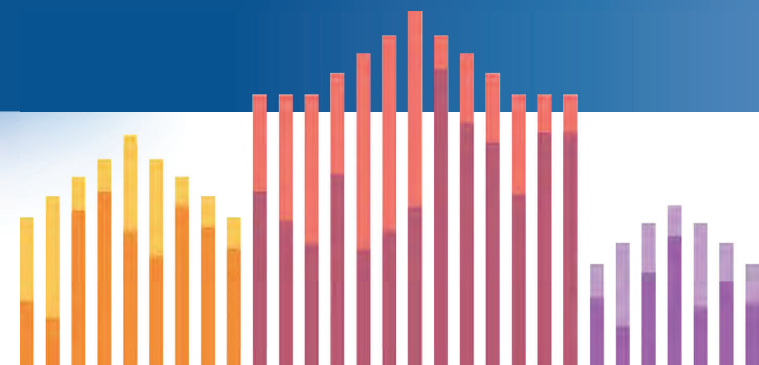
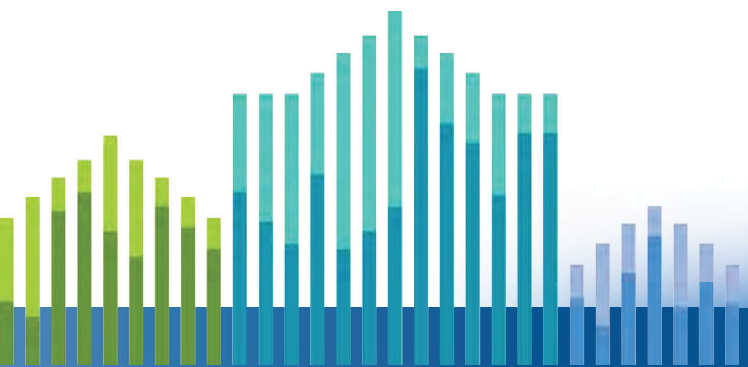




# Converting Commercial Space To Housing

[NHHousing.org](http://NHHousing.org)





# CONVERTING COMMERCIAL SPACE TO HOUSING

An architectural perspective



# **What we've learned...**

**Trends**

**Challenges & Opportunities**

**Case Studies**

**Take-aways**

# TRENDS

## Catalysts:

- Remote Technology
- More efficient office layouts
- Coworking
- More trophy space options

## Tools:

- Grants
- Loans
- Tax incentives







History repeats itself –  
Repurposing the workplace.



**Before:** 1980s USDA office, Alexandria Virginia \*

**After:** Park & Ford Luxury Residences. \*

## Repurposing the 'modern' mid-20<sup>th</sup> century office

\* Bonstra | Haresign Architects. Photographs courtesy of Lowe.

# CHALLENGES

## ZONING



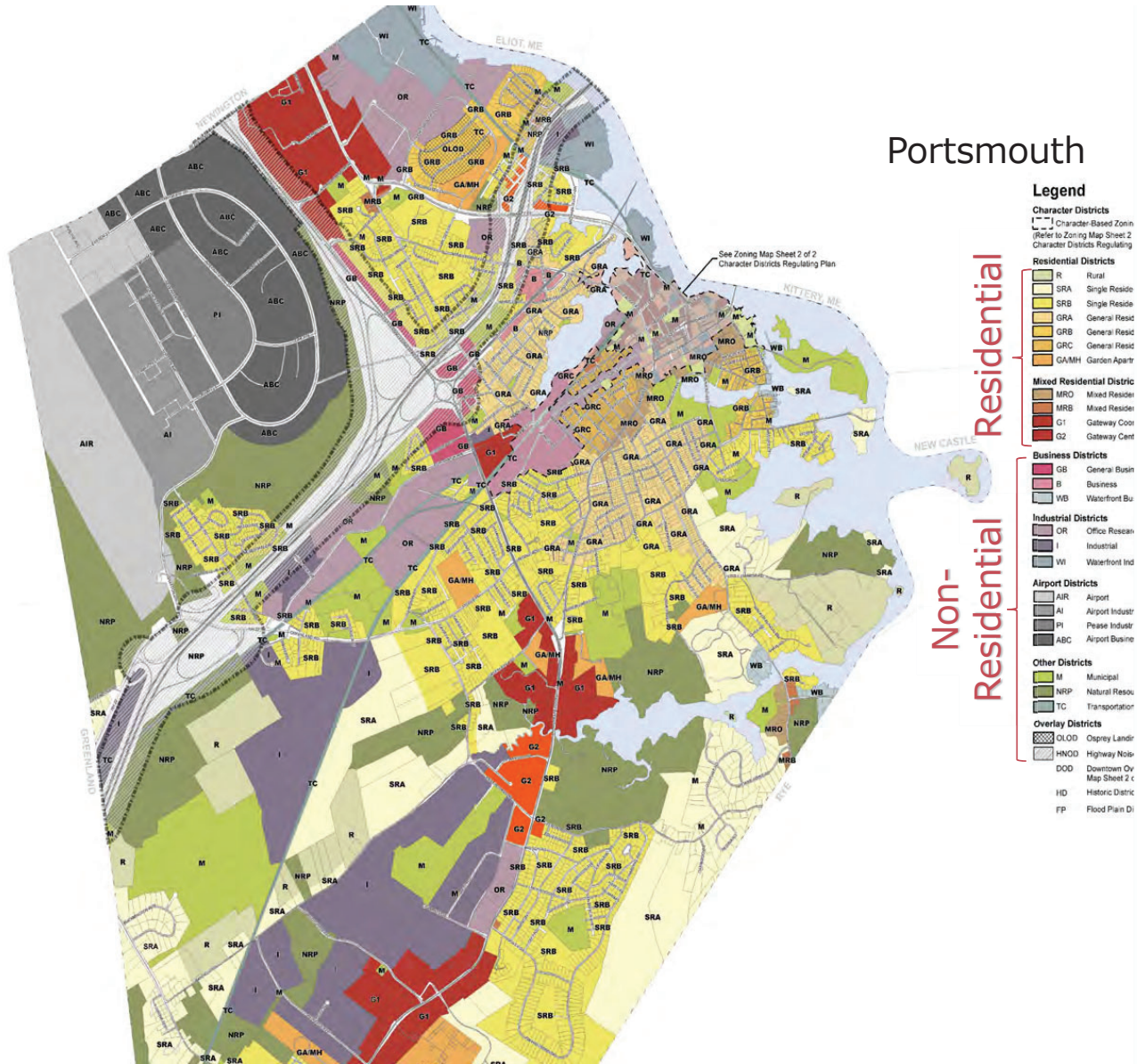
PEASE Tradeport, Portsmouth



# CHALLENGES

## ZONING

Use-based districting –  
50% +/- of land prohibits  
housing





# CHALLENGES

## ZONING

**Use-based districting** –  
50% +/- of land prohibits  
housing

**Setbacks & Open Space** –  
old buildings don't meet  
current zoning standards



Nashua Manufacturing Company:  
Cotton textiles 1823 - 1945  
Apartments - 1960's +

# CHALLENGES

## ZONING

**Use-based districting** –  
50% +/- of land prohibits  
housing

**Setbacks & Open Space** –  
old buildings don't meet  
current zoning standards

**Parking** - ZBA denial of 4  
spaces of parking relief  
killed housing project



Treadwell-Jenness House, Portsmouth



# CHALLENGES

## CODES



Parrott House Apartments, Portsmouth

# CHALLENGES

## CODES

**Change of Use** – triggers requirements for new construction (egress, seismic, fire protection)



Parrott House Apartments, Portsmouth



# CHALLENGES

## CODES

**Change of Use** – triggers requirements for new construction (egress, seismic, fire protection, envelope)

**Windows** – rescue openings required at bedrooms for R3, R4 & single exit R2.



1 Congress St, Portsmouth

# CHALLENGES

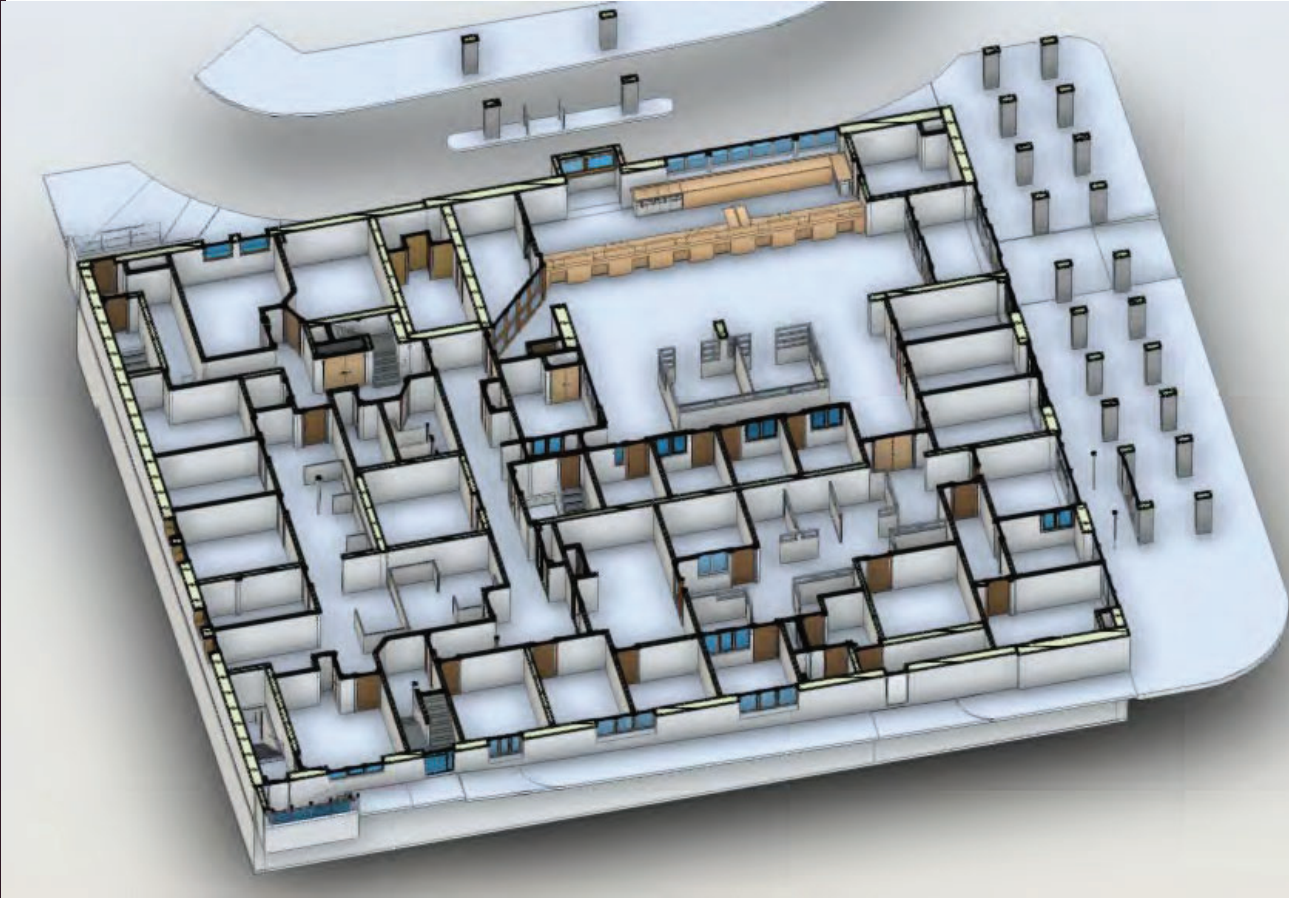
## Program - ROI

Rentable area, Net/gross

Inefficient floorplans –

    New offices: big box,  
    large core

    Old offices: single,  
    central stair.



134 Pleasant, Portsmouth  
1960's grocery store  
Today: bank & professional offices



# CHALLENGES

## Program - design

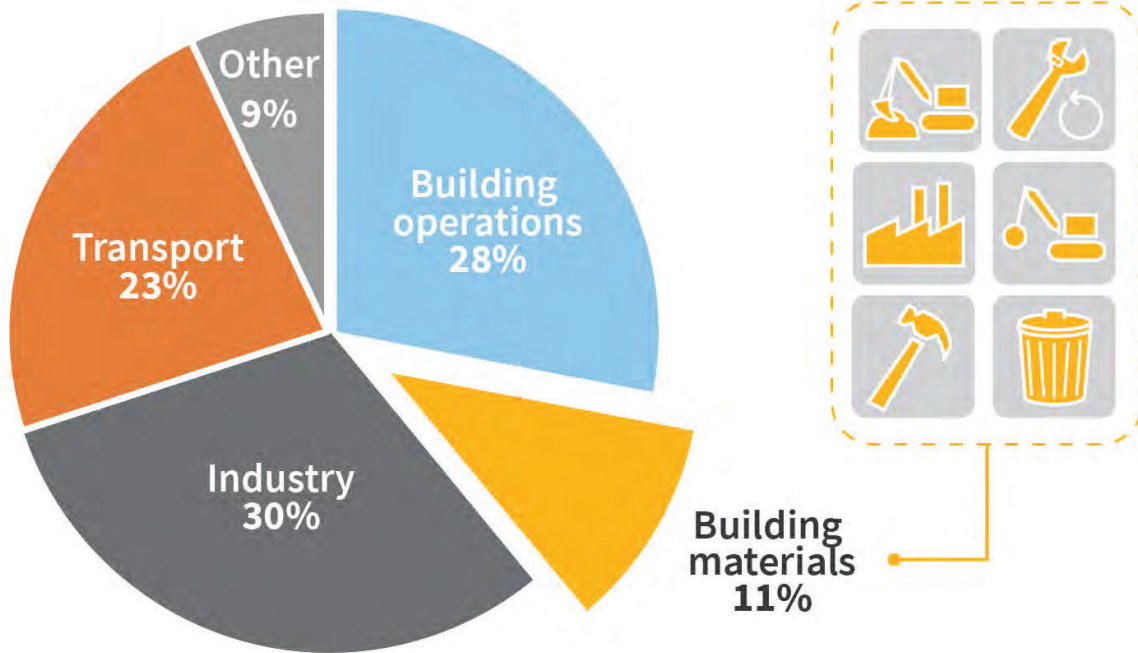
Deep floorplates – lack windows, daylight, fresh air

High ceilings in older offices, cost more to renovate

Low ceilings in newer offices, difficult for plumbing & ducts



134 Pleasant, Portsmouth  
1960's grocery store  
Today: bank & professional offices



*Global energy-related CO<sub>2</sub> emissions.  
Adapted from the UNEP 2019 Global Status Report*

© Copyright 2020, Carbon Leadership Forum

# OPPORTUNITIES

## Sustainability

Embodied carbon - REUSE  
 Transportation, existing hubs





Detroit, Stroh River Place & Talon Center  
Repurposed pharmaceuticals campus to mixed use



# OPPORTUNITIES

## Community

Vibrancy

Revitalization, socio-economic

Walkable communities

Reduce crime & pollution

Catalyzes further redevelopment

(initial redevelopment 1980's,  
reinvestments continue today)



Calgary, Alberta Canada  
Office vacancy 29%  
13.5 million sf

# OPPORTUNITIES

## Due Diligence

Downtown revitalization funding - \$36 million for office-to-housing repositioning, \$1 billion over 10 years.

Program covers \$75/sf for converted office space, up to \$15 million per project.



Compatibility  
**77%** Avg.

Vacancy Rate

69.03%

Convertible Area (SF)

3,200,000

### Top 10 Projects



Drop "yellow figure" to view street view of property.

# OPPORTUNITIES

## Viability Assessment Tool

Gensler algorithm, compared 56 cities, and 50 variables:

- Net/gross areas
- Units/building
- Average Unit size
- Elevators & services
- Context
- Form
- Windows
- Structure



Calgary, Alberta Canada (Gibbs Gage Architects)

# OPPORTUNITIES

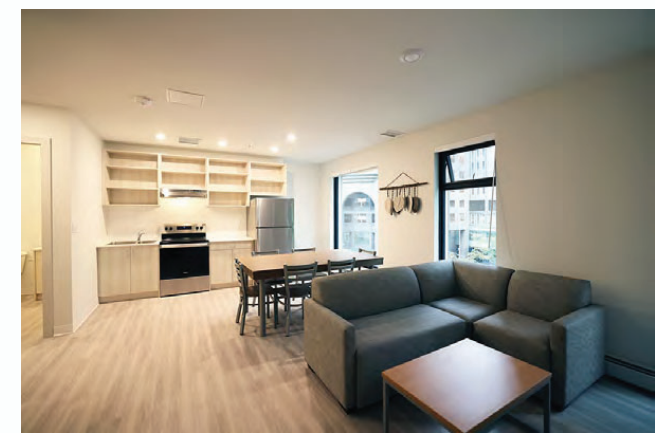
## Results

**Neoma**, 82 units affordable housing conversion

95,000 sf

\$232/sf (USD) – 2021

14 months construction







## 111 State Street, Portsmouth

Mixed use, convert upper floor offices to workforce housing.  
Lower floor restaurant. 13,400 gsf  
3 existing connected buildings + new addition





## 111 State Street - existing

Low ceilings  
Few windows  
3 levels per story  
Discontinuous stairs





## 111 State Street

Rear stair & elevator addition



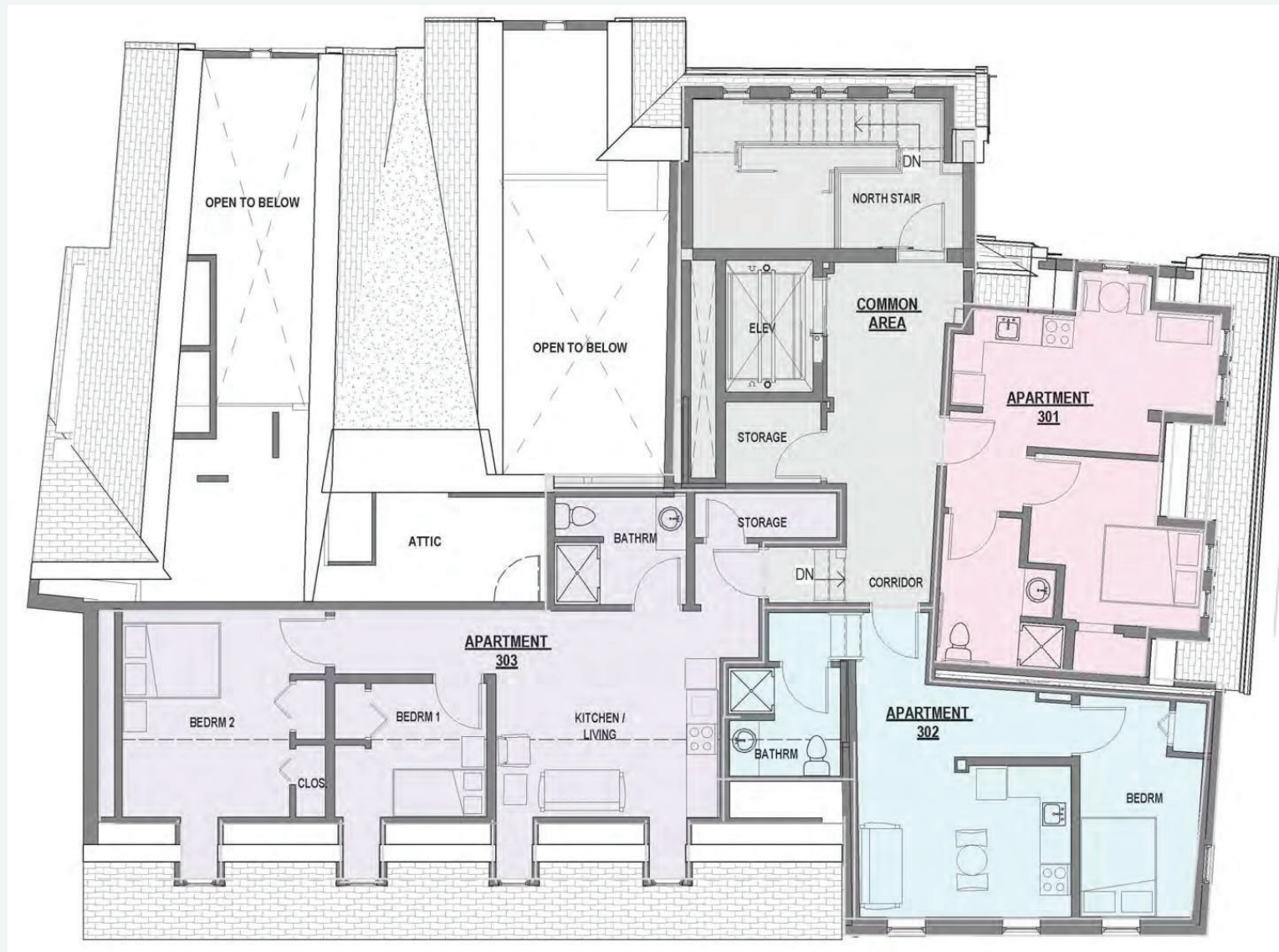


**111 State Street**  
proposed 3<sup>rd</sup> floor

Elevator

Single egress stair

Envelope, MEP/FP



**111 State Street**  
proposed 2<sup>nd</sup> floor

R2 – boarding house  
vs apartments?







## **Parrott House Apartments - Middle Street, Portsmouth**

Convert lower floor dental offices to market rate apartments.  
Refurbish upper floor apartments. 14,000 gsf + basement







## Parrott House Apartments

Historic District, Exterior Restoration – brownstone, slate, windows



## Parrott House Apartments

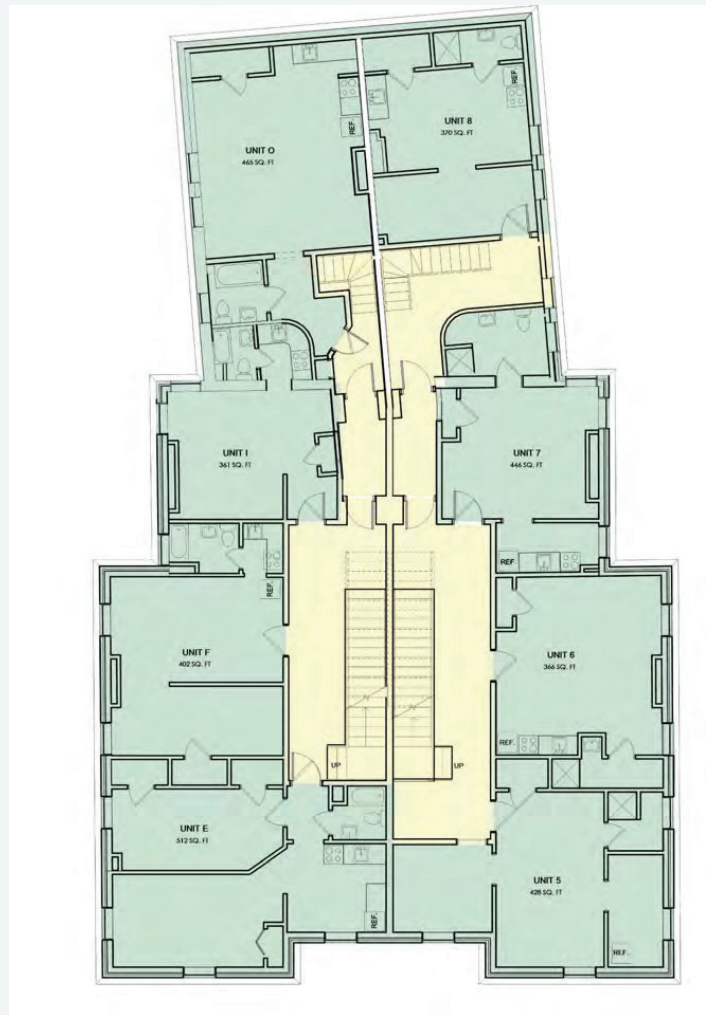
Interior renovation – life safety, sprinkler system, finishes and fixtures.  
Apartment entries open into single exit stair



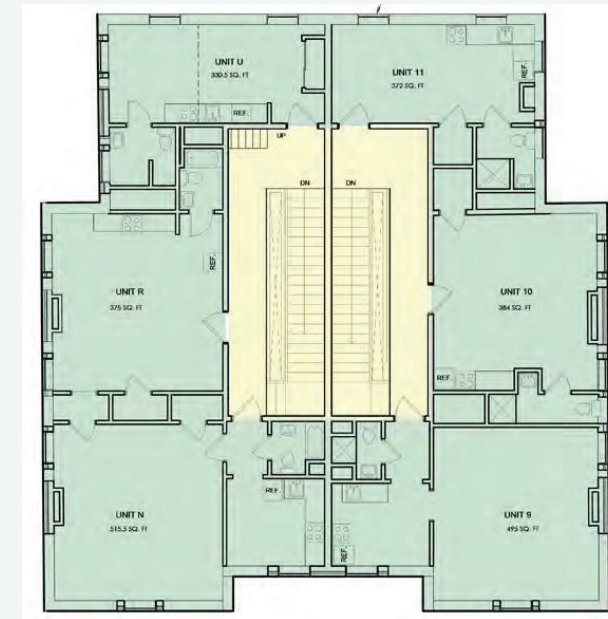
## Parrott House Apartments

Interior renovation – life safety, sprinkler system, finishes and fixtures.

Apartment entries open into single exit stair



Second Floor



Third Floor





## 1 Congress Street - Mixed-use, Portsmouth

Rehabilitate and repurpose existing 19<sup>th</sup> century commercial structures, with new rear infill addition. 60,000 gsf: Street level retail, 2<sup>nd</sup> floor offices, 3<sup>rd</sup> & 4<sup>th</sup> floor apartments; underground parking.







## 1 Congress Street – Existing conditions

Brick, brownstone and wood attached urban infill structures.





existing



proposed

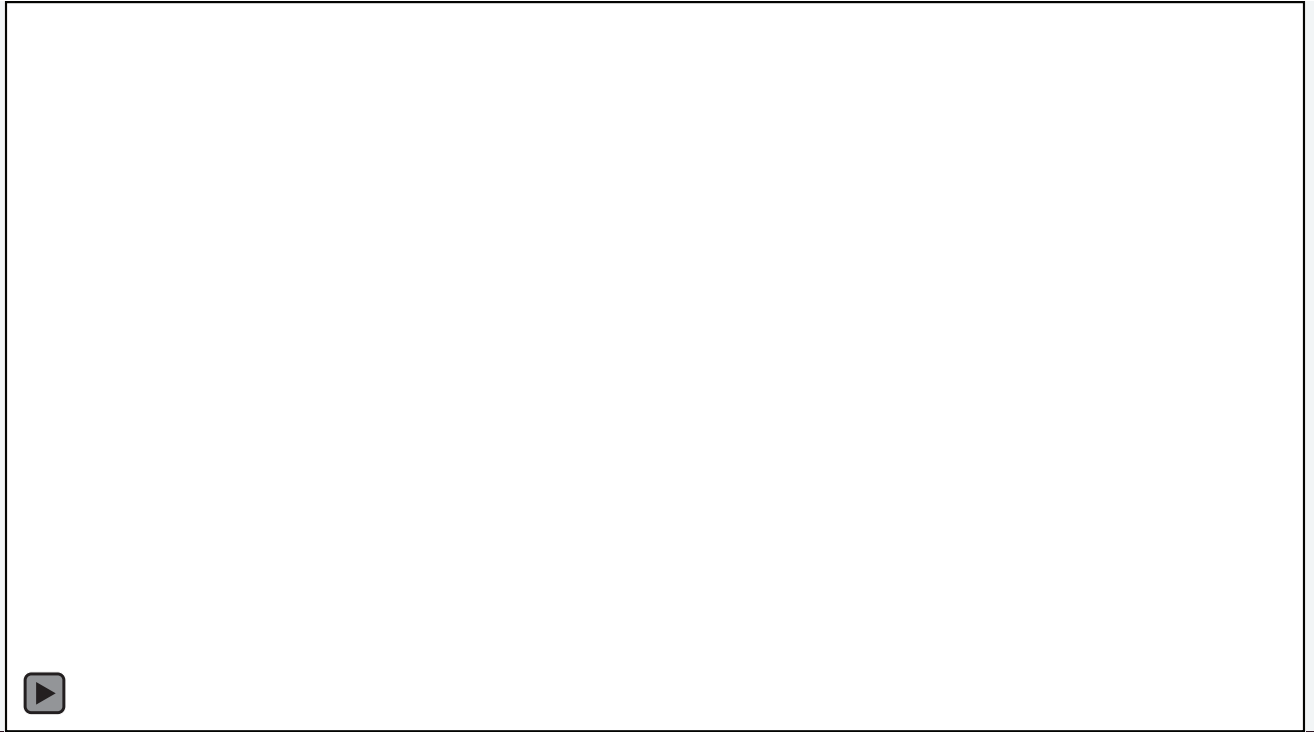
## 1 Congress Street – Pedestrian Way improvements

Wayfinding, safety, vibrancy.





existing



proposed

## 1 Congress Street – Pedestrian Way improvements

Wayfinding, safety, vibrancy.

New

Existing



First floor retail

New

Existing



Upper floors residential

## 1 Congress Street - Challenges

Fire separations - mixed use, Types 3B / 2B

Zoning height limits vs existing floor levels

Onsite, underground parking vs residential unit count

Daylighting - Boxy footprint, long narrow units, party walls





## 1 Congress Street - Solutions

Historic Rehabilitation

Land Use Approvals

Mixed Use, sustainable design

Pedestrian Wayfinding





NEW HAMPSHIRE  
HOUSING



# HOUSING & ECONOMY

2023 CONFERENCE

October 4 • Manchester



# QUESTIONS?