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CAMBRIDGE HISTORICAL COMMISSION

831 Massachusetts Avenue, 2nd Fl., Cambridge, Massachusetts 02139
Telephone: 617 349 4683 TTY: 617 349 6112
E-mail: histcomm@cambridgema.gov URL: www.cambridgema.gov/Historic

CAMBRIDGE HISTORICAL COMMISSION

APPLICATION FOR CERTIFICATE

- The undersigned hereby applies to the Cambridge Historical Commission for a Certificate of (check one box): Appropriateness, Nonapplicability, or Hardship, in accordance with Chapter 40C of the Massachusetts General Laws and/or Chapter 2.78 of the Municipal Code.
- Address of property: 72 Mount Auburn Street, Cambridge, Massachusetts
- Describe the proposed alteration(s), construction or demolition in the space provided below: (An additional page can be attached, if necessary).

Renovation work for 72 Mount Auburn Street includes the following components that are covered by review of the Cambridge Historical Commission:

- * Incorporate accessibility improvements along front elevation
- * Install Fire Department required "Knox box" and beacon at primary entrance (Fire Department Connection given a CNA on 11/14/2018)
- * Restore original windows; replace non-original (previously replaced) windows
- * Re-purpose existing window opening for HVAC ventilation requirements
- * Repair and clean masonry (brick and granite)
- * Repair wood elements including repainting
- * Repair metal work (window gates, sidewalk railing, Juliet balconies)
- * Install replica of original skylight
- * Roof repairs (flat seam copper, slate, EPDM, associated copper curbs and flashing)

Details of above work attached.

I certify that the information contained herein is true and accurate to the best of my knowledge and belief. The undersigned also attests that he/she has read the statements printed on the reverse.

Name of Property Owner of Record: 72 Mount Auburn Trust (William Holmgren, John Langer, Trustees)

Mailing Address: P.O. Box 125, Pride Crossing, MA 01965

Telephone/Fax: 917-816-1944

E-mail: wholmgren@gmail.com

⇒ Signature of Property Owner of Record: *William Holmgren*
(Required field; the application will not be considered complete without the property owner's signature)

Name of proponent, if not record owner: Building Conservation Associates

Mailing Address: 10 Langley Road, Newton Centre, MA 02459

Telephone/Fax: 617-916-5661

E-mail: lhowe@bcausa.com

(for office use only):

Date Application Received: 2/11/19 Case Number: 4055 Hearing Date: 3/7/19

Type of Certificate Issued: _____ Date Issued: _____

72 Mount Auburn Street

Cambridge, Massachusetts



Exterior Restoration

Submission: February 12, 2019

Hearing: March 7, 2019

72 Mount Auburn Street

Cambridge, Massachusetts

Exterior Restoration

Prepared For

Cambridge Historical Commission

Prepared By

Building Conservation Associates, Inc.

10 Langley Road, Suite 202

Newton Centre, MA 02459

And

RMD Collaborative

685 Centre Street

Jamaica Plain, MA 02130

Submission: February 12, 2019

Hearing: March 7, 2019

72 Mount Auburn Street – Exterior Restoration

Building Overview

The red brick “Neo-Georgian” building at 72 Mount Auburn Street was designed by the architecture firm of Coolidge and Shattuck and constructed by the Edward F. Miner Building Company of Worcester, MA in 1916. The building's character defining original features include arch top windows with Juliet balconies at the second floor and a classically inspired architrave with swan neck broken pediment at the original front door. A two-story bow projection with curved windows dominates the rear façade. The March 28, 1916 Boston Evening Transcript described the building as “... carefully modelled along colonial lines, and made of Harvard brick with white wood-work.”

The building is a contributing structure in the Harvard Square National Historic District and Harvard Square Conservation District. Exterior renovation work will be performed in keeping with the National Park Service Secretary of the Interior's Standards for the Treatment of Historic Properties. The Cambridge Historical Commission holds a Façade Preservation Easement, dated 6/8/1988.

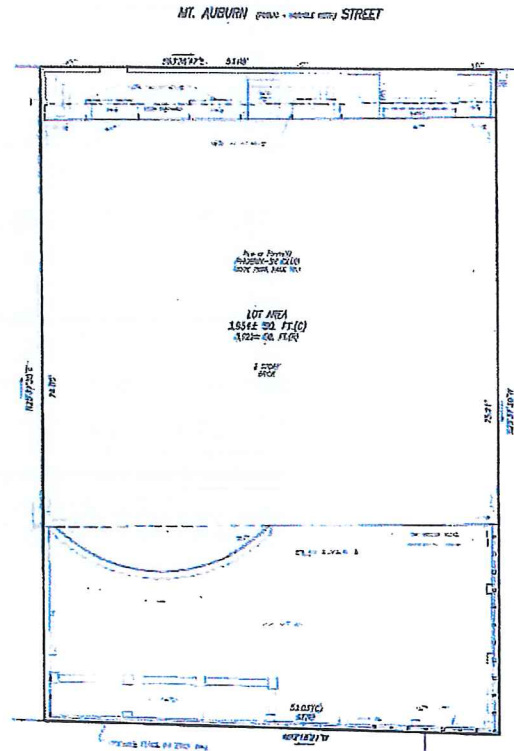
Over the years, the exterior of the building has been slightly modified with a second door inserted at the ground level, first floor windows enlarged from an 8-over-12 to a 12-over-16 configuration, additional window openings inserted in the gable ends at the third-floor level and replacement windows installed in some locations, most notably in the four dormers on each of the north and south elevations.

Exterior restoration and upgrades for life, safety and accessibility are planned in conjunction with interior renovations. Work impacting the exterior is detailed below.

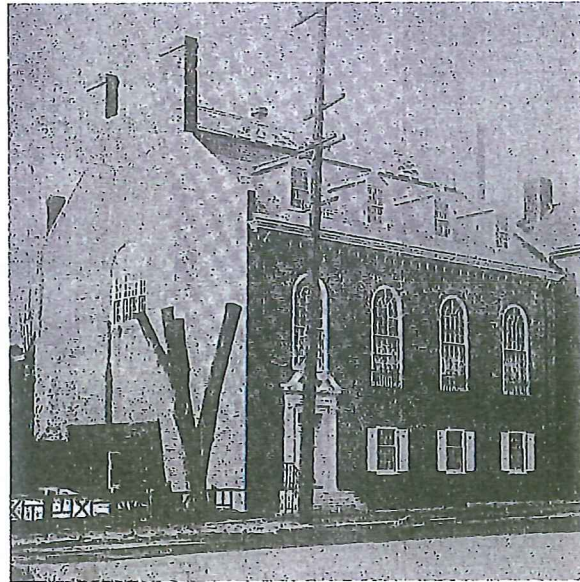
Site Context



Location context, 72 Mount Auburn Street



Plot plan



North Elevation, 1916



North Elevation, 2017

72 Mount Auburn Street
Cambridge Historical Commission Submission – Exterior Restoration



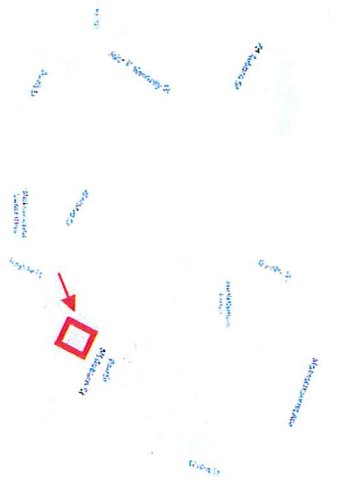
South Elevation visible from Holyoke Place



View context



West Elevation visible from Holyoke Street



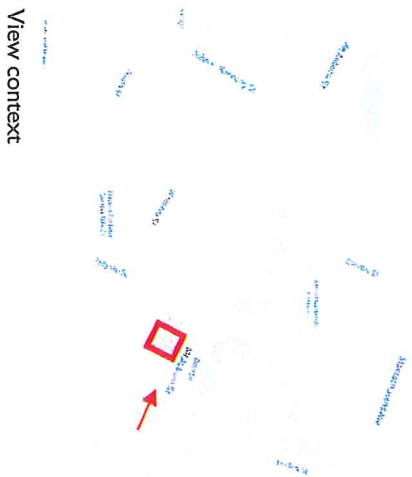
View context



East Elevation as visible October, 2016



West end of courtyard with two-story bow (not visible from the public way)



View context



East end of courtyard (not visible from the public way)

Proposed Exterior Scope of Work

Front Access Ramp and Accessible Entrance

Due to the value of the project renovations, the building is subject to the regulations of the Massachusetts Architectural Access Board. We have successfully applied for a number of variances from their regulations due to the historic nature of the building. However, we are required to provide an accessible entrance at the ground floor of the building.

In order to achieve this, the threshold of the existing grade level non-original front door will be lowered to meet the level of the building interior. The existing transom will be removed and restored and reinstalled within a newly constructed custom wood door frame and trim to match the existing, with the exception being that it will be longer to correspond with the lowered threshold. The existing door will be removed and be replaced with a new 2 panel door with decorative lever hardware and will be painted to match the existing door. The existing concrete apron in front of the building will be removed and replaced with a concrete ramp that will provide access down to the new level of the doorway. Simple, post mounted steel ADA compliant handrails will be installed at either side of the ramp.

New, ADA compliant, bar grating will be installed in the same location as the existing grating to maintain the existing light well areaways to the basement.

For ramp access, the sidewalk entry will be shifted to the left. The existing decorative fence will be modified to provide a new opening from the sidewalk to the new access ramp and the existing portion of granite curbing will be removed and salvaged for reinstallation at the existing fence opening. The existing fence opening will be closed with a new portion of decorative fence, matching the existing fence.



Existing conditions at secondary entrance – proposed for accessibility reconfiguration



Existing grate at secondary entrance; grating material to be changed to conform to accessibility requirements

Refer to attached Drawing A103 for more information.

Basement Access Stairway

The existing steel access stair from the street will remain and be power tool cleaned and repainted black to match the existing stair and adjacent metal work. Per MAAB regulations, a compliant handrail must be provided on one side of the stair. At the upper stair run a new decorative steel picket and handrail system will be installed on top of the existing steel stair stringer on the right side of the stairway to match the existing system on the opposite side of the stair. At the lower below grade stair run, a new decorative handrail will be wall mounted to the building with the minimum number of brackets as possible. The handrail ends will be capped with a decorative volute, appropriate for this era of building.



Existing stairway to basement entrance. Existing non-compliant handrail to remain. New compliant handrail to be installed and run along wall.



Details of new compliant handrail to be installed along building wall.

Refer to attached Drawing A104/1, 2, 4 for more information.

Basement Entry Doorway

To provide safe, code compliant egress from the basement level, the existing below grade non-original six-panel basement door and frame will be replaced with a new outswing six-panel door and frame. The existing door is 3'-6" wide and will be replaced with a 3'-0" wide door to allow an outswing below the arch of the stairs above. The threshold will also be lowered approximately 4" to align with the interior floor level and is necessary to allow the outswing door to miss the overhead arch of the stairs above. The difference in dimension will be trimmed with wood trim profiles to match those of the other doors and windows on the building.



Archway under primary entrance steps
Door is located to the right, under the archway



Basement entrance door

Refer to attached Drawing A104/I for more information.

Fire Alarm Beacon and Knox Box

The City of Cambridge Fire Department requires the installation of an emergency Knox Box and a Fire Alarm Beacon as part of the life safety upgrades to the building. We have located both to align vertically with the fire department connection that previously received a certificate of non-applicability from the Commission (11/14/2018, #4017).

Refer to attached Drawing A104/I for more information.

Fire Department Connection Access

The Fire Department Connection for the sprinkler system is located on the face of the building behind the sidewalk decorative fence. To allow access, the fence will be modified to include a custom self-closing swing gate fabricated from components matching the existing fence and painted black to match. The fire department connection previously received a certificate on non-applicability from the Commission.

Refer to attached Drawing A104/I for more information.

Rear Patio Modifications

To comply with MAAB regulations, the existing brick rear patio must be made accessible for the disabled from the interior of the building. In order to achieve this, a low-profile ramp will be constructed out of salvaged bricks in a similar herringbone pattern and will curve around the rear circular bay window. The slope will be such that handrails or guardrails will not be required.

HVAC Enclosure: As part of the interior renovations, supplemental mechanical equipment must be installed in the rear patio in order to avoid roof mounted mechanical equipment. A wood stockade fence style mechanical screen will be installed to conceal the equipment and will not be visible from anywhere outside of the patio area.



Existing conditions – rear patio with step up into interior

Refer to attached Drawing A106 for more information.

Windows (refer to Drawings AR101, AR102, AR103, AR104 for window schedule)

Front elevation (Drawing AR101)

At the second-floor level, four original arch-top, double-hung wood windows remain with an additional four original windows extant below grade. The two windows at the first-floor level were changed after 1916 by elongating the openings to accommodate 12-over-16 sash, matching the profiles of the original second floor windows above. These windows are all in fair to good condition and will be restored with small dutchman repairs, new glazing putty and new exterior paint (matching existing). Reinstallation of the restored sash will include the installation of spring bronze weather stripping and sash cord or chain. The eight-lite sash over the accessible door will also be restored. One window opening below grade has lost its sash in favor of a window air conditioning unit and will receive a new wood window unit.

The four dormer windows on the front elevation are vinyl replacement windows of unknown installation date. Phase 2 of this project will include the replacement of these windows with more appropriate six-over-six true divided lite, wood windows matching the original window configuration as seen in the 1916 photograph.

- Phase 1
 - Restoration of the windows below grade and at the ground floor.
 - Plywood blank will be replaced with a true divided lite wood sash.
- Phase 2
 - Restoration of the windows at the second-floor level.
 - Replacement of dormer windows at attic level.

Rear elevation (Drawing AR103)

In the two-story bow, the first floor includes five pairs of original casement sash topped by casement transoms. An additional casement transom is located above the door. At the second floor, there are three original arch-top, curved, double-hung windows. These original windows will be restored with dutchman repairs, new glazing putty and new paint (matching existing). Reinstallation of the restored sash will include the installation of spring bronze weather stripping and sash cord or chain.

The four dormer windows on the rear elevation are also vinyl replacement windows of unknown installation date. Phase 2 of this project will include the replacement of these windows with more appropriate six-over-six true divided lite, wood windows matching the original window configuration as seen in the original drawings for the building.

Additional windows on the rear elevation (diamond pane casements and various double hung windows) have been previously replaced. Their condition does not warrant any interventions at this time.

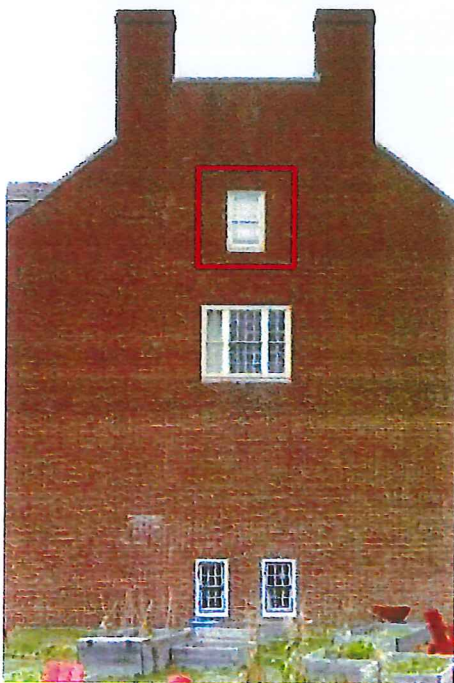
- Phase 1
 - Restoration of the casement windows at the ground floor.
- Phase 2
 - Restoration of the windows at the second-floor level.
 - Replacement of dormer windows at attic level.

East elevation (Drawing AR102)

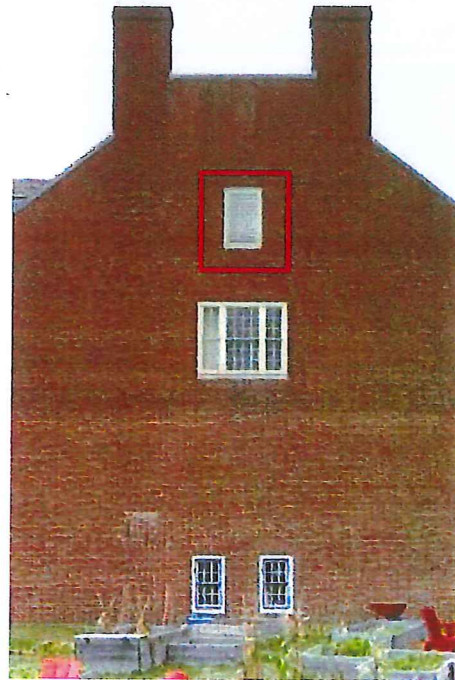
The two six-over-six windows at the ground level are replacement units of unknown date. The units appear to be in good condition and no interventions are planned at this time.

The tri-partite window unit at the second floor is a replacement unit in poor condition. This window will be replaced with a new wood unit with true divided lites and matching the configuration of the existing unit and that seen in the 1916 photograph.

A window opening at the attic level was added at some unknown time after 1916. A vinyl one-over-one window in poor condition is located at this opening. In order to provide for appropriate ventilation in conjunction with necessary HVAC upgrades during Phase 2 of the project, a louvered opening is requested for this location. The louvers would match the color of the existing trim.



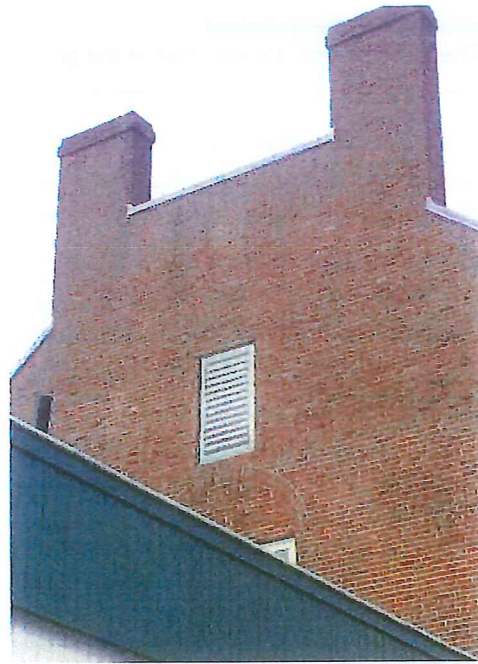
East elevation showing window at attic level



East elevation illustrating proposed louvered opening at attic window location



East elevation showing window at attic level



East elevation illustrating proposed louvered opening at attic window location

- Phase 2
 - Replacement of tri-partite window.
 - Replacement of glazed window with louver vent.

West elevation (Drawing AR104)

The west elevation is largely a shared brick wall with the adjacent building. At the third-floor level there are two windows. The visible window opening at the 3rd floor was added at some unknown time after 1916. A vinyl one-over-one window in poor condition is located at this opening. Phase 2 anticipates replacing this window with a more appropriate six-over-six true divided lite, wood windows. There is no documentary evidence for a window at this location, thus the replacement assumes a six-over-six configuration consistent with most other windows would be appropriate.

A lunette window is also located at the third floor on the west elevation, but it is not visible from the ground. The window appears to be original and will be restored.

- Phase 2
 - Replacement of existing vinyl window.
 - Restoration of original wood lunette window.

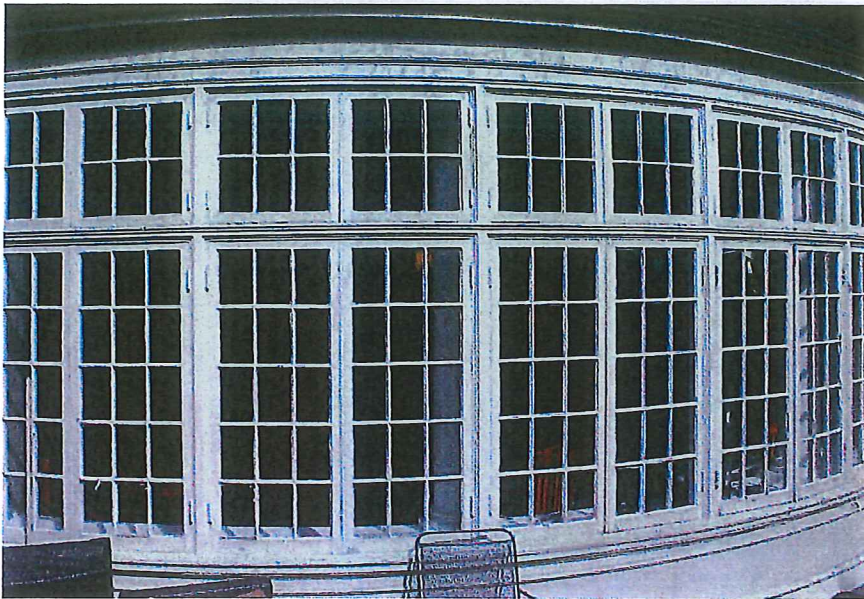
General note:

Openings targeted for restoration will have plywood or Plexiglas® blanks installed depending on needs for lighting and security. These blanks will remain in place until restored windows are reinstalled.

New windows will have insulated glass units which may result in a slightly modified muntin profile due to glass thickness.



Typical sash conditions of original wood windows



Overall conditions of casement units at bow on rear elevation

Masonry

Brick

Generally, the brick masonry is in good condition throughout all elevations. Phase I masonry work on the north (front) elevation is limited to areas impacted by the implementation of the accessibility alterations and the installation of a fire department connection, “Knox” box and alarm beacon. Where necessary repairs involving brick replacement or re-pointing in these areas will match existing “in-kind” (color, composition, aggregate, dimension, etc.).

The graffiti on the stair walls leading below grade will be cleaned to the extent possible, using the gentlest means possible. Recommended cleaners include Prosoco EK Restoration Cleaner (general environmental cleaning), Prosoco Graffiti Remover (graffiti removal), Prosoco Sure Klean 800 Stain Remover (metal staining) or approved equivalent, following manufacturer’s specifications. Washing will be done with low pressure, implementing appropriate waste collection as required. No high-pressure washing will be permitted.



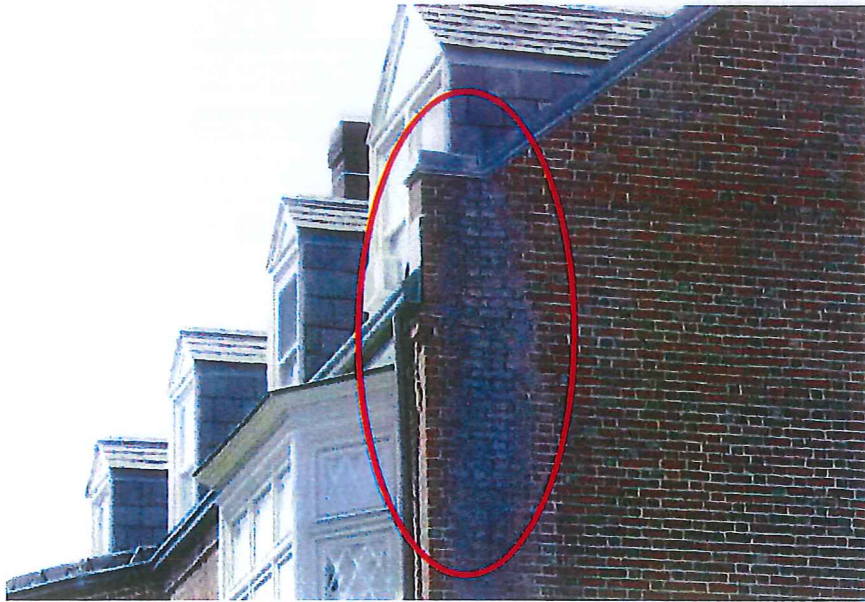
Graffiti visible on walls of front elevation below grade



Graffiti visible on walls of front elevation below grade

Cambridge Historical Commission Submission – Exterior Restoration

Phase 2 work incorporates brick masonry repairs at the upper southeast corner and general cleaning at the upper elevations. Repair work will include brick replacement (matching existing in kind, color, and dimension). Mortar will match existing in color, composition and aggregate. Mock-ups for bricks and mortar will be reviewed in consultation with Cambridge Historical Commission. Recommended cleaners include Prosoco EK Restoration Cleaner (general environmental cleaning), Prosoco Graffiti Remover (graffiti removal), Prosoco Sure Klean 800 Stain Remover (metal staining) or approved equivalent, following manufacturer's specifications. Washing will be done with low pressure, implementing appropriate waste collection as required. No high-pressure washing will be permitted.



Location of brick repair and example of typical area to be cleaned

Granite

At the front elevation, granite curbing and front steps exhibit staining. The front steps have also shifted slightly over time. Cleaning tests will be done to identify the most effective and safest cleaning product in the Prosoco line. The steps will be reset to be level and plumb and minimize trip hazards.



General conditions of granite curbing and steps

Parging

The concrete walls and arch under the main front steps are coated with a cementitious parging that is in poor condition. Existing loose material will be removed, and new material will be applied and finished to an even level with a slightly sanded finish. The material will be coated with a mineral silicate coating, matching the existing color. The recommended product is KEIM Granital.



General conditions of parging coating under front step arch

Woodwork

The wood trim elements suffer from varying degrees of paint failure with areas of deterioration requiring repairs. All loose paint will be removed. Small cracks will be filled with epoxy-based wood filler (Advanced Repair Technology FlexTec or approved equivalent). Deteriorated areas greater than 1/2" square inch will be repaired with wood dutchman matching dimension and profile details of adjacent material. A species change for wood replacements is expected with recommended alternates of cypress, Spanish cedar or African mahogany. All repairs to use 100% heartwood regardless of species. Adhesive for dutchman repairs will be West System epoxy or approved equivalent.

To accommodate the lowered threshold of the accessible entrance the existing door will be replaced with a wood, four-panel door matching the existing in all but overall length. Associated wood trim will also be replaced, matching the existing in dimension and profile.

Woodwork will be repainted with exterior acrylic latex, semi-gloss; color to match existing.

- Phase 1
 - Wood trim elements below the second-floor level. This includes the primary door surround and window sills and moldings on the front elevation and the wood bow trim at the rear elevation.
- Phase 2
 - Cornice trim details on the front and rear elevations
 - Window trim including sills not addressed as part of Phase 1.



General paint conditions of front entrance surround



General paint conditions at rear elevation bay window structure



General conditions of wood window sills

Metal

The existing metal railing at the front entry is in good condition. In conjunction with alterations for accessibility and the installation of a fire department connection at the northeast corner of the building, the metal railing will be altered. These alterations are detailed in the Accessibility and Life/Safety sections above.

As warranted all metal components on the front elevation (Juliet balconies, barred window gates, and metal handrailing) will be inspected and resecured to the building as necessary. Exposed rust will be removed and the area treated with a rust inhibiting primer followed by metal paint. The color will be black, matching existing.

Note that the railing details at the sidewalk level and at the Juliet balconies is similar, but not an exact match. If sections of railings must be replicated, new sections will match adjacent sections in dimension and detailing.

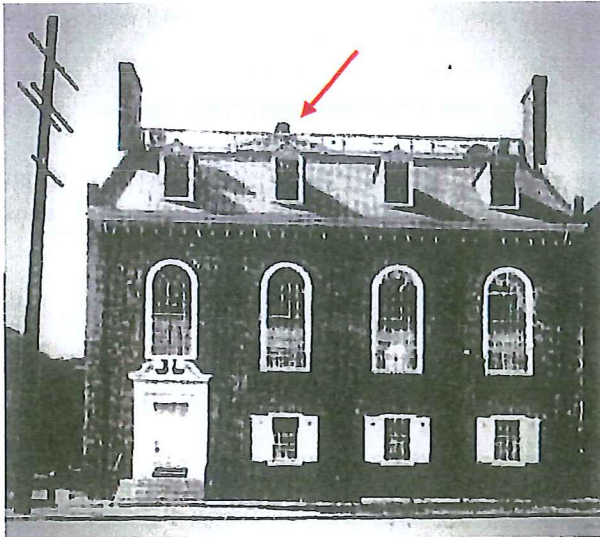
The fire escape at the rear elevation will be treated in accordance with required inspection and code mandated repairs.

Gutters and downspouts are in good condition. Phase 2 work will inspect and replace/repair existing copper gutter liners as necessary, matching existing details “in-kind”.

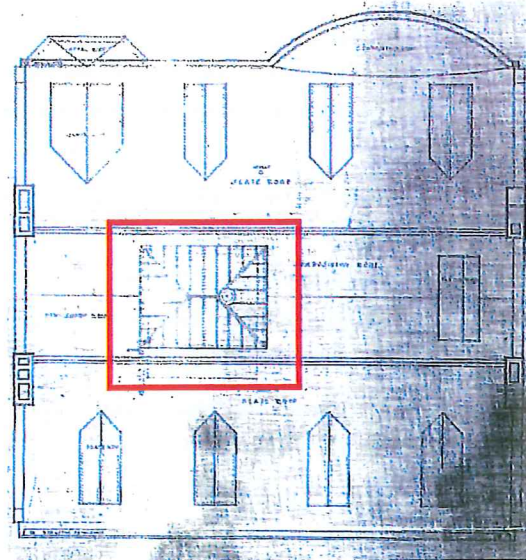
- Phase 1
 - Ground floor metal window gates
 - Metal handrailing at sidewalk
- Phase 2
 - Juliet balconies at second-floor windows
 - Gutters and downspouts

Skylight

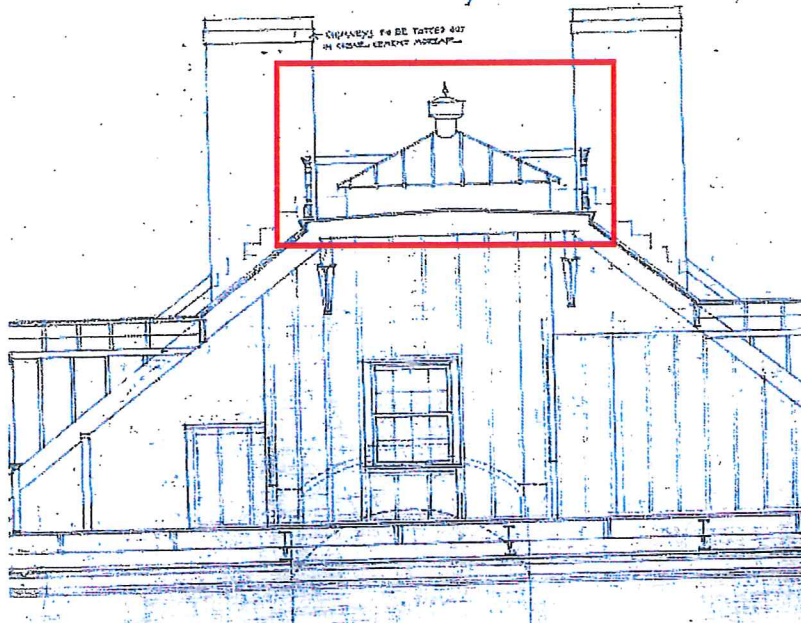
Original drawings from Coolidge and Shattuck and 1916 photographs indicate a skylight on the roof. The drawings show this skylight as a pyramid form with metal ribs, glass panels and a ventilation shaft.



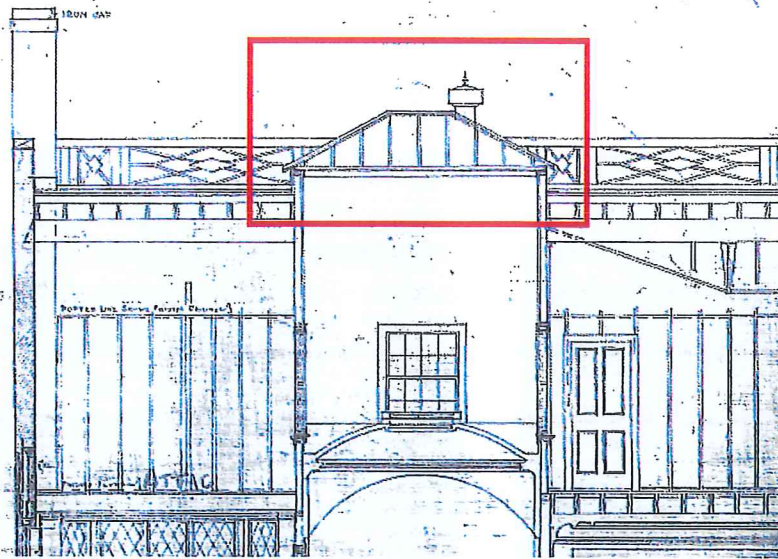
1916 photograph with skylight visible



Roof plan from original drawings



Cross-section view looking east, showing skylight location from original Coolidge and Shattuck drawings, 1916



Longitudinal section view looking south, showing skylight location from original Coolidge and Shattuck drawings, 1916



Skylight of the College Club, 44 Commonwealth Avenue, Boston
This skylight appears to be similar to that originally drawn for
72 Mount Auburn

For Phase 2 of this project, a new skylight reminiscent of the original skylight is proposed. The new skylight would be the same size as the original. The ventilation shaft is not required and represents a possible leak point so would not be included. The skylight would be built to modern code requirements with laminated and tempered safety glass.

Cambridge Historical Commission Submission – Exterior Restoration

The images below illustrate the potential visual impact of this skylight.



Current conditions, no skylight



Replica skylight installed



Current conditions, no skylight



Replica skylight installed

Roof

Some slate roof tiles have broken or slipped. Broken tiles will be replaced matching existing which is a mix of weathering green and purple slate.

Flat seam copper roofs at the rear bay and bow will be replaced, matching existing metal work.

In conjunction with new skylight, existing black EPDM on flat roof section will be replaced, matching existing color. The existing copper curb transition between the EPDM and slate roofs will also be replaced, matching existing details.



Mix of existing roof slate colors

Cambridge Historical Commission Submission – Exterior Restoration

Summary of Exterior Restoration Work

Component	Brief	Phase	Impact
Accessibility	Reconfigure front entrances with compliant ramping and railing	1	Existing thresholds to be lowered Existing railings to be modified for compliance Required for accessibility compliance
	Provide accessibility at rear entry	1	Altered slope of existing rear pavers
Life / Safety	Addition of fire department connection, beacon, and Knox box	1	Additional components added to façade to left of main entrance
HVAC	Replace east attic window with louvered ventilation panel	2	Change from glass window to louvered ventilation panel
	Add condensing units in rear courtyard	1	Restricts space in existing courtyard; not visible from public way
Windows	Restoration of ground floor and below grade windows (front and rear elevations)	1	Proper building maintenance and preservation
	Replication of missing below grade window	1	Return original design intention at front elevation, below grade
	Restoration of original second floor windows (front and rear elevations)	2	Proper building maintenance and preservation
	Replacement of failed replacement windows at dormers and gable end walls	2	Return original design intention
Masonry	Clean graffiti below grade, front elevation	1	Return original design intention
	Clean granite curbing Reset front steps	1	Proper building maintenance and preservation
	Rebuild upper southeast corner	2	Proper building maintenance and preservation
	Cleaning of brick along gable end walls near roof flashing	2	Proper building maintenance and preservation
	Reperge under front entrance steps	1	Proper building maintenance and preservation
Woodwork	Repaint, repair as necessary wood trim work below grade second-floor level	1	Proper building maintenance and preservation
	Repaint, repair as necessary wood trim work not addressed in Phase 1	2	Proper building maintenance and preservation
Metal	Remediate rust, repaint, re-secure as necessary metal window gates, sidewalk railing	1	Proper building maintenance and preservation
	Remediate rust, repaint, re-secure as necessary Juliet balconies	2	Proper building maintenance and preservation
Skylight	Install new skylight matching original drawings	2	Restore original element which serves to provide natural light to attic space
Roof	Replace broken slate tiles Replace existing EPDM roof Install new copper flashing and curb details associated with roof Replace flat seam copper roofs on rear elevation bay and bow projections	2	Proper building maintenance and preservation