

CRMC DECISION WORKSHEET

2025-02-016

Quonset Development Corporation

Hearing Date:			
Approved as Recommended			
Approved w/additional Stipulations			
Approved but Modified			
Denied		Vote	

APPLICATION INFORMATION						
File Number	Town	Project Location		Category	Special Exception	Variance
2025-02-016	North Kingstown	242 Terminal Way		B	<input type="checkbox"/>	<input type="checkbox"/>
		Plat	193			
		Owner Name and Address				
Date Accepted	2/11/2025	Quonset Development Corporation		Work at or Below MHW		X
Date Completed	3/31/2025	c/o Steven J. King, PE 95 Cripe Street North Kingstown, RI 02852		Lease Required		<input type="checkbox"/>

PROJECT DESCRIPTION

The proposed project consists of installing a 220 foot wave attenuator system along the north side of the Pier 2 pile supported extension, known as the "Pier 2 Extension" (Assessor Plat 193, Lot 15), in the Port of Davisville, Quonset Business Park

KEY PROGRAMMATIC ISSUES

Coastal Feature: Manmade Shoreline; Steel Bulkhead

Water Type: Type 6, Industrial Waterfronts and Commercial Navigation Channels/Narragansett Bay

Red Book: 1.1.10, 1.2.1(F), 1.3.1(A), 1.3.1(C), 1.3.6

Variances and/or Special Exception Details: None

Additional Comments and/or Council Requirements:

Specific Staff Stipulations (beyond Standard stipulations): None

STAFF RECOMMENDATION(S)

Engineer	<u>RML</u>	Recommendation:	<u>Approval</u>
Biologist	<u></u>	Recommendation:	<u></u>
Other Staff	<u></u>	Recommendation:	<u></u>


Engineering Supervisor Sign-Off 3/31/25 date

Executive Director Sign-Off 31 MAR 25 date

Supervising Biologist Sign-off date
 Staff Sign off on Hearing Packet (Eng/Bio) date

**STATE OF RHODE ISLAND
COASTAL RESOURCES MANAGEMENT COUNCIL
ENGINEERING REVIEW**

TO: Jeffrey M. Willis, Executive Director
DEPT: Coastal Resources Management Council
FROM: Richard M. Lucia, P.E.
DEPT: CRMC Engineering Section

Date: 3/31/2025
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SUBJ: **CRMC File No.:** A2025-02-016

Owner: Quonset Development Corporation Quonset Development Corporation

Site Address: 242 Terminal Way Plat: 193 Lot: 15

Site Town: North Kingstown

Project: The proposed project consists of installing a 220 foot wave attenuator system along the north side of the Pier 2 pile supported extension, known as the "Pier 2 Extension" (Assessor Plat 193, Lot 15), in the Port of Davisville, Quonset Business Park. The purpose of the wave attenuator system will be to minimize wave energy and decrease wave height, thereby protecting the launching, berthing, testing, and retrieval of prototype seaglider vehicles and other small commercial water-craft along the western side of the Pier 2 Extension.

Water Type/Name: Type 6, Industrial Waterfronts and Commercial Navigation
Channels/Narragansett Bay

Coastal Feature: Manmade Shoreline; Steel Bulkhead

Previous Related CRMC Assents:

Assent 1998-05-107: Rehab Failed Cofferdam Cell

Assent 2007-06-061 Repair to existing bulkhead, modifications to revised riprap

Assent 2007-07-061 Feasibility of USS Saratoga

Assent 2012-04-063 Dredging

Assent 2014-10-015 Bulkhead Improvements

Assent 2015-05-019 Reestablish Beach along Pier 2

Assent 2017-05-034 Repair and improvement to Pier 2, including Pier 2 extension.

Staff Comments/Recommendation:

The installation of the wave attenuator system will be along the northern side Pier 2 and its extension (a 17-acre± earthen structure constructed of cellular cofferdams backfilled with hydraulically dredged material from the Quonset Channel and the extension is pile supported structure). Pier 2 has been used for water dependent uses such as offloading vessels carrying imported automobiles. The purpose for the wave attenuator is for protection from waves energy along the western side of the Pier 2 Extension. The Pier is exposed to north-east winds that create high energy waves that are reflected off the existing face of the bulkhead of the Pier This wave attenuator will protect watercraft and facilities along the western side as well as the area where the full-scale seaglider prototype manufactured by the startup company Regent will be based.

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Regent company is described herein in the applicants narrative *“Regent is a manufacturing startup that is in the process of developing all-electric, passenger-carrying, wing-in- ground-effect vehicles to service coastal routes. The current model in development is the Viceroy, Regent’s flagship 12-passenger vehicle that operates exclusively over water, traversing the sea in one of three modes: hull, hydrofoil, or flight in ground effect. Seaglidors have 160 nautical mile range with existing battery technology (upgradeable to over 400 nautical mile range with next generation battery technology) and are slated to enter service by 2025. Due to the unique configuration of the vehicle and its relatively low flight ceiling, these vehicles are reportedly regulated by the US Coast Guard, not the Federal Aviation Administration, as they are considered more akin to a vessel than a plane.”*

Noteworthy, QDC is assisting with the installation of the wave attenuator system to support Regent in developing what are called sea gliders. Seaglidors are an all-electric, passenger-carrying wing-in-ground effect vehicles to service coastal routes. The current model in development is a 12 passenger vehicle (Viceroy). Seaglidors have a 160 mile range with the existing battery technology (upgrading to over 400 nautical miles with next generation battery technology). These vehicles are regulated by the US Coast Guard as they are considered vessels.

The wave attenuator will be located north of the Pier 2 and its extension. The 220-foot long wave attenuator will be secured to a series of 30” diameter steel piles or helical soil anchors (to be determined during final design). The wave attenuator is being manufactured by Wahoo Docks, Inc., consist of three (3) – 48” diameter double walled, plastic corrugated pipes chain-lashed together to a aluminum frame in 20 foot increments. This type of wave attenuator extends approximately 84” into the water column and should allow significant circulation and flushing through the lower portion of the structure. Additionally, that the area to the north along the shoreline is unprotected, therefore flushing and circulation should not be an concern.

Although the structure is not considered a Marina, the marina standards stated in RICRMP Section 1.3.1D.9.(a). are typically utilized as analysis/guidance and considered appropriate engineering practice when designing in-water structures. *“All new or significantly expanded marina designs shall be in accordance with Table 8 in § 1.3.1(D) of this Part (Minimum Design Criteria), but in no case shall any structural member be designed to withstand less than 100 year storm frequency, including breaking wave conditions in accordance with ASCE 7 (Minimum Design Loads For Buildings and Other Structures, 2016).”*

Based on the submitted plans, and in accordance with the stated above guidance, the wave attenuator system has been designed to withstand a 100-year event (129 mph wind speed) and load combination as specified in ASCE-7.

COMMENTS ON APPLICATION/APPLICABLE POLICIES, STANDARDS & ETC:
Red Book: 650-RICR-20-00-01

RICR Section Number	Section Title	
1.1.10	Climate Change and Sea Level Rise	The applicant has completed the CHA form. While higher elevations to avoid inundation are preferred, there are practical limits based on adjacent land and ship loading / unloading elevations that are needed for safe and efficient operations. It is the opinion of staff that the proposal balances these competing needs while incorporating the RICRMP policies for this section.
1.2.1(F)	Type 6 Industrial Waterfronts and Commercial Navigation Channels	It is the Councils policy for Type 6 waters and adjacent lands under Council jurisdiction to support modernization and increased commercial activity related to shipping and commercial fisheries. It is the opinion of Staff that this proposal meets the Councils policy.
1.3.1(A)	Category B Requirements	The applicant submitted detailed responses / evaluations of the 11 elements of the Category B application requirements. It is the opinion of Staff that these responses are complete and the requirements of this section of the RICRMP have been met.
1.3.1(C)	Residential, Commercial, Industrial, and Recreational Structures	The proposed structures have been designed by a Professional Engineer and as such is certified to meet all applicable / required standards. It is the opinion of staff that the proposal meets the policies and standards of this section of the RICRMP.
1.3.6	Protection and Enhancement of Public Access to the Shore	The installation of the wave attenuator will not impact public access. Please note the QDC has a facility wide public access plan that the Council has previously approved the meets the requirements of this section of the RICRMP.

Conclusion and Recommendations:

Based on review of the project, it is the opinion of the staff engineer that the project meets the standards and policies of the RICRMP. Therefore, there are no objections to the above-described project. Please note as of the date of this report no objections have been submitted to this project and also the Town of North of North Kingstown (Meeting held March 24,2015) had no objection to the above-described project.

Signed



Staff Engineer