SITE PLAN REVIEW SHEET
ENVIRONMENTAL VARIANCE REQUEST ONLY

CASE: SP-2017-0146D

ZAP COMMISSION DATE: December 19th, 2017

PROJECT NAME: 4213 Watersedge Cove

APPLICANT: Karl Buckman & Nelda Sue Yaw
AGENT: Janis Smith Consulting, LLC (Janis Smith)

ADDRESS OF SITE: 4213 Watersedge Cove

COUNTY: Travis

AREA: .7 acres

WATERSHED: Lake Austin

JURISDICTION: Full Purpose

EXISTING ZONING: PUD

PROPOSED DEVELOPMENT:
The applicant is proposing to demolish an existing boat dock and replace it with a new one; as well as modifications to an existing bulkhead.

DESCRIPTION OF VARIANCES:
The applicant requests the following: To allow a bulkhead that was built in front of the existing bulkhead to extend beyond the allowed 6” to 1’. [25-8-368(D)]

STAFF RECOMMENDATION:
The findings of fact have been met and staff recommends approval with the following conditions:
1. Additional planting per the staff determination provided in the Environmental Commission back up materials.

ENVIRONMENTAL BOARD ACTION:
November 15th, 2017: The Environmental Commission recommends support of the request for the bulk head variance to 1’ instead of the allowable 6” due to structural constraints with the following conditions; Additional planting per the Staff Determination provided in the Environmental Commission back up materials, and; The contractor shall provide a “Public Education” letter (approved by the City of Austin) to the other contractors that perform work on boat docks to educate them on the permit process. Vote 10-0.

ZONING AND PLATTING COMMISSION ACTION:
N/A

ENVIRONMENTAL REVIEW STAFF: Atha Phillips
Atha.Phillips@austintexas.gov

PHONE: 974-6303

CASE MANAGER: Clarissa Davis
Clarissa.Davis@austintexas.gov

PHONE: 974-1423
# ENVIRONMENTAL COMMISSION VARIANCE APPLICATION FORM

## PROJECT DESCRIPTION

### Applicant Contact Information

<table>
<thead>
<tr>
<th>Name of Applicant</th>
<th>Karl Buckman and Nelda Sue Yaw</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street Address</td>
<td>4213 Watersedge Cove</td>
</tr>
<tr>
<td>City State ZIP Code</td>
<td>Austin, TX  78731</td>
</tr>
<tr>
<td>Work Phone</td>
<td>832-495-9062</td>
</tr>
<tr>
<td>E-Mail Address</td>
<td><a href="mailto:neldasueyaw@gmail.com">neldasueyaw@gmail.com</a></td>
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</tbody>
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### Variance Case Information

<table>
<thead>
<tr>
<th>Case Name</th>
<th>4213 Watersedge Cove</th>
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<tbody>
<tr>
<td>Case Number</td>
<td>SP-2017-0146D</td>
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<tr>
<td>Address or Location</td>
<td>4213 Watersedge Cove</td>
</tr>
<tr>
<td>Environmental Reviewer Name</td>
<td>Atha Phillips</td>
</tr>
<tr>
<td>Environmental Resource Management Reviewer Name</td>
<td>Atha Phillips</td>
</tr>
<tr>
<td>Applicable Ordinance</td>
<td>LDC 25-8-368(D)</td>
</tr>
<tr>
<td>Watershed Name</td>
<td>Lake Austin</td>
</tr>
<tr>
<td>Watershed Classification</td>
<td>☐ Urban ☐ Suburban ☐ Water Supply Suburban</td>
</tr>
<tr>
<td>Edwards Aquifer Recharge Zone</td>
<td>☐ Barton Springs Segment ☐ Northern Edwards Segment (X) Not in Edwards Aquifer Zones</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>---------------------------------------------------</td>
</tr>
<tr>
<td>Edwards Aquifer Contributing Zone</td>
<td>☐ Yes (X) No</td>
</tr>
<tr>
<td>Distance to Nearest Classified Waterway</td>
<td>The property is on the shoreline of Lake Austin</td>
</tr>
<tr>
<td>Water and Waste Water service to be provided by</td>
<td>Austin Water</td>
</tr>
<tr>
<td>Request</td>
<td>The variance request is as follows (Cite code references: LDC 28-8-368(D), Bulkhead replacement wider than allowable width</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Impervious cover</th>
<th>Existing</th>
<th>Proposed</th>
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<tbody>
<tr>
<td>square footage:</td>
<td>________</td>
<td>________</td>
</tr>
<tr>
<td>acreage:</td>
<td>________</td>
<td>________</td>
</tr>
<tr>
<td>percentage:</td>
<td>________</td>
<td>________</td>
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Provide general description of the property (slope range, elevation range, summary of vegetation / trees, summary of the geology, CWQZ, WQTZ, CEFs, floodplain, heritage trees, any other notable or outstanding characteristics of the property)

The project entails the construction of a boat dock and partial construction of a bulkhead at a 0.8 ac lot in the Watersedge subdivision. The existing home is currently under renovation and as close as 10ft from the shoreline of Lake Austin. The shoreline and house are protected by a bulkhead that extends along the lakefront and wraps around the cut-in slip housing the boat dock. When the lake was lowered, the contractor for the house noticed that the bulkhead in the cut-in slip was failing. He constructed a concrete bulkhead within the cut-in slip to reinforce the existing, failing, bulkhead. He didn't modify the rest of the bulkhead, he just constructed within the cut-in slip. The contractor wasn't aware of the permitting requirements for bulkheads on Lake Austin and thought that he could repair the bulkhead because it was failing. The unpermitted bulkhead work was discovered when plans for permitting a new boat dock were underway and so is being permitted with a new Site Plan Permit application for the boat dock. An aerial photo showing the proximity of the house to the shoreline is included as Attachment 1; the Site Plan and Erosion and Sedimentation Control Plan sheet from the Site Plan is included as Attachment 2; a photo of the bulkhead is included as Attachment 3; and the bulkhead structural detail with a sealed letter from the structural engineer is included as Attachment 4.
FINDINGS OF FACT

As required in LDC Section 25-8-41, in order to grant a variance the Land Use Commission must make the following findings of fact:

Include an explanation with each applicable finding of fact.

Project: 4213 Watersedge Cove

Ordinance: LDC 28-8-368(D)

A. Land Use Commission variance determinations from Chapter 25-8-41 of the City Code:

1. The requirement will deprive the applicant of a privilege available to owners of similarly situated property with approximately contemporaneous development subject to similar code requirements.

   Yes / No [provide summary of justification for determination]

   See Attachment 5

2. The variance:
   a) Is not necessitated by the scale, layout, construction method, or other design decision made by the applicant, unless the design decision provides greater overall environmental protection than is achievable without the variance;

   Yes / No [provide summary of justification for determination]

   See Attachment 5

   b) Is the minimum deviation from the code requirement necessary to allow a reasonable use of the property;

   Yes / No [provide summary of justification for determination]

   See Attachment 5

In order to repair a failing bulkhead within an existing cut-in slip, a new concrete bulkhead was installed in front of the failing bulkhead while the lake was down. The shoreline was located at the face of the failing bulkhead. The new bulkhead is 12” thick. The allowable width of a replacement bulkhead constructed lakeside of the shoreline is 6”. The new bulkhead is 6” too thick within the cut-in slip.
c) Does not create a significant probability of harmful environmental consequences.

[Yes/ No] [provide summary justification for determination]  

See Attachment 5

3. Development with the variance will result in water quality that is at least equal to the water quality achievable without the variance.

[Yes/ No] [provide summary justification for determination]  

See Attachment 5

B. Additional Land Use Commission variance determinations for a requirement of Section 25-8-422 (Water Quality Transition Zone), Section 25-8-452 (Water Quality Transition Zone), Article 7, Division 1 (Critical Water Quality Zone Restrictions), or Section 25-8-652 (Development Impacting Lake Austin, Lady Bird Lake, and Lake Walter E. Long):

1. The criteria for granting a variance in Subsection (A) are met;

[Yes/ No] [provide summary of justification for determination]  

See Attachment 5

2. The requirement for which a variance is requested prevents a reasonable, economic use of the entire property;

[Yes/ No] [provide summary of justification for determination]  

See Attachment 5

3. The variance is the minimum deviation from the code requirement necessary to allow a reasonable, economic use of the entire property.

See Attachment 5

[Yes/ No] [provide summary of justification for determination]  

See Attachment 5

**Variance approval requires all above affirmative findings.**
ATTACHMENT 1

AERIAL PHOTO
ATTACHMENT 2

SITE PLAN AND EROSION and
SEDIMENTATION CONTROL SHEET
4213 WATERSEDGE COVE

NOTES:

1. SHORELINE IMPROVEMENTS ARE AUTHORIZED WITH THIS SITE PLAN.
2. CONTAINERS OF HAZARDOUS MATERIALS, FUEL, OIL, HERBICIDES, INSECTICIDES, FERTILIZERS, OR OTHER POLLUTANTS WILL NOT BE STORED OR DEPOTS EXTENDING INTO OR ABOVE LAKE AUSTIN.
3. PER LA ZONING, PERMANENT IMPROVEMENTS ARE PROHIBITED WITHIN THE SHORELINE SETBACK AREA, EXCEPT FOR RETAINED WALLS, PIERS, SHIPWRECKS, SOTHOUSES, MARINAS, OR A DOCK TO ACCESS THE STRUCTURE ELEV = 492.8
4. NO WATER OR IRRIGATION UTILITIES ARE PROHIBITED WITH THIS DEVELOPMENT.
5. DECK SHALL BE AT LEAST Wt. 15 PSF.
6. PILES SHALL BE 5.5" DIAMETER STEEL PIPES.
7. THE SITE IS WITHIN THE CITY OF AUSTIN'S PURPOSE BOUNDARIES.
8. PERMANENT IMPROVEMENTS ARE PROHIBITED WITHIN THE SHORELINE SETBACK AREA, EXCEPT FOR RETAINED WALLS, PIERS, SHIPWRECKS, SOTHOUSES, MARINAS, OR A DOCK TO ACCESS THE STRUCTURE ELEV = 482.0

ATTENTION INSPECTOR NOTES:

1. COMPLIANCE WITH BUILDING CODE REQUIRED AND IS TO BE REVIEWED FOR COMPLIANCE DURING BUILDING CODE REVIEW.
2. FOR THE BUILDING PERMIT, A SIGNED AND SEALED LETTER SHALL BE SUBMITTED TO THE CITY OF AUSTIN, PER THE LAND DEVELOPMENT CODE, 25-12-3 1612.4, CERTIFYING THAT THE STRUCTURE IS IN ACCORDANCE WITH LAKEFRONT DESIGN AND CONSTRUCTION.
3. ENVIRONMENTAL INSPECTOR HAS THE AUTHORITY TO ADD AND/OR MODIFY EROSION/SEDIMENTATION CONTROLS ON SITE TO KEEP PROJECT IN COMPLIANCE WITH THE CITY OF AUSTIN RULES AND REGULATIONS.
4. FOR LA ZONING, PERMANENT IMPROVEMENTS ARE PROHIBITED WITHIN THE SHORELINE SETBACK AREA, EXCEPT FOR RETAINING WALLS, PIERS, SHIPWRECKS, SOTHOUSES, MARINAS, OR A DOCK TO ACCESS THE STRUCTURE.

ENVIRONMENTAL INSPECTOR NOTES:

5. DOCK SHALL BE AT LEAST 66% OPEN.
6. PILINGS SHALL BE 6-5/8" DIAMETER STEEL PIPE.

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ENVIRONMENTAL INSPECTOR NOTES:

5. DOCK SHALL BE AT LEAST 66% OPEN.
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ATTACHMENT 3

PHOTO OF THE BULKHEAD
ATTACHMENT 4

BULKHEAD STRUCTURAL DETAIL

and

SEALED LETTER FROM STRUCTURAL ENGINEER
CONCRETE HEADWALL SECTION DETAIL

WOOD VENEER

#5 @ 12" OC

OLD TIMBER HEADWALL

INSTALL RIP RAP AT END OF SLIP, D= 8"-10"

SLIP BOTTOM

#4 @ 12" OC

SCALE: 1/2" = 1'-0"

T.O. BULKHEAD
495' - 3"

T.O. ROCK RIP RAP
493'-9 1/2" (493.8')

LAKE AUSTIN STANDARD ELEVATION
492' - 9 1/2" (492.8')

STATE OF TEXAS

GENERAL ENGINEER

LICENSED PROFESSIONAL ENGINEER

4/5/2017
Firm # F-3323

Item C-03
13 of 19
October 5, 2017

City of Austin
Department of Building Inspections
P.O. Box 1088
Austin, Texas 78767

RE: 1603-4213 Waters Edge Cove
Austin, TX

To Whom It May Concern:

This letter serves to describe the design approach for the concrete bulkhead replacement for the above mentioned project. Based on the required height of the bulkhead (approximately 6.5 feet) and the lateral loads induced, structural requirements dictated a 12” thick wall. A 6” concrete wall was found not to be structurally sufficient. The option of a sheet pile installation was not considered as the existing overhang of the boat dock roof did not allow for proper access for pile driving equipment.

If you have any questions, please feel free to contact this office at 512.499.0919.

Sincerely,

Jerry Garcia, PE
License 67435

[Signature]
ATTACHMENT 5

FINDINGS OF FACT
1. The requirement will deprive the applicant of a privilege available to owners of similarly situated property with approximately contemporaneous development subject to similar code requirements.

**YES.** When the lake was lowered, it became apparent that the bulkhead within the slip was failing. With the close proximity of the house to the existing bulkhead (10 ft. in some places), it’s not recommended that the existing bulkhead is removed. The only way to repair a failing bulkhead in this situation is to install a new bulkhead lakeside of the existing wall. Sheetpile, which would not have required a variance, wasn’t an option because there isn’t enough vertical clearance underneath the dock roof to install a 6.5’ tall sheetpile wall. A concrete wall was the only repair available, and a 12” thick concrete wall design was required per the structural engineer (see his sealed letter in Attachment 4). This wall was the only repair available to the owner without demolishing the dock.

2. The variance:
   a. Is not necessitated by the scale, layout, construction method, or other design decision made by the applicant, unless the design decision provides greater overall environmental protection than is achievable without the variance;

**YES.** This design is the only repair available to the owner to repair a failing bulkhead which was 10ft. from the house.

   b. Is the minimum deviation from the code requirement necessary to allow reasonable use of the property;

**YES.** The only code-compliant repair would have been sheetpile, and it wasn’t possible to install it without tearing down the dock. A 6” concrete bulkhead wasn’t a viable structural option. A 12” concrete bulkhead, constructed in front of the existing, failed, bulkhead was the only option to reinforce a bulkhead constructed as little as 10 ft. from the house.

   c. Does not create a significant probability of harmful environmental consequences.

**YES.** There are no negative environmental consequences of the wall. The concrete wall will eliminate soil leaching into the lake from the prior failing bulkhead.

3. Development with the variance will result in water quality that is at least equal to the water quality achievable without the variance.

**YES.** Water quality will not be ill-affected by the wall.
A. 1. The criteria for granting a variance in Subsection (A) are met:

   **YES. Please see answers to A (1), (2), and (3).**

2. The requirement for which a variance is requested prevents a reasonable, economic use of the entirety of the property;

   **YES. There was no method of implementing a code-compliant repair of the bulkhead without demolishing the dock.**

3. The variance is the minimum deviation from the code requirement necessary to allow a reasonable, economic use of the entire property;

   **YES. The extra 6” required to install a structurally sound bulkhead was the minimum deviation from the code.**
ENVIRONMENTAL COMMISSION MOTION 20171115 008a

Date: November 15, 2017

Subject: 4213 Waters Edge Cove, SP-2017-146D (D-10)

Motion by: Hank Smith Seconded by: Linda Guerrero

RATIONALE:

WHEREAS, staff recommends approval of the variance and the Findings of Fact have been met per the City of Austin staff, and the applicant brought this issue to the City of Austin outside of a “red tag” process; and

WHEREAS, this work has already been done and per a structural engineer, was necessary to prevent potential failure of the old bulkhead and a 12” thick wall was determined to be necessary and a 6” think wall would not be structurally sufficient;

THEREFORE, the Environmental Commission recommends support of the request for the bulk head variance to 1’ instead of the allowable 6” due to structural constraints with the following;

Staff Conditions:
- Additional planting per the Staff Determination provided in the Environmental Commission back up materials.

Environmental Commission Conditions:
- The contractor shall provide a “Public Education” letter (approved by the City of Austin) to the other contractors that perform work on boat docks to educate them on the permit process.

VOTE 10-0

For: Perales, Thompson, Istvan, Maceo, H. Smith, Guerrero, Gordon, Creel, Neely, Kitchin
Against: None
Abstain: None
Recuse: None
Absent: B. Smith

Approved By:

Marisa Perales, Environmental Commission Chair
This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.

This product has been produced by the Planning and Development Review Department for the sole purpose of geographic reference. No warranty is made by the City of Austin regarding specific accuracy or completeness.

Legend

- Site Plan Case
- Zoning

CASE#: SP-2017-0146D
ADDRESS: 4213 Watersedge Cove
CASE NAME: 4213 Watersedge Cove
MANAGER: Clarissa Davis

OPERATOR: Clarissa Davis