

**Project Description**  
**583 Forest Acres Road**  
**Tax Map 119 Lot 21**  
**Zone R2 & Shoreland Overlay Districts**

The proposal is to remove the existing cottage and construct a new cottage, including a minor expansion of 209 square feet of additional living space. The proposed chimney replaces an existing chimney currently located within the 50-foot shoreland buffer. The new cottage will be constructed within the same footprint as the existing structure, with the exception of the new chimney and the additional 209 square feet of living space as well as a covered entry and bulkhead. This additional living space will be located in the woodland buffer. The new construction will result in a modest increase in impervious surfaces within the 50-foot waterfront buffer and the woodland buffer. The Applicant is seeking variances from:

- Article XVI, Section C. (2)
- Article XVI, Section F. (2)b.
- Article XX, Section B. (2) a.,(3),(5)b.2.
- Article XIII, Section D.(8), F.(1)

A NH Department of Environmental Services (NHDES) Shoreland permit will also be required for this project, but has not yet been sought. An application will be filed following a successful outcome of the local permitting process

A certified Boundary was recently completed confirming the property lines of the property; a copy of the Boundary Plan is submitted with this application. A Letter of Map Amendment (LOMA) was approved by FEMA for this property. The existing cottage is located outside of this floodplain designation. The proposed cottage will also be located outside of the floodplain designation, and all living space and mechanical equipment will be located at elevations above the flood plain elevation. The site is located entirely within the 250-foot Shoreland District. Portions of this property are located within the floodplain, the property also contains Town-designated wetlands, and a portion of the property is within the 100-foot stream buffer zone. Although a portion of the site is encumbered by the wetland and stream buffers, all existing and proposed structures are located outside of these buffers.

There will be no expansion of use. The existing structure is a 2-bedroom house has a pier foundation. The proposed cottage will also be a 2-bedroom house, but will have 4-foot concrete frost walls around the perimeter, with a crawl space. The existing garage and gravel driveway will remain as-is. There is also an existing septic system servicing the cottage. The existing septic tank and leachfield are located in the woodland buffer. This project will replace the existing septic tank/pump chamber in its current location, but the leachfield will remain as-is. As the existing septic system is over 20 years old, a new septic system has been designed as required by NHDES and the Town of New London given that the dwelling footprint is proposed to be expanded. The new leachfield does not need to be installed until such time that the current field is determined to be in failure.

In order to demolish the existing structures and construct the proposed structure, there will be some disturbance within the 50-foot waterfront buffer. One tree is proposed for removal within

the 50-foot waterfront buffer. In addition, the new (replacement) chimney is proposed within the 50-foot waterfront buffer (but within the limits of temporary disturbance area impacted by foundation construction). Otherwise, there will be minimal disturbance within the 50-foot waterfront buffer. The footing and foundation excavation work will be accomplished from inside the existing structure footprint. No excavation machinery is proposed to be operating within the 50-foot waterfront buffer other than from inside the existing and proposed structure. Disturbance beyond the proposed foundation is proposed to be temporary and limited to approximately 5 feet.

APPLICATION FOR A VARIANCE

To: Zoning Board of Adjustment, Town of New London

Name of owner/applicant: David & Risa Radeke

Mailing Address: 5192 Little Brook Ct, Sarasota State: FL Zip 34238

Home Telephone: 941-924-7976 Work Telephone: N/A Cell: 305-458-4654

Email address: djradeke@gmail.com

Owner of property: same (if same as applicant, write "same")

Location of property 583 Forest Acres Road, New London, NH

Tax Map Number: 119 Lot Number: 021 Zone: Residential 2

A variance is requested from the provisions of Article: XVI Section: C. (2) F. (2)
XX B. (2) (3) (5)
XIII Section: D. (8), F. (1) of
the Zoning Ordinance to permit Reconstruction and limited expansion of existing
non- confirming structure.

Facts supporting this request:

1. The variance will not be contrary to the public interest:

See Attached

2. The spirit of the ordinance is observed:

See Attached

3. Substantial justice is done:

See Attached

4. The values of surrounding properties are not diminished; and:

See Attached

5. Literal enforcement of the provisions of the ordinance would result in an unnecessary hardship.

A. For purposes of this subparagraph, "unnecessary hardship" means that, owing to special conditions of the property that distinguish it from other properties in the area:

(1) No fair and substantial relationship exists between the general public purposes of the ordinance provision and the specific application of that provision to the property;

See Attached

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ and

(2) The proposed use is a reasonable one;

See Attached

\_\_\_\_\_  
\_\_\_\_\_

B. If the criteria in subparagraph (A) are not established, an unnecessary hardship will be deemed to exist if, and only if, owing to special conditions of the property that distinguish it from other properties in the area, the property cannot be reasonably used in strict conformance with the ordinance, and a variance is therefore necessary to enable a reasonable use of it.

See Attached

\_\_\_\_\_

Owner/applicant(s) Signature: David J. Radtke Date: 1-8-2017  
Risa Radtke

**NOTE:** This application is not acceptable unless all required statements have been made. Additional information may be supplied on a separate sheet if the space provided is inadequate.

For questions or assistance in completing these forms, please contact:

Lucy St. John, Zoning Administrator

603-526-4821, ext. 16

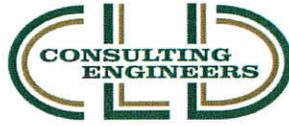
Email: [zoning@nl-nh.com](mailto:zoning@nl-nh.com)

Or

Amy Rankins, Assessing Coordinator

603-526-4821, ext. 20

Email: [landuse@nl-nh.com](mailto:landuse@nl-nh.com)



**Addendum to Application for Variance  
583 Forest Acres Road  
Tax Map 119 Lot 21  
Zone R2 & Shoreland Overlay Districts**

1. The variance will not be contrary to the public interest:

The existing non-conforming structure, originally constructed in 1940 will be replaced and slightly expanded. It will continue to be a single family 2-bedroom dwelling of similar size, or smaller than, other residential buildings on properties along Forest Acres Road, within the shoreland overlay district.

The expansion of the structure will comply with the current zoning side and front (road) setbacks. The living space footprint will expand on the non-waterfront side by a total of 209 square feet. A new chimney is proposed within the 50 foot waterfront buffer. Total site impacts for the proposed cottage are reduced by utilizing the existing footprint area for the proposed structure. The proposed foundation frost wall construction with a crawl space will aid in minimizing excavation disturbances to the overall site vs. a full basement foundation.

2. There is also an existing septic system servicing the cottage. The existing septic tank and leachfield are located in the woodland buffer. This project will replace the existing septic tank/pump chamber appears to be infiltrating groundwater, and as such will be replaced in its current location. This will have no permanent effect on the existing ground surface characteristics. The leachfield will remain as-is. The height of the proposed structure is a maximum of 27 feet above the ground surface. This proposed maximum height allows for more efficient use of the proposed living space while limiting horizontal expansion. Many of the other structures along Messer Pond and in the area of the site are of similar height as the proposed structure for this property. The spirit of the ordinance is observed:

The proposed chimney will replace an existing chimney located within the waterfront buffer, the proposed chimney will be approximately 26" by 26", similar in size to the existing chimney, and will also be within the 50-foot waterfront buffer.

In reference to Article 16, Section F2b, disturbance to the natural ground cover will be limited to approximately 5 feet outside the existing footprint in order to safely construct the concrete footings and foundation walls for the parent structures. The disturbed areas will be backfilled in as soon as possible after the foundation footings and walls have cured, returning the area to its natural condition. Erosion control measures will be employed during all earth disturbing work until the work areas are stabilized.

The proposed building expansion of 209 feet, plus appurtenances, is entirely within the woodland buffer, away from the waterfront. Stormwater management measures, including infiltration techniques, have been incorporated into the site design. The proposed building construction and expansion is considered small by today's standards. Given these facts, the

proposal is consistent with the spirit of the ordinances. In addition, the improvements to the existing septic tank/pump chamber is considered a betterment, and is consistent with the spirit of the ordinance.

3. Substantial Justice is done:

The existing cottage is over 75 years old. Some form of work needs to be done to it; replacing it with modern materials and methods will reduce the need for more frequent maintenance or disturbance within the waterfront buffer zone. Any work on the cottage to upgrade to current building codes plus building improvements to replace what currently exists will likely result in a cost greater than 50% of the current appraised value.

4. The values of surrounding properties are not diminished:

Many properties in the area are within the 50 feet waterfront buffer. A new structure will enhance the values of surrounding properties. Upgrading and making improvements to this property, which increases its value also has an indirect affect in raising the value of surrounding properties. Much of the site excavation work for the proposed improvements will be performed from working within the existing footprint of the proposed structure to minimize impacts to the overall site. The increased structure height does not degrade the views from any abutting lots and the proposed expansion is not reducing the separation distance between neighboring structures.

5. Literal enforcement of the provisions of the ordinance would result in an unnecessary hardship:

a. For purposes of this paragraph, "unnecessary hardship" means that, owing to special conditions of the property that distinguish it from other properties in the area.

i. No fair and substantial relationship exists between the general public purposes of the ordinance provision and the specific application of that provision to the property:

It is the intent of the ordinance that property owners should be allowed to continue their non-conforming structure on the property.

This property is burdened by the town's designated wetland and stream buffers, the shoreland district buffers, unaltered areas, as well as the floodplain. There is no reasonable alternative cottage location meeting all of these shoreland and buffer requirements. Of particular concern would be the impact to the unaltered areas, the wetland buffer, and added temporary earthwork impacts that would be created by attempting to relocate the primary structure. Siting an alternative cottage location is further complicated by the presence of an existing garage, existing waterfront deck and outdoor steps (to remain as-is) and an existing septic system configuration. It is important to note that the existing cottage does not meet the 50-foot shoreland setback, but is grandfathered in its present location. The replacement septic tank/pump chamber is proposed to be constructed in the same footprint as the existing septic tank/pump chamber. This is the least impacting location given the existing on-site infrastructure including septic piping, force main, and applicable buffers. CLD, in representing the owners of this property, feels the proposed site plan as presented better addresses the spirit

of the zoning ordinance in regards to all buffers, setbacks and unaltered areas as defined in the ordinance as compared to the existing cottage and associated appurtenances. Specific measures have been taken in designing the new cottage placement and proposed site plan to mitigate impacts.

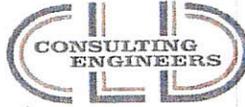
ii. The proposed use is a reasonable one;

The property will continue to be a single-family residential use, constructed within the existing footprint with the exception of a relocated chimney and 209 square feet of living space. The structure will be upgraded with modern construction materials that are compliant with current construction and safety codes. The proposed primary structure will remain within the grandfathered existing footprint, and will be no closer to the Reference line than the present dwelling. Impacts to the wetland buffer have been minimized with the proposed site plan to prevent impacts to water quality. Infiltration of site runoff has been designed to reduce runoff volumes. The proposed site plan maintains separation between wetland areas and potential stormwater runoff and other elements that can generate water quality impacts. In so doing the general public purpose of the ordinance specific to the waterfront and wetland buffers is maintained.

iii. If the Criteria in sub paragraph A are not established, an unnecessary hardship will be deemed to exist if, and only if, owing to special conditions of the property that distinguish it from other properties in the area, the property cannot be reasonably used in strict conformance with the ordinance, and a variance is therefore necessary to enable a reasonable use of it.

The height of the proposed structure is proposed to be between 26 and 27 feet above the ground surface. The proposed height allows for reasonable and more efficient use of the living space, and limits footprint expansion. In addition, the proposed height is driven by the fact that this property is within the 100-year flood plain. As such, the proposed first floor and crawl space elevations are proposed to be above the 100-year flood elevation. Keeping the living space and the crawl space, which is proposed to contain mechanical equipment, above the flood plain elevation necessitates the variance request for height. It should be noted that many other structures along Messer Pond and in the area of the site are of similar height as the proposed structures for this property.

The specific conditions of this property do not allow for a reasonable use of the property for a lakefront home without relief from the 50-foot waterfront buffer and the wetland buffer. Relocating the proposed cottage to a location outside of the 50-foot waterfront buffer would result in permanent and temporary impacts that the zoning ordinance has attempted to protect against. Some of these impacts would include the need for additional tree cutting, impacts to existing unaltered areas, additional temporary impacts to remove existing deck and outdoor steps, and additional impacts to the designated wetland buffer. The cottage orientation would not be to the pond and then the site does not have characteristics of a lakefront property. The existing cottage placement and septic system are a grandfathered condition that should be allowed to continue.



We, David & Risa Radeke, Owners of Tax Map 119 Lot 21, aka 583 Forest Acres Road, in New London, NH give authorization to CLD Consulting Engineers, Inc. of 28 Gates St., White River Jct., Vt. to represent us at hearing(s) with the Town of New London Zoning Board of Adjustment regarding Zoning Board Approval(s) for the above referenced property.

*David J Radeke*

Signed

*1-8-2017*

Dated

*Risa Radeke*

Signed

NEW HAMPSHIRE ♦ VERMONT ♦ MAINE

28 Gates Street, Suite 100 ♦ Historic Downtown White River Junction ♦ White River Jct., VT 05001

Phone: (802) 698-0370 ♦ Fax: (877) 895-4949

[clduv@cldengineers.com](mailto:clduv@cldengineers.com) ♦ [www.cldengineers.com](http://www.cldengineers.com)

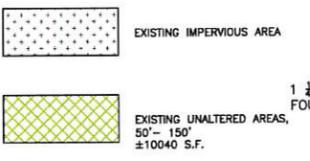
**TAX MAP 119 LOT 20**  
DAVID & ANNE WUSTROW  
116 VALLECITOS WAY  
LOS GATOS, CA. 95032

**TAX MAP 119 LOT 5**  
DAVID & RISA RADEKE  
5192 LITTLE BROOK COURT  
SARASOTA, FL. 34237

**EXISTING IMPERVIOUS AREA CALCULATION**  
TOTAL LOT AREA WITHIN 250': ±73,180 S.F.

IMPERVIOUS AREAS:	
HOUSE, STAIRS & DECKS	±1235 S.F.
GARAGE	± 405 S.F.
GRAVEL DRIVE	± 715 S.F.
<b>TOTAL IMPERV. AREA</b>	<b>±2355 S.F.</b>

$2355/73180 = \pm 3.2\%$  COVERAGE



- LEGEND**
- PROPERTY LINE
  - SETBACK LIMITS
  - LAKE HWM REFERENCE LINE
  - EXISTING BLDG ROOF
  - STONEWALL
  - TREELINE
  - EXIST. CONIFEROUS TREE
  - EXIST. DECIDUOUS TREE
  - △ SURVEY CONTROL POINT
  - UTILITY POLE
  - ⊙ PHOTO LOCATION & ORIENTATION

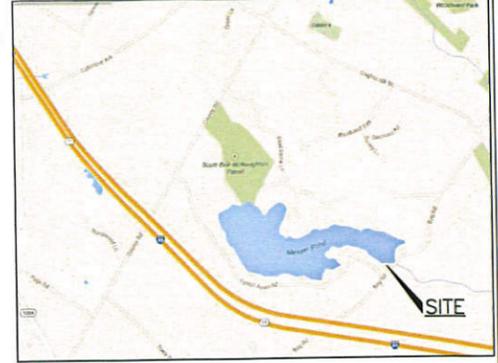
**TAX MAP 119 LOT 4**  
ROBERT & SANDRA BROWN TRUSTS  
449 FOREST ACRES ROAD  
NEW LONDON, NH 03257

UTILITY POLE  
PSNH/60A-13/TDS/1041/13

**TAX MAP 119 LOT 20**  
DAVID & ANNE WUSTROW  
116 VALLECITOS WAY  
LOS GATOS, CA. 95032

EXISTING HOUSE  
GENERATOR PAD  
UTILITY POLE  
PSNH/14A /KTCO/14A

- PLAN REFERENCES:**
1. PLAN TITLED "SECTION 1 PLAN OF LOTS IN FOREST ACRES, NEW LONDON, MERRIMACK CO., N.H. BELONGING TO FOREST W. KIMBALL + GEORGIA W. KIMBALL" PREPARED BY H.E. JOHNSON, C.E. DATED DEC. 15, 2016. RECORDED IN MERRIMACK COUNTY REGISTRY OF DEEDS AS PLAN #1467.
  2. PLAN TITLED "PLAN OF STANDARD PROPERTY SURVEY AND PLAN OF EXISTING CONDITIONS - JUNE 29, 2015. TAX MAP 119 LOT 3 - 575 FOREST ACRES ROAD, DAVID J. AND ANNE J. WUSTROW" PREPARED BY PENNYROYAL HILL LAND SURVEYING & FORESTRY LLC DATED AUGUST 5, 2015. REVISED OCTOBER 9, 2015. RECORDED IN MERRIMACK COUNTY REGISTRY OF DEEDS AS PLAN #201500017953.
  3. PLAN TITLED "PLAN OF BOAT LANCH AREA FOR GERALD & ELIZABETH P. ROGOFF." PREPARED BY BRISTOL, SWEET & ASSOC., INC. DATED NOVEMBER 11, 2005. RECORDED IN MERRIMACK COUNTY REGISTRY OF DEEDS AS PLAN #17810.



**MESSER POND**  
NORMAL HIGH WATER  
ELEV. 1104.7 (NAVD 88),  
EQUIVALENT TO 1105.0 (NGVD 29)  
(REFERENCE LINE)  
(SEE NOTE #4)

**NHDES VEGETATED SCORECARD - EXISTING CONDITIONS**

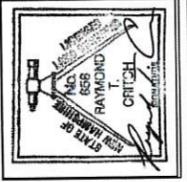
	CELL 1		CELL 2	
	Quan	NHDES Pnts	Quan	NHDES Pnts
<b>TREES</b>				
1-3" cal. (1 Point/ Ea Tree)	6	6	24	24
3-6" cal. (5 Point/ Ea Tree)	1	5	9	45
6-12" cal. (10 Point/ Ea Tree)	10	100	8	80
>12" cal. (15 Point/ Ea Tree)	2	30	2	30
<b>TOTAL POINTS-EXISTING VEGETATION</b>		141		179

**NEW LONDON VEGETATED SCORECARD - EXISTING CONDITIONS**

	CELL 1		CELL 2	
	Quan	NHDES Pnts	Quan	NHDES Pnts
<b>TREES</b>				
1-6" cal. (1 Point/ Ea Tree)	7	7	33	33
6-12" cal. (5 Point/ Ea Tree)	10	50	8	40
12"+ cal. (10 Point/ Ea Tree)	2	20	2	20
<b>TOTAL POINTS-EXISTING VEGETATION</b>		77		93

- NOTES:**
- 1) OWNER OF RECORD/APPLICANT:  
DAVID & RISA RADEKE  
5192 LITTLE BROOK COURT  
SARASOTA, FL 34237
  - 2) TAX MAP 119 LOT 021  
LOT AREA: ±1.68 AC  
  
PARCEL IS IN THE RESIDENTIAL R2 ZONING DISTRICT, FLOODPLAIN OVERLAY, WETLANDS CONSERVATION OVERLAY & SHORELAND OVERLAY DISTRICTS:  
  
FRONT SETBACK: 25'  
SIDE SETBACK: MINIMUM 20' FOR ONE SIDE, TOTAL OF 50' FOR BOTH SIDES.  
REAR SETBACK: 15'
  - 3) DEED REF. BK. 3530 PG. 1002
  - 4) 100 YEAR FLOOD ELEVATION 1104.7 BASED ON FEMA LETTER OF MAP AMENDMENT DETERMINATION DOCUMENT (LOMA) CASE # 12-01-0503A DATED 4-19-2010
  - 5) ENTIRE PROPERTY IS LOCATED WITHIN THE 250' SHORELAND BUFFER.

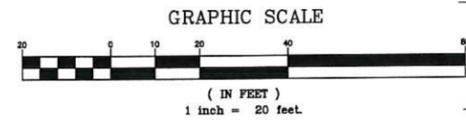
**CONSULTING ENGINEERS**  
38 Gates Street • Suite 100  
Wethersfield, VT 05001  
(802) 698-0370 • Fax: (877) 955-4949  
eld@eldengineers.com • www.eldengineers.com  
Maine • New Hampshire • Vermont



**DAVID & RISA RADEKE**  
5192 LITTLE BROOK COURT  
SARASOTA, FL 34237

**TAX MAP 119 LOT 21**  
583 FOREST ACRES RD  
NEW LONDON, NH  
**BOUNDARY & EXISTING CONDITIONS PLAN**

SCALE: 1"=20'	PROJECT NO. 16-0320
DATE: 11-2016	DWG. NO. EX1



**TAX MAP 119 LOT 02**  
TOWN OF NEW LONDON  
375 MAIN ST.  
NEW LONDON, NH 03257

**TAX MAP 119 LOT 01**  
BETH GREENWALT  
52 ST. MARY ROAD  
MILTON, MA. 02186

**TAX MAP 106 LOT 11**  
BETH GREENWALT  
52 ST. MARY ROAD  
MILTON, MA. 02186

**FOREST ACRES ROAD (GRAVEL)**

**BOG ROAD (PAVED)**

**TAX MAP 119 LOT 21**  
AREA: ±1.68 AC

APPROX. LOCATION EXISTING SEPTIC LEACHFIELD (CONCRETE CHAMBERS)  
CA#165836-A  
7-13-1989

WETLAND LIMIT BASED ON TOWN OF NEW LONDON GIS MAPPING

100' WETLAND BUFFER (BASED ON TOWN OF NEW LONDON GIS MAPPING)

EXISTING WETLAND LIMITS FROM PREVIOUS SEPTIC DESIGN  
CA#165836-A

IRON PIPE FOUND LYING ON GROUND

50'x50' TREE COUNT CELL LINE (TYP)

RUSTED IRON PIPE FOUND  
WATER ELEV. 1103.61'  
ON NOVEMBER 01, 2016

EXISTING SEPTIC TANK & PUMP CHMBR.

EXIST. GARAGE SLAB EL. ±1109.4

EXISTING 2 BEDROOM HOUSE  
F.F. EL. ±1111.9

50'- WATERFRONT BUFFER (SEE NOTE #5)

1 1/4" IRON PIPE FOUND UP 1.3'

CAPPED REBAR FOUND FLUSH WITH INSCRIPTION READING "C.E. PLATT" AT BASE OF LEANING 1 3/4" IRON PIPE UP 1.2'

1 1/4" IRON PIPE FOUND UP 1.3'

TBM  
NAIL IN POLE# PSNH60A-14  
ELEV.=1110.3'

UTILITY POLE  
KTCO/14

APPROX. LOCATION EXISTING SEWER FORCMAIN

EXISTING 12" CMP CULV.

UTILITY POLE  
PSNH/60A/13 1/2/KTCO/13 1/2

1 1/4" IRON PIPE FOUND UP 2.0'

UTILITY POLE  
PSNH/60A-13/TDS/1041/13

UTILITY POLE NO NUMBERS  
PSNH60A-12

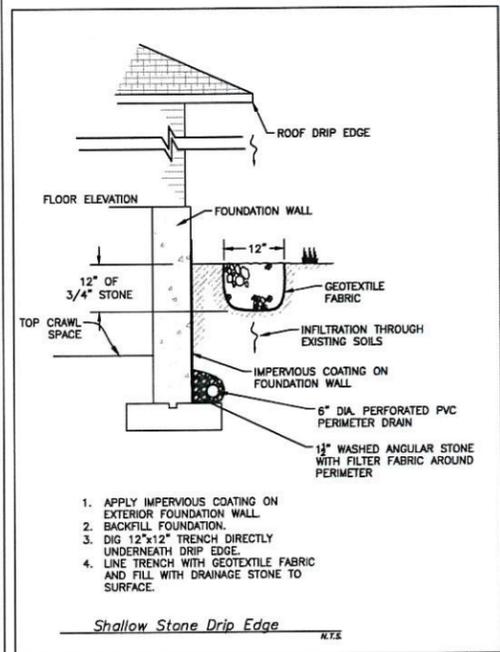
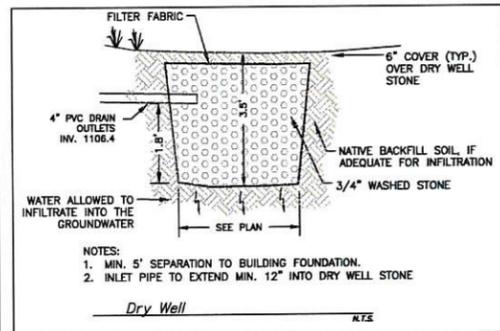
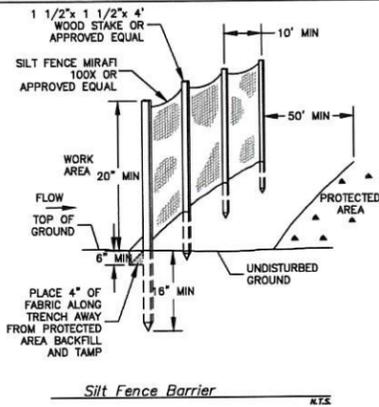
STREAM BUFFER (TOWN)

CAPPED REBAR DOWN 0.5'

8" REBAR UP 0.1'

EXISTING 48" CMP CULVERT

BOAT RAMP



**PROPOSED IMPERVIOUS AREA CALCULATION**  
TOTAL LOT AREA WITHIN 250': ±73,180 S.F.

IMPERVIOUS AREAS:  
HOUSE, STAIRS & DECKS ±1390 S.F.  
GARAGE ±405 S.F.  
GRAVEL DRIVE ±715 S.F.  
TOTAL IMPERV. AREA ±2510 S.F.

2510/73180 = ±3.4% COVERAGE

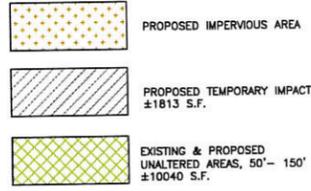
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	CELL 1		CELL 2	
	Quan	NHDES Pnts	Quan	NHDES Pnts
<b>TREES</b>				
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**NEW LONDON VEGETATED SCORECARD - PROPOSED CONDITIONS**

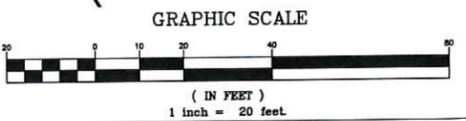
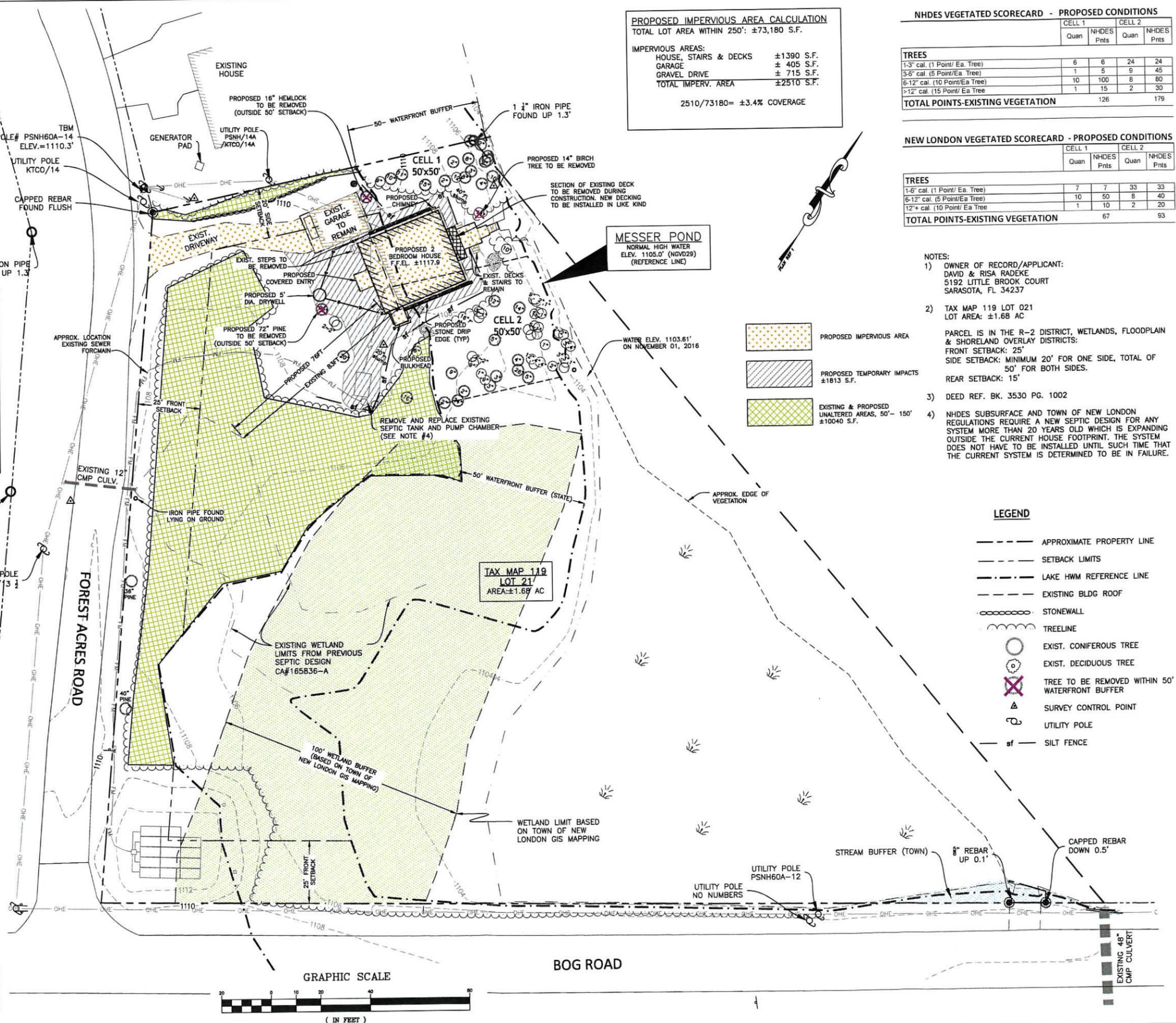
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	Quan	NHDES Pnts	Quan	NHDES Pnts
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12"+ cal. (10 Point/ Ea. Tree)	1	10	2	20
<b>TOTAL POINTS-EXISTING VEGETATION</b>		67		93

- NOTES:
- OWNER OF RECORD/APPLICANT:  
DAVID & RISA RADEKE  
5192 LITTLE BROOK COURT  
SARASOTA, FL 34237
  - TAX MAP 119 LOT 021  
LOT AREA: ±1.68 AC  
PARCEL IS IN THE R-2 DISTRICT, WETLANDS, FLOODPLAIN & SHORELAND OVERLAY DISTRICTS:  
FRONT SETBACK: 25'  
SIDE SETBACK: MINIMUM 20' FOR ONE SIDE, TOTAL OF 50' FOR BOTH SIDES.  
REAR SETBACK: 15'
  - DEED REF. BK. 3530 PG. 1002
  - NHDES SUBSURFACE AND TOWN OF NEW LONDON REGULATIONS REQUIRE A NEW SEPTIC DESIGN FOR ANY SYSTEM MORE THAN 20 YEARS OLD WHICH IS EXPANDING OUTSIDE THE CURRENT HOUSE FOOTPRINT. THE SYSTEM DOES NOT HAVE TO BE INSTALLED UNTIL SUCH TIME THAT THE CURRENT SYSTEM IS DETERMINED TO BE IN FAILURE.



**LEGEND**

- APPROXIMATE PROPERTY LINE
- SETBACK LIMITS
- LAKE HWM REFERENCE LINE
- EXISTING BLDG ROOF
- STONEWALL
- TREELINE
- EXIST. CONIFEROUS TREE
- EXIST. DECIDUOUS TREE
- ⊗ TREE TO BE REMOVED WITHIN 50' WATERFRONT BUFFER
- △ SURVEY CONTROL POINT
- UTILITY POLE
- sf SILT FENCE



ADD STREAM & WETLAND BUFFERS, TITLE

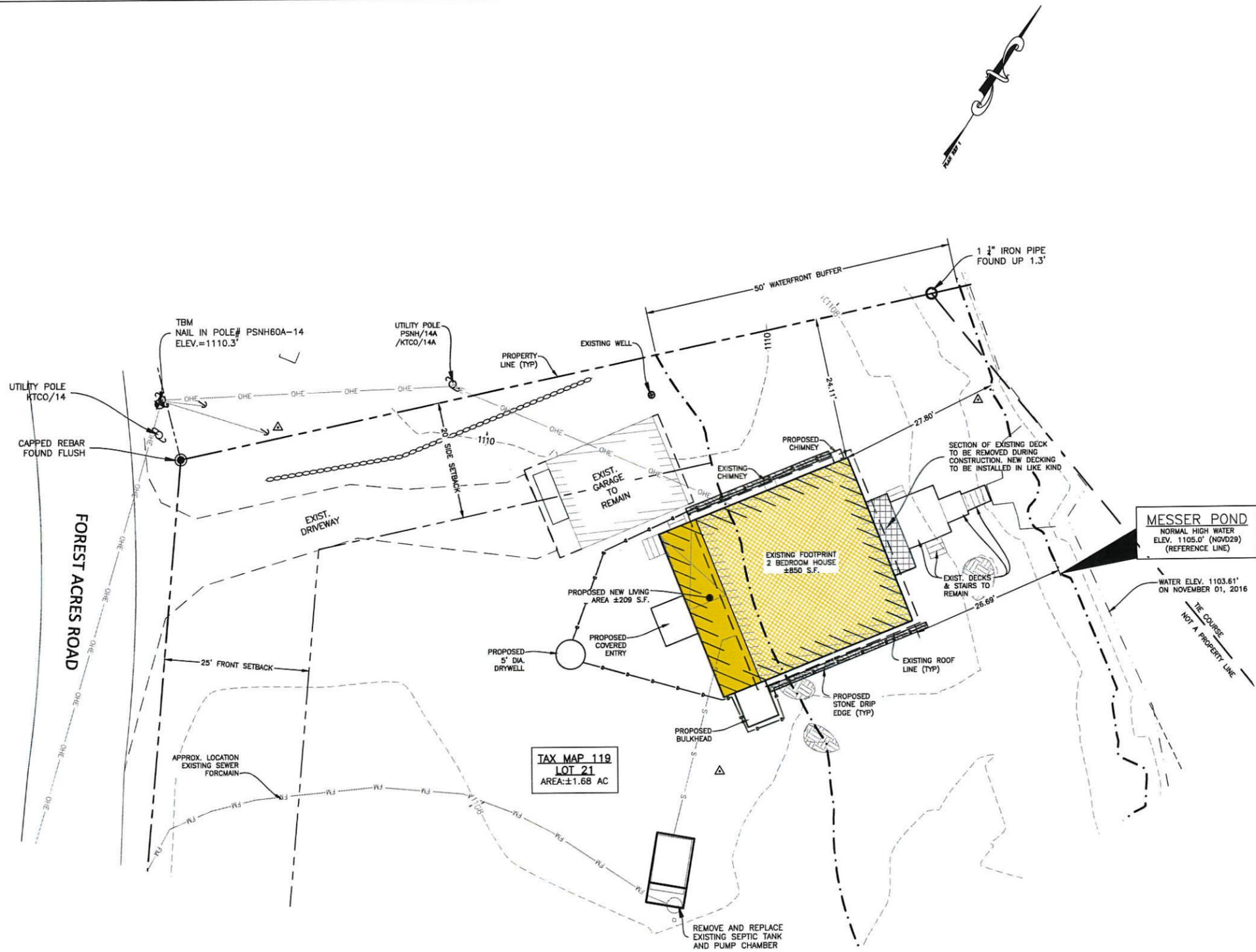
NO.	DATE	REVISION	DESIGNED:	CHECKED:	APPROVED:
1	11-11-17		DRWN: LBB		

**CONSULTING ENGINEERS**  
28 Gates Street • Suite 100  
White River Jct. VT 05601  
(802) 698-0370 • Fax: (877) 895-4949  
cde@aldengineers.com • www.aldeengineers.com  
Maine • New Hampshire • Vermont

CLIENT:  
**DAVID & RISA RADEKE**  
5192 LITTLE BROOK COURT  
SARASOTA, FL 34237

TAX MAP 119 LOT 21  
583 FOREST ACRES RD  
NEW LONDON, NH  
**ZONING HEARING PLAN**

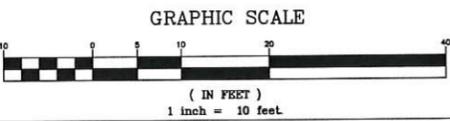
SCALE: 1"=20'	PROJECT NO. 16-0320
DATE: 11-2016	DWG. NO. 21



- NOTES:
- 1) OWNER OF RECORD/APPLICANT:  
DAVID & RISA RADEKE  
5192 LITTLE BROOK COURT  
SARASOTA, FL 34237
  - 2) TAX MAP 119 LOT 021  
LOT AREA: ±1.68 AC
- PARCEL IS IN THE R-2 DISTRICT, WETLANDS, FLOODPLAIN & SHORELAND OVERLAY DISTRICTS:  
FRONT SETBACK: 25'  
SIDE SETBACK: MINIMUM 20' FOR ONE SIDE, TOTAL OF 50' FOR BOTH SIDES.  
REAR SETBACK: 15'
- 3) DEED REF. BK. 3530 PG. 1002
  - 4) NHDES SUBSURFACE AND TOWN OF NEW LONDON REGULATIONS REQUIRE A NEW SEPTIC DESIGN FOR ANY SYSTEM MORE THAN 20 YEARS OLD WHICH IS EXPANDING OUTSIDE THE CURRENT HOUSE FOOTPRINT. THE SYSTEM DOES NOT HAVE TO BE INSTALLED UNTIL SUCH TIME THAT THE CURRENT SYSTEM IS DETERMINED TO BE IN FAILURE.

**LEGEND**

- APPROXIMATE PROPERTY LINE
- SETBACK LIMITS
- - - LAKE HWM REFERENCE LINE
- - - EXISTING BLDG ROOF
- STONEWALL
- TREELINE
- EXIST. CONIFEROUS TREE
- EXIST. DECIDUOUS TREE
- ⊗ TREE TO BE REMOVED WITHIN 50' WATERFRONT BUFFER
- △ SURVEY CONTROL POINT
- UTILITY POLE



NO.	DATE	REVISION	REVISION TITLE
1	1-11-17		
DRAWN:	LBB	CHECKED:	BY
DESIGNED:		DAS/BV	APPROVED:

**CONSULTING ENGINEERS**

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White River Jet. VT 05001  
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CLIENT:

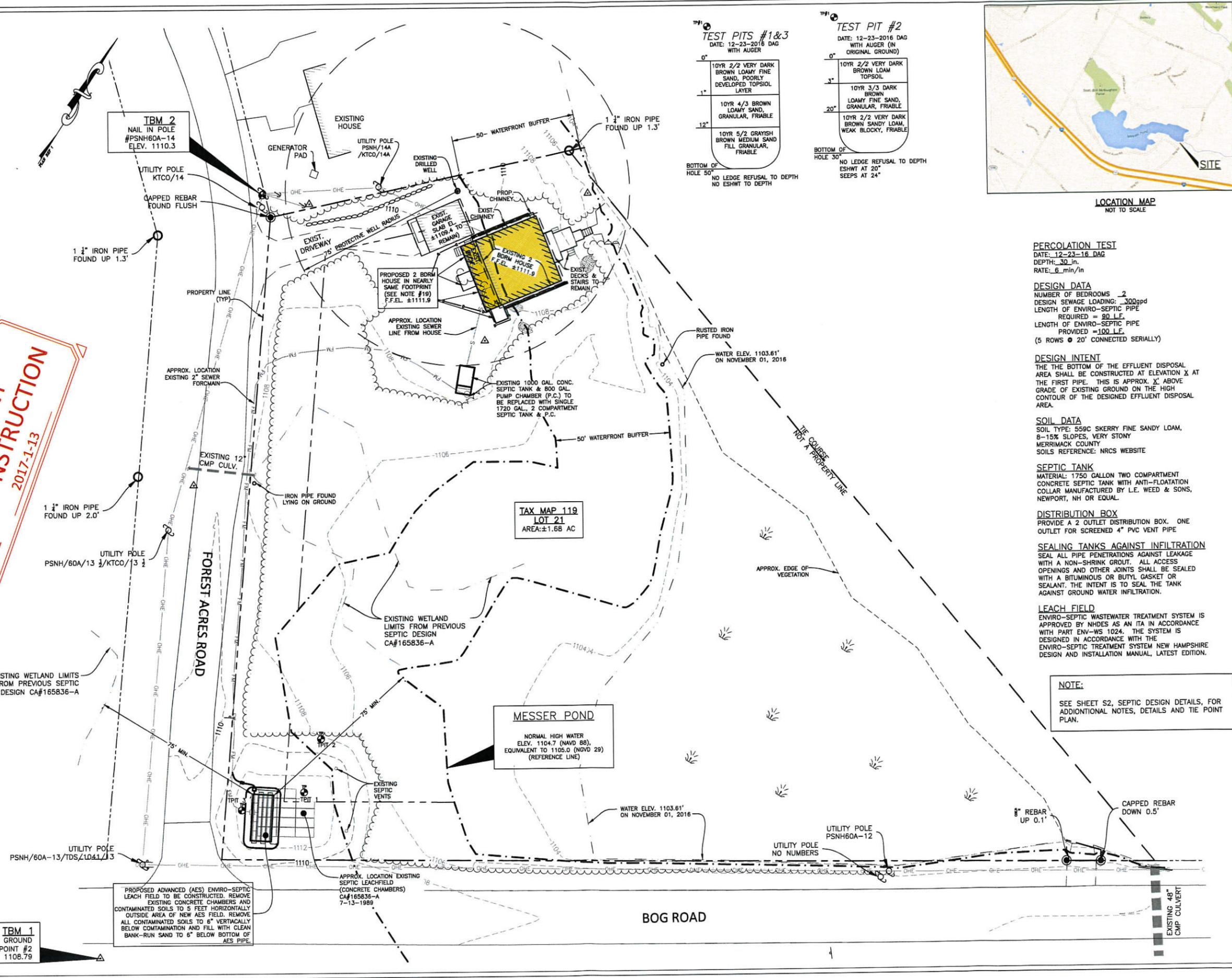
**DAVID & RISA RADEKE**  
5192 LITTLE BROOK COURT  
SARASOTA, FL 34237

TAX MAP 119 LOT 21  
583 FOREST ACRES RD  
NEW LONDON, NH

**ZONING HEARING  
DETAIL PLAN**

SCALE:	PROJECT NO.
1"=10'	16-0320
DATE:	DWG. NO.
11-2016	<b>Z2</b>

**PROGRESS PRINT  
NOT FOR CONSTRUCTION**  
DRAFT DATE 2017-1-13



**TEST PITS #1&3**  
DATE: 12-23-2016 DAG WITH AUGER

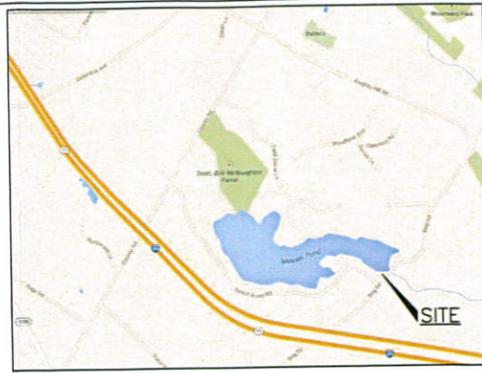
0"	10YR 2/2 VERY DARK BROWN LOAMY FINE SAND, POORLY DEVELOPED TOPSOIL LAYER
1"	10YR 4/3 BROWN LOAMY SAND, GRANULAR, FRIABLE
12"	10YR 5/2 GRAYISH BROWN MEDIUM SAND FILL GRANULAR, FRIABLE

BOTTOM OF HOLE 50"  
NO LEDGE REFUSAL TO DEPTH  
NO ESHWT TO DEPTH

**TEST PIT #2**  
DATE: 12-23-2016 DAG WITH AUGER (IN ORIGINAL GROUND)

0"	10YR 2/2 VERY DARK BROWN LOAM TOPSOIL
3"	10YR 3/3 DARK BROWN LOAMY FINE SAND, GRANULAR, FRIABLE
20"	10YR 2/2 VERY DARK BROWN SANDY LOAM, WEAK BLOCKY, FRIABLE

BOTTOM OF HOLE 30"  
NO LEDGE REFUSAL TO DEPTH  
ESHWT AT 20"  
SEEPS AT 24"



**PERCOLATION TEST**  
DATE: 12-23-16 DAG  
DEPTH: 30 in.  
RATE: 6 min/in

**DESIGN DATA**  
NUMBER OF BEDROOMS: 2  
DESIGN SEWAGE LOADING: 300gpd  
LENGTH OF ENVIRO-SEPTIC PIPE REQUIRED = 80 L.F.  
LENGTH OF ENVIRO-SEPTIC PIPE PROVIDED = 100 L.F.  
(5 ROWS @ 20' CONNECTED SERIALLY)

**DESIGN INTENT**  
THE BOTTOM OF THE EFFLUENT DISPOSAL AREA SHALL BE CONSTRUCTED AT ELEVATION X AT THE FIRST PIPE. THIS IS APPROX. X' ABOVE GRADE OF EXISTING GROUND ON THE HIGH CONTOUR OF THE DESIGNED EFFLUENT DISPOSAL AREA.

**SOIL DATA**  
SOIL TYPE: 559C SKERRY FINE SANDY LOAM, 8-15% SLOPES, VERY STONY  
MERRIMACK COUNTY  
SOILS REFERENCE: NRCS WEBSITE

**SEPTIC TANK**  
MATERIAL: 1750 GALLON TWO COMPARTMENT CONCRETE SEPTIC TANK WITH ANTI-FLOATATION COLLAR MANUFACTURED BY L.E. WEED & SONS, NEWPORT, NH OR EQUAL.

**DISTRIBUTION BOX**  
PROVIDE A 2 OUTLET DISTRIBUTION BOX. ONE OUTLET FOR SCREENED 4" PVC VENT PIPE.

**SEALING TANKS AGAINST INFILTRATION**  
SEAL ALL PIPE PENETRATIONS AGAINST LEAKAGE WITH A NON-SHRINK GROUT. ALL ACCESS OPENINGS AND OTHER JOINTS SHALL BE SEALED WITH A BITUMINOUS OR BUTYL GASKET OR SEALANT. THE INTENT IS TO SEAL THE TANK AGAINST GROUND WATER INFILTRATION.

**LEACH FIELD**  
ENVIRO-SEPTIC WASTEWATER TREATMENT SYSTEM IS APPROVED BY NHDES AS AN ITA IN ACCORDANCE WITH PART ENV-WIS 1024. THE SYSTEM IS DESIGNED IN ACCORDANCE WITH THE ENVIRO-SEPTIC TREATMENT SYSTEM NEW HAMPSHIRE DESIGN AND INSTALLATION MANUAL, LATEST EDITION.

**NOTE:**  
SEE SHEET S2, SEPTIC DESIGN DETAILS, FOR ADDITIONAL NOTES, DETAILS AND TIE POINT PLAN.

**TBM 1**  
SPIKE IN GROUND  
CONTROL POINT #2  
EL. 1108.79

PROPOSED ADVANCED (AES) ENVIRO-SEPTIC LEACH FIELD TO BE CONSTRUCTED. REMOVE EXISTING CONCRETE CHAMBERS AND CONTAMINATED SOILS TO 5 FEET HORIZONTALLY OUTSIDE AREA OF NEW AES FIELD. REMOVE ALL CONTAMINATED SOILS TO 6" VERTICALLY BELOW CONTAMINATION AND FILL WITH CLEAN BANK-RUN SAND TO 6" BELOW BOTTOM OF AES PIPE.

NO.	DATE	REVISION	DESIGNED:	CHECKED:	APPROVED:
			LBB		



**DAVID & RISA RADEKE**  
5197 LITTLE BROOK COURT  
SARASOTA, FL 34237

**TAX MAP 119 LOT 21**  
583 FOREST ACRES RD  
NEW LONDON, NH  
**SEPTIC SYSTEM DESIGN PLAN**

SCALE:	PROJECT NO.
1"=20'	16-0320
DATE:	DWG. NO.
11-2016	S1



January 10, 2017

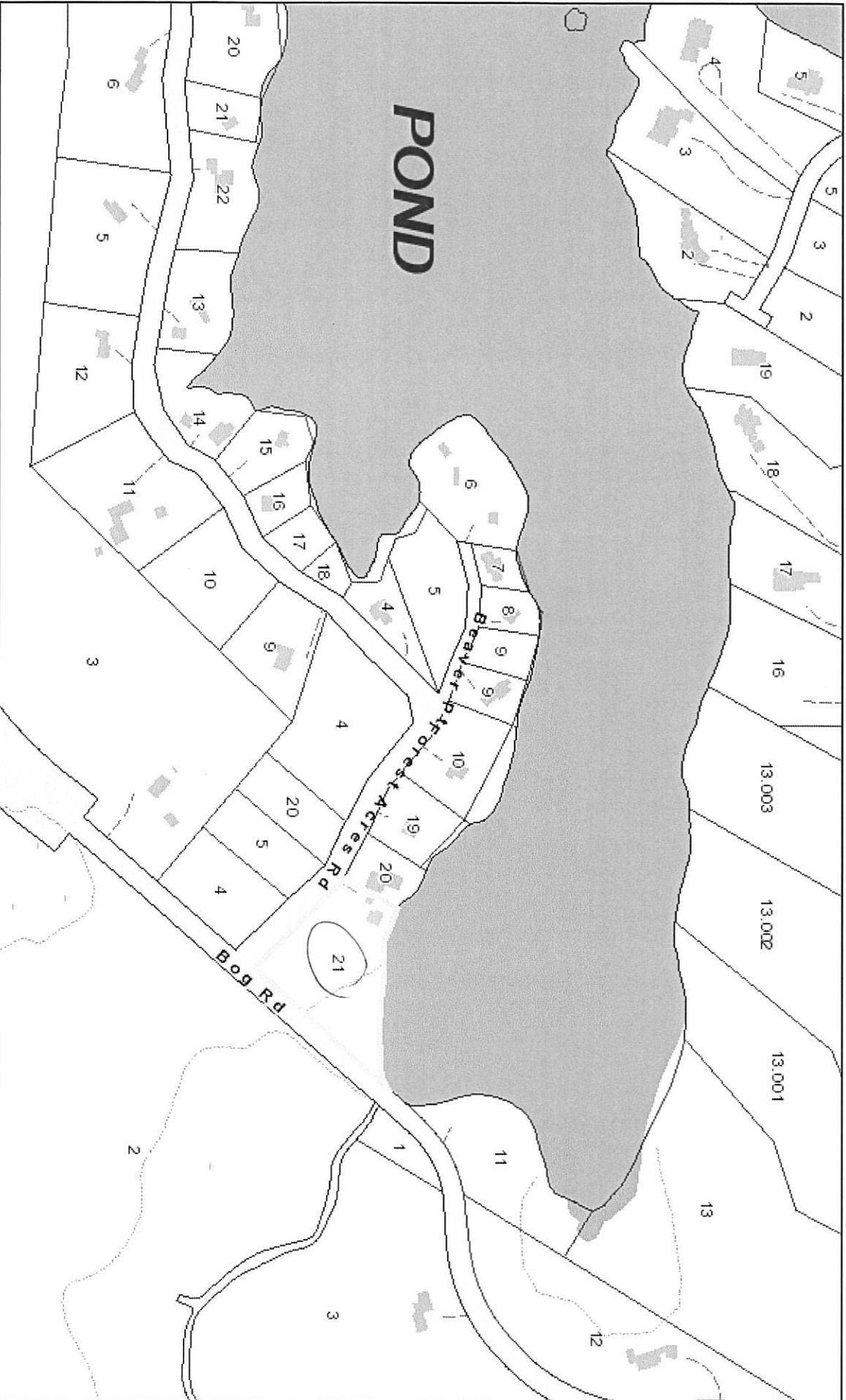
# Radeke at 583 Forest Acres Road

Tax Map 119-021-000

1 inch = 300 Feet



www.cai-tech.com



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# Radeke at 583 Forest Acres Road

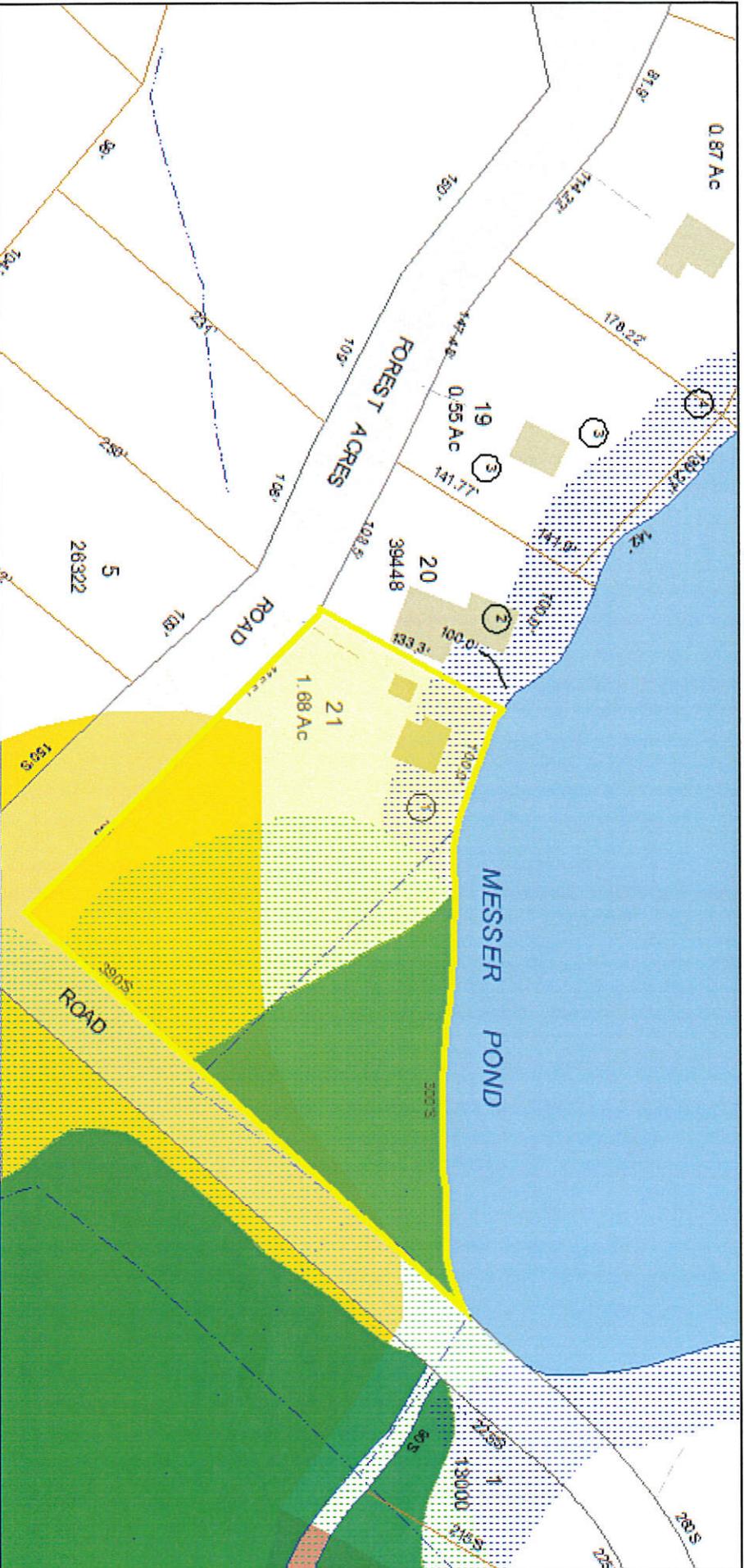
Tax Map 119-021-000

January 10, 2017

1 inch = 100 Feet



www.cai-tech.com



PROPERTYLINE	WETLAND	USGS Hydrography	Tax Map Wetlands
ROAD	New London Buildings	Wetland 100 Foot Buffer	Tax Map Wetlands
WATER-P	Right of Ways	Stream Overlay 100 Foot Buffer	Poorly Drained Soils
DW	New London Water-poly	Pond Overlay 50 Foot Buffer	Very Poorly Drained

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January 10, 2017

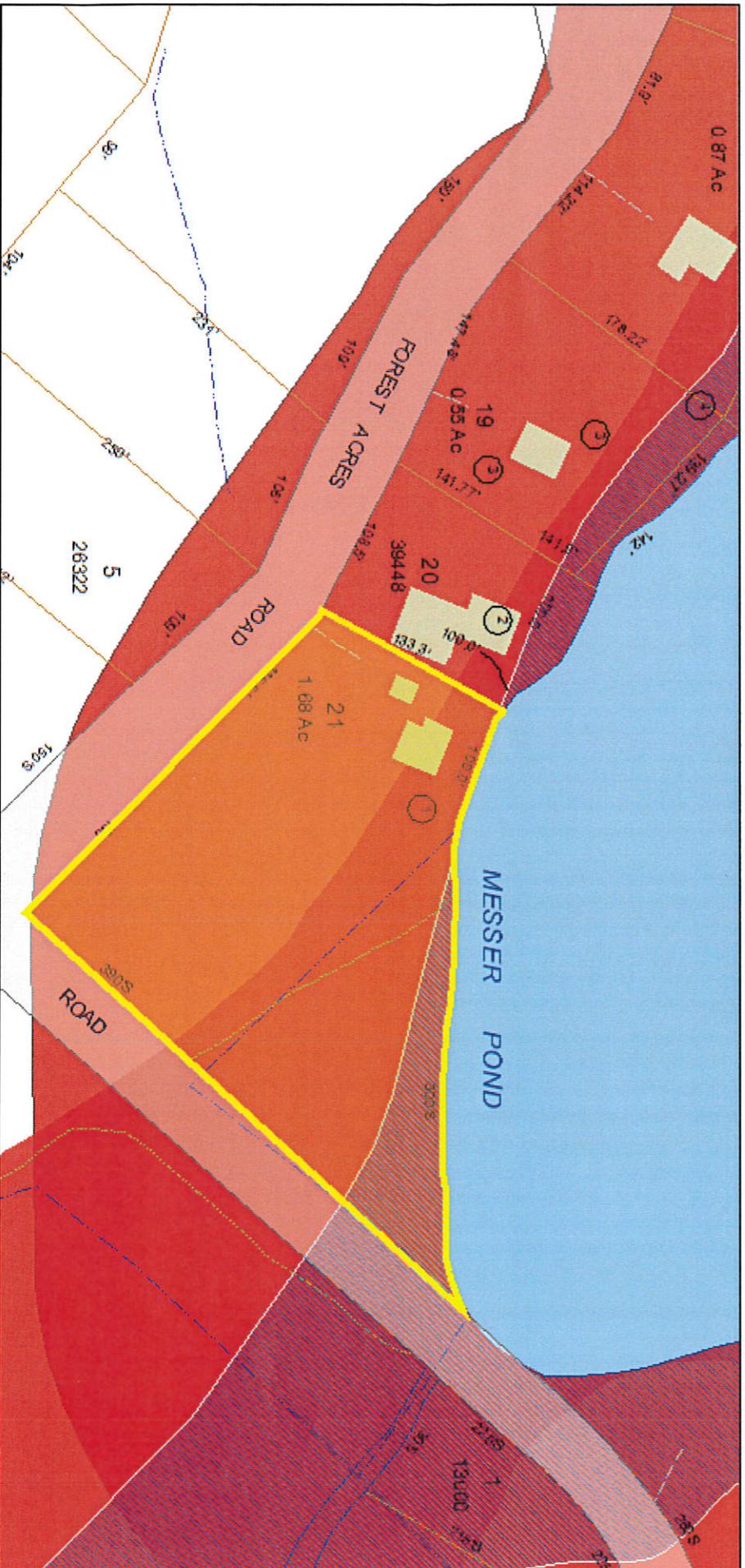
# Radeke at 583 Forest Acres Road

Tax Map 119-021-000

1 inch = 100 Feet



www.cai-tech.com



	PROPERTYLINE		WETLAND		USGS Hydrography		Shore Land Overlay District
	ROAD		New London Buildings		A		
	WATER-P		Right of Ways		X		
	DW		New London Water-poly				UVLSRPC Flood Data

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# Map by NH GRANIT



## Legend

- State
- County
- City/Town
- Interstates
- Turnpikes
- US Routes
- State Routes
- Local Roads
- NH 2015 1-foot RGB



Map Scale  
1 : 3,304

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Map Generated: 1/10/2017

## Notes





**CONSTRUCTION DETAIL**

Element	Cd.	Ch.	Description	Element	Cd.	Ch.	Description
Style	36		Camp				
Model	01		Residential				
Design/Appeal	04		Average +				
Stories	1		1 Story				
Occupancy	1						
Exterior Wall 1	13		Pre-Fab Wood				
Exterior Wall 2							
Roof Structure	03		Gable/Hip				
Roof Cover	03		Asph/F Gls/Cmp				
Interior Wall 1	02		Wall Brd/Wood				
Interior Wall 2	07		K PINE/A W/D				
Interior Fir-1	13		Parquet				
Interior Fir-2							
Heat Fuel	03		Gas				
Heat Type	02		Floor Furnace				
AC Type	01		None				
Total Bedrooms	02		2 Bedrooms				
Total Baths	1						
Total Half Baths	0						
Total Xtra Fixtrs	0						
Total Rooms	4		4 Rooms				
Bath Style	01		Old Style				
Kitchen Style	01		Below Avg				

**OB-OUTBUILDING & YARD ITEMS(D) / XF-BUILDING EXTRA FEATURES(B)**

Code	Description	Comment	L/B	Units	Unit Price	Yr	Code	Dp	Rt	Cnd	%Cnd	Apr. Value
SHD1	SHED FRAME		L	320	20.00	2003		0			50	3,200
HRTH	HEARTH		B	1	1,000.00	1978		1			100	600

**BUILDING SUB-AREA SUMMARY SECTION**

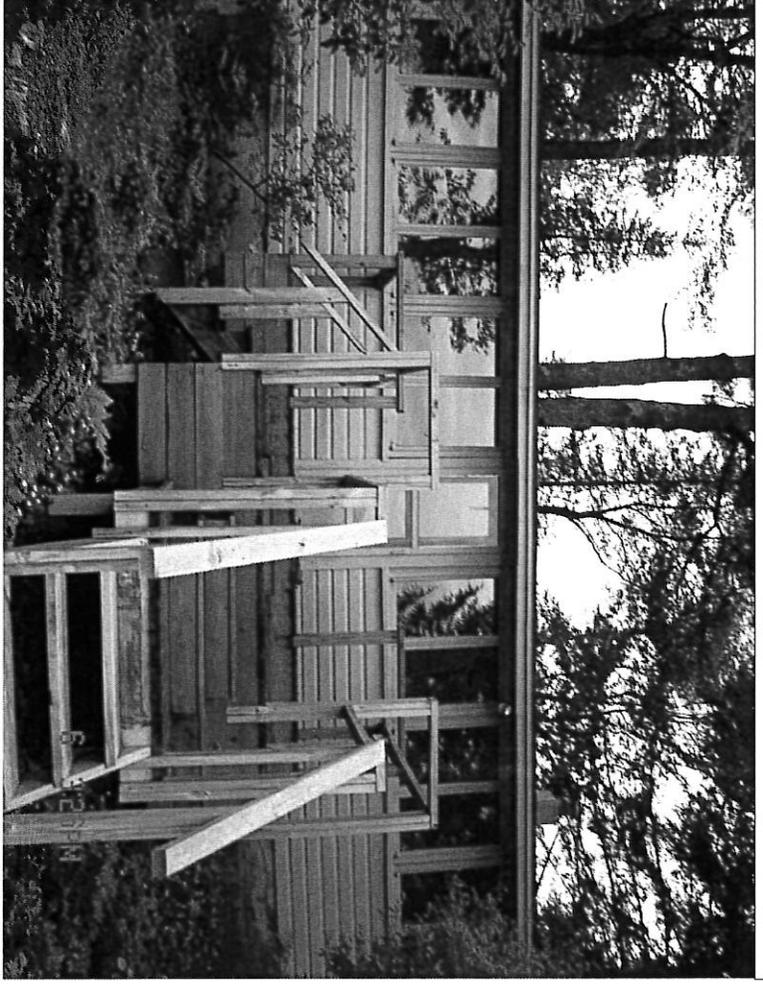
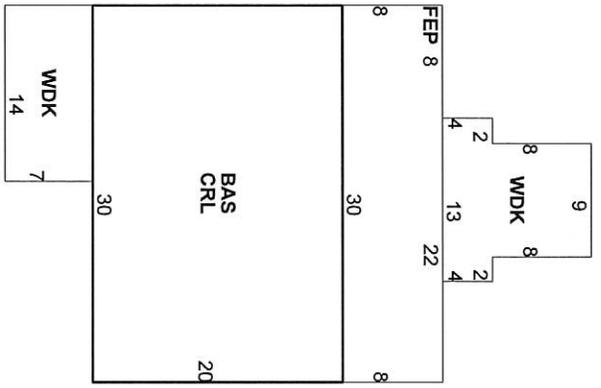
Code	Description	Living Area	Gross Area	Eff. Area	Unit Cost	Undeprc. Value
BAS	First Floor	600	600	600		42,134
CRL	Crawl Space	0	600	0		0
FEP	Enclosed Porch	0	240	168		11,798
WDK	Deck	0	222	22		1,545
<b>Ttl. Gross Liv/Lease Area:</b>		<b>600</b>	<b>1,662</b>	<b>790</b>		<b>55,477</b>

**MIXED USE**

Code	Description	Percentage
1012	POND	100

**COST/MARKET VALUATION**

Adj. Base Rate:	70.22
Net Other Adj:	55,477
Replace Cost	0.00
AYB	55,477
EYB	1940
Dep Code	1978
Remodel Rating	A
Year Remodeled	
Dep %	36
Functional Obslnc	0
External Obslnc	0
Cost Trend Factor	1
Condition	
% Complete	64
Overall % Cond	35,500
Apprais Val	0
Dep % Ovr	0
Dep Ovr Comment	
Misc Imp Ovr	0
Misc Imp Ovr Comment	
Cost to Cure Ovr	0
Cost to Cure Ovr Comment	



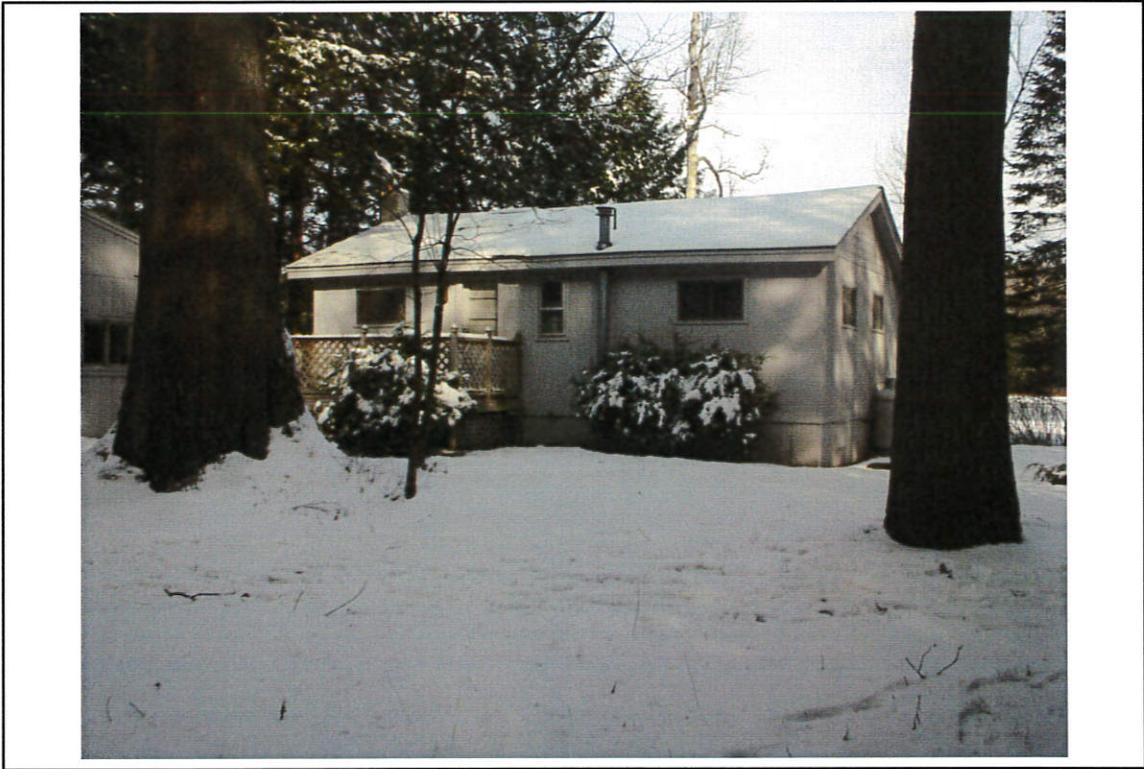


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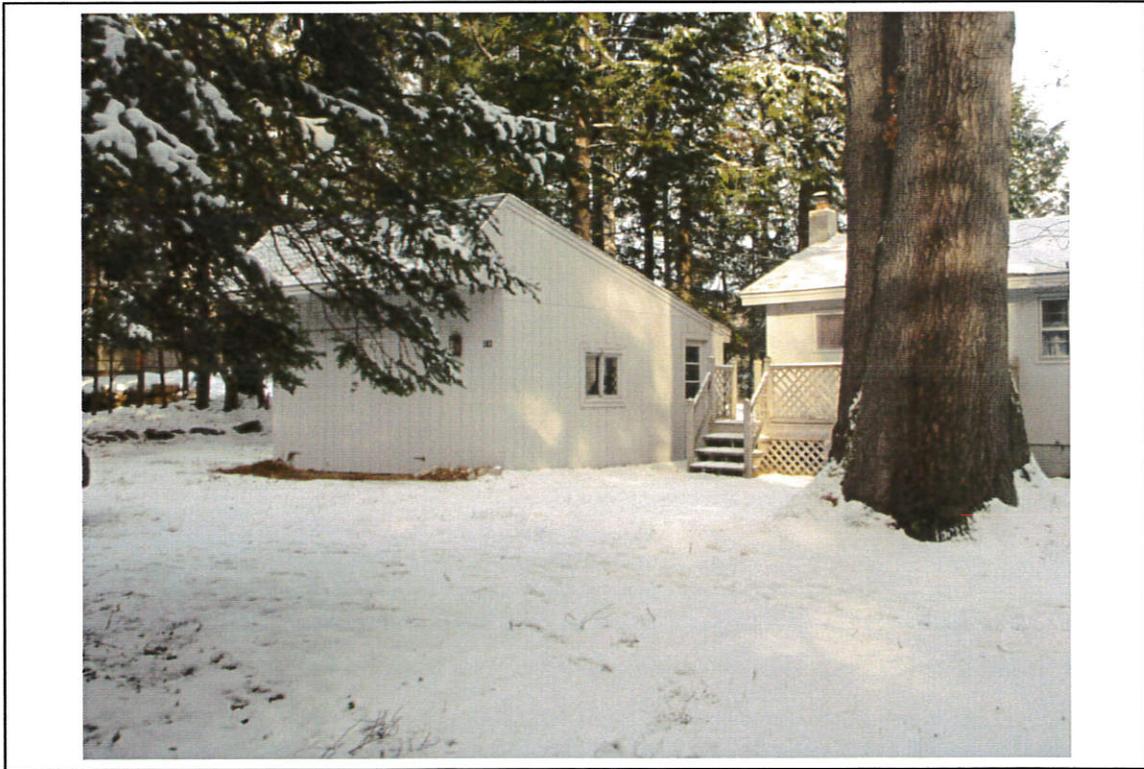


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Photo: 3 Taken: 11-3-16



Photo: 4 Taken: 12-8-16



Photo: 5 Taken: 12-8-16



Photo: 6 Taken: 12-26-16