



**REPORT ON THE HISTORIC PRESERVATION ASPECTS  
OF THE REHABILITATION OF WINDOWS  
AT THE BELLEVUE AVENUE BRANCH LIBRARY  
TOWNSHIP OF MONTCLAIR, ESSEX COUNTY, NEW JERSEY 07043**

*Prepared for*

**The Montclair Public Library**

50 South Fullerton Avenue  
Montclair, New Jersey 07042

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April 2019

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April 2019

**AUSTRAL WINDOW BALANCE CO.**

703 Times Building  
NEW YORK CITY, N. Y.

TELEPHONE, 1770 BRYANT

**PRODUCTS.**

Manufacturers of the AUSTRAL WINDOW BALANCE (Knox-Abell Patents). A self-balanced window that does away entirely with the use of sash weights, cords, pulleys, and their attending disadvantages.

**SCIENTIFIC SYSTEM OF VENTILATION.**

The sashes moving simultaneously in opposite directions make it impossible to open the window, without admitting fresh air and providing an outlet at the top for the escape of foul air. (Figs. 2 and 5.)

**DESCRIPTION.**

By reference to the illustrations it will be seen that the two sashes are connected by a lever (A) pivoted in the centre, fixed on the parting bead (B) and attached to both sashes so that they exactly counter-balance. Thumb bolts are fitted on each side at the top of the upper sash and the bottom of the lower sash, and travel in a groove (C) made in the window frame. These bolts serve as guide pins to keep the sashes in the normal position, and when withdrawn from the groove allow the sashes to be reversed and brought inward for cleaning (Fig. 6). When the lower sash is raised, the upper sash swings outward and is lowered, owing to the lever connection (Figs. 2 and 5). The window can be opened as wide at top and bottom as the ordinary sliding sash window (Fig. 4).

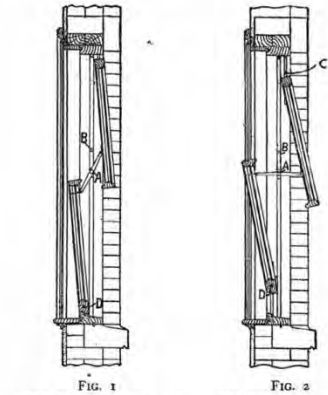


FIG. 1 Window Sashes Closed at bottom but slightly open at top and centre, or meeting rails. Ventilation without direct draught

FIG. 2 Window Sashes Open at top, bottom and centre, which illustrates full ventilation

Ordinary fly screens and roller blinds can be easily applied. The light area is increased by the amount of space that would otherwise be occupied by sash weight pockets.

**COST.**

Existing sashes can be altered at small cost, and in new construction a large saving can be effected. Full details, plans and estimates will be furnished on request.

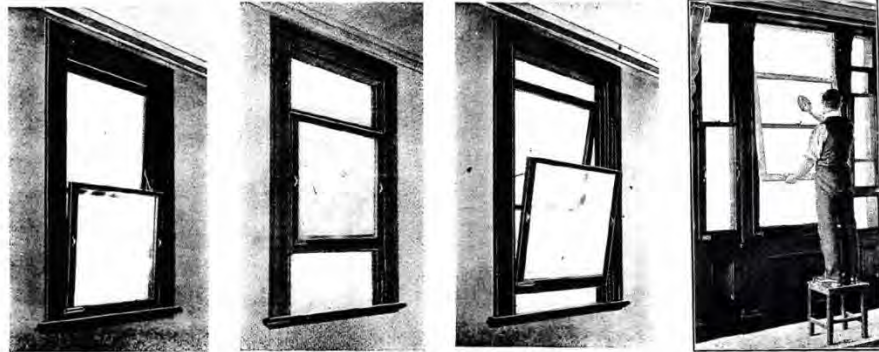


FIG. 3 Window Partly Opened in the middle and top and bolted at the bottom, thus making it secure against intruders, though giving perfect ventilation

FIG. 4 Window Fully Opened

FIG. 5 Window Opened at top, middle and bottom, giving a full ventilation

FIG. 6 Top Sash Swung in for cleaning. The Bottom Sash can also be reversed in a similar manner

Frontispiece: Advertisement for Austral Window Balance Co., in the 1906 "Sweet's" Indexed Catalogue of Building Construction (New York: The Architectural Record Co., 1906).

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## 1.0 STUDY ADMINISTRATION

**Project Name:** Rehabilitation of Historic Windows of the Bellevue Avenue Branch Library, Essex County, Township of Montclair, New Jersey

**Client:** **The Montclair Public Library**  
50 South Fullerton Avenue  
Montclair, NJ 07042  
Main: 973-744-0500

Contact: Peter D. Coyl, MLIS, Director  
Voice (973) 744-0500 Ext. 2226  
Em: [coyl@montclair.bccls.org](mailto:coyl@montclair.bccls.org)

### **Project Team:**

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***Contractor:***

**Dell-Tech, Inc.**  
930 New York Avenue  
Trenton, NJ 08638  
Main: 609-393-6150  
Website: [www.delltechinc.com](http://www.delltechinc.com)

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## 2.0 OVERVIEW

The Bellevue Avenue Branch (Branch Library; the building) of the Montclair Public Library (Library) is located at 185 Bellevue Avenue, in the Township of Montclair, Essex County, New Jersey. It was designed by firm of Nelson and Van Wagenen, Architects, of New York, New York and constructed in 1913-1914. The design was attributed to Francis A. Nelson, AIA, a partner in the firm, who designed several other notable buildings in Montclair. The building was first known as the “Montclair Free Public Library, Upper Montclair Branch.” It is reported to have been built with funding from Andrew Carnegie, who sponsored the construction of over 1600 free public libraries across the United States.

The Branch Library is listed on the New Jersey (SR; 1986) and National (NR; 1988) Registers of Historic Places as part of a Multiple Resource listing, “Montclair Public Buildings.” It is also within the boundaries of the locally designated Upper Montclair Historic District.<sup>1</sup>

As part of a larger rehabilitation campaign, the Library undertook the targeted rehabilitation the building’s historic “Austral” windows and other historic exterior windows. This work is the subject of this report. The other tasks in that campaign were postponed due to budgeting issues.

Because the Branch Library is listed on the New Jersey Register of Historic Places, any “public undertakings” that affect it must be reviewed by the New Jersey Historic Preservation Office (NJHPO), as per the provisions of the New Jersey Register of Historic Places Act (NJRHPA). That agency found that the proposed work did not constitute an encroachment, and approved the project. In addition, as the building is owned by the Township of Montclair, the project will be subject to review by the Township and reviewed by the Montclair Historic Preservation Commission (MHPC) as per the provisions of the Montclair Township Historic Preservation Ordinance.

The window rehabilitation was supervised by Morse Associates (Morse), based in Poestenkill, NY. Mary Delaney Krugman Associates, Inc. (MDKA), of Montclair, New Jersey, was the historic preservation consultant to the Library; David Brooks Coe, AIA, Principal of DBC Preservation Architecture, of Glenmont, New York, was retained by Morse as its historic architect. Dell-Tech, Inc., based in Trenton, New Jersey, was the contractor hired for the rehabilitation work on the windows.

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<sup>1</sup> The Township of Montclair inventory of historic properties can be found at:  
<https://mtnjplanning.maps.arcgis.com/apps/webappviewer/index.html?id=cb868e4816b94e52960fec6a3acfb1ff>



The Library's windows are notable examples of the "Austral" windows. These patented, self-balancing windows eliminated sash weights, cords, and pulleys. The upper and lower sashes move simultaneously in opposite directions, allowing fresh air to enter indirectly and venting stale air out the top of the window. Because these windows are a character defining element of the building, it was important to retain and rehabilitate them to operable condition. Also rehabilitated at the same time, were tri-partite hopper windows with obscuring glass located in the men's and women's lavatories

The specifications for the work were developed in Spring 2016, and MDKA presented the project to the MHPC in October that year. The specifications for the work required compliance with several National Park Service *Preservation Briefs* regarding wood window rehabilitation. Dell-Tech, Inc. was selected as the contractor because of its experience with rehabilitating historic windows.

The work was successfully completed in August 2018.

### 3.0 PROJECT INFORMATION

#### 3.1 Description of Property

The Bellevue Avenue Branch (Branch Library) of the Montclair Public Library (Library) is located at 185 Bellevue Avenue, in the Township of Montclair, Essex County, New Jersey (see Appendix A: Location Maps). It was designed by firm of Nelson and Van Wagenen, Architects, of New York, New York and constructed in 1913 - 1914.<sup>2</sup> It was first known as the “Montclair Free Public Library, Upper Montclair Branch.” It is reported to have been built with funding from Andrew Carnegie, who sponsored the construction of over 1600 free public libraries across the United States.

The building is an example of the Italian Renaissance Revival style, popular *circa* 1890 – 1935. It is a one-story buff brick building on a raised basement. The Bellevue Avenue façade is symmetrical, its three bays separated by pilasters. The hipped roof surmounts a denticulated cornice and enriched frieze (see Appendix C: Photos H-1 through H-3).

The Branch Library is owned by the Township of Montclair, and is listed on the New Jersey (SR; 1986) and National (NR; 1988) Registers of Historic Places as part of a Multiple Resource listing, “Montclair Public Buildings.” It is part of the locally designated Upper Montclair Historic District, and is contiguous with its eastern boundary along Bellevue Avenue (see Appendix A: Historic District Maps). The interior consists of two levels: on the upper level is the main reading room with the stacks at the rear (north side); a children’s room, several meeting rooms, lavatories, and the boiler room are on the lower level (see Appendix D: Drawing Sheets W-1 and W-2), which is partially below grade.

The windows to be rehabilitated are, for the most part, “Austral windows,” a character defining element of the building (see Frontispiece and Appendix C: Photos 1, 2, 13 and 16). The other window type is a tri-partite hopper window opening to the interior, which was installed as an operable transom above the Austral windows and also throughout the lower level; the hopper windows in the lavatories have obscuring glass (see Appendix C: Photos 17, 19-21).

The Austral window is a patented, self-balancing window system that eliminates sash weights, cords, and pulleys (see Frontispiece). The upper and lower sashes move simultaneously in opposite directions, allowing fresh air to enter indirectly and venting stale air out the top of the window. When fully opened, they provide 70% ventilation, as

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<sup>2</sup> “Bellevue Avenue Branch Library,” *Montclair Times* (December 1914): Microfilm; cited in Mary Delaney Krugman, JD, MSHP, and William Sandy, RPA, *Phase 1A – Archaeological Survey, Conducted in connection with the Proposed Expansion and Restoration of the Bellevue Avenue Branch Library, Township of Montclair, Essex County, New Jersey* (October 2006).  
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compared to 50% ventilation for double-hung windows. Austral windows were often used in schools, libraries and other public buildings in the first half of the 19<sup>th</sup> Century. For this study, the earliest advertisement for Austral windows found was found in the 1906 edition of *Sweet's Indexed Catalogue of Building Construction*, which included diagrams from the Austral Window Balance Co., of Canastota, NY (later in New York, NY). Although metal sashes were used later in the century, the earlier ones used wood sash, such as those found in the Branch Library.

### 3.2 Project Need

The Library conducted a rehabilitation campaign to conserve and rehabilitate the existing historic wood windows. The tall “Austral windows,” with hopper transoms overhead, admit light and air to the Reading Room; the Stack Area is equipped with tall double-hung windows with hopper windows as transoms above; the ground floor windows are all hopper windows.

All windows were in sound condition, but suffered from years of use. They were out of adjustment, and had received many layers of paint on the exterior that had fixed them in place. The paint layers were weathered and failing by the start of the project in 2016 (see Appendix C: Photos 1 – 6). The Library wanted to preserve these windows and return them to good operating condition, while preserving the historic integrity and the patina of interior finishes wood finishes. This required complete removal of the sashes, so that the failed exterior paint could be removed, the wood structure of the windows could be repaired and its hardware refurbished and replaced in kind where missing, and the interior finishes of the windows carefully conserved, and resealed.

To this end, Library sought out historic restoration specialists using materials, tools and techniques that would preserve the historic integrity of the building and the windows, including the repair of the historic wood windows and exterior wood work, the removal of the existing failed exterior paint, priming and repainting the exterior of the windows, repairing the window hardware; and rehabilitating and preserving the interior varnish finishes on the windows. Dell-Tech, Inc. of Trenton, NJ, was the contractor selected for the work.

### 3.3 Regulatory Compliance

Because the Branch Library is listed on the New Jersey Register of Historic Places (SR), any “public undertakings” that affect it must be reviewed by the New Jersey Historic Preservation Office (NJHPO), as per the provisions of the New Jersey Register of Historic Places Act (NJRHPA) (N.J.S.A. 13:1B-15.128 et seq.).

The Library/Township submitted an “Application for Project Authorization” as per N.J.A.C. 7:4, Readopted with Technical Changes (Effective July 2, 2015) to the NJHPO. The Application describes the proposed work and the alternatives that were considered to avoid, minimize, or mitigate any adverse impacts. The NJHPO reviewed it for

“encroachments” (adverse impacts) and worked to resolve any such impacts before granting administrative approval for the project. The NJHPO approved the project in August 2016 (see Appendix B: NJHPO Letter of Project Approval dated August 8, 2016).

In addition, since the Library is owned by the Township of Montclair, the project is subject to review by the Township’s Montclair Historic Preservation Commission (MHPC). This report is being submitted to the MHPC in satisfaction of that review.

## 4.0 DISCUSSION OF REHABILITATION WORK

### 4.1 Existing Conditions (Prior to Work)

The exteriors of the Austral windows at the Bellevue Branch Library were in a deteriorated state throughout. According to anecdotal evidence, the sash and window frames had been painted with “robin’s egg blue” paint for some decades, which differed from the original cream color (see Appendix C: Photo H-1 – H-3 (original color); Photos 1 - 6 (showing later blue color).

The exterior of the windows was suffering from failing paint and deterioration due to weathering. The interior of the sash was finished with a stain and/or varnish, which appeared dried out and, in some locations, had suffered from water damage due to interior condensation. The lever arms that operated the window sash had been painted along with the sashes and were no long operable. The transoms above the Austral windows were also painted shut, and the sash chains were either missing or covered with paint so that they did not swing freely (see Appendix C: Photos 3 through 5).

It was clear that the window sash was in need of rehabilitation or replacement if moisture infiltration and wood rot were to be controlled and their performance was to be improved.

### 4.2 Review of Alternatives

Several alternatives were considered by the project team, including the following:

- **No build.** This alternative would leave the existing windows in their current state, with no effort to rehabilitate them or make them operational. This was not an acceptable alternative in that the windows would continue to deteriorate and was REJECTED.
- **Full Replacement.** This alternative would replace historic windows with contemporary ones, likely with insulated glass. The historic “Austral” windows have contemporary types in production, but must be custom-ordered. Full

replacement found to have no real benefit, would be cost prohibitive, and would adversely affect historic integrity, and was thus REJECTED.

- **Installation of Interior Storm Windows.** This alternative would install interior storm windows to improve energy efficiency in the windows, but would 1) prevent operation of windows; 2) adversely affect interior varnished surfaces encased in a micro-environment; 3) sacrifice moderating effect of interior temperatures on glazing; and 4) would be slow drying after a rain event and thus would speed deterioration. Because this alternative had the potential to adversely affect the historic windows, it was also REJECTED.
- **Rehabilitation/Restoration of the existing Austral windows (Preferred Alternative).** This **preferred alternative** was to repair the operating mechanisms of the windows, rehabilitate the wood sashes, and apply compatible new protective finishes. This alternative would retain and repair the existing windows and see the application of compatible new protective finishes that would reinstate the historic appearance of the windows at a lesser cost to the Library, with less disruption to the library users, and less loss of the historic fabric. Therefore, this alternative was the most prudent, feasible, and desirable and was the approach SELECTED for the project.

With regard to the lavatory windows, which had several different types of obscuring glass, the decision was to rehabilitate the wood sash, repaint to match the upper windows on the exterior (the interior paint was matched to the existing green trim color), and install glass to match the earliest type of glass found in the windows.

### 4.3 Preservation Standards

In addition to requiring the services of a contractor experienced in the repair of historic windows, the specifications called for compliance with the U. S. Secretary of the Interior's *Standards and Guidelines for the Treatment of Historic Properties – Rehabilitation (the Standards)*,<sup>3</sup> and more specifically spelled out in guidance from the National Park Service's *Preservation Brief* series:

- Preservation Brief #9: *Repair of Historic Wooden Windows* (<http://www.nps.gov/tps/how-to-preserve/briefs/9-wooden-windows.htm>); and

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<sup>3</sup> The NPS *Standards* are codified in 36 CFR Part 67 and are found on the National Park Service website: <https://www.nps.gov/tps/standards/four-treatments/treatment-rehabilitation.htm>

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- Preservation Brief #10: *Exterior Paint Problems on Historic Woodwork* (<http://www.nps.gov/tps/how-to-preserve/briefs/10-paint-problems.htm>).

To ensure that the project team was agreed and well-coordinated as to the project approach, the specifications were augmented with discussions at several project meetings with the Dell-Tech Project Manager, the Director of the Library, and members of the Morse, DBC Preservation Architecture, and MDKA firms. Collaboration among these parties was an important element of the project approach.

#### 4.4 Approach; Treatments

##### 4.4.1 Wood Window Sash:

Given the amount of deterioration and the proposed rehabilitation not only of the wood sash, but also the need to refurbish the hardware to make the units operable, the sashes were all removed from the openings and transported to the contractor's shop in Trenton. There, the glazing was carefully removed and numbered by position in the sash, the putty scraped, the paint was removed carefully as per the specifications and primed, awaiting selection of the appropriate color by MDKA, in consultation with the Library Director and the MHPC. Plywood panels were installed to cover the empty window openings during the work.

Only one wood sash was entirely replaced: the middle transom on the east façade due to the removal of a later-installed fan on the east elevation (see Appendix C: Photo 2 (before) and Photo 16 (after)).

The paint color was selected by MDKA, in consultation with Kathleen Bennett, Chair of the Montclair Historic Preservation Commission, and Peter Coyl, Library Director. A visual examination of paint chips from the deteriorated sill revealed that there had been several campaigns of paint colors – all of which differed from the original cream. Among the previous paint colors were discovered a chocolate brown, an ochre, and two shades of robin's egg blue. However, based on historic photos, MDKA noted that the most appropriate color for the rehabilitation would be that which was cream and was compatible with the other elements of the masonry and limestone trim. (See Appendix E: for the various finishes and materials used in the rehabilitation).

##### 4.4.2 Window Hardware:

The hardware consisted of **hinged lever arms** that were fixed to the sash that allowed the window to open and close. The lever arms were primed with a grey metal primer coat, and then given a finish coat of a dark brown paint (See Appendix E: Materials and Components). The only historic photo that showed

sufficient detail suggested that the lever arms were painted the same color as the sash (light cream) (see Appendix C: Photo H-2). In consultation with the project team and the Director, it was decided to bring attention to the mechanics of the Austral window by contrasting the color of the sash and the lever arms – a scheme that also reflected not only the comprehensive rehabilitation of the windows, but also inspired curiosity as to the purpose of the lever arms and the unique mechanics of these interesting windows.

Additional hardware items included a “**weldless sash chains,**” two per window, that were affixed to the transom sash and held it in position when open. The original chains, after cleaning, appeared to have been fabricated of copper and electroplated with brass (see Appendix C: Photo 12). Where they still existed, they appeared to be generally in good condition, but had been painted with the sashes in the past, had become stiffened by the paint, and no longer swung freely. The chains for several of the windows were missing and had to be replaced (see Appendix E: Materials and Components). No exact replica of the historic chains could be found, so they were matched as closely as possible with a similar chain, and were grouped together on the east façade (see Appendix E: Materials and Components, Drawings W-3, W-4, and W-5, windows 14H, 15H, and 16H), the difference being less noticeable when all were the same (see Appendix C: Photos 17 and 18).

There were also **brass window locks** at each window, as well as **brass latch plates**. Only one window lock needed to be replaced (21B), and a new lock was needed for the newly fabricated transom that replace the fan on the east façade that had been removed (15H). Both of these locks were period locks to match the historic locks as closely as possible. See Appendix D: Drawing Sheets; Appendix E: Materials and Components). On windows 17A and 18A, two latch plates were found to be missing during the removal process. Custom ordered replacements to match the historic latch plates were fabricated. Albeit slightly thicker than the historic plates, the copper replacements will be worn down in time to the historic thickness.

#### 4.4.3 Weather Stripping

During the restoration process, it was noted that a mix of **zinc and copper weather stripping** was used on the basement and first floor windows. Where needed, replacement weather stripping was fabricated in copper to match the existing profiles. However, much of the original weather stripping survived and was salvaged and reused, with the Library being given surplus weather stripping for use in the future.

#### 4.4.4 Lavatory Windows

The two lavatories on the basement level – one for men, one for women – each have exterior windows, and these were also restored with the Austral windows and transoms on the upper floor. These were **hopper windows with three lights divided by vertical muntins**, and fitted with four types of privacy glass.

Comparison was made of the various types, research was conducted as to the possible era closest to original construction, and a likely candidate was selected: a flower pattern (see Appendix C: Photo 21). The more contemporary glazing was removed and replaced with the selected pattern of the obscuring glass. The sash was painted on the interior and exterior; the sash chains and other hardware were cleaned and reinstalled as were the windows on the upper floor, and the windows reinstalled in their original locations (see Appendix C: Photo 13, 14, and 22).

## 5. FINDINGS AND RECOMMENDATIONS

The rehabilitation/restoration of the austral windows of the Bellevue Avenue Branch Library has been a worthy undertaking by the Montclair Public Library that has not only restored these unusual windows to a workable condition, but has also reinstated the original 1914 color scheme. It has restored to the building its quiet, classical elegance, after many years of discordant blue paint, and deteriorating wood, missing hardware, and inoperable sash. The restoration of the integrity of the wood and the painted and varnished finishes should last for many years and provide a solid basis for future rehabilitation efforts in the future.

**Recommended Maintenance Plan:** A critical part of maintaining the integrity and operability of the rehabilitated windows is ongoing maintenance. Morse Associates has provided the following recommendations for cyclical maintenance (See Appendix F for a convenient checklist of these maintenance tasks:

### *Maintenance Procedures Austral and Hopper Windows*

#### **Annually:**

1. Each spring check all windows for proper operation. The windows or frames may have swelled or shrank over the past year and may stick. They should open and close freely without binding.
2. Inspect paint and touch up any blistering or peeling paint, being careful to not to paint any hardware or chains.
3. Inspect hardware for rust.



4. Inspect weather stripping;
5. Tighten any loose screws and connections; and
6. Inspect and clean infestation and nests.

**Every Five (5) Years:**

1. Complete a thorough inspection of paint performed by an historic window specialist.

*Paint Specification: Benjamin Moore - Aura Waterborne Exterior Paint*

2. Inspect sealants between windows and masonry and re-caulk per manufacturer's instruction as necessary, being careful to keep the sealant off the face of the masonry.

*Sealant specification: Pecora AC-20 + Silicone Non-Sag Acrylic, Latex Caulking Compound*

**As Needed:**

1. Replace any cracked or broken glass (Broken glass should be replaced immediately.)
2. Clean glass and hardware as needed with a mild cleaner.

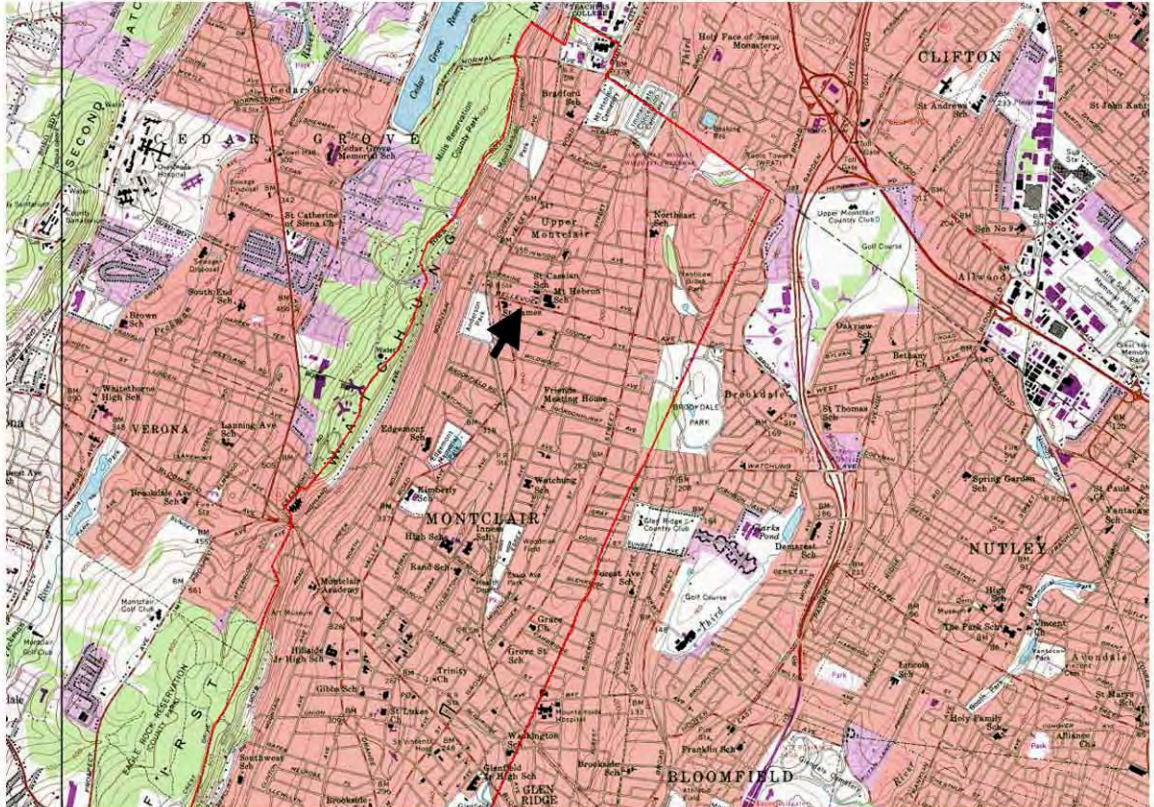
**APPENDIX A**

**Location Maps**



**A**

Map of region, showing location of Township of Montclair. Mapquest, 2006.



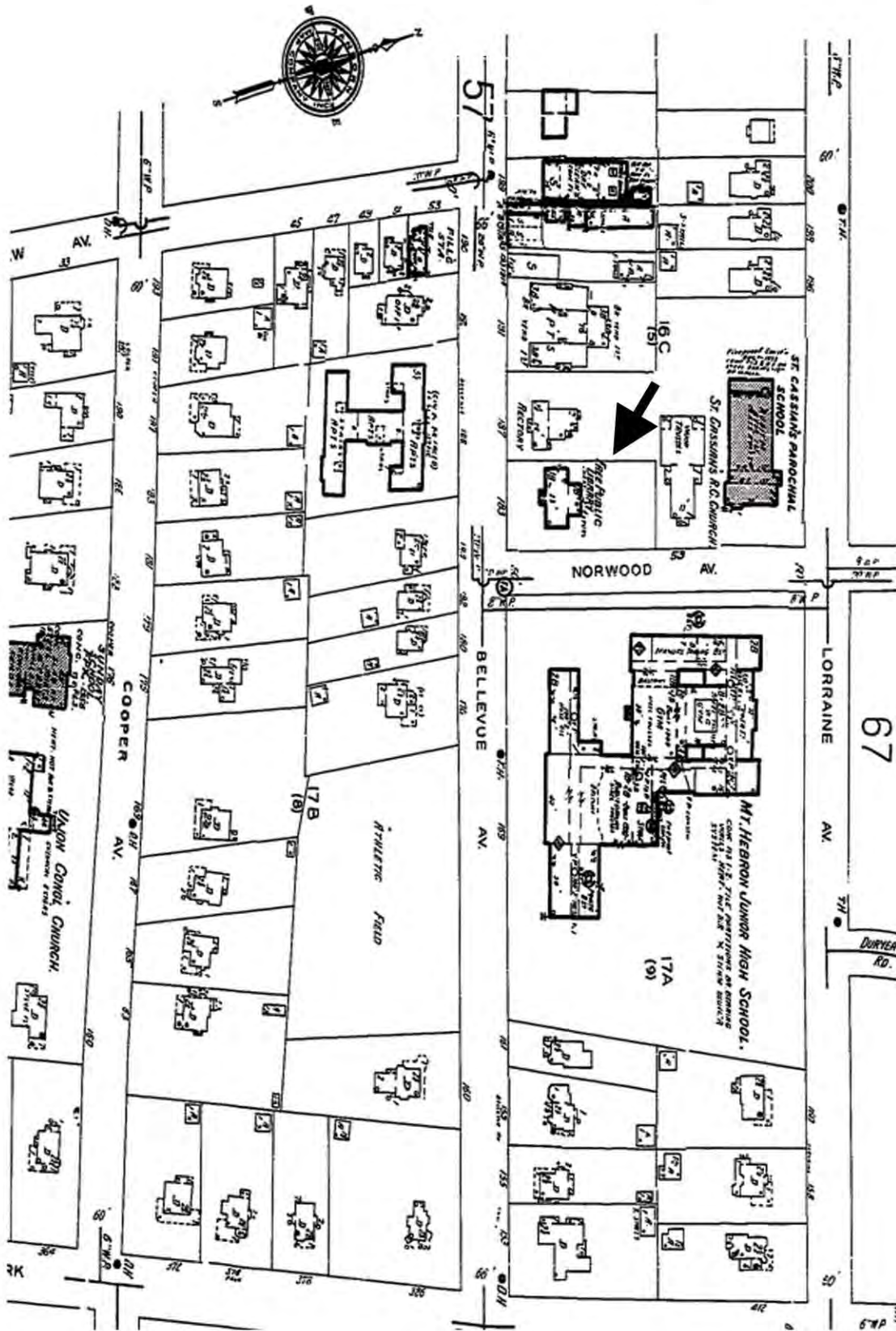
**B**

USGS map showing location of Project Site. USGS, Orange, NJ Quadrangle, 1955 (Rev. 1981).

## Location Maps



Aerial of project area, showing boundaries of the Upper Montclair Historic Business District, with inset showing detail.  
Source: Twp of Montclair Interactive Map (2016).



Map of Montclair. Sanborn Map Company, 1986.

1986

**APPENDIX B**

**New Jersey Historic Preservation Office  
Letter of Project Approval  
August 8, 2016**



Project#: 16-2099-1  
HPO H2016-066  
Page 1 of 2

## State of New Jersey

MAIL CODE 501-04B

DEPARTMENT OF ENVIRONMENTAL PROTECTION

NATURAL & HISTORIC RESOURCES

HISTORIC PRESERVATION OFFICE

P.O. Box 420

Trenton, NJ 08625-0420

TEL. (609) 984-0176 FAX (609) 984-0578

CHRIS CHRISTIE  
*Governor*

BOB MARTIN  
*Commissioner*

KIM GUADAGNO  
*Lt. Governor*

August 8, 2016

Mary Delaney Krugman  
Mary Delaney Krugman Associates, Inc.  
62 Myrtle Avenue  
Montclair, NJ 07042

Re: **Essex County – Montclair Township**  
**Bellevue Avenue Branch Library-2016 Rehabilitation Work**  
**Upper Montclair Library (NJ Register listed September 29, 1986)**  
**New Jersey Register of Historic Places Act Review**

Dear Ms. Krugman,

Thank you for your application for project authorization under the New Jersey Register of Historic Places Act. The proposed undertaking includes exterior masonry repairs, interior plaster repairs, and window restoration at the Bellevue Avenue Branch Library. The property is listed as the Upper Montclair Library on the NJ State Register of Historic Places. This project is limited to the information provided in the submitted Application for Project Authorization, project manual (dated July 13, 2016), architectural drawings, and specifications.

The submitted application is technically complete and professionally sufficient pursuant to N.J.A.C. 7:4-7.1 on July 14, 2016. Based on the information provided, the proposed project meets the *Secretary of Interior's Standards for Rehabilitation* and therefore, pursuant to N.J.A.C. 7:4-7.4 (b) 2, **does not constitute an encroachment** on this historic property. This concludes your project review.

Please contact the Historic Preservation Office for review, should any of your project plans change. If you have any questions, please feel free to call Allyson Mehley, of my staff, at (609) 633-2397 or Allyson.Mehley@dep.nj.gov. Please reference HPO project number 16-2099. We greatly appreciate your cooperation with this review.

Sincerely,

Meghan M. Baratta  
Acting Supervisor

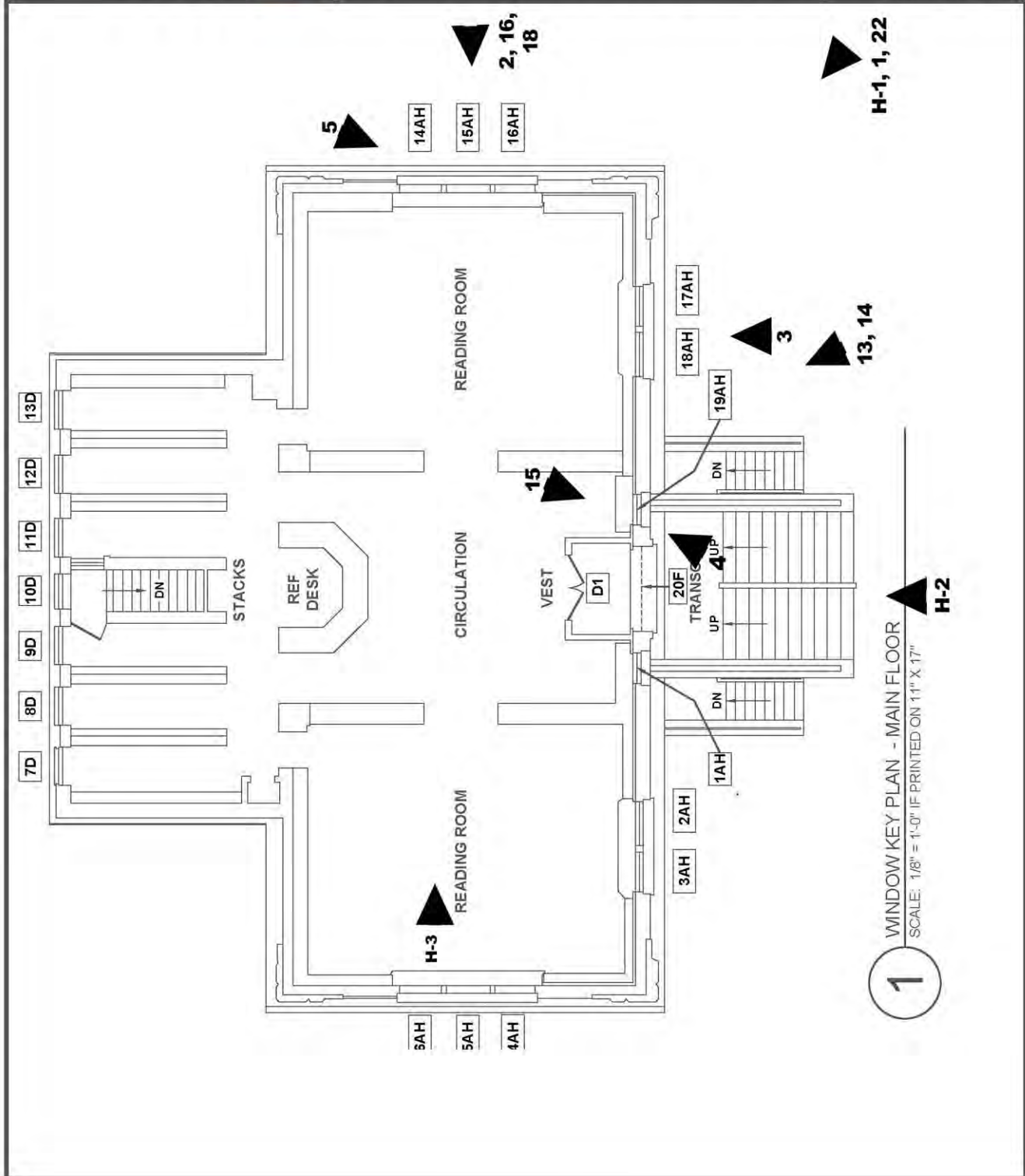
c: David Hinkley, Library Director  
Roger G. Morse, AIA, Morse Associates  
The Montclair Historical Society  
Stephen Rooney, Montclair Historic Preservation Commission

MMB/AM

**APPENDIX C**

**Photographs**





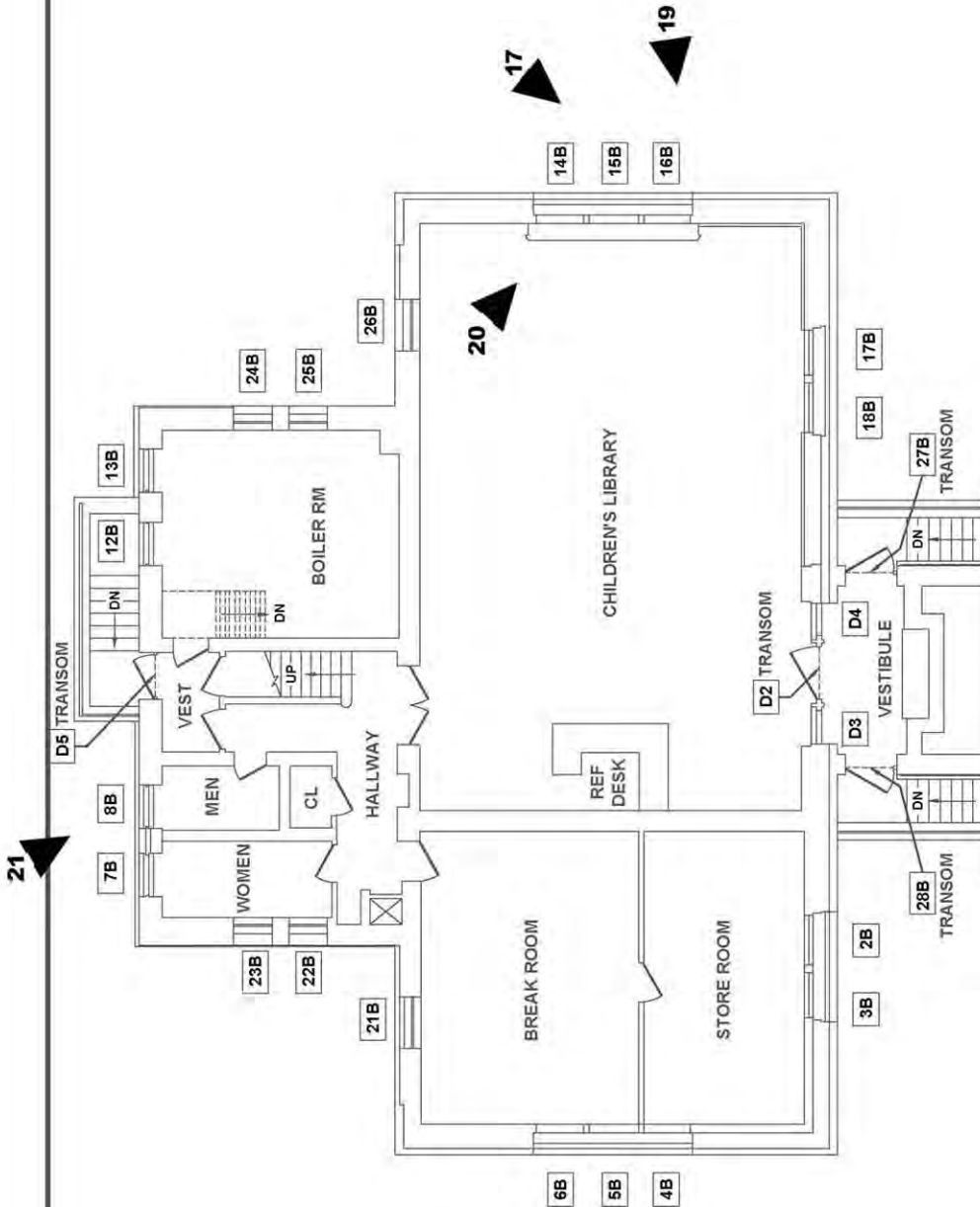
**Photo Orientation - Main Floor**

**WINDOW  
KEY PLAN  
W-2**

SCALE: 1/8" = 1'-0"  
DRAWN BY: BM - DC  
APPROVED BY: RM  
DATE: MARCH 30, 2016

**Window Repaint & Restoration**  
Montclair Public Library  
Bellevue Avenue Branch  
185 Bellevue Avenue  
Upper Montclair, NJ 07043

**MORSE ASSOCIATES**  
Rensselaer Technology Park  
165 Jordan Rd • Troy, New York 12180  
TEL 518 283 7671 • FAX 518 283 9855  
http://www.morse-associates.com  
ARCHITECT BUSINESS LICENSE: AA26001590



**1** WINDOW KEY PLAN - GROUND FLOOR  
SCALE: 1/8" = 1'-0" IF PRINTED ON 11" X 17"

**Photo Orientation - Ground Floor**

2016-2018 Window Rehabilitation - Bellevue Avenue Branch Library  
185 Bellevue Avenue (Lot 22, Block 2606)  
Township of Montclair, Essex County, New Jersey



Bellevue Avenue Branch Library ca. 1920, looking NW, showing original color scheme. Austral windows are shown in open position.

**H-1**



Main entrance on Bellevue Avenue ca. 1915, looking N. The Austral lever arms on lower sash are shown painted to match sash color.

**H-2**



Reading room of the Bellevue Branch Library ca. 1920, looking E.

**H-3**

2016-2018 Window Rehabilitation - Bellevue Avenue Branch Library  
185 Bellevue Avenue (Lot 22, Block 2606)  
Township of Montclair, Essex County, New Jersey



Bellevue Avenue Branch Library (BAB) in 2016, looking NW .

1



East facade of BAB in 2016, looking W.

2

**Photo 1**  
**Photo 2**



**3**

Library windows on south facade in 2016, looking N, showing level of deterioration.



**4**

Detail of deterioration on sill at main facade, looking N. .

**Photo 3**  
**Photo 4**



Typical condition of painted sash chains in 2016.

5



Typical condition of lavatory hopper windows in 2016.

6

**Photo 5**  
**Photo 6**



7

Partially restored Austral window assembly at Dell-Tech studio (2018).



8

Detail of cleaned and primed lever arm and eye of thru-bolt at Dell-Tech Studio (2018).



**9**

Detail of thru-bolt that holds the lever arms to the sash (at Dell-Tech studio, 2018).



**10**

Detail of cleaned and primed bracket on lever arm for mounting onto jamb (at Dell-Tech Studio, 2018).





Detail of interior of Austral window assembly, with upper sash at left, lower sash at right, with restored brass grommet around hole for the hook that operates window movement (at Dell-Tech studio, 2018).

**11**



Detail of cleaned original "weldless" sash chains (at Dell-Tech Studio, 2018).

**12**



Test installation of rehabilitated Austral window on main facade (May 2018).

**13**



Test operation of Austral windows (May 2018).

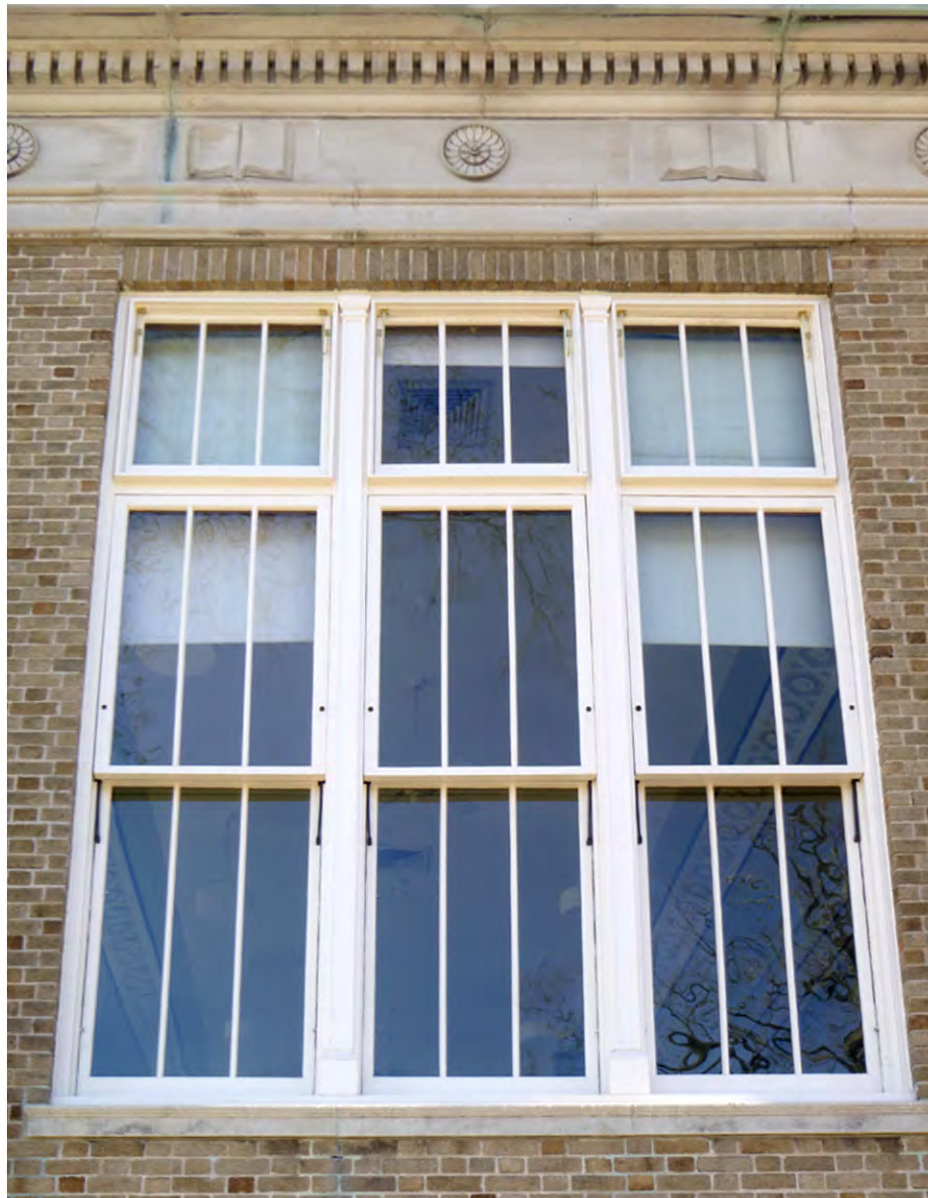
**14**

**Photo 13**  
**Photo 14**



Restored interior sash latch and latch plate (August 2018).

**15**



Fully restored Austral windows after installation, east facade (August 2018).

**16**

**Photo 15**  
**Photo 16**



**17**

Restored hopper windows with original chains at the lower level children's room, looking SW (August 2018)



**18**

Restored transom windows with replacement chains after installation, east facade (August 2018).



Detail of restored original "weldless" chain on re-installed hopper windows at the lower level children's room, looking W (August 2018).

**19**



**20**

Restored hopper window held in open position by sash chain, east facade (August 2018).

2016-2018 Window Rehabilitation - Bellevue Avenue Branch Library  
185 Bellevue Avenue (Lot 22, Block 2606)  
Township of Montclair, Essex County, New Jersey



Restored hopper window with replacement obscuring glass, lower level lavatory, looking NE (August 2018).

**21**

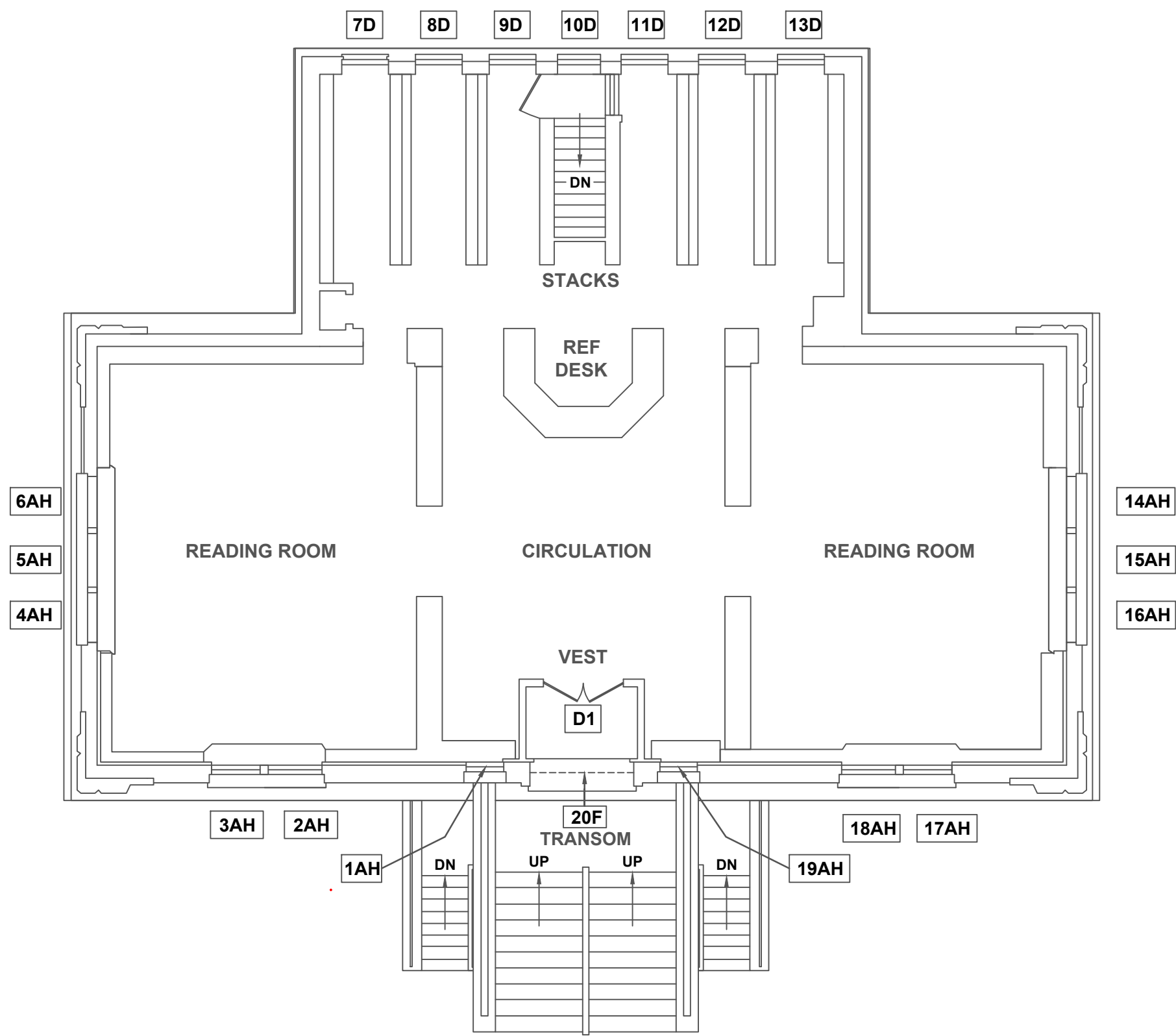


The completed window rehabilitation project in February 2019.

**22**

**APPENDIX D**

**Drawings**



**1** WINDOW KEY PLAN - MAIN FLOOR  
 SCALE: 1/8" = 1'-0" IF PRINTED ON 11" X 17"

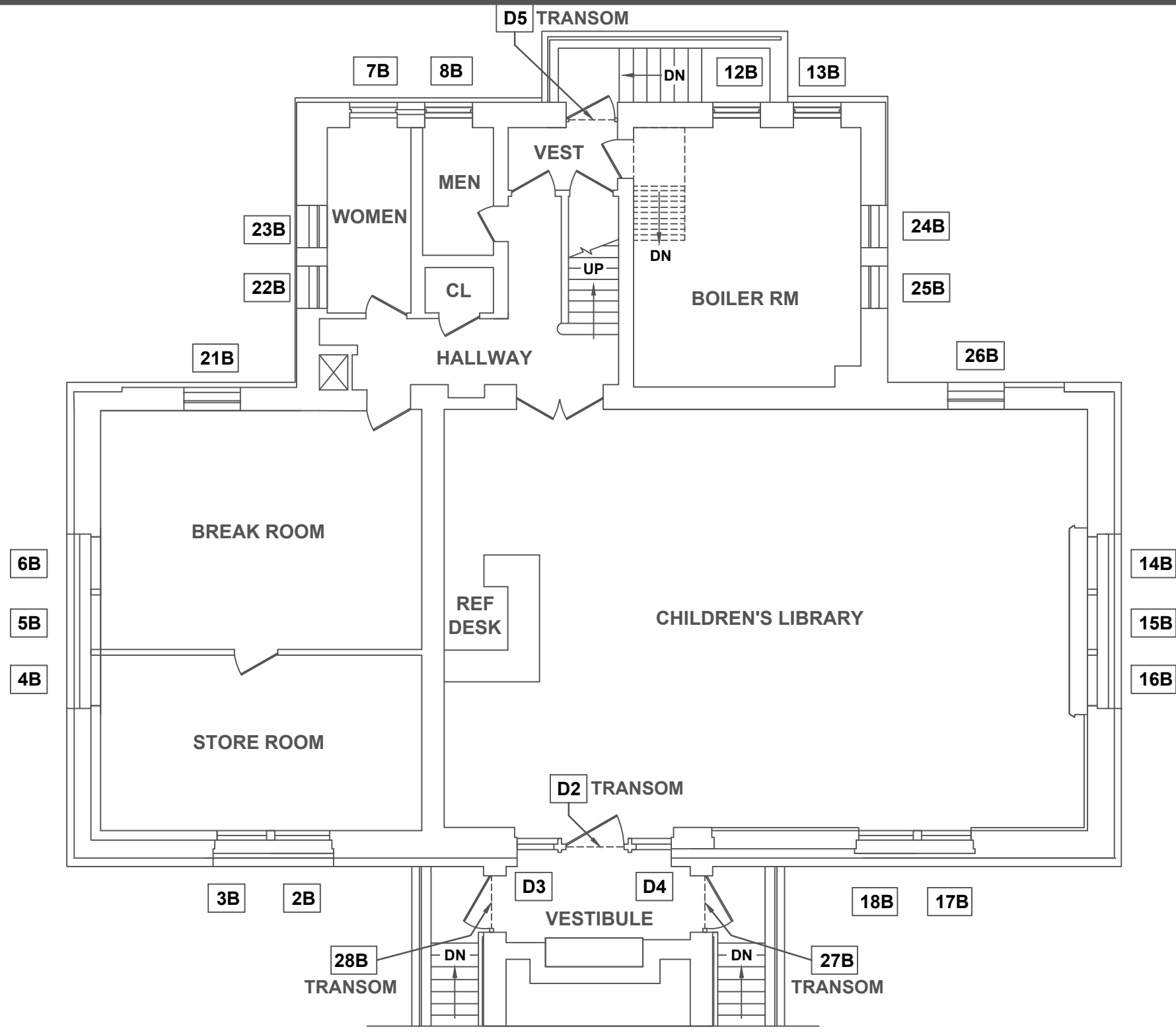
**MORSE ASSOCIATES**  
 Rensselaer Technology Park  
 165 Jordan Rd • Troy, New York 12180  
 TEL 518 283 7671 • FAX 518 283 9855  
 http://www.morse-associates.com  
 ARCHITECT BUSINESS LICENSE: AA26001590

Window Repaint & Restoration  
**Montclair Public Library**  
**Bellevue Avenue Branch**  
 185 Bellevue Avenue  
 Upper Montclair, NJ 07043

SCALE: 1/8" = 1'-0"  
 DRAWN BY: BM - DC  
 APPROVED BY: RM  
 DATE: MARCH 30, 2016

**WINDOW KEY PLAN**  
**W-1**





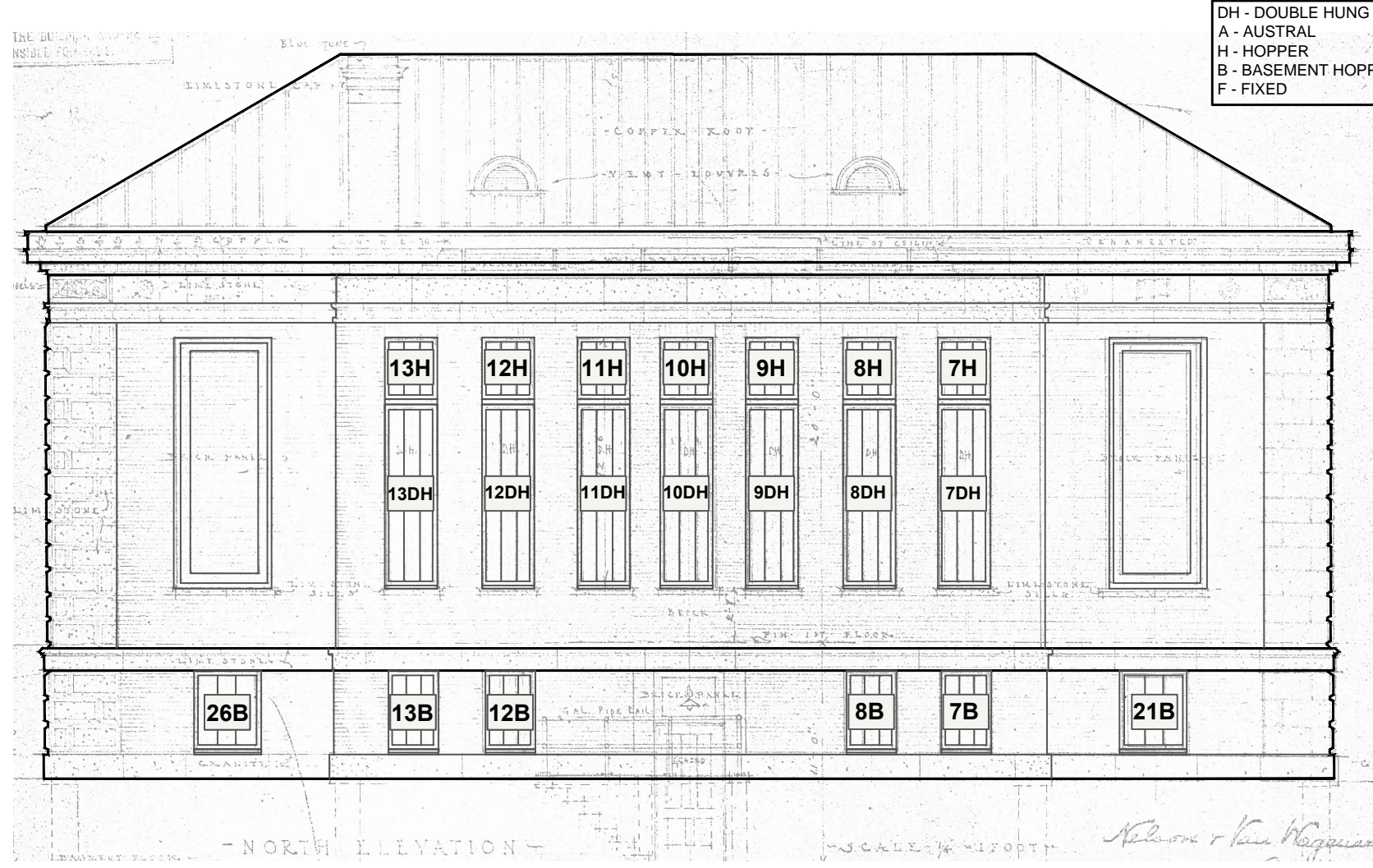
**1** WINDOW KEY PLAN - GROUND FLOOR  
 SCALE: 1/8" = 1'-0" IF PRINTED ON 11" X 17"

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SCALE: 1/8" = 1'-0"  
 DRAWN BY: BM - DC  
 APPROVED BY: RM  
 DATE: MARCH 30, 2016

**WINDOW KEY PLAN**  
**W-2**



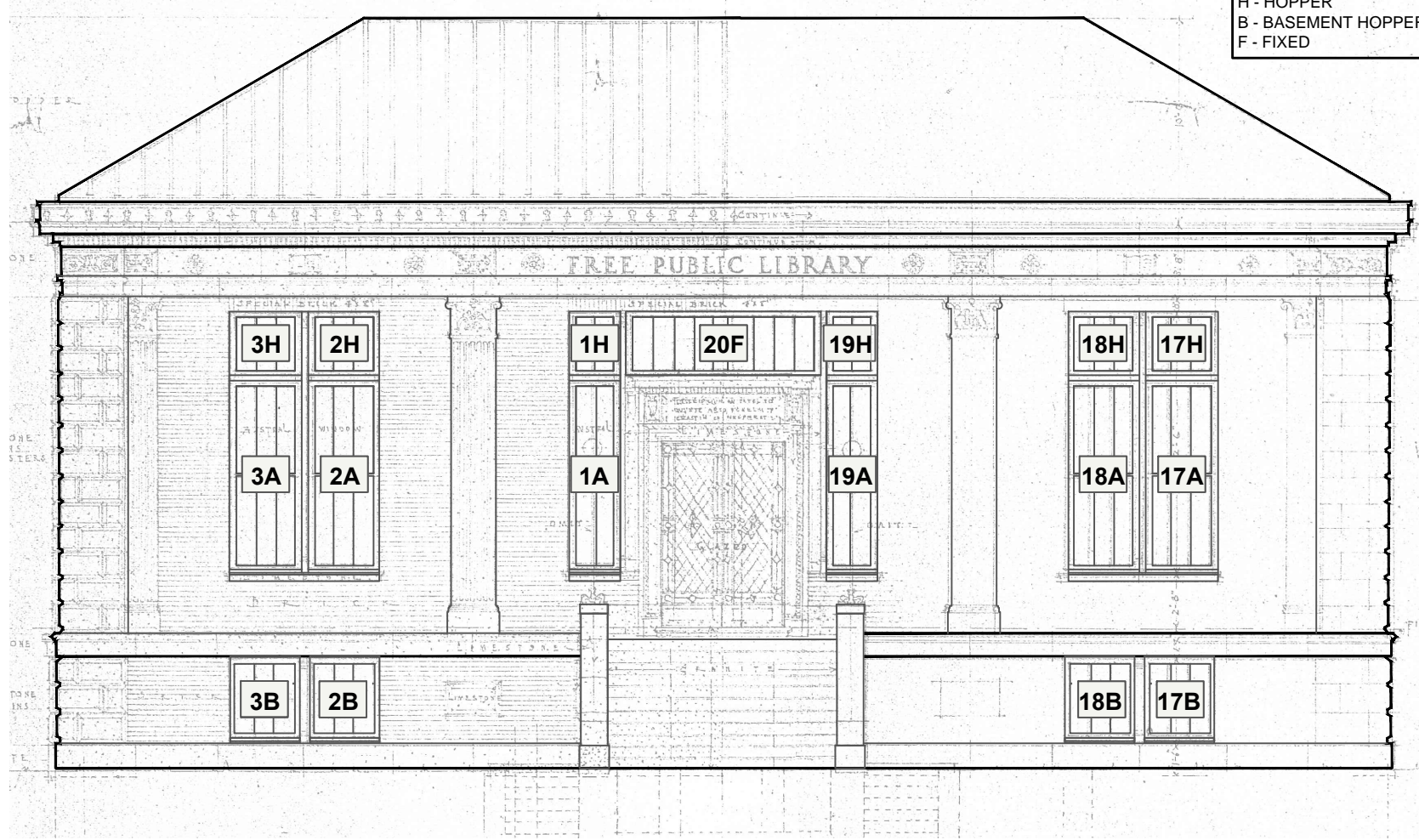
**1** NORTH ELEVATION - REPAIR WORK  
 SCALE: 1/8" = 1'-0" IF PRINTED ON 11" X 17"

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Window Repaint & Restoration  
**Montclair Public Library**  
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 185 Bellevue Avenue  
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SCALE: 1/8" = 1'-0"  
 DRAWN BY: BM - DC  
 APPROVED BY: RM  
 DATE: MARCH 30, 2016

**NORTH ELEVATION**  
**W-3**



**1** SOUTH ELEVATION - REPAIR WORK  
 SCALE: 1/8" = 1'-0" IF PRINTED ON 11" X 17"

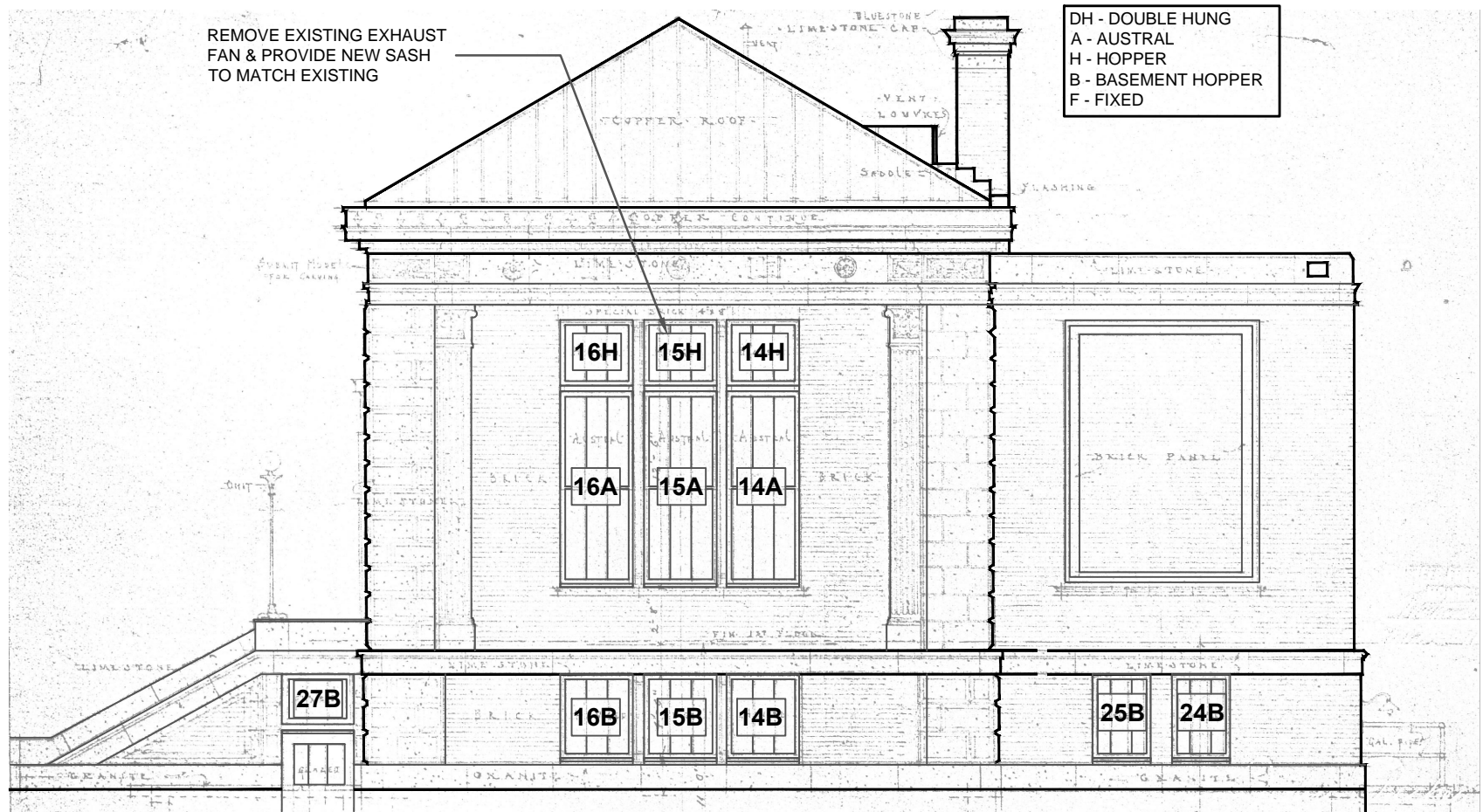
DH - DOUBLE HUNG  
 A - AUSTRAL  
 H - HOPPER  
 B - BASEMENT HOPPER  
 F - FIXED

**MORSE ASSOCIATES**  
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Window Repaint & Restoration  
**Montclair Public Library**  
**Bellevue Avenue Branch**  
 185 Bellevue Avenue  
 Upper Montclair, NJ 07043

SCALE: 1/8" = 1'-0"  
 DRAWN BY: BM - DC  
 APPROVED BY: RM  
 DATE: MARCH 30, 2016

**SOUTH  
 ELEVATION**  
 W-4



1

EAST ELEVATION - REPAIR WORK  
 SCALE: 1/8" = 1'-0" IF PRINTED ON 11" X 17"

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Window Repaint & Restoration  
**Montclair Public Library**  
**Bellevue Avenue Branch**  
 185 Bellevue Avenue  
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SCALE: 1/8" = 1'-0"  
 DRAWN BY: BM - DC  
 APPROVED BY: RM  
 DATE: MARCH 30, 2016

**EAST ELEVATION**  
 W-5



**APPENDIX E**  
**Materials and Components**

## **DELL-TECH INC.**

930 NEW YORK AVE.  
TRENTON, NJ 08638  
609-393-6150

**RE: Bellevue Avenue Branch Library, Montclair, NJ 07043**

### **Bathroom Glass**

Four types of glass have been confirmed to have been removed from the bathroom windows with two confirmed to have been sealed in with silicon, which doesn't verify that they are not historic but does raise evidence for it. Additionally, please see the attached pictures in the DropBox folder for all Types that are referenced.

#### Type 1: FLORAL (Selected Pattern)

- One of two glass types to have silicon sealant on most of the glass removed.
- "Floral" pattern. Noticeable ridges to the touch.
- Had the best result for the transparency test.
- Most common piece of glass at 6 of 12, each bathroom window had a minimum of 1 piece of Type 1 glass, though none of the windows had all 3 panes of glass as Type 1.

#### Type 2: STANDARD

- The other glass type that has silicon sealant on all pieces removed.
- "Standard" pattern. Very common glass in my opinion.
- Performed well on transparency test.
- 3 of 12 pieces of glass, two of which were on 8B.

#### Type 3: WAVY - ARTISTIC

- Glass had no determinable sealant. Can confirm it was not silicon.
- "Wavy" pattern. Very artistic glass, almost can't be considered privacy glass.
- High visibility at same distances of other types for transparency test.
- Only 1 of 12 pieces of glass, found in Type 3.

#### Type 4: SIMILAR TO TYPE 1

- Glass had no determinable sealant.
- Nearly identical "Floral" pattern as Type 1. Only reason I classified it as its own Type is the texture to the touch felt noticeably different and the transparency test yielded different results.
- Transparency test is slightly different to Type 1 but yielded similar results.
- Only 2 of 12 pieces found, one piece each for 22B and 23B.



Manufacturer's image of floral patterned obscuring glass (2018). This pattern was selected to replace the three types of more contemporary "privacy glass" that were installed in various places in the lower level hopper windows.



## **DELL-TECH INC.**

930 NEW YORK AVE.

TRENTON, NJ 08638

609-393-6150

### **Products Used During Rehabilitation of Windows at Montclair Public Library**

1. Benjamin Moore Paints
  - a. Exterior White: “Antique White” OC – 83
  - b. Interior Green: “Tarrytown Green” HC – 134
  - c. Interior Black: “Black” HC – 190
  - d. Lever Arm: “Brooktrout Brown” CW – 180
2. Stains
  - a. Upstairs: Minwax Early American 230
  - b. Downstairs: Varathane Carrington mix with ratio 1:1 of natural spirits to lighten color to match
3. Privacy Glass
  - a. Named “Flora Lite”
4. Replacement Window Chains
  - a. 15” Adjustable Length Transom Chain with Polished Brass Finish.
  - b. Sourced from [www.houseofantiquehardware.com](http://www.houseofantiquehardware.com)

**DELL-TECH INC.**

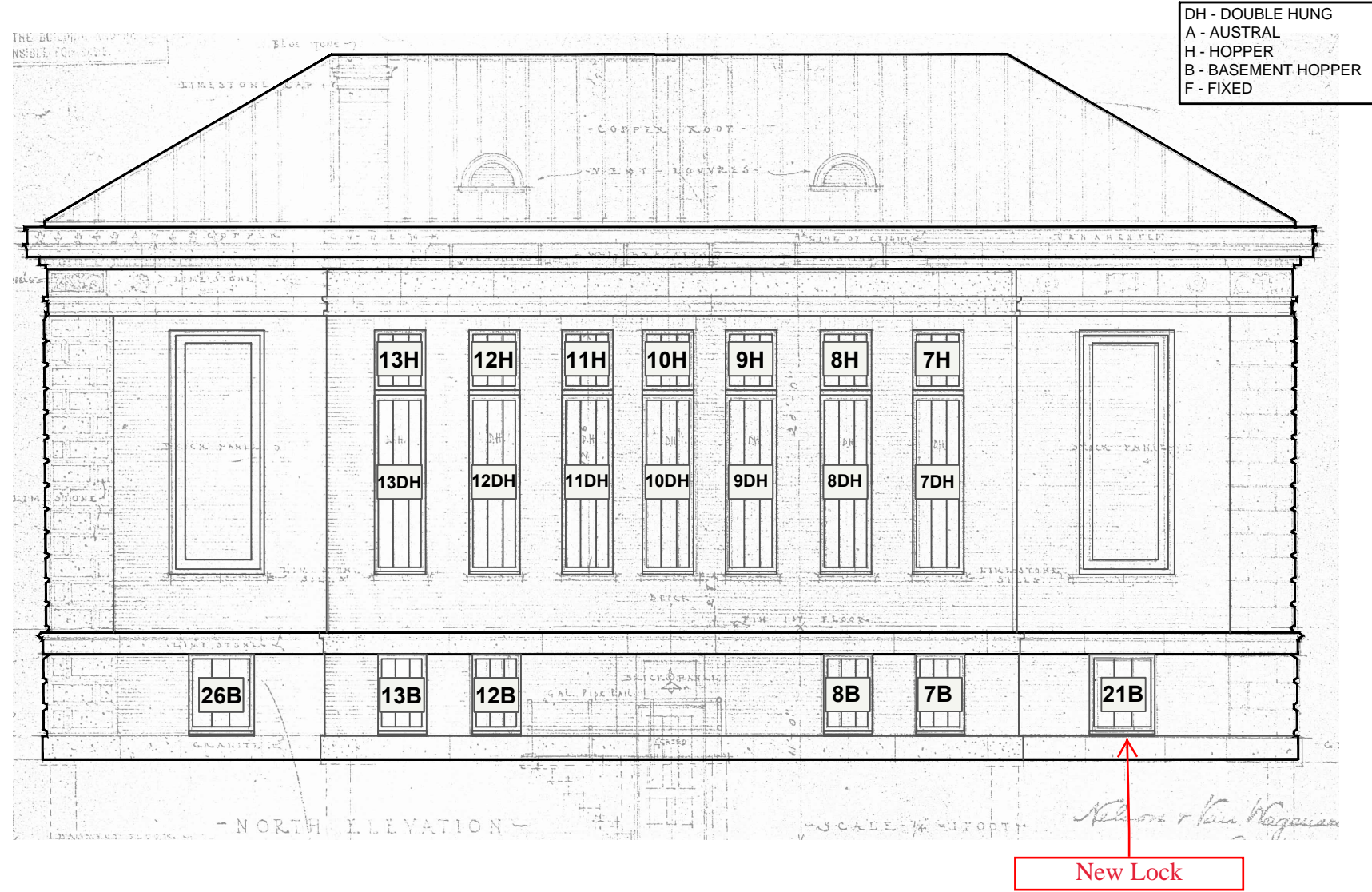
930 NEW YORK AVE.  
TRENTON, NJ 08638  
609-393-6150

**Montclair Public Library**

**Historic Window Preservation Materials & Components**

1. Window Lock
  - a. One window lock (21B) needed to be replaced. Unfortunately, when lock was removed for the paint removal process it fell apart due to age and were unable to be salvaged. The lock was replaced with a period specific lock.
  - b. The window that was constructed to replace the fan on the first floor (15H) required a lock as well. The same type of lock that was sourced for window 21B was used.
2. Window Glass
  - a. Bathroom Privacy Glass: Over time, the library replaced multiple pieces of privacy glass in both bathrooms. It was determined that one type of glass originated from the original construction of the building and more of this type was sourced. This sourced glass and the original glass were used to have matching panes throughout all bathroom windows.
  - b. Standard Glass: A few standard window panes needed to be replaced due to damage during the restoration process or after installation. Historic glass from the circa 1900s was sourced as replacement.
3. Lever-Arms
  - a. Luckily, all hardware and original lever-arms for the first floor windows were salvaged and reused. All arms have a protective primer coating under the paint layer to preserve them.
4. Hopper Window Chains
  - a. There were a few hopper window chains there were either damaged or missing when the windows were taken from the library. Due to their unique design we were unable to find an exact match. Three sets of window chains (two per window) were sourced that match original design. These chains were grouped together on windows 14H, 15H, and 16H.
5. Weather Stripping
  - a. During the restoration process it was discovered that a mix of zinc and copper weather stripping was used in the basement and first floor windows. Replacement weather stripping was sourced using existing profiles and made with copper. Overall, a majority of the original weather stripping was salvaged and reused. The library was given the extra weather stripping for future repairs on these windows.
6. Latch Plates
  - a. On windows 17A and 18A, two latch plates were missing during the removal process. Using profiles from existing original latch plates, custom order plates were cut and installed to match the existing plates. Overtime, the original plate's thickness was worn down to a size that isn't sold by suppliers. A slightly thicker copper was sourced and overtime will be worn down to this thickness.

[For locations of replacement hardware, see notations on following drawing sheets.]

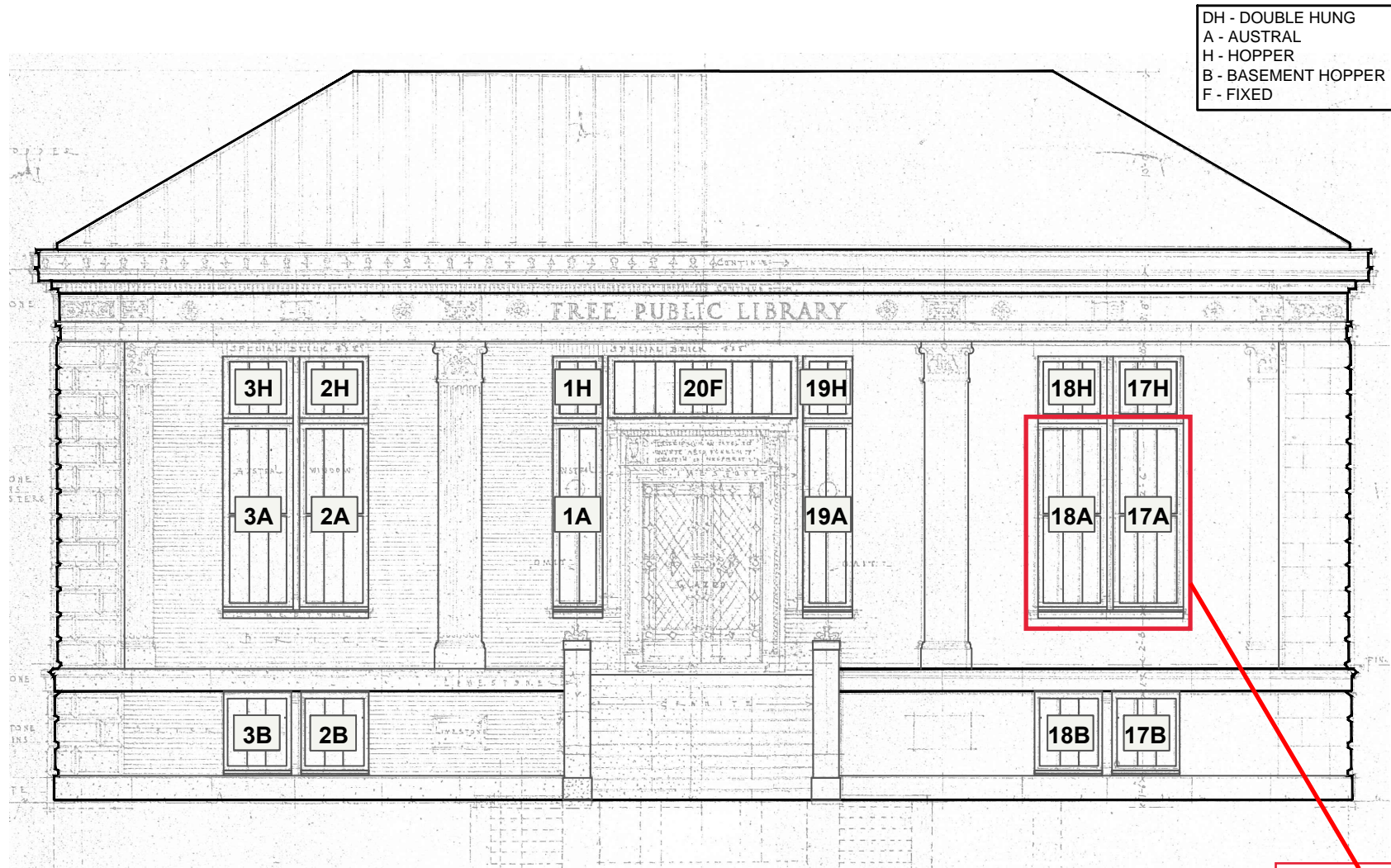


**1** NORTH ELEVATION - REPAIR WORK  
 SCALE: 1/8" = 1'-0" IF PRINTED ON 11" X 17"

Window Repaint & Restoration  
**Montclair Public Library**  
**Bellevue Avenue Branch**  
 185 Bellevue Avenue  
 Upper Montclair, NJ 07043

SCALE: 1/8" = 1'-0"  
 DRAWN BY: BM - DC  
 APPROVED BY: RM  
 DATE: MARCH 30, 2016

**NORTH  
 ELEVATION**  
 W-3



**1** SOUTH ELEVATION - REPAIR WORK  
 SCALE: 1/8" = 1'-0" IF PRINTED ON 11" X 17"

Window Repaint & Restoration  
**Montclair Public Library**  
**Bellevue Avenue Branch**  
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**SOUTH  
 ELEVATION**  
 W-4

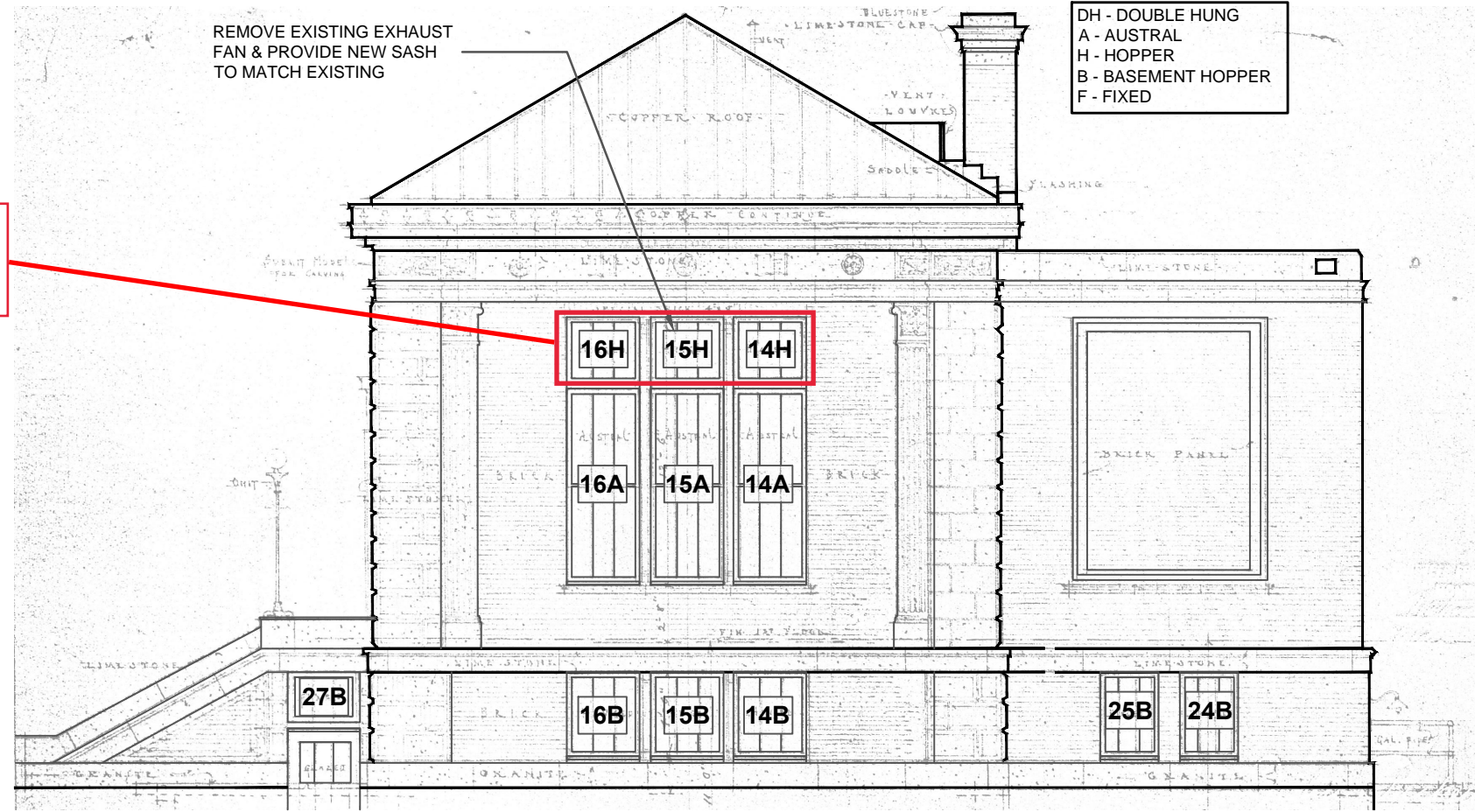


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Window Repaint & Restoration  
**Montclair Public Library**  
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SCALE: 1/8" = 1'-0"  
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 APPROVED BY: RM  
 DATE: MARCH 30, 2016

**EAST  
 ELEVATION**  
 W-5



14H: New Chains  
 15H: New Chains & New Lock  
 16H: New Chains

1

**EAST ELEVATION - REPAIR WORK**  
 SCALE: 1/8" = 1'-0" IF PRINTED ON 11" X 17"

**APPENDIX F**  
**Maintenance Checklist**

## Maintenance Procedures Austral and Hopper Windows

### CHECKLIST

#### Annually:

- Each spring check all windows for proper operation. The windows or frames may have swelled or shrank over the past year and may stick. They should open and close freely without binding.
- Inspect paint and touch up any blistering or peeling paint, being careful to not to paint any hardware or chains.
- Inspect hardware for rust.
- Inspect weather stripping.
- Tighten any loose screws and connections.
- Inspect and clean infestation and nests

#### Every Five (5) Years:

- Complete a thorough inspection of paint performed by an historic window specialist.  
*Paint Specification: Benjamin Moore - Aura Waterborne Exterior Paint*
- Inspect Sealants between windows and masonry and re-caulk per manufacturer's instruction as necessary.  
*Sealant specification: Pecora AC-20 + Silicone Non-Sag Acrylic, Latex Caulking Compound.*

#### As Needed:

- Replace any cracked broken glass. Broken glass should be immediately replaced.
- Clean glass and hardware as needed with a mild cleaner

**Morse Associates, Inc.**

504 Snake Hill Road

Poestenkill, NY 12140

(518) 283-7671

<http://morse-associates.com/>

**APPENDIX G**  
**Team Qualifications**



## MARY DELANEY KRUGMAN

62 Myrtle Avenue  
Montclair, NJ 07042

(973) 746-2810 Voice • (866) 755-8505 Fax • [mkrugman@mdka.com](mailto:mkrugman@mdka.com)  
<http://www.mdka.com>

### EDUCATION

---

#### **Columbia University, The Graduate School of Architecture, Planning, and Preservation, N.Y., N.Y.**

Degree Awarded: Master of Science in Historic Preservation (1995).  
Grants: Kinne Research Grant (1994).  
Awards: Citation of Recognition, Clío and James Marston Fitch Prize Committee (1994);  
Faculty Award for Outstanding Thesis, History Sector (1995).

#### **The Columbus School of Law, The Catholic University of America, Washington, D. C.**

Degree Awarded: Juris Doctor (1974).

#### **The George Washington University, Washington, D.C.**

Degree Awarded: Bachelor of Arts (1970).  
Major: Political Science.

#### **Elmira College, Elmira, N.Y. (1966 - 1968).**

Honors: Honors Program; Dean's List; Regents Scholarship.  
Elected: Class President; Representative, Judicial and Legislative Boards.

### AWARDS

---

2009 Grand Prize Award, Civil/Site Construction, For Excellence in Concrete Design and Construction for Sally's Pond Dam Rehabilitation [Ringwood State Park], Ringwood, NJ. *Team Member; Historic Preservation Specialist*. Presented by the Eastern Pennsylvania & Delaware Chapter, American Concrete Institute (2010).

Outstanding Comprehensive Master Plan Award, City of Hoboken, NJ, Master Plan. *Team member; author of Historic Preservation Element*. Award presented to Team Leader, Phillips Preiss Shapiro Associates, Inc., by the NJ Chapter of the American Planning Association (2004).

2002 NJ Historic Preservation Award from the NJ Historic Sites Council and NJ Department of Environmental Protection for documentation in "Rehabilitation of Bi-County Bridges Nos. A0601 and A0605," presented May 2002.

Honorable Mention, 39<sup>th</sup> Annual NJ Concrete Awards, to project team for "Rehabilitation of Sally's Pond Dam (2000-2001), Ringwood Manor State Park, Ringwood, NJ," presented May 2002.

Special Citation of Recognition, Clío and James Marston Fitch Prize Committee, Preservation Alumni, Inc., for work in historical documentation: *From Horse to Horsepower: Automobile Row and the Rise of General Motors (1900 - 1926)*. Paper. Columbia University, Graduate School of Architecture, Planning, and Preservation (1993), presented October 1994.

Outstanding Thesis Award, History Sector, presented by the faculty of the Historic Preservation Program, Columbia University, Graduate School of Architecture, Planning, and Preservation, for thesis entitled *From Main Street to Mall: The Evolution of the American Branch Department Store* (1995), presented May 1995.

### MEMBERSHIPS / AFFILIATIONS

---

Member of the Bar, NJ (1975 – present); District of Columbia (1974 - present). Retired.  
NJ State Bar Association: Land Use Section  
Society of Architectural Historians  
Vernacular Architecture Forum  
Association for Preservation Technology International  
ASTM International (formerly The American Society for Testing and Materials)  
International Council on Monuments and Sites/US Chapter (US/ICOMOS)  
Society for Industrial Archeology; SIA-Roebling Chapter (NY-NJ)  
National Trust for Historic Preservation, NTHP Forum  
Preservation Alumni, Inc. (Columbia University, GSAPP); PA Mentoring Program  
Preservation New Jersey, Inc.  
Montclair (NJ) Historical Society

**Positions Held:**

Board of Directors, Association for Preservation Technology International, *member* (2000 - 2003); Chair, Outreach and Partnerships Committee (2001 - 2003).

Executive Committee of Preservation Industry Network, a Task Force of the Association for Preservation Technology International, *Member* (1997 - 2001).

Preservation Committee, NJ League of Historical Societies, *Member* (1997-1999).

Board of Trustees, Advocates for NJ History, *member* (1997-1999).

Board of Trustees and Executive Committee, Montclair Historical Society, Montclair, NJ, *Member* (1992 - 1998); *Chair*, Preservation Committee (1994 - 1996); *Member*, "Evergreens" Committee (1994-2001).

Township of Montclair, NJ, Historic Preservation Commission, (1994-1998). *Chair*.

**EMPLOYMENT**

**Mary Delaney Krugman Associates, Inc.**, Montclair, NJ. *President*. Historic preservation consulting firm (1995 -1996; 1997 - present). Website: <http://www.mdka.com>; Professional Blog: *Ribbons and Lines* <http://ribbonsandlines.blogspot.com> (2010 - present).

**Federal Emergency Management Agency (FEMA)**, U.S. Department of Homeland Security. *Senior Historic Preservation Specialist*. DR-4086-NJ. Public Assistance Program; Mitigation Assessment Team (MAT) (2012 - 2013).

**URS Corporation/NISTAC**. *Technical Assistance Contractor-Historic Preservation, Southwest Louisiana Region* for Federal Emergency Management Agency (FEMA), U.S. Department of Homeland Security, DR 1607-Hurricane Rita, ESF-14 (Long Term Community Recovery) and Public Assistance Program (2006).

**Heritage Marketplace, Inc.**, Montclair, NJ. *President*. Publisher of the Internet magazine *Trovare*<sup>®</sup>, an advertising website for available older and historic properties (1998 - 2001).

**Preservation New Jersey, Inc.**, Perth Amboy, NJ. *Executive Director*. NJ's statewide non-profit historic preservation organization (1996 - 1997).

**Krugman, Chapnick & Grimshaw**, Saddle Brook, NJ. *Attorney*. Multi-office international and domestic corporate practice (1974-1980).

**RELEVANT PROJECTS****Institutional Buildings (Houses of Worship, Libraries, Museums, etc.):**

**Maple Avenue School Annex (former Young Israel synagogue), Newark, NJ (1941; addition ca. 1955)**. Preparation of an Application for Project Authorization in re the Newark Public Schools sale of the property on behalf of purchaser Newark Beth Israel Medical Center/RWJ Barnabas (2018).

**Former Jersey City YMCA building, 654 Bergen Avenue**

**St. Bridget's R. C. Church (ca. 1887), Jersey City, NJ**. Consultant to developer in the conversion/adaptive use of a church building for use as multi-unit residential (2017-2018).

**Bellevue Avenue Branch Library (1914), Montclair, NJ**. Consultant to the Montclair Free Public Library in connection with the state and local regulatory reviews related proposed 2016 rehabilitation work (2016); preservation consultant for the restoration of the historic wood Astral windows (in progress).

**Former James Library, now Museum of Early Trades and Crafts (1900), Madison, NJ**. Team historian for Preservation Plan, on behalf of the Museum, partially funded by a grant from the Morris County [NJ] Historic Preservation Trust (2011-2012).

**St. Bridget's Parish Buildings (1887 - 1923), Jersey City, NJ**. Preservation consultant to developer for preparation of Application for Certification for federal rehabilitation tax credits, Parts 1 - 3 (2011 - present).

**Stanhope United Methodist Church (1920), Netcong, NJ**. Preparation of a Preservation Plan and National Register nomination for the church building on behalf of the congregation, partially funded by a grant from the Morris County [NJ] Historic Preservation Trust (2011-2012).

**United Synagogue of Hoboken, former Star of Israel Synagogue (1915)**, Hoboken, NJ. Preparation of a successful National Register nomination for the United Synagogue of Hoboken in connection with a grant from the Garden State Preservation Trust, NJ (2007-2008).

**Bellevue Avenue Branch Library (1914)**, Montclair, NJ. Phase IA archaeological survey for this Carnegie Library on behalf of the Board of Trustees of the Montclair Public Library (2006); consultant for historic preservation issues in development of Master Plan for rehabilitation and accessibility upgrades (2007).

**United Synagogue of Hoboken (1915)**, Hoboken, NJ. Team leader and consultant for application for Certification of Eligibility in connection with grant application to the Garden State Preservation Trust (2005).

**Union Street: 2003 Street Improvements**, Montclair, NJ. Survey of existing conditions and preparation of history and significance report on road paving materials and methods in First Residential Historic District in support of a NJ Application for Project Authorization on behalf of the Twp. of Montclair (2003).

**St. Margaret's Home (1853)**, Red Hook, NY. Research and documentation of history of Home's residents (1853-1930s) on behalf of Greenhouse Consultants Incorporated, New York, NY (2002).

**Westfield Board of Education (Former High School Building) (1914)**, Westfield, NJ. Evaluation of potential eligibility for the National Register of Historic Places on behalf of Downtown Westfield Corporation (2000).

**B'Nai Keshet Synagogue/Red Gables (1906)**, Montclair, NJ. Preparation of grant reports filed with the NJ Historic Trust for grant awarded under the NJ Historic Preservation Bond Program (1998).

### **Nominations to the National Register of Historic Places**

**Stanhope United Methodist Church (1920)**, Netcong, NJ. Preparation of a Preservation Plan and National Register nomination for the church building on behalf of the congregation, partially funded by a grant from the Morris County [NJ] Historic Preservation Trust (2011-2012).

**Interstate Hosiery Mills, Inc. – Bloomfield NJ Plant (1923; addition 1924)**. Preparer of successful National Register nomination for manufacturing facility as part of an adaptive use project that garnered federal historic rehabilitation tax credits on behalf of developer Mosaic Realty Partners, LLC (2009).

**United Synagogue of Hoboken, former Star of Israel Synagogue (1915)**, Hoboken, NJ. Preparation of a successful National Register nomination for the United Synagogue of Hoboken funded by a grant from the Garden State Preservation Trust, NJ (2008).

**John Jacob Bogert House, Harrington Park, NJ (1830; alt. ca. 1870; ca. 1895)**. Preparation of a successful nomination of a residence to the NJ and National Registers of Historic Places on behalf of property owners (2003-2004).

**Goffle Brook County Park (c. 1930)**, Hawthorne, NJ. Preparation of a successful nomination of this Passaic County Park to the NJ and National Registers of Historic Places on behalf of the Please Save Our Parkland Committee, Hawthorne, NJ (2002).

**The Higginville Road Bridges (1890; 1893)**, Somerset - Hunterdon Counties, NJ. Preparation of successful nomination to the NJ and National Registers of Historic Places of two 19<sup>th</sup> Century metal Pratt through-truss bridges on behalf of Somerset County, NJ (2000).

**The John W. Rea House, Hawthorne NJ (c. 1830)**. Preparation of a successful nomination of a 19<sup>th</sup> Century Dutch stone vernacular house to the NJ and National Register of Historic Places, on behalf of Please Save Our Parkland Committee, Hawthorne, NJ (1999).

**Palace Theatre (1919)**, Netcong NJ. Preparation of a successful nomination to NJ and National Register of Historic Places on behalf of the Growing Stage Theatre Company, Chester, NJ (1996).

### **Historic Tax Credits:**

**St. Bridget's Parish Buildings (1887 – 1923)**, Jersey City, NJ. Preservation consultant to developer for preparation of successful Application for Certification for federal rehabilitation tax credits, Parts 1 – 3 (2011 - 2014).

**Maidenform Company Factory Building (ca. 1890; 1905)**, Bayonne, NJ. Preservation consultant to developer, SilkLofts, LLC, for preparation of a successful Application for Certification for federal rehabilitation tax credits, Parts 1 – 3 (2009 – 2016).

**The Brilliant Silk Hosiery Mill / Interstate Hosiery Mills, Inc. Mill Building (c. 1923)**, Bloomfield, NJ. Preparation of successful application for federal rehabilitation tax credits re factory conversion to residential units for developer, Mosaic Realty Partners, LLC (2001 - 2006).

**Former Alexander Hamilton Hotel (1925)**, Paterson, NJ. Preliminary evaluation of a potential application for federal rehabilitation tax credits re conversion of former hotel to affordable assisted living on behalf of W+C Properties, LLC (2002).

**Matchless Metal Polish Co. Factory (ca. 1900)**, Glen Ridge, NJ. Preparation of a preliminary evaluation of project (2001); and preparation of application for federal rehabilitation tax credits (2003-2005).

**Majestic Redevelopment Area**, Jersey City, NJ. Preparation of successful applications for federal rehabilitation tax credits re four historic buildings on behalf of developer, Exeter Property Services Corp. (2001).

### **Commercial Buildings:**

**Harvard Printing Apartments, Orange, NJ (new construction)**. Research and design of three interpretive signs of the site's history related to the Valley Hatting Historic District, and the Monroe Calculating Company, Inc. as part of a Memorandum of Agreement (in progress).

**193 Palisade Avenue, Jersey City, NJ (ca. 1875)**. Expert testimony and historic integrity analysis of a Second Empire former residence that had been adapted, then expanded, for use as medical offices (in progress).

**179 Kensington Avenue, Jersey City, NJ (ca. 1926)**. Assisted the developer of this former Convent of St. Aloysius Church in finding solutions to architectural changes required for adaptive use as a multi-unit residential building acceptable to the Jersey City historic preservation staff specialist, as part of an application to the Jersey City Zoning Board of Adjustment (2015 – 2016).

**Properties to be acquired in Atlantic City, NJ**. Conducted a cultural resource investigation on certain properties in Atlantic City as part of due diligence on behalf of Innkeepers, USA (2006).

**Former Palace Theatre (1919)**, Netcong NJ. Preparation of a historic preservation plan on behalf of the Growing Stage Theatre Company, Netcong, NJ, funded by an award from the Morris County Historic Preservation Trust (2007).

**Atlantic City Friends Meeting House and School Building (1926)**, Atlantic City, NJ. Consultant for regulatory issues involving cultural resources for CAFRA permit application on behalf of Innkeepers USA, Palm Beach, FL (2004).

**The Fabian Building and Theatre (1925)**, Paterson NJ. Team leader; project historian in preparation of an Application for Project Authorization under the NJ Register of Historic Places Act concerning a rehabilitation/redevelopment proposal; presentation to the NJ Historic Sites Council (2003).

**Former Alexander Hamilton Hotel (1925)**, Paterson, NJ. Preparation of application for federal rehabilitation tax credits re conversion of former hotel to affordable assisted living on behalf of W+C Properties, LLC (2002).

**Majestic Redevelopment Area**, Jersey City, NJ. Preparation of applications for federal rehabilitation tax credits re four historic buildings on behalf of developer, Exeter Property Services Corp. (2001).

**53 Elm Street (1915)**, Westfield, NJ. Team leader in preparation of a rehabilitation plan and cost projections for an early 20<sup>th</sup> Century commercial building on behalf of Downtown Westfield Corporation (2000).

**Central Business Historic District (1880-1950)**, Montclair, NJ. Documentation of four commercial buildings in Montclair's Central Business Historic District and drafted essays for publication on behalf of the Montclair Historic Preservation Commission (2000).

**Palace Theatre (1919)**, Netcong NJ. Preparation of a successful nomination to NJ and National Register of Historic Places on behalf of the Growing Stage Theatre Company, Chester, NJ (1996).



## Company

### **Morse Associates was founded in 1982, to apply technology to solve problems with the built environment and industrial facilities.**

The company is structured with a division, Morse Associates, Inc., that is dedicated to research, teaching and forensic investigations, and an operational division, Building & Forensic Sciences, LLC., that performs project work. This organization strengthens the company by formalizing the collaboration between professionals that we have long used to resolve building and environmental problems. The company consists of professionals in the fields of architecture, engineering, and industrial hygiene. We have long worked together in a collaborative fashion, and with our current structure have formalized our relationship, thus cementing our multi-disciplinary approach to resolving problems. A review of this web site will describe how this approach works, and why we believe it to be the best way to solve problems for our clients.

#### **Morse Associates, Inc.**

Morse Associates continues to perform forensic work, and is also developing two on-line technical manuals, one on architectural technology, and one on environmental technology. In the future, Morse Associates will also offer educational programs including webinars and on-line classes.

#### **Building & Forensic Sciences, LLC**

The company's project work, aside from forensic investigations, is performed by the Building & Forensic Sciences division, an employee-owned company. This division is an association of professionals collaborating on projects. It is the practice of this division to form project teams made up of various disciplines as needed, to resolve problems from initial identification through to a satisfactory conclusion. Roger Morse serves as the Technical Director for the company.

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