**DRAFT** Proposed Revisions to Marine Accessory Ordinances


**Abstract:**

The existing marine accessory ordinances lack some detail and it is recommended they are enhanced to provide clarity on topics that have been a source of ambiguity and contention. Items like maximum allowable height of marine accessories, ambiguity around jetski lifts vs. boat lifts, and the process of dealing with marine accessories in where there is a discontinuity in the waterway (i.e corner lots, end of canals) have all been points of contention between residents and the Building Department, due to lack of detail.

Additionally, this is an opportune time to consider revising certain other components of the current ordinances to address anticipated future conflicts or in some cases better conform with code used by surrounding towns.

While reviewing the recommended changes, it may be beneficial to envision the concept of a 3-dimensional box that sits on the rear property line of any waterfront lot. Marine accessories must completely fit within the box to be permissible. Otherwise, they would be required to go through the process of obtaining a variance.


**Summary of Recommendations**

**1) Define a Maximum Allowable Height of Marine Accessories:**
**Recommended Maximum Height: Base Flood Elevation plus 7 feet.**

There have been multiple debates around what is an acceptable height of boat lifts. The current codes only state that a boat lift shall not be higher than the superstructure of the boat when lifted, but is silent on how high up in the air the combined boat lift and boat can be. This leaves open the potential for installing boatlifts on top of excessively high pilings, as long as the boat lift is fully retracted so the boat will be higher than the lift itself.

It is recommended that the "height" of the 3 dimensional box behind any waterfront property be Base Flood Elevation plus 7 feet. Referencing Base Flood Elevation allows the ordinance to be dynamic with sea level rise, as it is a reference datum that has been occasionally revised higher by the US Government in conjunction with the sea level. Pilings, and also the boat lift components must not be higher than this recommended maximum allowable height.

**2) Amend existing language related to Jetski (Personal Watercraft) Lifts**
The current codes are excessively onerous for jetski lifts, relative to boat lifts. As Section 30-131 is written, the bottom of the keel of any boat shall not be hoisted greater than one foot above the minimum seawall elevation, and in no case shall the lift be higher than the superstructure of the boat when lifted.

Because of the low vertical profile of a jetski (3 feet) relative to the vertical profile of a boat lift (7 feet), a boat lift can be installed to hold a boat, but the very same boat lift would not be permissible if it is used to instead lift a jetski.

It is recommended the current code be amended by either by removing the section that states *in no case shall the lift be higher than the superstructure of the boat when lifted,* or simply exempt jet skis (personal watercraft) from this code.

**3) Define a maximum width of a seawall cap and also a maximum width of a dock out into the water.**
**Recommended maximum new seawall cap width of 3 feet as measured from the property line**
**Recommended maximum dock plus seawall cap width of 8 feet as measured from the property line**

As properties are redeveloped and seawalls are replaced, there exists the potential for residents to look to "extend" their effective usable property out into the water by building a new seawall outside of the existing seawall. There is also the potential for properties to get extended by pouring excessively wide seawall caps on top of new seawalls and building excessively wide docks.

By limiting the maximum seawall cap width from the property line, and also the maximum distance the seawall cap plus dock can extend from the property line, the risk of one property owner effectively creating their own peninsula is minimized.

It is recommended that the waterside edge of any new seawall cap be limited to 3 feet from the property line, whether it is on top of a new wall, or is a cap raise on top of an existing wall.

Additionally, it is recommended that any new dock built is limited to a maximum distance of 8 feet out into the water as measured from the property line. This would allow for the outer edge of neighboring docks to all be limited to the same distance from the property line regardless of seawall cap size. For example, if a property has a 2 foot wide seawall cap, then that property would be allowed to have a 6 foot wide dock, and meet the maximum combined width of 8 feet. While if a neighboring property has a 3 foot wide seawall cap, they would be limited to a dock width of 5 feet.

Lastly it is recommended that language be added into the code to limit the installation of no more than 1 new seawall outside of the original property seawall that abuts the property line. This eliminates the risk that new seawalls are repeatedly installed on the waters edge side of existing seawalls, which would effectively create a man-made peninsula.

**4) Define a Maximum Distance that Marine Accessories can Extend into the Water**
**Recommended Maximum Distance: The lesser of 25 feet from the property line or 25% of the waterway width.**

This recommendation can be thought of as the perpendicular edge of the 3 dimensional box, as measured from the property line straight out into the water.

The town codes [Sec. 30-68(g)(6)a and b] simply defer to the Army Core of Engineers for approval of distance into water. It is recommended that the maximum distance be limited to the lesser of 25 feet or

25% of the width of the canal or waterway. Additionally, this distance will be measured from the shortest distance between the two properties in question.

This maximum distance of 25 feet is not an arbitrary value. It was chosen to allow residents to mix and match combinations of seawall cap widths, dock widths and boat lift widths of reasonable size without having to obtain a variance.

The chart below shows the various widths of boatlifts ranging from small boats to very large boats. For illustration, a typical 40 ft powerboat may weigh 30,000 to 40,000 lbs., and that lift is 16 ft wide (center to center) which is 17 ft wide when measured to the outsides of all pilings.

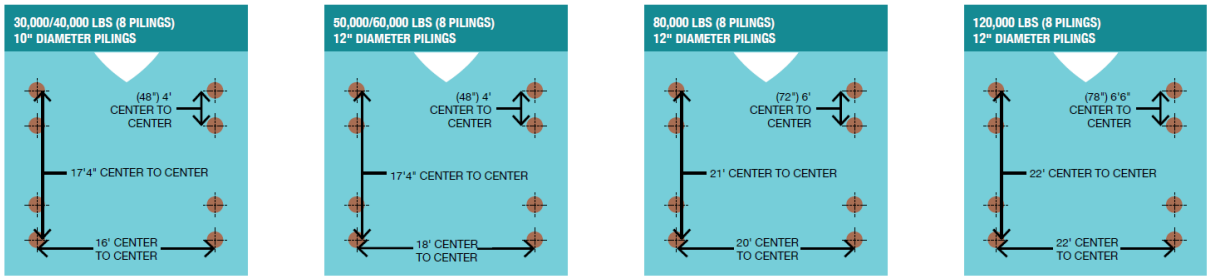
This very standard lift size could be installed at any home that has also conformed to the recommended seawall cap and dock widths, and stay at the 25 ft maximum distance:
3 ft seawall cap + 5 foot dock + 17 foot boatlift = 25 ft.

On the larger end of the spectrum, a 120,000 lb boatlift could hold about the largest size boat an owner would probably want to be able to lift behind a residential property. That boatlift is 22 ft wide center to center, which would be 23 feet wide to the outsides of the pilings. This "mega lift" could still fit in a back yard, but it would have to be right up against a seawall cap, as there is no room for a dock. Early seawall caps were 2 feet wide, and newer caps are 2.5 feet to 3 feet wide. Also note this lift could be installed at a property that has a 3 foot new cap, by notching out 1 foot where the inside pilings are installed. And again this is an extreme outlier example.

A much more typical boat lift for very large boats would be a 50,000 or 60,000 or even possibly an 80,000 lb. lift and the widths there easily stay within the maximum 25 foot threshold with a 3 foot wide seawall cap.

I am not sure Highland Beach has ever had a request to install an 80,000 or 120,000 lb. boatlift, as those are a very rare size.

Piling Setting Dimensions for Yacht Lifts




**5) Amend Side setbacks to utilize a smoothed definition instead of the complicated step function definition. Additionally apply the new definition to all property types.**

The current town codes utilize a step function where the side setbacks jump at discrete intervals. For example, if a single family zoned property is 71 feet wide, the side setbacks are 25 feet on each side. Comparatively, if a single family zoned property is 69 feet wide, the side setbacks are 15 feet on each

side. Additionally, there exists a different set of side setbacks for single family zoning vs multi-family zoning. Multi-family zoning has a zero foot setback.

It is recommended that the side setbacks be a smoothed function and are less for smaller properties so as to enhance the ability to utilize the water frontage. It is also recommended that the same set of rules apply to all properties equally, regardless of zoning.

**Recommendations for Side setbacks:**
-For properties with waterline length of 100 feet or more: 10 foot side setback on either side. This setback matches surrounding towns such as Boca Raton, Hillsboro Beach, and Ocean Ridge.

-For properties with waterline length of less than 100 feet: the side setbacks are proposed to be 10% of property waterline length on either side, with a minimum setback of 5 feet, on either side.

Utilizing this framework, a 71 foot wide property would have side setbacks of 7.1 feet, and a 69 foot property would have side setbacks of 6.9 feet.

Lastly, it is recommended that the current code clarify that with measurements will be made based on the assumption that a lot line is extended beyond said property line on a line perpendicular to the seawall or bulkhead. This clarification will provide clarity when measurements are being made with properties that have lot lines that are not perpendicular to the seawall, such as pie shaped lots.

**6) Require a Ladder for every 50 feet of dock.**
This is simply a requirement in most surrounding towns and our code is silent.

**7) Strengthen existing language on the approval process of marine accessories in areas where there is a discontinuity in the waterway by acknowledging that they are a "special case" and external expertise will be utilized.**

The majority of conflicts are associated with areas where there is a discontinuity in the waterway such as an abrupt restriction in the waterway width, end of canals, or corner lots or lots that extend into a waterway. The current code is a bit nebulous around these more complicated properties, and in some cases boatlifts have previously been installed in locations where one property owner is inadvertently restricting or blocking an adjacent property owner of the ability to also install a boatlift.

This situation was discussed extensively with the Marine Consultant, and in his expert opinion, no code can be written to address every possible potential scenario within the town. His recommend course of action is to treat any property that has a small water frontage (perhaps less than 50 feet) or that has a discontinuity in the waterway as "a special case." In these special cases, the standard procedure will be to consult with a marine expert who will make recommendations to the planning board on locations and maximum permissible sizes of marine accessories, with the intention of making sure all surrounding property owners are not having their ability to also utilize the waterway restricted. The code already allows for outside experts for review of development approval requests via Sec. 30-12. The recommended code change is simply to clarify to all parties that a consultation with a marine consultant along with a consultant recommendation to the planning board will be part of the approval process in these special cases.

The planning board can then decide what will be permitted. If a resident disagrees with the planning board's approval, and feels that their access is being restricted as a result of a marine accessory installation, they can seek remedy through the court system.

ATM

A Geosyntec Company

2/11/22

Ingrid Allen
Town Planner
Town of Highland Beach
3614 S. Ocean Boulevard
Highland Beach, FL 33487

**Re: Accessory Marine Facility Code Amendments Relative to Boat Lifts**
**Town of Highland Beach**

Ms. Allen,

This correspondence is provided as additional discussion and opinion regarding changes to Town of Highland Beach code relative to 'Accessory Marine Structures' and specifically boat lifts as defined within sec. 30-68 of municipal code. Items are discussed relative to potential changes to specific requirements of the current code.

1. Requirement for Accessory Marine Facilities to receive Planning Board approval

The requirement that all accessory marine facilities receive planning board approval (ref. Sec. 30-68 Supplemental district regulations (g)(3)) is not a common requirement within coastal communities. Boat lifts are generally allowed with restrictions without planning board approval. Board approval is typically reserved for sites with special and unique circumstance (see item 6. below) or for variance requests from the standard provisions defined in code. The requirements for lift installation are generally defined by code in terms of limitations to the location (setback) and overall size of the structure. These limitations meet the intent to minimize impacts to adjacent properties, allow for safe navigation and minimize impacts to view.

2. Requirement of setbacks for all zoning districts

Requirements for minimum setbacks for all zoning districts are a standard practice and are a key provision to meet the intent to minimize impacts to adjacent properties, allow for safe navigation and minimize visual impacts. The zero-foot setback for multi-family zoning within the Town's current code is anomalous and does not provide a sufficient setback to meet the intent. Required minimum setbacks for boatlifts and docks vary considerably by jurisdiction. The nominal width of lots within a municipally are generally relevant to this provision. Areas with larger lots tend to have larger setback requirements, while areas with smaller lots have lesser setback requirements to allow for reasonable use.

3. Limits to waterway encroachment

Limitations to the distance structures can encroach into a waterway are a standard practice and meet the intent to allow for safe navigation and minimize impacts to adjacent properties and views. Encroachment maximum distances on the order of 25 feet (relative to the waterway edge) are fairly common, though additional restrictions for narrow waterways are also common practice. In general, a fifty-foot effective fairway width is a common design standard for residential canals.

4. Limitations to pile maximum height

Limitations to maximum pile height is not a common practice but does meet the intent to minimize impacts to view. This approach also addresses a related issue relative to overall vessel size. Limitations to pile height restrict the ability to lift vessels beyond a certain size which addressed both issues of view and waterway navigability. In terms of maximum height, it should be defined relative to a fixed vertical datum. Pile heights generally on the order of 12 feet (NAVD 88) (which equates to something on the order of 8 feet above dock height) meet the lifting requirements for most vessels.

5. Limits to seawall cap and dock width

Limitations to Sewall cap and dock total width meets the intent to limit impacts to adjacent properties, waterway navigability and view. A total width of 8 feet (inclusive of the seawall cap and dock) is consistent with general practice.

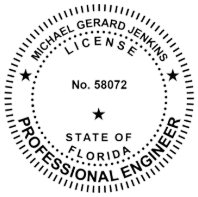
6. Special and unique circumstances - Sewall discontinuities and corner lots

Regulation of boat lifts through minimum setbacks, size and height limitations are generally sufficient to meet the intent to minimize impacts to adjacent properties, allow for safe navigation and minimize impacts to view for waterways that are generally unform in dimension adjacent to the regulated property. The majority of conflicts are associated with areas where there is a discontinuity in the waterway such as an abrupt restriction in the waterway width, corner lots or lots that extend into a waterway. Application of uniform code provisions to address these areas are problematic as each circumstance is unique and requires consideration of the specific current and intended use and access to the waterway. These issues are further complicated by the range of boat types, sizes and performance characteristics which may be germane to both the use and potential for impact to adjacent properties. Such instances likely warrant further consideration by the Planning Board.

Sincerely,

***Applied Technology & Management, Inc***.

Michael G. Jenkins, Ph.D., P.E.
Coastal Engineering Principal




Michael G Jenkins

Digitally signed by Michael G Jenkins
Date: 2022.02.24 09:00:36 -05'00'

*Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.*