

Architecture/Historic Preservation

Mills + Schnoering Architects, LLC

M+S^a

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Landscape Architecture	Heritage Landscapes, LLC Patricia M. O'Donnell, PLA, FASLA, AICP, F. US/ICOMOS, Founder Greg De Vries, PLA, ASLA Managing Partner
Structural Engineering	Keast & Hood Structural Engineers Brian D. Wentz, PE, Associate Nick Paparo, Structural Designer
Mechanical Electric Plumbing Engineering, Fire Protection Fire Alarm	Henry Adams, LLC Craig E. Lebro, PE, Senior Mechanical Engineer Josh Winemiller, PE, Electrical Engineer
Cultural Resources	Hunter Research Richard W. Hunter, Ph.D., RPA, President/Principal Patrick Harshbarger, Principal Historian/Industrial Archeologist
Cost Estimating	Kirk Value Planners Steve Garrett, Partner



PROJECT GOALS

- Make the house safe for public tours
- Design the rehabilitation to meet the Secretary of the Interior's Standards for Historic Preservation
- Afford greater interpretive opportunities
- Improve climate-controlled space for historic furnishings and finishes
- Make code improvements for egress and life safety
- Improve accessibility with new parking spaces, sidewalk, entrance ramp, accessible route to primary spaces, and code-compliant restroom(s)
- Repair / improve the building envelope
- Restore interior finishes
- Upgrade mechanical, plumbing, and electrical systems with every effort to avoid or minimize adverse effects.
- Design landscaping with rehabilitated lawns, planting beds, and new vegetation at the south of the ramp.



EXTERIOR

The design team previously conducted an extensive survey and investigations to arrive at the most appropriate scope of work. To restore the failing building envelope, the treatment approach includes:

- Roofing: Replace roofing at 3rd floor penthouse and towers; add fall protection system; repair and repaint roofing at low roofs.
- Masonry: Repoint towers and foundation.
- Porch: Construct new wood front porch with documentation prepared by NPS in 1976-78 to reflect the historic 1897 porch. The wood-deck ramp with stainless steel cable rail infill will be distinguishable in material from the porch itself (wood posts and railings).
- Restore 3rd floor balcony.
- Exterior siding and trim: Abate lead-based paint from trim and clapboard siding in situ; selectively remove and replace deteriorated siding (approximately 20%); perform woodwork repairs; repaint exterior wood based on paint analysis.
- Windows: Restore existing wood windows and doors; install interior storm windows.
- Doors and Door Hardware: Restore original paired wood entry doors; reverse swing and provide panic hardware and power door operator. Provide new or restored exterior door at grade (basement level).

INTERIOR

- Basement: Remove hazardous materials as indicated in report. Remove floor slab where shown for new concrete footings; install new steel columns and beam at westernmost column line to support first floor above. Install additional columns at the rear basement to support the first floor rear rooms.
- 1st, 2nd, and 3rd floors:
 - Restore existing wood floors to consistent finish.
 - Repair plaster walls where indicated.
 - Remove muslin ceiling fabric at 1st floor hall and Room 303 and crate for conservation treatment; reinstall on new backing. Install new fire-retardant treated muslin ceilings where indicated in report in place of non-historic ceilings.
- Construct new ABAAS-compliant restroom on 1st floor.
- Interior Doors: Clean and restore existing door finishes; At ABAAS accessible route throughout 1st floor, remove doors from hinges to provide clear width (assume 3 to 4 existing door openings).
- Install new rafters for roof framing at Rooms 211 and 303; sister each hip rafter at the center penthouse and rehang with hold-down anchors.
- Install MPE systems in a manner sensitive to historic fabric, including upgrades for mechanical, plumbing, building electrical distribution, lightning protection, interior lighting, emergency lighting, exterior lighting, telecommunications, security, and fire alarm devices.

Note: Where rooms are shown with color on the floor plans, the proposed program is indicated in the name. The rehabilitation approach will be the interior treatment for finishes listed above.

ORGANIZATION OF PROGRAM

- Significance: The floor plans utilize color to denote the significance level of rooms that were most closely associated with Clara Barton's life. Programmatic interventions, such as new restroom(s), are placed in rooms of lesser significance.
- Structural capacity: the existing structural live load capacity does not meet the building code requirements at any floor. The intent of the project is to increase the 1st floor capacity to code-required minimums by installing steel columns and beams in the basement in all alternatives.

The design alternatives are organized by level of structural reinforcing at the 2nd floor and how that impacts proposed uses, occupancy, and disturbance of historic fabric. The 1st design alternative does not allow any people on the 2nd floor except for maintenance personnel. The 2nd design alternative is a moderate structural upgrade which improves the allowable number of people on the 2nd floor but has a structurally-determined maximum occupancy. The 3rd design alternative is an extensive structural upgrade which allows the most people to occupy the 2nd floor at any given time but also has the most disturbance to historic fabric. Refer to the summaries for each alternative on the following pages for more information.



REHABILITATION BASE SCOPE FOR ALL SCHEMATIC DESIGN ALTERNATIVES

REHABILITATE CLARA BARTON NATIONAL HISTORIC SITE

PAGE 3



North (front) elevation above porch roof

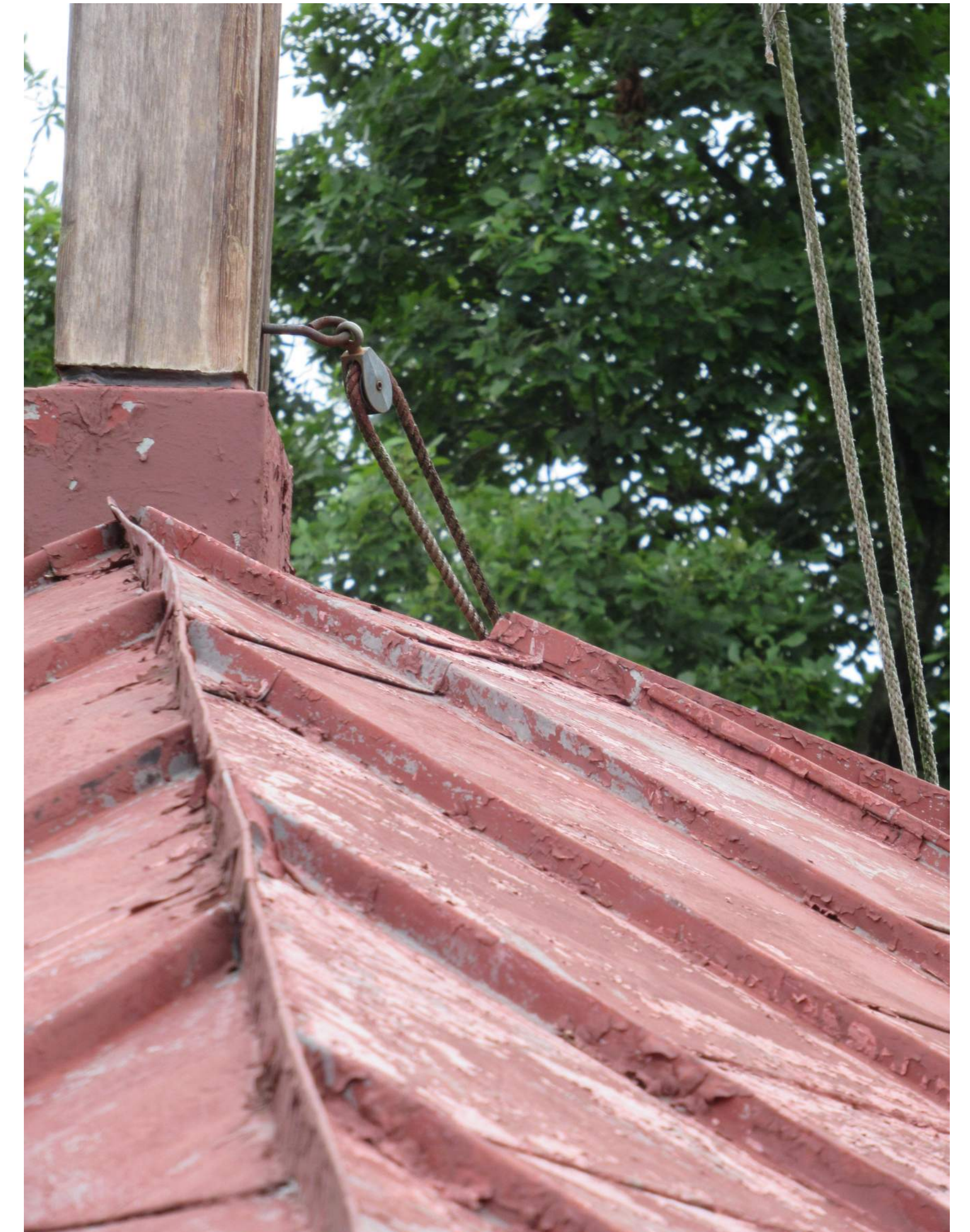


Northwest corner with wood trim and metal roofing





Ca. 1907 postcard showing the front porch and ivy-covered towers

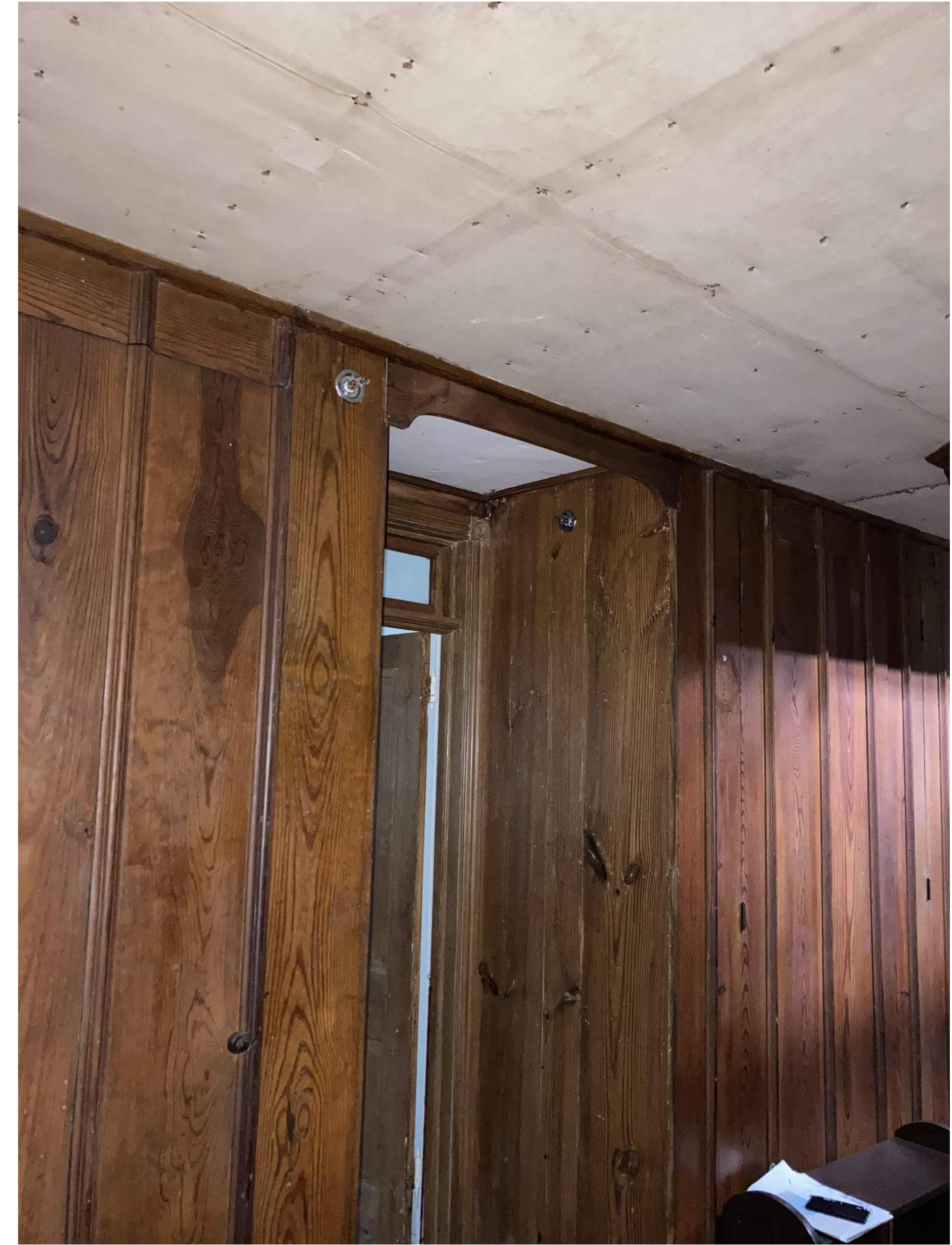


Detail of central flagpole base and roofing conditions








Room 211 - Dr. Hubbell's Bed Chamber; plaster ceiling with roof deflection

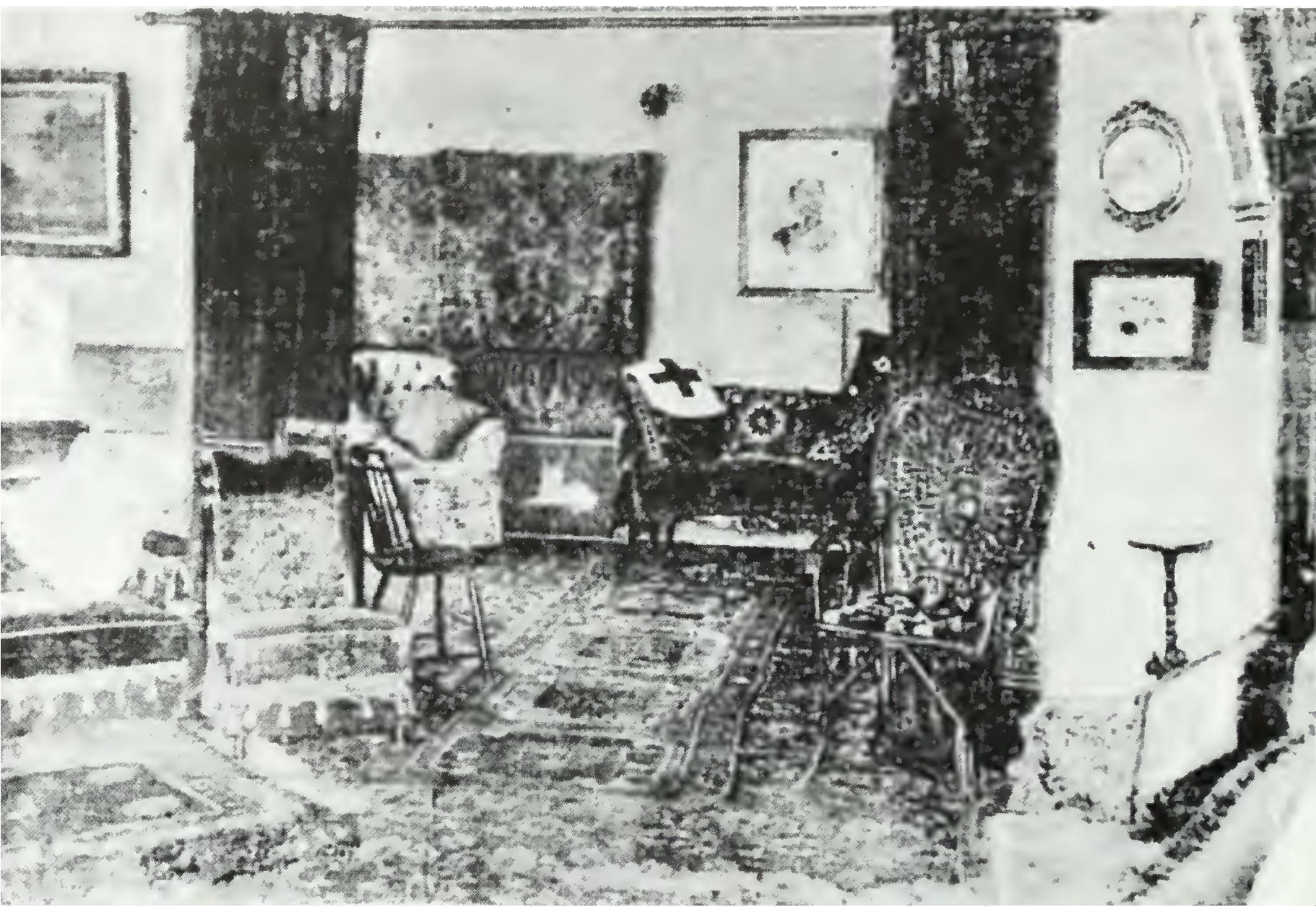


Room 102 - Main Hall; original muslin fabric ceiling



SIGNIFICANCE FLOOR PLAN LEGEND

-  PRIMARY SIGNIFICANCE SPACE
-  SECONDARY SIGNIFICANCE SPACE
-  LOW SIGNIFICANCE SPACE



ORGANIZATION OF PROGRAM

- Significance: The floor plans utilize color to denote the significance level of rooms that were most closely associated with Clara Barton's life. Programmatic interventions, such as new restroom(s), are placed in rooms of lesser significance.
- Structural capacity: the existing structural live load capacity does not meet the building code requirements at any floor. The intent of the project is to increase the 1st floor capacity to code-required minimums by installing steel columns and beams in the basement in all alternatives.

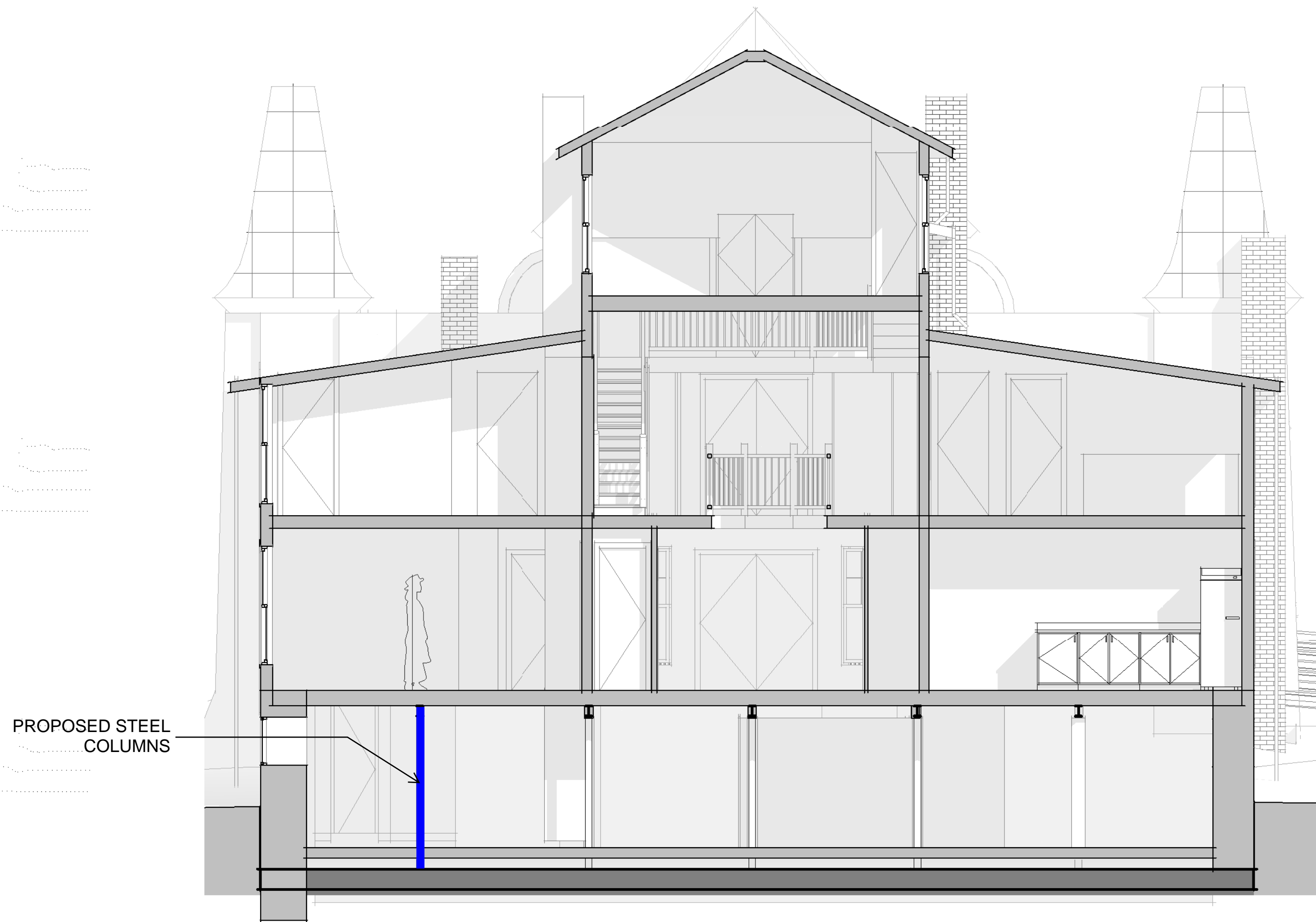
The design alternatives are organized by level of structural reinforcing at the 2nd floor and how that impacts proposed uses, occupancy, and disturbance of historic fabric. The 1st design alternative does not allow any people on the 2nd floor except for maintenance personnel. The 2nd design alternative is a moderate structural upgrade which improves the allowable number of people on the 2nd floor but has a structurally-determined maximum occupancy. The 3rd design alternative is an extensive structural upgrade which allows the most people to occupy the 2nd floor at any given time but also has the most disturbance to historic fabric. Refer to the summaries for each alternative on the following pages for more information.



REHABILITATION BASE SCOPE FOR ALL SCHEMATIC DESIGN ALTERNATIVES

REHABILITATE CLARA BARTON NATIONAL HISTORIC SITE

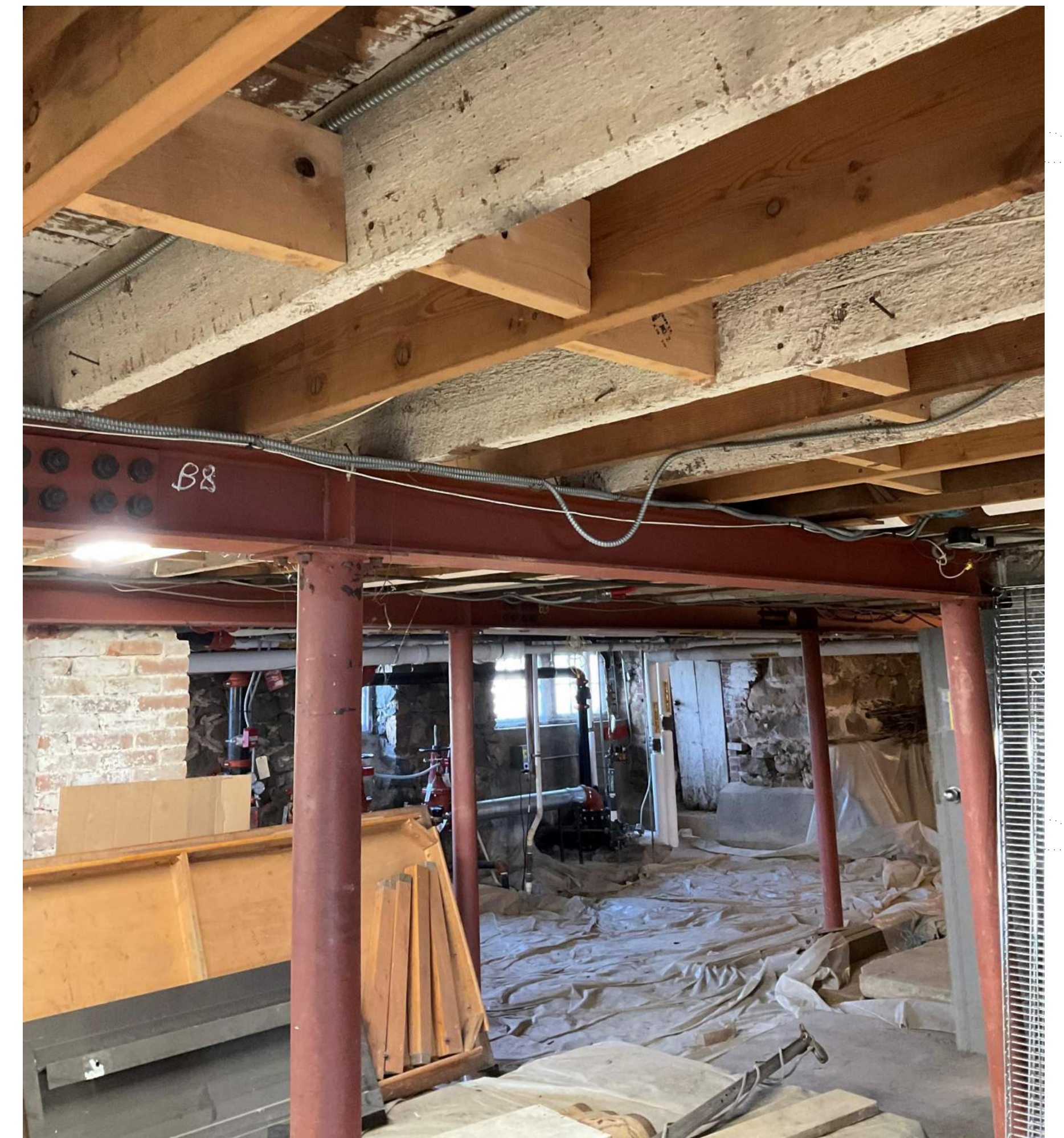
PAGE 7



ALTERNATIVE 1: REPAIR AND REHABILITATE

Other than the base scope on Page 3 which includes the reinforcement of the 1st floor framing from the basement (see diagram above), there is no additional structural work in this alternative. No use or visitation will be allowed on the 2nd or 3rd floors due to low live load capacities; rooms will receive restoration treatment but will not be altered or programmed for any use (Photo upper right: existing 2nd floor front room without furnishings).

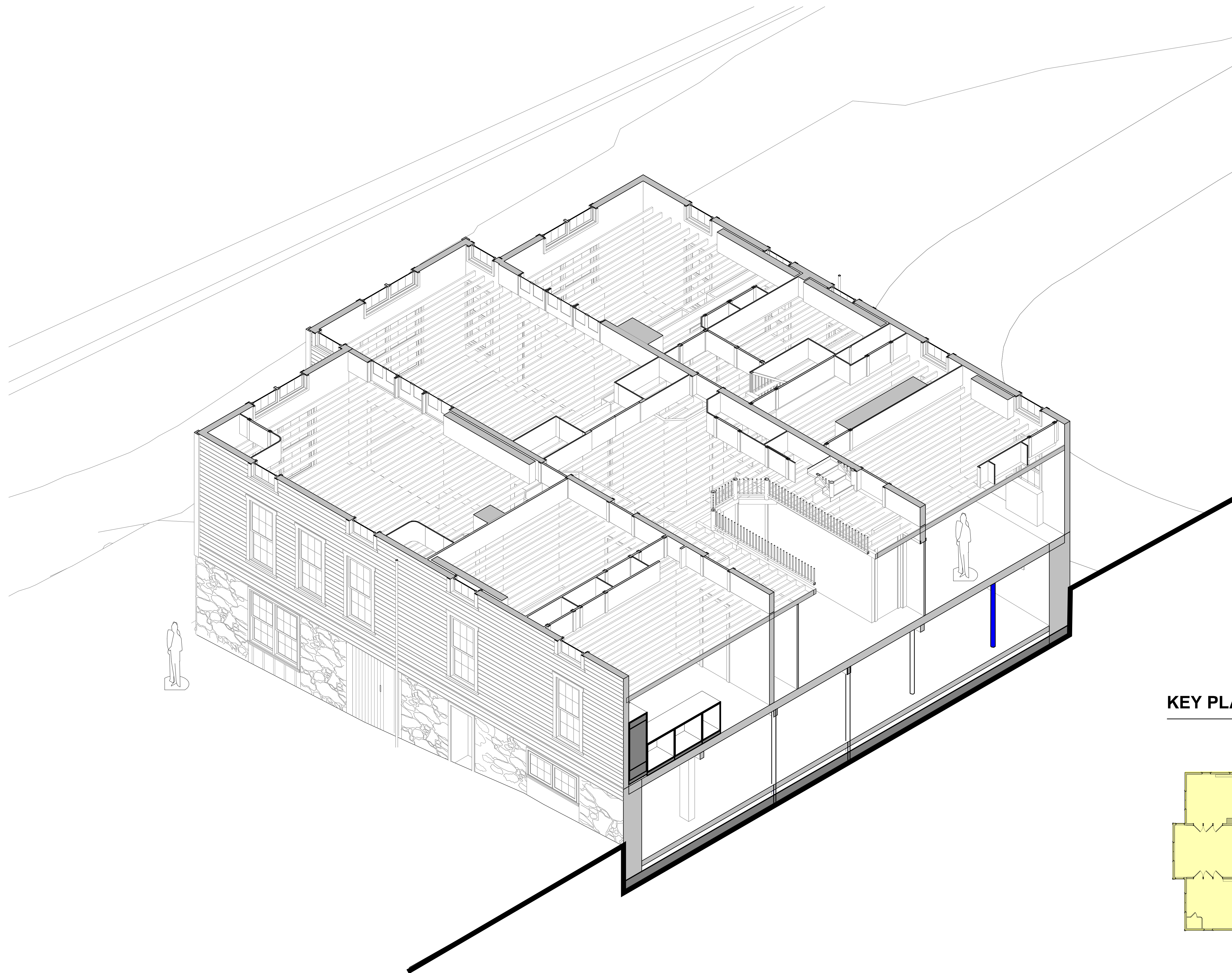
The structural approach common to all alternatives in the basement is to reinforce the existing 1st floor framing. At portions of the floor structure, new W6 steel beams will be installed below the existing framing near the mid-span of the floor joists. New 4" steel columns will support the beams, thus reducing the spans of the existing joists. This type of reinforcement is already in place in the basement in some locations, installed in 1981 (Photo lower right).



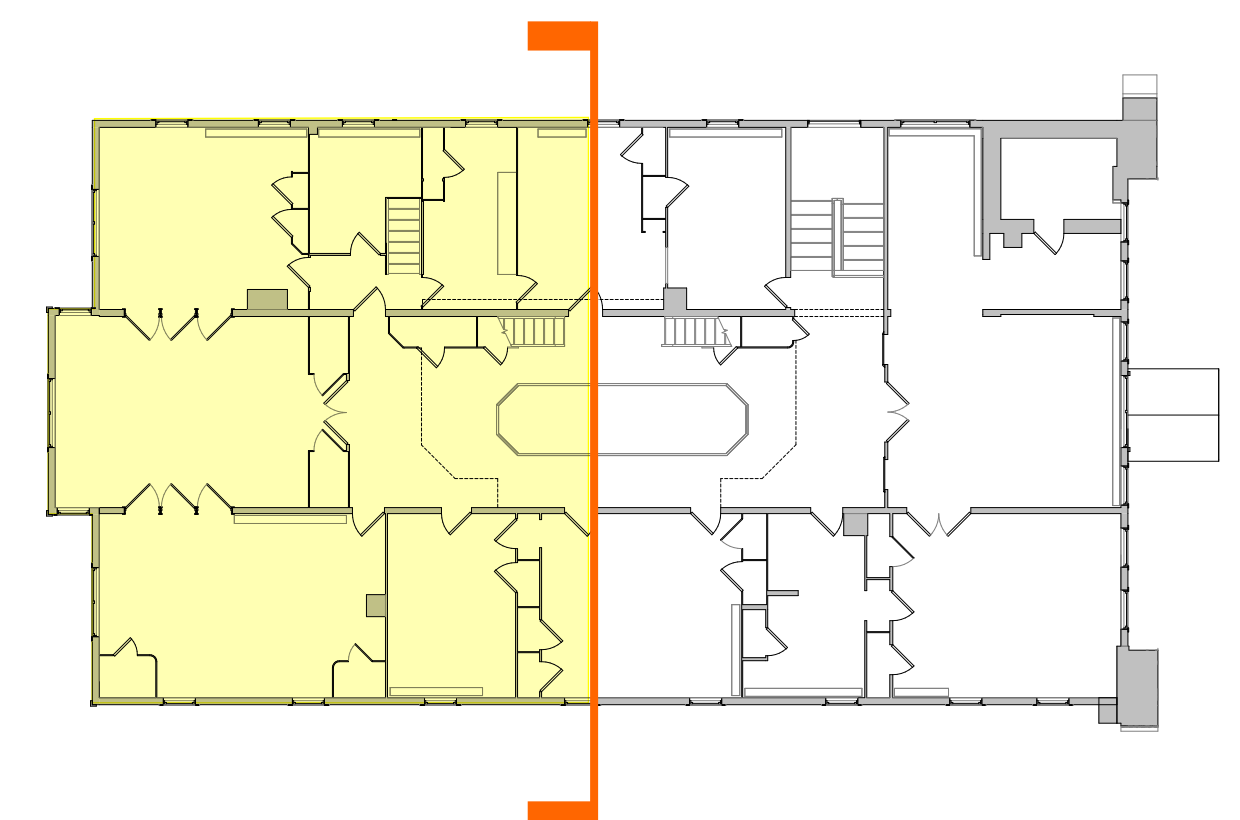
ALTERNATIVE 1 - INTRODUCTION

REHABILITATE CLARA BARTON NATIONAL HISTORIC SITE

PAGE 8

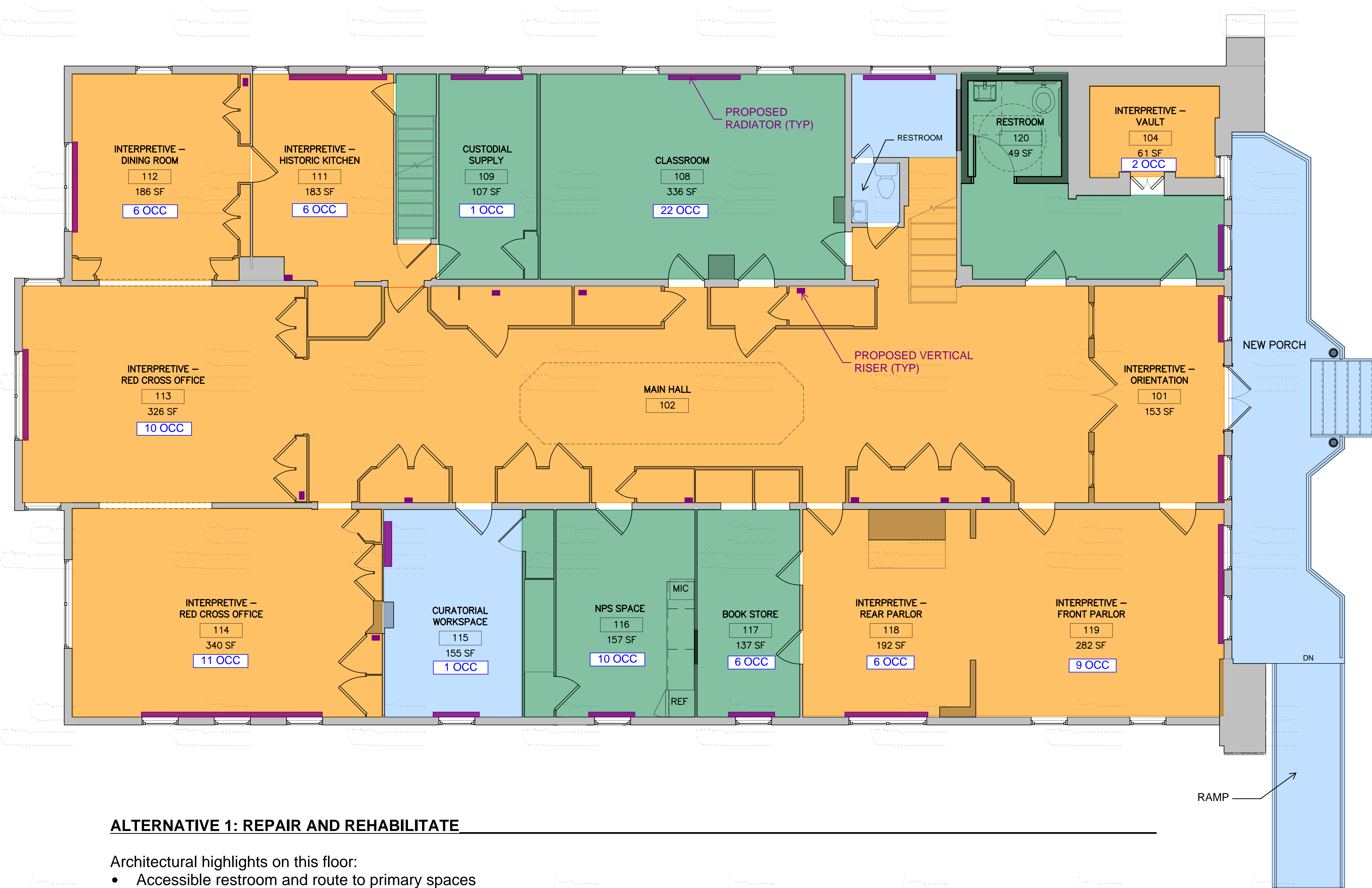


KEY PLAN SHOWING SECTION CUT



ALTERNATIVE 1 - AXONOMETRIC CUTAWAY VIEW

REHABILITATE CLARA BARTON NATIONAL HISTORIC SITE



ALTERNATIVE 1 - FLOOR PLAN LEGEND

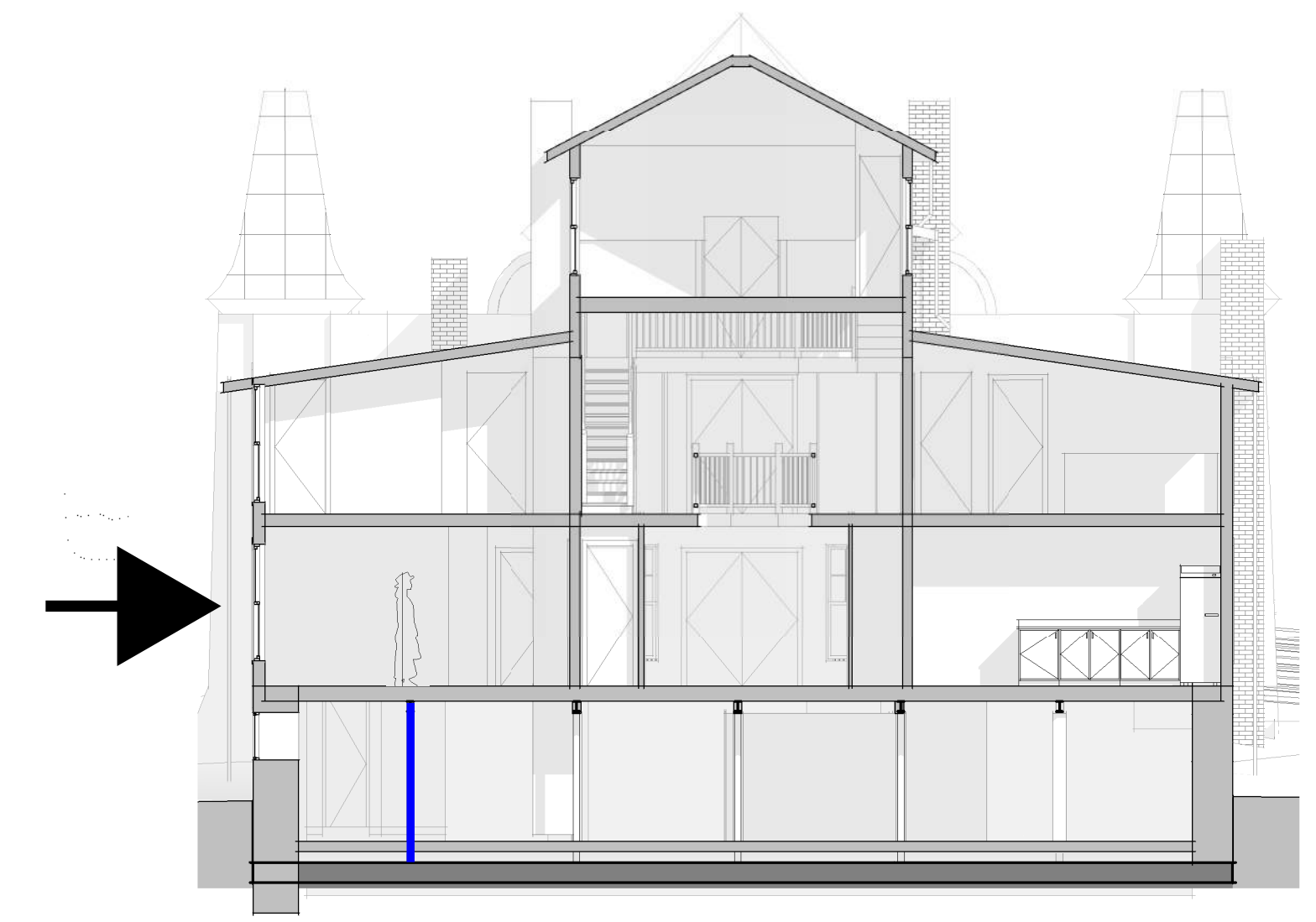
- PRIMARY SIGNIFICANCE SPACE
- SECONDARY SIGNIFICANCE SPACE
- LOW SIGNIFICANCE SPACE
- EXISTING TO REMAIN WALL
- PROPOSED WALL
- PROPOSED HVAC UNIT

ALTERNATIVE 1 - OCCUPANCY COUNT

BASEMENT	0 OCC (MAINTENANCE ONLY)
FIRST FLOOR	90 OCC
SECOND FLOOR	0 OCC (MAINTENANCE ONLY)
THIRD FLOOR	0 OCC (MAINTENANCE ONLY)

TOTAL 90 OCC

ALTERNATIVE 1 - STRUCTURAL APPROACH

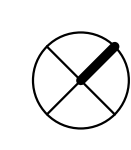
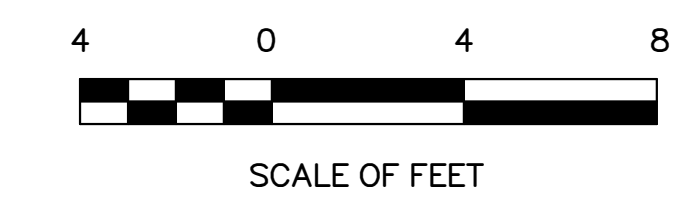


ALTERNATIVE 1: REPAIR AND REHABILITATE

- Architectural highlights on this floor:
- Accessible restroom and route to primary spaces
 - Furnished period rooms with space for interpretation and exhibits with climate-controlled cases
 - Large Classroom for 22 occupants
 - Bookstore, NPS space, and curatorial workspace
- Mechanical and Electrical highlights:
- Ductwork vertical risers, and electrical conduit will be located in closets; pathways to be coordinated with sprinkler pipes currently located in closets.
 - Replace boiler and pumps in shed; the system will provide only partial cooling to regularly occupied spaces - not interpretive period rooms.
 - Perform upgrades to shed including new siding and doors.
 - Locate mechanical cooling units and pads on east side at the exterior.
- Civil and Landscape highlights (shown on Landscape plan):
- Paved walks include the entry path only.

ALTERNATIVE 1 - FIRST FLOOR

REHABILITATE CLARA BARTON NATIONAL HISTORIC SITE





ALTERNATIVE 1 - SECOND FLOOR

REHABILITATE CLARA BARTON NATIONAL HISTORIC SITE



ALTERNATIVE 1 - FLOOR PLAN LEGEND

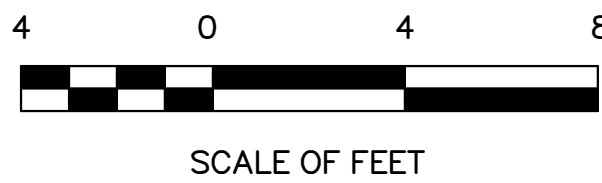
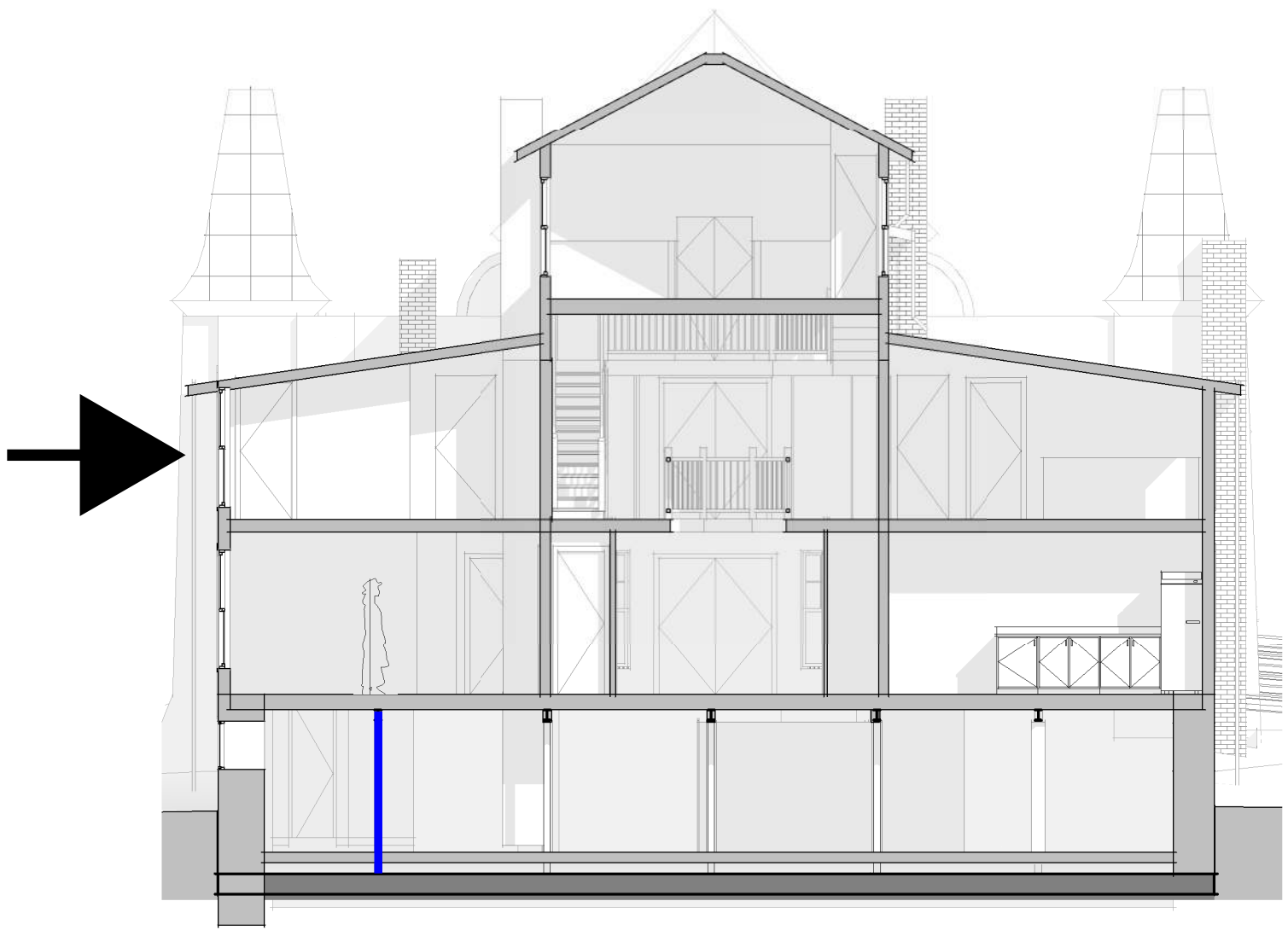
- PRIMARY SIGNIFICANCE SPACE
- SECONDARY SIGNIFICANCE SPACE
- LOW SIGNIFICANCE SPACE
- EXISTING TO REMAIN WALL
- PROPOSED WALL
- PROPOSED HVAC UNIT

ALTERNATIVE 1 - OCCUPANCY COUNT

BASEMENT	0 OCC (MAINTENANCE ONLY)
FIRST FLOOR	90 OCC
SECOND FLOOR	0 OCC (MAINTENANCE ONLY)
THIRD FLOOR	0 OCC (MAINTENANCE ONLY)

TOTAL 90 OCC

ALTERNATIVE 1 - STRUCTURAL APPROACH



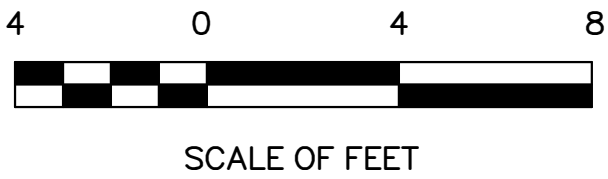
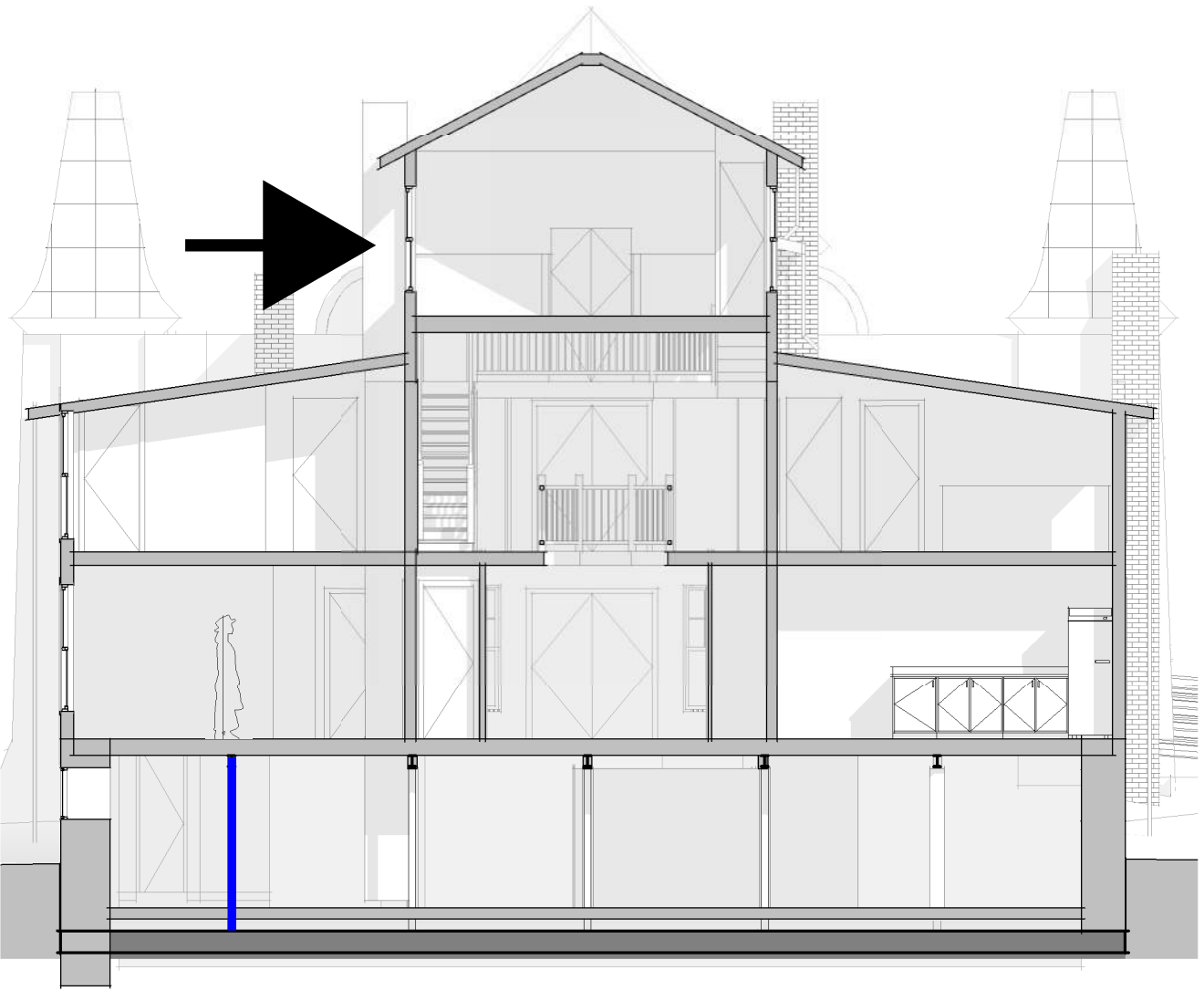
ALTERNATIVE 1 - FLOOR PLAN LEGEND

- PRIMARY SIGNIFICANCE SPACE
- SECONDARY SIGNIFICANCE SPACE
- LOW SIGNIFICANCE SPACE
- EXISTING TO REMAIN WALL
- PROPOSED WALL
- PROPOSED HVAC UNIT

ALTERNATIVE 1 - OCCUPANCY COUNT

BASEMENT	0 OCC (MAINTENANCE ONLY)
FIRST FLOOR	90 OCC
SECOND FLOOR	0 OCC (MAINTENANCE ONLY)
THIRD FLOOR	0 OCC (MAINTENANCE ONLY)
TOTAL	90 OCC

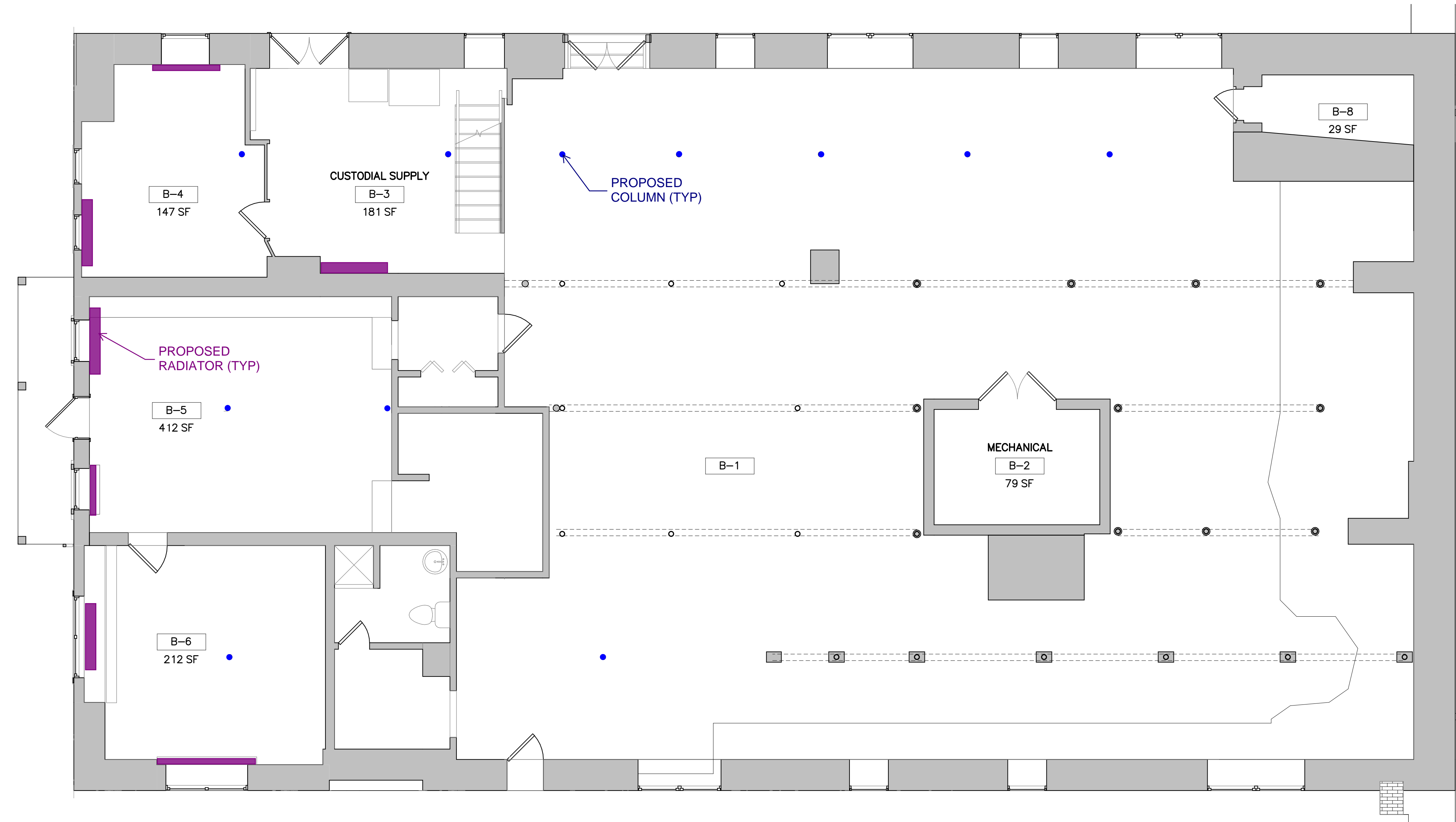
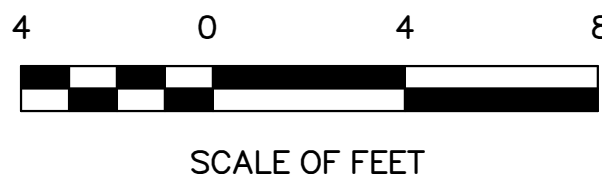
ALTERNATIVE 1 - STRUCTURAL APPROACH





ALTERNATIVE 1 - BASEMENT

REHABILITATE CLARA BARTON NATIONAL HISTORIC SITE



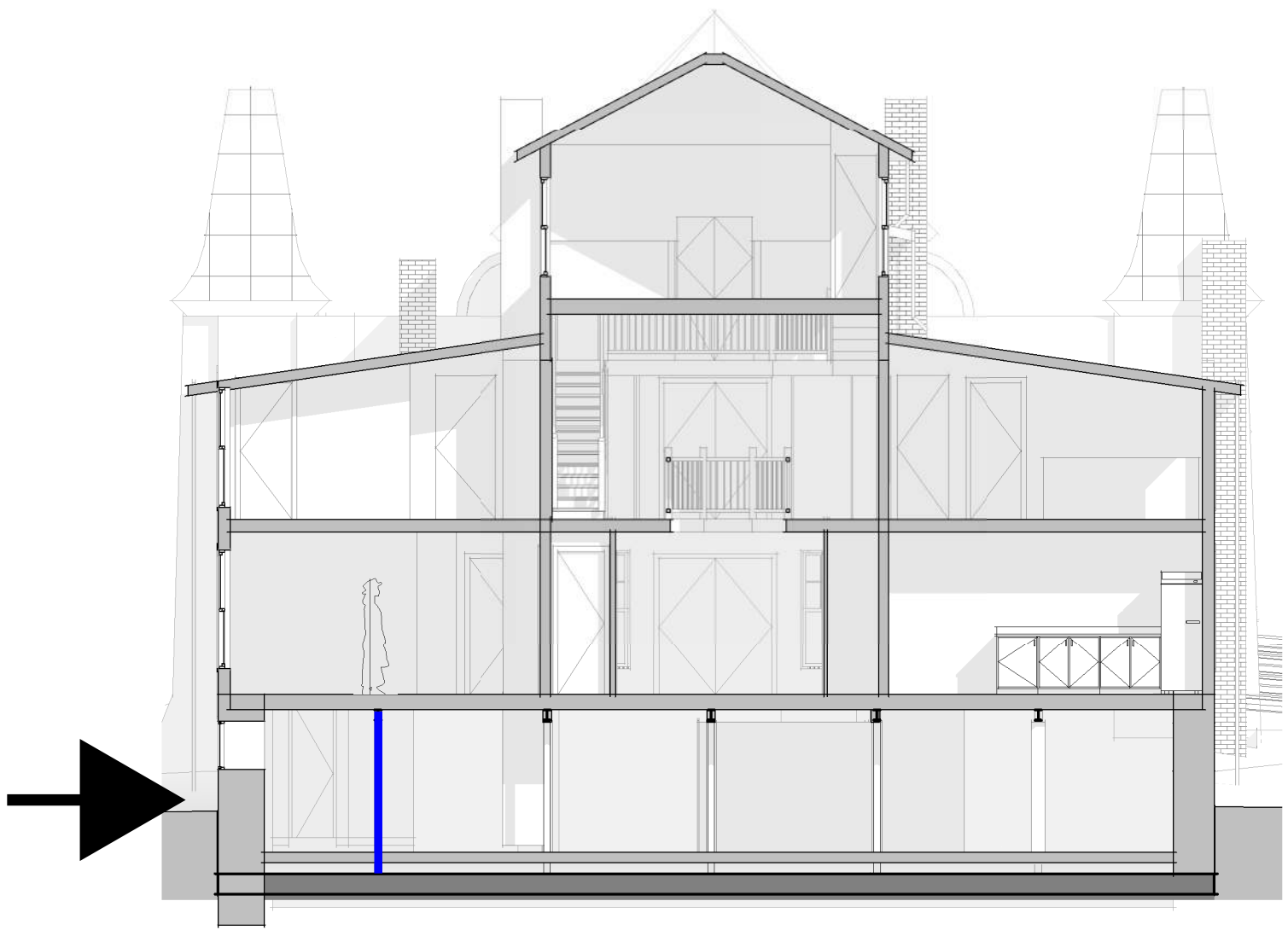
ALTERNATIVE 1 - FLOOR PLAN LEGEND

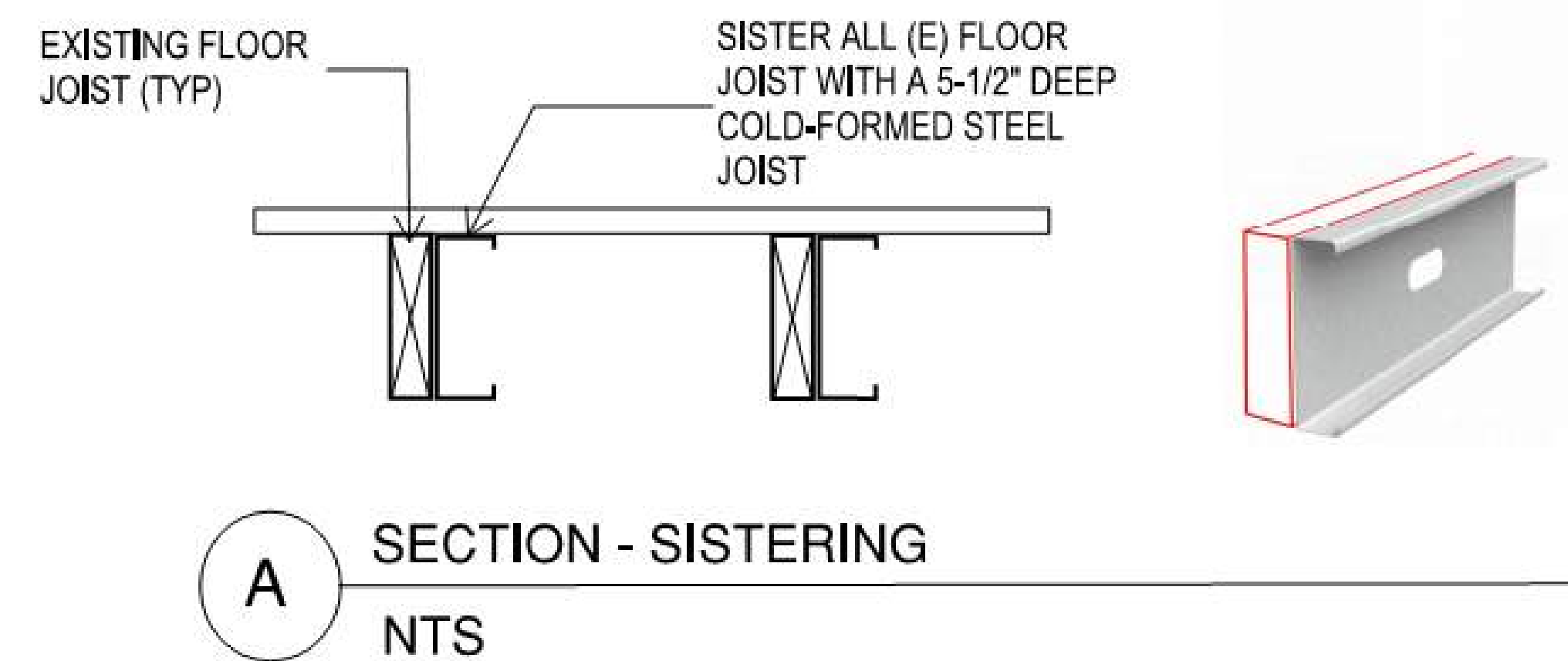
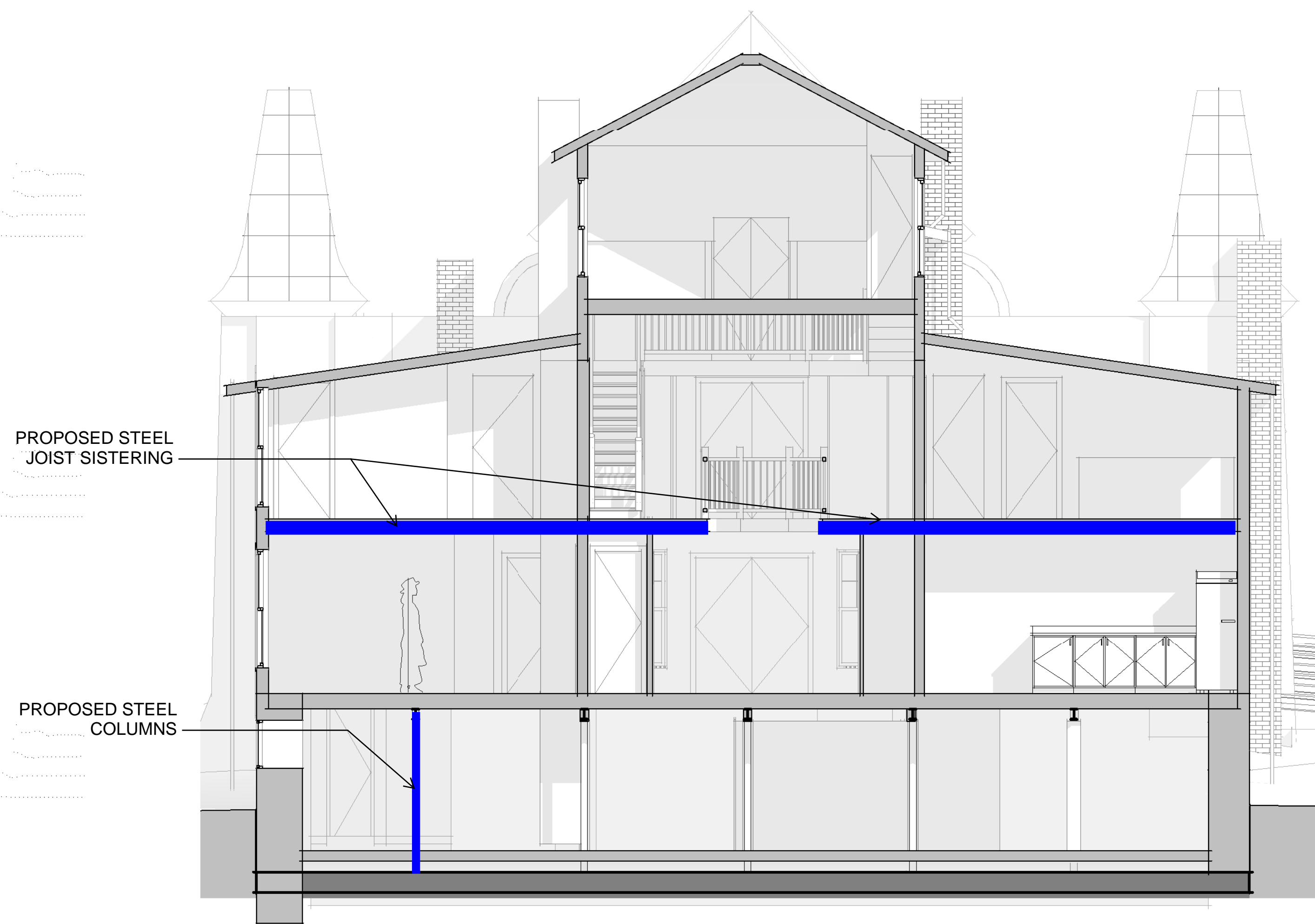
- PRIMARY SIGNIFICANCE SPACE
- SECONDARY SIGNIFICANCE SPACE
- LOW SIGNIFICANCE SPACE
- EXISTING TO REMAIN WALL
- PROPOSED WALL
- PROPOSED HVAC UNIT
- PROPOSED STRUCTURAL COLUMN

ALTERNATIVE 1 - OCCUPANCY COUNT

BASEMENT	0 OCC (MAINTENANCE ONLY)
FIRST FLOOR	90 OCC
SECOND FLOOR	0 OCC (MAINTENANCE ONLY)
THIRD FLOOR	0 OCC (MAINTENANCE ONLY)
TOTAL	90 OCC

ALTERNATIVE 1 - STRUCTURAL APPROACH





ALTERNATIVE 2: MODERATE STRUCTURAL UPGRADE

In addition to the structural base scope on Page 3, a moderate structural upgrade will increase the live load capacity of the 2nd floor and allow for a total of 77 occupants; rooms will have posted maximum occupancies as shown in floor plan on Page 17. Existing ceiling finishes at the 1st floor will be removed for new metal joists to be sistered/fastened to the existing wood joists (Image upper right). The original muslin ceiling fabric at Rooms 101 and 102 will be cleaned and conserved off-site as planned in the rehabilitation; the structural upgrade does not impact this scope of work. Other rooms will require ceiling material to be removed and reinstalled; rooms 112, 113, and 114 contain painted muslin ceilings while the remaining rooms contain plaster or gypsum board ceilings.

All metal framing can be installed from the 1st floor interior rather than through the exterior wall. At the cantilevered atrium floor area, two metal sisters can be lapped to allow smaller members to be used and installed from the rooms below. The upgrade will not be visible to visitors once completed as ceilings will be restored to original appearance - either painted or muslin fabric (Photo lower right).

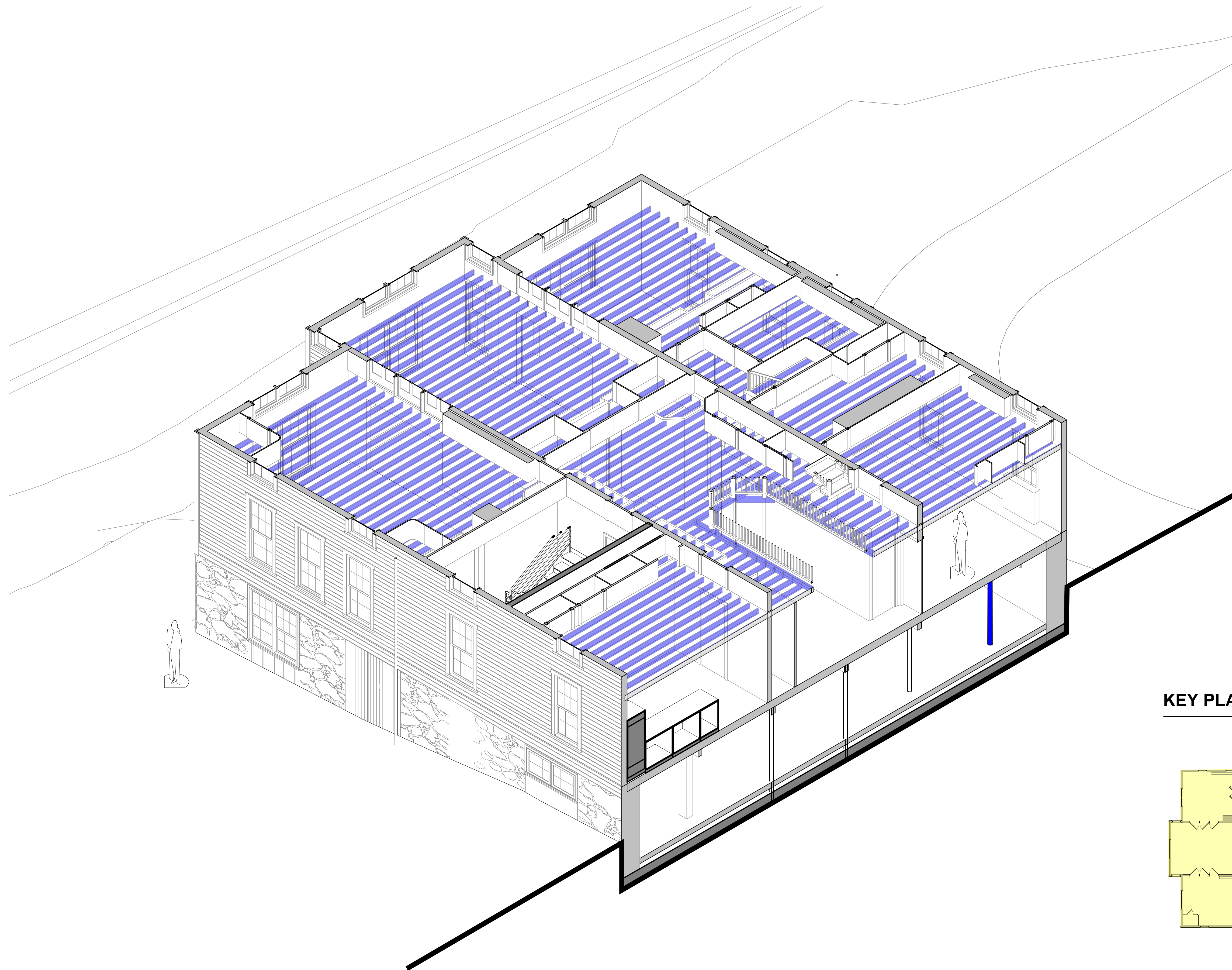


View from 1st floor inside atrium. Interpreted closets will remain free of structural columns in Alternative 2.

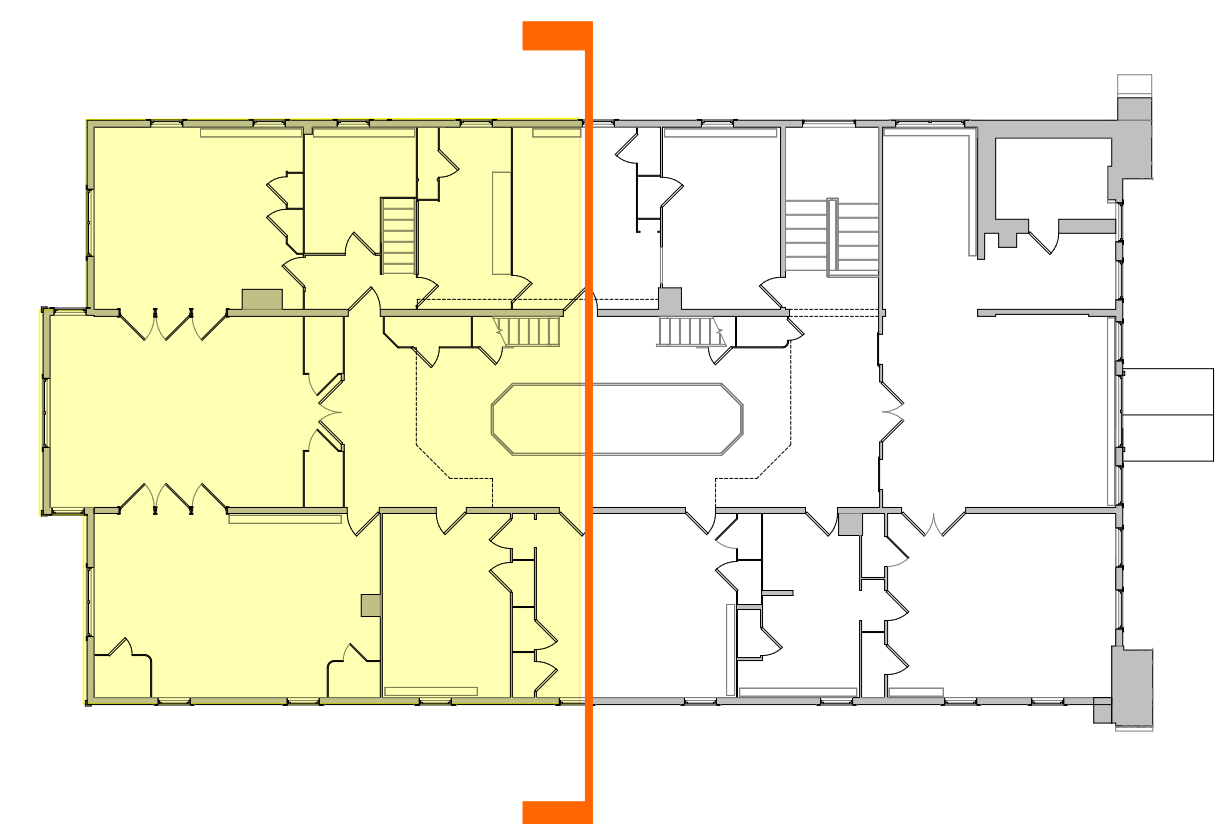
ALTERNATIVE 2 - INTRODUCTION

REHABILITATE CLARA BARTON NATIONAL HISTORIC SITE

PAGE 14



KEY PLAN SHOWING SECTION CUT



ALTERNATIVE 2 - AXONOMETRIC CUTAWAY VIEW

REHABILITATE CLARA BARTON NATIONAL HISTORIC SITE



ALTERNATIVE 2 - FLOOR PLAN LEGEND

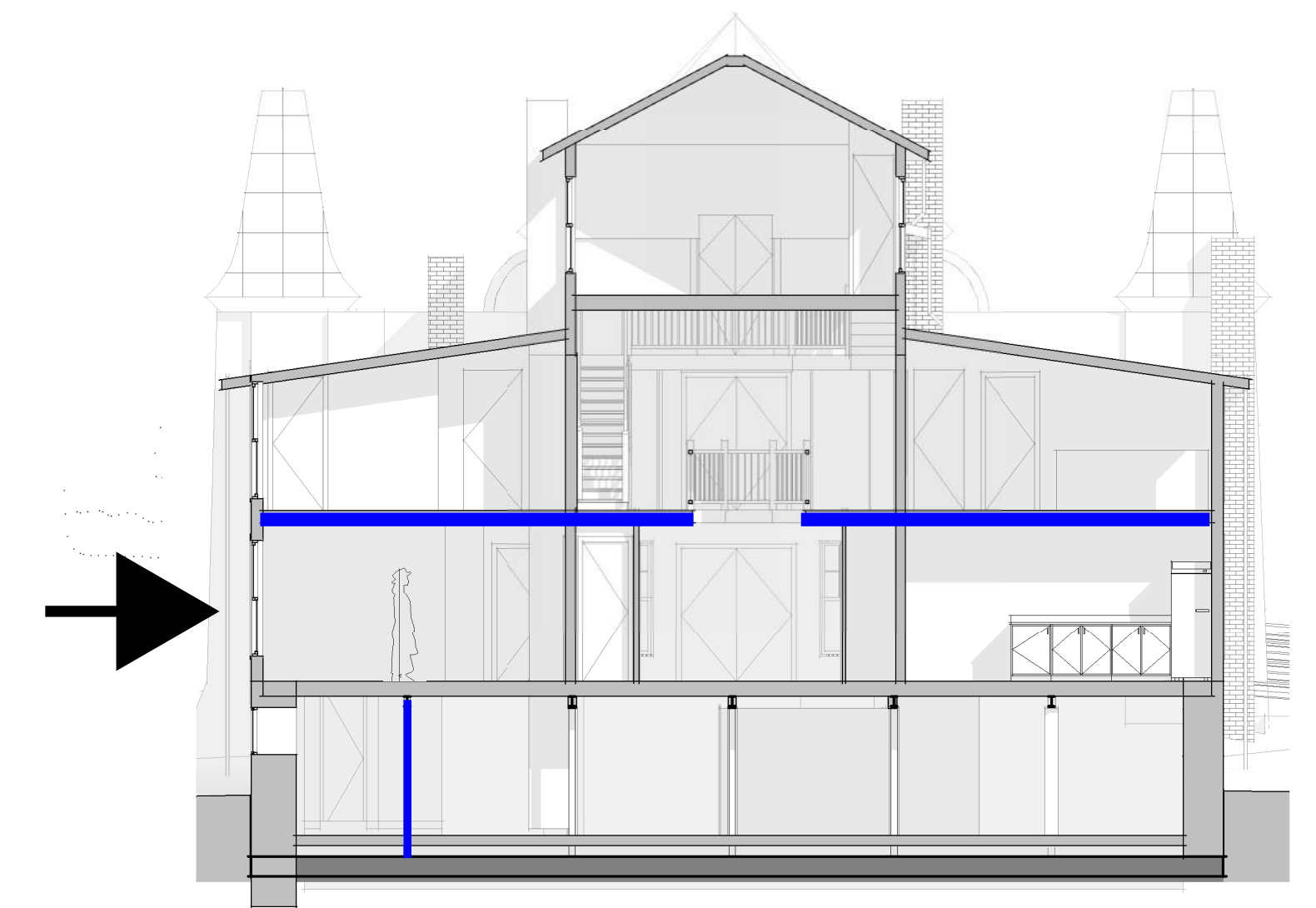
- PRIMARY SIGNIFICANCE SPACE
- SECONDARY SIGNIFICANCE SPACE
- LOW SIGNIFICANCE SPACE
- EXISTING TO REMAIN WALL
- PROPOSED WALL
- PROPOSED HVAC UNIT

ALTERNATIVE 2 - OCCUPANCY COUNT

BASEMENT	0 OCC (MAINTENANCE ONLY)
FIRST FLOOR	92 OCC
SECOND FLOOR	77 OCC
THIRD FLOOR	0 OCC (MAINTENANCE ONLY)

TOTAL 169 OCC

ALTERNATIVE 2 - STRUCTURAL APPROACH



ALTERNATIVE 2: MODERATE STRUCTURAL UPGRADE

Architectural highlights on this floor:

- Accessible restroom and route to primary spaces.
- New code-required egress stair due to 2nd floor occupancy. Discharges at exterior through the basement. The stair shaft will be enclosed in new fire-rated walls within the existing space and will remove the existing framing and floor at the 1st level.
- Furnished period rooms with space for interpretation and exhibits with climate-controlled cases
- Large Classroom for 30 occupants (requires removal of an original partition)
- Bookstore and NPS space

Mechanical and Electrical highlights:

- Ductwork vertical risers and electrical conduit will be located in closets; pathways to be coordinated with sprinkler pipes currently located in closets.
- New VRF mechanical system to provide heating and air conditioning throughout all rooms.
- Locate mechanical cooling units and pads at southeast corner further from the house at the exterior.

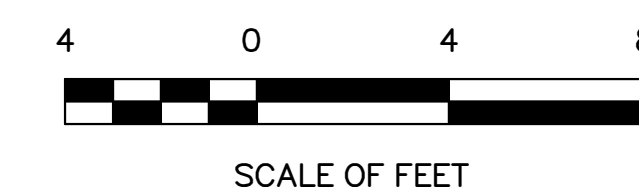
Civil and Landscape highlights (shown on Landscape plan):

- Paved walks include the entry path, east and south egress path.
- Screen planting around mechanical cooling units.

ALTERNATIVE 2 - FIRST FLOOR

REHABILITATE CLARA BARTON NATIONAL HISTORIC SITE

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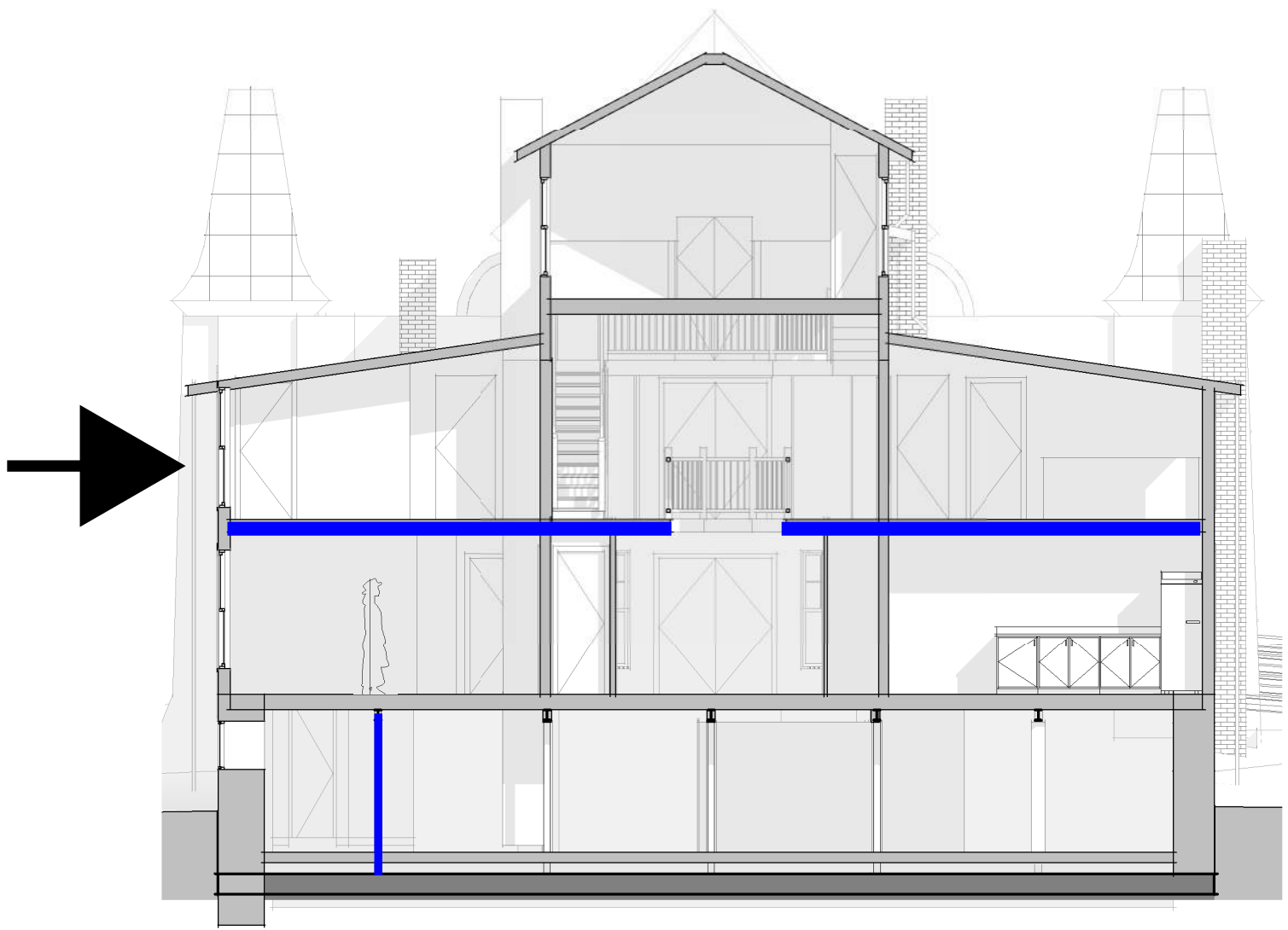
ALTERNATIVE 2 - FLOOR PLAN LEGEND

- PRIMARY SIGNIFICANCE SPACE
- SECONDARY SIGNIFICANCE SPACE
- LOW SIGNIFICANCE SPACE
- EXISTING TO REMAIN WALL
- PROPOSED WALL
- PROPOSED HVAC UNIT

ALTERNATIVE 2 - OCCUPANCY COUNT

BASEMENT	0 OCC (MAINTENANCE ONLY)
FIRST FLOOR	92 OCC
SECOND FLOOR	77 OCC
THIRD FLOOR	0 OCC (MAINTENANCE ONLY)
TOTAL	169 OCC

ALTERNATIVE 2 - STRUCTURAL APPROACH



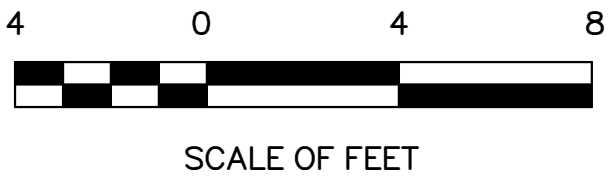
ALTERNATIVE 2: MODERATE STRUCTURAL UPGRADE

- Architectural highlights on this floor:
- New restroom
 - New code-required egress stair due to 2nd floor occupancy. Discharges at exterior through the basement.
 - Furnished period rooms with space for interpretation and exhibits with climate-controlled cases.
 - Medium (10 occupants) and Small (5 occupants) Classrooms.
 - Curatorial Workroom, Distance Learning Studio, Reading nook, Temporary Exhibits, Interactive Children's Exhibit - with limited occupancies as shown.
- Mechanical and Electrical highlights:
- Floor-mounted console fan coil units with custom enclosures.
 - New VRF mechanical system to provide heating and air conditioning throughout all rooms.
- Note: Per ADAAG 206.2.3, Exception 7, vertical access to stories above or below the accessible story is not required.



ALTERNATIVE 2 - SECOND FLOOR

REHABILITATE CLARA BARTON NATIONAL HISTORIC SITE



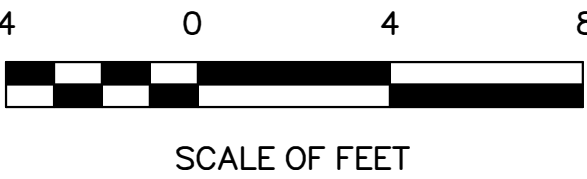
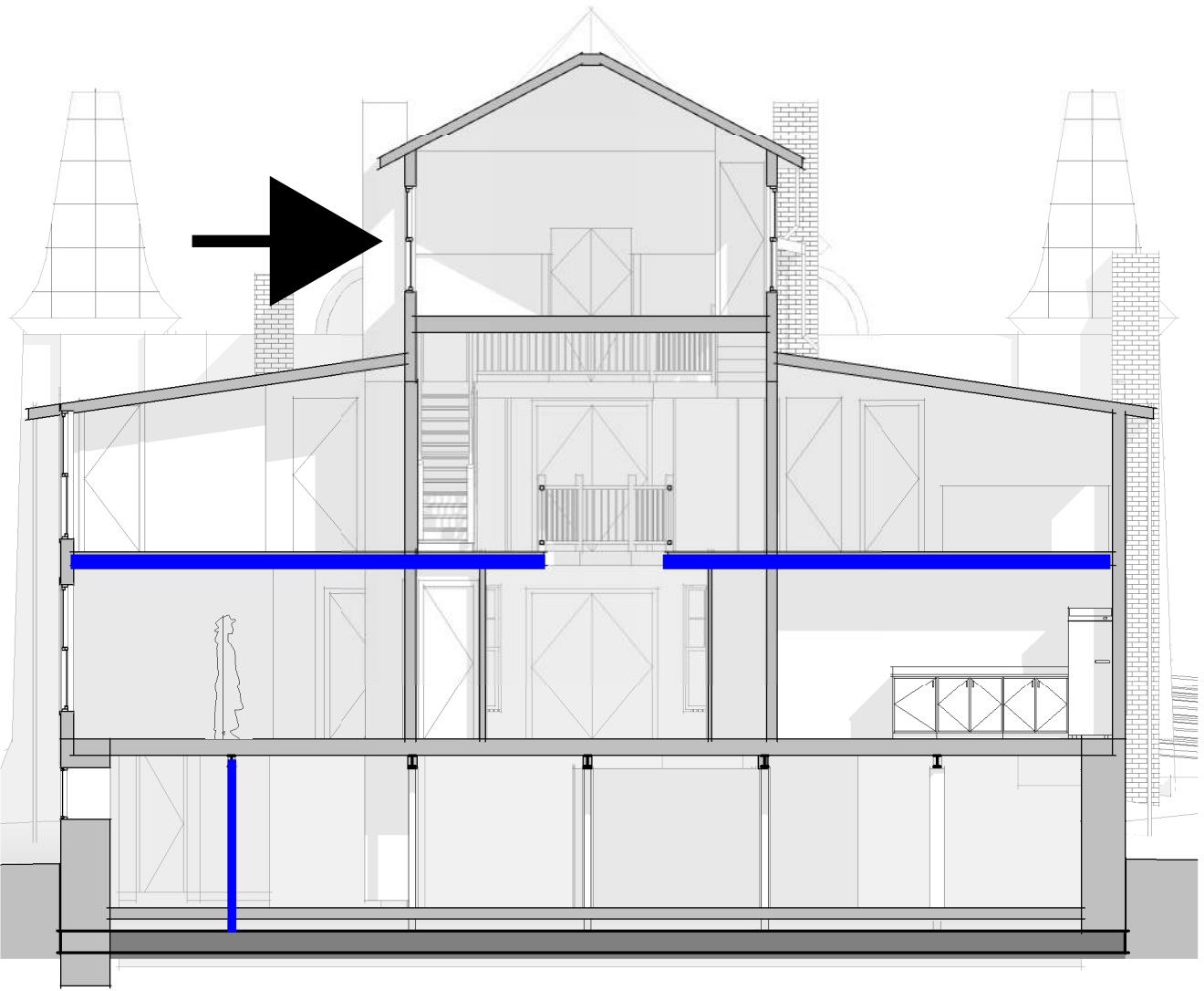
ALTERNATIVE 2 - FLOOR PLAN LEGEND

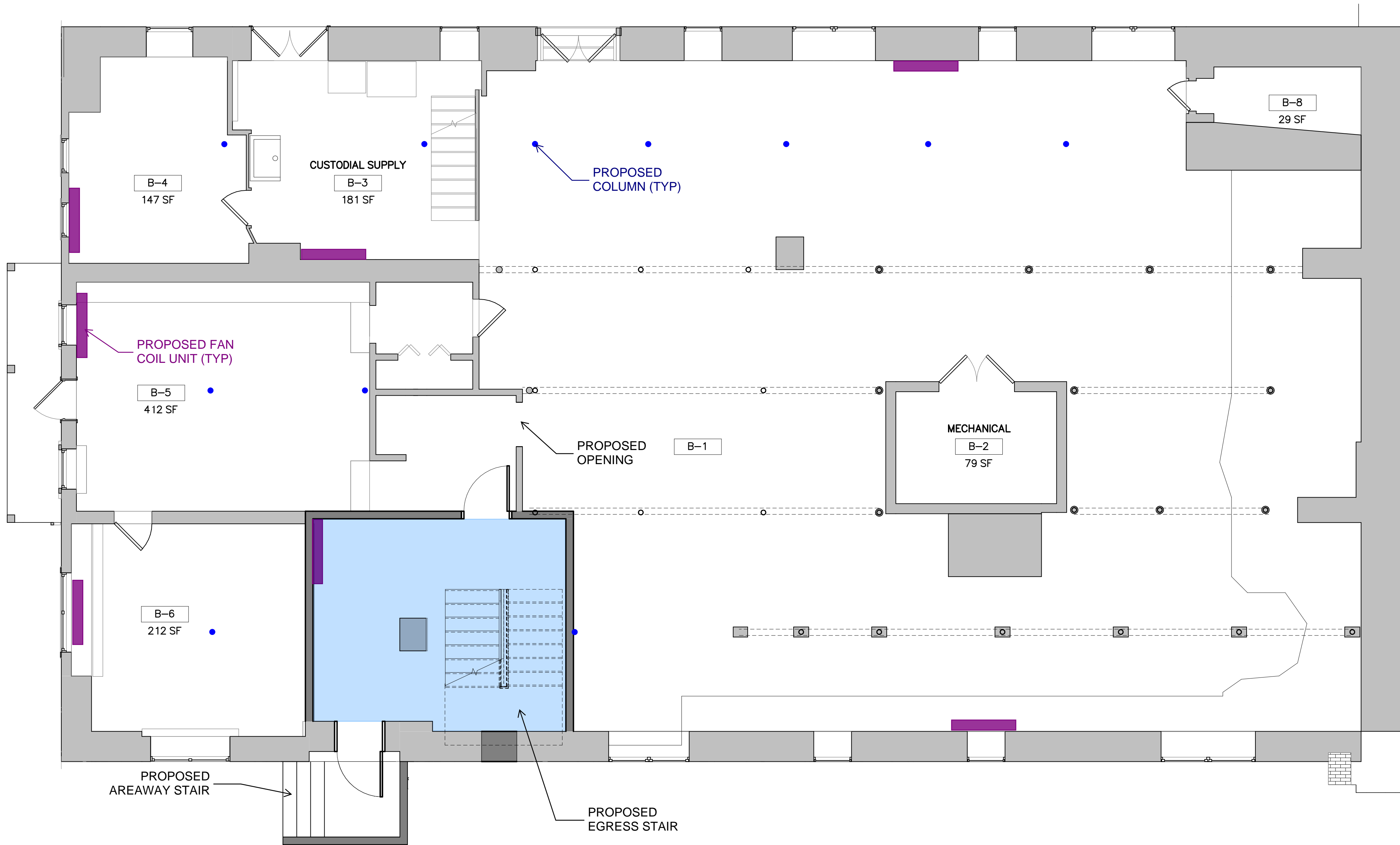
- PRIMARY SIGNIFICANCE SPACE
- SECONDARY SIGNIFICANCE SPACE
- LOW SIGNIFICANCE SPACE
- EXISTING TO REMAIN WALL
- PROPOSED WALL
- PROPOSED HVAC UNIT

ALTERNATIVE 2 - OCCUPANCY COUNT

BASEMENT	0 OCC (MAINTENANCE ONLY)
FIRST FLOOR	92 OCC
SECOND FLOOR	77 OCC
THIRD FLOOR	0 OCC (MAINTENANCE ONLY)
TOTAL	169 OCC

ALTERNATIVE 2 - STRUCTURAL APPROACH





ALTERNATIVE 2: MODERATE STRUCTURAL UPGRADE

- Architectural highlights on this floor:
- New code-required egress stair due to 2nd floor occupancy. Discharges at exterior through the basement. Existing wood basement door to be heightened by approximately 12".

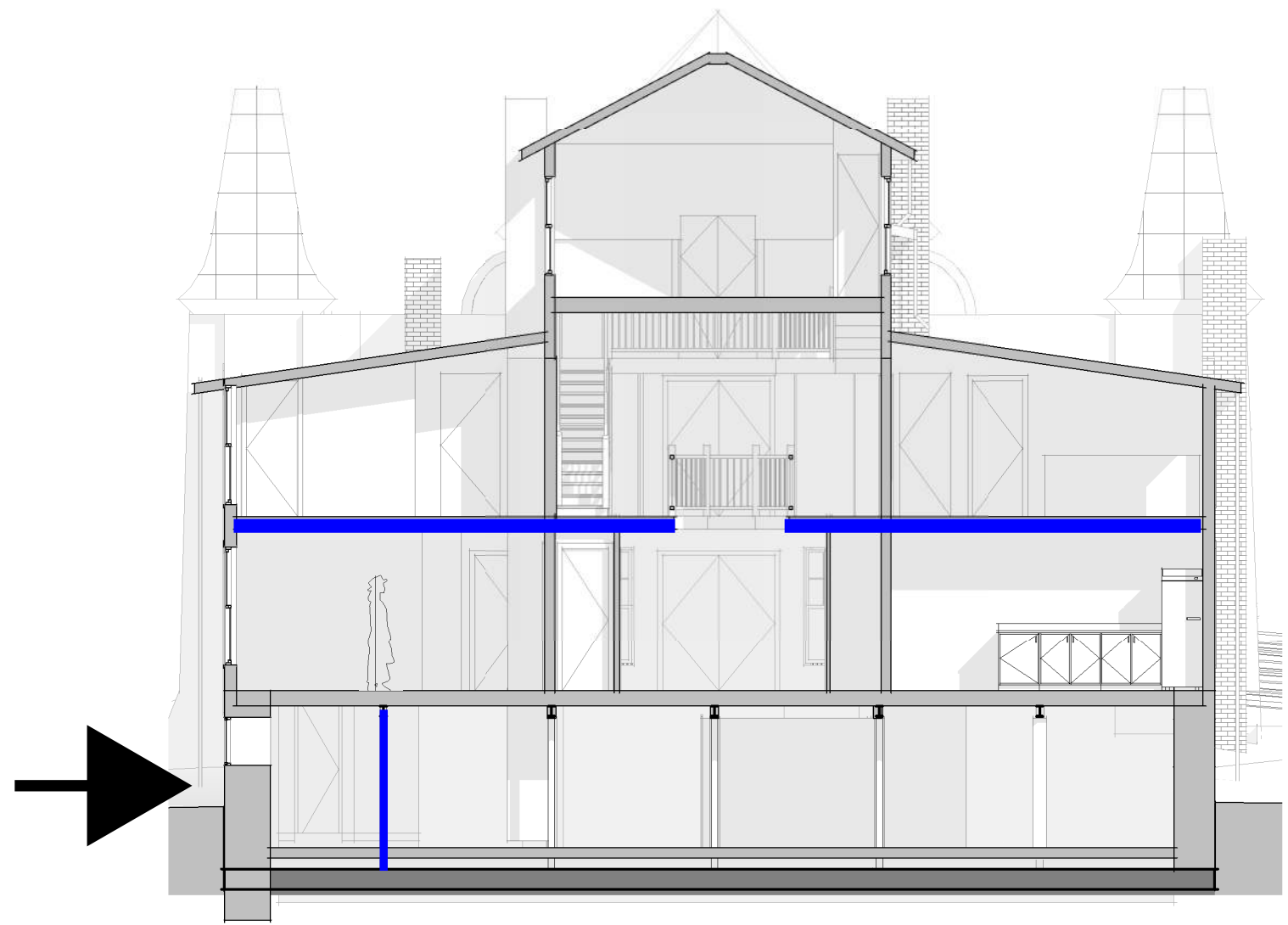
ALTERNATIVE 2 - FLOOR PLAN LEGEND

- PRIMARY SIGNIFICANCE SPACE
- SECONDARY SIGNIFICANCE SPACE
- LOW SIGNIFICANCE SPACE
- EXISTING TO REMAIN WALL
- PROPOSED WALL
- PROPOSED HVAC UNIT
- PROPOSED STRUCTURAL COLUMN

ALTERNATIVE 2 - OCCUPANCY COUNT

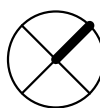
BASEMENT	0 OCC (MAINTENANCE ONLY)
FIRST FLOOR	92 OCC
SECOND FLOOR	77 OCC
THIRD FLOOR	0 OCC (MAINTENANCE ONLY)
TOTAL	169 OCC

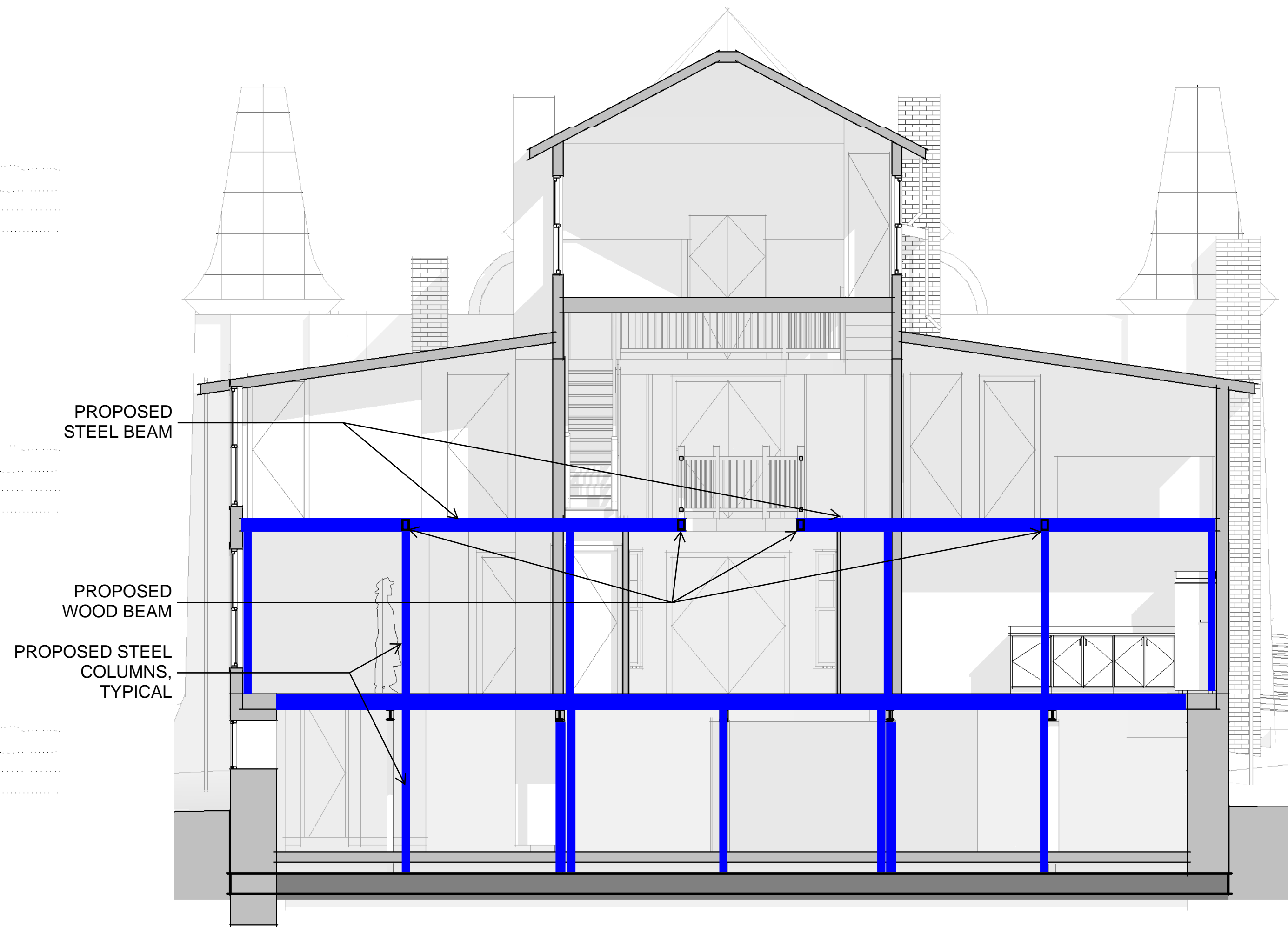
ALTERNATIVE 2 - STRUCTURAL APPROACH



ALTERNATIVE 2 - BASEMENT

REHABILITATE CLARA BARTON NATIONAL HISTORIC SITE





PROPOSED STEEL COLUMN



EXISTING JOIST

PROPOSED STEEL BEAM

PROPOSED WOOD BEAM

ALTERNATIVE 3A: EXTENSIVE STRUCTURAL UPGRADE

In addition to the structural base scope on Page 3, an extensive structural upgrade will increase the live load capacity of the 2nd floor and allow for a total of 105 occupants meeting code requirements. New steel columns will be inserted through the floor framing from the basement up to the underside of the 2nd floor to support new steel beams placed within the depth of the 2nd floor framing; these columns will be located in the 1st floor closets and exposed inside certain rooms (Photo upper right: example of similar installation at different building; column is painted to match existing finish). In addition, new wood beams will be inserted mid-span and the existing joists cut and resupported with joist hangers (Photo lower right: example of similar installation at different building). By cutting the existing joists, this installation damages the most historic fabric of the three alternatives. All ceiling finishes at the 1st floor will be removed similar to the work in Alternative 2.

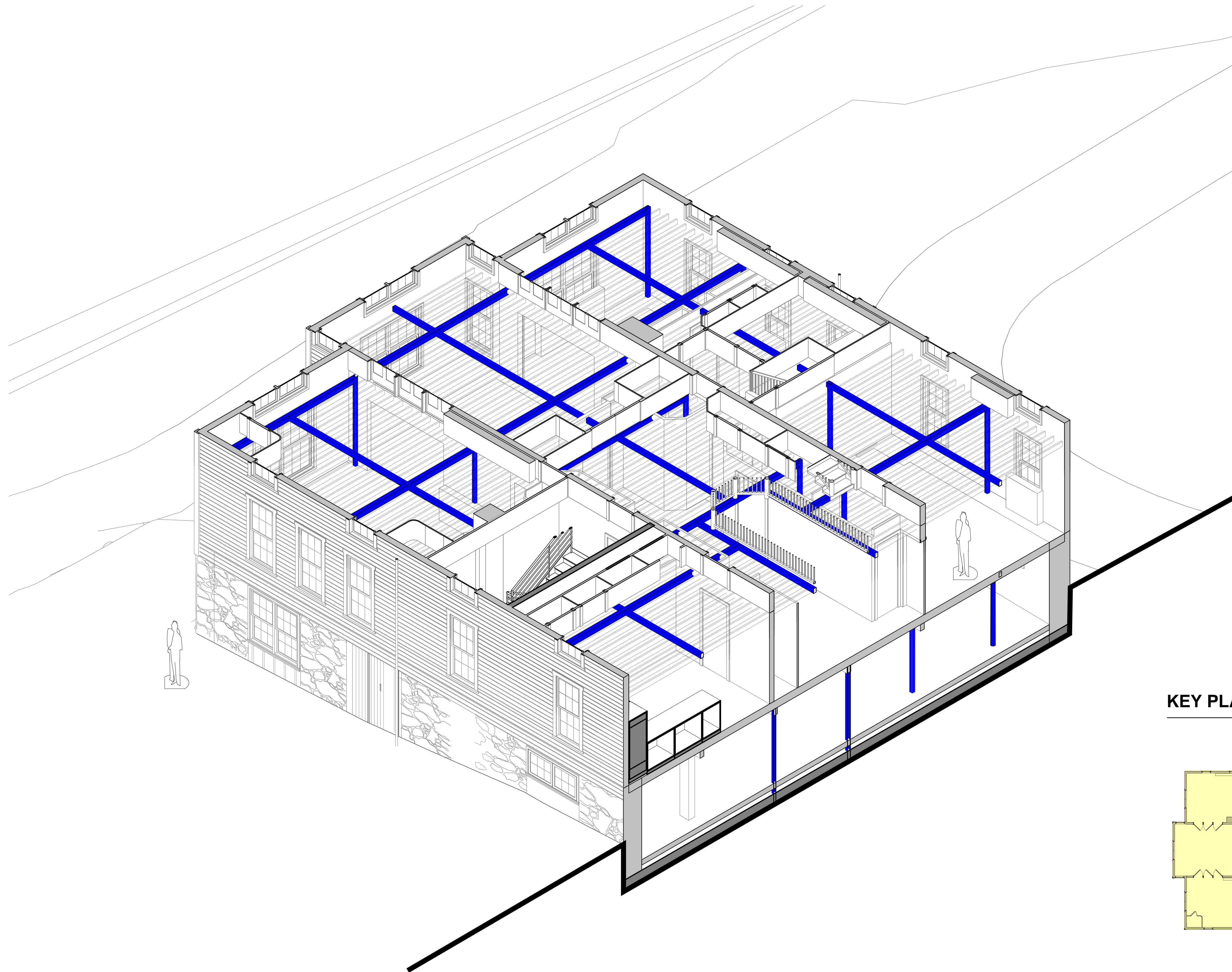
The cantilevered steel beams in the atrium may need to be installed through new openings in the exterior walls, which would require selectively removing the clapboard and threading the new beams through the building joist depth. This is a more difficult field installation than Alternative 2. Once all the ceiling materials are removed, field verifications of all 2nd floor framing will determine how many beams can be installed from the interior and how many require new openings at the exterior walls. The upgrade will not be visible to visitors once completed as ceilings and walls will be restored to original appearance.

Lateral stiffness will be increased with diagonal bracing in the closets in 2 locations from the basement up to the 2nd floor.

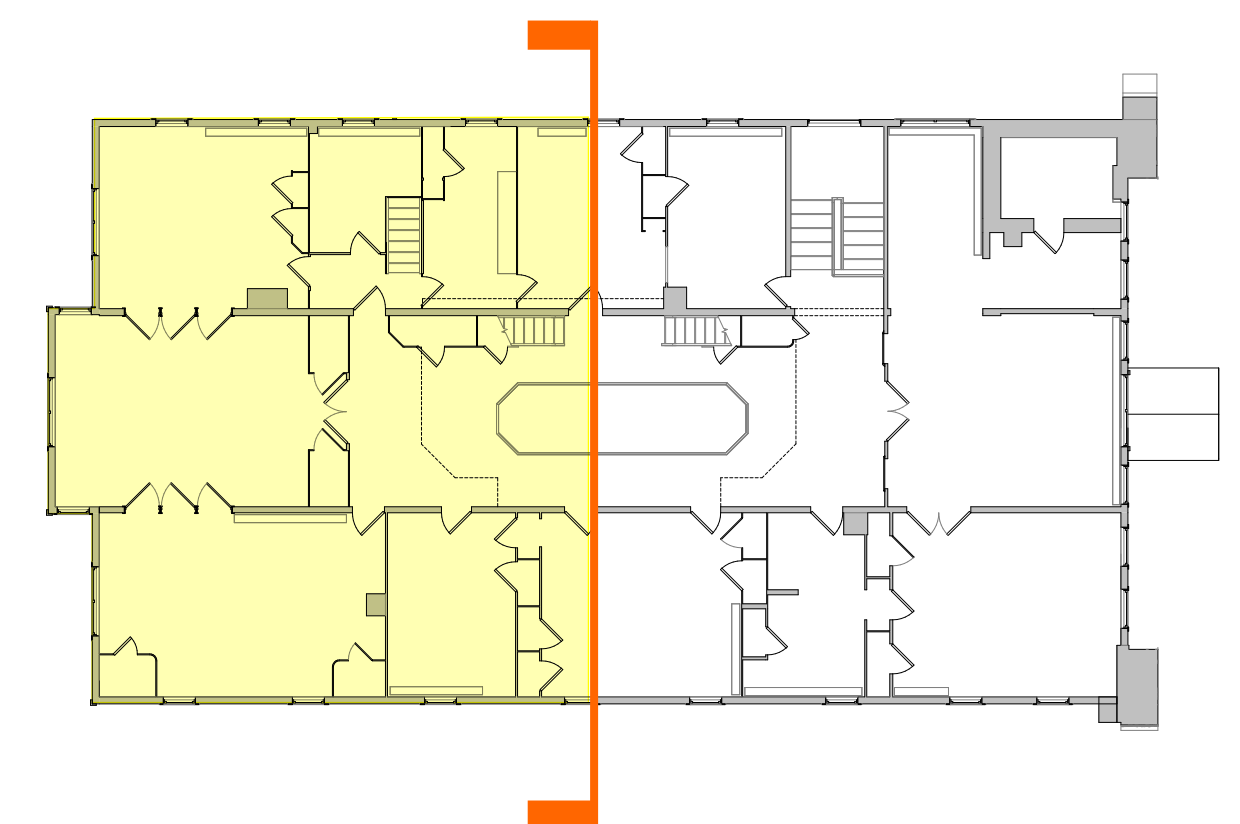
ALTERNATIVE 3A - INTRODUCTION

REHABILITATE CLARA BARTON NATIONAL HISTORIC SITE

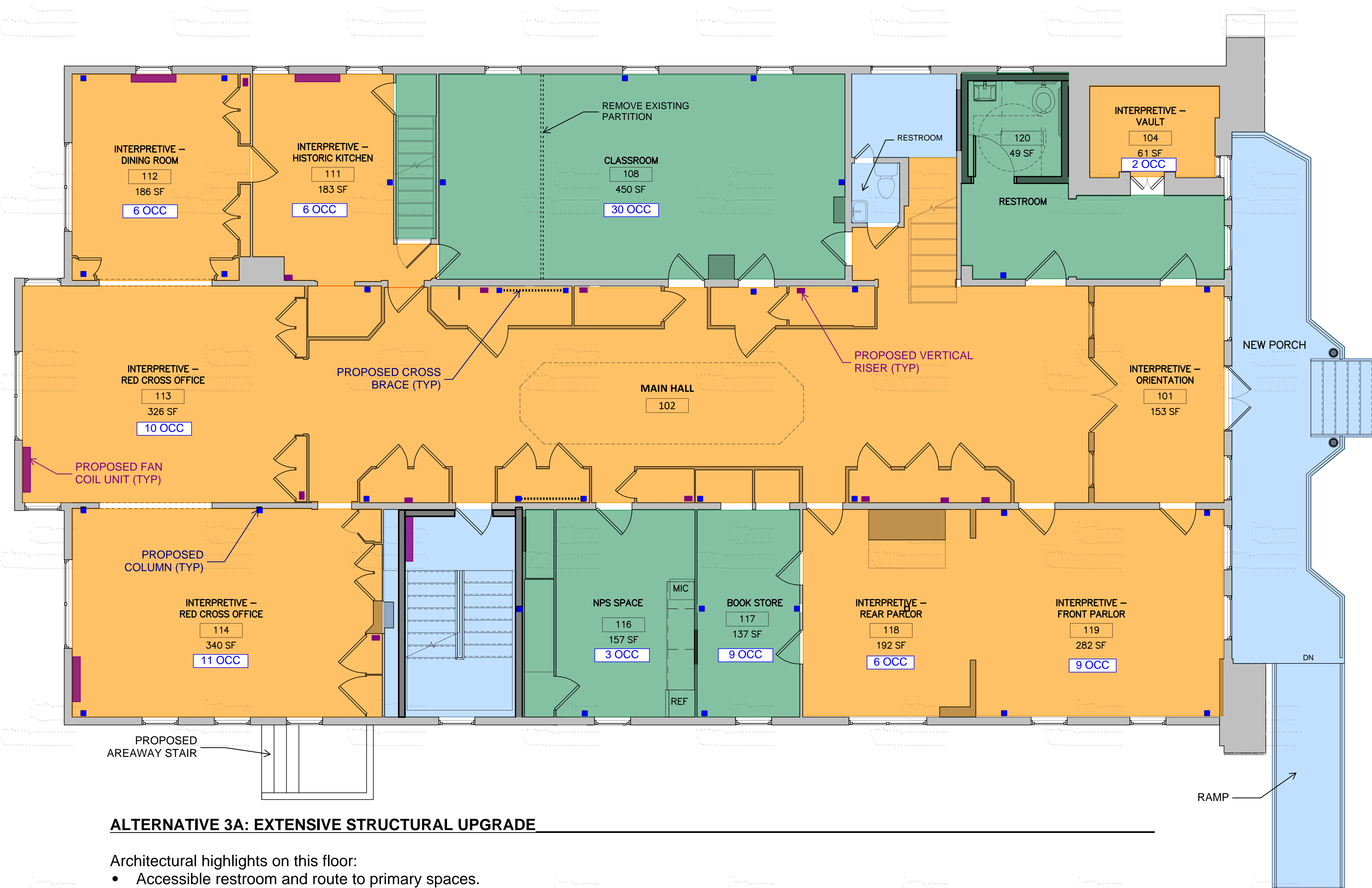
PAGE 20



KEY PLAN SHOWING SECTION CUT



ALTERNATIVE 3A - AXONOMETRIC CUTAWAY VIEW REHABILITATE CLARA BARTON NATIONAL HISTORIC SITE



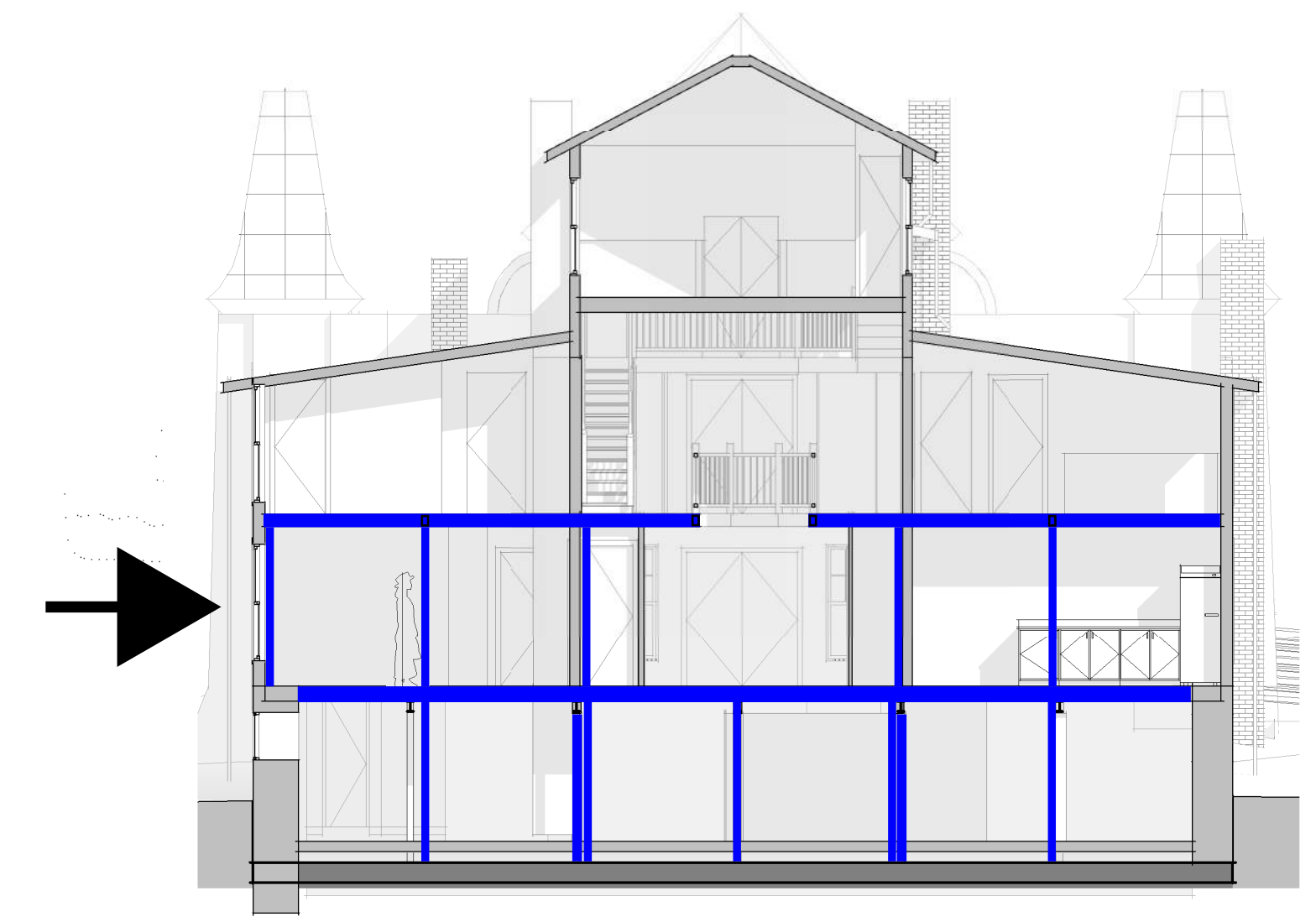
ALTERNATIVE 3A - FLOOR PLAN LEGEND

- PRIMARY SIGNIFICANCE SPACE
- SECONDARY SIGNIFICANCE SPACE
- LOW SIGNIFICANCE SPACE
- EXISTING TO REMAIN WALL
- PROPOSED WALL
- PROPOSED HVAC UNIT
- PROPOSED STRUCTURAL COLUMN

ALTERNATIVE 3A - OCCUPANCY COUNT

BASEMENT	0 OCC (MAINTENANCE ONLY)
FIRST FLOOR	92 OCC
SECOND FLOOR	105 OCC
THIRD FLOOR	0 OCC (MAINTENANCE ONLY)
TOTAL	197 OCC

ALTERNATIVE 3A - STRUCTURAL APPROACH

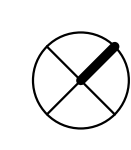
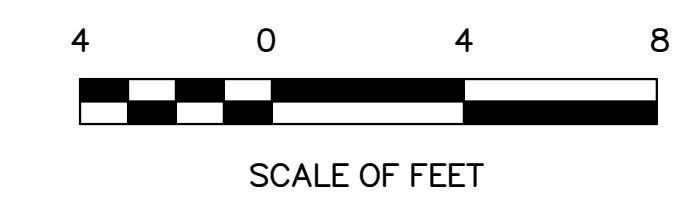


ALTERNATIVE 3A: EXTENSIVE STRUCTURAL UPGRADE

- Architectural highlights on this floor:
- Accessible restroom and route to primary spaces.
 - New code-required egress stair due to 2nd floor occupancy. Discharges at exterior through the basement. The stair shaft will be enclosed in new fire-rated walls within the existing space and will remove the existing framing and floor at the 1st level.
 - Furnished period rooms with space for interpretation and exhibits with climate-controlled cases
 - Large Classroom for 30 occupants (requires removal of an original partition)
 - Bookstore and NPS space
- Mechanical and Electrical highlights:
- Ductwork vertical risers and electrical conduit will be located in closets; pathways to be coordinated with sprinkler pipes currently located in closets.
 - New VRF mechanical system to provide heating and air conditioning throughout all rooms.
 - Locate mechanical cooling units and pads at southeast corner further from the house at the exterior.
- Civil and Landscape highlights (shown on Landscape plan):
- Paved walks include the entry path, east and south egress path.
 - Screen planting around mechanical cooling units.

ALTERNATIVE 3A - FIRST FLOOR

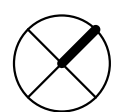
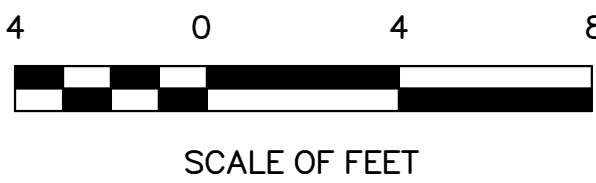
REHABILITATE CLARA BARTON NATIONAL HISTORIC SITE





ALTERNATIVE 3A - SECOND FLOOR

REHABILITATE CLARA BARTON NATIONAL HISTORIC SITE



ALTERNATIVE 3A - FLOOR PLAN LEGEND

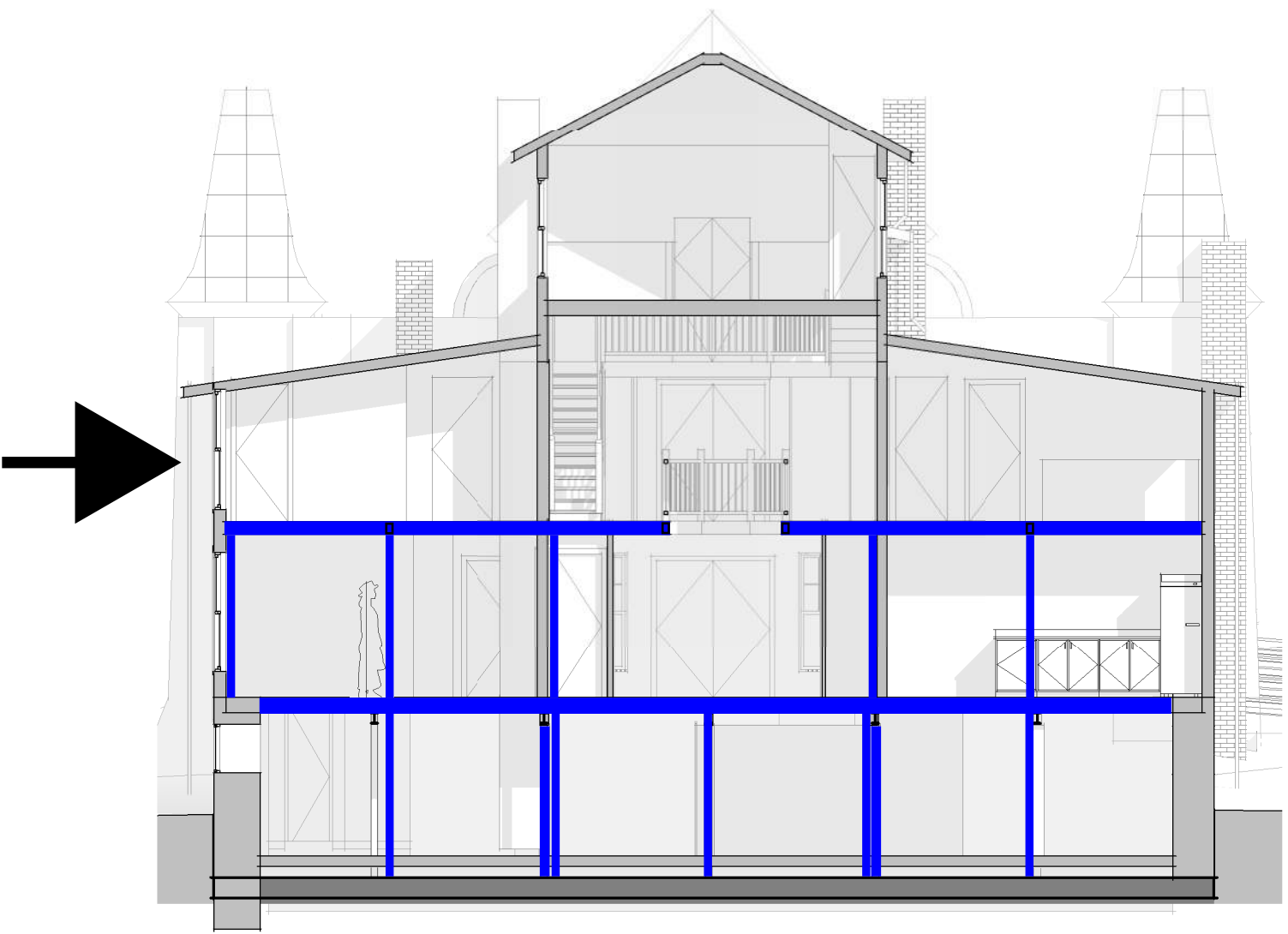
- PRIMARY SIGNIFICANCE SPACE
- SECONDARY SIGNIFICANCE SPACE
- LOW SIGNIFICANCE SPACE
- EXISTING TO REMAIN WALL
- PROPOSED WALL
- PROPOSED HVAC UNIT
- PROPOSED STRUCTURAL COLUMN

ALTERNATIVE 3A - OCCUPANCY COUNT

BASEMENT	0 OCC (MAINTENANCE ONLY)
FIRST FLOOR	92 OCC
SECOND FLOOR	105 OCC
THIRD FLOOR	0 OCC (MAINTENANCE ONLY)

TOTAL 197 OCC

ALTERNATIVE 3A - STRUCTURAL APPROACH



ALTERNATIVE 3A: EXTENSIVE STRUCTURAL UPGRADE

Architectural highlights on this floor:

- New restroom
- New code-required egress stair due to 2nd floor occupancy. Discharges at exterior through the basement.
- Furnished period rooms with space for interpretation and exhibits with climate-controlled cases.
- (2) Medium (19 and 20 occupants) Classrooms.
- Curatorial Workroom, Distance Learning Studio, Reading nook, Temporary Exhibits, Interactive Children's Exhibit

Mechanical and Electrical highlights:

- Floor-mounted console fan coil units with custom enclosures.
- New VRF mechanical system to provide heating and air conditioning throughout all rooms.

Note: Per ADAAG 206.2.3, Exception 7, vertical access to stories above or below the accessible story is not required.

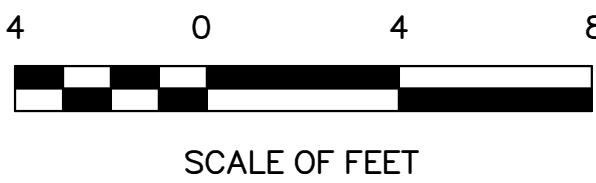
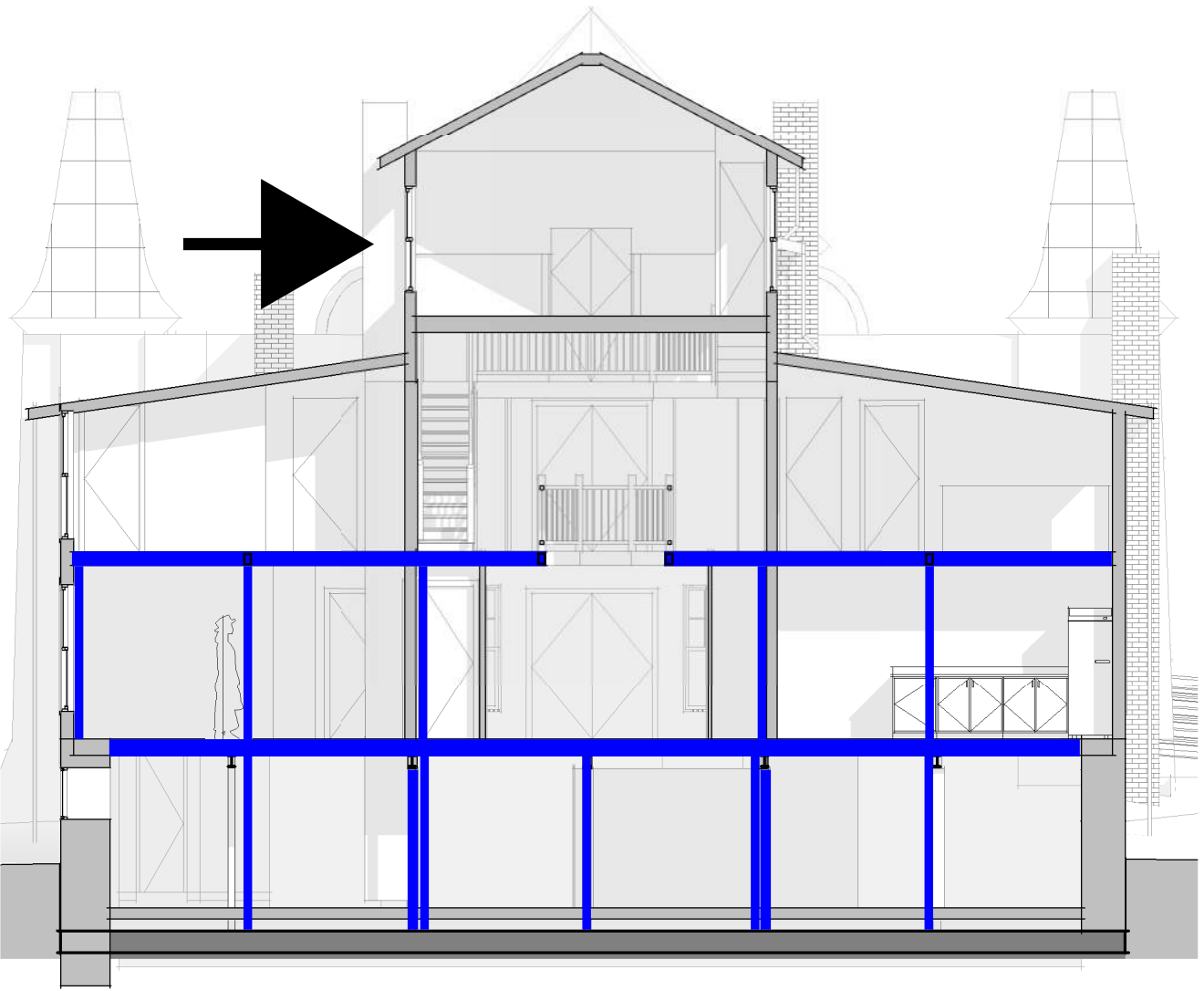
ALTERNATIVE 3A - FLOOR PLAN LEGEND

- PRIMARY SIGNIFICANCE SPACE
- SECONDARY SIGNIFICANCE SPACE
- LOW SIGNIFICANCE SPACE
- EXISTING TO REMAIN WALL
- PROPOSED WALL
- PROPOSED HVAC UNIT
- PROPOSED STRUCTURAL COLUMN

ALTERNATIVE 3A - OCCUPANCY COUNT

BASEMENT	0 OCC (MAINTENANCE ONLY)
FIRST FLOOR	92 OCC
SECOND FLOOR	105 OCC
THIRD FLOOR	0 OCC (MAINTENANCE ONLY)
TOTAL	197 OCC

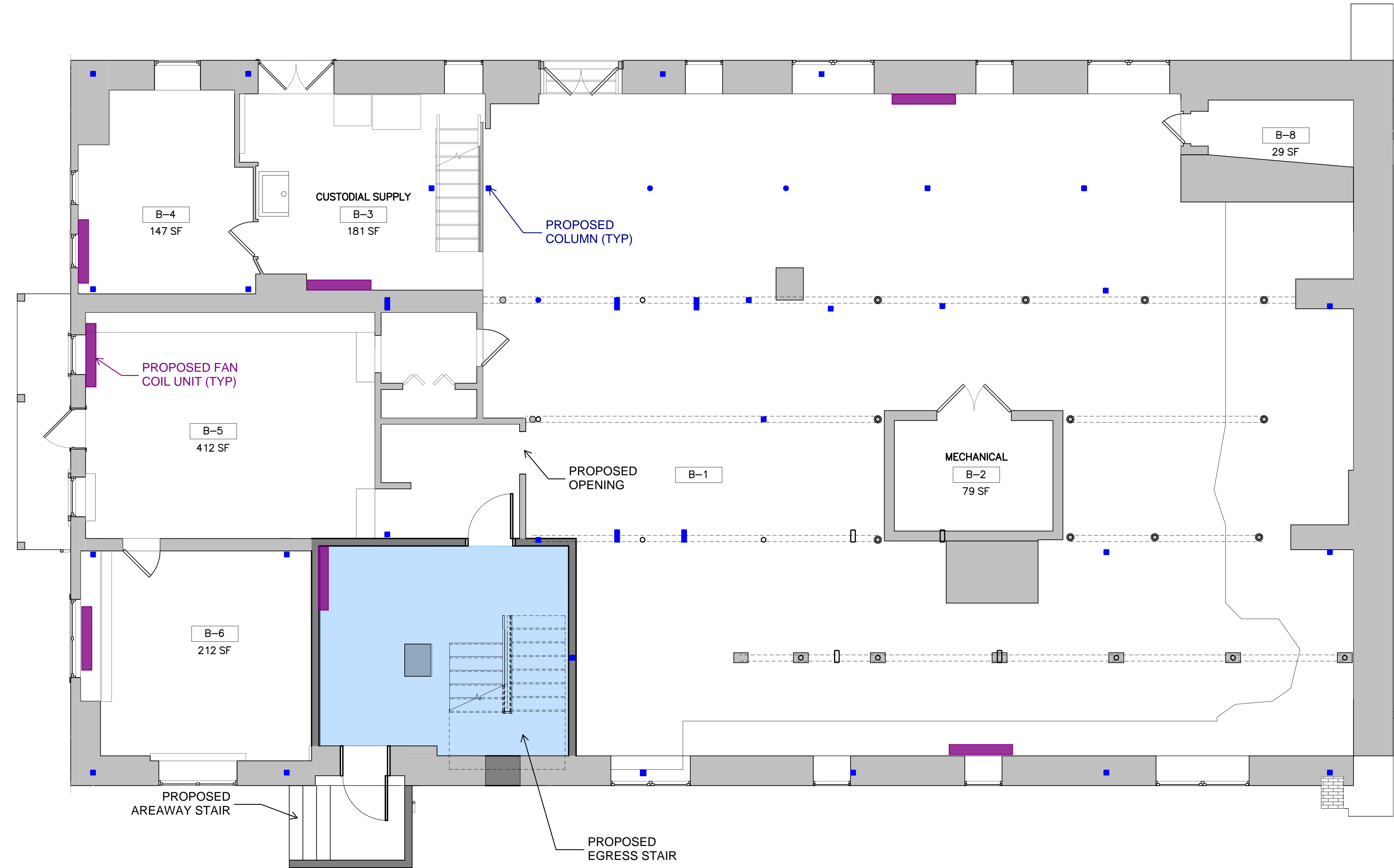
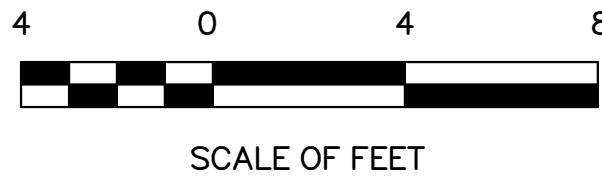
ALTERNATIVE 3A - STRUCTURAL APPROACH





ALTERNATIVE 3A - BASEMENT

REHABILITATE CLARA BARTON NATIONAL HISTORIC SITE



ALTERNATIVE 3A: EXTENSIVE STRUCTURAL UPGRADE

- Architectural highlights on this floor:
- New code-required egress stair due to 2nd floor occupancy. Discharges at exterior through the basement. Existing wood basement door to be heightened by approximately 12".

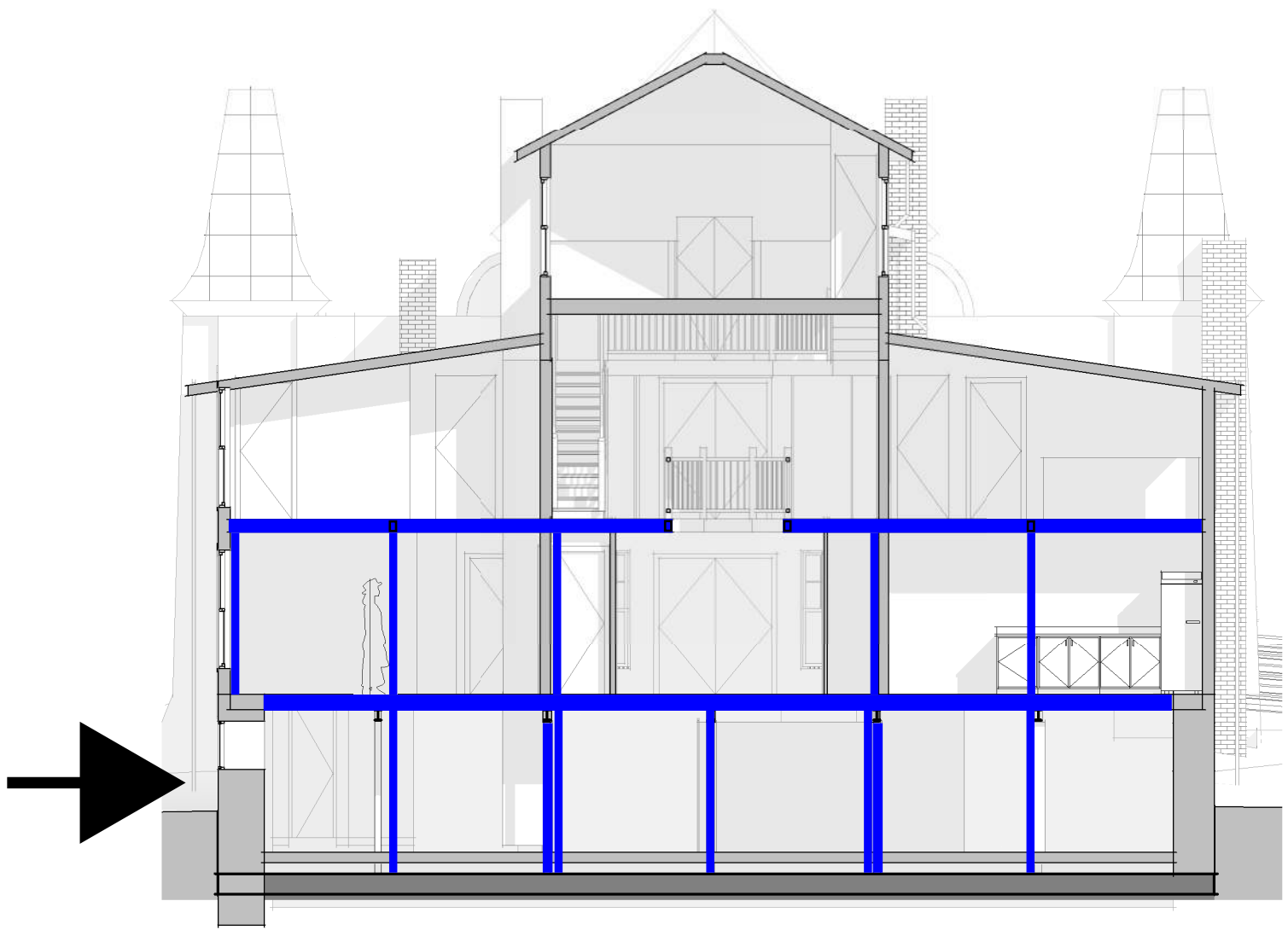
ALTERNATIVE 3A - FLOOR PLAN LEGEND

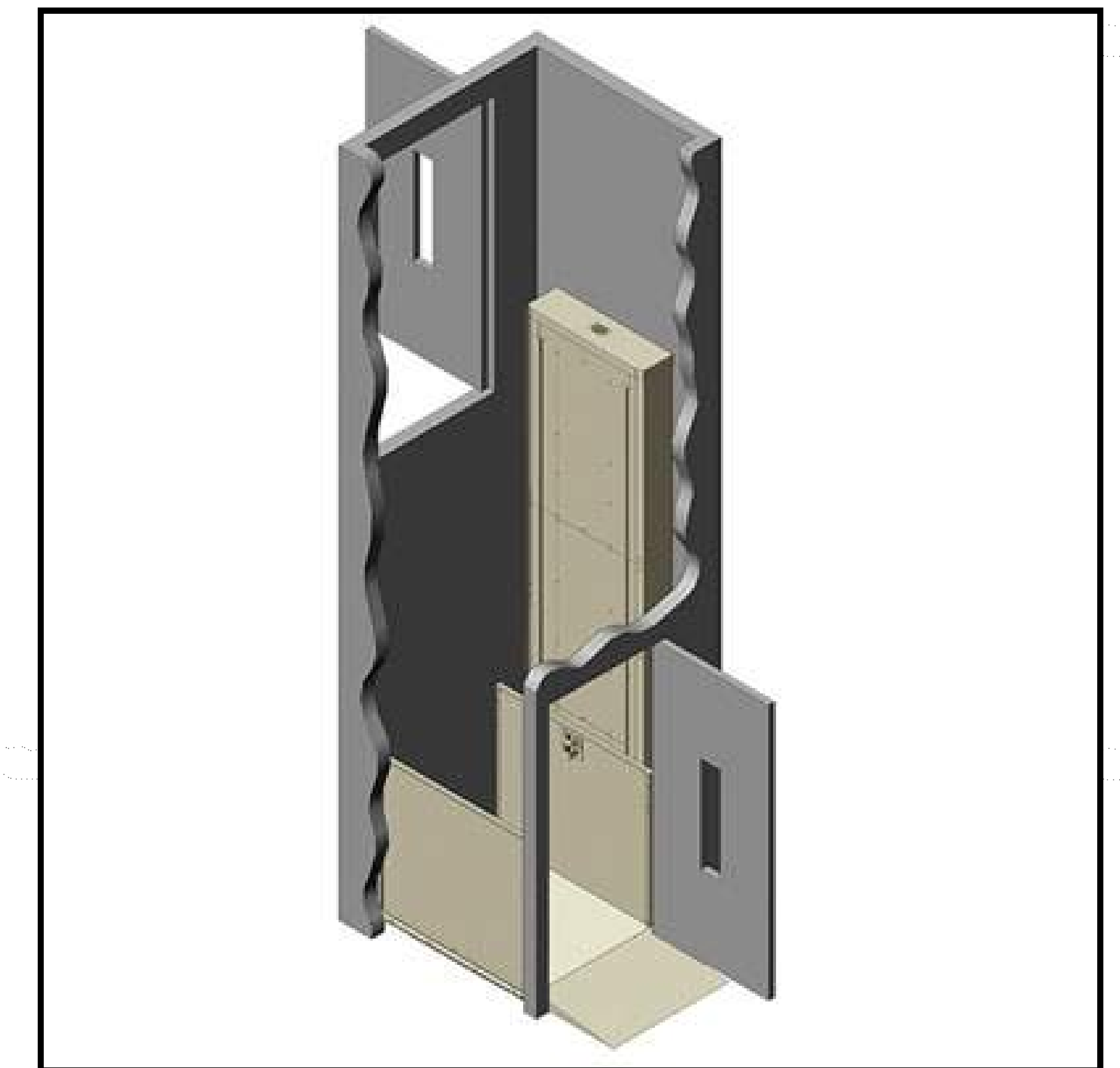
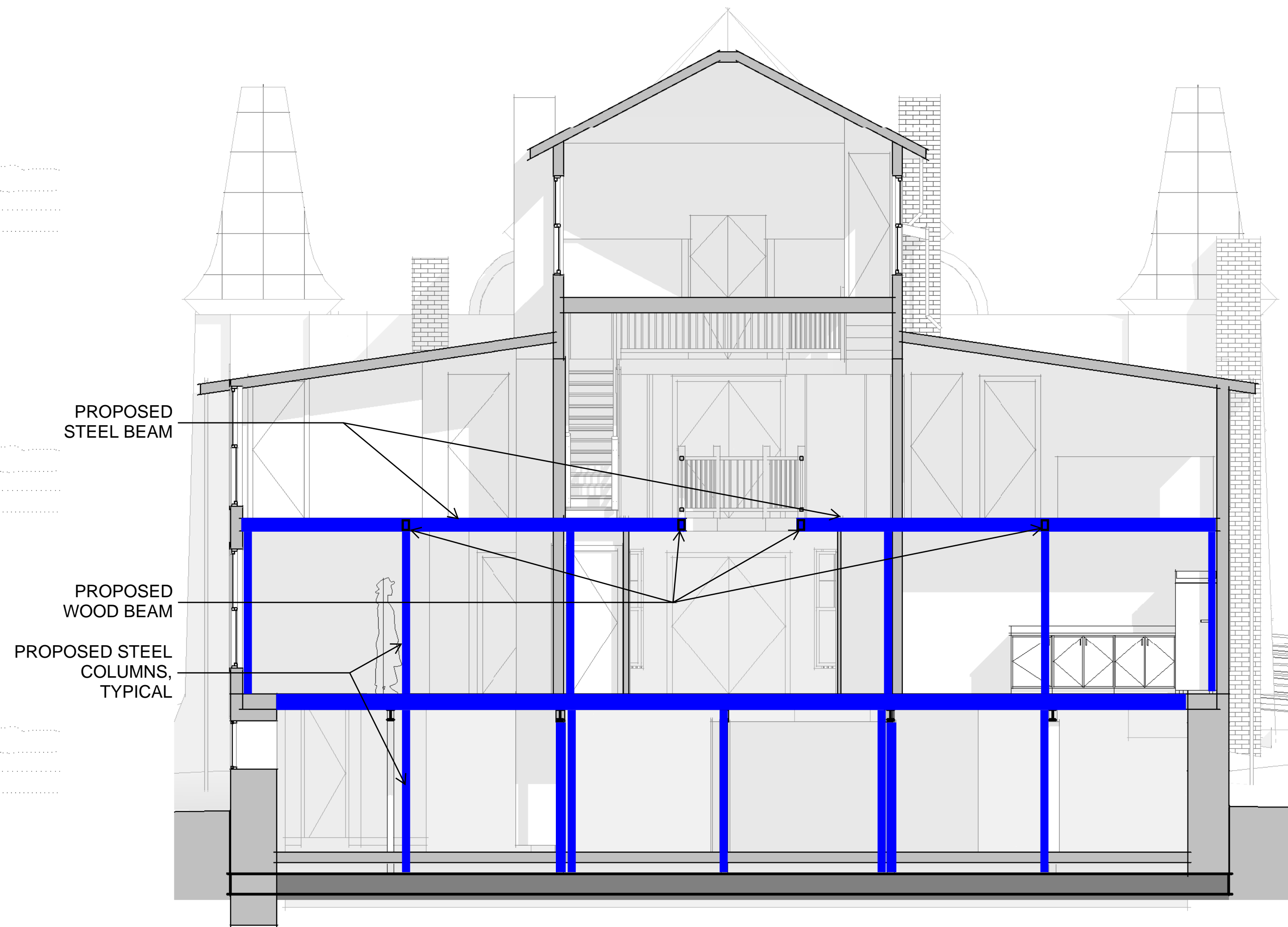
- PRIMARY SIGNIFICANCE SPACE
- SECONDARY SIGNIFICANCE SPACE
- LOW SIGNIFICANCE SPACE
- EXISTING TO REMAIN WALL
- PROPOSED WALL
- PROPOSED HVAC UNIT
- PROPOSED STRUCTURAL COLUMN

ALTERNATIVE 3A - OCCUPANCY COUNT

BASEMENT	0 OCC (MAINTENANCE ONLY)
FIRST FLOOR	92 OCC
SECOND FLOOR	105 OCC
THIRD FLOOR	0 OCC (MAINTENANCE ONLY)
TOTAL	197 OCC

ALTERNATIVE 3A - STRUCTURAL APPROACH





Cut-away diagram of vertical platform lift. The outside walls, or shaft walls, are cut to view inside.

ALTERNATIVE 3B: EXTENSIVE STRUCTURAL UPGRADE WITH VERTICAL PLATFORM LIFT

In addition to the structural base scope on Page 3, an extensive structural upgrade will increase the live load capacity of the 2nd floor and allow for a total of 97 occupants. New steel columns will be inserted through the floor framing from the basement up to the underside of the 2nd floor to support new steel beams placed within the depth of the 2nd floor framing; these columns will be located in the 1st floor closets and exposed inside certain rooms (Photo upper right: example of similar installation at different building; column is painted to match existing finish). In addition, new wood beams will be inserted mid-span and the existing joists cut and resupported with joist hangers. By cutting the existing joists, this installation damages the most historic fabric of the three alternatives. All ceiling finishes at the 1st floor will be removed similar to the work in Alternative 2.

The cantilevered steel beams in the atrium may need to be installed through new openings in the exterior walls, which would require selectively removing the clapboard and threading the new beams through the building joist depth. This is a more difficult field installation than Alternative 2. Once the ceiling materials are removed, field verifications of framing will determine how many beams can be installed from the interior and how many require new openings in walls. The upgrade will not be visible to visitors once as ceilings and walls will be restored to original appearance.

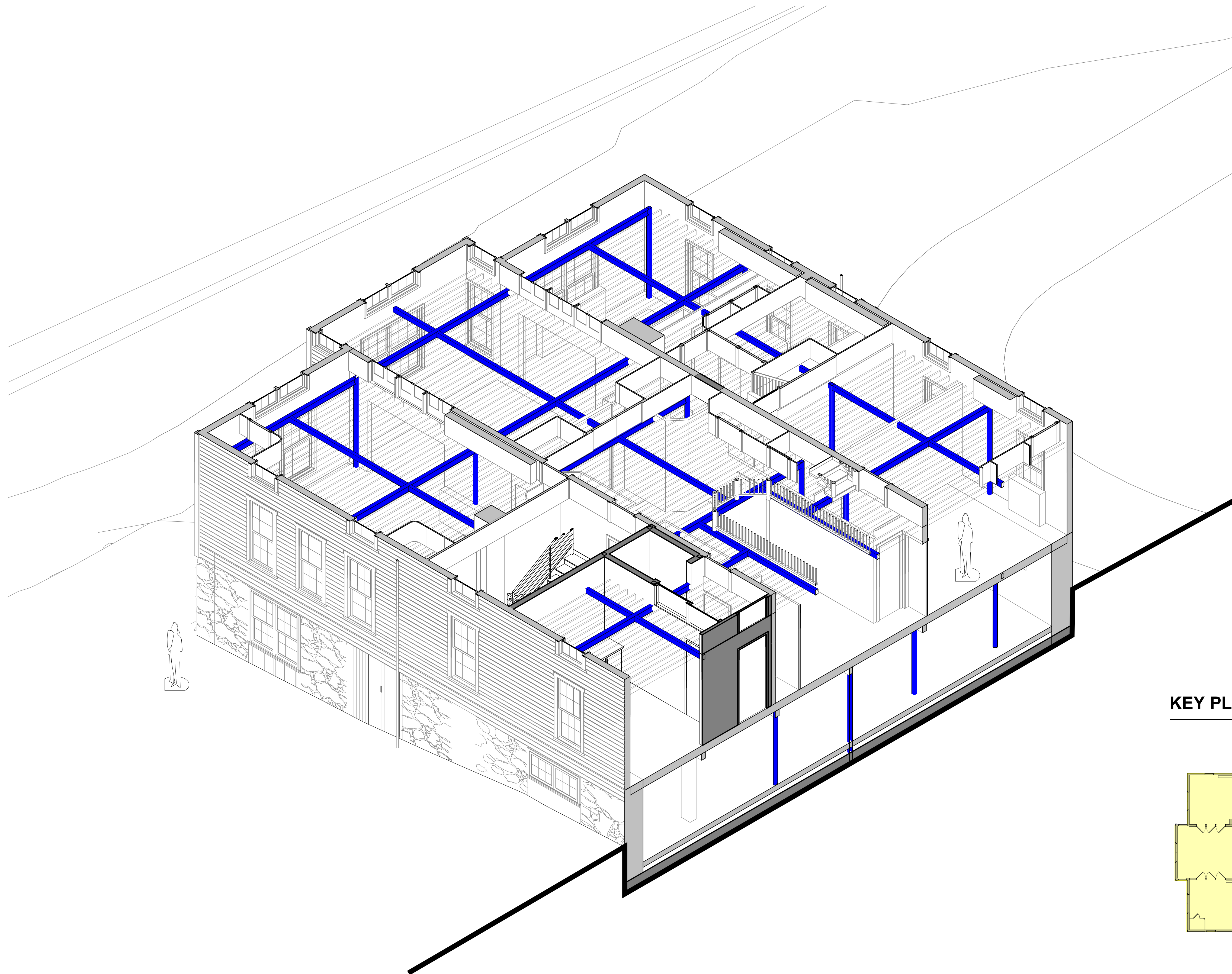
Lateral stiffness will be increased with diagonal bracing in the closets in 2 locations from the basement up to the 2nd floor.

Alternative 3B includes a vertical platform lift in a new shaft (Image lower right: cut-away diagram). The shaft will be adjacent to the new egress stair and will require removing existing floor framing and providing new framing for the shafts and lift support.

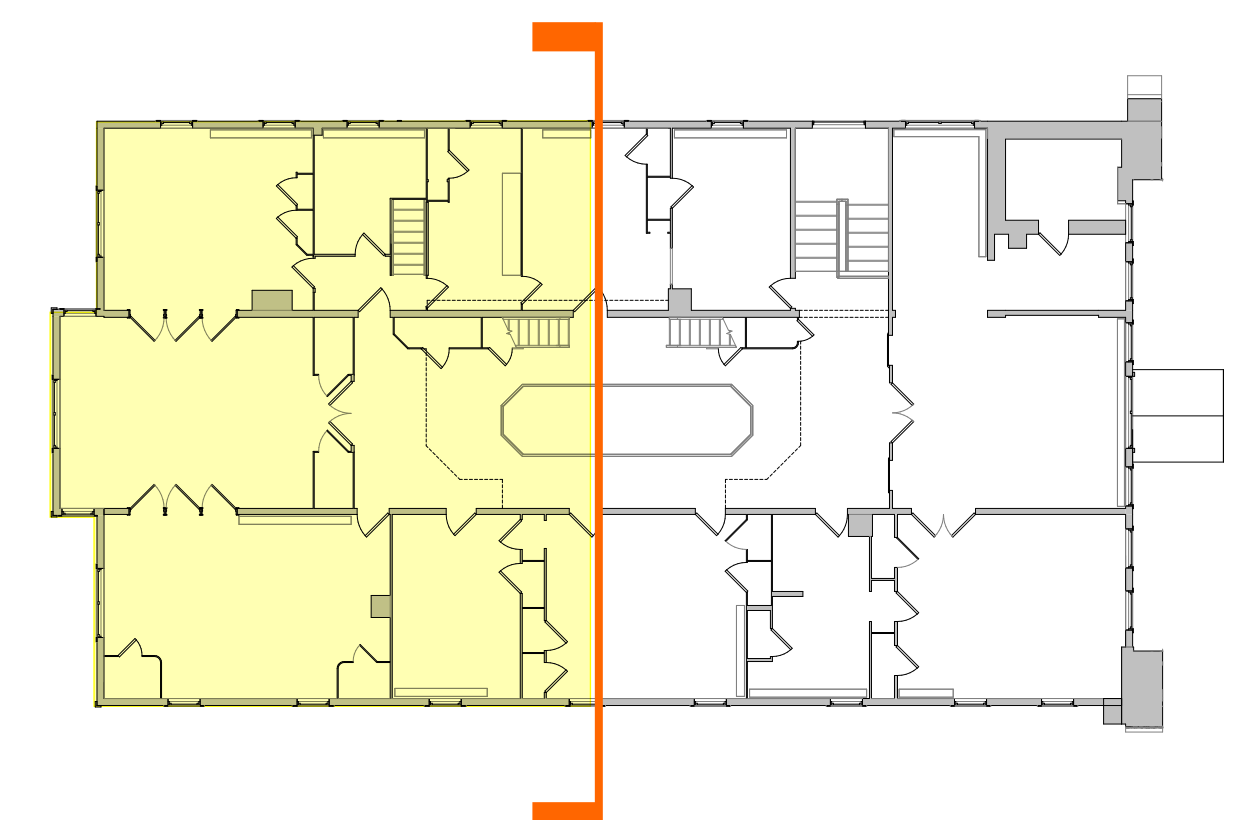
ALTERNATIVE 3B - INTRODUCTION

REHABILITATE CLARA BARTON NATIONAL HISTORIC SITE



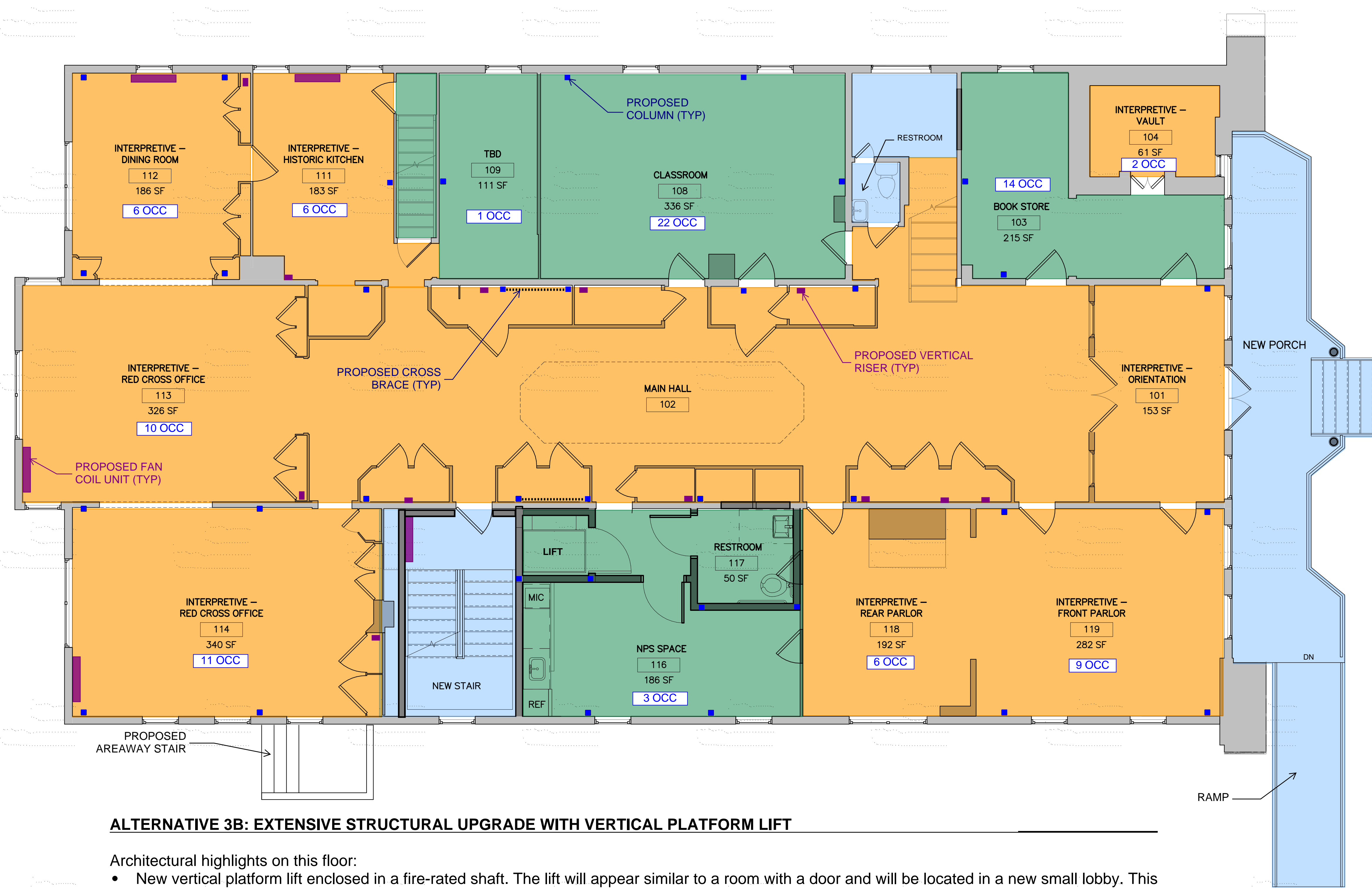


KEY PLAN SHOWING SECTION CUT



ALTERNATIVE 3B - AXONOMETRIC CUTAWAY VIEW

REHABILITATE CLARA BARTON NATIONAL HISTORIC SITE



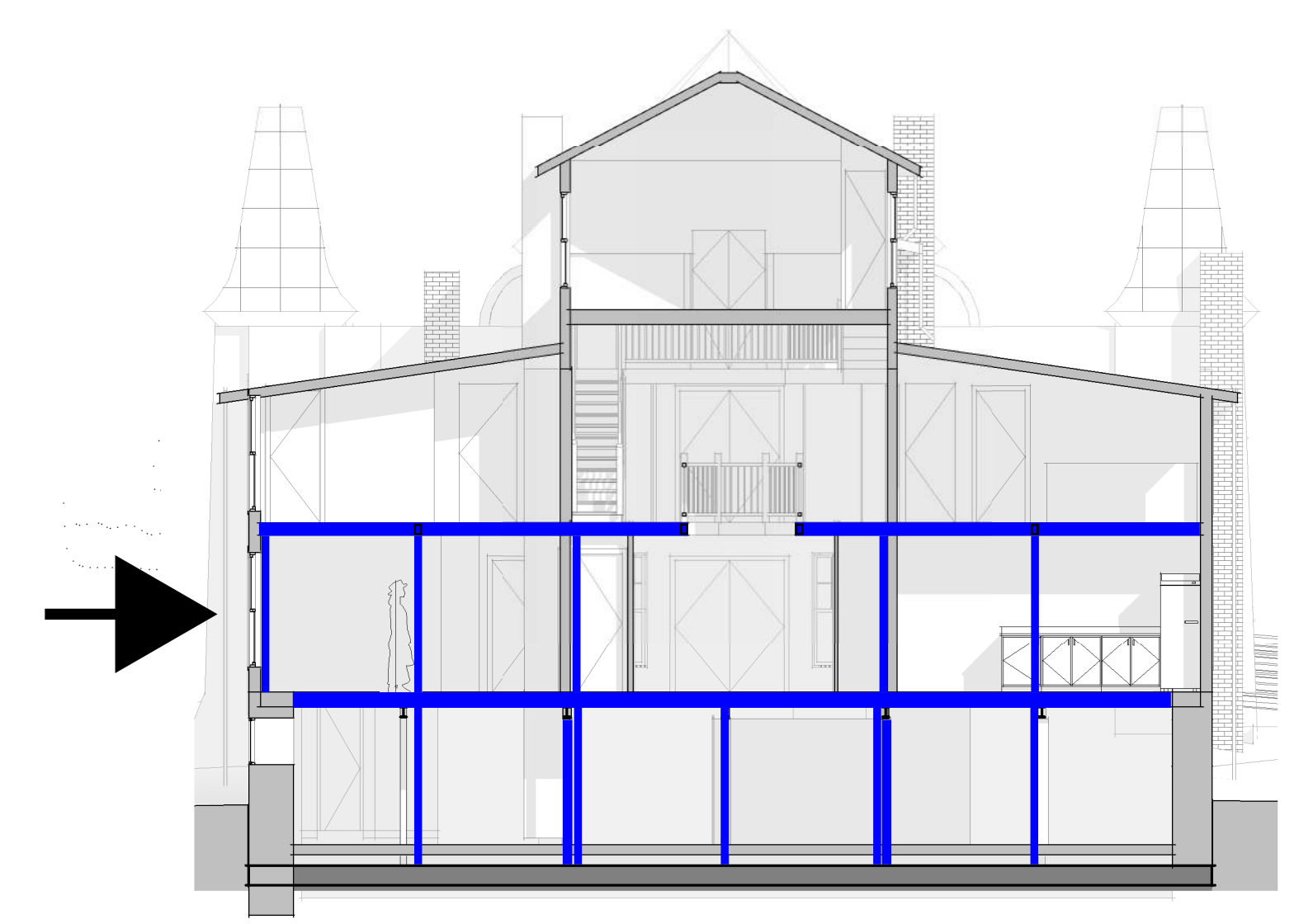
ALTERNATIVE 3B - FLOOR PLAN LEGEND

- PRIMARY SIGNIFICANCE SPACE
- SECONDARY SIGNIFICANCE SPACE
- LOW SIGNIFICANCE SPACE
- EXISTING TO REMAIN WALL
- PROPOSED WALL
- PROPOSED HVAC UNIT
- PROPOSED STRUCTURAL COLUMN

ALTERNATIVE 3B - OCCUPANCY COUNT

BASEMENT	0 OCC (MAINTENANCE ONLY)
FIRST FLOOR	90 OCC
SECOND FLOOR	97 OCC
THIRD FLOOR	0 OCC (MAINTENANCE ONLY)
TOTAL	187 OCC

ALTERNATIVE 3B - STRUCTURAL APPROACH

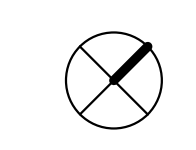
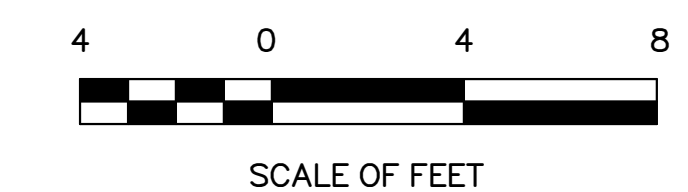


ALTERNATIVE 3B: EXTENSIVE STRUCTURAL UPGRADE WITH VERTICAL PLATFORM LIFT

- Architectural highlights on this floor:
- New vertical platform lift enclosed in a fire-rated shaft. The lift will appear similar to a room with a door and will be located in a new small lobby. This requires removal of the partition between Rooms 116 and 117.
 - Accessible restroom and route to primary spaces.
 - New code-required egress stair. Discharges at exterior through the basement. The stair shaft will be enclosed in new fire-rated walls within the existing space and will remove the existing framing and floor at the 1st level.
 - Furnished period rooms with space for interpretation and exhibits with climate-controlled cases Medium Classroom for 22 occupants, Bookstore, and NPS space.
- Mechanical and Electrical highlights:
- Ductwork vertical risers and electrical conduit will be located in closets; pathways to be coordinated with sprinkler pipes currently located in closets.
 - New VRF mechanical system to provide heating and air conditioning throughout all rooms.
 - Locate mechanical cooling units and pads at southeast corner further from the house at the exterior.
- Civil and Landscape highlights (shown on Landscape plan):
- Paved walks include the entry path, east and south egress path with screen planting around the mechanical cooling units.

ALTERNATIVE 3B - FIRST FLOOR

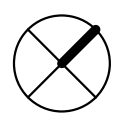
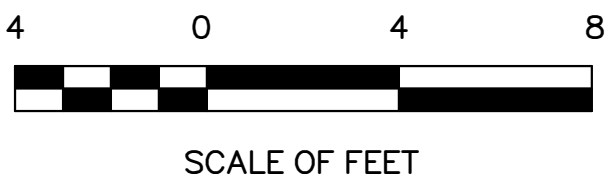
REHABILITATE CLARA BARTON NATIONAL HISTORIC SITE





ALTERNATIVE 3B - SECOND FLOOR

REHABILITATE CLARA BARTON NATIONAL HISTORIC SITE



ALTERNATIVE 3B - FLOOR PLAN LEGEND

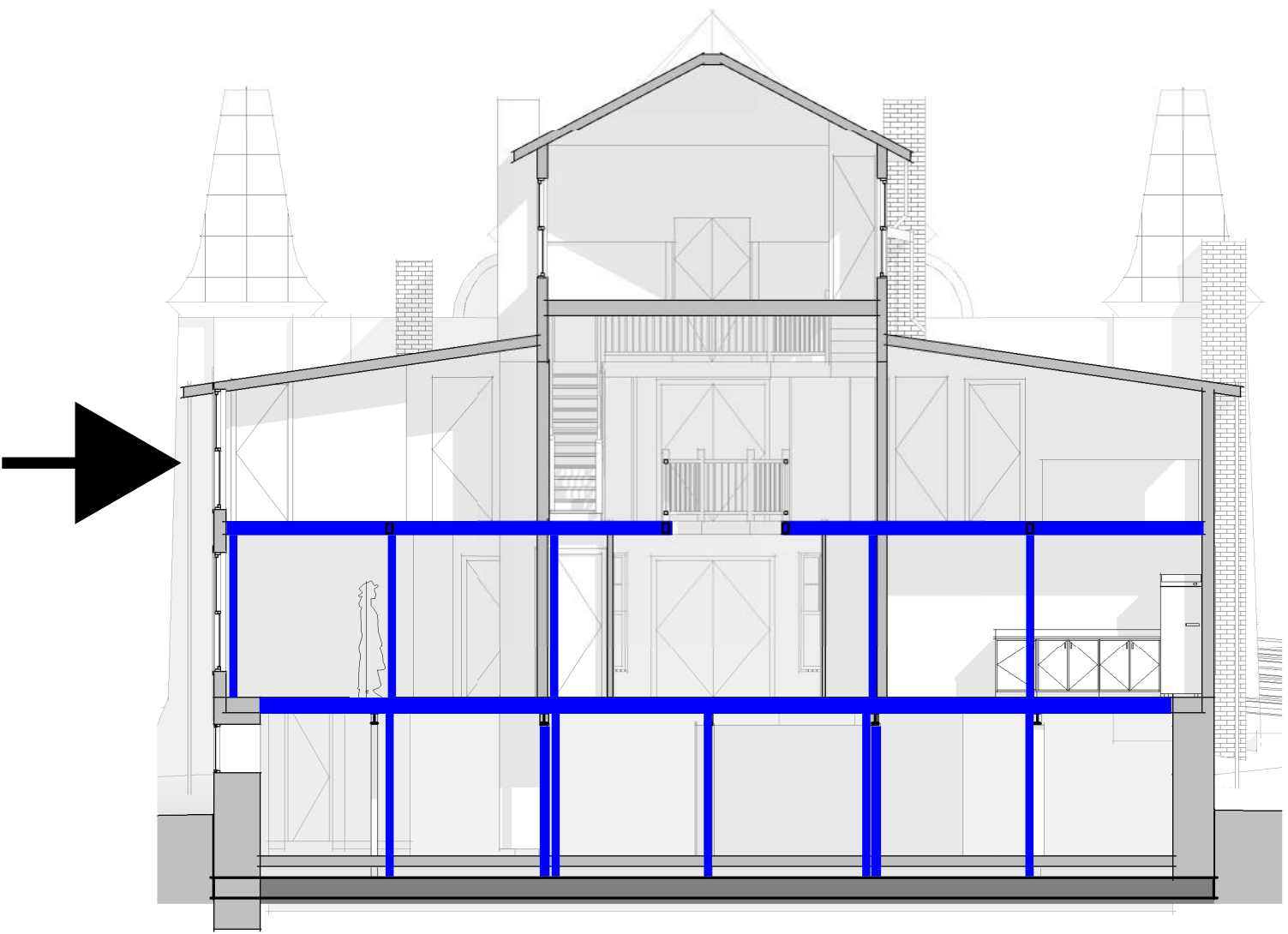
- PRIMARY SIGNIFICANCE SPACE
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ALTERNATIVE 3B - OCCUPANCY COUNT

BASEMENT	0 OCC (MAINTENANCE ONLY)
FIRST FLOOR	90 OCC
SECOND FLOOR	97 OCC
THIRD FLOOR	0 OCC (MAINTENANCE ONLY)

TOTAL 187 OCC

ALTERNATIVE 3B - STRUCTURAL APPROACH



ALTERNATIVE 3B: EXTENSIVE STRUCTURAL UPGRADE WITH VERTICAL PLATFORM LIFT

Architectural highlights on this floor:

- New vertical platform lift enclosed in a fire-rated shaft. The lift will appear similar to a room with a door and will be located in a new small lobby. This requires removal of the closets in Room 215 and changes the room's configuration.
- New accessible restroom and route to primary spaces.
- New code-required egress stair due to 2nd floor occupancy. Discharges at exterior through the basement.
- Furnished period rooms with space for interpretation and exhibits with climate-controlled cases.
- Large (25 occupants) and Small (9 occupants) Classrooms.
- Curatorial Workroom, Distance Learning Studio, Reading Room, Temporary Exhibits, Interactive Children's Exhibit

Mechanical and Electrical highlights:

- Floor-mounted console fan coil units with custom enclosures.
- New VRF mechanical system to provide heating and air conditioning throughout all rooms.

ALTERNATIVE 3B - FLOOR PLAN LEGEND

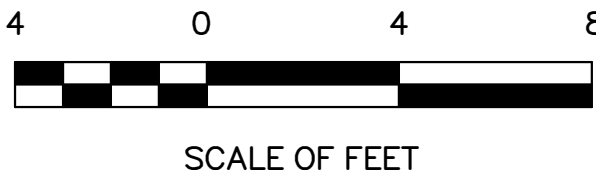
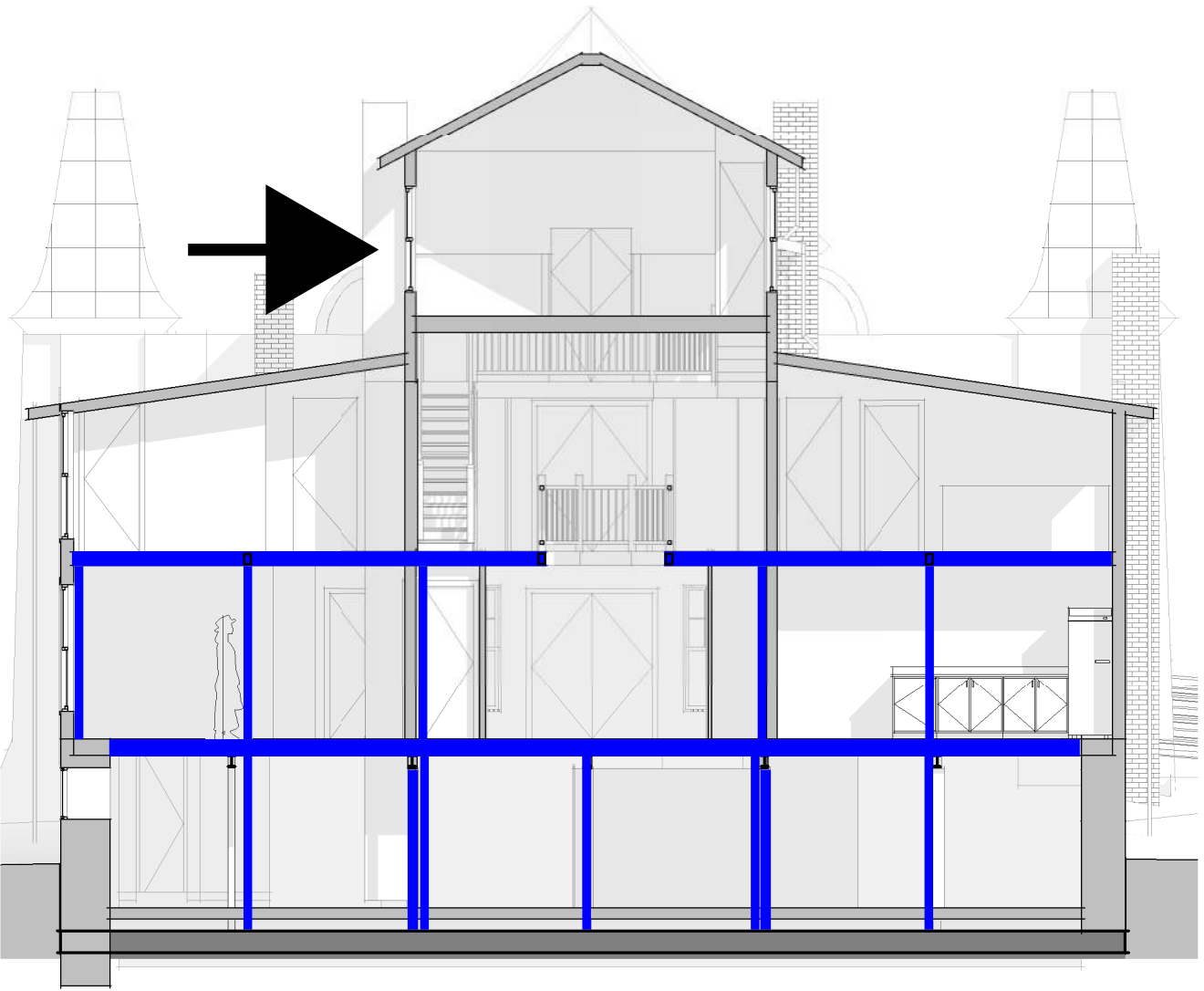
- PRIMARY SIGNIFICANCE SPACE
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THIRD FLOOR	0 OCC (MAINTENANCE ONLY)

TOTAL 187 OCC

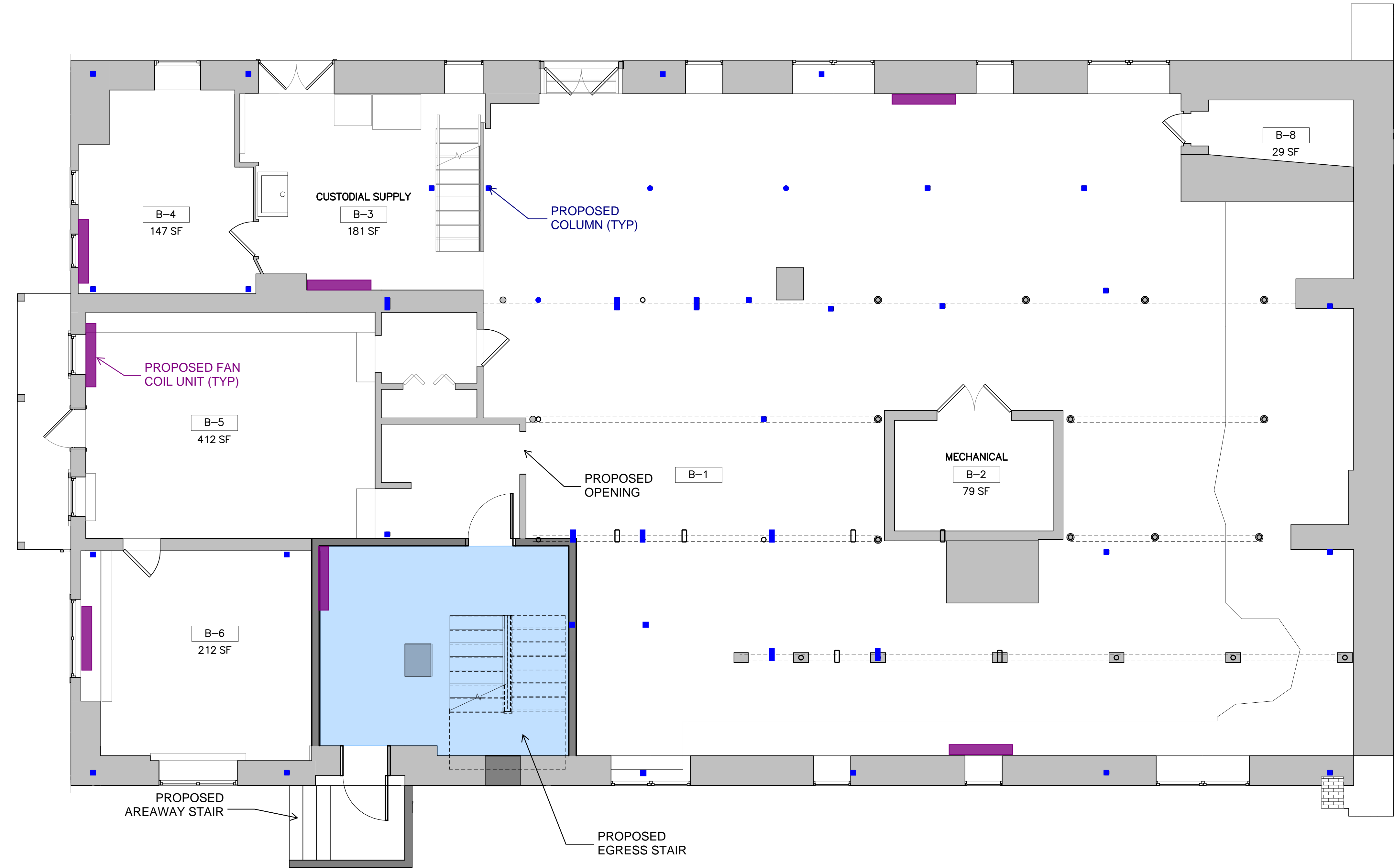
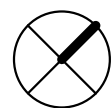
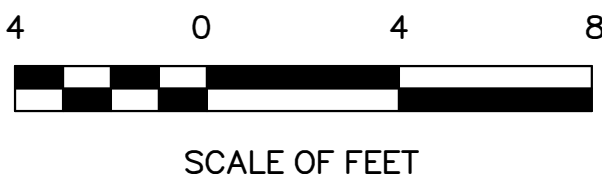
ALTERNATIVE 3B - STRUCTURAL APPROACH





ALTERNATIVE 3B - BASEMENT

REHABILITATE CLARA BARTON NATIONAL HISTORIC SITE



ALTERNATIVE 3B: EXTENSIVE STRUCTURAL UPGRADE WITH VERTICAL PLATFORM LIFT

- Architectural highlights on this floor:
- New code-required egress stair due to 2nd floor occupancy. Discharges at exterior through the basement. Existing wood basement door to be heightened by approximately 12".

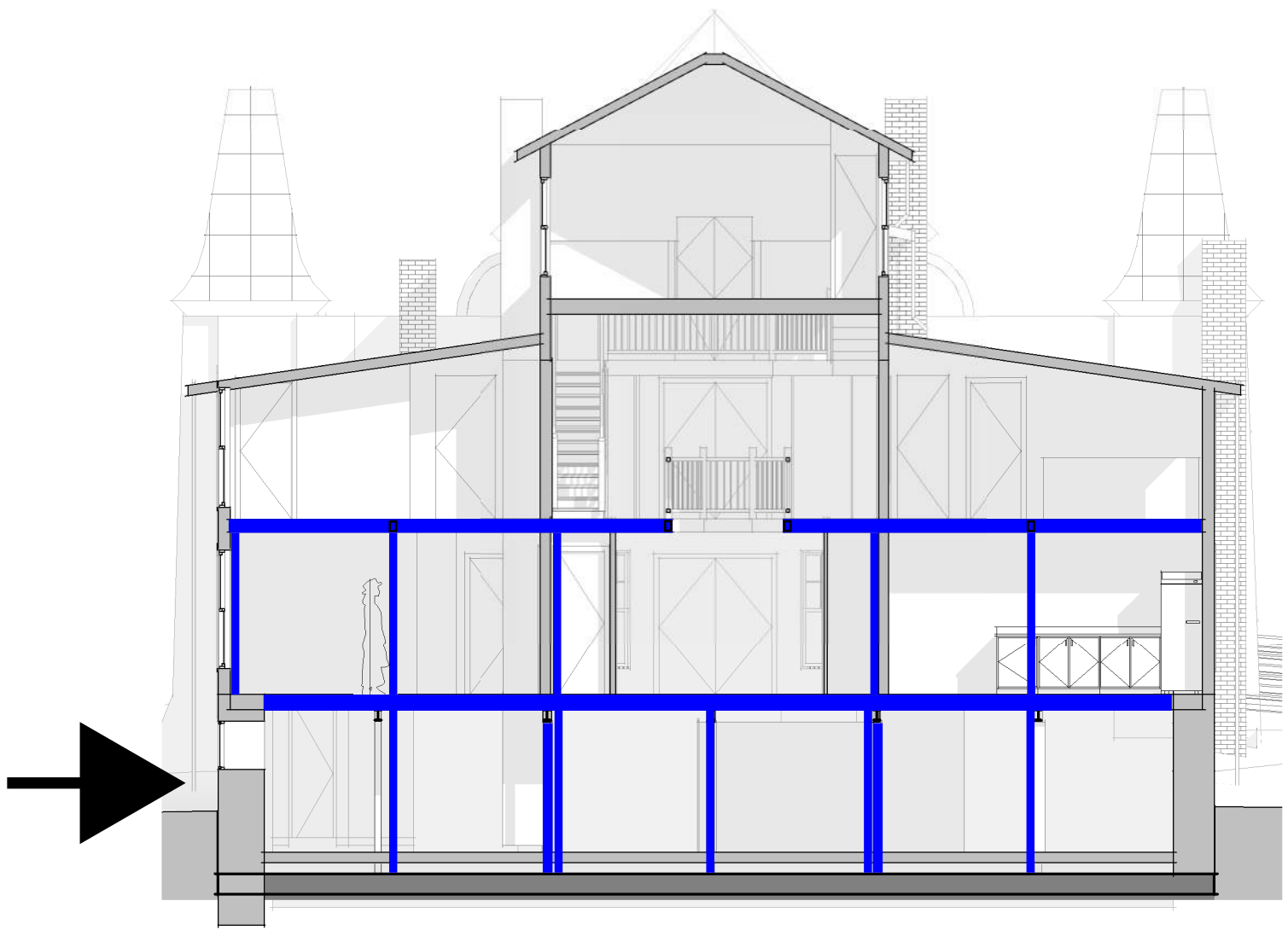
ALTERNATIVE 3B - FLOOR PLAN LEGEND

- PRIMARY SIGNIFICANCE SPACE
- SECONDARY SIGNIFICANCE SPACE
- LOW SIGNIFICANCE SPACE
- EXISTING TO REMAIN WALL
- PROPOSED WALL
- PROPOSED HVAC UNIT
- PROPOSED STRUCTURAL COLUMN

ALTERNATIVE 3B - OCCUPANCY COUNT

BASEMENT	0 OCC (MAINTENANCE ONLY)
FIRST FLOOR	90 OCC
SECOND FLOOR	97 OCC
THIRD FLOOR	0 OCC (MAINTENANCE ONLY)
TOTAL	187 OCC

ALTERNATIVE 3B - STRUCTURAL APPROACH



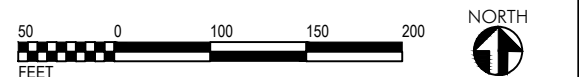


- Legend**
- Property Boundary, ca.1906 (approx.)
 - Landscape Character Area
 - Deciduous tree
 - Evergreen tree
 - Broadleaf evergreen tree
 - Fruit tree
 - Deciduous shrub
 - Groundcover/ornamental bed
 - Edible and ornamental landscape
 - Wildflower pasture/rough grass
 - Woodland (approx.)
 - Wood Boardwalk
 - Unpaved/dirt drive
 - Building
 - Masonry retaining wall
 - Possible masonry retaining wall
 - Informal path
 - Low area drains to stream
 - Minnehaha Branch

Notes and Sources

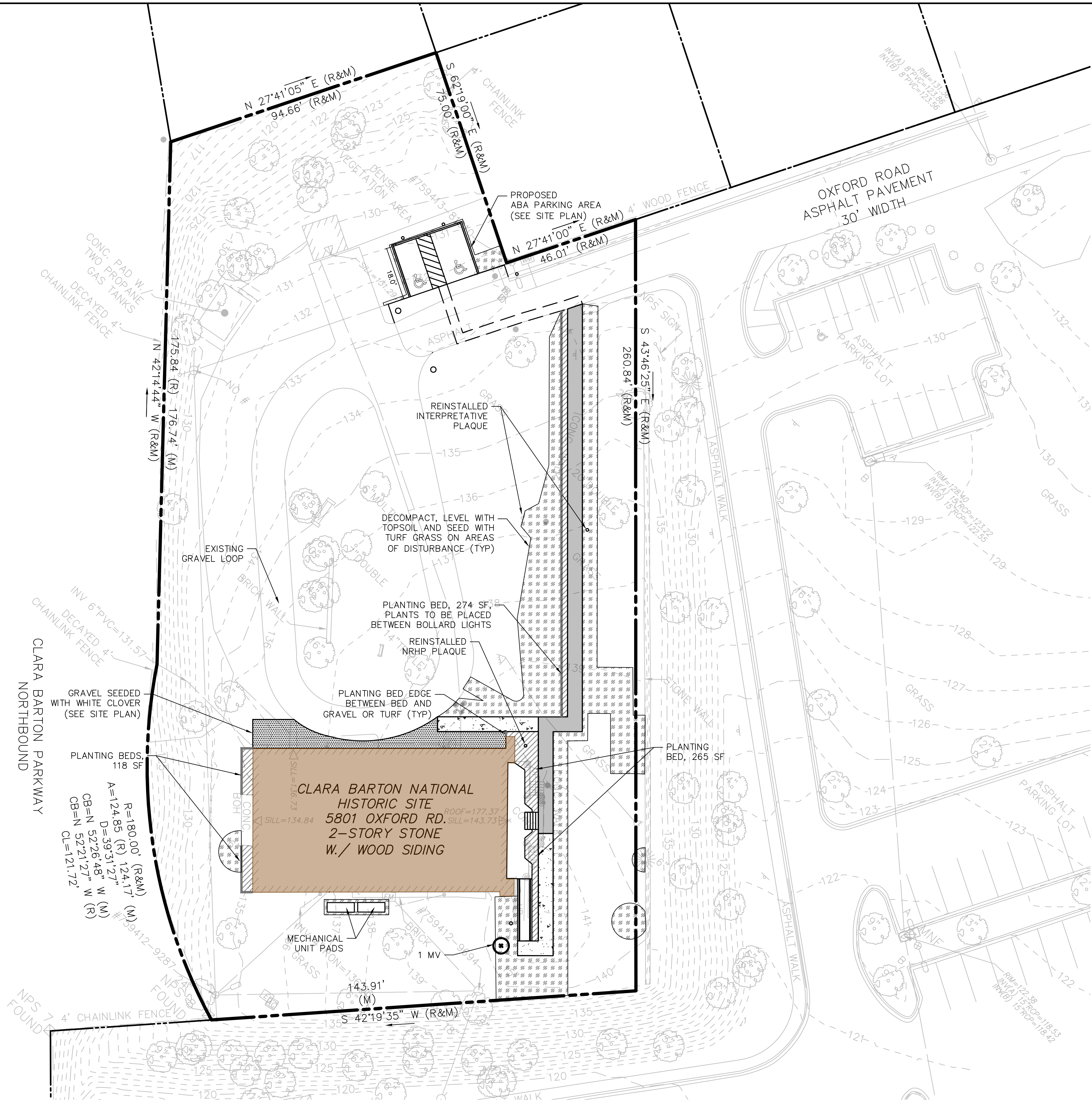
The property line depicts the 0.47 acre that Clara Barton owned around 1906. Her use of the land did not directly coincide with changes to the property boundary over time. Features shown in approximate locations.

1892 Plan of Glen Echo Chautauqua, LOC; Historic images, NHS Archives; 1891 General Plan for the Glen Echo Chautauqua; U.S. Geological Survey, 1909 and 1945; Historic Grounds Report, Pryor, 1977; Glen Cultural Landscapes Inventory of Echo Park-Clara Barton House Cultural Landscape, George Washington Memorial Parkway, 2011, NPS; Boundary, Topographic, Utility & Tree Survey, Langan, 1 August 2022



SUB SHEET NO. L2	TITLE OF SHEET CLR PERIOD OF SIGNIFICANCE DRAWINGS OVERALL LANDSCAPE ca.1906	
	CLARA BARTON NATIONAL HISTORIC SITE GEORGE WASHINGTON MEMORIAL PARKWAY GLEN ECHO MARYLAND	
	NPS NO. GWMP 850-18-7591	PMIS/PKG NO. 312325
	DATE 07/24/2023	

Filename: I:\VT HL Projects\NPS Clara Barton NHS 2022\CB Drawings\CB SD Alt\CLBA Landscape Plan Alt 1 HL 27 July 2023.dwg Date: 7/27/2023 Time: 14:49 User: dervi Layout: L1 LANDSCAPE



LANDSCAPE PLAN LEGEND

- PROPERTY LINE
- DARK EXPOSED AGGREGATE CONCRETE WALK
- LIGHT EXPOSED AGGREGATE CONCRETE WALK
- PLANTING BED EDGE
- PLANTING BED
- SEEDED TURF GRASS
- SEEDED CLOVER OVER GRAVEL
- PROPOSED TREE/SHRUB

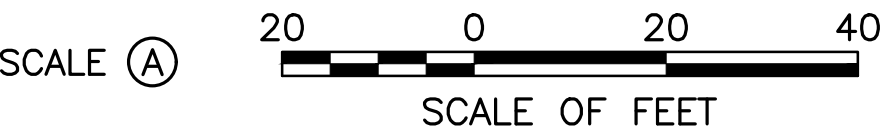
NOTES

- RESEED ALL AREAS DISTURBED BY INSTALLATION OF UTILITIES AND BY CONSTRUCTION.
- PLANTING BEDS TO BE PLANTED WITH ROSES AND PERENNIALS, SPECIES TO BE DETERMINED AND BASED ON THE CULTURAL LANDSCAPE REPORT.

PLANT LIST

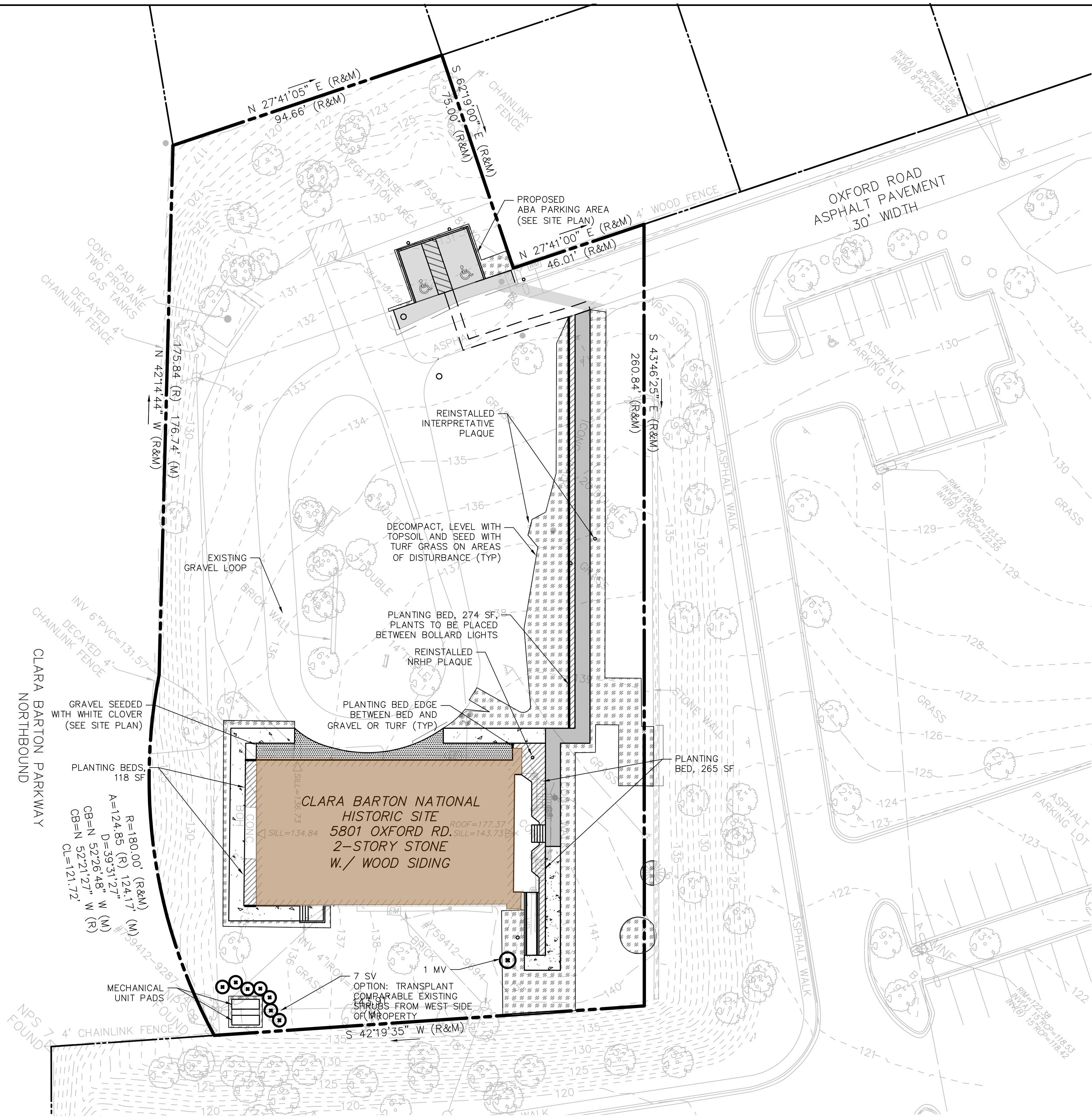
CODE	SCIENTIFIC NAME	COMMON NAME	QTY	SIZE	NOTES
MV	MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	1	2" - 2 1/2"	B&B, FULL/SPECIMEN

1 LANDSCAPE PLAN
SCALE (A)



PAGE 33	DESIGNED: G. DE VRIES G. DE VRIES TECH. REVIEW: P. VITERETTO DATE: 07/27/2023	SUB SHEET NO. L-1.0	TITLE OF SHEET LANDSCAPE PLAN ALTERNATIVE 1 CLARA BARTON NATIONAL HISTORIC SITE CLBA	DRAWING NO. 895 179603 PMIS/PKG NO. 312325 SHEET OF

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1 SITE PLAN
SCALE (A)

LANDSCAPE PLAN LEGEND

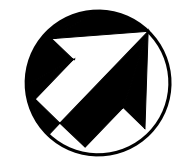
- PROPERTY LINE
- DARK EXPOSED AGGREGATE CONCRETE WALK
- LIGHT EXPOSED AGGREGATE CONCRETE WALK
- PLANTING BED EDGE
- PLANTING BED
- SEEDED TURF GRASS
- SEEDED CLOVER OVER GRAVEL
- PROPOSED TREE/SHRUB

NOTES

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- PLANTING BEDS TO BE PLANTED WITH ROSES AND PERENNIALS, SPECIES TO BE DETERMINED AND BASED ON THE CULTURAL LANDSCAPE REPORT.

PLANT LIST

CODE	SCIENTIFIC NAME	COMMON NAME	QTY	SIZE	NOTES
MV	MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	1	2" - 2 1/2"	B&B, FULL/SPECIMEN
SV	SYRINGA VULGARIS	COMMON LILAC	7	60" HT	B&B, FULL/SPECIMEN



	DESIGNED: G. DE VRIES	SUB SHEET NO. L-1.0	TITLE OF SHEET LANDSCAPE PLAN ALTERNATIVES 2 & 3 CLARA BARTON NATIONAL HISTORIC SITE CLBA	DRAWING NO. 895
	G. DE VRIES			179603
	TECH. REVIEW: P. VITERETTO			PMIS/PKG NO. 312325
PAGE 34	DATE: 07/27/2023			SHEET
				OF

