

## Department of Planning and Zoning

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Elsie Tillotson, Department Secretary



**TO:** Development Review Board  
**FROM:** Scott Gustin *SG*  
**DATE:** August 17, 2011  
**RE:** 12-0043 & 12-0056CA; 1 & 11 Crescent Beach Drive

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**Note: These are staff comments only; decisions on projects are made by the Development Review Board, which may approve, deny, table or modify any project. THE APPLICANT OR REPRESENTATIVE MUST ATTEND THE MEETING.**

Zone: WRL                      Ward: 4

Owner/Applicant: Carolyn & Walter Swiatek and Richard Grunert

**Request:** Replace damaged seawall with a new seawall. Repair and rebuild boathouse. No change in footprint.

### **Applicable Regulations:**

Article 4 (Maps & Districts), Article 5 (Citywide General Regulations), Article 6 (Development Criteria & Guidelines)

### **Background Information:**

The applicants are seeking approval to construct a replacement seawall for an existing damaged seawall. The proposed seawall is located entirely on 1 Crescent Beach Drive. They are also seeking approval to repair an existing boathouse and increase its height by one foot. The boathouse is shared between 1 and 11 Crescent Beach Drive. Therefore, two applications have been filed, but they are reviewed as one in these findings. As the seawall and boathouse are located partially below the 102' elevation, they are subject to review under the flood hazard area regulations in addition to dimensional and design review standards. As required, the boathouse repairs have been reviewed and approved by the State National Floodplain Insurance Program Coordinator at VT DEC. Review and approval of the new seawall is pending and must be received by August 15, 2011 per Sec. 4.5.4 (f) 5, *Mandatory DEC Notification and 30-Day Review Period*. DEC approval is deemed granted following August 15 (30 days past the July 15 project submission to DEC).

**Recommendation:** Consent approval as per, and subject to, the following findings and conditions:

### **I. Findings**

#### **Article 4: Maps & Districts**

##### **Sec. 4.4.5, Residential Districts:**

##### **(a) Purpose**

##### **(2) Waterfront Residential Low Density (WRL)**

The subject properties are located in the WRL zone. This zone is intended primarily for low density residential development in the form of single detached dwellings and duplexes with consideration given to design review. The single family home use will remain unchanged on both properties. **(Affirmative finding)**

***(b) Dimensional Standards & Density***

Lot coverage will remain unchanged. The seawall is located within the 75' lakeshore setback; however, its degree of encroachment will not exceed that of the existing wall and is allowed per Sec. 4.4.5 (d) B (i). The seawall is well under the maximum allowable height of 35'. **(Affirmative finding)**

***(c) Permitted & Conditional Uses***

The seawall and boathouse are accessory to the permitted single family homes. **(Affirmative finding)**

***(d) District Specific Regulations***

***1. Setbacks***

See Sec. 4.4.5 (a) (b) above for setback encroachment.

***2. Height***

Not applicable.

***3. Lot Coverage***

Not applicable.

***4. Accessory Residential Structures and Uses***

Not applicable.

***5. Residential Density***

Not applicable.

***6. Uses***

Not applicable.

***7. Residential Development Bonuses***

Not applicable.

***Sec. 4.5.4, Natural Resource Protection Overlay District:***

***(a) District Specific Regulations: Special Flood Hazard Area***

***(7) Special Review Criteria***

***A. The danger to life and property...***

An existing seawall and boathouse already encroach into the flood hazard area. The seawall will be replaced with a new seawall in the same location, and the boathouse will be repaired on the existing footprint. The proposed work will not increase flood heights or velocities on the lake. **(Affirmative finding)**

***B. The danger that material may be swept onto other lands...***

The new seawall is to be constructed of poured concrete and will be anchored into the ground along its base. The concrete boathouse will be repaired on top of its existing concrete foundation. There is little danger that either structure will be swept away by flood waters. **(Affirmative finding)**

**C. The proposed water supply and sanitation systems...**

Not applicable.

**D. The susceptibility of the proposed facility and its contents to flood damage...**

The seawall is a protective measure against flood damage to the property. It will be built taller than the seawall it will replace. The existing seawall experienced flood damage due to unprecedented flood levels on Lake Champlain this past spring. The boathouse will be repaired essentially as is, albeit one foot taller. **(Affirmative finding)**

**E. The importance of the services provided...**

The seawall is of little importance to the Burlington community; however, it will provide substantial protection to the private property that it will be located on. **(Affirmative finding)**

**F. The availability of alternative locations...**

Both features exist (the boathouse and the seawall) but will be repaired and replaced, respectively. By the nature of their use, they are located along the lakeshore and within the flood hazard area. Their location within the floodplain is acceptable. **(Affirmative finding)**

**G. The compatibility of the proposed use with existing development...**

Seawalls are commonplace along Burlington's lakeshore, boathouses less so. As noted above, both features exist. The proposed work will result in improvements to both features. **(Affirmative finding)**

**H. The relationship of the proposed use to the Municipal Development Plan...**

The Municipal Development Plan does not address seawalls or boathouses. It does speak to the development pattern of single family homes and duplexes in the RL and WRL zones. The subject properties contain single family homes. Insofar as homes along the lakeshore commonly have seawalls, and sometimes boathouses, the proposal can be found in compliance with the MDP. **(Affirmative finding)**

**I. The safety of access to the property...**

The new seawall and repaired boathouse will have no effect on the safety of access to the property during times of flood. **(Affirmative finding)**

**J. The expected heights, velocity, duration, rate of rise...**

The maximum regulatory flood elevation along the lakeshore is 102' above sea level. The repaired boathouse and the replacement seawall will have no impact on flood heights, velocity, duration, rate of rise, or sediment transport. **(Affirmative finding)**

**K. Conformance with all other applicable requirements...**

See Articles 4, 5, and 6 of these findings.

**Article 5: Citywide General Regulations**

***Sec. 5.2.3, Lot Coverage Requirements***

See Sec. 4.4.5 (b) above.

***Sec. 5.2.4, Buildable Area Calculation***

Not applicable.

***Sec. 5.2.5, Setbacks***

See Sec. 4.4.5 (b) above.

***Sec. 5.2.6, Building Height Limits***

See Sec. 4.4.5 (b) above.

***Sec. 5.2.7, Density and Intensity of Development Calculations***

See Sec. 4.4.5 (b) above.

***Sec. 5.5.1, Nuisance Regulations***

Nothing in the proposal appears to result in creating a nuisance under this criterion. **(Affirmative finding)**

***Sec. 5.5.3, Stormwater and Erosion Control***

As more than 400 sf of earth disturbance is proposed, a “small project erosion control” plan is required. Such a plan has been submitted to the Stormwater Administrator. Review and approval is pending. **(Affirmative finding as conditioned)**

**Article 6: Development Review Standards**

***Part 1, Land Division Design Standards***

Not applicable.

***Part 2, Site Plan Design Standards***

***Sec. 6.2.2, Review Standards***

***(a) Protection of important natural features***

The subject properties are located along the Lake Champlain shoreline. The shoreline is an identified significant natural area. Much of the properties are affected by the Natural Resource Protection Overlay District, specifically the riparian and littoral conservation zone, which stretches inland 250’ from the 100’ lakeshore elevation. However, single family homes are exempt from the conditional use review otherwise required for development within this overlay. The lots presently contain single family homes with a few trees along the property lines. No tree clearing is proposed. **(Affirmative finding)**

***(b) Topographical alterations***

Minimal topographic alteration is proposed. Backfill will be placed behind the replacement seawall; however, it will have no impact on the overall elevation of the lawn behind it. Fill and grading is proposed to bring the existing lawn up 1 foot to be consistent with the 1 foot increase in height of the boathouse. **(Affirmative finding)**

***(c) Protection of important public views***

Not applicable.

*(d) Protection of important cultural resources*  
Not applicable.

*(e) Supporting the use of alternative energy*  
Not applicable.

*(f) Brownfield sites*  
Not applicable.

*(g) Provide for nature's events*  
See Sec. 5.5.3.

*(h) Building location and orientation*  
Not applicable.

*(i) Vehicular access*  
Not applicable.

*(j) Pedestrian access*  
Not applicable.

*(k) Accessibility for the handicapped*  
Not applicable.

*(l) Parking and circulation*  
Not applicable.

*(m) Landscaping and fences*  
Existing trees will be retained. No new landscaping is proposed. Prior concrete seawall approvals granted by the DRB have entailed vegetative screening requirements. Given the poured concrete construction of the new seawall, vegetative screening along the lakeshore is needed. One or more types of vine would be acceptable. No new fencing is proposed. As the seawall is greater than 3 feet tall, review and approval by the City Engineer is required. The plans have been submitted for this review. **(Affirmative finding as conditioned)**

*(n) Public plazas and open space*  
Not applicable.

*(o) Outdoor lighting*  
Not applicable.

*(p) Integrate infrastructure into the design*  
Not applicable.

***Part 3, Architectural Design Standards***  
***Sec. 6.3.2, Review Standards***  
Not applicable.

## II. Conditions of Approval

1. **Prior to release of the zoning permit**, the “small project erosion control” form shall be reviewed and approved by the Stormwater Administrator.
2. **Prior to release of the zoning permit**, written approval of the new seawall shall be obtained from the City Engineer.
3. The seawall shall be screened along the lakeshore with vegetation (such as vines) sufficient to hide the concrete surface of the seawall. Proposed screening shall be subject to staff review and approval.
4. This approval incorporates timely comments and stipulations issued by the State National Floodplain Insurance Program Coordinator at VT DEC as related to this project.
5. The Applicant/Property Owner is responsible for obtaining all necessary Zoning Permits and Building Permits through the Department of Public Works as well as other permit(s) as may be required, and shall meet all energy efficiency codes as required.
6. Standard permit conditions 1-18.

**Scott Gustin**

**From:** Pfeiffer, Rebecca [Rebecca.Pfeiffer@state.vt.us]  
**Sent:** Monday, August 01, 2011 4:23 PM  
**To:** Scott Gustin  
**Subject:** RE: 1 Crescent Beach Dr  
**Attachments:** AccessoryStructureGuidance\_openings.pdf

Hi Scott,

I am assuming that this is the same boat house that you had a question for a week or two ago. I think that the advice that Rob had provided at that time seems like a good course of action, i.e. have some sort of deed restriction that the boat house will not be converted to another type of use. Although the general construction of the boat house allows for water to flow in and out of the structure during times of flooding, there are other types of measures that can be taken to minimize future flood damages, such as using flood-resistant materials for the new walls, like the CMU blocks that can be seen in the photos included in the application.

The other thought may be to see if there is any potential mitigation action to reduce risk to the boat house's mechanical or electrical systems, if needed (i.e. elevate to a higher level to avoid water from waves affecting the systems). It looks like all of the work is pretty much in-kind repairs except for the raising of the slab and the roof and would appear to meet minimum National Flood Insurance Program standards, as long as the project was completed as proposed. I would encourage Mr. Swiatek to contact Jeff McMahan, the VT DEC Permit Specialist, to see if any other environmental permits may be needed for this project.

Please let me know if you have any questions or comments regarding this project. As I mentioned on the phone this morning, I will be out of the office until 8/17, so please contact Kari Dolan ([kari.dolan@state.vt.us](mailto:kari.dolan@state.vt.us)) if you have any other questions about this project.

Thank you,

Rebecca

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Rebecca J. Pfeiffer, CFM  
Community Assistance Program Specialist  
River Corridor and Floodplain Management Section  
VT DEC, Water Quality Division  
103 South Main Street, Bld. 10N  
Waterbury, VT 05671-0408  
Office - 802.241.4597  
Cell - 802.760.0678  
Fax - 802.241.4537  
[rebecca.pfeiffer@state.vt.us](mailto:rebecca.pfeiffer@state.vt.us)

Flood Hazard Management Website:  
[http://www.vtwaterquality.org/rivers/htm/rv\\_floodhazard.htm](http://www.vtwaterquality.org/rivers/htm/rv_floodhazard.htm)



8/1/2011

**From:** Scott Gustin [mailto:SGustin@ci.burlington.vt.us]  
**Sent:** Tuesday, July 26, 2011 10:20 AM  
**To:** Pfeiffer, Rebecca  
**Subject:** 1 Crescent Beach Dr

Hi Rebecca,

Attached is a permit application to repair an existing boathouse on the water here in Burlington. This is the boathouse that I asked you and Rob Evans about. Its basically in the lake but extends onshore and so is technically in the flood zone. Given the nature of the use, the 1<sup>st</sup> floor elevation remains well below 103'. The work is associated with a new seawall permit application that I previously sent to you that is scheduled for the Development Review Board on August 17. Please review and comment.

Let me know if you have any questions, and thank you for all of you help.

Scott

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WATER QUALITY DIVISION

RIVER MANGEMENT PROGRAM

**ACCESSORY STRUCTURE GUIDANCE**

(as compiled from FEMA policy memos and NFIP Flood Insurance Manual)

Accessory structures are defined by FEMA as structures used solely for parking (two-car detached garages or smaller) or limited storage (small, low cost storage sheds). They are included under the general definition of structure and are consequently subject to all floodplain management regulations pertaining to structures. However, when an accessory structure represents a minimal investment, meets the requirements outlined below, and complies with all other provisions of NFIP regulations (including floodway encroachment), these structures may be wet-floodproofed and do not have to be elevated or dry floodproofed.

Such structures must meet the following requirements:

1. Accessory structures shall not be used for human habitation and the building must only be used for parking and/or storage.
2. Accessory structures shall be designed to have low flood damage potential and be constructed using flood resistant materials below the base flood elevation.
3. Accessory structures shall be constructed and placed on the building site so as to offer the minimum resistance to the flow of floodwaters and have the required openings to allow floodwaters in and out (see below or refer to Technical Bulletin 1 (August 2008) for more information about the required openings standard).
4. Accessory structures shall be adequately anchored to resist flotation, collapse, and lateral movement.
5. All building utility equipment (such as electrical and heating) shall be elevated or floodproofed.

For accessory structures that are subject to flooding, the "openings" requirement cited above should be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either:

- Be certified by a registered professional engineer or architect in accordance with FEMA Technical Bulletin 1 (August, 2008) *Openings in Foundation Walls and walls of Enclosures*, or
- Shall meet or exceed a minimum of:
  - a. Two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding.
  - b. The bottom of all openings shall be no higher than one foot above grade.



**WATER QUALITY DIVISION**

**RIVER MANGEMENT PROGRAM**

- c. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

The determination of what constitutes a "minimal investment" may be determined by the community, subject to review by FEMA if the choice exceeds the bounds of reasonableness.

Communities should make property owners aware of potential insurance ramifications of exempting accessory structures from elevation and floodproofing requirements. Property owners should check with their insurance carrier to determine any effect on their insurance rates if the accessory structure is neither elevated nor floodproofed.

In order for a community to permit accessory structures which are not elevated or dry floodproofed the community would have to include these or equivalent provisions in their flood hazard area regulations or require the issuance of a variance.

# RECEIVED

JUL 18 2011

DEPARTMENT OF  
PLANNING & ZONING

1" = 5'

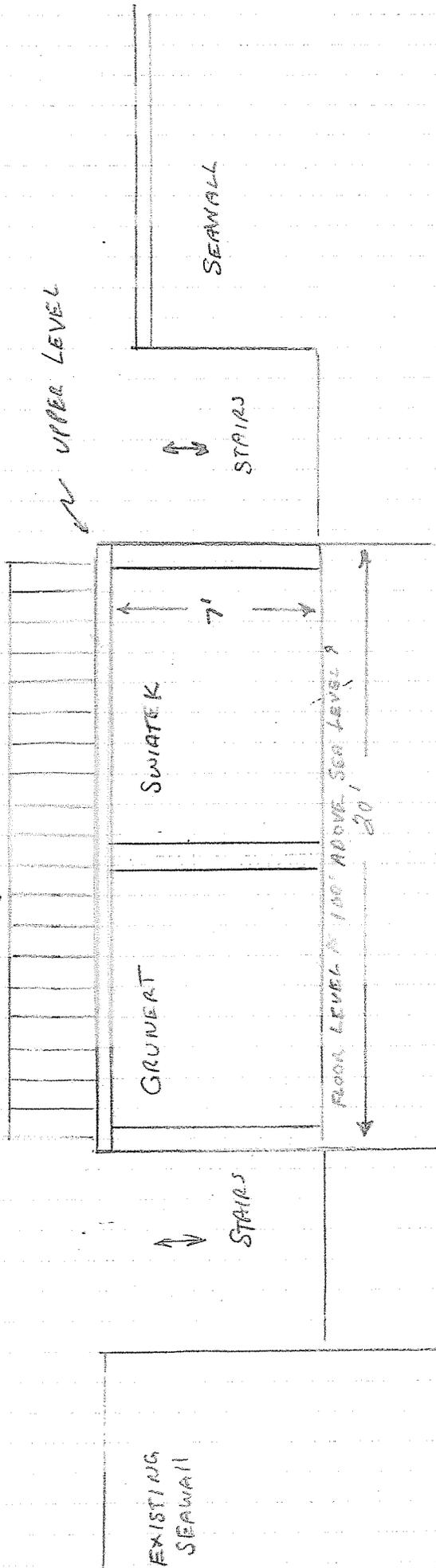
SWIATEK / GRUNERT BATHHOUSE REPAIR

PLANNED REPAIR: RAISE FLOOR LEVEL BY POURING NEW SLAB ON TOP OF EXISTING SLAB - NO FOOTPRINT INCREASE. SLAB WILL BE RAISED APPROX 10".

UPPER LEVEL TO BE RAISED TO ACCOMMODATE FLOOR.

WANS TO BE REPLACED OR REPAIRED AS NEEDED. NO SIZE INCREASE.

EXISTING RAILING



FRONT VIEW AS EXISTING

FOOTPRINT DIMENSION 26X20

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JUL 18 2011

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JUL 18 2011

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DWIATEK

1 CRESCENT BEACH DR

1" = 25'  
**RECEIVED**

JUL 18 2011

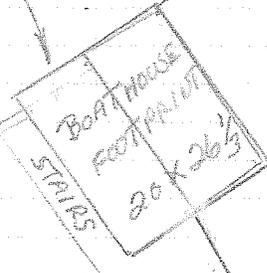
DEPARTMENT OF  
PLANNING & ZONING

NEW SEAWALL NOT TO EXTEND  
BEYOND BOATHOUSE FOOT PRINT

SEAWALL FOOTING BELOW GRADE  
AND WILL NOT EXTEND PAST  
EXISTING STONE WALL

EXISTING STONE

EXISTING WALL 73' 8"



ADJACENT  
SEAWALL

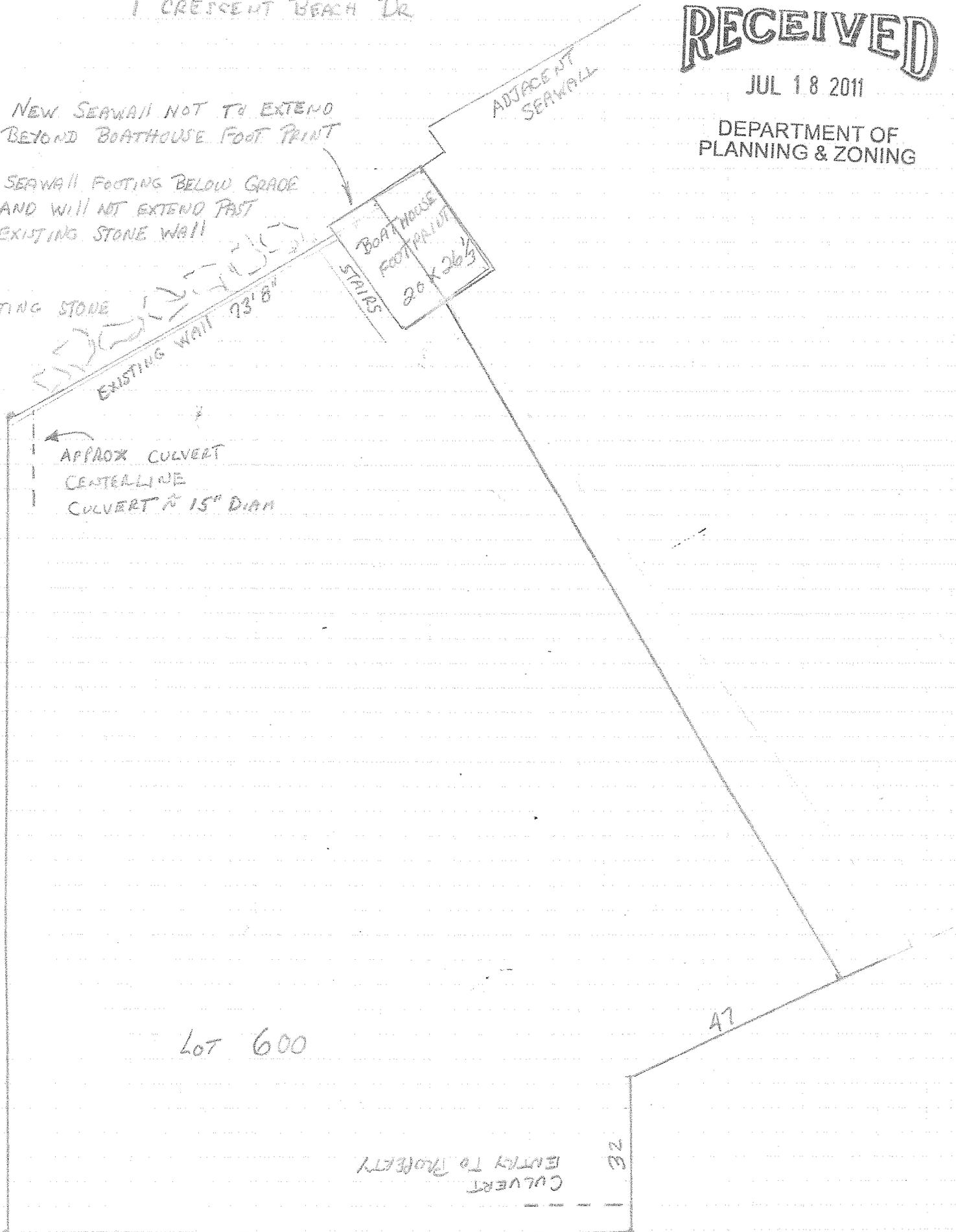
APPROX CULVERT  
CENTERLINE  
CULVERT # 15" DIAM

LOT 600

47

CULVERT  
ENTRY TO PROPERTY

32

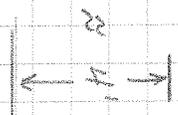


SWIATEK / CRESCENT BEACH DRIVE

1' PER BLOCK



FRONT VIEW



APPROX SHORE LEVEL ~ 99'

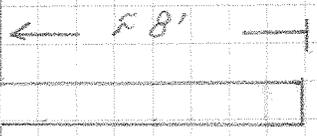


74' NOT TO SCALE

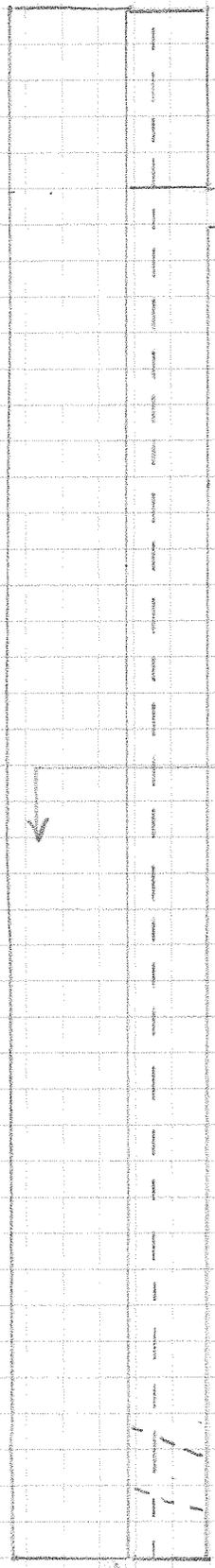
90'S LEVEL

LOW LEVEL OF BASE OF P.S.'S

TOP VIEW



B



WH/1 CONSTRUCTION - REINFORCED CONCRETE



CULVERT

DEPARTMENT OF PLANNING & ZONING

JUL 12 2011

RECEIVED

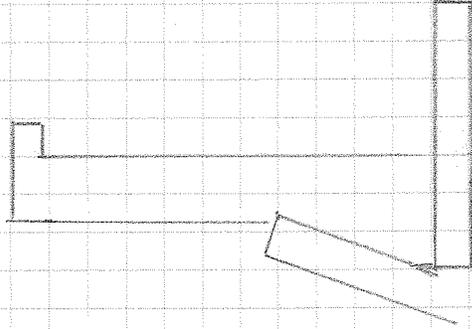
RECEIVED

JUL 12 2011

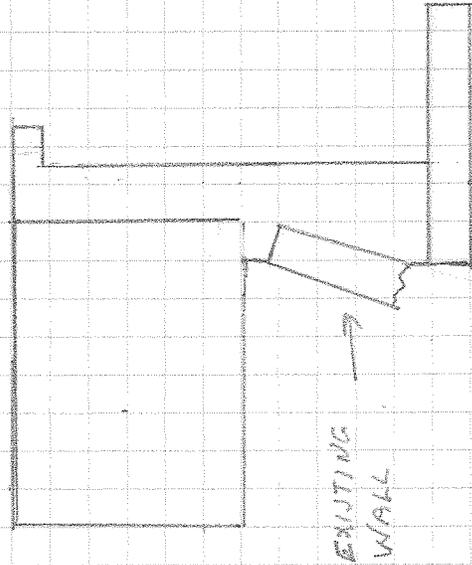
DEPARTMENT OF  
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SWIATEK / CRESCENT BRANCH DRIVE

B



A



EXISTING  
WALL

RECEIVED

JUL 17 2011

DEPARTMENT OF  
PLANNING & ZONING



RECEIVED

JUL 12 2011

DEPARTMENT OF  
PLANNING & ZONING

