VARIANCE REQUEST

We are requesting one variance for this project: 1) Proposed float location at 84 feet from the MLW contour and 119 ft to HTL.

Explanation:

1. The dock float terminus as proposed is located 84 feet beyond the MLW sediment contour which is greater than 50 ft standard (Standard 11.l.(2). This distance is required to meet the minimum depth of 18 inches at MLW and to minimize impacts of boulders observed at the site.

1.1.7 Variances

A. Applicants requiring a variance from a standard shall make such request in writing and address the six criteria listed below in writing. The application shall only be granted a variance if the Council finds that the following six criteria are met.

1. The proposed alteration conforms with applicable goals and policies of the Coastal Resources Management Program. *In my opinion the proposed structure confirms with the goals and policies of the Coastal Resources Management Program. The proposed dock allows access to coastal waters for a waterfront property owner using best practices to minimize impacts to the environment. Additionally, the terminal end of the dock is generally the same or less than the western extent of existing docks installed at residences in the immediate shoreline area.*

2. The proposed alteration will not result in significant adverse environmental impacts or use conflicts, including but not limited to, taking into account cumulative impacts. *The proposed dock will not significantly impact the coastal environment. The excess dock length consists of fixed deck support by timber piles. The impact due to the additional piles is small as a pile diameter is approximately 1 foot at the mud line and the increase length of dock will create more shading on the substrate however the deck elevation will be greater than 7 feet above the substrate so impacts should be minimal.*

3. Due to conditions at the site in question, the applicable standard(s) cannot be met. *The pond sediment topography will allow the 18 inches of water depth requirement to be met at the eastern extent of the proposed floats is the facility length is 84 feet from MLW. Additionally, the observed presence of surface boulders immediately to the east of the proposed float would reduce obstructions during installation.*

4. The modification requested by the applicant is the minimum variance to the applicable standard(s) necessary to allow a reasonable alteration or use of the site. *In my opinion the variance request is the least impactful and minimum variances required to install the proposed dock.*

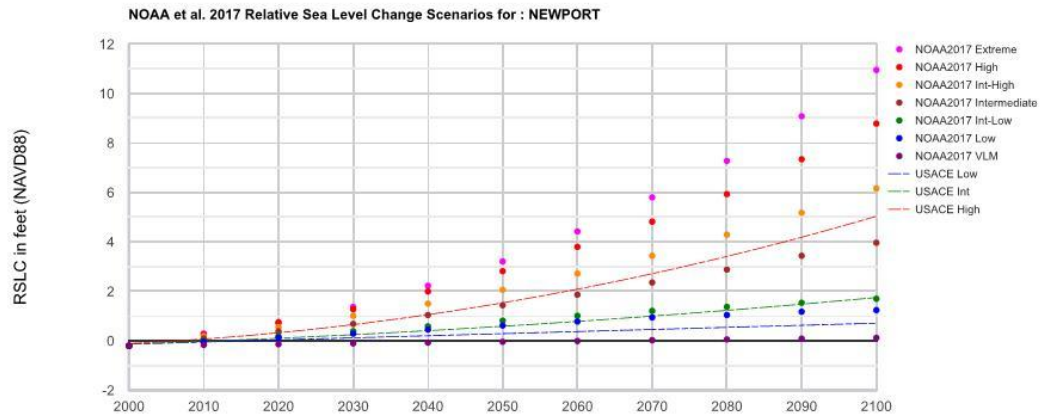
5. The requested variance to the applicable standard(s) is not due to any prior action of the applicant or the applicant's predecessors in title. With respect to subdivisions, the Council will consider the factors as set forth in § 1.1.7(B) of this Part below in determining the prior action of the applicant. *The variance request is not the result of previous actions by the current or past property owners.*

6. Due to the conditions of the site in question, the standard(s) will cause the applicant an undue hardship. In order to receive relief from an undue hardship an applicant must demonstrate inter alia the nature of the hardship and that the hardship is shown to be unique or particular to the site. Mere economic diminution, economic advantage, or inconvenience does not constitute a showing of undue hardship that will support the granting of a variance. *The variance request is required due to the physical conditions at the site and are not due to an owners preference. The hardship, if these variances are not granted, will be the inability to use their property to berth vessels and provide for recreational boating and water access.*

IMPACTS DUE TO SEA LEVEL RISE

We evaluated the impact of Sea Level Rise (SLR) on the proposed structure over the 50 year design life of the structure. This evaluation was based the NOAA sea level rise data for Newport as developed using the U.S. Army Corps of Engineers sea level rise calculator. Figure 1 presents the predicted SLR for the site.

Figure 1



Year	NOAA2017 VLM	NOAA2017 Low	NOAA2017 Int-Low	NOAA2017 Intermediate	NOAA2017 Int-High	NOAA2017 High	NOAA2017 Extreme	USACE Low	USACE Int	USACE High
2000	-0.20	-0.20	-0.20	-0.20	-0.20	-0.20	-0.20	-0.13	-0.13	-0.11
2010	-0.17	-0.04	-0.00	0.10	0.19	0.26	0.29	-0.05	-0.02	0.07
2020	-0.14	0.13	0.19	0.39	0.55	0.75	0.72	0.04	0.11	0.33
2030	-0.10	0.29	0.39	0.69	1.01	1.28	1.38	0.12	0.25	0.66
2040	-0.07	0.46	0.59	1.05	1.51	2.00	2.23	0.21	0.41	1.06
2050	-0.04	0.62	0.82	1.44	2.06	2.82	3.21	0.29	0.59	1.54
2060	-0.01	0.78	1.01	1.87	2.72	3.80	4.43	0.38	0.79	2.09
2070	0.03	0.95	1.21	2.36	3.44	4.82	5.80	0.46	1.00	2.72
2080	0.06	1.05	1.38	2.88	4.30	5.94	7.28	0.55	1.23	3.42
2090	0.09	1.18	1.54	3.44	5.18	7.35	9.09	0.63	1.48	4.19
2100	0.12	1.24	1.70	3.97	6.17	8.79	10.96	0.71	1.75	5.04

The predicted amount of SLR from 2020 to 2070 (50 year design life) is approximately:

"Intermediate" Curve: Army Corps of Eng – 1.00 ft, NOAA 2017 – 2.36 ft
"High" Curve: Army Corps of Eng – 2.72 ft, NOAA 2017 – 4.82 ft

The area of the proposed dock structure is not considered to be subject to significant wave energy due to the limited fetch and water detphs. Thererfore the resiliency of the structure and planning for resiliency will be primarily dependent on SLR and impacts to the facility use and retainage of the float during a large storm event.

The proposed residential dock will be constructed primarily with timber and metal connectors. These materials deteriorate with exposure to the elements and require periodic maintenance and replacement.

The strategy to account for impacts to the structure due to SLR will be primarily:

1. Each time the float guide piles are replaced, the butt elevation of the piles should be increased to account for SLR and storm surge. The basis of determining a pile butt

elevation should be based on the site Base Flood Elevation (site is currently in a FEMA AE zone with 11 ft base flood elevation) and considering anticipated SLR.

2. The deck elevation of the fixed pier portion of the structure should be raised through periodic maintenance as SLR occurs. This could include raising of pile bent framing during periods of deck framing replacement and or installation of replacement piles with corresponding increase in elevation of connection framing.
3. The landside fixed pier terminus will require relocations landward as SLR occurs. The relocation could be completed during periods of deck maintenance and would require relocating up the current site slope to a grade elevation that would allow pier access during high tide events.