



22 Ladd Street, Portsmouth NH
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Historic District Commission

14 Mechanic Street Portsmouth, NH

October 2019 Work Session Summary

We are submitting for work session review revised design drawings for construction at 14 Mechanic Street.

Previous work session July 2019

At our previous work session, our proposal was significantly than current solution. The previous proposal involved relocating and repairing the original antique part of the home, with additions to the side and rear. The proposal also included the removal of one of the 2 chimneys.

The existing home is clad with aluminum siding, and the original windows have been replaced with windows of varying age and levels of disrepair. The post and beam structure is largely intact but is also in disrepair. Our proposed work included relocating the antique portion of the home and repairing it with wood windows and clapboards and exterior detailing in keeping with neighboring homes.

Comments from the HDC included:

1. The proposed additions are too large compared to the antique portion of the home
2. The removal of the chimney is unacceptable
3. Concern regarding the buffer prohibiting any construction within 25' of the adjacent Point of Graves Burial Ground.
4. Request for further investigation of the home's history to inform the repairs and level of exterior detail.

Follow up investigation after the work session

Following the meeting, we engaged Arron Sturgis from Preservation Timber Framing Inc. to assess the building. He estimated the home to be late 18th century, early 19th century. He will review his findings at the work session.

We also visited the Portsmouth Athenaeum to search for historical information about the property. Based on the Sanborn maps, we understand that the house was not there in 1813 but was there in 1850. This is consistent with Arron's estimate of the age of the house. We also see from the maps that in 1910 there was a house at the corner of Marcy and Mechanic Streets. Beyond the maps, the Athenaeum did not have additional information on the house or property.

The design team, the client, and Attorney Phoenix met with city planning officials and Attorney Sullivan to gain an understanding from the city's perspective of the cemetery buffer. The mandated buffer is a state statute. We will have a summary of our latest findings at the work session.



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Proposed Work

With our understanding from Arron Sturgis of the best approach to properly repair the historic structure and with our desire to limit any additional disturbance within the cemetery buffer, we pursued the option of dismantling and rebuilding the antique home at the corner of Marcy and Mechanic. This portion of the home will be repaired and finished in keeping with its history and it's neighbors. The scope of work includes rebuilding both chimneys.

We designed an addition with similar scale and proportion to the historic home, smaller, with contemporary materials and finishes. Our approach aims to make a clear distinction between the old and new.



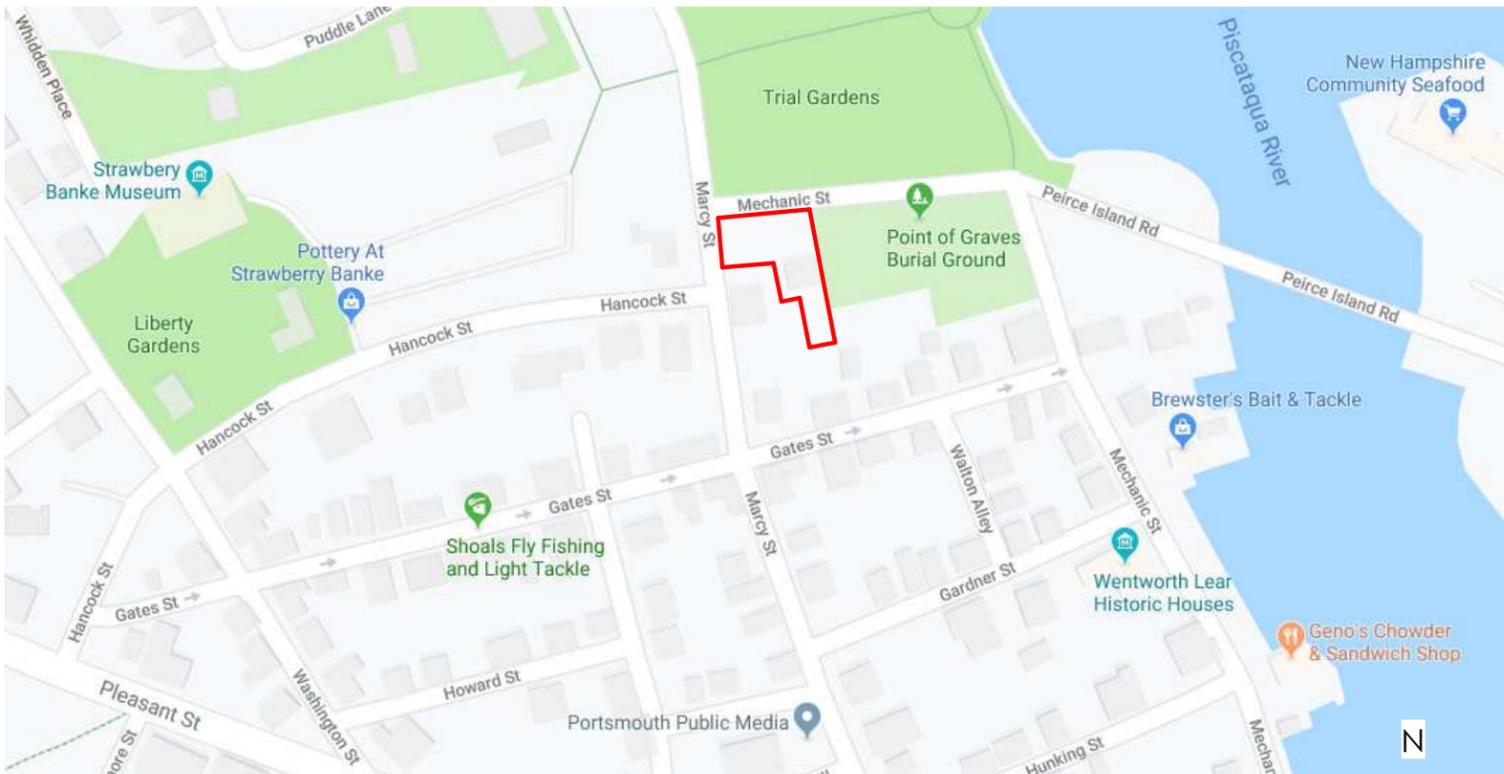
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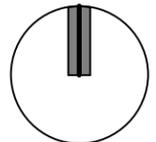
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PROPOSED RENOVATIONS & ADDITIONS FOR THE
COPELAND RESIDENCE
14 MECHANIC STREET
PORTSMOUTH, NH

CONTEXT PHOTOS & LOCUS PLAN

WORK SESSION
SHEET **1** OF 6
OCTOBER 2, 2019





1 27 Gardner Street



2 27 Gardner Street Window



3 27 Gardner Street Eave Detail



4 187 Marcy Street



5 187 Marcy Street Entry



6 245 Marcy Street

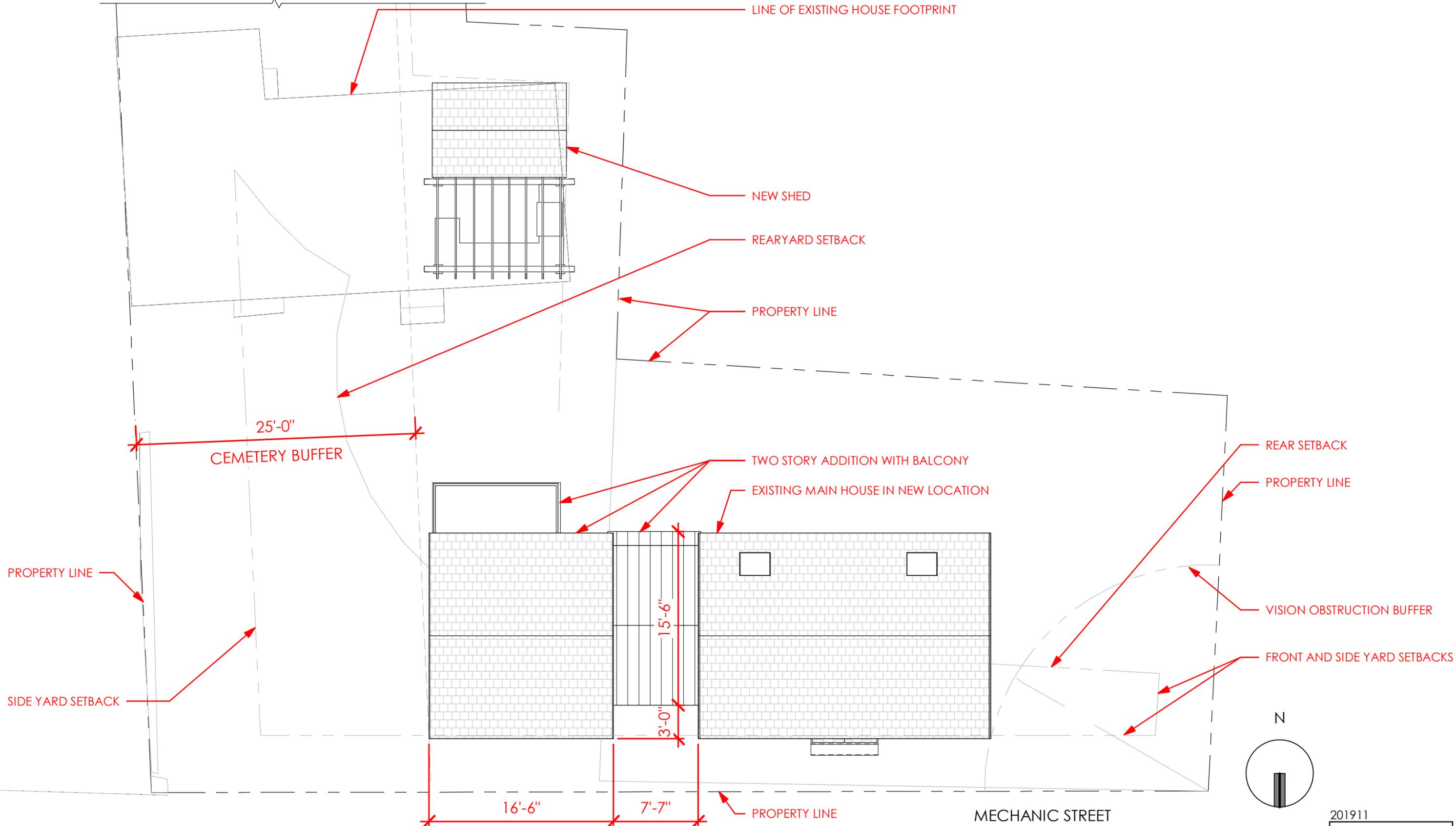
PROPOSED RENOVATIONS & ADDITIONS FOR THE
COPELAND RESIDENCE

14 MECHANIC STREET
PORTSMOUTH, NH

NEIGHBORHOOD & INSPIRATION PHOTOS

WORK SESSION
SHEET **2** OF 6
OCTOBER 2, 2019





COPELAND RESIDENCE

14 MECHANIC STREET
PORTSMOUTH, NH

PROPOSED SITE PLAN/ROOF PLAN

1/8" = 1'-0"

WORK SESSION
SHEET 3 OF 6
 OCTOBER 2, 2019

201911

D|M|A
 DESTEFANO
 MAUGEL
 ARCHITECTS



EXISTING EAST ELEVATION



EXISTING SOUTH ELEVATION



EXISTING WEST ELEVATION



EXISTING NORTH ELEVATION

COPELAND RESIDENCE

14 MECHANIC STREET
PORTSMOUTH, NH

EXISTING ELEVATIONS

1/8" = 1'-0"

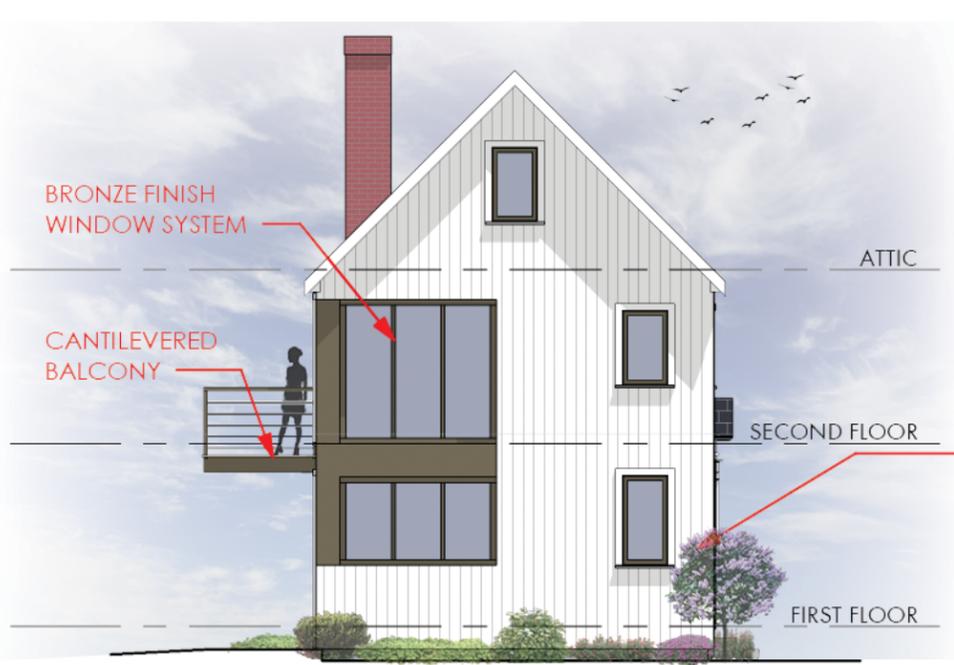
WORK SESSION

SHEET 4 OF 6

OCTOBER 2, 2019

201911





PROPOSED EAST ELEVATION



PROPOSED SOUTH ELEVATION



PROPOSED WEST ELEVATION



PROPOSED NORTH ELEVATION

COPELAND RESIDENCE

14 MECHANIC STREET
PORTSMOUTH, NH

PROPOSED ELEVATIONS

1/8" = 1'-0"

WORK SESSION
SHEET 5 OF 6
OCTOBER 2, 2019





PERSPECTIVE FROM REAR



PERSPECTIVE FROM STREET



EAST

NORTH

WEST

SOUTH

COPELAND RESIDENCE

14 MECHANIC STREET
PORTSMOUTH, NH

SHED ELEVATIONS & PERSPECTIVES

1/8" = 1'-0"

WORK SESSION
SHEET 6 OF 6
OCTOBER 2, 2019





14 MECHANIC STREET, PORTSMOUTH, NH

Early features of this vernacular home

By Arron Sturgis | September 25, 2019

POWERED BY





1 14 Mechanic street | Portsmouth, NH Apr 15, 2019 | 11:59 PM Arron Sturgis

14 mechanic street. Two story vernacular, double chimney single residence. Very early.



2 14 Mechanic street | Portsmouth, NH Apr 16, 2019 | 12:00 AM Arron Sturgis

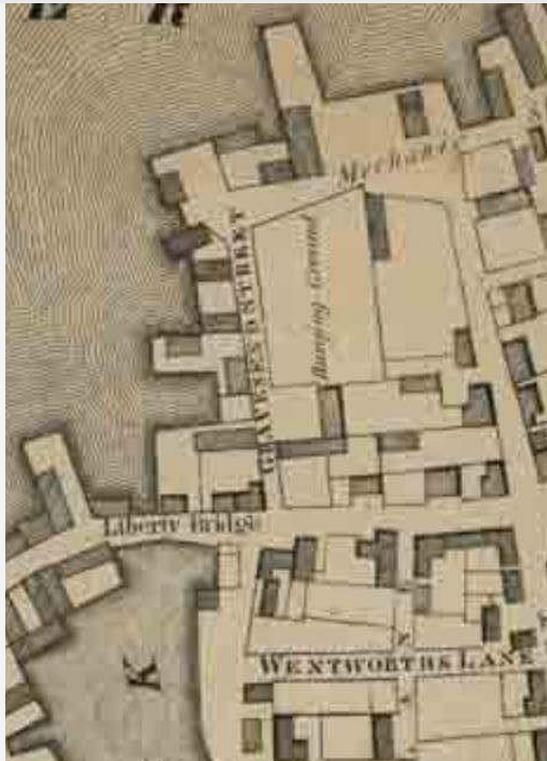
Double chimneys rise at rear of structure. A very cozy simple home.



3

14 Mechanic street | Portsmouth, NH Apr 16, 2019 | 10:10 AM Arron Sturgis

An attached ell has been added to the original house frame. It is much later.



4

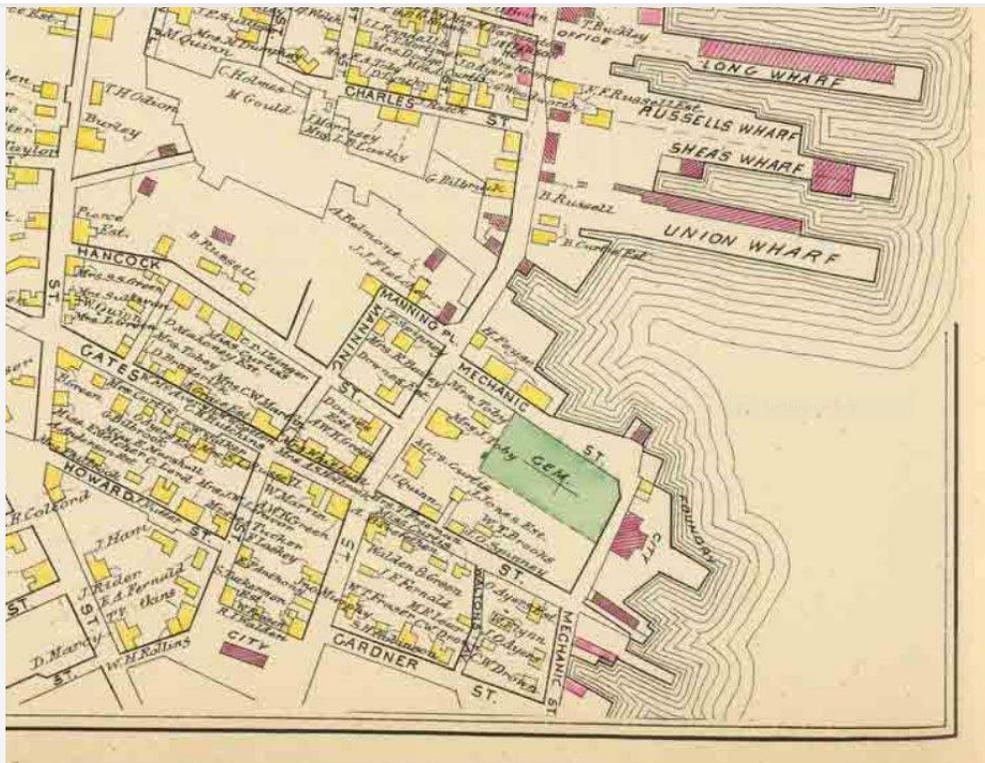
14 Mechanic street | Portsmouth, NH Jun 13, 2019 | 3:10 PM Arron Sturgis

Early maps show a structure on the lot. It is possible that the house has been reoriented on the property over time.



5 14 Mechanic street | Portsmouth, NH Jun 13, 2019 | 3:14 PM Arron Sturgis

The house abuts the cemetery and the house has sat in numerous positions on the lot.



6 14 Mechanic street | Portsmouth, NH Jul 16, 2019 | 9:13 AM Arron Sturgis

The house in its current most recent location.



7 14 Mechanic street | Portsmouth, NH Apr 16, 2019 | 12:02 AM Arron Sturgis

Simple vernacular lines remain beneath the added aluminum siding.



8 14 Mechanic street | Portsmouth, NH Sep 23, 2019 | 9:51 AM Arron Sturgis

Early original clapboards lie beneath a layer of faux brick face siding. Aluminum siding exists on the entire building facade.



9

14 Mechanic street | Portsmouth, NH Sep 23, 2019 | 9:51 AM Arron Sturgis

At the back eave it is clear that existing sheathing was clad with wood shingles. The nail pattern provides spacing of shingles.



10

14 Mechanic street | Portsmouth, NH Sep 23, 2019 | 9:51 AM Arron Sturgis

A close view of nail patterns indicating wood shingle siding along the back eave of the house.



11

14 Mechanic street | Portsmouth, NH Sep 23, 2019 | 9:52 AM Arron Sturgis

Window sash are not original. Window sills have been cut back to allow for aluminum siding installation. Window trim has been removed. Early clapboards butt up to the window jamb. It appears that the window sill nose would have extended into the clapboard profile.



12

14 Mechanic street | Portsmouth, NH Sep 23, 2019 | 9:53 AM Arron Sturgis

The clapboards show a reveal to weather of about 2-1/4 inch consistently. This is a small reveal by today's standards. The clapboards appear to be radially sawn pine. The nails are a very early version of cut nails with nail heads added to the shank after conversion.



13

14 Mechanic street | Portsmouth, NH Sep 23, 2019 | 9:55 AM Arron Sturgis

Original clapboards are skived and fastened with an early version of cut nail.



14

14 Mechanic street | Portsmouth, NH Sep 23, 2019 | 9:56 AM Arron Sturgis

Pine clapboards overlap and they are skived where they meet. This is an early way to protect the sheathing behind the clapboards.



15

14 Mechanic street | Portsmouth, NH Sep 23, 2019 | 9:56 AM Arron Sturgis

This is an early cut nail for the sheathing boards. It has a very narrowing shank with an added head.



16

14 Mechanic street | Portsmouth, NH Sep 23, 2019 | 9:56 AM Arron Sturgis

Clapboard nails also appear early with added heads on tapered shanks.



17

14 Mechanic street | Portsmouth, NH Sep 23, 2019 | 9:56 AM Arron Sturgis

A close view shows the taper of the cut nail and a slight machine pinch where the each nail was individually headed after the shank was cut out of larger flat stock.



18

14 Mechanic street | Portsmouth, NH Sep 23, 2019 | 10:08 AM Arron Sturgis

Interior: Right rear corner as viewed from the road. Plaster and lathe and a cased timber framed corner post.



19

14 Mechanic street | Portsmouth, NH Sep 23, 2019 | 10:21 AM Arron Sturgis

Interior: Early thick split lathe removed in section from the right rear corner of the structure to expose timber framing.



20

14 Mechanic street | Portsmouth, NH Sep 23, 2019 | 10:24 AM Arron Sturgis

Wide pine painted floor boards beneath green carpeting. These floors are in good shape and appear to be original.



21

14 Mechanic street | Portsmouth, NH Sep 23, 2019 | 10:31 AM Arron Sturgis

Interior: Right rear corner as viewed from the road. Split lathe removed to expose to ascending braces at the corner post. The posts and braces are hand hewn. The casing is plain flat stock and appears early.



22

14 Mechanic street | Portsmouth, NH Sep 23, 2019 | 10:33 AM Arron Sturgis

These are exterior horizontal sheathing boards. They are beveled at the edges to make the building water tight prior to siding.



23

14 Mechanic street | Portsmouth, NH Sep 23, 2019 | 10:37 AM Arron Sturgis

Split lathe, plaster and early wall papers in the closet.



24

14 Mechanic street | Portsmouth, NH Sep 23, 2019 | 10:38 AM Arron Sturgis

The roof frame can be defined as a principal rafter common purlin roof system. The elements are hewn and up and down sawn with vertical sheathing. An original collar tie has been cut out to make the room more livable. The space has also been white washed which indicates that it was used for living space while remaining largely unfinished.



25

14 Mechanic street | Portsmouth, NH Sep 23, 2019 | 10:38 AM Arron Sturgis

Common purlins span between the principal rafters. Added paneling closes in the room and orange carpet covers wide pine board flooring. This is finished living space with no insulation or heat source.



26

14 Mechanic street | Portsmouth, NH Sep 23, 2019 | 10:39 AM Arron Sturgis

Full length tie beams cross from top plate to top plate and plate. Wide pine floors exist at all floor levels.



27

14 Mechanic street | Portsmouth, NH Sep 23, 2019 | 10:39 AM Arron Sturgis

Principal rafters show a simple horizontal seat cut at the tie beam end. Empty mortises indicate recycled timbers were used to build this home. Plywood covers old worn vertical sheathing boards.



28

14 Mechanic street | Portsmouth, NH Sep 23, 2019 | 10:40 AM Arron Sturgis

A close up of the rafter heel shows that it engages both tie beam and top plate with simple but effective connections. The tie beams are co-planar with the top plate. This is an early form of timber frame construction.



29

14 Mechanic street | Portsmouth, NH Sep 23, 2019 | 10:40 AM Arron Sturgis

The top plate accepts the tie beam in plane. The rafter heel rests on both elements. Everything here is hand hewn. The plate is the full length of the building.



30

14 Mechanic street | Portsmouth, NH Sep 23, 2019 | 10:40 AM Arron Sturgis

Intermediate full width tie beams pass from eave to eave to create attic floor joists. This creates a very strong structure.



31

14 Mechanic street | Portsmouth, NH Sep 23, 2019 | 10:43 AM Arron Sturgis

Split lathe behind the attic stairs indicate that the stairs remain in their original location within the home. The treads are pine with a vernacular nosing.



32

14 Mechanic street | Portsmouth, NH Sep 23, 2019 | 10:56 AM Arron Sturgis

The stair stringers are up and down sawn rough lumber also indicating that they are original and in their original location.



33 14 Mechanic street | Portsmouth, NH Sep 23, 2019 | 10:56 AM Arron Sturgis

The stair treads of the first flight of stairs are made of hardwood. They are nailed with wire nails indicating that the treads have been changed over the years. They do however share a rounded nosing similar to the pine treads leading up into the attic space. A variety of paint colors exists on these treads.



34 14 Mechanic street | Portsmouth, NH Sep 23, 2019 | 10:56 AM Arron Sturgis

The underside of the first flight of stairs shows a rich hardwood color and texture.



35

14 Mechanic street | Portsmouth, NH Sep 23, 2019 | 10:58 AM Arron Sturgis

Stair stringers and risers indicate an original stair case at the first floor. This can be seen from the door leading down into the dirt floor basement.



36

14 Mechanic street | Portsmouth, NH Sep 23, 2019 | 10:58 AM Arron Sturgis

Early beaded wood paneling indicates an early stair opening and the beaded horizontal boards appear original with early colors as well.