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August 31, 2022

HAND DELIVERED

Peter Stith, Principal Planner
Portsmouth City Hall
1 Junkins Avenue
Portsmouth, NH 03801

Re: Stephen H. Roberts, Trustee, The ADL 325 Little Harbor Road Trust,
Owner/Applicant
325 Little Harbor Road
Tax Map 205, Lot 2
Rural (R) District
LU 21-220

Dear Mr. Stith & Zoning Board Members:

On behalf of Stephen H. Roberts, Trustee, The ADL 325 Little Harbor Road Trust,
enclosed please find the following in support of a request for zoning relief:

- Digital Application submitted via Viewpoint earlier today.
- Owner's Authorization.
- 8/31/2022 – Memorandum and exhibits in support of Variance Application

We look forward to presenting this application to the Zoning Board at its September 20,
2022 meeting.

Very truly yours,



R. Timothy Phoenix

Enclosure

cc: Anthony DiLorenzo
Stephen H. Roberts, Trustee
Corey Colwell
Aaron Sturgis
James Youngblood

DANIEL C. HOEFLE
R. TIMOTHY PHOENIX
LAWRENCE B. GORMLEY
STEPHEN H. ROBERTS

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GREGORY D. ROBBINS
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DUNCAN A. EDGAR
STEPHANIE J. JOHNSON

OF COUNSEL:
SAMUEL R. REID
JOHN AHLGREN

TO: Portsmouth Zoning Board of Adjustment (“ZBA”)
FROM: R. Timothy Phoenix, Esquire
DATE: August 31, 2022
Re: Stephen H. Roberts, Trustee, The ADL 325 Little Harbor Road Trust,
Owner/Applicant
Property Location: 325 Little Harbor Road
Tax Map 205, Lot 2
Rural Residential (“R”) Zoning District
Flood Zone AE (El. 8)

Dear Chairman Parrott and Zoning Board Members:

With Stephen H. Roberts, Trustee, The ADL 325 Little Harbor Road Trust, Owner, on behalf of Anthony DiLorenzo and family, we are pleased to submit this memorandum and attached exhibits in support of zoning relief to significantly renovate a large historic barn structure without complying with the flood zone ordinance that would require the basement floor to be raised 1 foot from flood elevation 8 to flood elevation 9.

I. EXHIBITS

- A. Flood Zone Exhibit Sketch-by TF Moran, Inc.
- B. Architectural Basement Floor Plan-D-1.00 -by G.P. Schafer Architect, DPC.
- C. Historic Structure Report and Photographs- by Preservation Timber Framing.
- D. Variance Effect Report-by Preservation Timber Framing.
- E. Site Photographs.
- F. Tax Map 205.

II. PROPERTY/PROJECT

Commonly known as Lady Isle, for the Lady Isle Catholic school operated on the site for many years, 325 Harbor Road is a 12 acre island lot accessed only by a bridge or the water.

Numerous structures have been located on the lot over the decades, as it has been used for both the school and residential uses before and after. The owner is in process of redeveloping the lot, including a new home under construction, pool house/pool, renovated historic two-story cottage and the existing large (2608 s.f. footprint) 2.5. -story historic barn, circa mid-1800s (**EXHIBIT C, p.2**). The entire barn is to be renovated, saving as much as possible. (**EXHIBIT C**)

Notable features with respect the pending variance request include, without limitation: the condition of the wooden structure to be renovated; the very good condition stone foundation; granite support pillars; prominence viewed from the water. (See **EXHIBITS C, D**)

Much of the island is located in Flood Zone X, as is the significant majority of the historic barn. **(EXHIBIT A)** The easterly end of the island is, however, located in flood zone AE (El. 8), in which a small portion (447 s.f./16%±) of the southerly side of the barn is located. Pursuant to FEMA regulations, the substantial expense of the proposed barn renovations requires the lowest (basement) floor to be at Finished Floor Elevation (“FFE”) 8. The existing basement floor is FFE 7.88+/-.

The renovation includes pouring a new concrete floor up to FFE (“elevation”) 8.0, thus compliant with FEMA regulations. The Portsmouth Floodplain Ordinance, however, requires that any “substantial improvement” (where the cost of improvements is equal to or greater than 40% of the market value of a residential structure, Portsmouth Zoning Ordinance (“PZO”) §10.622.20. Definitions, which here applies) must leave the lowest floor (including basement) elevated to at least one (1) foot above the base flood elevation if in Zone A or AE. PZO §10.628.30. Since the applicable zone is AE (El.8) this would require the basement floor to be at a minimum of elevation 9, where elevation 8 is proposed **(EXHIBIT A)**. Thus, the proposal is for the bottom floor to be one foot, or 12 inches below the required elevation 9.

To achieve a basement floor elevation of 9, one foot of concrete floor must be poured to raise the level from proposed elevation 8.0. The practical problem is that at elevation 9, the distance from the floor to the joists above is 5’ 10.5” where code requires 6’ 10”. The floor elevation to a FEMA compliant elevation 8.0, leaves the floor to joist height at a compliant 6’ 10.5”. Alternatively, the entire structure would have to be lifted approximately one foot in elevation in order to achieve code-compliant headroom. The builder, architect and historic preservationist as well as the owner seek to avoid the additional concrete in order to preserve code-compliant head room and to avoid lifting the entire structure due to:

- the unnecessary cost under the circumstances.
- possible loss of the historic granite pillars, which cannot be extended.
- the risk of damage or destruction to the historic structure.
- lifting the barn off of the historic stone foundation would require an additional layer(s), of new stone foundation which would not match existing. The effect would be to lose the benefit of the historic renovation and decrease the aesthetic charm and historic “look” particularly when viewed from the water. **(EXHIBIT D)**

Accordingly, and considering that only a small percentage (16%, 447sf) of the 2806 sf (footprint) barn is actually in the flood zone, a slight one-foot variance is requested for a FEMA-compliant basement floor at El 8.0. where El.9 is required. We have met and reviewed the project and proposal with the planning staff and building inspection department all of whom we believe to be in support of the project as proposed.

III. RELIEF REQUIRED

A variance pursuant to PZO §10.629.10 from PZO §10.628.30 to permit a bottom/basement finished floor elevation of 8.0 feet where 7.88 feet exists and 9 feet is required.¹

IV. VARIANCE REQUIREMENTS

- 1. The variances will not be contrary to the public interest.**
- 2. The spirit of the ordinance is observed.**

The first step in the ZBA's analysis is to determine whether granting the variance is not contrary to the public interest and is consistent with the spirit and intent of the ordinance, considered together pursuant to Malachy Glen Associates, Inc. v. Town of Chichester, 155 N.H. 102 (2007) and its progeny. Upon examination, it must be determined whether granting the variance "would unduly and to a marked degree conflict with the ordinance such that it violates the ordinance's basic zoning objectives." Id. "Mere conflict with the zoning ordinance is not enough." Id.

PZO §10.121 identifies the general purposes and intent of the ordinance "to promote the health, safety, and general welfare of Portsmouth...in accordance with the...Master Plan" This is accomplished by regulating:

1. The use of land, buildings and structures for business, industrial, residential and other purposes – The entire historic barn will be renovated, saving as much as possible. The intent is for the barn to remain in its existing location, noting that only a small portion is within the flood zone, AE(El.8). The proposed basement floor at elevation 8 will comply with FEMA; the variance request is only for one foot; achieves code-compliant head room in the basement; avoids the cost and risk of damage to the structure from raising it to achieve reasonable head room, in turn avoiding the potential loss of historic granite pillars and the requirement for building up the existing historic stone foundation.

¹ PZO §10.629.20 provides for 3 additional variance requirements which will be addressed below. Please also note the Board of Adjustment notice requirements set forth in PZO sec. 10.629.30.

2. The intensity of land use, including lot sizes, building coverage, building height and bulk, yards and open space – The entire island (lot) is 12 =acres with no structures nearby, other than the island structures. The historic barn will remain in its existing location and will be used merely for residential purposes as an accessory structure.
3. The design of facilities for vehicular access, circulation, parking and loading – The barn is located essentially “alone”, 90 feet from other structures, with more than adequate area for access, circulation, parking and loading.
4. The impact on properties of outdoor lighting, noise, vibration, stormwater runoff and flooding – The barn will be utilized by a single-family for residential accessory purposes and is located far from any other buildings of any kind.
5. The preservation and enhancement of the visual environment – The tasteful and thoughtful renovation, overseen by a historic preservationist, will maintain and likely enhance the visual environment
6. The preservation of historic districts and building and structures of historic architectural interest – The entire renovation of this historic circa mid 1800s barn, overseen by a historic preservationist, easily complies with this purpose. This specific purpose is one of the reasons the slight variance relief is requested.
7. The protection of natural resources, including groundwater, surface water, wetlands, wildlife habitat and air quality – The barn is to remain in its existing location so there will be no change.

The purpose of the Rural Residential District is:

to provide areas for single-family dwellings and appropriate accessory uses at the rural densities (up to one dwelling per 5 acres) and limited agricultural uses. PZO sec.10.410.

The entire 12 acre island lot will contain 1 single-family residence and a detached ADU, located far from any other buildings of any kind, entirely in keeping with the purpose of the Rural Residential zone.

In considering whether variances “in a marked degree conflict with the ordinance such that they violate the ordinance’s basic zoning objectives,” Malachy Glen, supra, also held:

One way to ascertain whether granting the variance would violate basic zoning objectives is to determine whether it would alter the essential character of the locality... . Another approach to [determine] whether granting the variance violates basic zoning objectives is to examine whether granting the variance would threaten the public health, safety or welfare. (emphasis added)

The “Lady Isle” lot, buildings and historic barn themselves provide a singular and unique “character “in the city of Portsmouth. With a large majority of the structure outside of the flood zone, the slight variance will maintain required basement head room and preserve the structural

integrity of the barn and foundation. The owner is acutely aware of any risk to the structure from future floods, which is likely to be less than otherwise anticipated given the fact that only a small portion of the barn (16%+/-) is within the flood zone. Additionally, whether the barn basement floor is at the proposed elevation 8, or the required elevation 9, or even several feet over elevation 9, the effect of floodwaters will be virtually unchanged due to the location of the existing foundation which will be impacted by floodwaters reaching virtually any elevation. Accordingly, the slight variance which affects only one property now and in the future, will neither change the essential character of the locality nor threaten the public health, safety or welfare.

3. Granting the variances will not diminish surrounding property values.

The variance will allow the barn to remain in its existing location at its existing dimensions. The island is isolated, near no other structures. Only this barn is affected by the variance. The variance preserves compliant head room in the basement and avoids the risk of lifting the structure and damaging the historic nature and aesthetics of the barn via additional foundation. It follows that the variance will not in any way diminish surrounding property values.

4. Denial of the variances results in an unnecessary hardship.

a. Special conditions distinguish the property from others in the area.

Lady Isle is a large 12 acre single-family house "lot" accessed only by bridge or the water. The subject barn has existed in its present location for approximately 170 years. The proposed renovation intends to preserve as much of the historic structure as possible. Any renovation or other work on the barn, which here will exceed 40% of its value, must obviously be undertaken on or in the barn in its present location, only a portion of which is in flood zone AE (El.8). These factors combine to create special conditions clearly distinguishing this property from others in the area.

b. No fair and substantial relationship exists between the general public purposes of the ordinance and its specific application in this instance.

The purpose of the flood zones and requirements for structure and lowest floor elevations located entirely or partially in flood zones is to protect structures and the property within them

from the effects of a flood. Given: the small area of the barn that is within the flood zone; the fact that the proposed FFE at 8.0 is only one foot below the City requirement; floodwaters will impact the historic stone foundation regardless of the basement floor elevation; the proposal complies with the FEMA requirement; and the effect of the variance permitting the project to move forward with compliant basement head room, while avoiding the risk to the structure and foundation if it is raised, there simply is no reason to require strict compliance by increasing the bottom floor elevation to elevation 9. The request is supported by the design, historic preservation, building, legal and technical team and upon information and belief has the support of the city planning and building inspection departments.

c. The proposed use is reasonable.

If the use is permitted, it is deemed reasonable. Vigeant v. Hudson, 151 N.H. 747 (2005). Residential use is permitted in the R Zone, including accessory buildings incidental to the permitted use. The historic barn is such an accessory building. Therefore, the use and the variance required to renovate it is reasonable.

5. Substantial justice will be done by granting the variances.

If “there is no benefit to the public that would outweigh the hardship to the applicant” this factor is satisfied. Harborside Associates, L.P. v. Parade Residence Hotel, LLC, 162 N.H. 508 (2011). That is, “any loss to the [applicant] that is not outweighed by a gain to the general public is an injustice.” Malachy Glen, supra at 109.

An owner is generally constitutionally entitled to the use of the lot as he sees fit. “The right to use and enjoy one's property is a fundamental right protected by both the State and Federal Constitutions.” N.H. CONST. pt. I, arts. 2, 12; U.S. CONST. amends. V, XIV; Town of Chesterfield v. Brooks, 126 N.H. 64 (1985) at 68. Part I, Article 12 of the New Hampshire Constitution provides in part that “no part of a man's property shall be taken from him, or applied to public uses, without his own consent, or that of the representative body of the people.” Thus, our State Constitutional protections limit the police power of the State and its municipalities in their regulation of the use of property. L. Grossman & Sons, Inc. v. Town of Gilford, 118 N.H. 480, 482 (1978). “Property” in the constitutional sense has been interpreted to mean not the tangible property itself, *but rather the right to possess, use, enjoy and dispose of it.* Burrows v. City of Keene, 121 N.H. 590, 597 (1981) (emphasis added).

The proposed substantial renovation of this historic barn at a likely cost well exceeding the cost to remove and replace it, is to be undertaken in a manner that preserves and respects the historic barn and its features. The slight variance affecting only a small portion of the barn permits the avoidance of non-compliant basement head room and/or the lifting the building, risking the integrity of the structure and losing historic features (foundation, granite pillars) has no negative effect whatsoever upon the general public.

Conversely, denial of the variance causes great harm to the owner who, despite the significant investment into the barn's preservation, will risk damage to the structure or loss of historic features from raising it to create head room. Accordingly, the loss to the applicant from denial of the variance significantly outweighs any gain to the public from its denial.

V. ADDITIONAL VARIANCE REQUIREMENTS OF PZO §10.629.20

If the applicant, upon appeal, requests a variance as authorized by the provisions of state law, the applicant shall have the burden of showing in addition to the usual variance tenders under state law:

- (a) That the variance will not result in increased flood heights, additional threats to public safety, or extraordinary public expense; Only a small portion of the building is in the flood zone AE (El.8). The FEMA requirement for the lowest floor to be at least at elevation 8 is met. Since any flood to elevation 8 or 9 will first impact the historic Stone foundation, these factors combine to demonstrate that this slight variance will not result in increased flood heights. The barn and entire 12 acre island is isolated with no other off-site buildings nearby. Even the nearest on-lot building is at least 90 feet away from the barn. Thus, the granted variance poses no threat to public safety. Any expense incurred as a result of a flood will be limited to the property owner.
- (b) That if the required variance is for activity within a designated regulatory floodway, no increase in flood levels during the base flood discharge will result; Flooding, according to the FEMA map will occur only up to flood zone X at elevation 8. Only 16% of the barn is within flood zone AE (El.8). Discharge of the floodwater will occur southeast, away from the barn. The barn will not be enlarged or its elevation increased beyond raising the lowest floor approximately 2 inches. The proposal is only 12 inches below the required elevation 9 and complies with FEMA requirements for elevation 8. The effect of the difference in any flood is *de minimus*, particularly since the primary impact of any flood waters will be to the stone foundation.
- (c) That the variance is the minimum necessary considering the flood hazard to afford relief. The variance to permit the bottom/basement floor at elevation 8, fully FEMA compliant, where elevation 9 is required under the Portsmouth zoning ordinance, is slight

and is the minimum necessary considering that the primary effect in a flood event is the impact upon the stone foundation, regardless of the basement floor elevation. The requested variance is the minimum necessary to achieve reasonable flood protection while also protecting the historic structure and foundation both physically and from a historical perspective.

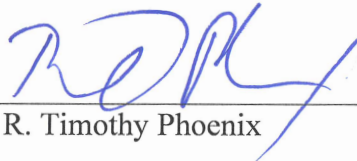
VI. CONCLUSION

For all of the reasons stated, your applicant and entire team respectfully request that the Portsmouth Zoning Board of Adjustment grant the requested variance.

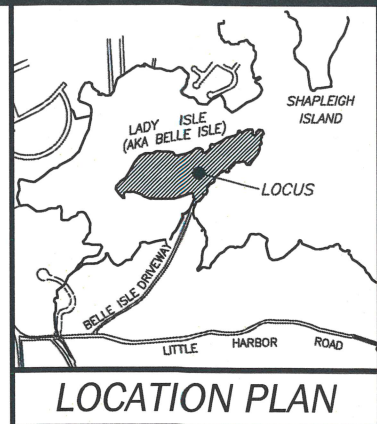
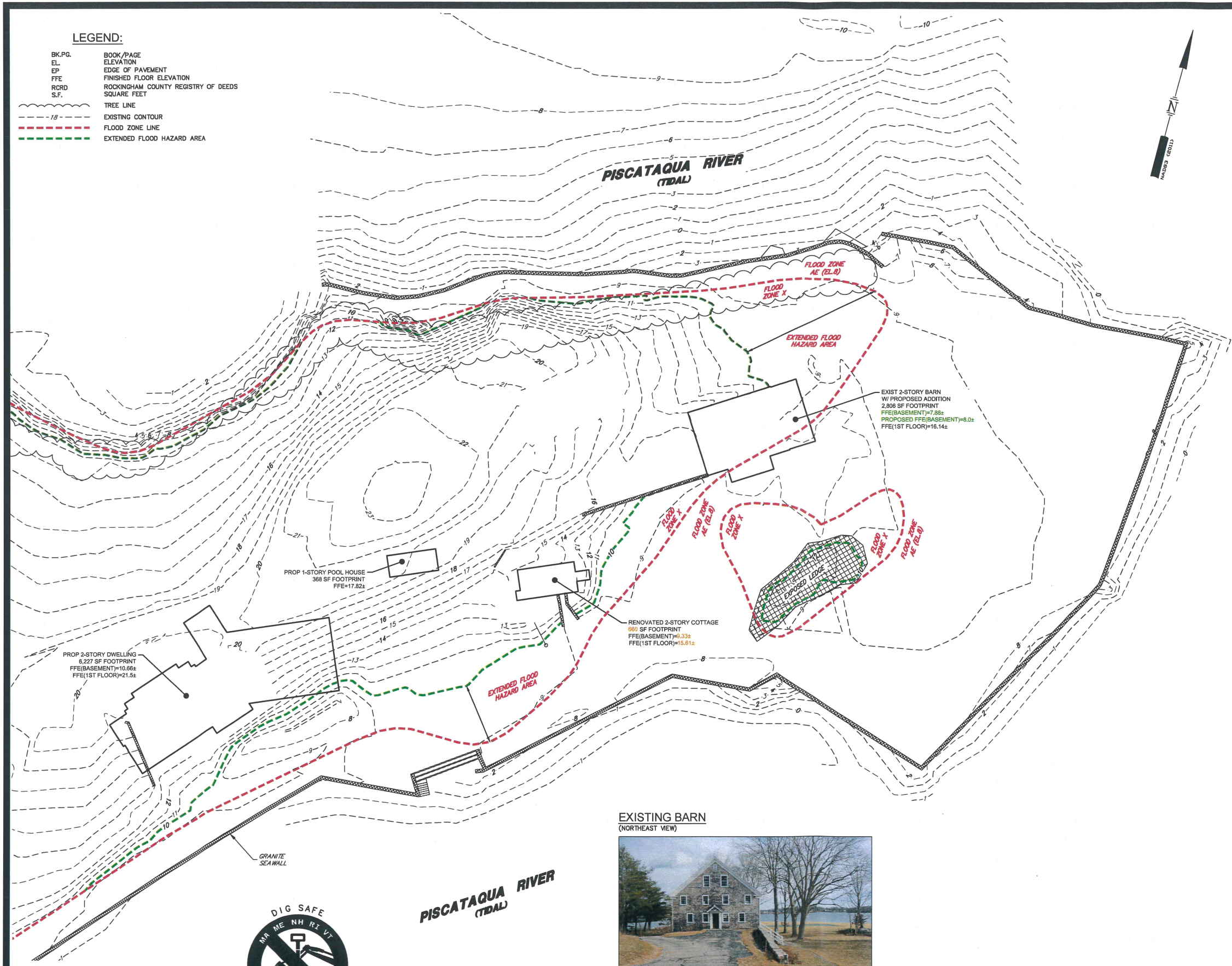
Respectfully submitted,

Stephen H. Roberts, Trustee

The ADL325 Little Harbor Road Trust.



By: R. Timothy Phoenix



- NOTES:**
- THE PARCEL IS LOCATED IN THE RURAL (R) ZONING DISTRICT.
 - THE PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 205 AS LOT 2.
 - THE PARCEL IS LOCATED IN FLOOD HAZARD ZONE AE (EL.8) AND ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN), AS SHOWN ON NATIONAL FLOOD INSURANCE PROGRAM (NFIP) FLOOD INSURANCE RATE MAP (FIRM), ROCKINGHAM COUNTY, NEW HAMPSHIRE, PANEL: 278, VERSION NUMBER 2.3.21, MAP NUMBER 33015C0278F, MAP REVISED: JANUARY 29, 2021. THE DATUM IS NAVD88 BASED ON STATIC GPS OBSERVATIONS.
 - DIMENSIONAL REQUIREMENTS:**

	REQUIRED:
MINIMUM LOT AREA:	5 ACRES (PER DWELLING UNIT)
MINIMUM DTTREET FRONTAGE:	N/A
LOT DEPTH:	N/A
MINIMUM YARD SETBACKS:	
FRONT:	50'
SIDE:	20'
REAR:	40'
MAXIMUM STRUCTURE DIMENSIONS:	
STRUCTURE HEIGHT:	35'
BUILDING COVERAGE:	5%
MINIMUM OPEN SPACE:	75%
 - OWNER OF RECORD:**
MAP 205 LOT 2
THE ADL 325 LITTLE HARBOR ROAD TRUST
STEPHEN W. ROBERTS ESQ., TRUSTEE
127 PARROTT AVENUE
PORTSMOUTH, NH 03801
RCRD BK.5859 PG.1244
 - PARCEL AREA:**
MAP 205 LOT 2
538,229± S.F.
(12.36± ACRES)

- PLAN REFERENCES:**
- "BOUNDARY PLAN FOR BELLE ISLE PARTNERS TRUST, LITTLE HARBOR ROAD/BELLE ISLE, COUNTY OF ROCKINGHAM, PORTSMOUTH, NH," DATED MARCH 30, 1995, BY RICHARD P. MILLETTE & ASSOCIATES.
 - "SUBDIVISION OF LAND FOR J.P. GRIFFIN, OFF LITTLE HARBOR ROAD COUNTY OF ROCKINGHAM, PORTSMOUTH, NH" DATED NOVEMBER 1980, BY RICHARD P. MILLETTE & ASSOCIATES. RCRD PLAN #D-10554.
 - PLAN OF A LOT OF LAND BELONGING TO WM. H. & ADELAIDE E. KEEPERS, PORTSMOUTH, NH" BY A.C. HOYT SURVEYOR. RCRD PLAN #0674.
 - "LAND LOCATED IN PORTSMOUTH IN THE COUNTY OF ROCKINGHAM AND STATE OF NEW HAMPSHIRE, DIVIDED BY ARTHUR ASTOR CAREY TO THE TRUSTEES UNDER THE THIRTEENTH ARTICLE OF HIS LAST WILL AND TESTAMENT" DATED SEPTEMBER 1927, BY JOHN W. DURGIN CIVIL ENGINEER. RCRD PLAN #0311.
 - "SUBDIVISION PLAN FOR MICHAEL R. CLARK, TAX MAP 204 LOT 5, LITTLE HARBOR ROAD, PORTSMOUTH, NEW HAMPSHIRE" BY DOUCET SURVEY, INC. DATED JULY 30, 2004 WITH REVISION 5 DATED 8/10/05. RCRD PLAN #D-33062.



**TAX MAP 205 LOT 2
FLOOD ZONE EXHIBIT PLAN
BELLE ISLE / AKA LADY ISLE
325 LITTLE HARBOR ROAD
PORTSMOUTH, NEW HAMPSHIRE
COUNTY OF ROCKINGHAM**

OWNED BY
THE ADL 325 LITTLE HARBOR ROAD TRUST

**SCALE: 1" = 30' (22x34)
1" = 60' (11x17)**

AUGUST 29, 2022

Seacoast Division
TFM
Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists

170 Commerce Way, Suite 102
Portsmouth, NH 03801
Phone (603) 431-2222
Fax (603) 431-0910
www.tfmoran.com

REV.	DATE	DESCRIPTION	DR	CK
1	8/30/2022	UPDATED BASEMENT ELEVATION	MVP	JCC

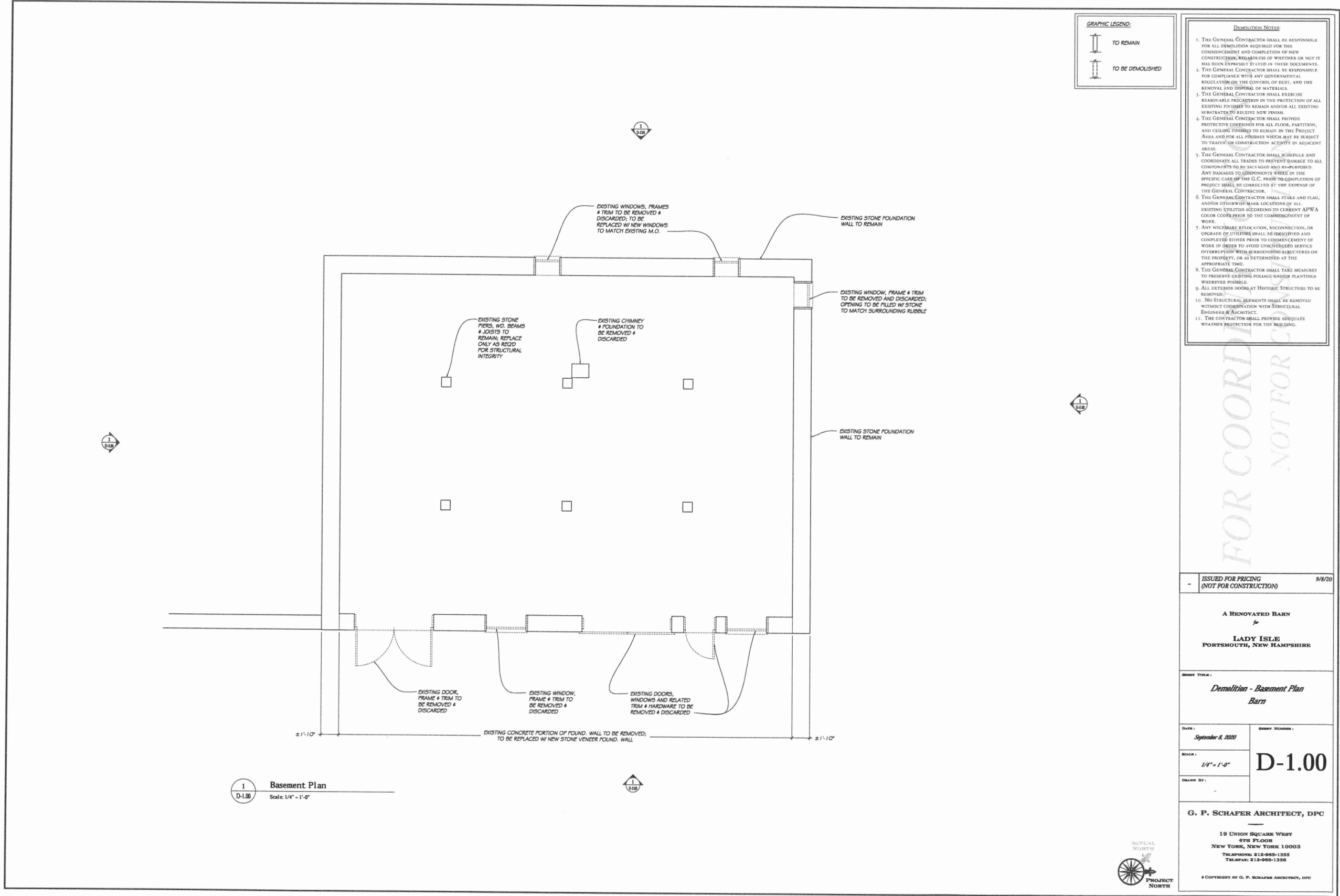
FILE 47099.01 DR FB CK CADFILE S-1

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PRESERVATION TIMBER FRAMING, INC. P.O. BOX 28, BERWICK, MAINE 03901
Office: (207) 698-1695 Cell: (603) 781-5725 E-mail: arron@preservationtimberframing.com



Belle Island Barn

Existing Conditions Assessment (Part 1 of 2):

Prepared for:
Anthony DiLorenzo
Belle Island
Portsmouth, NH 03801

April 30, 2018

Prepared by:
Arron Sturgis, David Ewing
Preservation Timber Framing, Inc.
P.O. Box 28
Berwick, ME 03901

Architectural Description:

The Belle Island barn is a well preserved agricultural building dating to the mid-19th century. It measures 50 feet one inch in length and 38 feet one inch in width. Although much of the exterior has been altered with new wall coverings and numerous added windows and doors, the timber frame within retains much of its original form and character. The exterior form also retains original overhangs with stylized soffit and rake details that place the barn historically in the mid to late 1800's.

Looking past the 20th century changes that occurred within the barn, we have a very cohesive and wonderful frame. The barn originally hosted two large interior rolling doors at the center of the gable ends allowing for easy access to the center drive and side aisle hay lofts. This barn is also designed originally with at grade access along the south eave wall. Cellar access at grade would categorize this barn as a "Banke Barn" given that its original use was for hay storage in the upper lofts, animals on the first floor and manure removal below in the basement.

The foundation of the barn is made of large cut stone well placed. The foundation is performing very well. The barn is built with heavy timber using "Modified English Joinery". The barn is created in five bents, where full length hand hewn and sawn posts at the perimeter wall and along each drive accept full length hand hewn tie beams that cross from eave to eave. A full length hand hewn top plate sits atop the flared perimeter posts, just below the tie beam and creates the eave wall with horizontal girts and nailers accepting vertical sheathing along the perimeter walls.

A center drive is defined with two structural posts in each bent accepting horizontal loft girts that create a second floor originally designed for hay storage. The roof system is defined as a "Principal Rafter, Principal Purlin, Common Rafter Roof". This means heavy hand hewn rafters at each bent rise to accept a large sawn purlin midspan and then meet at the peak. The large purlin supports the midspan of the sawn common rafters and horizontal roof boards are nailed on to accept the roof covering. A unique feature of this barn is a secondary post above the tie beam in bents 2, 3, and 4 that add additional strength and beauty to the frame.

The barn use has changed over time. For the past half century or so the barn has been converted into living and classroom space. Much of this fabric has been removed from the barn interior, but remnants remain that clearly identify the barn as living space. It is a commanding interior space. With repair of the timber frame and the addition of modern amenities the barn can be restored to its original glory while creating a new interesting and comfortable living space for your family.

Continued on next page

Existing Conditions:

Foundation:

The foundation of the barn is created with a combination of local cut and rubble stone. Much of the foundation is exposed along the East and South exterior walls. The foundation is completely covered on the West elevation and follows grade along the North wall. Some of the wall at the northeast corner has deteriorated, but overall the foundation is in excellent condition.

The foundation stones can be fully viewed from the cellar of the barn where granite piers support the drive posts at each bent location. A concrete corral has been added in bay two and partial concrete slabs have been poured in bay three.

Undercarriage:

The undercarriage of the barn includes 8" by 8" perimeter sills and 8" by 8" heavy carrying timbers in line with the drive posts above. Crossing timbers of equal size pass from eave to eave at each bent and 6" by 6" floor joists are spaced equally 4 per bay to support the floor above.

The gable sills, bents 1 & 5, are rotten and will need to be replaced in kind. Carrying timber ends have also rotted where they meet the sills and new ends will need to be created to support the floor system. A large section of the South eave wall sill will also need to be replaced. Some of the floor system is whitewashed indicating animal husbandry in the basement level of the barn.

Cellar doors and partitions are in disrepair as one enters the basement from the south eave. Some of the original openings have been closed in with concrete and partial wood framed walls. We recommend that the concrete should be removed and new doorposts and new doors should be fabricated for these original openings.

The Timber Frame:

The barn is created in five bents consisting of two gable ends and three interior bents equally spaced. Each bent requires repair and the framing that makes up the bays between the bents also needs in kind repair. There are also parts of the frame that have been removed over time that will be reintroduced into the timber frame.

Please refer to the attached drawings for repairs and replacement timbers needed in the structural timber frame. The drawings are color coded to show areas of repair vs. replacement.

Bent One (West Gable End): This bent is in excellent condition despite a completely rotten sill; the result of the sloping driveway. Two original door posts just inside the barn have been severed and should be repaired to connect the loft girts to the gable and allow for the original rolling doors to be re-installed into the barn.

Bent Two: This bent has had the most alterations over time. The north drive post has been completely removed and a continuous girt has been introduced into the first two bays of the barn. An original second level post atop the tie beam has also been removed and replaced with a makeshift rodded truss. The rod and adjacent bracing timber were designed to open up space in the drive, but it is structurally deficient. In kind replacement of the north drive post and second level post will restore the structural integrity of the timber frame. Four braces were also removed from the tie beam and a brace and strut at the second level post has also been taken out of the frame. The removed elements will be recreated and installed to regain historical and structural integrity.

Bent Three: A new perimeter post along the south eave is completely rotten and will need to be replaced in full. Extensive rot is found along the south eave wall as a result of overhanging trees and a leaky roof.

Bent Four: The timbers here are in very good shape. Four tie beam braces have been removed over time. They should be reintroduced into the frame as they play a crucial role in stiffening the timber frame across its width.

Bent Five (East Gable End): Extensive rot is present in bent five. The two drive posts on each side of an original door opening are rotten and will need in kind replacement. The Northeast corner post also exhibits extensive damage. The tie beam has been severed at its center and later added studding and infill sheathing has replaced original framing. A door header is missing here and numerous braces have rotted away. Horizontal girts are also rotten and will require replacement. Like the East gable, the two rolling door posts are also in need of repair. The East gable has taken the brunt of severe weather from the ocean side of the structure. Added decks and poor maintenance have caused the extensive rot at this end of the barn.

North Eave Wall (Wall A): This wall retains much of its original frame despite being peppered with added windows. Only one brace was severed for window installation. The vertical sheathing in the north wall has been drilled multiple times to allow for blown in insulation. Several of the small horizontal nailers in this wall have been severed by the addition of added windows and should be replaced with in kind materials.

South Eave Wall (Wall D): This eave wall has been most hard hit by water penetration causing extensive rot. Upper girts in bays two and three will need to be replaced. A large section of the sill will need to be replaced as well. Repairs can be made to the large loft girts and top plate.

PRESERVATION TIMBER FRAMING, INC. P.O. BOX 28, BERWICK, MAINE 03901
Office: (207) 698-1695 Cell: (603) 781-5725 E-mail: arron@preservationtimberframing.com

Vertical wall sheathing is largely missing in bays two and three and otherwise suffers from the holes drilled for blown in insulation. Several of the small horizontal nailers in this wall have been severed by the addition of added windows and should be replaced with in kind materials.

North Drive Wall (Wall B): The loft girts have been let into the drive posts and some repairs will accompany the bent two post replacement. New short headers will be installed to connect the repaired door posts to their respective gable end posts.

South Drive Wall (Wall C): The loft girts here have been retained. Only the doorposts and headers need repairs here.

Roof System: Overall the roof system is simply tremendous. It has only minor damage in two common rafters in the south pitch of bay two, which can be replaced in kind. The second level post in bent two along the north drive will be reintroduced into the roof system making the barn frame both authentic and extremely strong. Roof sheathing will need to be replaced as needed once the level of deterioration is discovered with the removal of the roof shingles.

Barn Exterior: The exterior of the barn retains its original roof trim details. The wide frieze, deep soffit and decorative crown moldings need to be removed to effect repairs to the timber frame. The trim details have suffered over time with the insertion of added windows and age. The molding profiles however, can be utilized to trim the repaired frame once the exterior of the frame has been properly sheathed and insulated. All other exterior coverings including wood shingles, clapboards, windows and doors should be removed and discarded.

Barn Interior: The barn interior has always retained its original loft form but the loft joists have been changed over time and they are not deep enough to accommodate modern code requirements. Flooring on the first floor has asbestos mastic remaining although most of the asbestos floor tiles have been removed. Original barn flooring is likely hidden beneath the floor coverings and can be used as a subfloor for the adaptive reuse of the barn. One long set of stairs remains to the loft level but it is not original and not conducive to a new use. An earlier stairwell exists all the way up to the upper loft on top of the tie beams. This loft is not original and substantially hides the magnificent roof framing above. It should be removed and the space redesigned for modern living.

Continued on next page

Repair Recommendations:

The following recommendations include working with your chosen general contractor to strip the barn and roof covering along with any interior asbestos abatement remaining to be done.

Preservation Timber Framing will provide structural staging to access areas of the frame that require structural repair and replacement. We will keep the barn weather tight at all times during the structural work and we will work seamlessly with you and your general contractor to complete the Exterior and Interior of the barn as per your request.

Our goal is to regain the historic and structural integrity of your barn. This requires extensive repair and some replacement of rotten elements within the timber frame. Our work meets all of the Secretary of the Interior's Standards for Rehabilitation. This means that we use in kind materials to match original fabric in both species of wood and size of timber. Our traditional repair methods are designed to repair the structure with new wood while retaining authenticity in the frame. These methods are time tested and economical to implement. It is the best way I know to make your barn whole again and make it last for generations to come.

Building Permits, Site Preparation, Tree Maintenance: By Others

Permits will be obtained by your chosen general contractor. The site may require fencing and or debris netting to protect the site. Minimal tree removal and pruning is recommended.

Foundation: By Others

Some minor stonework needs to be corrected along the North side of the foundation. This work can be done at almost any time but is logical to do prior to regrading the property.

Exterior Stripping and Removal of Roof Covering: By Others

In order to do the timber frame structural work, we will need the barn stripped of siding, trim and the asphalt roof. The roof should be papered and strapped with synthetic roof paper for longevity during the repair process. Existing trim elements should be carefully removed and stored in preparation for reproduction on the barn exterior. As it is likely that the barn is insulated from the exterior the trim will not be long enough for re-use, but it will be perfect for creating knives for molding profiles to create matching new trim on the barn.

Interior Floor Abatement: By Others

There remains asbestos mastic on some of the flooring in the barn. Much of the asbestos tiles

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have been removed, but the remaining flooring other than the original barn boards must also be removed and discarded appropriately with regards to asbestos contamination.

Structural Repairs:

- Structural Staging & Stabilization
- Barn Frame Repairs
- Loft Removal and Upgrade

The structural repairs to the barn are extensive and necessary to regain the integrity of the barn. Please see the attached drawings as they are color coded to show the exact areas of repairs. The photographs also explain areas of decay in the frame. We will methodically repair and replace rotten timber throughout the barn. We begin with perimeter sills and work up through the frame to complete repairs. We provide our own structural staging to access the areas of repair. We ensure that the building is safe, accessible and weathertight throughout our work.

We will remove the third floor decking entirely to open up the barn from below. We will also remove the undersized loft joists and decking and replace both second floor lofts with age appropriate timbers and flooring that match the character of the barn while also creating code compliant living space.

Exterior Sheathing:

PTF can repair and or replace the exterior sheathing on the barn. Due to the extensive drilling done to the exterior sheathing it is likely that much of the sheathing will need to be replaced in kind. We can obtain wide pine boards for this purpose once decisions have been made regarding the use of the existing sheathing in the re-design of the barn interior.

Exterior Insulation, Siding and Trim: By Others

It is wise to consider insulating the barn from outside the barn sheathing. In this way the beautiful repaired timber frame is fully exposed on the interior. This retains the feel of the barn and the magnificence of the space. Exterior insulation can take the form of Structural Insulating Panels (SIPs) or it can be created with a more conventional overbuild. Both options can be considered as there are pros and cons to both methods. PTF would work closely with your chosen general contractor to ensure that the barn is finished properly.

The trim on the barn should match exactly that which was carefully removed during the repair process. Specialty knives can be made to run the new trim details to exact proportion. Even though the exterior envelope is grown to allow for exterior insulation, the trim details can exactly match the original barn form. Siding should include vertical grain radially sawn clapboards and locally sourced white cedar shakes as appropriate for the period of the barn.

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Typically, the visible West gable and South Eave is clapboarded and the rest of the frame in shakes. This is clearly personal preference as both sidings are age appropriate for the barn.

Roof Covering: By Others

The barn roof covering is tired and must be removed to do the repair work. A new roof can take many forms. We recommend a standing seam metal roof on most of our repaired frames as there is little live loading from snow accumulation. Aesthetics drive this decision however, because the barn roof will be visible from both land and water when completed. PTF will replace in kind any roof boards that are removed during the repair of the roof system and the roof will remain weathertight throughout the restoration.

Infrastructure: By Others

Your barn can be heated and cooled easily with proper insulation and infrastructure design. Solar energy can be utilized if desired. Radiant heat in the floor system and in the lofts can provide even heating throughout. PTF can work seamlessly with your general contractor to prepare the frame for new systems.

Interior Finishes: By Others

Interior partitions, stairs, flooring, kitchen and bathrooms are all to be determined. The design need only recognize the timber frame as it defines the space.

The following are excluded from this scope and will be the responsibility of your general contractor:

- ★ Building Permits, Site Preparation, Tree Removal
- ★ Foundation
- ★ Exterior Stripping and Removal of Roof Covering
- ★ Interior Floor Abatement
- ★ Exterior Insulation, Siding and Trim
- ★ Roof Covering
- ★ Infrastructure
- ★ Interior Finishes
- ★ Painting & Landscaping
- ★ Exterior Deck, Ramps

Conclusion:

The timber frame repairs to your barn are only one part of a larger project. With careful work, we can retain the original character of the barn and improve it to meet your modern design and

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use. We look forward to partnering with you and your experienced general contractor to make the barn amazing.

Please do not hesitate to contact me with any questions you may have about the proposed work. I am available to meet with you at any time.

Respectfully Submitted,

Arron J. Sturgis, President
Preservation Timber Framing Inc.
www.preservationtimberframing.com

Attached: Addendum for 18th Century Center Chimney Cape House

ADDENDUM:

18th Century Center Chimney House:



The property hosts a very early timber framed home complete with center chimney mass. This house is the earliest on the island and it has features that date it to the early 18th century. It is currently not much to look at given the later additions added to the core structure and the surrounding overgrown bushes and trees. It also suffers from years and years of neglect and it has been exposed to the weather for some time.

Despite these issues, the core of the house is magnificent. The entire two story frame is completely hand hewn meaning the timbers were created by felling logs and making them square with a broad axe. The frame is joined using the scribe rule method of joinery layout. This means that every timber in the frame fits in only one place within the house and each joint is meticulously scribed to fit its partner timber.

Interior and exterior finishes on the house are not original and cloud the quality of the frame beneath. The foundation however, is in remarkable shape made from local stone. A center chimney arch also survives largely intact despite the removal of the chimney above the first floor. The remaining arch gives permanent record of how the building was originally

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constructed and used. Fireplaces in both parlors provided heat and cooking space for original occupants.

The two story timber frame shares aspects of houses built throughout Portsmouth and Newcastle from first settlement up through the early 1800's. Most of these types of houses were torn down to make way for much larger structures of higher style as both towns grew in population and economic prosperity. The survival of this house despite years of neglect speaks to its original builder's desire to live safely and comfortably on the exposed island.

Few of these types of houses survived the test of time. This house has defied the odds. Its restoration would preserve a piece of island history unparalleled in the city of Portsmouth. The work to restore this home is significant. A full investigation of the frame and foundation will be needed but the essential parts of this house are here and worthy of preservation.

Preservation Timber Framing, Inc.

Anthony Dilozenzo Barn

Conditions Assessment April 2018

By Arron Sturgis on Apr 06, 2018





Belle Isle Road | Portsmouth, New Hampshire 03801
Photo by Arron Sturgis on Mar 28, 2018

West Gable:

A many windowed facade hides a much earlier timber framed barn within. The approach to the barn is paved and higher than the sills. A concrete poured mini ramp replaces the wood structural sill.



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Photo by Arron Sturgis on Mar 28, 2018

North West Corner:

New shingles have been added to the West gable. Older clapboards cover the North eave wall. Windows are all added later to this structure. The overhang is original with wide frieze and soffit creating a high style trim detail.



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Photo by Arron Sturgis on Mar 28, 2018

North Eave Wall:

An asphalt roof covers original rough board sheathing. The wide frieze board is interrupted by added windows. Clapboards protect vertical sheathing on the eave wall.



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Photo by Arron Sturgis on Mar 28, 2018

Chimney

A newer chimney rises from the barn roof. It is not original.



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Photo by Arron Sturgis on Mar 28, 2018

Barn Exterior Grade:

Grade has changed around the barn over time. The grade at the front gable of the barn covers the sills and the sills have subsequently rotted away. New grading can pitch water away from the barn.



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Photo by Arron Sturgis on Mar 28, 2018

North Foundation:

The north foundation wall is in good shape with only minor repointing of the rubble stone needed. This grade is likely a little lower than optimal for this wall.



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Photo by Arron Sturgis on Mar 28, 2018

North Eave Wall:

A mix of cut stone and rubble stone make up a substantial foundation for the barn.



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Photo by Arron Sturgis on Mar 28, 2018

North East Corner:

Some stone work has loosened from the foundation. Some mortar repair has also been done. This corner will need a bit of work, but overall the foundation is amazing.



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Photo by Arron Sturgis on Mar 28, 2018

North East Corner:

Grade changes and roof water has disturbed the foundation in this corner.



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North Windows:

Six over six sash and flat trim surrounded by clapboards. Windows are not original.



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Photo by Arron Sturgis on Mar 28, 2018

North Clapboards:

Missing clapboards reveal two inch holes that were drilled often on all sides of barn for blown in insulation. Latex paint covers lead paint. Clapboards are nailed over and over.



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Photo by Arron Sturgis on Mar 28, 2018

Trim Damage:

Squirrels have chewed through the trim elements. A wide soffit and return supports a crown molding that has been repaired with lead flashing in a number of areas. A wide frieze and cove molding are accentuated by a narrow and rounded corner board.

While this trim detail may not be original, it is well done and can be reproduced in the repaired structure.



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East Gable:

Looking South along the East gable. A large deck shades the stone foundation. This foundation is exposed to severe weather on this end of the barn.



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North East Corner:

High end trim exists on both ends of the barn which is unusual for this era. The squirrels have chewed the rake trim and have full access to the barn.



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East Gable:

The east gable end is confused by two levels of deck and multiple windows scattered throughout the facade.



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South East Corner:

A significant grade change occurs on the South eave wall and this grade is carried partially around the gable end. The foundation is exposed and very well done. Deck posts are inadequate.



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East Gable:

Seaweed is strewn from the islands edge up to the east gable of the barn. The elements pound this end of the barn and the frame shows signs of decay despite newer siding and decks.



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South Eave Wall:

A significant grade change on the South eave allow entry to the cellar at ground level. Sliding doors protect openings in the foundation wall. Scattered windows are placed in this wall and the siding is new because of extensive water damage along the eave wall.



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Outbuildings:

A series of outbuildings decay along the south side of the barn. They are soon to be removed.



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Concrete Classrooms:

Concrete structures were used for classrooms when the property was a school. These are soon to be removed.



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South Eave Wall:

A recent roof patch keeps water from the barn. Tree branches were impacting the roof covering. Windows are of many varieties and not original to the barn.



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South Eave Wall:

Some foundation repairs are seen here. They are not of the quality of the rest of the stonework. Rolling doors cover original foundation openings.



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South Eave Wall:

A small garage bay with swinging doors may reflect the original form of the cellar doors.



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Trees:

Most of the trees are savable near the barn but this one is too close to the foundation and will be problematic over the long term.



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Tree Branches:

Some trees have overgrown the barn.
Additional trimming will be important.



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South Foundation:

A close up of foundation repairs and
decaying tongue and groove siding. This
will be removed and repaired to match the
original foundation.



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Foundation Piers:

Cut granite piers support the drive posts in the cellar of the barn. They are substantial and extremely well done.



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Cellar Corral:

At some point a concrete corral was built using the original granite piers as end forms. This can be removed. The chimney should come out as well. Concrete slabs exist in only sections of the cellar. A proper slab could be poured to better utilize the cellar space for dry storage.



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Concrete Corral:

A good woodchuck hole undermines the inside corner of the concrete corral. The concrete is not structural and can be removed.



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Cellar Slab:

Partial slabs should be removed and a new continuous slab poured in the basement.



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South Eave From Inside the Basement:

Strong corners and well built openings with post piers allow for access to the cellar. Some bays are studded in with doors and windows. This work is newer and of poor quality.



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Barn Sills:

Both gable sills on the barn are rotten and need to be replaced in kind.



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Carrying Beams in the Cellar:

The foundation stones rise up to support a carrying beam that runs along under the drive posts. The ends of these beams are rotten as they engage the rotten gable end sills. They can be repaired in kind and utilize the foundation once again for support.



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Foundation and Floor Joists:

The foundation of the barn is remarkable. It is in excellent shape. It is created with large natural stone with mortar on the interior and exterior.

Timber floor joists run parallel with the gables and join with the eave sills and drive carrying beams. They measure 6 x 6 and equally spaced four per bay.



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The Foundation:

The cellar foundation is wonderful needing only minor repair.



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Undercarriage:

Granite piers support a heavy timbered undercarriage. Parts of the first floor framing have been whitewashed.



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Whitewashed Joists:

A lime wash coats the undercarriage of the barn. Likely for animal sanitation, the lime wash protects the beams from insects and indicates areas where animals were kept.



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Carrying Timbers on Piers:

Looking towards the West gable, a electric feed comes into the barn. The granite piers are directly under the drive posts above.



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West Gable Sills:

Some shoring is in place to hold up the rotten ends of the carrying timbers where they engage rotten sills along the West gable.



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South West Corner:

A retaining wall holds back grade along the West gable. A wooden stair provides access to the South grade.



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The View Scape:

The concrete buildings and tall trees shade the south wall of the barn. The buildings removed will much improve the view down to the water. Some trimming of the trees will protect and shade the barn roof.



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Cornice Trim and Return:

A high style trim detail exists on the barn. The common rafters overhang the top plate making the overhang possible. With exterior insulation this detail can be retained but the rafter tails would be modified to accommodate the enlargement of the envelope.



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West Entry:

The West entry door while decorative is not original to the barn. Originally there was an interior pocket door to allow the center drive to be opened up at each end for wagons and hay. The framing for the interior door remains in place. Window placement is not original.



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West Gable Peak:

A wide rake with crown molding terminates at the peak. This overhang protects the barn walls beneath. The vent is added and is not original.



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West Gable High Grade:

Asphalt pavement was poured right up over the shingles along the west gable end. This rots the shingles, sheathing and the sills buried below.



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West Gable Ramp:

Pavement comes close to the barn and transitions into a concrete ramp that covers the original sill. This ramp will need to be removed to repair the sills below and a wood ramp can traverse the space remaining between asphalt and barn.



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Looking Towards the West Entry:

From the center drive of the barn you can view upper hay lofts and gable windows. The upper windows are placed in added studding that closed in a large rolling door that spanned the width of the center drive.



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Looking North West Loft Joists and Interior Finishes:

Modern dimensional loft joists replace earlier joists that were coggled into the drive girts.

The existing joists are not tall enough to meet modern code but there is room in the space to create compliant loft levels.

Remnants of interior bead board remains between original sheathing nailers.



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Looking West:

Asbestos flooring covers original wood decking on the first floor. Although the tiles have been removed, the mastic remains full of asbestos and must be disposed of properly.



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Looking South West:

The South eave wall has suffered considerable damage from rain water penetrating the roof and sheathing. New siding covers the patched sheathing and ignores the structural damage that was clearly present when the siding was installed.



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Looking South:

A patch work of plywood and studding attempt to close in the south wall. Original vertical sheathing is evident to the right of the window.



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South Roof Plane and Top Plate:

Significant damage is present in the top plate of the south eave wall. Pressure treated 4 x 4 lumber replaces rotten roof rafters and new sheathing is in place. This area will be taken apart and the top plate repaired with in kind timber. Roof rafters will match original fabric and the sheathing can also match original fabric.



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South Wall:

The center bays along the south wall are deteriorated and since repaired with inappropriate materials. This will all be opened up and the timber frame repaired correctly with matching materials.



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South Wall:

Extensive water penetration has caused significant rot in the South wall. Much of the center of this wall will be rebuilt with new in kind timbers to match the original form of the barn. Dimensional lumber currently in place will be removed.



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South Wall:

White mold is present on some of the floor boards and rotten girts. These areas will be cut back and the mold removed. The timbers can be spliced to match original fabric.



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Exterior Sheathing:

The exterior sheathing is created with wide pine boards original to the frame. Unfortunately these boards were drilled with multiple two inch holes to direct blown in insulation into the wall cavities. Options for filling the holes and or replacing the boards in kind can be discussed.



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Looking North:

The north eave wall is almost fully intact save where new windows interrupt original wall nailers.



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Loft Joists and Loft Decking:

A mix of older and new joists are decked with plywood patches at the second floor along the north loft. The joists are undersized and the plywood is not appropriate.



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North Wall:

In a few areas along the North wall the braces were cut away to accept window openings. The window openings are not original to the barn and should be reconfigured to allow the braces to be placed back in the structural perimeter wall plane.



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Looking East:

A plywood corner denotes decay in the exterior sheathing. There is evidence of considerable damage to the frame in the East gable.



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North East Corner:

Sections of the North Eave wall and the East Gable wall have been replaced with modern materials. The post is rotten here and will need to be replaced.



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The Center Drive Looking East:

The original large door opening in the East gable has been framed in with modern lumber with modern doors and windows leading to exterior decks.



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East Gable:

Many of the beams in the East gable are severed and rotten. They have been patched with later materials and do not provide structural integrity. These beams need to be spliced properly and the barn structure regained.



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Gable Tie Beam:

The tie beam is cut over the door in the east gable. A new section of tie beam can be cut and spliced into the original material to make the barn structurally and historically sound.



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Gable End Posts:

Close examination of the East gable end posts show center rot in both drive posts where weather has penetrated through the siding.

In kind replacement of timbers here will match the size and species of the original timber frame.



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Bent Two Alterations:

At some point the bent two North drive post was removed and a long girt spans from bent one to bent three. A dimensional post was added to support the midspan of this long girt.

The post should be replaced in kind and the girts reestablished here to make the barn structural and more authentic.



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West Door Post:

The West door post has been cut in half. It used to extend up to the top of the original rolling door and connect back into the gable post in bent one. This allowed a large rolling door to remain interior.

This design is typical for the late 1800's but your barn shows many signs of being constructed earlier.



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North Side Center Drive Girts:

Drive posts have been let in to accept horizontal drive girts. This framing emulates the South Drive posts and girts but the joinery is nailed along this side of the barn. This indicates an original barn form with a loft only on one side and the north side used for loose hay storage.

Both lofts can be made viable for living space.



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Photo by Arron Sturgis on Mar 28, 2018

Upper Roof Framing South:

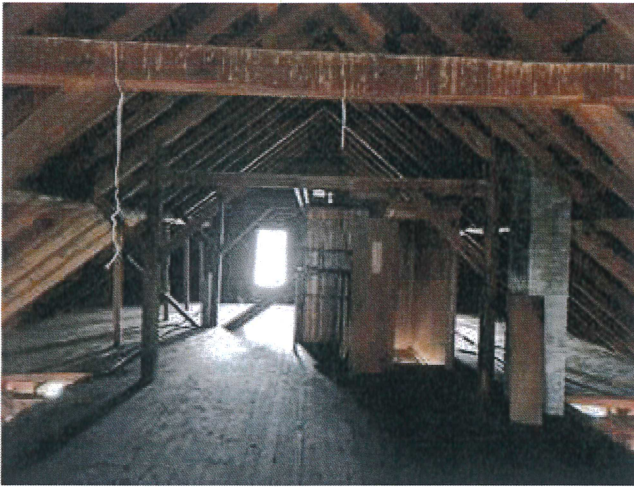
Two vertical posts extend from the continuous tie beam and support the principal rafters just above midspan. These two posts accept a horizontal straining beam. Two braces ascend to the straining beam. Two struts also support the rafter from the upper posts.



Belle Isle Road | Portsmouth, New Hampshire 03801
Photo by Arron Sturgis on Mar 28, 2018

Upper Roof Framing North:

This upper roof framing creates a beautiful aesthetic in the barn and also serves a very important function to strengthen the roof system.



Belle Isle Road | Portsmouth, New Hampshire 03801
Photo by Arron Sturgis on Mar 28, 2018

Upper Roof Framing:

Looking towards the West, down the high drive loft. There is ample room for living space above the tie beam.



Belle Isle Road | Portsmouth, New Hampshire 03801
Photo by Arron Sturgis on Mar 28, 2018

Roof Framing:

Principal rafters at each bent support a principal purlin that runs parallel with the top plate about midspan up the rafter. This purlin supports common rafters and makes the roof system extremely strong and beautiful.



Belle Isle Road | Portsmouth, New Hampshire 03801
Photo by Arron Sturgis on Mar 28, 2018

North Roof Frame:

Roof framing along the north roof pitch is in excellent shape.



Belle Isle Road | Portsmouth, New Hampshire 03801
Photo by Arron Sturgis on Mar 28, 2018

Roof Framing:

Common rafters meet in a vertical plumb cut at the ridge. There is no ridge beam. The rafters are held evenly apart by the roof sheathing.



Belle Isle Road | Portsmouth, New Hampshire 03801
Photo by Arron Sturgis on Mar 28, 2018

Roof Framing:

A commanding view is present in the upper loft above the tie beams.



Belle Isle Road | Portsmouth, New Hampshire 03801
Photo by Arron Sturgis on Mar 28, 2018

South Roof Framing:

Water penetration has caused rot in a number of areas along the South roof pitch. Roof sheathing and some common rafters have been improperly replaced over time. New common rafters with in kind roof sheathing will be integrated into the South eave roof pitch.



Belle Isle Road | Portsmouth, New Hampshire 03801
Photo by Arron Sturgis on Mar 28, 2018

Roof Framing:

Common Rafters are mortise and tenoned into the principal roof purlin. The purlin provides lateral bracing and strengthens the roof pitch tremendously.



Belle Isle Road | Portsmouth, New Hampshire 03801
Photo by Arron Sturgis on Mar 28, 2018

Chimney:

A chimney was added to the frame. It is not original and will need to be removed.



Belle Isle Road | Portsmouth, New Hampshire 03801
Photo by Arron Sturgis on Mar 28, 2018

Stair well:

An early stair well remains in place leading up to the upper loft from the floors below. This feature will be removed during the repair process. New stairs will be designed for the new use of the spaces.



Belle Isle Road | Portsmouth, New Hampshire 03801
Photo by Arron Sturgis on Mar 28, 2018

Added Truss:

Bent two hosts a truss that was installed to provide an open space below at the first floor level. At a later date the space under the truss was posted negating its use.



Belle Isle Road | Portsmouth, New Hampshire 03801
Photo by Arron Sturgis on Mar 28, 2018

Added Truss:

While the truss was designed for a specific use, it is not built well and very likely performed poorly. It is not a part of the original frame and should be removed with the adjacent loft girts repaired and a new post reinstalled to match the rest of the barn.



Belle Isle Road | Portsmouth, New Hampshire 03801
Photo by Arron Sturgis on Mar 28, 2018

Barn Interior:

The barn has wide open spaces that can be designed for optimal use and living space. Many of the components of the lofts are added to the frame. The high drive loft on top of the tie beams is not original. New lofts can be created to provide code compliance and optimal living conditions.



Belle Isle Road | Portsmouth, New Hampshire 03801
Photo by Arron Sturgis on Mar 28, 2018

East Gable:

Most of the east gable is rotten. New studding has been placed between rotten posts. The posts suffer weather penetration from the ocean side of the barn but new doors and windows have leaked allowing water to accelerate damage to the framing members.



Belle Isle Road | Portsmouth, New Hampshire 03801
Photo by Arron Sturgis on Mar 28, 2018

Interior Framing:

At the top right of this photo you see an empty mortise in the tie beam that at one time held the tenon of a drive post. The added truss installed above allowed for the removal of the post, but the truss is not built strong enough to withstand the floor loads. A new post will be fabricated to match original fabric and regain this load path to the drive floor.



Belle Isle Road | Portsmouth, New Hampshire 03801
Photo by Arron Sturgis on Mar 28, 2018

Timbers Signed:

In bent two along the north loft is a signature that is likely that of the original builder. The pencil or fine ink signature appears to indicate "Bearn" or "Beard". Some additional investigation could reveal more information about this person. These fine ink/pencil lines are seen on the layout of the joinery.



Belle Isle Road | Portsmouth, New Hampshire 03801
Photo by Arron Sturgis on Mar 28, 2018

Early 18th Century House:

While on site we viewed perhaps the earliest building on the site. Much of the early house is obscured by overgrown bushes and later additions all to be removed.



Belle Isle Road | Portsmouth, New Hampshire 03801
Photo by Arron Sturgis on Mar 28, 2018

18th Century House Frame:

The core of this derelict building hosts a two story timber framed structure with a center chimney. It is possibly the earliest building on the island and it reflects similar "one room plan" structures very common on nearby Newcastle.



Belle Isle Road | Portsmouth, New Hampshire 03801
Photo by Arron Sturgis on Mar 28, 2018

Historic House Frame:

This is the attic of the little historic frame between the barn and main house. Continuous tie beams create a second floor in this structure. A hand hewn principal rafter purlin roof system indicate an early date of construction.



Belle Isle Road | Portsmouth, New Hampshire 03801
Photo by Arron Sturgis on Mar 28, 2018

Historic House Frame:

The foundation of the little house is in amazing shape as is the original center chimney arch made of brick.

PRESERVATION TIMBER FRAMING, INC., P.O. BOX 28, BERWICK, ME 03901
Office: (207) 698-1695 Cell: (603) 781-5725 E-mail: arron@preservationtimberframing.com

City of Portsmouth, NH

August 30th, 2022

Re: Variance for Lady Isle Historic Barn & Historic Cottage

Dear Sir or Madam,

As per your request, this is a letter of support for acquiring a variance for the Lady Isle Barn & Original Fisherman's Cottage.

The original timber framed construction of the Lady Isle Barn is set upon and supported by a stone foundation that is in very good condition. The perimeter is made of cut and broken large rubble stones quarried locally and the undercarriage of the barn is supported on beautiful granite pillars. The stone foundation is original to this 19th century timber framed barn. The cottage also sits on a very good stone foundation. Both buildings have survived for over two hundred years as a result of their sound foundations.

Altering these foundations to meet the new city regulations is difficult and expensive. There is also a significant inherent risk to lifting the buildings up in the air in order to add to the foundation in order to meet a new modern code requirement. These foundations have stood the test of time. They are solid, cohesive, and historic. They have survived many storms and floods.

Lady Island is largely ledge. These foundations are on solid ground. Flood water has flowed in and out over the years with little damage to the structures above. There is the potential for significant damage to the foundation and the timber framed structures if lifting is required for flood plain compliance.

The timber framed structures of both the barn and cottage are substantial. While some repairs are necessary, they stand strong. With good preservation and thoughtful adaptive re-use they will continue to be a vibrant long lasting part of the Portsmouth community.

To alter or change the barn foundation would greatly impact the overall structure and the look of the barn. There is little to gain here to meet compliance with the current code and for the risk and expense involved.

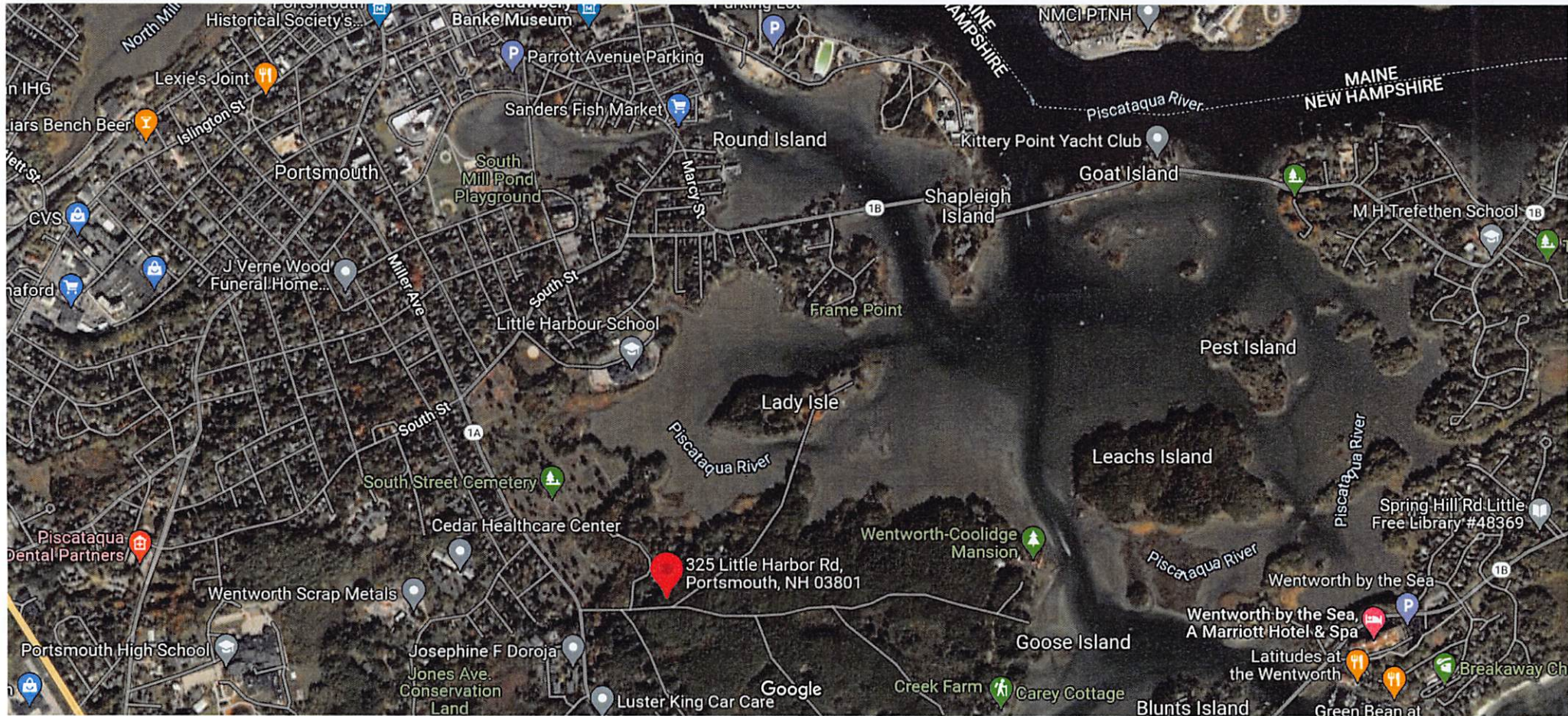
The design of the foundation, known as a Bank Barn, leaves the foundation highly visible on two sides facing the water. We highly recommend you approve the variance for the barn and the cottage, because of their historic importance and longevity. The barn and cottage are authentic, original, and highly visible from the waterfront and surrounding community. To elevate them would be a significant aesthetic change. The context of our historic buildings in Portsmouth, New Hampshire is the reason why people live and visit here.

Respectfully Submitted,



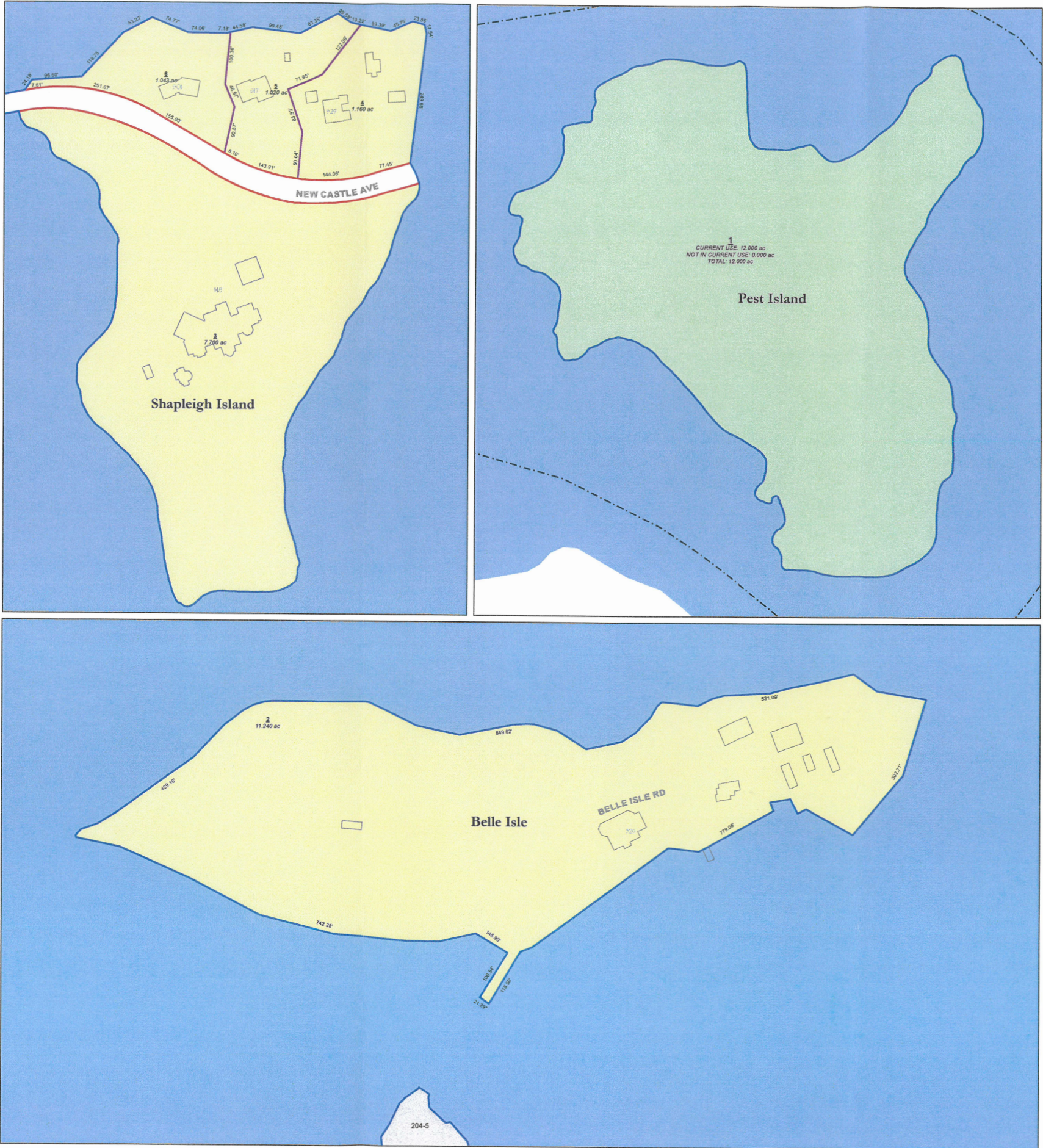
Arron J. Sturgis, President
Preservation Timber Framing Inc.
www.preservationtimberframing.com

Google Maps 325 Little Harbor Rd









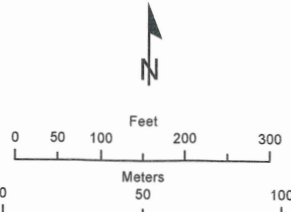
Partial Legend
See the cover sheet for the complete legend.

7-5A Lot or lot-unit number
2.56 ac Parcel area in acres (ac) or square feet (sf)
25 Address number
233-137 Parcel number from a neighboring map
66' Parcel line dimension

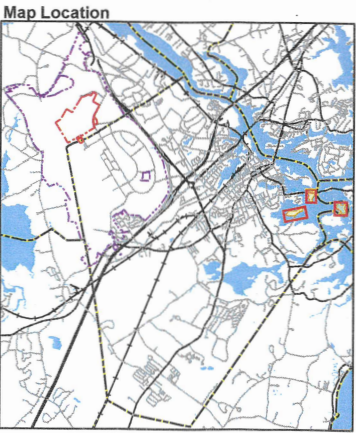
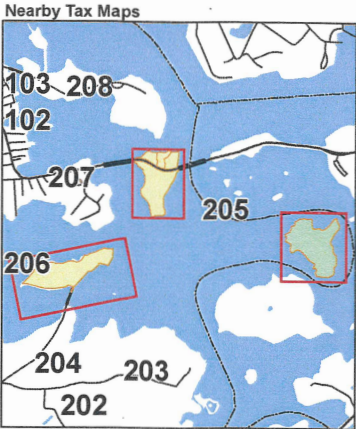
SIMS AVE Street name

Parcel/Parcel boundary
Parcel/ROW boundary
Water boundary
Structure (2006 data)

Parcel covered by this map
Parcel from a neighboring map (see other map for current status)



This map is for assessment purposes only. It is not intended for legal description or conveyance. Parcels are mapped as of April 1. Building footprints are 2006 data and may not represent current structures. Streets appearing on this map may be paper (unbuilt) streets. Lot numbers take precedence over address numbers. Address numbers shown on this map may not represent posted or legal addresses.



HOEFLE, PHOENIX, GORMLEY & ROBERTS, PLLC

ATTORNEYS AT LAW

127 Parrott Avenue, P.O. Box 4480 | Portsmouth, NH, 03802-4480
Telephone: 603.436.0666 | Facsimile: 603.431.0879 | www.hpgrlaw.com

September 13, 2022

HAND DELIVERED

Portsmouth Zoning Board of Adjustment
Portsmouth City Hall
1 Junkins Avenue
Portsmouth, NH 03801

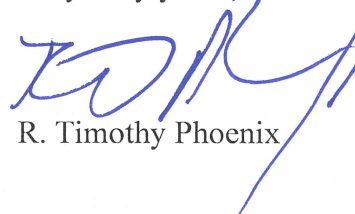
Re: Stephen H. Roberts, Trustee, The ADL 325 Little Harbor Road Trust,
Owner/Applicant
325 Little Harbor Road
Tax Map 205, Lot 2
Rural (R) District
LU 21-220

Dear Chairman Parrott and Zoning Board members:

In further support of our pending application for zoning relief, attached please find photographs marked as Exhibit G 1-9. These are photographs of the interior and exterior of the barn. These assist with review and consideration of the pending request for relief. In particular note the stone retaining wall/foundation, the difference in elevation between the front and rear of the barn, and the historic Granite support pillars.

We look forward to the presentation on September 27, 2022.

Very truly yours,



R. Timothy Phoenix

RTP/msw

Encl.

cc: Client
Steven H Roberts, Esq.
TF Moran
James Youngblood
Aaron Sturgis

DANIEL C. HOEFLE
R. TIMOTHY PHOENIX
LAWRENCE B. GORMLEY
STEPHEN H. ROBERTS

R. PETER TAYLOR
KEVIN M. BAUM
GREGORY D. ROBBINS
MONICA F. KIESER

JACOB J.B. MARVELLEY
DUNCAN A. EDGAR
STEPHANIE J. JOHNSON

OF COUNSEL:
SAMUEL R. REID
JOHN AHLGREN

















