

**APPENDIX C  
CODE CHANGE PROPOSAL  
NORTH CAROLINA  
BUILDING CODE COUNCIL**

**B-9**

1202 Mail Service Center  
Raleigh, North Carolina 27699-1202

(919) 647-0009

[Carl.martin@ncdoi.gov](mailto:Carl.martin@ncdoi.gov)

Granted by BCC \_\_\_\_\_ Petition for Rule Making Item Number \_\_\_\_\_  
Adopted by BCC \_\_\_\_\_ Approved by BCC \_\_\_\_\_  
Denied by BCC \_\_\_\_\_ Disapproved by BCC \_\_\_\_\_ Objection by BCC \_\_\_\_\_

PROPOSER: Larry Jones PHONE: 704-798-3084  
REPRESENTING: High Rock Lake Association Inc.  
ADDRESS: 1284 Clark Rd  
CITY: Salisbury STATE: NC ZIP: 28146  
E-MAIL: larryjones@bellsouth.net FAX: ( ) -

North Carolina State Building Code, Volume: 2018 NC Residential Code Section: R327

**CHECK ONE:**  Revise section to read as follows:  Delete section and substitute the following:  
 Add new section to read as follows:  Delete section without substitution:

~~LINE THROUGH MATERIAL TO BE DELETED~~                      UNDERLINE MATERIAL TO BE ADDED

See ATTACHMENT A and B.

Will this proposal change the cost of construction?      Decrease       Increase       No   
Will this proposal increase the cost of a dwelling by \$80 or more?      Yes       No   
Will this proposal affect Local or State funds?      Local       State       No   
Will this proposal cause a substantial economic impact (≥\$500,000)?      Yes       No

- Non-Substantial – Provide an economic analysis including benefit/cost estimates.
- Substantial – The economic analysis must also include 2-alternatives, time value of money and risk analysis.
- Pursuant to §143-138(a1)(2) a cost-benefit analysis is required for all proposed amendments to the NC Energy Conservation Code. The Building Code Council shall also require same for the NC Residential Code, Chapter 11.

**REASON:**

Amendments effective 1 January 2022 to the Residential Code rescinded provisions in the 2018 Residential Code that allowed construction of private piers and docks associated with one or two family dwellings to be exempt from Chapter 36 of the NC Building Code when meeting all of the limitations of the exceptions of Section R327.

Signature: *Larry O. Jones*

Date: 7/21/2023

BCC CODE CHANGES

FORM 11/26/19

## ATTACHMENT B

### PROPOSED CHANGES to R327:

#### SECTION R327 DOCKS, PIERS, BULKHEADS AND WATERWAY STRUCTURES

##### R327.1 General.

*Docks, piers, bulkheads and waterway structures shall be constructed in accordance with Chapter 36 of the North Carolina Building Code.*

**Exceptions:** Structures complying with the following are not required to meet the provisions of Chapter 36 of the North Carolina Building Code or of this code.

~~1. Docks and Piers built over private ponds.~~

~~2. Fixed in place walkways, docks, and piers not covered in Exception 1 and not exceeding 144 square feet for single family dwelling.~~

~~3. Minor repairs to existing docks, piers and waterway structures.~~

1. Fixed piers associated with a one- or two- family dwelling meeting all of the following:

1.1. A maximum of four boat slips for a single owner of a one- or two- family dwelling or two adjacent, riparian owners.

1.2. A maximum height of 15 feet (4572 mm) measured from deck to mud line at any location along the pier.

1.3. A maximum normal pool depth of 13 feet (3962 mm) on lakes and ponds and a maximum mean low water depth of 7 feet (2134 mm) in other locations.

1.4. A maximum walkway width of 6 feet (1829 mm).

1.5. A maximum pile spacing of 8 feet (2438 mm), in both directions.

1.6. A maximum of 576 sq. ft. (53.5 m<sup>2</sup>) for non-walkways areas.

1.7. A maximum boat slip length of 40 feet (12.2 m).

1.8. A maximum roofed area of 576 sq. ft. (53.5 m<sup>2</sup>) with an additional maximum 2 foot (610 mm) overhang.

1.9. Constructed with no enclosed or multilevel structures.

1.10. Supports a boatlift with a maximum design capacity no greater than 16,000 pounds (71.2 kN).

2. Floating docks associated with a one- or two- family dwelling meeting all of the following:

2.1. A maximum of four boat slips for a single owner of a one- or two- family dwelling or two adjacent, riparian owners.

2.2. A maximum normal pool depth of 20 feet (6096 mm) for docks with guide piles on lakes and ponds and a maximum mean low water of 10 feet (3048 mm) for docks with guide piles in other locations. 2.3. A maximum boat slip length of 40 feet (12.2 m).

2.4. Finger piers, crosswalks or other floating surfaces having a minimum width of 3 feet (914 mm) wide to a maximum of 6 feet (1829 mm) wide, except for a single 8 foot x 16 foot (2438 mm x 4877 mm) section. 2.5. When constructed with a roof the following conditions exist:

i. Ultimate design wind speed is 115 mph (51 m/s) or less;

ii. Roof load is 20 psf (0.96 kPa) or less;

iii. A maximum eave height of 10 feet (3048 mm);

iv. A maximum roof slope of 4:12;

v. A maximum roofed area of 576 sq. ft. (53.5 m<sup>2</sup>) with an additional maximum 2 foot (610 mm) overhang;

vi. A minimum boat slip width of 12 feet (3658 mm);

vii. A minimum floating dock width of 4 feet (1219 mm) along both sides of the boat slip;

viii. A maximum dead load of 12 psf (0.57 kPa);

ix. Floating structures supporting roof structures are balanced or anchored to reduce the possibility of tipping.

2.6. Constructed with no enclosed or multilevel structures.

2.7. Supports a boat lift with a maximum design capacity no greater than 16,000 pounds (71.2 kN).2018

**High Rock Lake Association, Inc.**

PO Box 159  
Southmont, NC 27351

April 11, 2018

Discussion of

**NC Building Code Requirements  
And  
Local Permitting Issues**

Related To

**Private Piers and Docks  
On  
Inland Freshwater Lakes**

The High Rock Lake Association Inc. (HRLA) was chartered in 1954 to represent the Owners of lakefront property and other persons who use the waters of High Rock Lake for recreation and enjoyment of our natural assets on the Yadkin River.

As riparian property owners, members of the HRLA are acutely concerned with their access to the water. That invariably involves the construction and maintenance of piers, docks, boat lifts, launch ramps, and other similar facilities necessary for water access.

Over the years, regulatory compliance has become increasingly complex and expensive. The above-mentioned facilities range in size and design from a very simple small fishing pier for a couple of retirees to enjoy the afternoon, to larger structures providing space for family recreation and docking of multiple watercraft.

At High Rock, the construction of any type of facility in the lake requires a permit from the FERC Licensee, currently Cube Hydro Carolinas. In turn, Cube requires the facility to be built in compliance with a County Permit, either Davidson or Rowan depending on location.

Not too many years ago, obtaining a County permit was not a difficult thing to do. If the facility was going to cost \$15,000.00 or more, the County would issue the permit, list the facility on the tax books, and that would be the end of the process. Of course, if lighting or electrical service was needed on the pier, that was a separate and straightforward permit process also.

Today obtaining a pier permit often involves a demand from the County Enforcement officials that we provide a set of design documents sealed by a registered professional, and other compliance procedures that seem totally unnecessary.

The HRLA has recently talked informally with NCDOT representatives who were very helpful in guiding us thru NC Building Code requirements. We think many of the procedures and standards that have been put in place at the County level are not authorized or supported by the Building Code or North Carolina Statutes.

The HRLA is requesting NCDOT to review the questions and issues we have outlined following. It is our hope NCDOT can issue a guidance document that will provide clarification to this matter and will provide a set of easily understood rules for the Code Enforcement officials to follow.



## **PERMIT ISSUES for PRIVATE PIERS AND DOCKS**

### Single Family or Shared by Two Adjoining Riparian Property Owners

Each County Building Code Enforcement Department seems to have a different interpretation of its authority and responsibility. Clear, non-ambiguous answers and position on following points is needed so that all riparian property owners on lakes that may straddle county lines are all treated equitably.

1. Confirm NC Building Code Section R324 is the sole defining Code Section for private piers, docks, and floating docks on inland lakes and reservoirs that are associated with single or two family dwellings, or shared by two adjoining riparian property owners, for facilities meeting limitations of 1.1 thru 1.10 and/or 2.1 thru 2.7
  - a. NC Building Code **R324.1 General, (exceptions)**. Confirm that “a plan should be submitted” does not require design documents prepared by an Architect or Professional Engineer. NCDOI Code Interpretation 2/15/2018 addressed this, but in a way that seems to be misinterpreted.
  - b. NC Building Code **R324.1 General**. Confirm that Piers complying with exemption conditions 1.1 thru 1.10 have no additional code compliance conditions (unless plumbing and/or electrical is included) and field inspection shall be limited to confirming compliance with plan submitted with permit application.
  - c. NC Building Code **R324.1 General**. Confirm that Floating Docks complying with exemption conditions 2.1 thru 2.7 have no additional code compliance conditions (unless plumbing and/or electrical is included) and field inspection shall be limited to confirming compliance with plan submitted with permit application.
2. Some Counties rely on Administrative Code Section 106.2.2 to require a Registered Engineer’s design of Dock’s and Piers before issuing a permit. This is in conflict with R324.1.1.(1.5), and NCDOI needs to advise this should only be invoked when facility size exceeds allowed limitations.
3. Administrative Code Section 107.5 is being used by some Code Enforcement officials to authorize or require inspection of part or all of docks and piers by a third party independent registered engineer. We do not believe this is the intent of 107.5, and ask for NCDOI to issue clarification.
4. Is there a basis for County requirements that Design and Inspection by an “Engineering Firm” can be required for:
  - a. New Construction; Pier, Dock, and/or Floating Section
  - b. Repairs to existing dock, float, or pier not changing original configuration

5. With reference to G.S. §153A-357 (a2) and §160A-417 (a2), does permit threshold value of greater than \$15,000.00 apply to Docks and Piers for:
  - a. Construction of new facility
  - b. Repairs to existing dock or pier not changing original configuration
  
6. Confirm R324 does NOT require handrails for piers or docks. Code Section 3606.6 states: For private waterfront piers and docks, guardrails or other safety provisions shall be provided along the edges where the vertical drop to the lesser of the mean low water level, normal low water level (sounds), normal pool (lakes and rivers) or mud line exceeds 8 feet. Guardrails shall be a minimum of 36 inches high and shall prevent the passage of a 21 inch sphere.
  - a. Which is correct; R324 or 3606.6?
  - b. Confirm the ordinary "4" sphere" requirement for residential guardrails is not applicable to piers and docks
  
7. R324.1.1 (1.6) Restricts roof area to 576 sf over "non-walkway areas. R324.1.1 (1.8) restricts roof area to 576 sf with additional 2ft. overhang and seems to make reference to a roof over a boat slip. Are these two sections "additive" for a pier design with multiple elements of walkways and boat slips?
  - a. Referenced Figure 3 limits "platform floor area to 400 s.f.
  - b. 400 sf vs 576 sf seems contradictory on Figure 3
  
8. Regarding above, for roofs over walkway areas not exceeding six (6) feet in width, would there be a roof area limitation?
  
9. Confirm pier segments not exceeding six (6) feet in width are considered "walkway" and are not limited in area.
  
10. A very controversial permitting question concerns routine and normal repairs to piers, docks, and floaters (#7 above is just one example). NCDOL Code Interpretation for Section R101.2, R324 dated 2/15/2018, Question #2, appears to be contrary to NCGS 160-417 (a2)
  - a. Question 2 is really two questions: first, Permit for repairs?; and second, Permit for alterations?
  - b. HRLA recommends the term "**Pier Repair**" be defined as *"an action that requires no county building permit and results in no change in the footprint or operation of the facility, when the cost of repairs is less than \$15,000.00"*.
  
11. Cube Hydro (FERC Licensee for The Yadkin Hydroelectric Project) requires floating docks on all Yadkin Project lakes. This means a hinged ramp between Pier and Floater is necessary. Does repair or replacement of hinge assembly hardware and bolts constitute a "Structural Repair" with respect to:
  - a. NC Building Code
  - b. Code Enforcement Officials

The HRLA is proposing NCDOT issue a Guidance Document that clearly points out and defines the obvious intent of Residential Code Section R324.

The following proposed charts are for Pier and Dock Design Conditions which will be NC Building Code compliant. Piers and docks within these limitations are exempt from examination for compliance with Chapter 36 criteria.

**HRLA CHART 1**  
**Fixed Piers, Roof Optional**  
**Freshwater Lakes and Ponds**

Only for one or two-family private dwelling	Yes
Maximum number of Boat Slips	4
Maximum normal water depth at deep end of pier, lakes and ponds	13 ft.
Maximum walkway width	6 ft.
Maximum pile spacing, both directions	8 ft.
Maximum Boat Slip Length	40 ft.
Maximum Deck size, non-walkway areas	576 sq. ft.
Enclosed Rooms or Storage Closets	None
Multi-Level Decks or Floors	None
Maximum Boat Lift Capacity	16,000 lbs.
Design Wind Speed (Roofs)	90 mph
Design Snow Load, see Fig. 4, Chapter 36, maximum (roofs)	15 PSF
Maximum Roof Slope	4:12
Maximum Eave height above Deck	10 ft.
Maximum Roof area, plus 2' overhang	576 sq. ft.

Chart Notes:

1. Refer to NC Residential Building Code Section R324 for sketches related to above charts
2. A County Building Permit is not required for such Piers which cost less than \$15,000.00 to construct.
3. If cost is \$15,000.00 or greater, a Building Permit is required. Permit application will require a scale dimensional drawing to describe the facility, but design by a licensed professional is not required.
4. A County Building Permit is not required for repairs and maintenance to piers when such repairs result in no change in the footprint or operation of the facility, when the cost of repairs is less than \$15,000.00.
5. Permits are required for Electrical, Plumbing, or Mechanical Work

**HRLA CHART 2**  
**Floating Docks, may be associated with Fixed Piers**  
**Freshwater Lakes and Ponds**

Only for one or two-family private dwelling	Yes
Maximum number of Boat Slips	4
Maximum normal water depth (with guide piles)	20 ft.
Maximum walkway width	6 ft.
Minimum walkway width	3 ft.
Maximum Boat Slip Length	40 ft.
Maximum Deck size, non-walkway areas	8' x 16'
Enclosed Rooms or Storage Closets	None
Multi-Level Decks or Floors	None
Maximum Boat Lift Capacity	16,000 lbs.

Chart Notes:

1. Ramps are usually associated with Floating Docks and are considered same as “walkway” for dimensional purposes.
2. Refer to NC Residential Building Code Section R324 for sketches related to above charts
3. A County Building Permit is not required for such Piers which cost less than \$15,000.00 to construct.
4. If cost is \$15,000.00 or greater, a Building Permit is required. Permit application will require a scale dimensional drawing to describe the facility, but design by a licensed professional is not required.
5. A County Building Permit is not required for repairs and maintenance to docks when such repairs result in no change in the footprint or operation of the facility, when the cost of repairs is less than \$15,000.00.
6. Permits are required for Electrical, Plumbing, or Mechanical Work

**HRLA CHART 3**  
**Floating Docks with Roof, may be associated with Fixed Piers**  
**Freshwater Lakes and Ponds**

Only for one or two-family private dwelling	Yes
Maximum number of Boat Slips	4
Maximum normal water depth (with guide piles)	20 ft.
Maximum walkway width	6 ft.
Minimum walkway width	3 ft.
Minimum walkway width along sides of Boat Slip	4ft.
Maximum Boat Slip Length	40 ft.
Minimum Boat Slip Width	12 ft.
Maximum Deck size, non-walkway areas	8' x 16'
Enclosed Rooms or Storage Closets	None
Multi-Level Decks or Floors	None
Design Dead Load	12 PSF
Design Wind Speed	90 mph
Design Snow Load, see Fig. 4, Chapter 36, maximum	15 PSF
Maximum Roof Slope	4:12
Maximum Eave height above Deck	10 ft.
Maximum Roof area, not including allowed 2' overhang	576 sq. ft.
Maximum Boat Lift Capacity	16,000 lbs.

Chart Notes:

1. Ramps are usually associated with Floating Docks and are considered same as "walkway" for dimensional purposes.
2. Refer to NC Residential Building Code Section R324 for sketches related to above charts
3. A County Building Permit is not required for such Docks which cost less than \$15,000.00 to construct.
4. If cost is \$15,000.00 or greater, a Building Permit is required. Permit application will require a scale dimensional drawing to describe the facility, but design by a licensed professional is not required.
5. A County Building Permit is not required for repairs and maintenance to docks when such repairs result in no change in the footprint or operation of the facility, when the cost of repairs is less than \$15,000.00.
6. Permits are required for Electrical, Plumbing, or Mechanical Work

The High Rock Lake Association Inc. (HRLA) was very active with staff of NCDOI in 2018, articulating the need for changes to the NC Building Code and the Residential Code for Private Piers and Docks. Reasons for our involvement are given in an attached document dated April 11, 2018.

NCDOI Staff and a BCC Ad-Hoc Committee did a very thorough investigation of the issues. They concurred with HRLA's concerns; and found a very long list of questions, guidance documents, and code amendments on the issues; many of which were conflicting and contradictory.

The 2018 Residential Code, with Section R327 was a welcome relief from the historic experience of pier owners and builders in the counties around High Rock Lake; and we received thanks from folks on many other lakes around the State when they learned of our involvement.

It came as a complete surprise when we got a call in late May 2023 from a friend starting a dock on Lake Norman, when he advised Mecklenburg County informed him that R327 was no longer applicable for the pier he was planning.

That's when I called NCDOI and asked for clarification. I was given an internet web link to read amendments to the Code. I discovered the following:

At some time in 2020 Mr. Leon Skinner, Chief Building Official for the City of Raleigh, presented an un-signed & un-dated Proposal to BCC to rescind the 2018 Residential Code for Single Family and Two-Family Dwellings as pertaining to Private Docks and Piers. Ref: R101.2.2, R202, and R327

July 20, 2023

**Skinners REASONS as stated on his Code Change Proposal:**

1. "Simplifies and reorganizes sections to make them easier to read."
2. "Changes and simplifies the exemption for docks and piers so that the exemption applies only to situations where such structures do not affect adjacent property owners and leaves the individual property owner the ability to construct as he deems fit while continuing to protect the general public. Note: The exception for R101.2.2 has not changed, just moved under detached carports where it belongs."
3. He marked his Proposal as "No Cost Impact"
4. He marked his proposal to indicate his Proposal would "Cost an Owner less than \$80.00"
  - I. One can only wonder at Skinners first statement. We must assume he believes eliminating a Section from the Residential Code makes it easier to read. However, shifting the pier/dock criteria from 2018 R327 to Chapter 36 of the Building Code puts us all back to the confusing state that existed prior to June 2018.
  - II. Skinners second statement is simply bureaucratic double talk.
    - a. He did a "strike-out" on the exemptions
    - b. A pier/dock for a private owner has no direct affect to an adjacent property owner.
    - c. 2018 R327 leaves generous space for individual design preference.
    - d. The "General Public" is not a concern associated with private accessory structures for a single/two family dwelling.
    - e. The "ability to construct as he deems fit" is contradicted by **3601.1 General**.
  - III. Who believes you can retain a "Registered Design Professional" and avoid incurring cost impact?
  - IV. I'll show you a case where a lady on Badin Lake was charged a \$2,000.00 fee for a simple 12' x 36' dock. Design Fees for many docks are much more.

In consideration of the fact there are no large lakes within Raleigh City Limits with great numbers of private lakefront homes and homeowners building private docks, Skinner appears to have been acting as a lobbyist for the Communities of Code Enforcement Officials and Registered Design Professionals when he proposed reinstating NC Building Code Chapter 36 for all Pier/Dock construction associated with Private Residences on North Carolina's Lakes, Rivers, and Waterways.

Further, Skinner's proposal was an insult to the BCC Ad Hoc Committee and NCDOI Staff who worked diligently and in good faith producing the 2018 Version of the Residential Code.

July 20, 2023

**EXAMPLES OF COST IMPACT CAUSED BY RESCINDING R327**

- Design Fees by Registered Professionals. All Piers & Docks.
- Additional Inspections by “Special Inspectors”. Always required for piers/docks per 1705.1. Prior to 2018 local Code Enforcement Officials around High Rock routinely required this.
- Ramp lengths to Floating Docks up to twice the ordinary length now commonly built due to slope criteria.
- Handrails that interfere with boarding watercraft (the primary function of a private dock)
- ADA compliance (that was required by local County Code Enforcement Officials prior to 2018)
- All floating docks shall have not more than 5 degrees tilt from the horizontal under uniform live loading on one-half of the dock width or under concentrated load of 400 pounds applied within 12 inches of any side. (R3604.3) (5 degrees = 1” per ft.)
- Design for impact loads by a striking vessel or vehicle. ( what size vessel or vehicle?)
- Time lost waiting for Code Enforcement Officials for multiple inspections, when none likely required under 2018 R327.



Here is a good example of cost consequences of the 2021 Amendment.

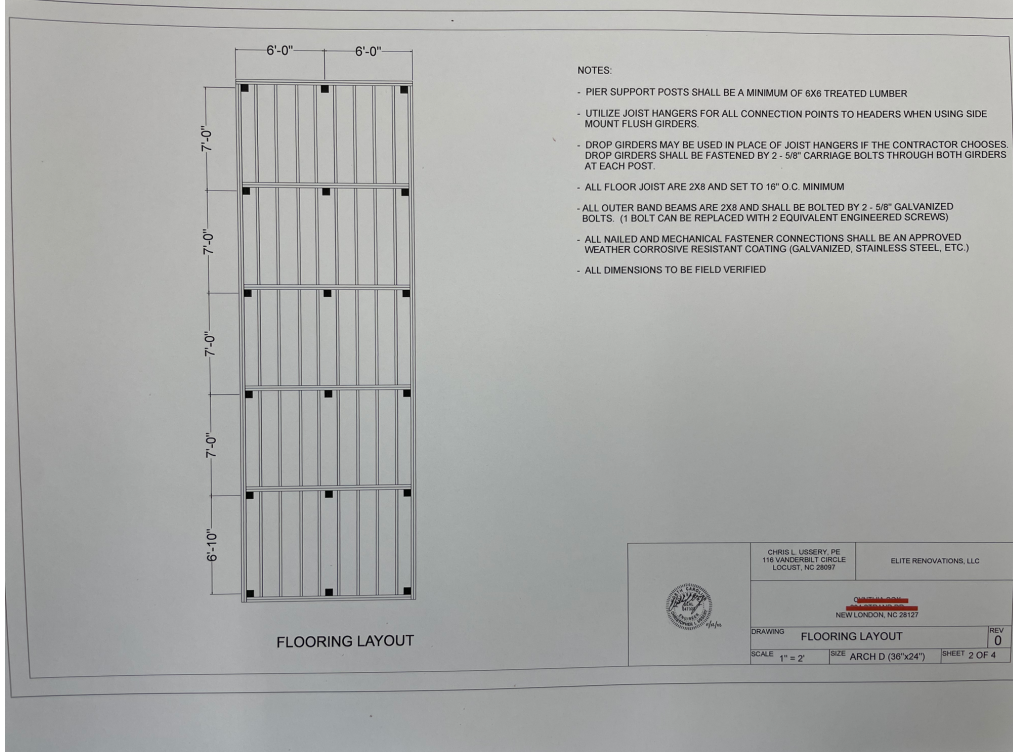
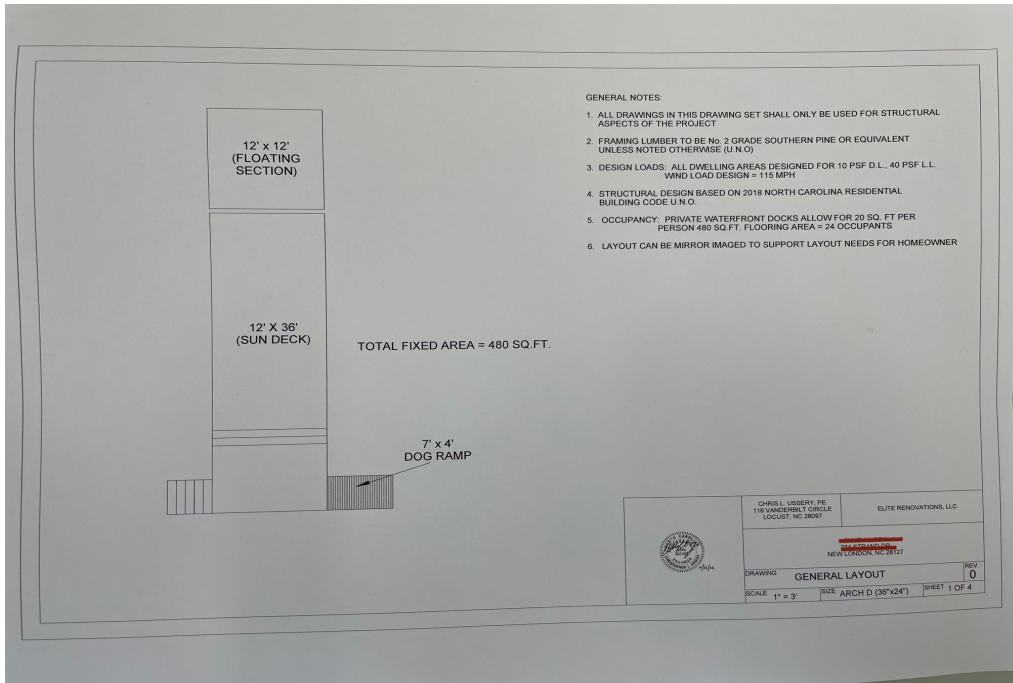
Chapter 36 requires all docks, piers, gangways and walkways must be designed by a registered design professional. (3601.2)

Here's the result of that requirement, just recently in Montgomery County. To satisfy the Code and Code Enforcement Officials, a lady paid \$2,000.00 for a Registered Design Professional to prepare design documents for this dock on Badin Lake. He gave her 2 drawings (see next page).



The seawall and boardwalk were existing, she just wanted a small dock for boarding watercraft.

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Although the title block indicated 4 drawings in the set, the Owner only received the 2 pictured above.

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It is our hope the Council can decide if Mr. Skinner's claim of "No Impact" had any foundation in fact; or did forcing this lady to comply with Chapter 36 simply help support Code Enforcement Officials and PE community.

The BCC and NCDOI were correct in issuing the 2018 Version of the Residential Code in June 2018, and the corresponding guidance document sent out to all Code Enforcement Officials.

Please restore the Code as issued in 2018.

*Remember, it is perfectly fine and acceptable to reconsider and repeal bad legislation and regulations....*

*It Is,*

***The Right Thing To Do***

July 20, 2023