives prove unavoidable and necessary to protect commercial and residential structures and substantial appurtenances that are attached or integral thereto, constructed as of January 1, 1995, infrastructural facilities or water dependent uses;*

The project is **compliant** with this subsection of 22a-92. The installation of structural alternatives (bulkheads) is needed to protect the water dependent uses (see Attachment M1).

*(G) to promote, through existing state and local planning, development, promotional and regulatory programs, the use of existing developed shorefront areas for marine– related uses, including but not limited to, commercial and recreational fishing, boating and other water– dependent commercial, industrial and recreational uses;*

The project is **compliant** with this subsection of 22a-92. The project uses existing developed shorefront for water-dependent industrial use.

*(H) to manage undeveloped islands in order to promote their use as critical habitats for those bird, plant and animal species which are indigenous to such islands or which are increasingly rare on the mainland; to maintain the value of undeveloped islands as a major source of recreational open space; and to disallow uses which will have significant adverse impacts on islands or their resource components;*

This subsection of 22a-92 is **not applicable** to this project. No islands present at the project site

*(I) to regulate shoreland use and development in a manner which minimizes adverse impacts upon adjacent coastal systems and resources;*

The project is **compliant** with this subsection of 22a-92. Potential impacts have minimized to extent practicable (see CTDEEP Application, Part III, 10 and Attachment M3).

*(J) and to maintain the natural relationship between eroding and depositional coastal landforms and to minimize the adverse impacts of erosion and sedimentation on coastal land uses through the promotion of nonstructural mitigation measures. Structural solutions are permissible when necessary and unavoidable for the protection of infrastructural facilities, cemetery or burial grounds, water-dependent uses, or commercial and residential structures and substantial appurtenances that are attached or integral thereto, constructed as of January 1, 1995, and where there is no feasible, less environmentally damaging alternative and where all reasonable mitigation measures and techniques have been provided to minimize adverse environmental impacts.*

The project is **compliant** with this subsection of 22a-92. Structural alternative needed for water dependent use and mitigation will be provided (see Attachment M3).

(c) In addition to the policies stated in subsections (a) and (b), the following policies are established for federal and state agencies in carrying out their responsibilities under this chapter:<sup>1</sup>

(1) Policies concerning development, facilities and uses within the coastal boundary are:

(A) To minimize the risk of spillage of petroleum products and hazardous substances, to provide effective containment and cleanup facilities for accidental spills and to disallow offshore oil receiving systems that have the potential to cause catastrophic oil spills in the Long Island Sound estuary;

The project is **compliant** with this subsection of 22a-92. Fueling facilities to operate in accordance with regulations.

(B) to disallow any filling of tidal wetlands and nearshore, offshore and intertidal waters for the purpose of creating new land from existing wetlands and coastal waters which would otherwise be undevelopable, unless it is found that the adverse impacts on coastal resources are minimal;

The project is **compliant** with this subsection of 22a-92. Adverse impacts have been avoided or minimized to reach the least environmentally damaging practicable alternative for the site. (see Attachment M3)

(C) to initiate in cooperation with the federal government and the continuing legislative committee on state planning and development a long-range planning program for the continued maintenance and enhancement of federally-maintained navigation facilities in order to effectively and efficiently plan and provide for environmentally sound dredging and disposal of dredged materials; to encourage, through the state permitting program for dredging activities, the maintenance and enhancement of existing federally-maintained navigation channels, basins and anchorages and to discourage the dredging of new federally-maintained navigation channels, basins and anchorages;

The project is **compliant** with this subsection of 22a-92. The project will not impact maintenance or enhancement of federally-maintained navigation channels.

(D) to reduce the need for future dredging by requiring that new or expanded navigation channels, basins and anchorages take advantage of existing or authorized water depths, circulation and siltation patterns and the best available technologies for reducing controllable sedimentation;

The project is **compliant** with this subsection of 22a-92. Dredge footprints (e.g., side slopes, etc.) are designed to minimize need for future dredging.

(E) to disallow new dredging in tidal wetlands except where no feasible alternative exists and where adverse impacts to coastal resources are minimal;

This subsection of 22a-92 is **not applicable** to this project. No tidal wetlands present at project site.

(F) to require that new or improved shoreline rail corridors be designed and constructed so as (i) to prevent tidal and circulation restrictions and, when practicable, to eliminate any such existing restrictions, (ii) to improve or have a

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<sup>1</sup> While these policies are not applicable to municipal reviews of coastal site plan applications, they are included here for informational purposes.

*negligible adverse effect on coastal access and recreation and (iii) to enhance or not unreasonably impair the visual quality of the shoreline;*

This subsection of 22a-92 is **not applicable** to this project. The project does not include new or improved rail corridor.

*(G) to require that coastal highways and highway improvements, including bridges, be designed and constructed so as to minimize adverse impacts on coastal resources; to require that coastal highway and highway improvements give full consideration to mass transportation alternatives and to require that coastal highways and highway improvements where possible enhance, but in no case decrease coastal access and recreational opportunities;*

This subsection of 22a-92 is **not applicable** to this project. The project does not include coastal highway improvement.

*(H) to disallow the construction of major new airports and to discourage the substantial expansion of existing airports within the coastal boundary; to require that any expansion or improvement of existing airports minimize adverse impacts on coastal resources, recreation or access;*

This subsection of 22a-92 is **not applicable** to this project. The project does not include new airport.

*(I) to manage the state's fisheries in order to promote the economic benefits of commercial and recreational fishing, enhance recreational fishing opportunities, optimize the yield of all species, prevent the depletion or extinction of indigenous species, maintain and enhance the productivity of natural estuarine resources and preserve healthy fisheries resources for future generations;*

This subsection of 22a-92 is **not applicable** to this project. The project does not include a state fishery. Recreational and commercial fishing are prohibited near the Electric Boat facility due to security restrictions. The project will alter available habitat for indigenous fish species but will not cause the extinction of indigenous fish species.

*(J) to make effective use of state- owned coastal recreational facilities in order to expand coastal recreational opportunities including the development or redevelopment of existing state- owned facilities where feasible;*

This subsection of 22a-92 is **not applicable** to this project. The project does not include state-owned recreation facilities.

*(K) to require as a condition in permitting new coastal structures, including but not limited to, groins, jetties or breakwaters, that access to, or along, the public beach below mean high water must not be unreasonably impaired by such structures and to encourage the removal of illegal structures below mean high water which unreasonably obstruct passage along the public beach;*

This subsection of 22a-92 is **not applicable** to this project. The project site does not include a public beach and public access via the upland to the shoreline is already prohibited due to

security requirements at Electric Boat. Similarly, the public cannot access the shoreline from the water at the Electric Boat property due to the existing security zone.

*(L) and to promote the revitalization of inner city urban harbors and waterfronts by encouraging appropriate reuse of historically developed shorefronts, which may include minimized alteration of an existing shorefront in order to achieve a significant net public benefit, provided (i) such shorefront site is permanently devoted to a water dependent use or a water dependent public use such as public access or recreation for the general public and the ownership of any filled lands remain with the state or an instrumentality thereof in order to secure public use and benefit in perpetuity, (ii) landward development of the site is constrained by highways, railroads or other significant infrastructure facilities, (iii) no other feasible, less environmentally damaging alternatives exist, (iv) the adverse impacts to coastal resources of any shorefront alteration are minimized and compensation in the form of resource restoration is provided to mitigate any remaining adverse impacts, and (v) such reuse is consistent with the appropriate municipal coastal program or municipal plan of development.*

This subsection of 22a-92 **is not applicable** to this project. This project is not a reuse or revitalization of an inner city harbor, public space, or public waterfront. This waterfront has historically been privately owned and developed for shipbuilding and is constrained by significant existing infrastructure and operational constraints of water-dependent uses. No other feasible, less environmentally damaging practicable alternative exists and impacts have been minimized (see Attachment M3 and M8).

*(2) Policies concerning coastal land and other resources within the coastal boundary are:*

*(A) To manage estuarine embayments so as to ensure that coastal uses proceed in a manner that assures sustained biological productivity, the maintenance of healthy marine populations and the maintenance of essential patterns of circulation, drainage and basin configuration; to protect, enhance and allow natural restoration of eelgrass flats except in special limited cases, notably shellfish management, where the benefits accrued through alteration of the flat may outweigh the long-term benefits to marine biota, waterfowl, and commercial and recreational finfisheries*

The project **is compliant** with this subsection of 22a-92. Resource evaluation indicates limited impacts (See Attachment M1).

*(B) and to maintain, enhance, or, where feasible, restore natural patterns of water circulation and fresh and saltwater exchange in the placement or replacement of culverts, tide gates or other drainage or flood control structures.*

This subsection of 22a-92 **is not applicable** to this project. No placement or replacement of culverts, tide gates, or other similar drainage/flood control structures are anticipated in the proposed project.

*(d) In addition to the policies in this section, the policies of the state plan of conservation and development adopted pursuant to part I of chapter 297 shall be applied to the area within the coastal boundary in accordance with the requirements of section 16a- 31.*

This subsection of 22a-92 is **not applicable** to this project. This subsection applies to state agencies only. However, the project complies with the State Plan of Conservation and Development.

### c. Potential Beneficial and Adverse Impacts and Methods of Mitigation

#### 1. Identify and describe the potential adverse impacts (as defined in C.G.S. Section 22a-93(15)) and potential beneficial impacts of the project on coastal resources.

The following narrative lists the specific legislative goals and policies enumerated in CGS 22a-93(15, 16, & 17)

*22a-93(15) ““Adverse impacts on coastal resources” include but are not limited to:*

*(A) Degrading water quality through the significant introduction into either coastal waters or groundwater supplies of suspended solids, nutrients, toxics, heavy metals or pathogens, or through the significant alteration of temperature, pH, dissolved oxygen or salinity;*

The project is **compliant** with this subsection of 22a-93. The project will not result in the significant introduction of suspended solids, nutrients, toxics, heavy metals or pathogens into coastal waters or groundwater supplies. Likewise, the project will not significantly alter the temperature, pH, dissolved oxygen or salinity of coastal waters or groundwater supplies. Stormwater management improvements at the site will assure that there is no degradation of water quality due to the project.

*(B) degrading existing circulation patterns of coastal waters through the significant alteration of patterns of tidal exchange or flushing rates, freshwater input, or existing basin characteristics and channel contours;*

The project is **compliant** with this subsection of 22a-93. Existing circulation patterns in the Thames River will not be impacted by the project. Although the project calls for dredging in the river, under the joint jurisdiction of DEEP and the Army Corps, such activities will not result in the significant alteration of patterns of tidal exchange or flushing rates, freshwater input, or existing basin characteristics and channel contours.

*(C) degrading natural erosion patterns through the significant alteration of littoral transport of sediments in terms of deposition or source reduction;*

The project is **compliant** with this subsection of 22a-93. The proposed bulkhead will minimize potential coastal flooding and erosion from the development. Resource evaluation indicates that the proposal will have minor, if any, impacts on littoral transport of sediments in terms of deposition or source reduction conditions.

*(D) degrading natural or existing drainage patterns through the significant alteration of groundwater flow and recharge and volume of runoff;*

The project is **compliant** with this subsection of 22a-93. Resource evaluation indicates limited impacts on drainage patterns and no alterations to groundwater flow or recharge. (See Attachment M1).

*(E) increasing the hazard of coastal flooding through significant alteration of shoreline configurations or bathymetry, particularly within high velocity flood zones;*

The project is **compliant** with this subsection of 22a-93. The proposed bulkhead will minimize coastal flooding and erosion and there are no significant alterations to shoreline configurations or bathymetry that will have an impact on coastal flooding.

*(F) degrading visual quality through significant alteration of the natural features of vistas and view points;*

The project is **compliant** with this subsection of 22a-93. Decisions by the DEEP Commissioner, who has the statutory obligation for interpreting and enforcing this provision, have enumerated the following standards and principles:

- Coastal property owners are not entitled to permanently unaltered views.
- Arguments by project opponents that any development which changes a view necessarily has an adverse impact on that view are contrary to the policy of the Coastal Management Act to promote both the natural environment and economic growth.
- The fact that a coastal structure will be visible from other places in the area does not support a finding of a significant impact on the visual quality of the area.
- Subjective opinions of project opponents do not determine whether a change in views conflicts with this policy.
- The overall character of the surrounding area is relevant in considering a proposal's visual impact.
- This section is intended to preserve views of particular statewide significance.

The Commissioner's interpretation and enforcement of this provision was upheld by the Connecticut Appellate Court in *Lawrence v. Commissioner*, 178 Conn. App. 615 (2017).

Here, the SYAB must be considered in context with the surrounding industrial uses – EB's existing facilities to the North and the Buckeye and Pfizer facilities to the South. This project is not the introduction of industrial facilities into a natural and pristine coastal environment, but merely the construction of yet another industrial building on a shoreline that has over 1.6 miles of existing industrial development. While the construction of the SYAB will alter views from some adjacent properties and from the public road, this fact alone does not equate to the degradation in visual quality. There will be no significant alteration of the natural features of vistas or view points, in that the SYAB is proposed along an existing development shoreline, and there will be no impact on views of statewide significance. In contrast, the proposal will be a great benefit to economic growth in the region, and this factor must be properly balanced against any potential impact on views.

In view of the DEEP's interpretation of this policy, the construction of the SYAB will not result in an adverse impact on coastal resources.

*(G) degrading or destroying essential wildlife, finfish or shellfish habitat through significant alteration of the composition, migration patterns, distribution, breeding or other population characteristics of the natural species or significant alteration of the natural components of the habitat; and*

The project **is compliant** with subsection of 22a-93. The proposed activities in the South Yard will have limited, temporary impacts on wildlife, finfish or shellfish and their habitats. Elements of the South Yard Project include activities such as the permanent filling and the temporary dredge impacts. Baseline ecological studies in the South Yard Project Area indicate that the habitats that will be impacted by shoreline stabilization, drilled shaft installation, and concrete deck placement (overshadowing) support species that are common inhabitants among Developed Shorefronts in large estuarine systems. While the natural bedrock shorelines located in the southernmost extent of the South Yard Project Area did contain eelgrass habitats and were utilized frequently by shorebirds, these habitats are not expected to be directly impacted. As such no impacts to unique assemblages of aquatic species are expected as a result from FMP activities in the South Yard Project Area.

Shifts in abundance and/or diversity of finfish is expected under the shaded portions of the Assembly Building. Less mobile non-fish species such as benthic macroinvertebrates and shellfish are less likely to be negatively impacted by shading. Temporary impacts to water quality as a result of unconfined dredging may temporarily impact aquatic life in the project vicinity. Mobile aquatic species will be temporarily displaced during active dredging, but are expected to return post dredging. Rapid recolonization of benthic dwellers is expected following dredge activities. Finfish species, including blueback herring, winter flounder and sturgeon may be affected. However, based on conversations with DEEP and the USACE, Electric Boat has agreed to mitigate for the impacts to blueback herring and winter flounder.

As it pertains to terrestrial wildlife, shoreline stabilization will require removal of the narrow (15 to 20 ft.) strip of vegetation between the Developed Shorefront and the storage yard. This vegetation likely provides little habitat value due to the current industrial uses occurring immediately adjacent. Similarly, the increased noise, water turbidity, vessel traffic, and overall human presence generally associated with dredging and construction activities will likely displace wildlife resources such as shorebirds and waterfowl on a temporary basis.

*(H) degrading tidal wetlands, beaches and dunes, rocky shorefronts, and bluffs and escarpments through significant alteration of their natural characteristics or function;*

This subsection of 22a-93 **is not applicable** to this project. No tidal wetlands, beaches and dunes, rocky shorefronts, and bluffs and escarpments are present at the project site.



City of Groton  
Department of Planning & Economic Development

Form C: Flood Development Permit Application

Refer to Section 5.3 of the Zoning Regulations for specific requirements

General Information

1. Has the limit and designation of the Special Flood Hazard Area (SFHA) been clearly depicted and labeled on the plan?

Yes       No

2. Which SFHA(s) exists on the property? Note the corresponding base flood elevation(s) and select all that apply.

<u>SFHA</u>	<u>Base Flood Elev.</u>	<u>SFHA</u>	<u>Base Flood Elev.</u>
<input type="checkbox"/> A	_____	<input type="checkbox"/> AR	_____
<input checked="" type="checkbox"/> AE	<u>11 NAVD 88 (EBVD 13.63)</u>	<input type="checkbox"/> A99	_____
<input type="checkbox"/> AH	_____	<input type="checkbox"/> V	_____
<input type="checkbox"/> AO	_____	<input checked="" type="checkbox"/> VE	<u>14 NAVD 88 (EBVD 16.63)</u>
		<input type="checkbox"/> Floodway	_____

3. If a structure is proposed within the SFHA what is its finished floor elevation? If more than one structure distinguish each finished floor area.

SYAB F.F. 12.5 NAVD 88 (EBVD 15.63) Utility Bldg F.F. 16.7  
Finished Floor Elevation NAVD (19.33 EBVD)

Narrative: General

4. Describe, in detail, the work that will be performed within the SFHA. If more than one SFHA exists on the property clearly differentiate the work occurring in each zone.

See Site Plan Narrative or description of work to be performed.

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**Narrative: Construction Methods**

1. Describe, in detail, the construction methods employed for structures within the SFHA. Refer to applicable sections including but not limited to Sections 5.3.E, 5.3.G, and 5.3.H

See "Flood Areas" for a full description of work within the SFHA. Electric Boat was granted relief from provisions 5.3.G.2, 5.3.H.2, and 5.3.H.3 in Section 5.3 FP - Flood Protection Overlay Zone Regulations at the City of Groton Zoning Board of Appeals meeting on January 29, 2019

**Additional Provisions**

2. Is there any earth excavation or filling, or building construction proposed below base flood elevation within any of the SFHA(s)?

Earth excavation

Earth Filling

Building: Note finished floor elevation?

SYAB F.F. 12.5 NAVD 88 (EBVD 15.63)

Utility Bldg F.F. 16.7 NAVD (19.33 EBVD)

3. If there is earth filling or building construction that is below the base flood elevation, has equal conveyance achieved? (Provide supporting calculations as required in Section 5.3.j.1)

Yes

No

5.3.j.1 is not applicable as there is no identified Floodway.

4. If equal conveyance has not been achieved is compensatory storage provided? (provide supporting calculations)

Yes

No

Compensatory storage is not required as there is no identified Floodway.



**City of Groton**  
**Department of Planning & Economic Development**

## Site Plan and Coastal Area Management Checklist

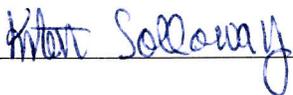
**Minimum Information to be Provided on Plans – See Zoning Regulations Appendices for Additional Requirements**

The following lists the anticipated information required at time of application submission. The sequence presented below is the preferred sequence drawings should be presented in the plan set. Each box shall be checked to ensure the information is provided correctly and submitted with the application.

Property Address: 75 Eastern Point Road Applicant Name: Electric Boat Corporation

**Acknowledgement:**

I am the individual responsible for coordinating the preparation of the plans and I acknowledge that the following plans have been prepared in conformance with the *Site Plan & Coastal Area Management Plan Preparation Requirements* and those listed below.

Signature:  Printed Name: Kristen Solloway, P.E.

1. **Cover Sheet** containing:
  - a. Site Location Map
  - b. Project Name
  - c. Date of Submission
  - d. Name of all professionals with a responsibility in the development of the plans
2. **Notes** sheet(s) as may be applicable
3. **Survey Plat** (Conforming to A-2 Standards and signed & sealed by a licensed site surveyor registered to do business in the State of Connecticut). Include the name of abutting property owners and location of intersecting property lines. Separate from existing conditions plan below.
4. **Topographic Survey** (Conforming to T-2 Standards and may be combined with item 6 below and signed & sealed by a licensed site surveyor registered to do business in the State of Connecticut)
5. **Site Demolition Plan** showing all existing improvements and vegetation to be removed including limits of sawcut lines and construction fencing.
6. **Sedimentation and Erosion Control Plan** containing:
  - a. Silt fence, hay bales, etc
  - b. Temporary sedimentation trap (with supporting calculations)
  - c. Stockpile areas
  - d. Staging and storage of equipment
  - e. Erosion control narrative and sequence of construction
  - f. Inspection requirements and schedule
  - g. Contact information for individual responsible for ES measures

7. **Site Layout Plan** depicting all proposed improvements and clearly labeled and corresponding to the applicable construction detail provided; critical dimensions provided for such items as walks, drives, setbacks, parking spaces, etc. to demonstrate code requirements (building and zoning). Plan shall depict the following minimum information:
- a. Building locations and decks (including roof overhangs),
  - b. Walks
  - c. Fences and Bollards
  - d. Pavement materials and markings
  - e. Curbing
  - f. Parking
  - g. Handicap parking
  - h. Handicap ramps
  - i. Signage (including those used for traffic control)

NOTE: Information depicted on the Site Layout Plan shall be carried forward on each of the subsequent plans listed below.

8. **Stormwater Management Plan** prepared by a CT licensed Professional Engineer; In addition to information requested in the Zoning Regulations, include the following:
- a. **Grading and Drainage Plan(s)** depicting at minimum:
    - i. existing and proposed contours at a minimum of 2' intervals;
    - ii. spot elevations at high and low points, top and bottom of stairs and ramps, intermediate landings of ramps, top and bottom of all site walls (retaining and free standing);
    - iii. all drainage structures, piping (including inverts, size, slope and material), stormwater facilities (above and below ground)
    - iv. Finished floor elevations of all structures
    - v. Location and base flood elevation of all Special Flood Hazard Areas
  - b. **Stormwater report** with supporting calculations (pre and post: quantity and quality)
  - c. **Construction details** of all materials and techniques used to control stormwater.
9. **Utility Plan** showing all proposed electrical, telecommunications, fiber optics, sanitary sewer, water, transformers, and other above and below grade utilities, including those to remain.
10. **Landscape Plan, Tree Survey, Tree Protection Plan** depicting location of all plant material and protection measures and shall include all proposed and existing features to remain, below and above grade utility improvements, signage and lighting in order to confirm no conflicts exist with proposed landscape materials. Plan shall also include a Landscape Schedule, provide on each landscape plan when more than one is needed, and contain the following information:
- a. Plant Code or Symbol
  - b. Scientific Name
  - c. Common Name
  - d. Size at time of planting using American Nursery & Landscape Association standard size nomenclature
  - e. Method of planting (i.e. container grown, balled and burlapped, etc)
  - f. Notes as may be applicable to plant species
11. **Lighting Plan** depicting the location of all exterior lighting, including those mounted on the exterior of a building. Provide lighting details and product cuts to demonstrate compliance with the zoning regulations. Lighting may be combined with the Site Layout Plan or Landscape Plan

as long as legibility is not affected.

- 12. **Photometric Plan** prepared by a licensed professional engineer depicting foot candles on the ground and demonstrating conformance with the zoning regulations. This plan must be separate from all other plans.
- 13. **Building Floor Plans** with clearly labeled space/room uses, provide critical dimensions, location of windows, exterior and interior doorways, utility and storage rooms, location of utilities entering the building.
- 14. **Building Elevations** (Including existing buildings with additions) depicting all exterior improvements and accurately illustrating roof lines and wall height.
- 15. **Construction details** depicting the methods and means of installation of major site improvements
- 16. **Additional items** that may be required by staff include:
  - a. Traffic report
  - b. Environmental reports
  - c. Architectural product samples
  - d. Noise study
  - e. Structural analysis
  - f. Geotechnical reports
  - g. Illustrative renderings
  - h. Other supporting information found necessary by staff or the commission