Community Preservation Act Committee
Town of Arlington

CPA Funding – FY2024 Final Application

One (1) electronic copy of the completed application must be submitted to the CPAC **on December 19, 2022** in order to be considered for advancement to the final application stage, with the electronic copy sent to jwayman@town.arlington.ma.us

Applications will be date stamped and assigned control numbers in the order that the hard copies are received. This PDF form may be completed on a computer using Adobe Reader.

1. General Information

Project Title: Town Hall Envelope - Phase 1 (Clock Tower)

Applicant/Contact: James Feeney

Organization: Town of Arlington

Mailing Address: 730 Mass Ave.

Telephone: (781) 316-3017 E-mail: jfeeney@town.arlington.ma.us

2. CPA Eligibility (refer to the chart on page A-4)

CPA Category (select one):

☐ Community Housing ☒ Historic Preservation ☐ Open Space ☐ Recreation

CPA Purpose (select one):

☐ Acquisition ☐ Creation ☒ Preservation ☐ Support ☐ Rehabilitation & Restoration

3. Budget

Amount Requested: $385,000 Total Project Cost: ~$10M

Signature _____ Date 12/16/2022

Please answer and document all questions on the following page

PROJECT DESCRIPTION: Attach answers to the following questions. Applications will be returned as incomplete if all requested information is not provided. Include supporting materials as necessary.

1. **Goals**: What are the goals of the proposed project?

2. **Community Need**: Why is the project needed? Does it address needs identified in existing Town plans? If so, please specify.

3. **Community Support**: What is the nature and level of support for this project? Include letters of support and any petitions.

4. **Project Documentation**: Attach any applicable engineering plans, architectural drawings, site plans, photographs, any other renderings, relevant studies or material.

5. **Timeline**: What is the schedule for project implementation, including a timeline for all critical milestones?

6. **Credentials**: How will the experience of the applicant contribute to the success of this project?

7. **Budget**: What is the total budget for the project and how will funds be sourced and spent? All items of expenditure must be clearly identified. Distinguish between hard and soft costs and contingencies. (NOTE: CPA funds may not be used for maintenance.)

8. **Other Funding**: What additional funding sources are available, committed, or under consideration? Include commitment letters, if available, and describe any other attempts to secure funding for this project.

9. **Maintenance**: If ongoing maintenance is required for your project, how will it be funded?

10. **Impact on Town Budget**: What, if any, potential secondary effects will your proposed project have on the Town's Operating Budget? Are there any capital projects that rely on the successful completion of your project?

ADDITIONAL INFORMATION: Provide the following additional information, as applicable.

1. **Control of Site**: Documentation that you have control over the site, such as a Purchase and Sales Agreement, option or deed. If the applicant does not have site control, explain what communications have occurred with the bodies that have control and how public benefits will be protected in perpetuity or otherwise.

2. **Deed Restrictions**: In order for funding to be distributed, an appropriate deed restriction, meeting the requirements of Chapter 184 of Mass General Laws pursuant to section 12 of the Community Preservation Act, must be filed with the CPAC. Provide a copy of the actual or proposed restrictions that will apply to this project.

3. **Acquisitions**: For acquisition projects, attach appraisals and agreements if available. Attach a copy of the deed.

4. **Feasibility**: Provide a list of all further actions or steps that will be required for completion of the project, such as environmental assessments, zoning approvals, and any other known barriers to moving forward.
5. **Hazardous Materials**: Provide evidence that the proposed project site is free of hazardous materials or there is a plan for remediation in place.
6. **Permitting**: Provide evidence that the project does not violate any zoning ordinances, covenants, restrictions or other laws or regulations. What permits, if any, are needed for this project? Provide the expected date of receipt for necessary permits, and copies of any permits already acquired.
7. **Environmental Concerns**: Identify all known wetlands, floodplains, and/or any natural resource limitation that occur within the boundaries of your submission.
8. **Professional Standards**: Evidence that appropriate professional standards will be followed if construction, restoration or rehabilitation is proposed. Evidence that the applicant and the project team have the proven or potential capacity to conduct the scope and scale of the proposed project, as evidenced by project leaders with appropriate qualifications and technical experience or access to technical expertise.
9. **Further Attachments**: Assessor's map showing location of the project.

Five-Year Community Preservation Act Forecast *(New for FY2023)*

To help the committee collaborate with other Town funding mechanisms, the committee is looking to build out a five-year revenue and expenditure forecast.

1. Please list likely funding requests to the CPA Committee for FY2025-2028

Project Title	CPA Category*	Dollar Amount of Request per Fiscal Year			
		FY2025	FY2026	FY2027	FY2028
Town Hall Envelope -Phase II	Historic Preservation	~$500k	~$500k	~$500k	~$500k

(Open Space/Recreation, Historic Resources, Community Housing)

REMINDER: Projects financed with CPA funds must comply with all applicable state and municipal requirements, including the state procurement law, which requires special procedures for the selection of products, vendors, services, and consultants. Project sponsors will be required to meet with Arlington's Town Manager before the Town enters into any contracts or issues any purchase orders. However, this requirement can be waived if adherence to procurement procedures will be overseen by a Town Department Head or other MCPPO certified third party.

EXHIBIT 1
COMMUNITY PRESERVATION FUND ALLOWABLE SPENDING PURPOSES (G.L.c.44B,§5)

	OPEN SPACE	HISTORIC RESOURCES	RECREATIONAL LAND	COMMUNITY HOUSING
DEFINITIONS (G.L. c. 44B, § 2)	**Land to protect existing and future well fields, aquifers and recharge areas, watershed land, agricultural land, grasslands, fields, forest land, fresh and salt water marshes and other wetlands, ocean, river, stream, lake and pond frontage, beaches, dunes and other coastal lands, lands to protect scenic vistas, land for wildlife or nature preserve and land for recreational use**	**Building, structure, vessel, real property, document or artifact listed on the state register of historic places or determined by the local historic preservation commission to be significant in the history, archeology, architecture or culture of the city or town**	**Land for active or passive recreational use including, but not limited to, the use of land for community gardens, trails, and noncommercial youth and adult sports, and the use of land as a park, playground or athletic field** **Does not include horse or dog racing or the use of land for a stadium, gymnasium or similar structure.**	**Housing for low and moderate income individuals and families, including low or moderate income seniors** **Moderate income is less than 100%, and low income is less than 80%, of US HUD Area Wide Median Income**
ACQUISITION Obtain property interest by gift, purchase, devise, grant, rental, rental purchase, lease or otherwise. Only includes eminent domain taking as provided by G.L. c. 44B	**Yes**	**Yes**	**Yes**	**Yes**
CREATION To bring into being or cause to exist. *Seideman v. City of Newton*, 452 Mass. 472 (2008)	**Yes**		**Yes**	**Yes**
PRESERVATION Protect personal or real property from injury, harm or destruction	**Yes**	**Yes**	**Yes**	**Yes**
SUPPORT Provide grants, loans, rental assistance, security ceposits, interest-rate write downs or other forms of assistance directly to individuals and families who are eligible for community housing, or to entity that owns, operates or manages such housing, for the purpose of making housing affordable				**Yes, includes funding for community's affordable housing trust**
REHABILITATION AND RESTORATION Make capital improvements, or extraordinary repairs to make assets functional for intended use, including improvements to comply with federal, state or local building or access codes or federal standards for rehabilitation of historic properties	**Yes if acquired or created with CP funds**	**Yes**	**Yes**	**Yes if acquired or created with CP funds**

The Robbins Memorial Town Hall (MHC ID ARL.604) as designed by Richard Clipston Sturgis was built in 1912 and remains Arlington's center of civic activity. This prominent and architecturally significant building was a donation of the will of Winfield Robbins in memory of his father Amos, and contains many ornate features. It is owned and operated by the Town of Arlington, and protected by a preservation restriction.

After over 100 years of service, the building is in need of reinvestment following decades of deferred maintenance. The entirety of the building envelope, including the limestone facade, terra cotta Clock Tower, wooden windows and doors and various roofing membranes need repair and/or replacement.

The Town of Arlington retained Design Associates to conduct a preliminary assessment and prepare a preservation plan for Town Hall. Principal Patrick Guthrie (who prepared a similar report for the Jason Russell House) led a team of specialized sub-consultants, including Silman Associates, Fragale Building Corporation, Dutelle Roofers and Metal Craftsmen, as well as Ivan Myjer/Building & Monument Conservation. While the final report is still being prepared, and will be available with the final project application if advanced, preliminary findings reveal dire conditions related to the Clock Tower.

The Clock Tower is a somewhat independent structure and section of the 1913 building, clad in terra cotta as opposed to Indiana limestone. Unfortunately, the embedded structural steel members are rusted and deteriorated causing visible structural sagging. Concrete encasements and deck are spalling, cracked and failing. The terra cotta elements are cracked and exhibiting other signs of advanced deterioration. With the amount of cracking that is readily visible, experts believe the possibility of fragment detachment will reach the point of being a life safety issue.

The continued water penetration through failed terra cotta and concrete assemblies is subjecting the interior of the building to ongoing water damage in the Lyons Hearing Room. This is visible in the ceiling, and at times enters the ceiling mounted light fixtures. Regrettably, some water damage has reached the gilded cast plaster design element bordering the ceiling, and is on route to the irreplaceable chestnut paneling. The water intrusion is worsening rapidly.

Phase 1 of the Town Hall Envelope Restoration proposes to first conduct a comprehensive 3D laser scan of the Clock Tower to effectively capture the shape and dimension of the structure and its various elements. The Town of Arlington is pursuing this effort currently, hoping to conclude initial efforts in the coming weeks prior to tarping the Clock Tower as water intrusion is rapidly worsening. Further scanning of the more ornate items would be done off-site after disassembly. During a later phase, these scans would be used to design and fabricate new pre-cast elements off-site for future restoration. After scanning and cataloging the structure, it is necessary to deconstruct the structure, salvaging clock components and other elements where possible. Upon the safe removal of the Clock Tower, the opening into the attic space of the building would receive any necessary infill framing, flashing and be roofed over to preserve the interior of the building and the structural steel members to remain from further water damage and irreparable harm.

Thinking ahead, while the loss of the cupola will be dramatic, the building will remain stable until a funding plan is established to preserve the remainder of the envelope. Of course, the reconstruction of the Clock Tower, abatement and restoration of the windows, repair and reflashing the balustrade, and cleaning and repointing of the limestone facade, and roof replacement could be phased over a number of years, there are a number of strong arguments to be made for pursuing a single, holistic project – chief among them is the quality of the finished product and ensuring consistent treatment of the elements across the building. Having a number of different low-bid contractors work on the envelope via multiple successive bids will necessarily impact mortar color and tooling, appearance and manufacture of pre-cast elements, window restoration activities, workmanship, and other elements, inevitably creating an inconsistent treatment and less than desirable finished product as has been seen at other buildings. Further, a number of the elements are closely interrelated, and need to be addressed concurrently to ensure proper and effective flashing installation.

Finally, it will be detrimental to the building, its daily use and for income-generating rentals, to be in a constant state of construction and surrounded by unsightly staging for a number of years. Not only will costs continue to rise, but the extended general conditions will drive up costs.

As such, it may be warranted for the Committee to consider whether or not borrowing against future CPA collections may be appropriate in the case of Arlington's historic Town Hall; notably, over 20 municipalities have used bonding as a tool specifically for the preservation of their City/Town Halls. Arlington may wish to do the same in the near future. This will provide significant relief to the Town's budget and its financial health and condition should the capital plan (which has not accounted for this project) be asked to assume the debt service.

1. **Goals**: To stop further damage to the interior of our amazing Town Hall, and to develop a plan to perform long overdue preservation and restoration activities related to the façade of the building.

2. **Community Need**: Town Hall plays a central role in the administration of our local government and the delivery of services. We need to protect our valued civic center in perpetuity.

3. **Community Support:** Town Hall serves all residents and hosts Town Meeting and countless other governmental activities; however, included are letters of support from staff members who are impacted daily by the worsening conditions- including the Town Clerk, Town Treasurer, Select Board Office and Events Coordinator Patsy Kraemer. The historical importance of the structure is highlighted in a letter from historian Richard Duffy.

4. **Project Documentation:** Recent pictures follow, and videos are available upon request. Additional documentation is provided with the report from Design Associates.

5. **Timeline:** The Town is already pursuing initial laser scanning efforts to advance the construction documentation process in advance of funds being awarded (hopefully). This would allow the project to proceed in fall of 2023.

6. **Credentials:** The Town will work with appropriately credentialed design professionals, and coordinate as necessary with DPW and Facilities. The applicant resides in the building, has completed a number of capital projects at the building, and is well-positioned to direct and monitor on-site activities.

7. **Budget:** The total project budget is $385,000, with approximately 10-12% ($38,500-46,200) projected for soft costs (design and additional scanning). *Note: You will find the consultant estimates a $368k CY2022 budget, and recommends a 8% escalator. This would roughly equate to $397k; however, we are undertaking initial scanning and documentation efforts now with existing capital funds, so the budget has been reduced accordingly.*

8. **Other Funding:** The applicant intends to pursue additional grant opportunities that may be available.

9. **Maintenance:** Maintenance activities are funded via the Facilities Department operating budget.

10. **Impact on Town Budget:** The restoration of Town Hall is an expensive but necessary project not currently accounted for in the Town's Capital Plan, as funded annually at 5% of the Town's revenues. Moreover, maintenance costs to spot repair leaks, repair plaster and repaint walls and ceilings on an ad-hoc basis would be immediately reduced.

Photos Taken December 9, 2022:






Sydanson






MERLE NORMAN

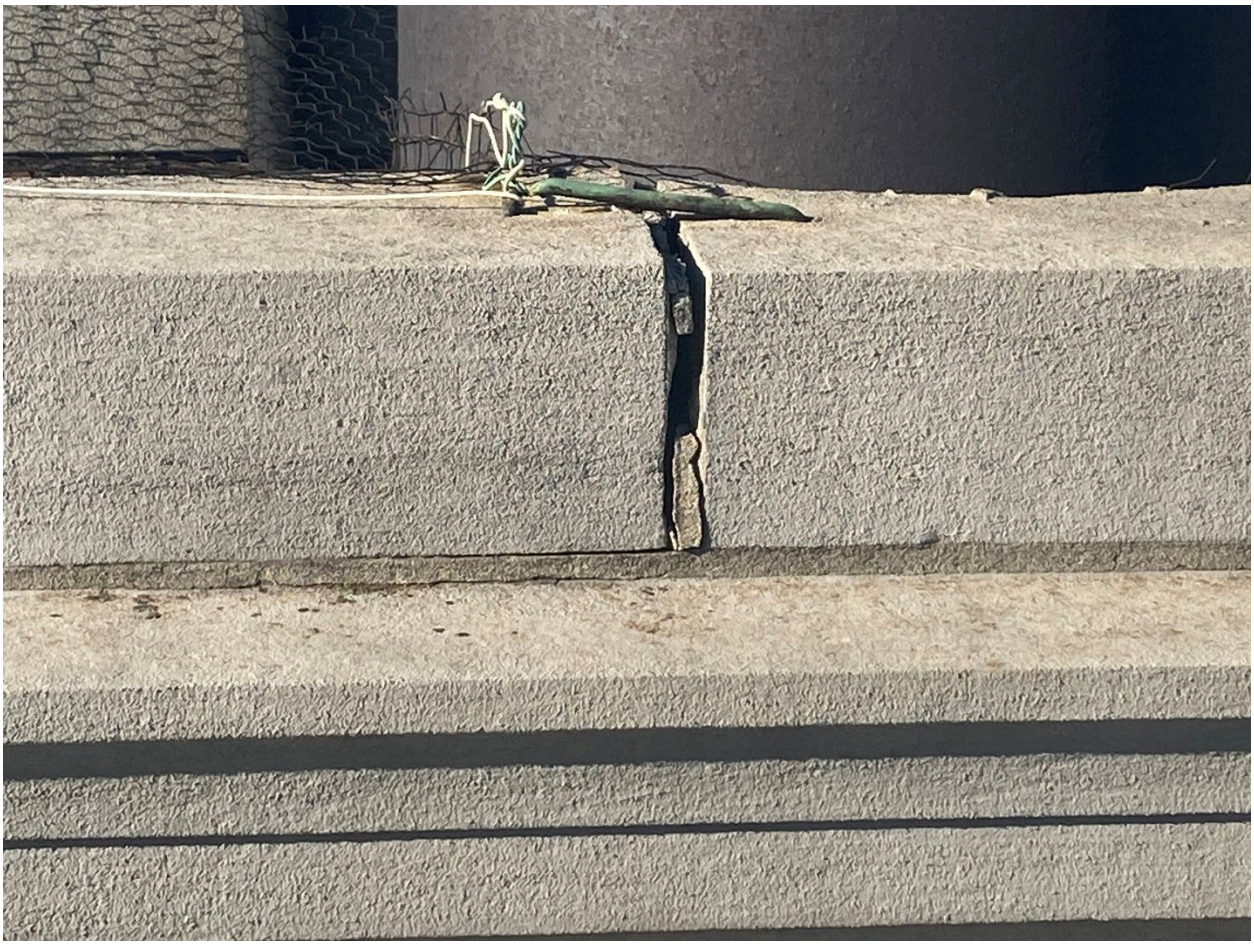


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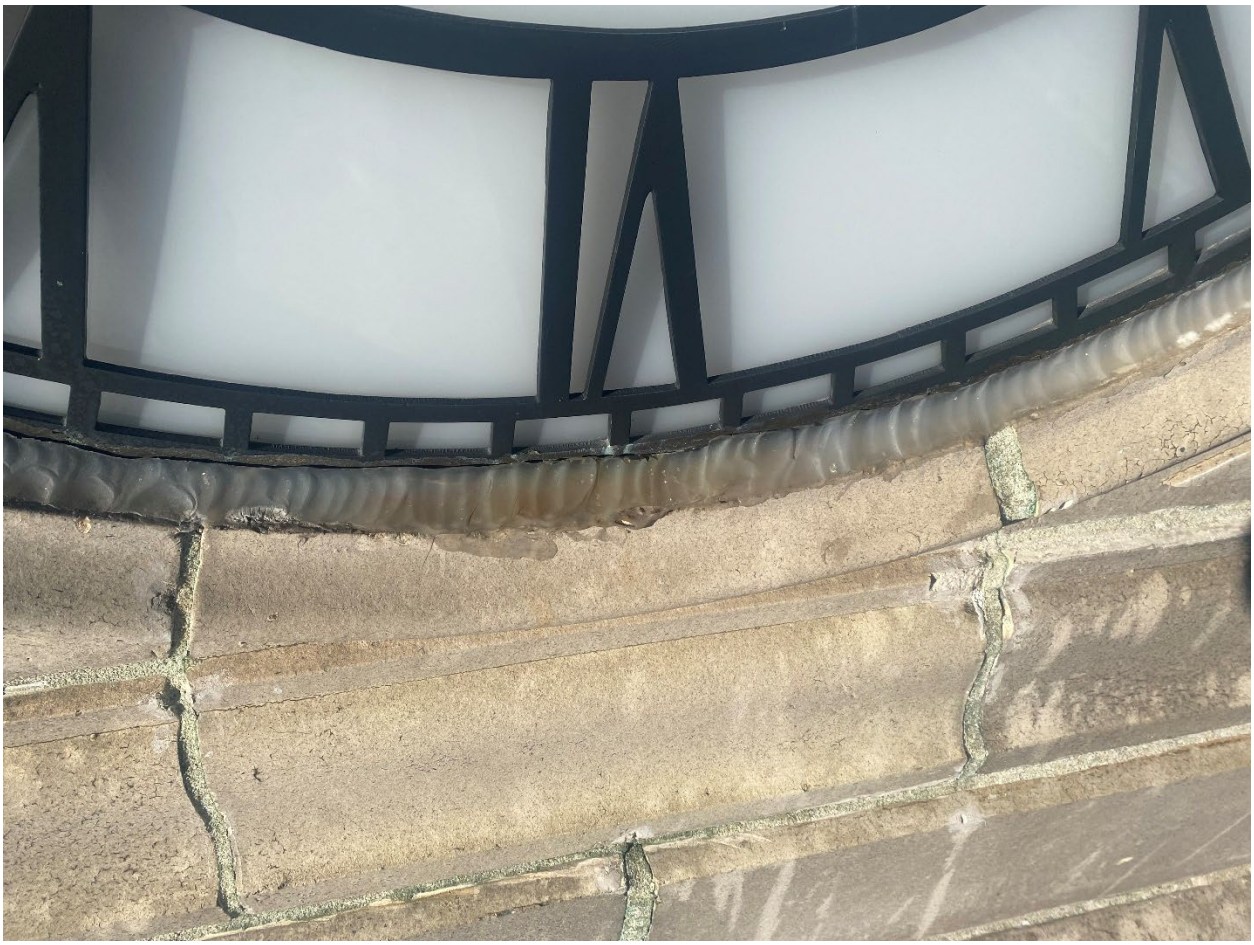













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ARLINGTON TOWN HALL
EXTERIOR CONDITIONS ASSESSMENT
&
RECOMMENDATIONS

December 2022



Design Associates, Inc
December 2022

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Executive Summary

In October 2021, Design Associates was hired by the Town of Arlington to assess the condition of the exterior envelope of the historic Arlington Town Hall. 1912, limestone-clad Classical revival building and its 1955 rear addition feature prominently in Arlington center's civic block. Designed by R. Clipston Sturgis with later work by his successor firm, the handsome building houses much of Arlington's municipal functions and is host to town meetings and many events each year. It has been a privilege to study and provide recommendations for the preservation and maintenance of the exterior envelope of this significant civic landmark.

Though built of durable construction materials, weather and time have taken their toll. The terra cotta is failing at the dome, and pieces could fall and harm someone. In addition, the structural steel supporting the building is rusting. The tower is a character-defining feature of the historic town hall but is beyond repair. It must be documented to allow for accurate reconstruction and then disassembled and a temporary roof installed at its location.

For the rest of the Town Hall and Annex, incremental repairs over the last century have staved off significant losses but will be less and less effective moving forward. Short-term patches are becoming increasingly necessary and widespread, but unlike a band-aid, there is no healing under the patch. Instead, though the deterioration is temporarily addressed, it will begin again and accelerate when the patch fails. Instead, a proactive approach is required.

Patrick Guthrie, President of Design Associates, met with James Feeney, Deputy Town Manager, in November 2021 to discuss the scope of the project and its goals. In keeping with a proactive approach, a comprehensive report on the roofing, walls, doors, and windows outlining repair work, suggesting a sequence for phasing the job, and providing opinions on cost for capital budgeting was requested. After the first submittal, Mr. Feeney asked that the project scope be re-described as a single comprehensive project. That projection was submitted in October 2022. Between the two submittals, revised figures for window restoration and cupola reconstruction were received, and commentary on general conditions savings for a single, large project.

The work to document, dismantle and protect the roof at the cupola location is estimated at, $**368,060.00**including contingency and professional fees. The entire exterior restoration project, excluding documentation and removal of the cupola is estimated to be

$7,795,924.50

Project Team

Design Associates' team included Patrick Guthrie, President, and Scott Dignacco, Architectural Designer. Ivan Myjer, President of Building and Monument Conservation, provided the masonry conditions evaluation included in the appendices of this report. Ivan is familiar with the town hall, especially the limestone cladding, and has consulted previously on multiple town projects. Kronenberger and Sons, Inc. restored two of the town hall windows in early 2022 and provided the restoration categorization criteria and cost projections for fenestration adopted by this report. Charles Curran, President of Paul F. Dutelle Roofing, walked the roofs of the town hall with Patrick and Jim to evaluate conditions and provide costing and phasing suggestions. Finally, Eduordo Fragale, President of Fragale Building Corporation, made multiple site visits to assess the extent of masonry repair and evaluate the replacement cost for the cupola cladding in association with Northeast Precast of New Hampshire.

Opinions of costs from the team were based on recently completed work of comparable scope and direct quotes from vendors.

These figures represent costs for public bid projects in the third quarter of 2022. An eight percent escalation factor should be added in for each year subsequent to 2022.

The Report

Part One of the report contains the conditions and structural integrity assessment, includes a brief physical description of the building, and then a more detailed breakout of the features of the building, condition, and recommended treatment.

Part Two is a tabulation of opinion of cost for a single project at the Town Hall to address the concerns raised in this assessment.

Part Three consists of drawings of the Town Hall and Annex produced for this assessment to provide quantity take-offs for tradesmen who provided opinions of cost.

Part Four are the consultant reports from Silman Engineering and Building and Monument Conservation on the Town Hall Tower and Exterior Masonry.

Moving Forward

With an understanding of the building fabric's current physical state, the structure's stewards now have a framework to guide its preservation.

Methodology

The team made several trips to the Town Hall to gather information and observe conditions. Observations were visual, no destructive testing was conducted.

In preparation for the visits, existing condition drawings based on dimensions obtained from original construction documents and an EagleView © report were prepared by Design Associates and shared with the team.

An initial meeting in November 2021 confirmed with James Feeney the scope and intent of the report. In addition to confirming intent, James Feeney showed Patrick a video of water leaking through the town hall cupola into the Lyons meeting room and photos of failed concrete and rusted steel in the structure. Patrick recommended immediate investigation of the cupola roof and its framing and provided contact information for Silman engineering. Staff from Silman visited the town hall and prepared a trip report. Although Silman Engineering made their visit outside the scope of this report, their summary of observations is included in section three.

After contract approval, Design Associates staff visited in February to confirm measurements for As-Built diagrams. At the end of February, Patrick Guthrie and Ivan Myjer, Building and Monument Conservation, reviewed masonry, roofing, and fenestration conditions. A subsequent visit on March 14, 2022, added Dutelle Roofing and Fragale Building for additional roofing and masonry costing analysis and commentary. Dutelle returned on the 18th to further assess and measure roofing materials and quantities, especially at the interface between the slate roof, flashing, and stone balustrades. Design associates met twice with the roofing and masonry contractors to evaluate the approach and costing given the turbulent environment of construction pricing in 2022. Preliminary pricing and a phased approach were shared with the Town August 2022. Subsequently, revised numbers based on a single-phase project and with updated window numbers provided by Kronenberger and Sons, Inc. and a substantial increase in cupola replacement costs based on additional analysis by the mason and the precast stone vendor were delivered to the town on October 3, 2022.

The final report for submittal with an application to the Community Preservation Committee was delivered on December 7, 2022.

Acknowledgments

James Feeney and the town of Arlington facilities department personnel facilitated access and accommodated multiple visits by team members during the discovery phase. Their candid commentary and support for the project were invaluable.

Conditions Assessment

This section of the report categorizes the existing condition of the Town Hall exterior envelope. The scope of this report excludes the interior. The narrative is derived from on-site examination, photographs, and reports of technical consultants.

For this report, the Town Hall is divided into the Town Hall (built 1912) and the Annex (constructed 1955).

Descriptions of materials on the exterior will be differentiated by these portions. In this report, the façade of the Town Hall on Massachusetts Avenue is considered to face north. The narrative below describes the exterior envelope features of the Town Hall. The descriptions provide an overview of the building exterior. This is followed by a summary of the conditions and then a building system breakdown of conditions and recommendations.

Town Hall

General Description

The Town hall is a large, symmetrical, two-story building with a full basement. The design is Classical Revival with a plan shaped roughly like a serif capital T. The arm of the T faces Massachusetts avenue and the stem extends south to connect to the Annex. The stem contains a two-story height auditorium and its flanking one-story passage galleries. Crossing the bottom of the stem is an east-west oriented wing the full height of the auditorium. Flanking the fly loft of the auditorium are two hip-roofed Two short wings at the ends of the arm bracket the main façade. All pitched roofs are slate, hip roofs with balustraded parapets. The roofs of the auditorium roof, side aisles, and Porte-cochere are flat.

An ornate, terra cotta cupola, with a large pineapple on top is centered on the ridge of the façade. The ceramic is glazed to match the limestone cladding at lower levels. Clock faces appear on the north, east and west cupola elevations. The cupola is open to the weather above the clock face and under the dome and pineapple.

Building walls are clad in Indiana limestone panels coursed in a stacked block pattern. Roof edge balustrades, eaves, cornices, and the Massachusetts avenue entry portico are all rendered in carved limestone.

Fenestration consists of aluminum storm windows protecting wood, true-divided light windows and wire mesh screens. The monumental front doors facing Massachusetts Avenue are paired, wood doors with large glass panels and bronzed hardware.

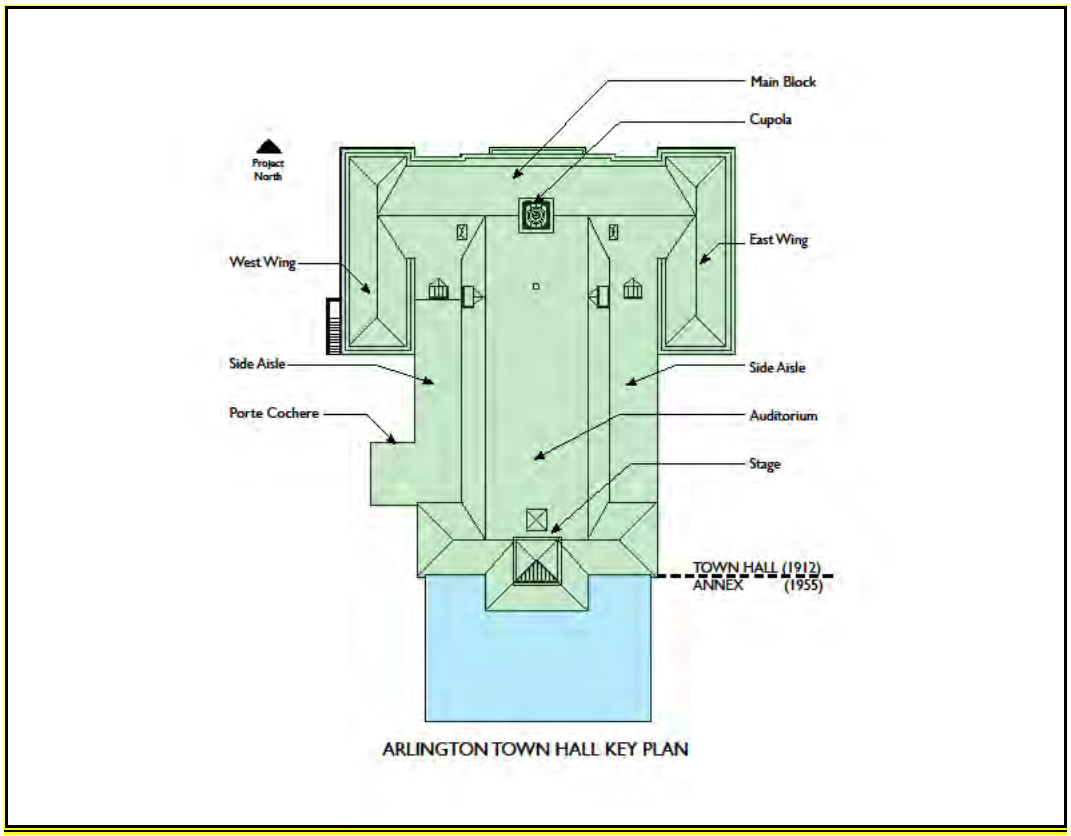
The town hall parking lot is up against the west wall of the town hall stem. Midway down the stem is a porte cochere sheltering entry into the west gallery of the auditorium. The Olmsted-firm-designed Robbins Memorial Garden abuts the east side. At the facade a stone paved plaza with monumental stairs and stone balustrades and fountains and a portico with three pairs of entry doors create a formal entry to the town hall.

Annex

General Description

The Annex is a three story, rectangular plan building joined butted to the rear elevation of the Town Hall at the base of the T-plan. Interior connection to the Annex occurs through the passage and stairways at the south end of the Town Hall. The newer, 1955 Annex is clad in veneer limestone with ribbon windows and has a flat, membrane roof. Building mechanical equipment is mounted to the roof.

Two storefront entry doors, protected by a cantilevered canopy face the parking to the west.



ARLINGTON TOWN HALL KEY PLAN

Approach

The consideration of repairs, maintenance, and future renovations of the Arlington Town Hall should be guided by the significance of the building and site as framed by the National Register of Historic Places nomination for the Arlington Center Historic District.

Historic Building Standards

The Secretary of the Interior's Standards for the Treatment of Historic Properties should be used to inform all work at the building. The Standards provide advice on the preservation and protection of cultural resources and recognize four treatments: Preservation, Rehabilitation, Restoration and Reconstruction. At the Town Hall Preservation is the primary standard, but Rehabilitation is appropriate when contemplating work at the Town Hall where change to meet the needs of current and future users may require introduction of modern materials or approaches. The Rehabilitation standard should be woven into any planning. Reconstruction clearly applies to the cupola.

PRESERVATION is defined "as the act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials rather than extensive replacement and new construction. New exterior additions are not within the scope of this treatment; however, the limited and sensitive upgrading of mechanical, electrical and plumbing systems and other code-required work to make properties functional is appropriate within a preservation project." At the Town Hall the exterior clearly warrants Preservation. The protection of these features should always consider how to sustain them with the least physical intervention possible.

REHABILITATION is defined "as the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural or architectural values." Modifications should be minimally expressed and draw from a sympathetic material palette.

RESTORATION is defined "as the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a restoration project." The Town Hall is largely unchanged – restoration would not be required unless features are lost due to some unforeseen event. It seems unlikely that the historic fire engine doors would ever be reintroduced on the north elevation, but if they were, that would be restoration.

RECONSTRUCTION is defined "as the act or process of depicting, by means of new construction, the form, features, and detailing of a non-surviving site, landscape, building, structure, or object for the purpose of replicating its appearance at a specific period of time and in its historic location." Understanding the cupola requires removal the following must be kept in mind.

Record as much of physical evidence as possible when documentary to permit accurate reconstruction with minimal conjecture. Reconstruction will include measures to preserve any remaining historic materials, features, and spatial relationships. Reconstruction will be based on the accurate duplication of historic features and elements substantiated by documentary or physical evidence rather than on conjectural designs or the availability of different features from other historic properties and will re-create the appearance of the non-surviving historic feature in materials, design, color and texture. Also, reconstruction will be clearly identified as a contemporary re-creation.

General Application Of The Standards

Materials

When repairs are required, original building materials should be replaced in kind– local stone for local stone, wood for wood, slate for slate. When traditional replacement materials are not available or are economically unfeasible, substitute materials that mimic the look, feel, and workability of original materials may be considered. Care should be taken when deciding to use a synthetic material, however, since modern products may interface poorly with traditional building materials, offer limited longevity versus traditional materials, and experience color shifts and other deteriorative changes.

Roofing

Slate and copper should be replaced with matching material, applied in a traditional manner. Underlayment of modern materials compatible with the historic material, improving thermal or moisture controls and not adversely affecting the historic material are appropriate. Where flat roofing of large surfaces, non-visible to building users or the public must be replaced modern

equivalent material may be used with historically compatible interfaces with slate roofs and at roof perimeters.

Masonry

Stone elements should be replaced with matching material. Mortar formulation is particularly important since soft stone could be damaged by modern mortars where the cement content could make the mortar harder than the stone itself. An appropriate mortar formula should be established and adopted for all repointing campaigns. Clear records of the mortar mix, proportions of tinting pigments, and the application technique, including the final strike, should be documented in the building owner's maintenance records. Actual mortar samples should be retained with the records along with a sample panel on the building. Skilled masons should be employed in preparing joints and sampling should be done with every project to confirm the skill level of the worker. This is particularly critical when the mortar joints are as thin as they are at Town Hall. Cutting a preparing the joints will require great care.

Wood Windows and Doors

Wood windows and doors are character defining features and essential elements in a historic building's distinctive architectural design. Repairing and weatherizing existing wood doors and windows is always the preferred approach for historic buildings and provides energy efficiency comparable to new elements. When windows have exceeded their useful lives and retention is not practical or economically feasible, an approach that combines repairing old windows where possible and introducing new windows where necessary is recommended. At the Town Hall the various storm windows installed over the historic windows, when functioning, provide protection for the windows and increased thermal efficiency.

Paint Finishes

Original paint formulations and colors are character-defining elements that are often lost over time because the paint materials themselves are relatively short-lived. If the intent is to reproduce the original colors or those from a significant period in the building's history, they should be based on the results of a scientific paint analysis. Traditional lead based paints, which offer excellent longevity, durability and color stability, are no longer available in the United States. The highest quality latex-based paints available should be employed instead, after thorough surface preparation and priming.

Exterior Condition Summary

The Town Hall and Annex are constructed of durable materials, but time and use now require extensive, repair and materials replacement.

The cupola is in the most dire condition and requires immediate attention. Slate roofing and copper flashing systems are at the end of their service life. All mortar joints in the stone walls need repointing and select stonework should be repaired or replaced. Wood windows in the 1913 building require repair. Storm windows throughout no longer operate or provide sufficient energy efficiency. Cranks for the awning units of the aluminum framed windows at the 1955 annex require replacement as well as screens at those units. The town hall doors are an eclectic collection of the original wood and some aluminum store-front type openings in varied conditions, but all require repair.

Recommendation

Address the cupola documentation, removal and temporary roofing first.

Once the cupola is secured, the Arlington Town Hall requires a comprehensive program of restoration. Extant, historic materials across the entire building, while durable require, repair or replacement. The extent of the work suggests a single, 18-month long construction project as being more efficient with time, money and general conditions than phasing the work of many years.

Existing Conditions Detail and Recommendations

Cupola Existing Conditions

The cupola condition is cause for immediate concern. There is active leaking through it into the Lyons meeting room. In addition structure and masonry have been evaluated as poor by Silman Engineering and Building and Monument Conservation, respectively with both citing significant deterioration. For reference their reports are included at the end of this assessment. In summary, at the clock level and higher the steel embedded in concrete and concealed within terra cotta blocks is rusting which is rupturing concrete casing and has cracked terra cotta blocks at the interior and glazed terra cotta over the entire face of the cupola. Silman recommends removal of cladding and concrete to access the rusting material for repair and Building and Monument Conservation notes the very poor condition of the decorative terra means the cladding will not survive removal. Even without removal for structural access, the poor condition of the terra cotta presents an immediate hazard. There is nothing to preventing cracked pieces from falling off the cupola and posing a danger to the public.



Figure 1: Cupola north elevation

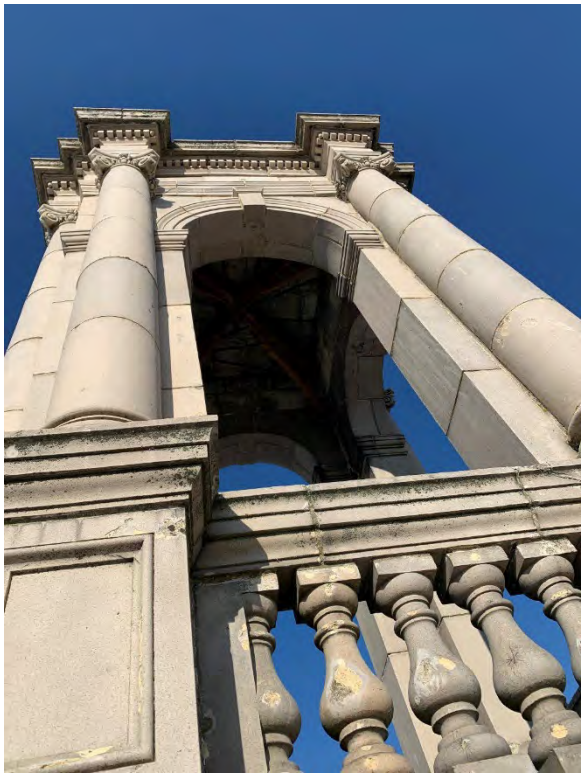


Figure 2: Note failing glazing on terra cotta



Figure 3: Detail of cracking and failing terra cotta

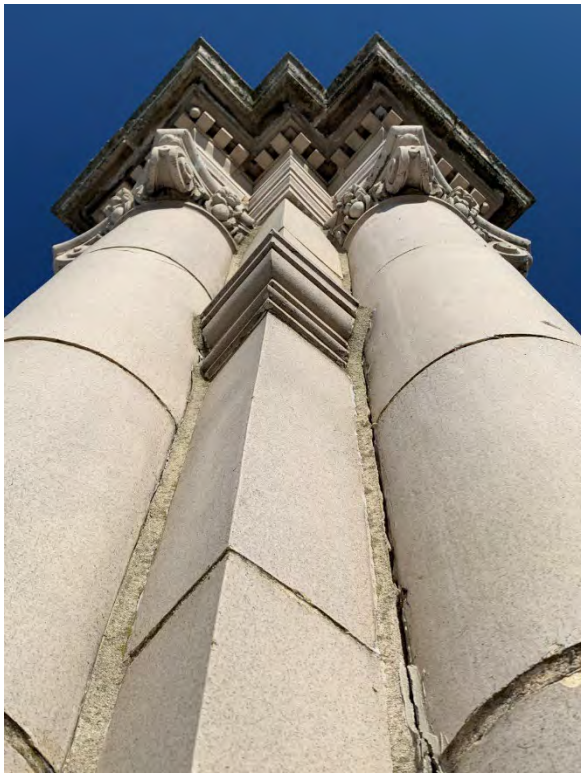


Figure 4: Open mortar joints and cracking



Figure 5: Rusting structural steel cracking encasing concrete

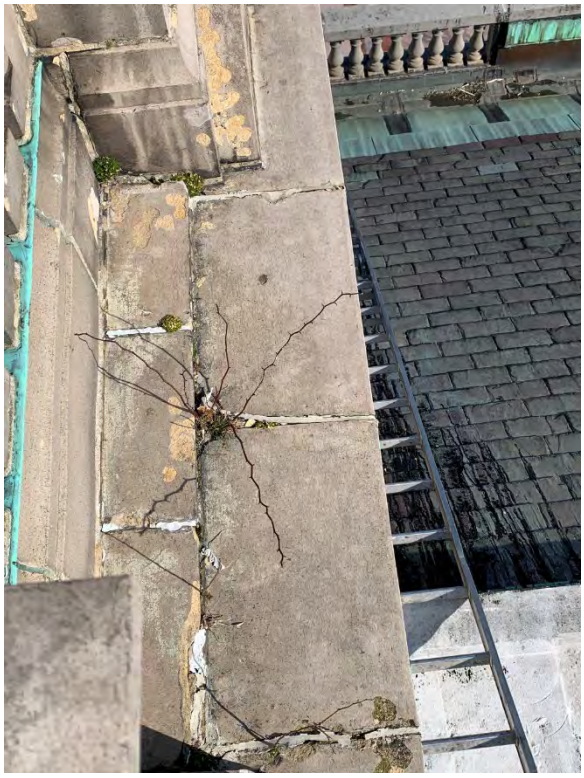


Figure 6:Caulking in failed joints and plants growing in the resultant pockets

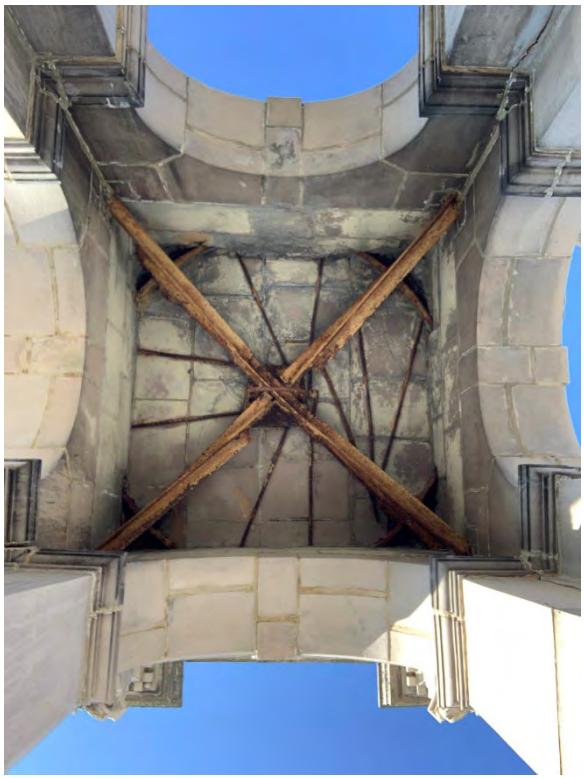


Figure 7: Rusted steel support for the dome



Figure 8: Decorative terra cotta and structural terra cotta



Figure 9: Failed glazing and cracking



Figure 10: Failed glazing and cracking



Figure 11: Failed caulking at joints, plant colonies, failed glazing and cracking



Figure 12: Deterioration of decorative piece



Figure 13: Failure of glazing and cracking



Figure 14: Failure of glazing revealing the softer underlying ceramic

Cupola Recommendations

Given the condition of the cladding and the steel the first priority at the Town Hall is documenting the cupola with a laser scanner to record all the ornamental detail and dimensions for future replication. This should be done immediately. Once documented, the existing cupola should be disassembled for safety and the location roofed over. Elements of the cladding that remain intact upon removal may be stored as examples of the historic construction. Still, the inherent vulnerabilities of the aged material and limits on structure options with the existing terra cotta preclude reinstallation at the town hall.

Next, a reconstruction design for the cupola including new structure and pieces mimicking the glazed terra cotta should be prepared. The scanned information from the original cupola will guide the reconstruction to ensure the historic character is recaptured. The steel structure will be designed to comply with the current building code requirements for structure. Roof drainage for the reconstructed cupola will address leaking at the Lyon's hearing room.

Cast stone is recommended for the exterior pieces. Cast stone will be durable and can be designed with integral reinforcement that can be integrated into structural design in ways that fiberglas and terra cotta cannot. The cast stone can be made to closely mimic limestone from the building façade and unlike the glazed surface of terra cotta pieces, the color of the cast stone is integral to the unit.

Roofing Existing Conditions

The Town Hall and Annex have several roofing systems. Roofing conditions were evaluated by Paul F. Dutelle roofing company, experienced in slate, copper, and flat roofing. Each system and its condition are described below. Recommendations follow.

Slate roof Existing Conditions

The original slate roof system on the Town Hall has been exposed to over a century of New England weather and is beyond the end of its service life. Two slate colors are used; mottled purple/ green and sea green/unfading green. Evidence of temporary repairs to slate and associated copper flashing are evident throughout. Mis-matched slates, aluminum, and galvanized metal patches are scattered across the roof. Roofing cement is used extensively. Much of the flashing is covered with tar and roofing cement. Solder joints are cracked, and some copper has split. Copper flashing between slate and the stone parapets is not flashed through the base of the parapets, creating a vulnerability at the roof perimeter, its flat surface has many membrane and cement patches. Water is seeping between the copper joints where the flashing meets the slate roof. There are nearly 110 squares of slate roofs at the Town Hall and 1200 square feet of perimeter flashing at the parapets.

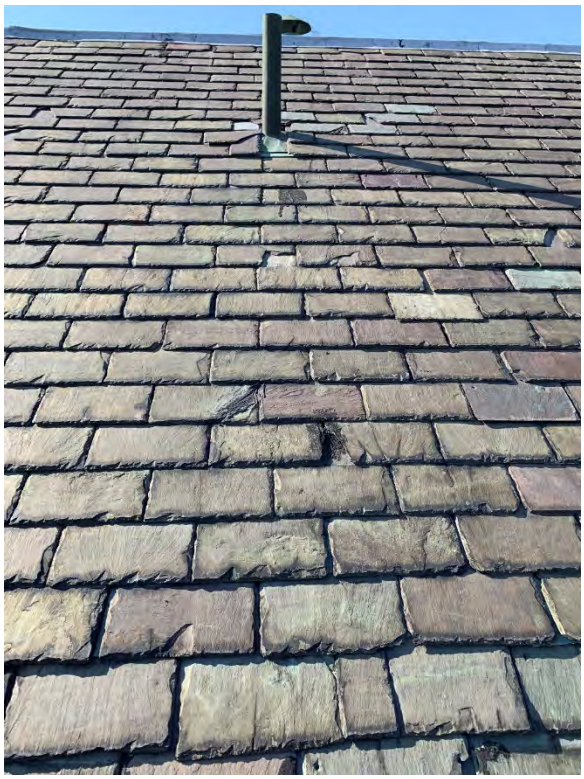


Figure 15: Broken and mis-matched slates at the main block roof. Note the edge conditions of slates showing extreme wear



Figure 16: Broken hip slates, mis-matched sizes and colors at repairs,



Figure 17: Slates that have fallen off roof and broken slate debris at one of the roof valleys



Figure 18: Standing water, cracked solder joints and rubber patching at the base of the slate roof along the parapet



Figure 19: Pitted copper flashing at the base of the slate roof and water running out from under the copper.

Slate roof Recommendation

Remove the existing slate and underlayment and copper flashing. Install new unfading green slate, underlayment, and 20-ounce red copper flashing.

Temporarily remove the stone parapets and cut reglets into piers to install new 20-ounce copper through flashing. Extend flashing up under new slates.

Flat roofs Existing Conditions

The flat roof of the auditorium has been painted with a fibrated coating to extend the life of an older flat roof below. The coating is cracking and peeling. Flat roofing at the porte cochere, side aisle and Annex appears to be torch-down roofing with gravel on top. Standing water was observed around roof-top equipment. There are approximately 10,500 square feet of flat roofing. According to evaluation by Paul F. Dutelle Company, the roofing is near the end of its service life.



Figure 20: Coating applied to the torch-down flat roof of the auditorium is wearing out along seams

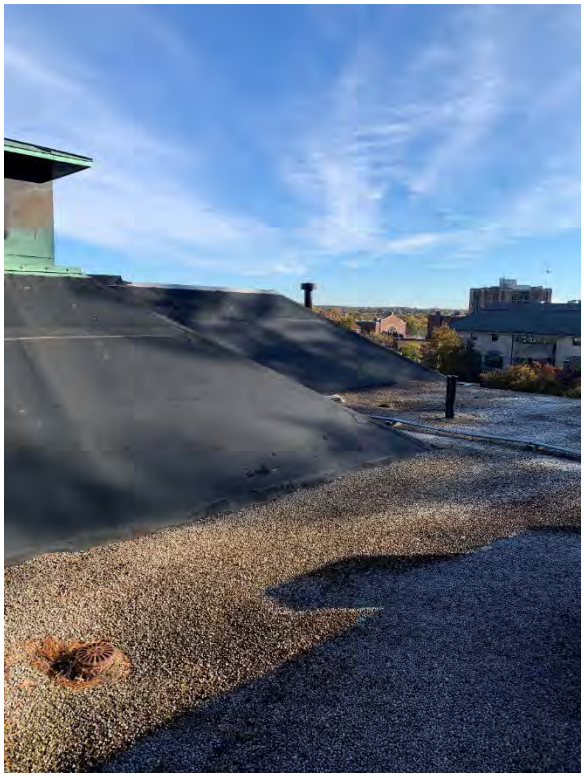


Figure 21:Tar and gravel cover the Annex roof and membrane covers the south slopes of the Town Hall roof. Note the standing water in the equipment shadows on the Annex roof.



Figure 22: Edge of auditorium roof looking toward Annex roof. Stage ventilator is at the right side.

Flat roofs Recommendations

Remove the existing roof, ballast, and underlayments down to the sheathing. Replace with a vapor barrier, tapered insulation, Dens Deck, fully adhered light-colored TPO, and copper edge flashing around the perimeter. The light color will help with Town Hall and Annex cooling costs.

Flat and Standing Seam Metal roof Existing Conditions

The headhouse of the auditorium stage, mechanical headhouses at the auditorium flat roof and vents at the town hall roof are copper with pyramidal roofs. The auditorium stage head house is standing seam with a skylight in the south plane of the pyramid. The roofs are metal at the end of their service life.

At the entry portico, the roof is flat seam metal with a loosening membrane cover regletted into the stone parapet. The portico roof is about 120 square feet.



Figure 23: Typical condition at standing seam roofing with solder and caulking repairs over pitted copper.



Figure 24: Ventilating head house at main block gable. Note open ventilator pipe missing its cap and fatigued solder joints.



Figure 25: White membrane applied over flat seam metal at the portico roof. Note the reglets anchoring the white, loose membrane and accumulated debris due to ineffective drainage.

Flat seam and standing seam metal roof Recommendations

At the head houses, remove existing roofing and underlayment to the sheathing. Install new, high-temperature underlayment. Install new, standing seam copper roofing.

At the Town Hall entry portico remove the existing covering, roof and coating and underlayment. Install a new flat seam roof, pitched to drain to scuppers. Coordinate this work with masonry repair. Remove the stone balustrade and provide through flashing/roofing at the base during the roof replacement.

Roofing overall Recommendation

For increased efficiency and economy fully stage the exterior of the Town Hall and Annex in coordination with masonry and window work.

Windows Existing Conditions

Town Hall wood windows have weathered nearly ten decades. Aluminum storm windows have helped protect them, but exterior glazing is failing, years of gouging by opening or closing when the locks were not fully secure have left wood of meeting rails and muntins in need of repair. Sash cords in double hung windows have frayed and broken. Casement hardware is frozen. All the Town Hall windows are painted on the exterior and have clear finish on the interior. Exterior paint is failing and recent window restoration detected lead paint at the sash and trimi. There are 110 windows at the Town Hall that range in size from 8 to 30 and as large as 70 square feet. Windows were evaluated by Design Associates in consultation with Kronenberger and Sons who recently restored two windows at the Town Hall.

Aluminum ribbon windows at the Annex are in good condition. At time of inspection (4/2022) seals and desiccants in the double glazed units seemed intact. Screens and cranks were in fair condition though many of the awning window cranks were stripped or pins were sheared. The steel lintels at the windows show rust.



Figure 26: Town hall windows are large, multi-lite, single-glazed, double hung units. Interiors are clear finish and exteriors are painted.



Figure 27: Many muntins, like this one at the auditorium, require replacement.



Figure 28: More damage at the auditorium.



Figure 29: Window interior wood is dried out and needs treatment. Exterior glazing is also failing and needs replacement.



Figure 30: Another damaged muntin.



Figure 31: Temporary repair to a window joint.



Figure 32: Exterior aluminum storm stuck in a partly open position.



Figure 33: All exterior woodwork at windows is coated with failing lead paint.

Window Recommendations

Remove sash and record location for reinstallation. Retain existing storm windows for weather protection until restored units are reinstalled. Remove glass and glazing and paint from sash. Dispose of lead paint and hazardous materials in caulking and sealants. Repair damaged wood with wood Dutchmen. Reinstall glass and reglaze windows. Paint exterior, including the trim. Refinish the interior, staining to blend with existing woodwork in each room. Check and adjust hardware. Replace all sash cords with sash chains Refinish jambs and sills, staining as necessary to match adjacent woodwork.

Replace aluminum storm windows with new, two-track, single-hung, aluminum storm windows custom fit to openings.

Replace torn screens at the Annex ribbon windows. Replace crank hardware on awning units.

Address the rusting lintels when repointing is conducted by removing rust, applying a zinc-rich primer and epoxy coating the steel.

Door Existing Conditions

The wood doors at the Town Hall entry require wood repair where water and de-icing salts have damaged the wood and hardware adjustments to the automatic openers which are out of adjustment and closers which are stiff. The exterior and interior finishes are worn, the hardware has dulled. The clerks office wood screen and paneled door are also very weathered weathered. The wood door/window combination from the Lyons meeting Room to the balcony over the portico is in extremely poor condition. Exterior access to the Town Hall basement on the west side is via a steel door that is rusting. The aluminum frame and glazed doors into the auditorium side aisles and into the Annex are in fair condition.



Figure 34: One of three double doors into the Town Hall vestibule.

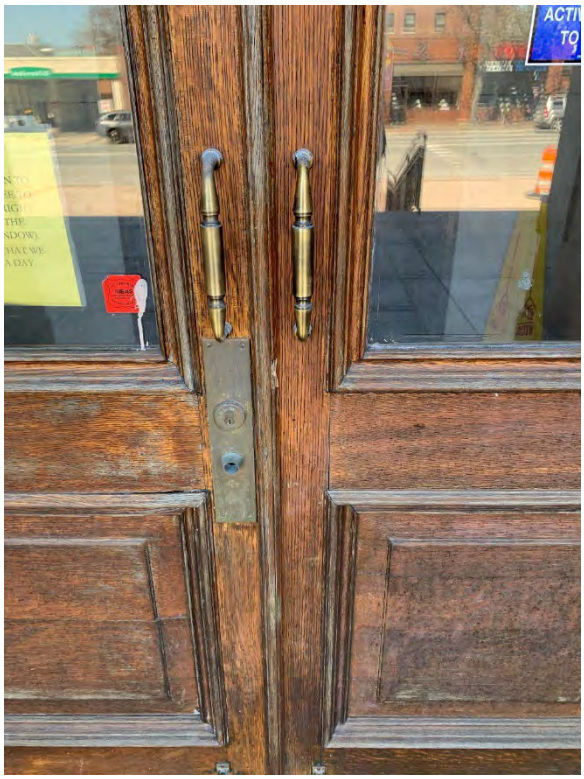


Figure 35: Worn finishes on this door are typical. Note the historic knob escutcheon at this door with know removed when the door was converted to automatic opening.



Figure 36: Bottom and top rails of doors are worn and do not provide good weather seal.



Figure 37: Bottom and top rails of doors are worn and do not provide good weather seal.



Figure 38: Adjustment to the automatic door opener coordinator device is required.

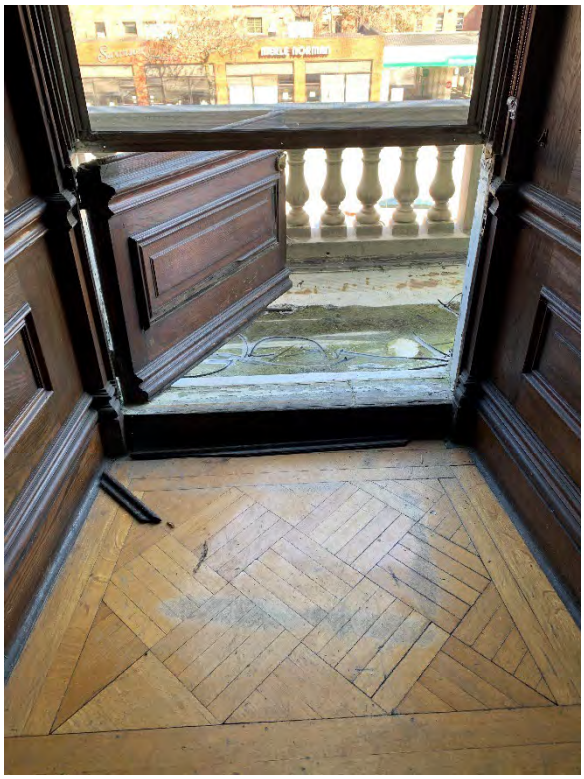


Figure 39: The half-door onto the portico balcony has fallen apart and needs to be re-built.



Figure 40: Pieces are falling from the half door to the portico balcony.



Figure 41: An original door at the clerks office of Town Hall has an original wood screen door.



Figure 42: The woodwork of the screen door and original door requires refinishing. Weatherstripping should be applied adn the hardware adjusted.



Figure 43: The west side aisle is accessed with this aluminum door.



Figure 44: Entry to the Annex. Door weatherstripping should be replaced. Note the light fixture and sagging ceiling plaster at the awning.

Door Recommendations

Dismount, remove hardware and epoxy repair the stiles and rails of the Town Hall entry doors. Stain wood to match adjacent wood and provide a satin finish clear coat to the wood. Refinish the wood trim at the opening. Adjust the automatic openers so door pairs are properly coordinated for opening and closing. Replace weatherstripping and adjust the resistance on the manual closers to make door opening easier. Reduce, if possible, the use of de-icing salts.

Reconstruct the Lyons meeting Room balcony door, retain hinges, provide new latch, weatherstripping, sill pan flashing. Upper half of opening is an operable window that will be repaired under the window repair project but with weather stripping and hardware coordinated with the door for a good weather seal.

Treat rust at the basement door and repaint.

Replace the weatherstripping at the aluminum entry doors and adjust automatic and manual closing mechanisms.

Skylights Existing Conditions

There are three skylights at the Town Hall. Two, copper-clad, 4-lite, shed skylights on the south slope of the front block roof illuminate staff restrooms. A third skylight is located in the south slope of the stage skylight. The copper is pitted, the wired glass is cracked and glazing is failing. In addition the copper crickets are painted over with roof patching material.



Figure 45: The shed skylight at the west bathroom. Note the aged copper and the over-coated copper cricket as well as all the replacement slates along the roof valley.



Figure 46: The east shed skylight. The worn copper and cracked glass are evident.

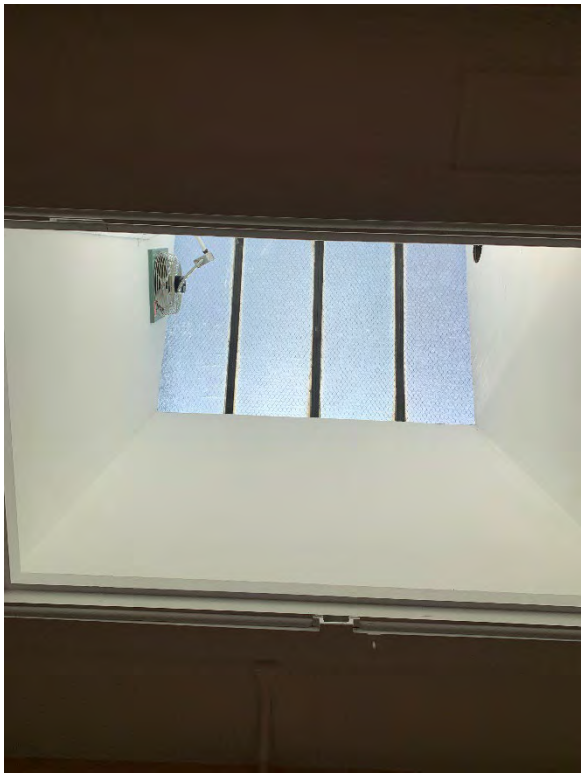


Figure 47: View up to skylight at the east restroom. Note the rough appearance of the glazing along the muntins.



Figure 48: The stage skylight is visible at the ventilation monitor. It should be repaired when the monitor copper is replaced.

Skylight Recommendations

Restore the restroom skylights. Remove and replace the exterior copper cladding. Build new frames with insulated, laminated, safety glass conforming to current code requirements. At the stage skylight, and while the ventilator head house is being clad in copper, reconstruct the skylight at the

south slope of the pyramid roof. Build a new frame with insulated, laminated, safety glass conforming to current code requirements.

Walls Existing Conditions

All 17,000 square feet of the Town Hall and the Annex exterior limestone walls require repointing. Failed mortar joints have allowed water to infiltrate and accelerate weathering of the stone. Joints in the stonework that face the sky need t-caps installed to prevent water entry. Limestone panels at the west elevation and at the Massachusetts Avenue entry are damaged from de-icing salts and freeze-thaw cycles. Stone balustrade units are cracked by rusting steel pins. Stone is discolored by dormant and active biological films. Repairs to cornice stones using soft steel are rusting and further damaging the stones. Soft steel anchors to stone at the west wing of the Town Hall have rusted and caused spalling of stone panels. Wall condition was evaluated by Building and Monument Conservation and their full report is included in this document.



Figure 49: A bronze staple joining two balustrade pieces together. Note the caulking in the skyward facing joints. A t-cap needs to be applied to these joints.

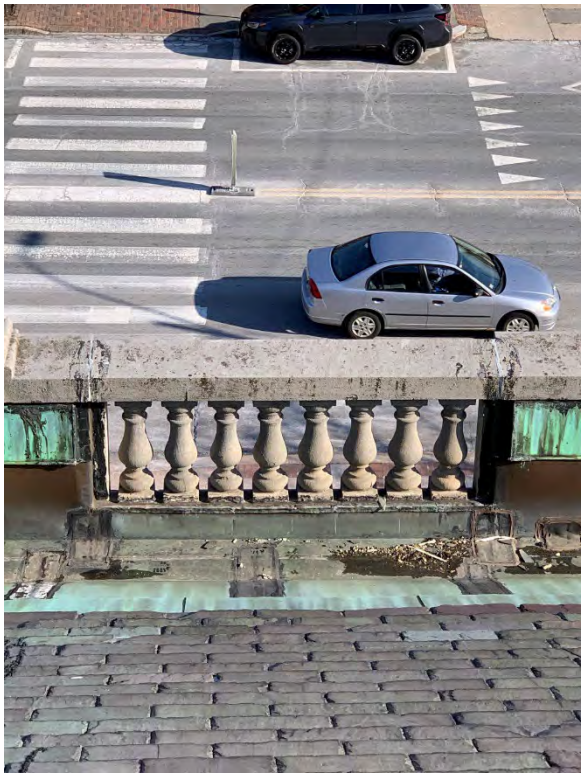


Figure 50: The flashing at the parapet should continue beneath the parapet stones to stop water penetration below.



Figure 51: Limestone along the west wall discolored by water absorption and application of de-icing salts.



Figure 52: Rust on lintels at the Annex. Treat the rust before it damages the stone work.

Walls Recommendations

Fully stage the exterior of the Town Hall and Annex in coordination with roofing work. Repoint the stone walls of the Town Hall and Annex with a soft repointing mortar to prevent damage to the limestone. Install t-caps at skyward-facing joints at parapets and balustrades. Replace limestone blocks damaged by salts and frost at the Massachusetts Avenue entry and along the west elevation. Consider using a light-colored, buff granite similar to the paving granite at the main entrance to visually blend with the limestone and be less vulnerable to frost damage and de-icing salts or use cast stone based on the cupola reconstruction match to limestone. Replace rusted pins at stone balustrades with bronze or stainless steel pins when the balustrade is removed to install new flashing at the perimeter of the Town Hall roof and at the portico over the main entry. Gently clean stone during repointing which will reduce the prominence of biological films for the near term, but note that growths cannot be fully eradicated and will slowly return. Remove rusting embedded metal anchors and repair staples and replace failed stone or repair with bronze or stainless steel staples and pins as required. Replace stone panels where anchors have caused spalling. If possible, reduce the application of de-icing salts around entries.

Commission a design to improve drainage on the west parking area to direct water away from stone walls.

Other Items

Some issues at the Town Hall and Annex apply to single elements. These are called out below following the condition and recommendation format used previously in this assessment.

Annex Awning Existing Condition

The aluminum trimmed awning at the Annex west entry is supported by two tension rods anchored to the west wall of the Annex. There is deflection at the roof and it no longer drains properly. The exterior plasterboard ceiling and lighting need replacement. The trim is dented at the northwest corner and the tension rod anchor points are rusting.



Figure 53: Annex awning. Note the rusting at the support rods, defelection of the roof toward the northwest corner and the dropping plaster ceiling.

Annex Awning Recommendations

Remove roof and plasterboard. Install tapered insulation, a fully adhered TPO roof directed to scuppers. Repair the metal rim and framing.,Install a new exterior plaster board ceiling and new lighting. Remove rust from the anchor rods and paint with a zinc-rich primer and epoxy coat for finish.

Basement Areaway Existing Condition

An areaway is located at the southwest corner of the Town Hall west wing. The perimeter pipe rail and metal grate cover are rusting.



Figure 54: Areaway metal cap. The rusting pieces should be treated and painted.

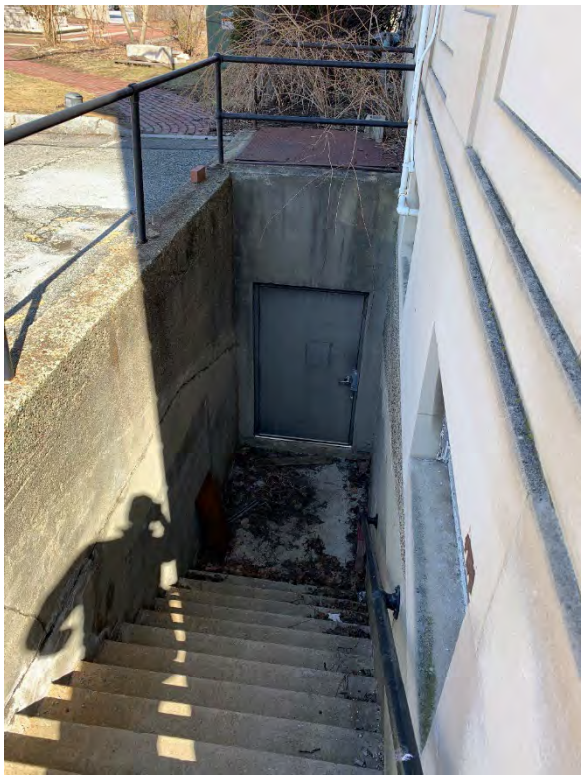


Figure 55: Rails and the steel door at the areaway.

Basement Areaway Recommendations

Remove rust from the steel and paint with a zinc-rich primer and epoxy coat for finish.

Basement Window Vents and Grilles Condition

Various grilles and vents have enclosed and filled many of the basement windows of the Town Hall. The decorative grilles are rusting. The vents, combinations of louvers and sometimes PVC piping are not attractive but appear to be in fair condition. Some may no longer being used.



Figure 56: Deteriorated louvers to be replaced if in use.



Figure 57: Other louvers. Determine if functioning.



Figure 58: East side security grates are rusting and need painting.

Basement Window Vent and Grille Recommendations

Remove rust from the steel grilles and paint with a zinc-rich primer and epoxy coat for the finish. Evaluate all vents for function. Remove those no longer required and reinstall windows. Replace active, but damaged louvers.

Chimney Existing Conditions

Two, limestone clad chimneys at the Town Hall appear to vent mechanical spaces. Mortar at the cladding is eroded and the mortar at the brick back-up is severely eroded. A circular, rusted vent pipe extends out the top of the west chimney. A broken wood frame is perched on the east chimney.



Figure 59: East chimney at the Town Hall. The wood and wire debris will be removed when repointing is done.



Figure 60: The west chimney includes a rusted sheet metal pipe stack.

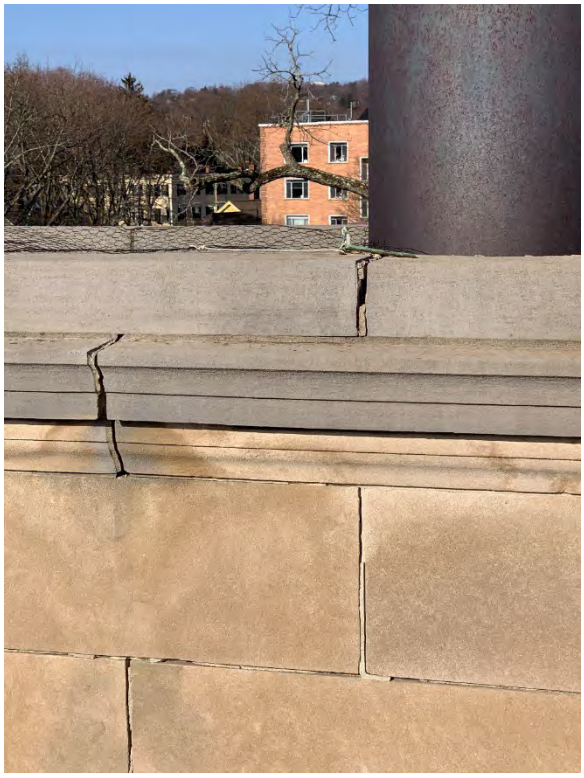


Figure 61: Detail of typical chimney masonry condition. Note all the open mortar joints.

Chimney Recommendations

Pointing would be carried out along with the wall repointing. Remove the rusted vent pipe and wooden frame. If the chimney's are not in active use, cap the opening with a stone slab. If active, when repointing, install t-caps at the skyward facing stone joints and establish a mortar wash to protect the tops of the brick back-up.

OPINION OF COST

The work to document, dismantle and protect the roof at the cupola location is estimated at, $**368,060.00**including contingency and professional fees.

The entire exterior restoration project, excluding documentation and removal of the cupola is estimated to be

$7,795,924.50

These figures represent costs for the last quarter of 2022. An eight percent escalation multiplier should be added every year after 2022.

These figures include design and engineering fees and a 15-percent concept design contingency reflecting the potential for scope modifications as the project moves into the construction document stages.

Costs were developed by the team based on unit cost data from recent completed work of comparable scope and similar materials in a public bid environment. The costing was applied to work areas derived scaled plans (included in Appendix A) and from field observation made possible by the assistance of Town of Arlington facilities staff. The chart below is divided into ten columns:

Column No.	Explanation
1.	CSI Master Format ID – An industry identifier number for the type of repair
2.	CSI Description – An industry description of the work
3.	Description of the item being repaired
4.	Number – Reserved for number of windows or doors of a specific description
5.	Quantity – Area or unit count of item being repaired
6.	Unit of measure for the quantity
7.	Cost of work per unit
8.	Line total – Cost of the quantity times cost per unit of quantity.
9.	Subtotal – Cost of all items per CSI division
10.	Total

COST CHART

ARLINGTON TOWN HALL OPINION OF COSTS REVISED AND AS SINGLE PROJECT									
CSI Code	**Item**	**Description**	**Number**	**quantity**	**unit**	**cost/unit**	**line total**	**subtotal**	**total**
	Division 1-General Requirments	Added to General Conditions Below Construction Cost							
01 52 00	construction facilities and temporary controls	-		52	week	$250.00	$13,000.00		
01 52 10	Crane and lifting	-		10	uses	$3,500.00	$35,000.00		
01 52 19	Sanitary facilities	-		52	week	$115.00	$5,980.00		
01 54 23	Temporary Scaffolding and Platforms	Roofing and Wall pointing		12	mo	$9,000.00	$108,000.00		
01 54 23	Temporary Scaffolding and Platforms	Cupola		5	mo	$9,000.00	$45,000.00		
01 56 00	Temporary barriers and enclosures	-		1	ls	$7,500.00	$7,500.00		
	SUBTOTAL							**$214,480.00**	
	Division 2-Existing Conditions								
024000	Demolition								
024213	Deconstructing structure	Deconstruct existing cupola, provide temporary weather protection		3	week	$56,000.00	$168,000.00		
02 42 19	Salvage	Salvage clock faces and mechanism for re-use in new cupola; Salvage intact terracotta pieces for Town		4	days	$5,600.00	$22,400.00		

	SUBTOTAL							**$190,400.00**	
	Division 3-Concrete (not used)								
	Division 4-Masonry								
04 03 00	Maintenance of Period Masonry								
04 03 01.13	Period Masonry Cleaning	Cleaning stonework.		17025	sf	$3.00	$51,075.00		
04 03 05.13	Period Masonry Mortaring	North elevation: Preparing mortar joints, repointing mortar joints - Front Elevation		3670	sf	$60.00	$220,200.00		
	Period Masonry Mortaring	South elevation: Preparing mortar joints, repointing mortar joints - Front Elevation		2380	sf	$60.00	$142,800.00		
	Period Masonry Mortaring	West: Preparing mortar joints, repointing mortar joints - Front Elevation		5675	sf	$60.00	$340,500.00		
	Period Masonry Mortaring	East: Preparing mortar joints, repointing mortar joints - Front Elevation		5300	sf	$60.00	$318,000.00		
04 03 05.71									

04 03 05.91	Period Masonry Rehabilitation	The existing balustrade requires removal down to the bottom rail inclusive of cranes, salvage of the existing balustrade and top rail and clean, Core the bottoms of the balusters to remove existing attachment, cut reglets through the piers to allow for new through wall flashing, core and apply new epoxy-coated bars into the bottom rail and epoxy with Hilti Hy-270 (note: thimbles will have to be made and soldered to the proposed flashing), reinstall the salvaged balustrade and rail.		300	lf of balustrade	$825.00	$247,500.00			
	Period Masonry Restoration	Repair cracked pieces, install Dutchmen, restore anchoring pins		80	ea	$600.00	$48,000.00			
04 72 00										
04 72 00.10	Cast Stone Masonry									
04 72 00.81	Assembly of cupola			20	week	$65,000.00	$1,300,000.00			
04 72 00.85	Laser scan	Existing cupola		1	ls	$27,500.00	$27,500.00			
	Cast stone	molds		150	pcs	$1,250.00	$187,500.00			
	Cast stone	Pieces-limestone color match		500	pcs	$550.00	$275,000.00			

	Cast stone	SS anchors		1	ls	$9,500.00	$9,500.00		
	SUBTOTAL							**$3,167,575.00**	
05 10 00	Division 5-Metals								
05 12 00	Structural Metal Framing								
	Structural Steel Framing	Framing for cast stone cupola		1	ls	$85,000.00	$85,000.00		
05 52 13	pipe railing	repair, paint pipe rail at areaway		1	ls	$1,500.00	$1,500.00		
	SUBTOTAL							**$86,500.00**	
	Division 6-Wood and Plastics (not used)								
07 30 00	Division 7 - Thermal and Moisture Protection								
07 31 26	Steep slope roofing								
07 50 00	Slate shingles	Unfading green slates (5/16 tk), underlayment and fasteners		7800	SF	$55.00	$429,000.00		
07 54 00	Membrane roofing								
	TPO roofing	Vapor barrier, tapered insulation, Dens Deck, fully adhered TPO, copper edge flashing around perimeter		10500	SF	$20.00	$210,000.00		
	TPO roofing - Annex Awning	Vapor barrier, tapered insulation, fully adhered TPO, scupper, metal rim repair, framing repair,		1	ls	$8,500.00	$8,500.00		

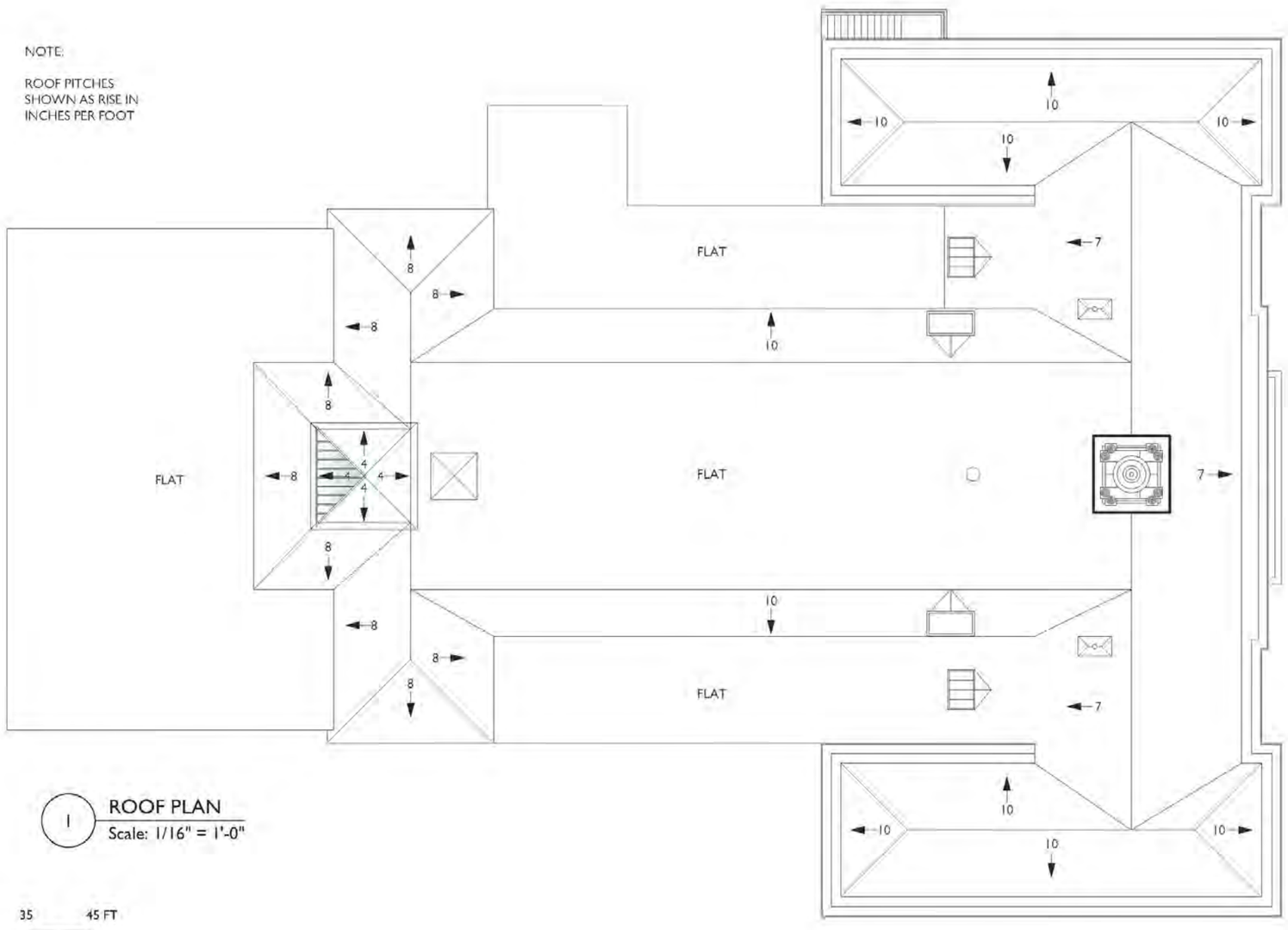
		exterior plaster board ceiling, new lighting							
07 60 00									
07 61 13	Flashing and Sheetmetal								
07 61 19	Standing seam metal roofing	Standing seam copper roofs at headhouse and roof		3	ea	$15,500.00	$46,500.00		
07 62 00	Flat seam sheet metal roofing	Flat seam copper roofing on portico roof		120	sf	$50.00	$6,000.00		
	Sheet Metal Flashing and Trim	20 oz Parapet flashing fully locked and soldered with through flashing at parapets.		300	lf x 48"	$825.00	$247,500.00		
	Sheet Metal Flashing and Trim	20 oz, copper wall cap		100	lf x 36"	$675.00	$67,500.00		
	Sheet Metal Flashing and Trim	20 oz, copper gutter		32	lf	$400.00	$12,800.00		
	Sheet Metal Flashing and Trim	Clock tower flashing and flat roof		85	sf	$500.00	$42,500.00		
	SUBTOTAL							**$1,070,300.00**	
	Division 8 - Openings (not used)								
08 01 11.61	Metal Door and Frame Repair	Annex Entries		3	ea	$800.00	$2,400.00		
		Auditorium side aisle exterior doors		2	ea	$600.00	$1,200.00		
		Town Hall Mechanical Room		1	ea	$1,200.00	$1,200.00		

08 01 52.93	Historic Treatment of Wood Windows	Restoration of wood windows on the façade and east and west elevations and south (101 windows) Window unit restoration Frame Restoration Hazardous Material Abatement Frame Painting and Caulking	**Number of windows per type**						
		Window Type A	23	26	sf	$345.00	$206,310.00		
		Window Type B	14	7	sf	$345.00	$33,810.00		
		Window Type C	2	40	sf	$345.00	$27,600.00		
		Window Type E	2	8	sf	$345.00	$5,520.00		
		Window Type F	5	39	sf	$345.00	$67,275.00		
		Window Type G	32	28	sf	$345.00	$309,120.00		
		Window Type O	1	4	sf	$345.00	$1,380.00		
		Window Type H	8	70	sf	$345.00	$193,200.00		
		Window Type I	4	35	sf	$345.00	$48,300.00		
		Window Type J	10	15	sf	$345.00	$51,750.00		
08 03 14	Conservation Treatment for Period Wood Doors	Town hall entry doors		3	ea	$3,000.00	$9,000.00		
		Lyons Meeting Room balcony door reconstruction		1	ea	$8,500.00	$8,500.00		
		Clerks office exterior door and screen		1	ea	$3,500.00	$3,500.00		

08 51 69.11	Aluminum Two Track Storm Windows - Allied Corporation								
		Window Type A	23	26	sf	$42.50	$25,415.00		
		Window Type B	14	7	sf	$42.50	$4,165.00		
		Window Type C	2	40	sf	$42.50	$3,400.00		
		Window Type E	2	8	sf	$42.50	$680.00		
		Window Type F	5	39	sf	$42.50	$8,287.50		
		Window Type G	32	28	sf	$42.50	$38,080.00		
		Window Type O	1	4	sf	$42.50	$170.00		
		Window Type H	8	70	sf	$42.50	$23,800.00		
		Window Type I	4	35	sf	$42.50	$5,950.00		
		Window Type J	12	15	sf	$42.50	$7,650.00		
08 63 14	Conservation Treatment for Metal Skylights	Town Hall Bathroom Skylights		2	ea	$3,500.00	$7,000.00		
		Stage skylight		1	ea	$7,500.00	$7,500.00		
	SUBTOTAL							**$1,102,162.50**	
	Division 9-Finishes (not used)								
	Division 10 - Specialties (not used)								
	Division 11 - Equipment (not used)								
	Division 12 - Furnishings (not used)								

	Division 13 - Special Construction (not used)								
	Division 14 - Conveying Systems (not used)								
	Division 26 - Electrical (not used)								
Construction Cost before markup									**$5,831,417.50**
	Contractor Profit and Overhead (15%)							$874,712.63	
TOTAL CONSTRUCTION COST									**$6,706,130.13**
	Concept Design Contingency (15%)							$874,712.63	
	Professional Fees (10%)							$583,141.75	
TOTAL PROJECT COST									**$8,163,984.50**
CUPOLA REMOVAL COST									**$368,060.00**
COST WITHOUT CUPOLA REMOVAL									**$7,795,924.50**

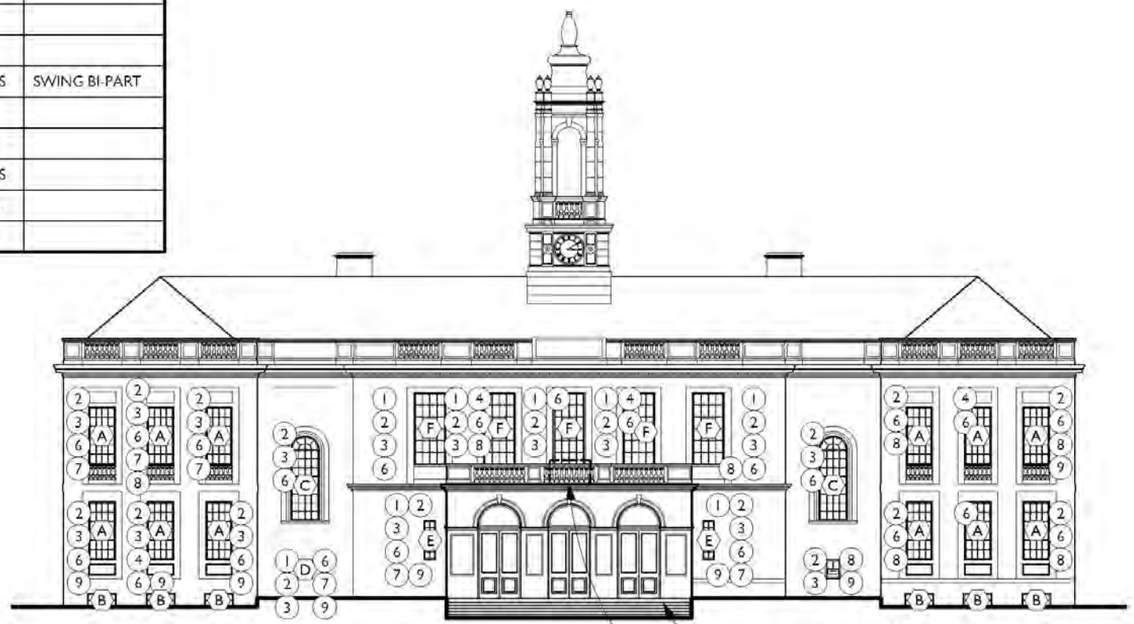
DRAWINGS



1 ROOF PLAN
Scale: 1/16" = 1'-0"

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WINDOW SCHEDULE					
WINDOW TYPE & QUANTITY	R.O. WIDTH	R.O. HEIGHT	R.O. SQ FT.	LITES	NOTES
(A) (23)	3'-6"	7'-6"	26.25 S.F.	12/12	
(B) (17)	3'-9"	1'-9 1/2"	6.7 S.F.	8 LITES	
(C) (2)	3'-9"	11'-0"	39.7 S.F.	6/16/16	ARCHED TOP
(D) (2)	1'-11 1/2"	2'-6"	4.9 S.F.	2/2	
(E) (2)	1'-6"	5'-0"	7.5 S.F.	6/6	
(F) (5)	4'-2"	9'-4 1/2"	39.1 S.F.	12/12	
(G) (32)	3'-9"	7'-6"	28.1 S.F.	12/12	
(H) (8)	5'-6"	12'-6"	68.75 S.F.	16/16	
(I) (4)	4'-6"	7'-6"	33.75 S.F.	20 LITES	SWING BI-PART
(J) (12)	3'-0"	5'-0"	15 S.F.	6/6	
(K) (3)	1'-8 1/2"	4'-6 1/2"	7.8 S.F.	3 LITES	
(L) (20)	12'-6 1/2"	5'-8"	71.1 S.F.	12 LITES	
(M) (6)	6'-3 1/4"	5'-8"	35.5 S.F.	6 LITES	
(N) (9)	8'-7 1/4"	5'-8"	50.3 S.F.	9 LITES	



1 NORTH ELEVATION
Scale: 1/16" = 1'-0"

0 5 15 25 35 45 FT

(1) NEW STORM
(1a) ADD STORM
(2) PAINT EXTERIOR & TRIM
(3) GLAZE
(4) NEW SASH CHAIN
(5) NEW SASH ROPE
(6) REFINISH INTERIOR
(7) REFINISH INTERIOR JAMB & SASH
(8) BROKEN LITE
(9) REPLACE MUNTINS
(10) COAT LINTEL STEEL
(11) REPLACE RIVETS IN MULLION COVERS
(12) REBUILD
(13) EXTERIOR TRIM WOOD REPAIR
(14) REPLACE CRANKS
(15) DG SEALS
(16) REPLACE SCREENING
(17) REPAIR CASEMENT BOLTS

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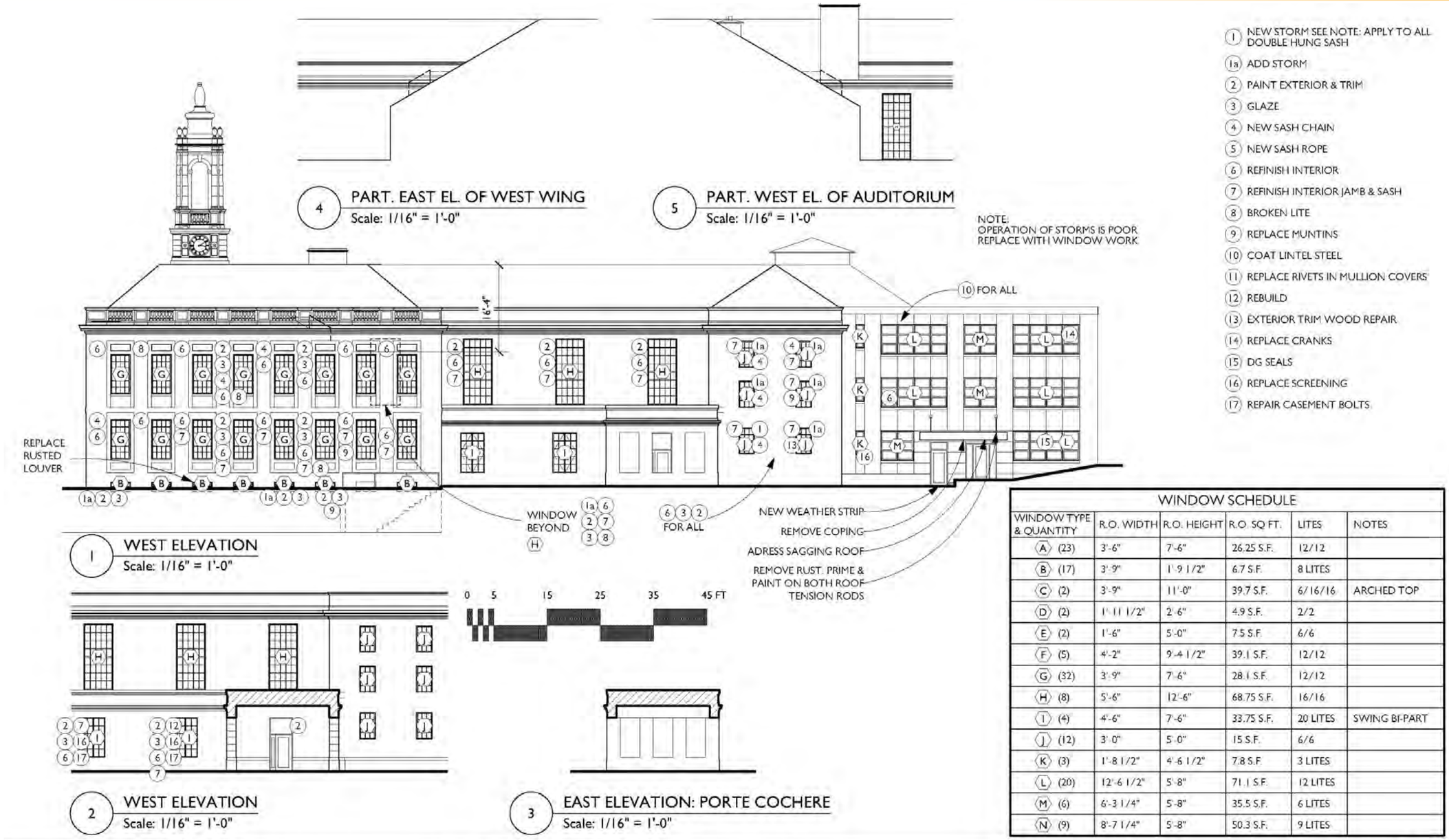
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ARLINGTON, MA 02476

DATE 12-7-2022
REVISIONS

NORTH ELEVATION
1.1

NORTH



WINDOW SCHEDULE

WINDOW TYPE & QUANTITY	R.O. WIDTH	R.O. HEIGHT	R.O. SQ FT.	LITES	NOTES
(A) (23)	3'-6"	7'-6"	26.25 S.F.	12/12	
(B) (17)	3'-9"	1'-9 1/2"	6.7 S.F.	8 LITES	
(C) (2)	3'-9"	11'-0"	39.7 S.F.	6/16/16	ARCHED TOP
(D) (2)	1'-11 1/2"	2'-6"	4.9 S.F.	2/2	
(E) (2)	1'-6"	5'-0"	7.5 S.F.	6/6	
(F) (5)	4'-2"	9'-4 1/2"	39.1 S.F.	12/12	
(G) (32)	3'-9"	7'-6"	28.1 S.F.	12/12	
(H) (8)	5'-6"	12'-6"	68.75 S.F.	16/16	
(I) (4)	4'-6"	7'-6"	33.75 S.F.	20 LITES	SWING BI-PART
(J) (12)	3'-0"	5'-0"	15 S.F.	6/6	
(K) (3)	1'-8 1/2"	4'-6 1/2"	7.8 S.F.	3 LITES	
(L) (20)	12'-6 1/2"	5'-8"	71.1 S.F.	12 LITES	
(M) (6)	6'-3 1/4"	5'-8"	35.5 S.F.	6 LITES	
(N) (9)	8'-7 1/4"	5'-8"	50.3 S.F.	9 LITES	

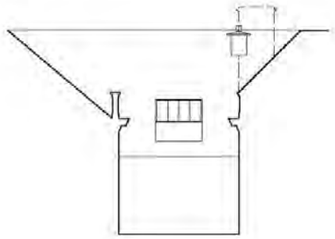
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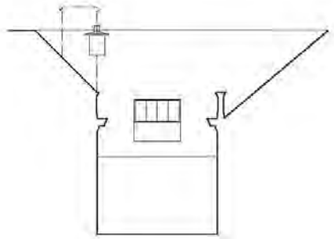
DATE	REVISIONS
12-7-2022	

WEST ELEVATION & PORTE COCHERE
1.2
WEST

WINDOW SCHEDULE					
WINDOW TYPE & QUANTITY	R.O. WIDTH	R.O. HEIGHT	R.O. SQ FT.	LITES	NOTES
A (23)	3'-6"	7'-6"	26.25 S.F.	12/12	
B (17)	3' 9"	1' 9 1/2"	6.7 S.F.	8 LITES	
C (2)	3'-9"	11'-0"	39.7 S.F.	6/16/16	ARCHED TOP
D (2)	1'-11 1/2"	2'-6"	4.9 S.F.	2/2	
E (2)	1'-6"	5'-0"	7.5 S.F.	6/6	
F (5)	4'-2"	9'-4 1/2"	39.1 S.F.	12/12	
G (32)	3'-9"	7'-6"	28.1 S.F.	12/12	
H (8)	5'-6"	12'-6"	68.75 S.F.	16/16	
I (4)	4'-6"	7'-6"	33.75 S.F.	20 LITES	SWING BI-PART
J (12)	3'-0"	5'-0"	15 S.F.	6/6	
K (3)	1'-8 1/2"	4'-6 1/2"	7.8 S.F.	3 LITES	
L (20)	12'-6 1/2"	5'-8"	71.1 S.F.	12 LITES	
M (6)	6'-3 1/4"	5'-8"	35.5 S.F.	6 LITES	
N (9)	8'-7 1/4"	5'-8"	50.3 S.F.	9 LITES	

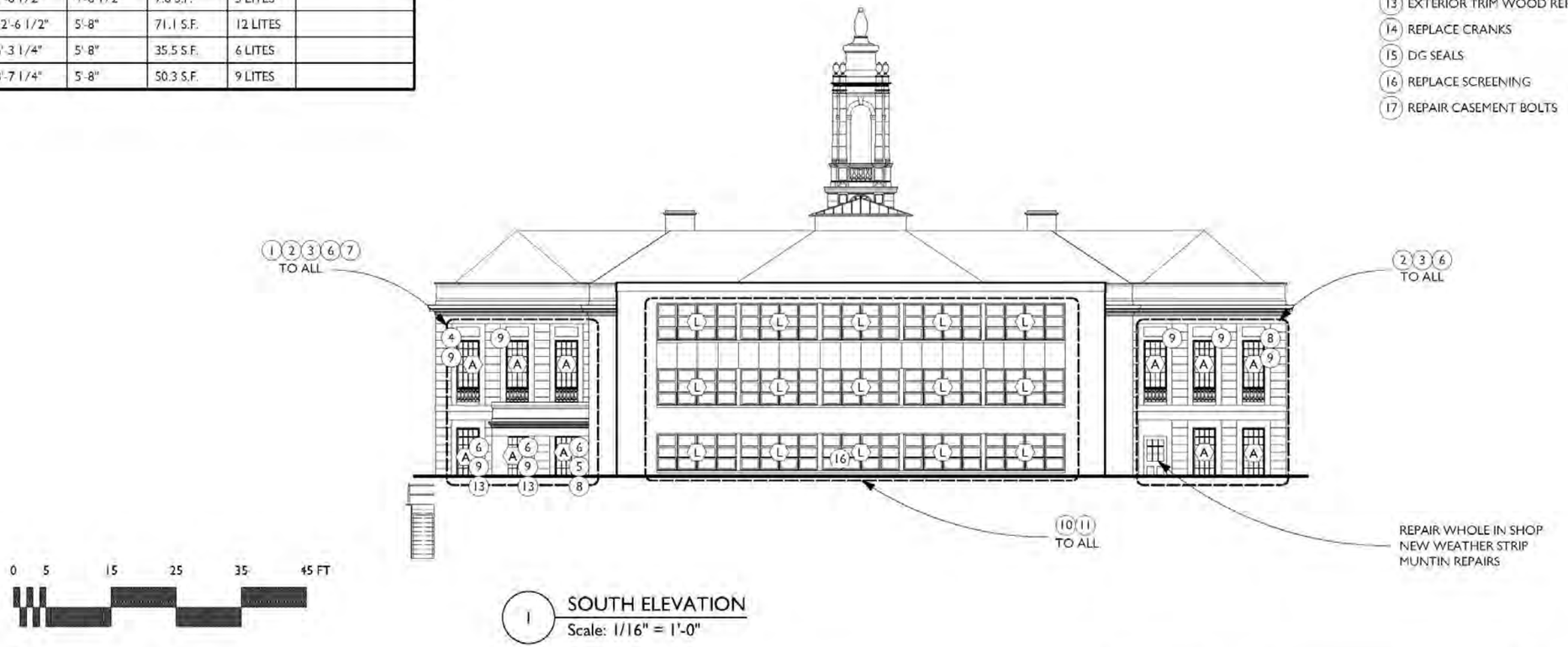


2 SOUTH ELEVATION OF WEST WING
Scale: 1/16" = 1'-0"



3 SOUTH ELEVATION OF EAST WING
Scale: 1/16" = 1'-0"

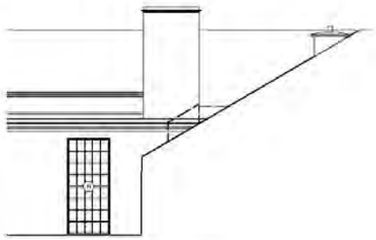
1 NEW STORM
1a ADD STORM
2 PAINT EXTERIOR & TRIM
3 GLAZE
4 NEW SASH CHAIN
5 NEW SASH ROPE
6 REFINISH INTERIOR
7 REFINISH INTERIOR JAMB & SASH
8 BROKEN LITE
9 REPLACE MUNTINS
10 COAT LINTEL STEEL
11 REPLACE RIVETS IN MULLION COVERS
12 REBUILD
13 EXTERIOR TRIM WOOD REPAIR
14 REPLACE CRANKS
15 DG SEALS
16 REPLACE SCREENING
17 REPAIR CASEMENT BOLTS



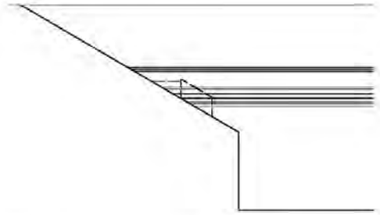
1 SOUTH ELEVATION
Scale: 1/16" = 1'-0"

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WINDOW SCHEDULE					
WINDOW TYPE & QUANTITY	R.O. WIDTH	R.O. HEIGHT	R.O. SQ FT.	LITES	NOTES
A (23)	3'-6"	7'-6"	26.25 S.F.	12/12	
B (17)	3'-9"	1'-9 1/2"	6.7 S.F.	8 LITES	
C (2)	3'-9"	11'-0"	39.7 S.F.	6/16/16	ARCHED TOP
D (2)	1'-11 1/2"	2'-6"	4.9 S.F.	2/2	
E (2)	1'-6"	5'-0"	7.5 S.F.	6/6	
F (5)	4'-2"	9'-4 1/2"	39.1 S.F.	12/12	
G (32)	3'-9"	7'-6"	28.1 S.F.	12/12	
H (8)	5'-6"	12'-6"	68.75 S.F.	16/16	
I (4)	4'-6"	7'-6"	33.75 S.F.	20 LITES	SWING BI-PART
J (12)	3'-0"	5'-0"	15 S.F.	6/6	
K (3)	1'-8 1/2"	4'-6 1/2"	7.8 S.F.	3 LITES	
L (20)	12'-6 1/2"	5'-8"	71.1 S.F.	12 LITES	
M (6)	6'-3 1/4"	5'-8"	35.5 S.F.	6 LITES	
N (9)	8'-7 1/4"	5'-8"	50.3 S.F.	9 LITES	

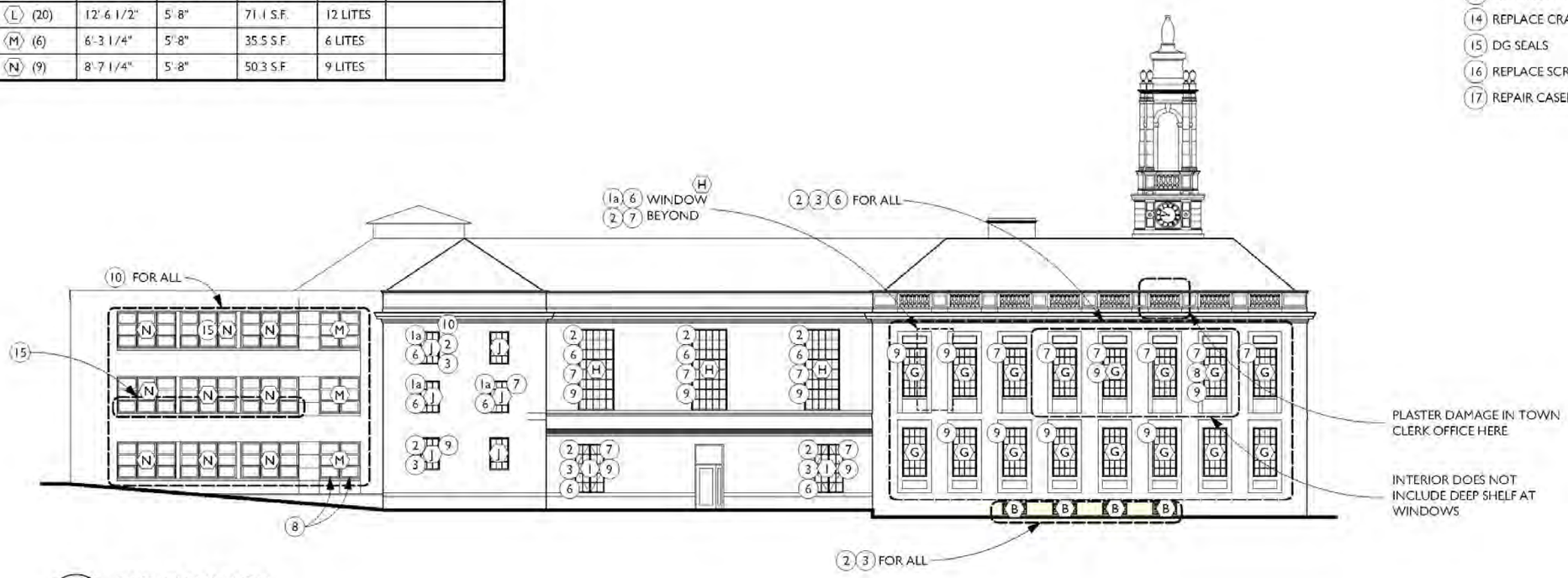


2 PART. WEST EL. OF AUDITORIUM
Scale: 1/16" = 1'-0"



3 PART. EAST EL. OF WEST WING
Scale: 1/16" = 1'-0"

1 NEW STORM
1a ADD STORM
2 PAINT EXTERIOR & TRIM
3 GLAZE
4 NEW SASH CHAIN
5 NEW SASH ROPE
6 REFINISH INTERIOR
7 REFINISH INTERIOR JAMB & SASH
8 BROKEN LITE
9 REPLACE MUNTINS
10 COAT LINTEL STEEL
11 REPLACE RIVETS IN MULLION COVERS
12 REBUILD
13 EXTERIOR TRIM WOOD REPAIR
14 REPLACE CRANKS
15 DG SEALS
16 REPLACE SCREENING
17 REPAIR CASEMENT BOLTS



1 EAST ELEVATION
Scale: 1/16" = 1'-0"

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ARLINGTON, MA 02476

DATE REVISIONS
12-7-2022

EAST ELEVATION
1.4
EAST

APPENDICES

Arlington Town Hall
Exterior Masonry Assessment – draft March 28, 2022

Introduction

In March of 2022, Ivan Myjer of Building and Monument Conservation, working as part of the team led by Patrick Guthrie of Design Associates Inc, surveyed the exterior masonry of the Arlington Town Hall. The survey was conducted from the ground and from the upper flat roof of the building. The purpose of the survey was to evaluate the condition of the exterior masonry and develop a plan for the long-term preservation and maintenance of the building.

Executive Summary

The original portion of the Arlington Town Hall was designed by Richard Clipston Sturgis and completed in 1913. The addition at the rear was built in 1955. Both the original building and the addition are clad with Indiana limestone. The clocktower on the roof of the 1913 building is clad in white glazed terra cotta.

With the exception of the clocktower, the original building and the addition are in good shape structurally. The exterior masonry, however, is suffering from long deferred maintenance. Water is entering the walls through open and failed mortar joints, unprotected upward facing joints and failed flashing and sealants. **(Reference photos 4 & 5)** The limestone units for both the original building and the addition are attached to the back-up masonry with steel anchors. In a few locations, these anchors have rusted as a result of the water infiltration. The expansion of the corroded anchors has cracked and spalled the limestone in the locations where the corrosion is very advanced. **(Reference photo 3)** Reducing water infiltration into walls by repointing the joints and protecting upward facing joints is critical to preventing additional stone cracking and spalling from the expansion of rusting stone anchors.

Limestone is a very porous stone. When it is used at grade moisture that is in the soil around the base of the building or sitting on the hardscape is pulled into the stone through capillary action. Moisture wicking into the stone from the soil around Town Hall is responsible for the staining and discoloration of the limestone that is visible at the base of the building. **(Reference photos 2,11,12)** On the north and west elevations, dissolved deicing salts are being drawn into the stone with the water that is pulled into the stone from the walkways, stone landing and parking lot. When the water that has entered the stone evaporates, the salts recrystallize within the pores of the stone. The expansive force of the salt recrystallization has resulted in significant damage to the stone on the west elevation at the interior and exterior of the porte cochere and around the entrance to addition. **(Reference photos 11 & 12)**

On the west elevation, the stone at the base of the building has also been damaged by the expansive force of water inside saturated units of stone freezing in the winter. **(Reference photo 13)** The optimal solution to the salt and frost problem would be to improve the drainage of water away from the the walls and, if possible, reduce the amounts of salt that is spread on the hardscape. Salt contaminated stone cannot be repaired, the only solution is to replace it with new

units of Indiana limestone. Stone replacement without first correcting the drainage problems at the base of building would result in the rapid deterioration of the new stone.

The limestone units on the rest of the building are in relatively good condition but there are some problems resulting from localized conditions. At the front entrance, the panels below the balcony balustrade are damaged from water flowing off of the balcony and into the open joints of the balcony cornice. **(Reference photo 2)** The limestone panels below the balcony include units with carvings of the state and national seals. Repairing the water infiltration issues at the front of the building is critical to preventing damage to the carvings. The upward facing joints at all of the cornices – not just at the balcony - require repointing and the installation of lead "T" caps over the joints to prevent water from flowing through the joints and into the walls below. **(Reference photos 5 & 6)**

On the west elevation at the northwest corner of the wing, a large cornice unit cracked at some point in the past and was repaired with steel staples installed over the crack on the top surface of the stone. **(Reference photo 5)** These uncoated steel staples have begun to corrode. This condition requires further investigation to determine if the repair is stable. There is a danger that the ongoing corrosion of the steel used in the repair will eventually crack the stone into smaller fragments. We recommend using a lift to look at the conditions more closely if the restoration of the building is not going to take place in the near future. The whole unit will probably have to be replaced at some point but it would be prudent to check the condition and, if necessary, stabilize the unit for the short term.

The roof level balustrade units on the front and east and west returns of the 1913 building are in relatively good condition. On two of the bays on the front elevation, most of the balusters in those two sections are cracked either at the top or the bottom or in some cases at both ends. This type of cracking is usually a sign that the units were pinned together with mild steel pins that have begun to corrode. **(Reference photo 10)**

Bronze cramp anchors set in small kerfs cut into the stone are visible at the top of the balustrade coping units. Since most of the balusters do not exhibit cracking, it is likely that bronze pins were used to secure these units to each other. The cracks in the balusters at the front of the building may be an indication that steel pins were substituted for bronze in some locations. When the balustrade on the front and sides is removed to replace the deteriorated roof flashing, all of the individual stone units should be checked for steel pins. Cracked or broken balusters will have to be replaced with new limestone units and all steel pins will have to be removed and replaced with stainless steel or another type of non-corrosive pin.

Biological films have colonized the surface of some sections of the stonework. **(Reference photos 5 & 6)** The films appear very dark when they are dry and slightly greenish when they are wet. Removing the films is not difficult but preventing them from returning in only a few years in close to impossible.

Terra Cotta Clock Tower

The clock tower is a somewhat independent section of the 1913 building. Unlike the rest of the building, which is clad in Indiana limestone, the clocktower is clad with terra cotta – a material that was relatively new in 1913 when the clocktower was constructed. Architectural terra cotta units are made from clay that has been formed in a mold and fired to a high temperature in a kiln. After the first firing, the units are coated with a glaze and then fired a second time to vitrify the glaze and bond it to the substrate. To reduce weight, and prevent cracking of the clay as it dries, all but the very smallest units were made hollow. The individual units are connected to the building, and to each other, with steel pins, dowels and rods which in turn are connected to angles, channels, and small I- beams that are embedded in the masonry. In the thinner sections of the wall, the terra cotta units comprise the entire wall. In the thicker sections, the terra cotta units were placed over hollow clay tiles, brick masonry or cast concrete walls. **(Reference Photo 21 for typic connection details for terra cotta towers)**

Unlike limestone, terra cotta is very strong and is not subject to deterioration from acid rain. Terra cotta assemblies however have several weaknesses. The entire system deteriorates when water infiltrates the assemblies through unmaintained joints. The glazes on the exterior surfaces prevent water that has entered the system to evaporate through the surface of the units. Water that remains in the chambers corrodes the steel anchors and soaks into the exposed clay bisque on the interior. If the water that is trapped within the clay bisque freezes, the bond between the exterior glaze and the clay substrate breaks and the glazes begin to flake off. When the glaze begins to fail, water enters the unprotected clay bisque through the face of the unit and the process of glaze loss accelerates. Occasionally, the amount of water trapped in a unit is so great that when the temperature drops below freezing, the units are cracked by the expansive force of the water turning into ice. Cracked units of terra cotta can represent a safety hazard to the public if cracked sections detach from the parent unit.

The clocktower is exhibiting several types of advanced deterioration. Many of the terra cotta units are cracked – some in several locations. **(Reference photos 19 & 20)** The exposed portions of the concrete walls are cracking and spalling from the corrosion of the steel reinforcement located in the concrete. **(Reference photo 17)** There is widespread glaze failure and spalling of the exposed clay. **(Reference photo 20)** The steel reinforcing at the roof of the belfry is corroding. **(Reference photo 18)** One of the two urns on the northwest corner has a large crack.

Unfortunately, the clocktower has deteriorated beyond the point of repair. Due to the manner in which terra cotta structures were built with steel supports and anchors buried inside the structure, it is not possible to reach and repair or replace the steel without cutting the terra cotta to expose the steel. At this point in time, the only option is to replace the clocktower either with new terra cotta or another material that closely resembles terra cotta. The least expensive solution would be to replace the clocktower with a new structure clad in a thin shelled material such as Glass Fiber Reinforced Plastic (fiberglass) or Glass Fiber Reinforced Concrete (GFRC). The most expensive solution would be to replace the clocktower with new terra cotta or cast stone.

Given the amount of cracking that is visible, and the life safety issues that arise from the possibility of a fragment of terra cotta detaching, we recommend documenting the existing

structure with a laser scan and then removing it sooner than later even if the fund for replacing it are not currently available.

Summary of Exterior Masonry Conditions

Limestone Walls

1. Open and failing mortar joints.
2. Repointing with a mortar that was too hard and/or not permeable enough for limestone.
3. Failing sealants – especially at copper flashing and the upward facing joints of the cornice.
4. Advanced stone weathering from water infiltration into open mortar joints.
5. Spalling of limestone units as a result of the corrosion and subsequent expansion of steel anchors.
6. Cracking and spalling of baluster units either as a result of the corrosion and subsequent expansion of steel pins between the units or water collecting in the holes where the pins are located and corroding.
7. Shifting of units – especially at the chimneys as a result of ice jacking in the open joints.
8. Advanced deterioration of limestone units at grade resulting from salt crystallization damage.
9. Staining and discoloration of limestone units resulting from rising damp.
10. Frost damage to units are saturated as a result of ice melting during the day and refreezing at night.
11. Discoloration of limestone from living and dormant biological films that have colonized the upward facing surfaces of the stone.
12. Differential erosion of mortar joints resulting from the geometry of the building and streams of water being repeatedly channeled over the same locations.
13. Cracking resulting from prior repairs to the stone using uncoated steel pins and anchors. This condition exists at a large cornice unit on the west elevation.
14. Failure of prior repairs made to the limestone on the west elevation as a result of salts and frost.

Terra Cotta Clock Tower

1. Cracking of terra cotta units as result of the corrosion and expansion of steel anchors or reinforcement.
2. Cracking of terra cotta units resulting from water freezing in the hollow chambers of the units.
3. Cracking of the concrete back up masonry as result of the corrosion and expansion of steel reinforcement.
4. Open and failed mortar joints and sealant joints.
5. Glaze flaking and spalling.

Recommendations for Exterior Masonry:

Limestone Walls

1) Check the condition of the cracked cornice unit on the west elevation up close to evaluate the condition of the corroding steel anchors used to repair the stone. Stabilize, or remove, the damaged unit if it appears that the stone is cracking as a result of the corrosion of the metal staples used in the repair.
2) Evaluate changing the pitch of the hardscape on the west elevation to reduce water infiltration into the base of the wall.
3) Evaluate reducing the amount of salt used on the hardscape in the winter to melt snow and ice.
4) Evaluate using another type of stone when repairing the damaged limestone at the base of the porte cochere. Granite is significantly less porous than limestone and is commonly used at grade.
5) 100% repointing of exterior walls in phases.
6) Installation of lead T caps at all upward facing mortar joints that are not protected by flashing.
7) Disassembly and reassembly of balustrade in conjunction with roof flashing re-detailing. Removal of ferrous metal pins from limestone units and replacement with stainless steel pins. Replacement of cracked or broken balusters.
8) Removal of corroded steel anchors where the stone has spalled as a result of the corrosion followed by installation of new stainless steel anchors and repair of the damaged units with a new piece of limestone cut to fit the area of loss.
9) Removal of damaged cornice unit on the west elevation that was previously repaired with steel pins followed by replacement with a new matching limestone unit.
10) Repair of small areas of loss in the stone with stone repair mortars that are formulated for the repair of limestone.
11) Limited repair to damaged limestone on the west elevation at grade.
12) Repairs to damaged limestone at the interior and exterior of the Porte Cochere with new replacement limestone units and patching of small areas of loss.

Terra Cotta Clock Tower

1) If the tower cannot be removed in the near future then evaluate either a controlled removal of cracked pieces of terra cotta and/or covering the front of the tower with a material such as metal mesh to prevent the possibility of any fragments falling from the tower to the street.
2) Document the existing structure with a laser scan to make it easier to recreate the ornament and the overall appearance of the tower in the future.
3) Remove tower and cap opening in roof to prevent water infiltration.
4) Replicate tower in terra cotta or another material such as fiberglass or cast stone.



Photo 1: North elevation of Town Hall with Indiana limestone exterior and terra cotta clocktower.



Photo 2: Water flowing from the balcony roof through the open joints at the top of the cornice is entering the wall and causing the deterioration of the ashlar units between the above the arches.



Photo 3: Moisture containing dissolved deicing salts is being pulled into the stone from the granite plaza at the base of the north elevation.



Photo 4: Moisture wicking up from the ground on the west elevation has discolored the stone and caused the anchor securing the stone to the backup masonry to corrode. The expansive force of the corroding steel has spalled the stone below the sill.



Photo 5: The cornice unit at the corner of the wing on the west elevation cracked at some point in the past. The crack was repaired with four or five steel staples that bride the crack and the joint. The steel staples are rusting and possibly re-cracking the stone. This unit requires additional investigation.



Photo 6: The upward facing joints on the parapet are protected by the copper gutter but the upward facing joints on the cornice are unprotected. The face and top of the cornice are stained from biological films colonizing the weathered stone.



Photo 7: Water flowing through the open joints at the top of the cornice is responsible for the staining and deterioration of the ashlar units below the cornice.



Photo 8: The mortar in the chimney joints is completely failed. The coping units have shifted slightly as a result of water freezing in the open joints. The brick joints inside the chimney are in need of repointing.



Photo 9: Bronze anchors were used to secure the balustrade coping stone to each other.



Photo 10: Individual balusters in two bays on the north elevation are cracked at the top and bottom. The cause of the cracking is most likely the corrosion of steel pins used to secure the balusters in place.



Photo 11: The limestone units on the interior of the porte cochere are stained and damaged from water infiltration at the top and bottom of the low wall. Some of the units were repaired in the past. The earlier repairs have reached the end of their service life.



Photo 12: The stonework at the base of the west elevation is stained from moisture wicking into the stone from the parking lot asphalt. The edges of the stone units at the ledges appear to be damaged from frost.



Photo 13: The corner unit at the base of the wall is fractured as a result of frost damage.



Photo 14: South elevation of the addition. The limestone panels are in good condition but the mortar joints are severely eroded.



Photo 15: Water flowing off the edge of the sill is responsible for the deterioration of the vertical mortar joint below the corner of the sill.



Photo 16: The terra cotta clocktower appear to be in relatively good condition when viewed from a distance but when it is viewed up close the problems are very visible.



Photo 17: The concrete frame inside the clocktower is cracked from the expansion of the corroded steel reinforcement inside the concrete.



Photo 18: The steel frame that supports the belfry roof is rusting. Corrosion at the buried ends of the steel members is cracking and displacing the terra cotta.



Photo 19: The top surface of the terra cotta sill units and the adjacent jamb are cracked in several locations.



Photo 20: The terra cotta units at the northeast corner are cracked on both faces of the corner.

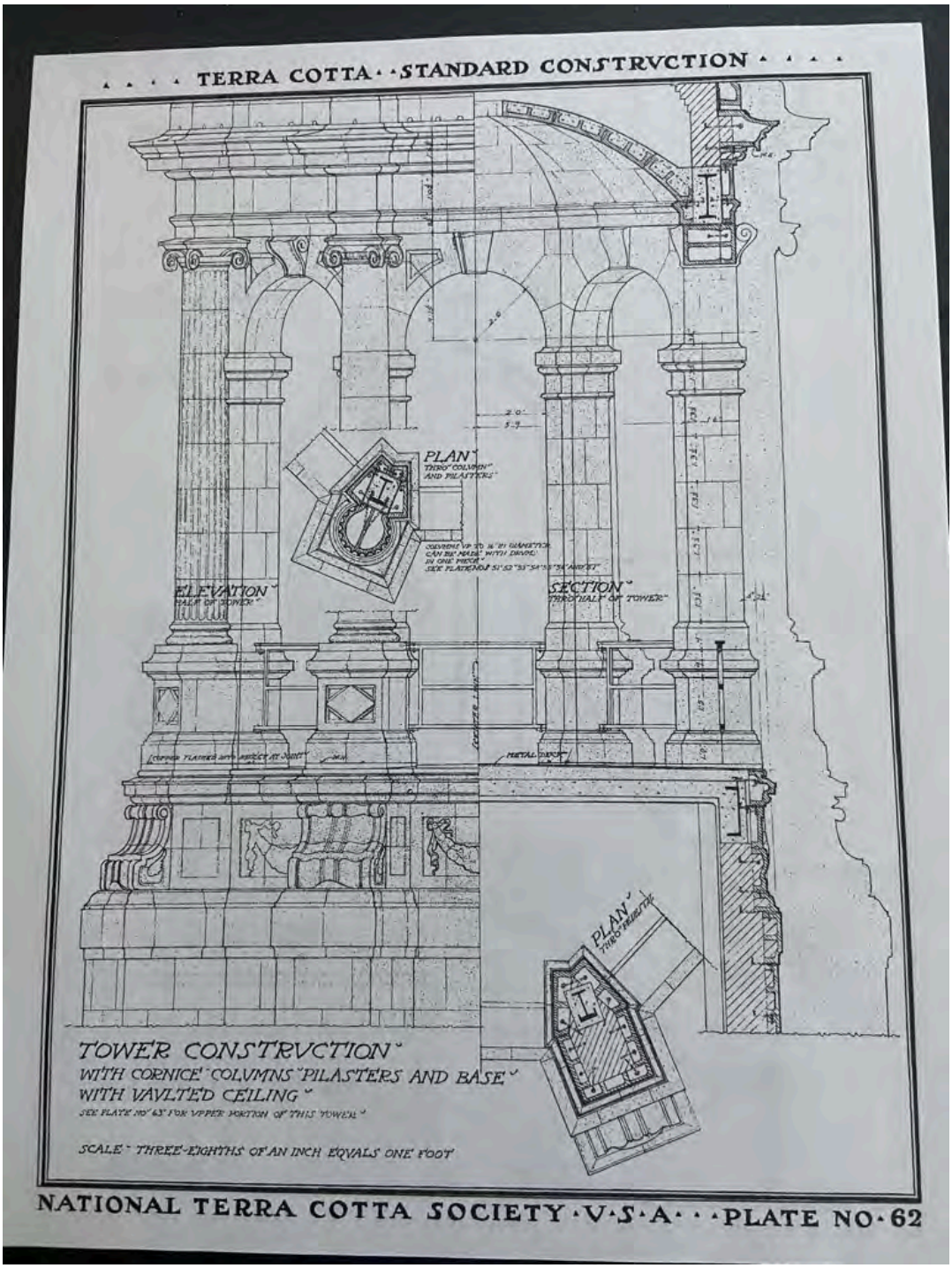


Photo 21: Standard detailing of joints and connections for a terra cotta clocktower similar to the one on the top of the Arlington Town Hall.

Silman

Date:	11/24/21	Date on site:	11/16/2021
Attention:	Jim Feeney	Project name:	Arlington Town Hall Clock Tower Investigation
Company:	Town of Arlington	Silman project #:	20578
Report:	Existing Conditions Assessment	Location:	Arlington Town Hall
Owner:	Town of Arlington	Present at site:	Jim Feeney
Submitted by:	Mike Laracy	cc:	Mike Auren

Structural Engineers

111 Devonshire Street
Boston, MA 02109
617 695 6700
silman.com

BACKGROUND

Silman was retained by the Town of Arlington to observe the structural conditions of the town hall clock tower located at 730 Massachusetts Avenue, Arlington, MA. No existing structural drawings were made available to Silman prior to our visit. Silman has requested that if a copy of these drawings be located that they be passed on to our office for review. During the site visit Silman observed limited existing architectural drawings that were hung along the walls of the building. Based on these drawings and observations in the field, it appears the clock tower framing consists of a steel frame clad infilled with terra-cotta and clad in stone. The tower itself appears to be supported on (4) four steel wide flange beams within the attic space that span to brick masonry bearing walls. On top of these members sit four steel wide flange grillage beams that run diagonal to the supporting beams below. These grillage beams support four double angle columns that extend up to the top of the clock tower. Above this support steel are two additional framed levels, one to access the clocks, and the other acting as a flat roof over the clock tower room. A higher peaked roof exists over this lower flat roof area. Both lower levels are similarly framed with four concrete encased steel members framing between the columns, and a cast in place concrete slab spanning to these members. See Figure 1 for the typical layout of structure overlaid on an elevation from the existing architectural drawing. SSK-1 in the appendix of this report also shows a schematic layout of the structural framing at each level.

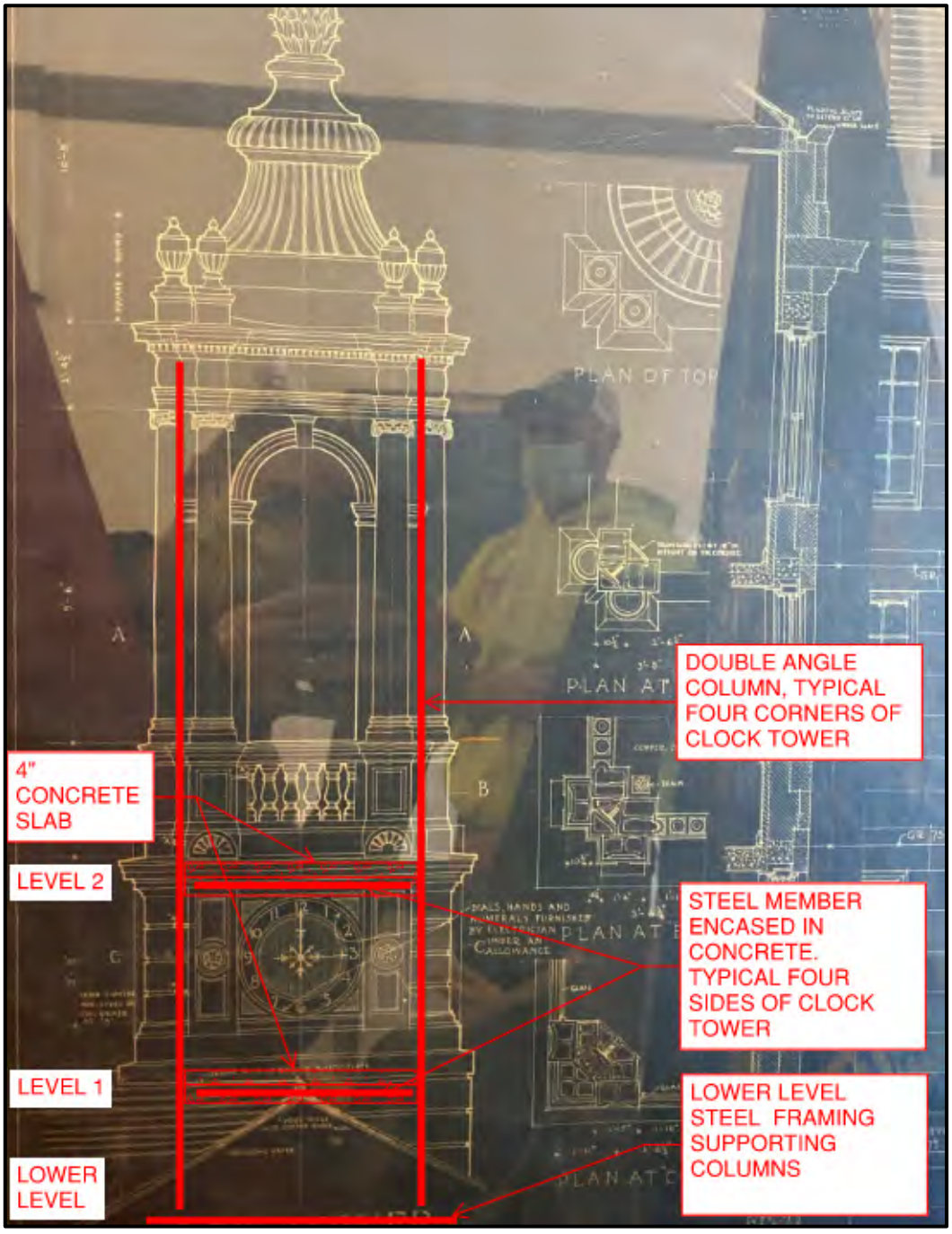


Figure 1 Structure within the clock tower overlaid on a photo of an existing architectural drawing.

INVESTIGATION

Mike Laracy of Silman visited the site on 11/16/2021 to observe the clock tower. Silman did not conduct any destructive probing during the site visit. During the site visit, Silman noted the following:

Interior Observations

Item 1.0

The lower level beams supporting the clock tower were accessed from a wood platform built up over the ceiling joists. This platform had standing water on it (see figure 2). This platform is located directly above the meeting room where water damage is visible on the finished ceiling below. Based on conversations with Jim Feeney and review of photos and videos that were sent to our office prior to our site visit, we understand that water pours through a light fixture in the ceiling directly below this area during moderate to heavy rain events. The steel supporting beams, grillage beams, and columns all appear to be in good condition at this level with some minimal surface rusting present on some members.



Figure 2 On left, a photo taken from the attic space showing the beams supporting the clock tower. The deep girder on the far side of the clock tower is not visible here. On right, water is visible on the wood platform.

The concrete encased steel beams spanning to the columns and supporting the level 1 platform above appear to be in good condition with no signs of rust staining, cracking, or spalling of the concrete encasement.



Figure 3 The concrete encased members supporting the level 1 concrete platform appear to be in good condition.

Item 1.1

At the level 1 platform, the 4" cast in place concrete slab appears to be in good condition from both the underside and top. The double angle columns are clad with terracotta at the interior space between level 1 and level 2 (see figure 4). The majority of the columns are concealed by the terracotta but a small opening at one of the columns revealed significant corrosion of the member (see figure 5).

The concrete encased steel beams spanning to the columns and supporting the level 2 platform are in poor condition. Rust staining is visible on the underside of the concrete, as well as cracking and spalling of the concrete encasement. Silman removed a piece of the spalling concrete from one of the beams and observed significant corrosion of the member (see figure 6). Similar cracking and spalling of the concrete encasement is visible at the other three beams, indicating these members are likely corroding as well. We were unable to ascertain the size or shape (i.e. wide flange, channel or angle) of the steel members in this area based on the limited exposure

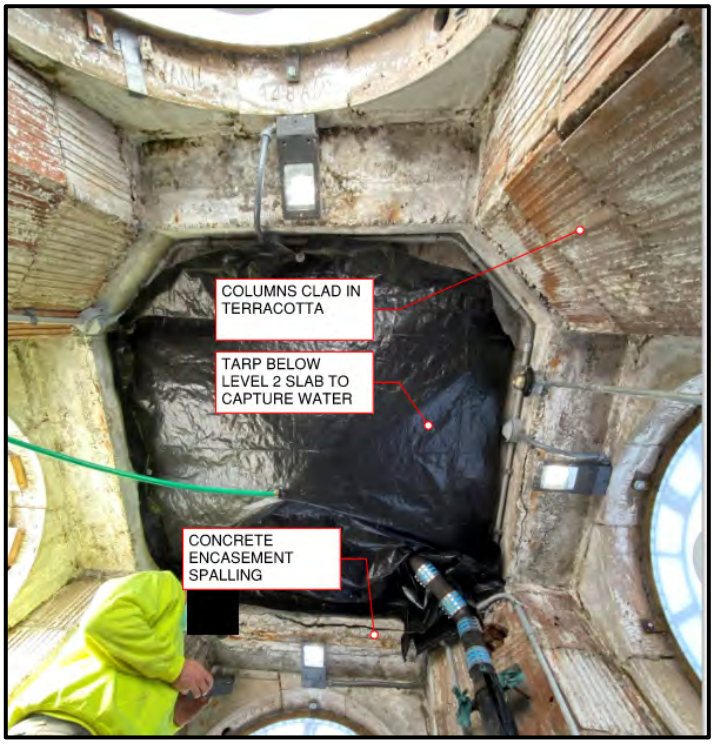


Figure 4 Photo taken looking up at the underside of the level 2 platform.



Figure 5 An opening in the terracotta revealed significant corrosion of the double angle column.



Figure 6 A piece of concrete encasement was removed from the beam to expose the significant corrosion of the member.

Exterior Observations

Item 2.0

The exterior of the clock tower is clad in stone. Weathering and deterioration of the mortar joints between the stones was visible on all sides of the clock tower. Vegetative growth was also visible in some of these joints (see Figure 7).



Figure 7 Deterioration of mortar joints and vegetative growth was visible on all sides of the clock tower.

Item 2.1

The stone cladding around the double angle columns is cracking and the vertical joints between the stones are opening up (see figure 8). Based on earlier stated observations at the interior, this is likely due to corrosion of the columns leading to rust jacking of the stones.

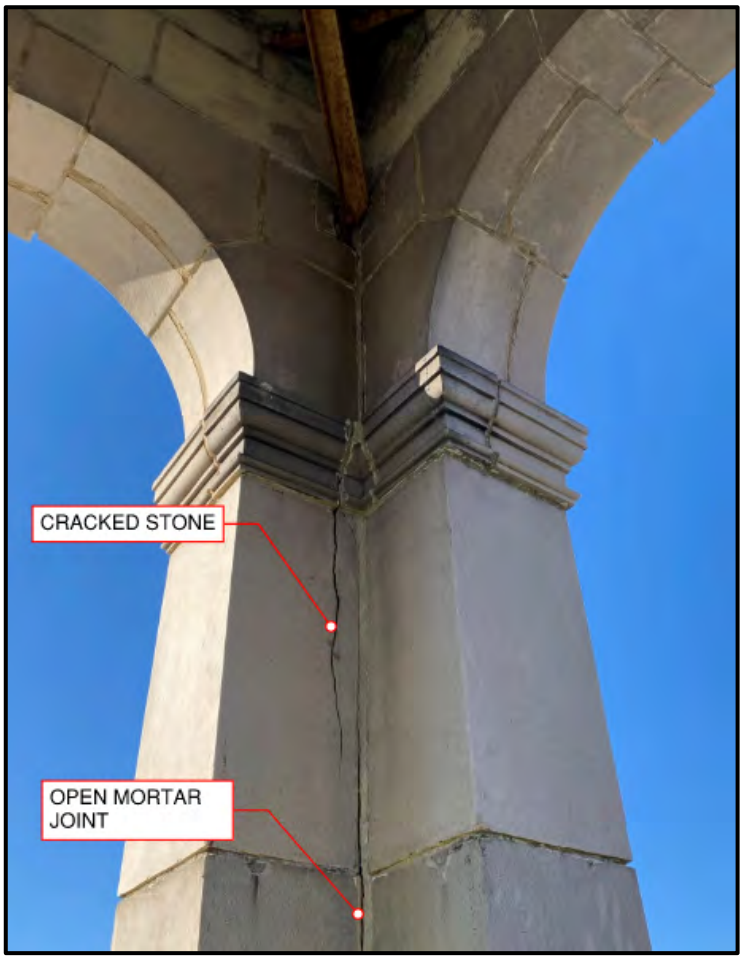


Figure 8 The stone cladding around the column is cracking and the vertical joints between the stones are opening.

Item 2.2

The roof of the clock tower appears to be constructed of a stone flat vault with a circular metal tension ring around its perimeter and a frame of angles spanning to the double angle columns providing additional support at the apex of the vault (see figure 9). Surface rusting of the angles and tension ring was visible.

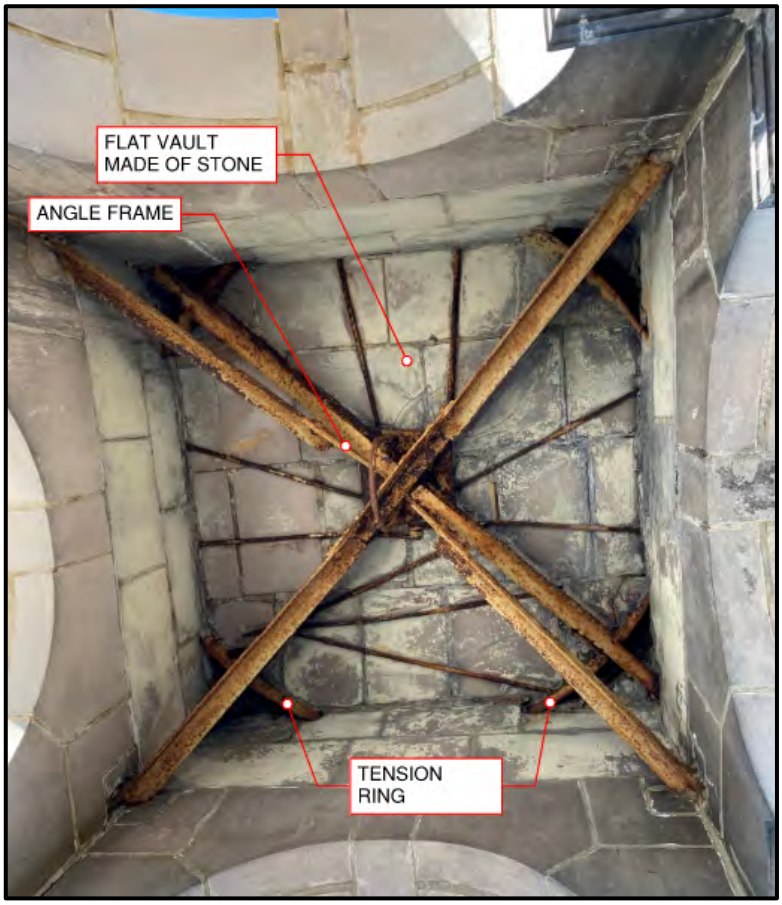


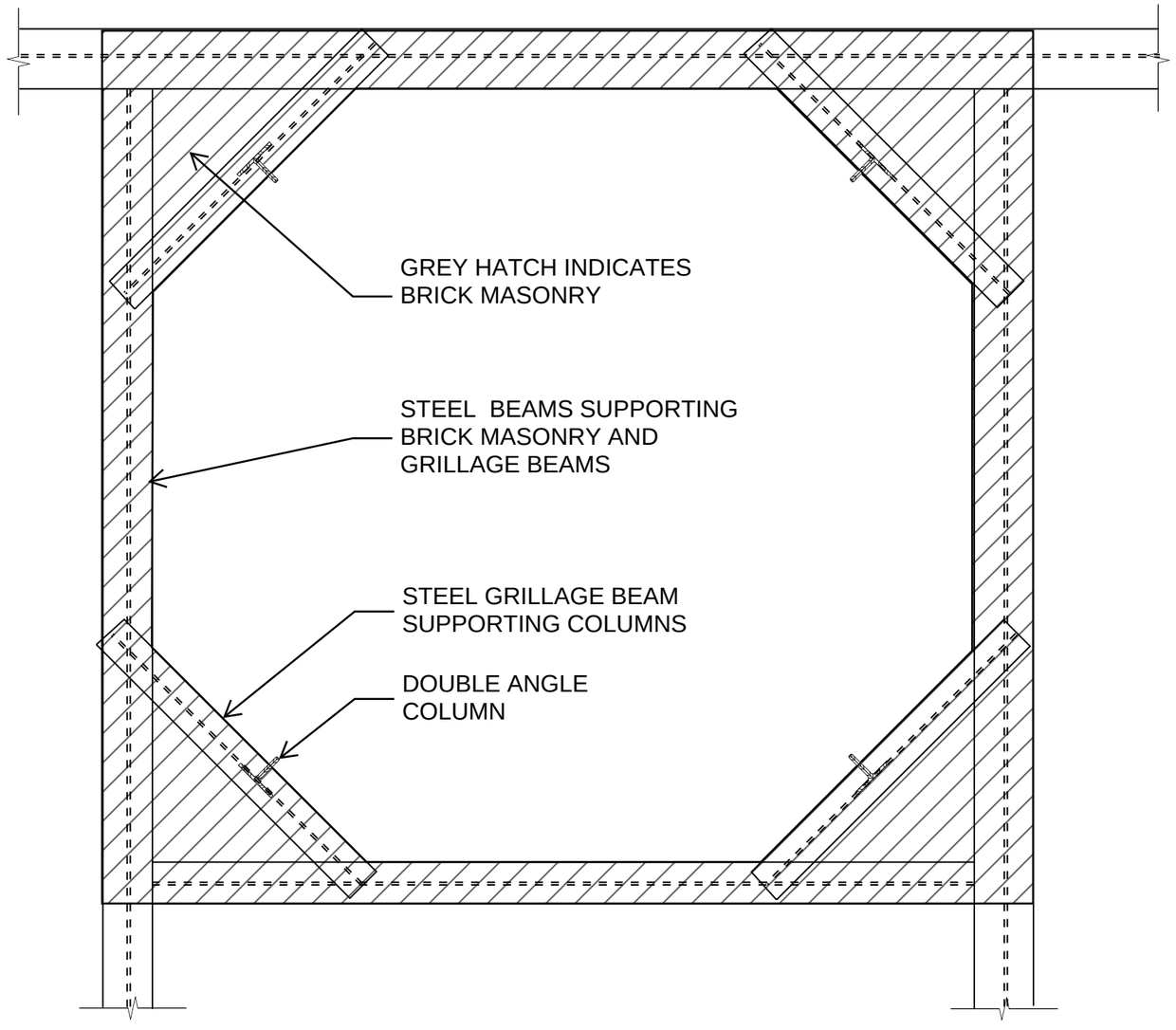
Figure 9 The angles and tension ring supporting the stone flat vault are showing signs of surface rusting.

CONCLUSION

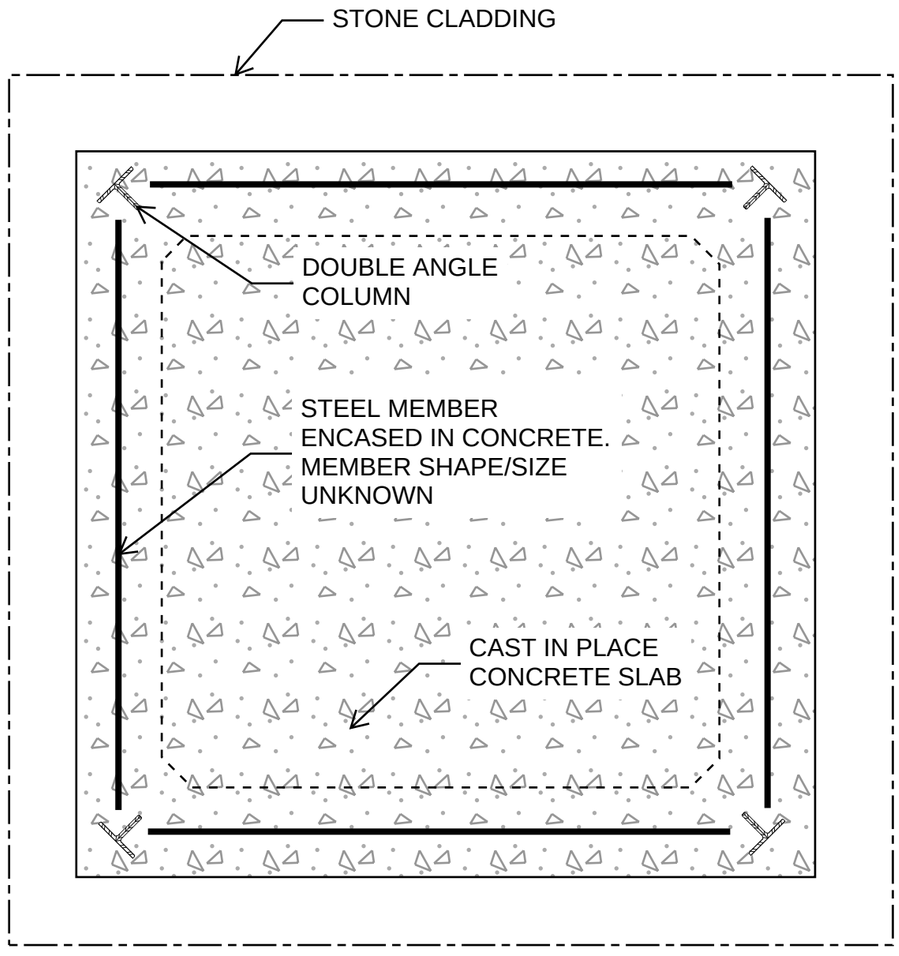
Based on Silman's observations during their 11/16/21 site visit, it is recommended that a more comprehensive investigation be undertaken so that the full extent of the damage can be ascertained, and repair recommendations can be made. This investigation may necessitate the removal of small areas of concrete encasement, terracotta and stone cladding to expose all structurally compromised steel members above the level 1 platform to better understand the extent of the damaged steel in order to facilitate creation of repair documents. The anticipated repairs will likely include some combination of scraping and painting (at minor deteriorated areas), adding supplemental plating (at more aggressive section loss areas), and or replacement of members that have lost their structural integrity. They will also likely require exterior maintenance - repointing of stone joints, and new waterproofing details to prevent future water ingress at the clock tower and exterior restoration of the stone. These items will be part of the architectural recommendations, and based on the observation report to be provided by Design Associates.

In the short term, Silman recommends that the level 2 beams that are corroding and causing the concrete encasement to spall, be temporarily shored down to the level 1 structure below. The intent of this shoring to help mitigate the sag over the clock faces as seen from the exterior, and likely being caused by loss of steel section in the supporting members. It is not intended to arrest further deterioration. It should be noted that these members are aggressively corroding, and as this condition continues to worsen over time, further rust jacking of the concrete encasement may cause the exterior stones to be displaced.

Please contact us should you have questions or concerns related to the report content.



LOWER LEVEL PLAN
N.T.S.



LEVEL 1 AND LEVEL 2 PLAN
N.T.S.

Title: SCHEMATIC FRAMING PLANS AT CLOCK TOWER

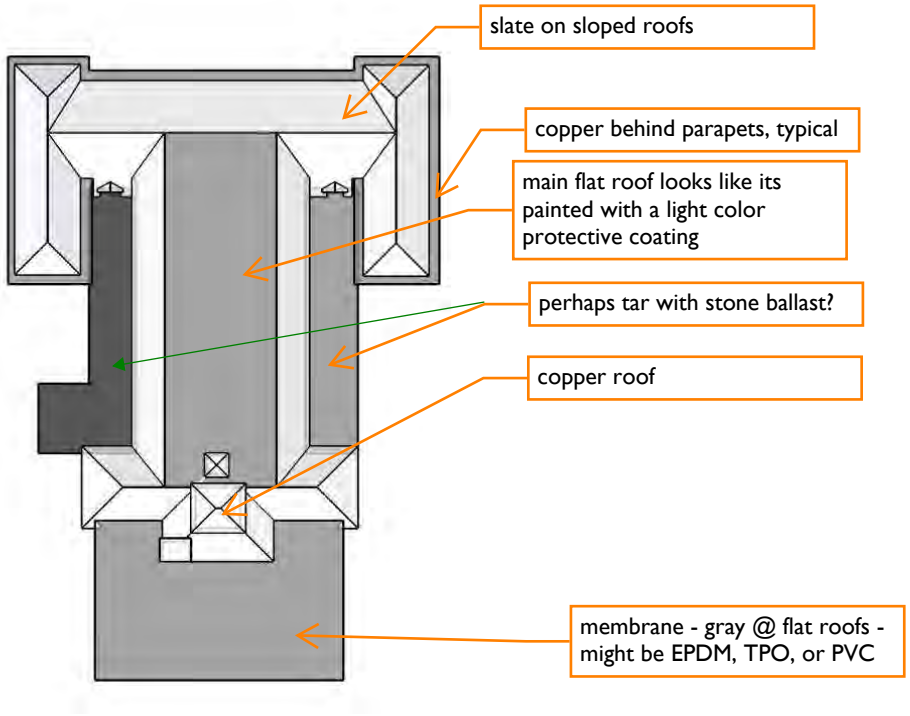
Date: 11/23/2021
Scale: NTS
Reference: REPORT APPENDIX

Silman
111 Devonshire Street, Boston, MA 02109
617 695 6700

Job Number: 20578
Job Title: ARLINGTON TOWN HALL CLOCK TOWER INVESTIGATION

SSK-1

730 Massachusetts Ave, Arlington, MA 02476-4906



In this 3D model, facets appear as semi-transparent to reveal overhangs.

Report Details

Report: 43980726

Roof Details

Total Roof Area = 20,909 sq ft
Total Roof Facets = 42
Predominant Pitch = 0/12
Number of Stories >1
Total Ridges/Hips = 488 ft
Total Valleys = 203 ft
Total Rakes = 42 ft
Total Eaves = 1,177 ft
Total Penetrations = 39
Total Penetrations Perimeter = 494 ft
Total Penetrations Area = 699 sq ft

Report Contents

Images 1
Length Diagram.....4
Pitch Diagram 5
Area Diagram 6
Notes Diagram 7
Penetrations Diagram 8
Report Summary 9

Contact: Patrick Guthrie
Company: Design Associates, Inc
Address: 1035 Cambridge St
Cambridge MA 02141-1057
Phone: 617-661-9082

Measurements provided by www.eagleview.com

eagleview

Certified Accurate

www.eagleview.com/Guarantee.aspx

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Images

The following aerial images show different angles of this structure for your reference.



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North Side



South Side



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East Side



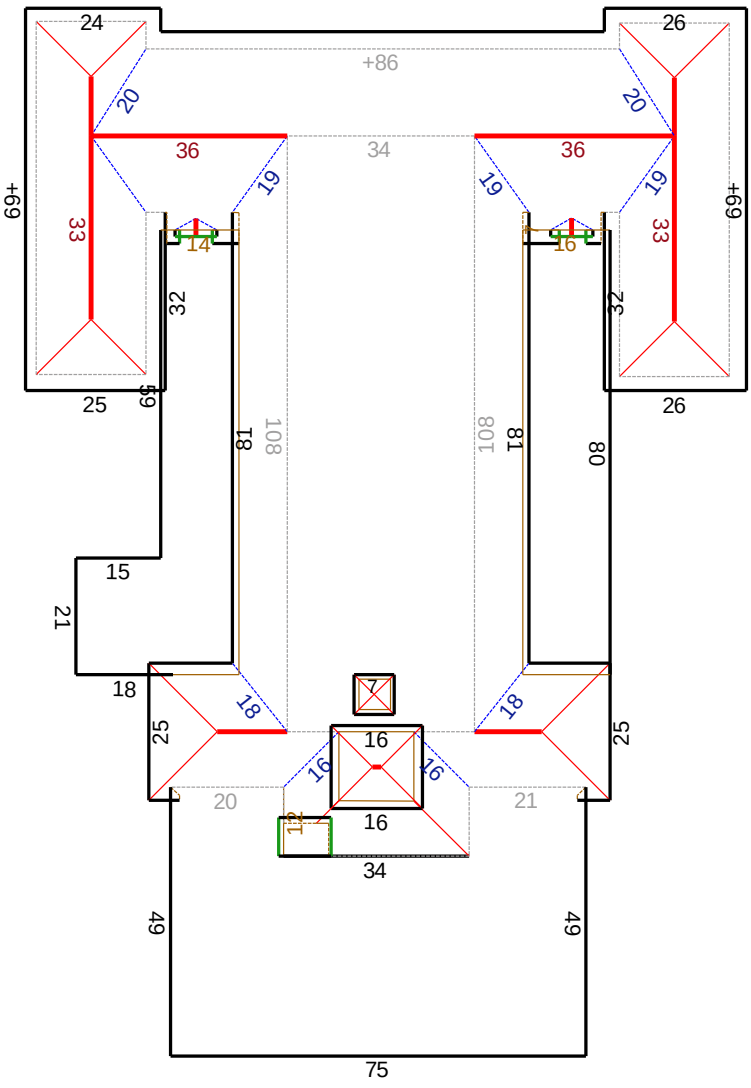
West Side

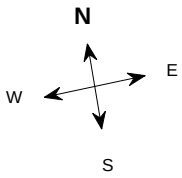


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Length Diagram

Total Line Lengths:
Ridges = 193 ft
Hips = 295 ft
Valleys = 203 ft
Rakes = 42 ft
Eaves = 1,177 ft
Flashing = 316 ft
Step flashing = 48 ft
Parapets = 0 ft





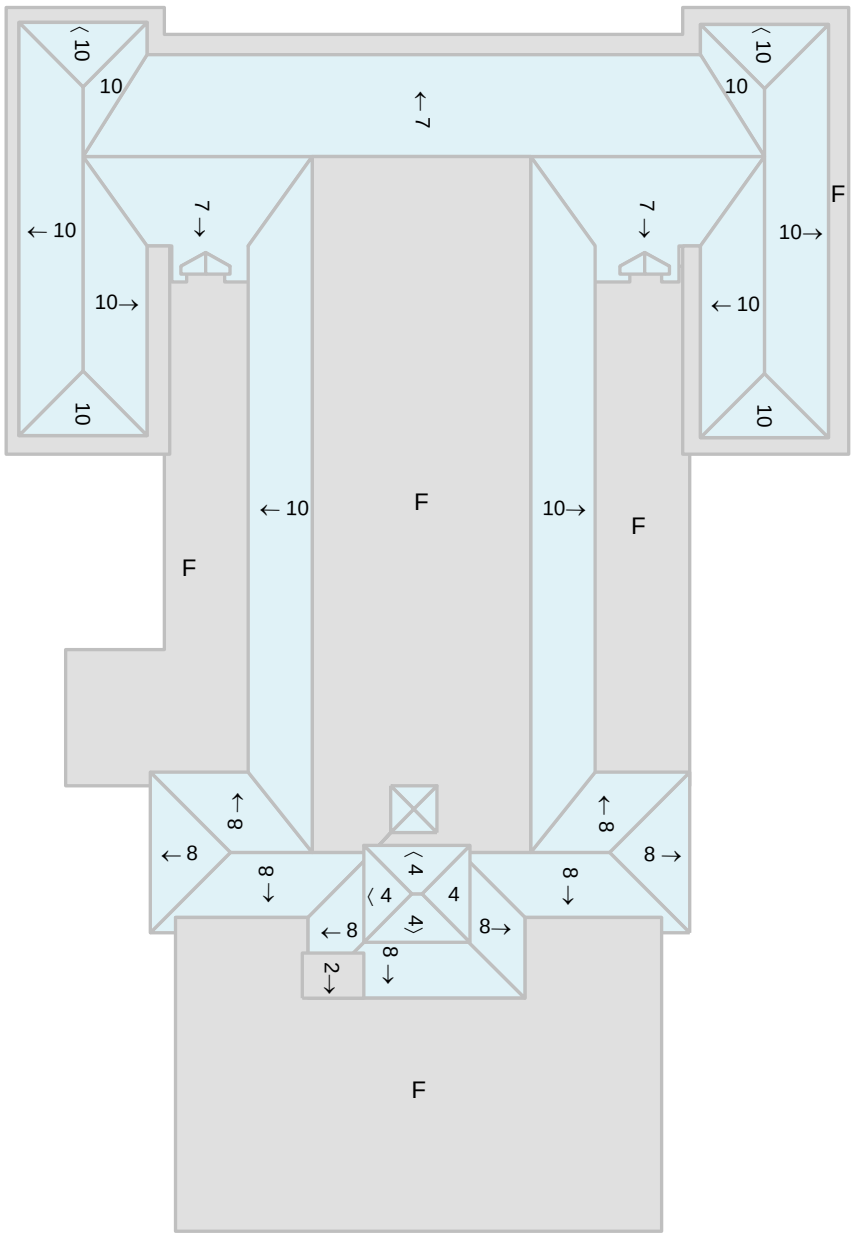
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Note: This diagram contains segment lengths (rounded to the nearest whole number) over 5 feet. In some cases, segment labels have been removed for readability. Plus signs preface some numbers to avoid confusion when rotated (e.g. +6 and +9).

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Pitch Diagram

Pitch values are shown in inches per foot, and arrows indicate slope direction. The predominant pitch on this roof is 0/12.



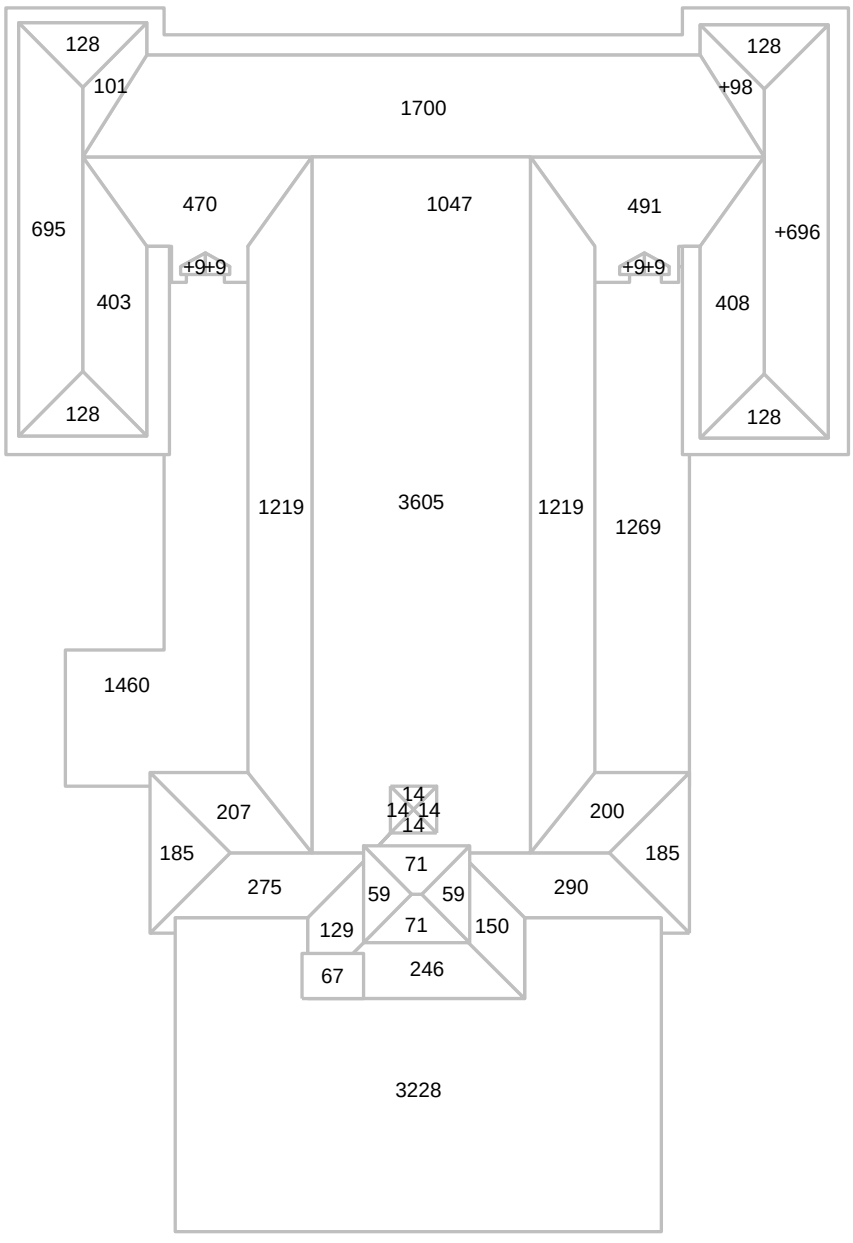
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Note: This diagram contains labeled pitches for facet areas larger than 20 square feet. In some cases, pitch labels have been removed for readability. Plus signs preface some numbers to avoid confusion when rotated (e.g. +6 and +9). Blue shading indicates a pitch of 3/12 and greater. Gray shading indicates flat, 1/12 or 2/12 pitches. If present, a value of "F" indicates a flat facet (no pitch).

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Area Diagram

Total Area = 20,909 sq ft, with 42 facets.



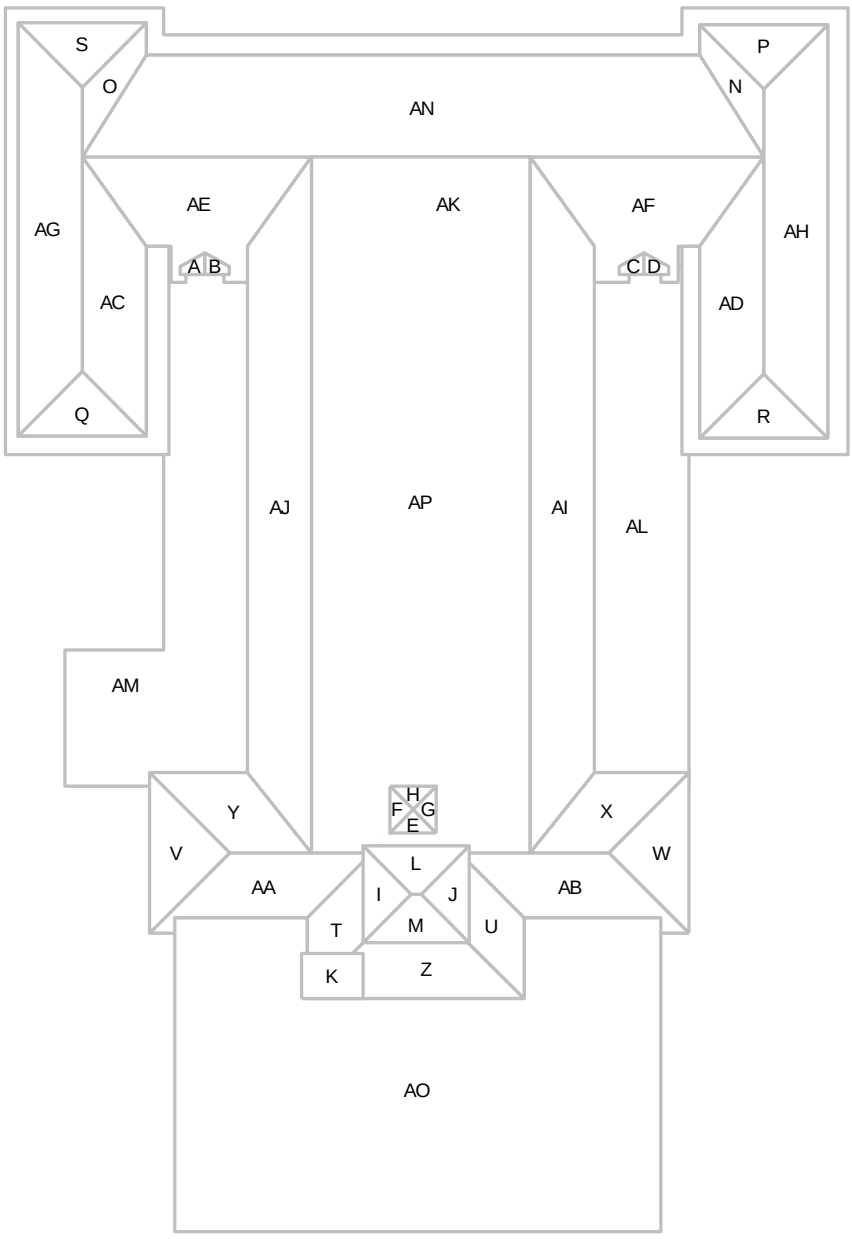
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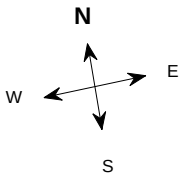
Note: This diagram shows the square feet of each roof facet (rounded to the nearest foot). The total area in square feet, at the top of this page, is based on the non-rounded values of each roof facet (rounded to the nearest square foot after being totaled).

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Notes Diagram

Roof facets are labeled from smallest to largest (A to Z) for easy reference.





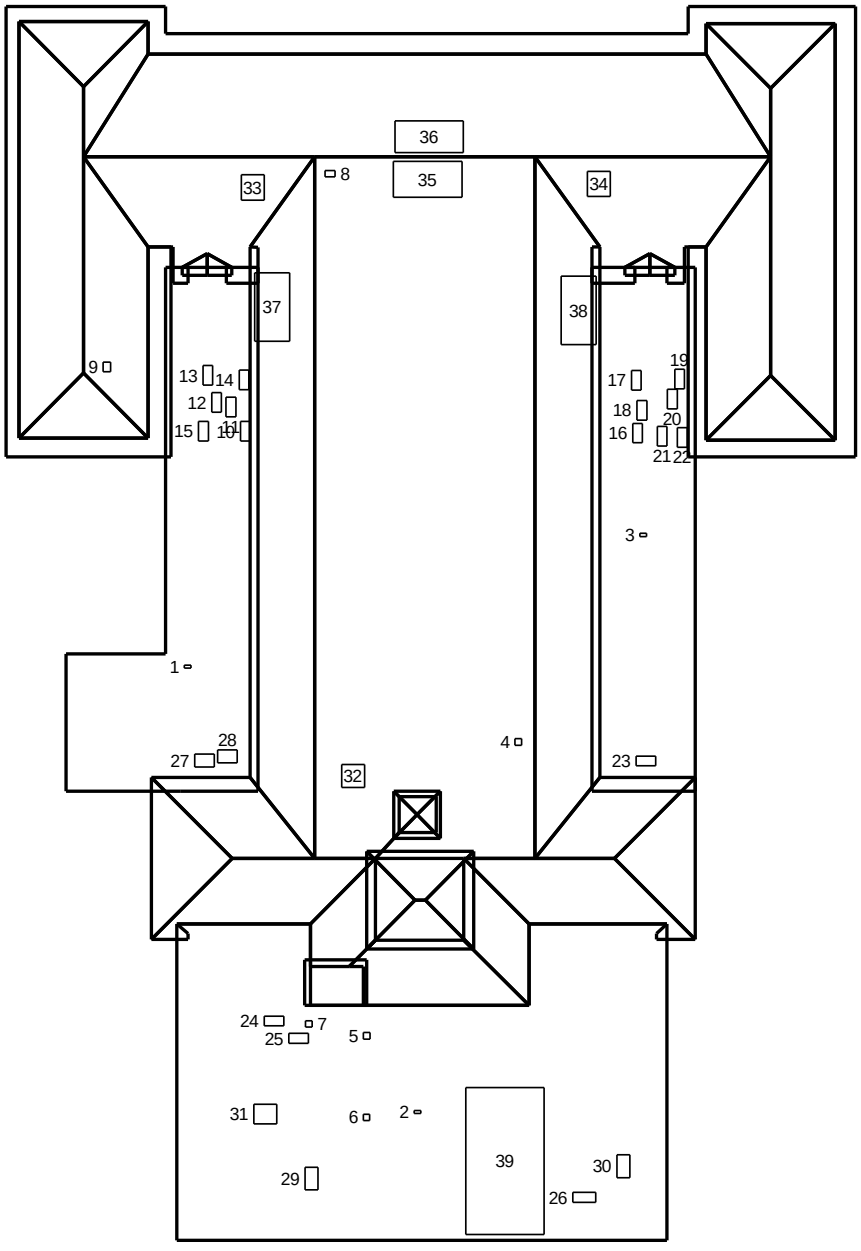
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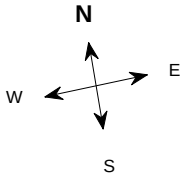
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Penetrations Notes Diagram

Penetrations are labeled from smallest to largest for easy reference.

Total Penetrations = 39
Total Penetrations Perimeter = 494 ft
Total Penetrations Area = 699 sq ft
Total Roof Area Less Penetrations = 20,210 sq ft





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Report Summary

Below is a measurement summary using the values presented in this report.

All Structures

Areas per Pitch						
Roof Pitches	0/12	2/12	4/12	7/12	8/12	10/12
Area (sq ft)	10609.2	67.2	349.6	2661.9	1867.1	5353.6
% of Roof	50.7%	0.3%	1.7%	12.7%	8.9%	25.6%

The table above lists each pitch on this roof and the total area and percent (both rounded) of the roof with that pitch.

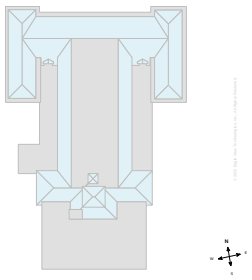
Waste Calculation Table							
Waste %	0%	10%	12%	15%	17%	20%	22%
Area (sq ft)	20,909	22999.9	23418.1	24045.4	24463.5	25090.8	25509.0
Squares	209.1	230.0	234.2	240.5	244.6	250.9	255.1

This table shows the total roof area and squares (rounded up to the nearest decimal) based upon different waste percentages. The waste factor is subject to the complexity of the roof, individual roofing techniques and your experience. Please consider this when calculating appropriate waste percentages. Note that only roof area is included in these waste calculations. Additional materials needed for ridge, hip, valley, and starter lengths are not included.

Penetrations	1-3	4-7	8	9	10-25	26	27-28	29-30	31	32
Area (sq ft)	0.5	1	1.5	2.2	4.5	5.2	6	7	10.5	12.3
Perimeter (ft)	3	4	5	6	9	10	10	11	13	14
	33-34	35-36	37-38	39						
Area (sq ft)	15.7	57.7	73.5	270						
Perimeter (ft)	16	32	35	69						

Any measured penetration smaller than 3x3 feet may need field verification. Accuracy is not guaranteed. The total penetration area is not subtracted from the total roof area.

All Structures Totals



Total Roof Facets = 42
Total Penetrations = 39

Lengths, Areas and Pitches

Ridges = 193 ft (11 Ridges)
Hips = 295 ft (22 Hips).
Valleys = 203 ft (14 Valleys)
Rakes † = 42 ft (10 Rakes)
Eaves/Starter ‡ = 1,177 ft (46 Eaves)
Drip Edge (Eaves + Rakes) = 1,219 ft (56 Lengths)
Parapet Walls = 0 (0 Lengths).
Flashing = 316 ft (24 Lengths)
Step flashing = 48 ft (10 Lengths)
Total Penetrations Area = 699 sq ft
Total Roof Area Less Penetrations = 20,210 sq ft
Total Penetrations Perimeter = 494 ft
Predominant Pitch = 0/12
Total Area (All Pitches) = 20,909 sq ft

Property Location

Longitude = -71.1564098
Latitude = 42.4157314

Notes

This was ordered as a commercial property. There were no changes to the structure in the past four years.

† Rakes are defined as roof edges that are sloped (not level).
‡ Eaves are defined as roof edges that are not sloped and level.

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Online Maps

Online map of property
http://maps.google.com/maps?f=g&source=s_q&hl=en&geocode=&q=730+Massachusetts+Ave,Arlington,MA,02476-4906
Directions from Design Associates, Inc to this property
http://maps.google.com/maps?f=d&source=s_d&saddr=1035+Cambridge+St,Cambridge,MA,02141-1057&daddr=730+Massachusetts+Ave,Arlington,MA,02476-4906

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ROBBINS MEMORIAL TOWN HALL AUDITORIUM
730 Massachusetts Avenue, Arlington, Ma. 02476

12 December 2022

To Whom it may concern:

I am writing this letter in support of the proposal to the Community Preservation Committee submitted by to you by Jim Feeney, Deputy Town Manager. The proposal is addressing the leakage issues occurring in the clock tower of Town Hall.

My current role with the Town of Arlington is Event Coordinator for the town. We have successfully been renting Town Hall since 2006. People from all over the greater Boston Area as well as Arlington residents have held important life events in Town Hall – weddings, Bar/Bat Mitzvah's, memorial services, fundraisers, school team banquets, plays, concerts, etc.

The Lyons Hearing Room is an integral part of the rental events – often being used for a cocktail reception before the full dinner and dancing reception of an event. As you would expect, people coming to events at a Town Hall are blown over by the beauty of the entire facility – the auditorium and the Lyons Hearing Room. They are amazed that we have such a gorgeous facility and fascinated by the history of the Robbins family and their involvement in this beautiful structure.

As you now know there is serious concern about the leaking problems that we are experiencing from the clock tower. Over the last few weeks more active leaking is occurring in the ceiling of the Lyons Hearing Room. We are now required to put buckets on the conference tables to catch the water and the leak is spreading across the ceiling. Bits of plaster are beginning to fall from the ceiling. In the past there were times when water was literally coming through the light structure in the ceiling!

We are in jeopardy of doing serious damage to this ceiling in the Lyons Hearing Room in addition to the damage that the offices have incurred.

It's so important that we preserve this beautiful structure that the Robbins family has given us and so important to continue offering its use to Arlington people and others for their important life events.

I'm so hoping that you will be able to fund this proposal.

Sincerely,

Patsy Kraemer
Events Coordinator
Town of Arlington

From: Richard Duffy <richard@arlingtonhistorical.org>
To: jfeeney@town.arlington.ma.us
Date: 12/14/2022 09:45 AM
Subject: Letter of Support / CPA Application / Town Hall Clock Tower

CAUTION: This email originated from outside of the Town of Arlington's email system. Do not click links or open attachments unless you recognize the REAL sender (whose email address in the From: line in "< >" brackets) and you know the content is safe.

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

December 14, 2022

To the Community Preservation Act Committee:

I am writing in support of the CPA grant application for funds to comprehensively repair and restore the Robbins Memorial Town Hall's clock tower (sometimes referred to as its "cupola" or "lantern").

Over recent decades piecemeal repairs have not held. There have been responses when water infiltration has been obvious in the Lyons Hearing Room immediately below the tower; however, small water leaks are insidious and are often responsible for greater damage. After 109 years, the time is overdue to fully rectify the situation.

It is especially important to protect the Lyons Hearing Room from damage because, unlike plaster walls in most other sections of the building, its American Chestnut paneling is irreplaceable. This is not only because of the patina of age it possesses; the American Chestnut tree virtually disappeared due to catastrophic blight. Having to replace even sections of the paneling with reclaimed materials would compromise the visual and historical integrity of the space.

Through the generosity of the Robbins Family, Arlington's town hall was designed by one of America's most prominent architects, R. Clipston Sturgis. His overall design concept extended to execution of exceptional interior details and materials, such as the use of chestnut in the hearing room and auditorium, and especially the high-end elements of the Arts and Crafts Movement as seen in the decorative plasterwork, and especially in the four museum-quality iron gates by renowned artisan Frederick Krasser.

Thank you for considering this essential reinvestment in a building that is both an active municipal and community space, and an undeniable historical and cultural icon of Arlington.

Very truly yours,

Richard A. Duffy

OFFICE OF THE SELECT BOARD

LENARD T. DIGGINS, CHAIR
DIANE M. MAHON, VICE CHAIR
JOHN V. HURD
STEPHEN W. DECOURCEY
ERIC D. HELMUTH

730 MASSACHUSETTS AVENUE
TELEPHONE
781-316-3020
781-316-3029 FAX

TOWN OF ARLINGTON
MASSACHUSETTS 02476-4908

MEMORANDUM

TO: James Feeney, Deputy Town Manager

FROM: Office of the Select Board

DATE: December 13, 2022

RE: Town Hall Restoration Letter of Support

The significance of Town Hall should merit restoration on its own terms. However, the magnitude of the dilapidation makes restoration much more vital. The Select Board Chambers and office face the burden of the neglect. The water damage from the roof produces rotting ceilings in the chambers and deteriorates into the area of the audience. The office's antiquated windows are too drafty in the winter and not enough in the summer the exact opposite preference. The dysfunctional heating system, New England winters, and drafty windows create a frigid work environment. The windows not only house broken screens and cracking sills but also two hornets' nests and a way in for flies. The weights in the window's interior have since broken and have been replaced by a book. Restoring the exterior of Town Hall is crucial to preventing further ruin.

After losing Arlington's first Town Hall (originally located at the intersection of Massachusetts Avenue and Mystic Street), the responsibility to repair this structure cannot be ignored. Restoration is not only recommended but a prerequisite, as the Chair of the Select Board, Frank V. Noyes, said on its inauguration in 1913:

> "We hope that the [Town Hall] will in every way answer the various purposes for which it is intended, and that our townspeople will take a just pride in its care and maintenance."

OFFICE OF THE TOWN CLERK

TOWN OF ARLINGTON
730 MASSACHUSETTS AVENUE
ARLINGTON, MA 02476

TELEPHONE: 781-316-3070
TownClerk@town.arlington.ma.us

JULIANA H. BRAZILE
TOWN CLERK

December 8, 2022

Jim Feeney
Office of the Town Manager
730 Massachusetts Avenue
Arlington, MA 02476

Re: Condition of Town Clerk's Office Space and the Lyons Hearing Room

I am writing on behalf of myself and my staff to support your efforts to secure funding for repairs to Town Hall. The leaks in the Lyons Hearing Room create significant concerns around elections since that is the space we use for processing ballots that are being mailed. It is awkward to ask volunteers not to work at one end of the room if they are handling ballots because water is dripping steadily from the ceiling. The thought that a new leak could damage ballots that have been stored in a section of the room that previously stayed dry keeps me up at night during a bad storm.

In addition, I would hope that attention can be paid to the windows in the Lyons Hearing Room and my office. Working storm windows would make conditions more pleasant and the spaces more energy efficient. I have seen election volunteers and Town staff working in the Lyons Room in coats because of the drafts.

In my suite, we have storm windows that are stuck partially open and can't be moved. We see water damage in some sections of our ceiling and have a constant rain of paint and plaster powder on working spaces. A couple of months ago large pieces of ceiling fell in the hallway outside our office raising staff concerns about the risk of head injuries.

We applaud your efforts to address these issues and eagerly await results.

Sincerely,

Juliana H. Brazile
Arlington Town Clerk

Office of the Treasurer & Collector of Taxes
Town of Arlington, Massachusetts

730 Massachusetts Avenue
Arlington, MA 02476

Telephone Number: 781-316-3031
Facsimile Telephone: 781-316-3089

Phyllis L. Marshall
Treasurer & Collector of Taxes

December 9, 2022

Clarissa Rowe, Chair
Community Preservation Act Committee
730 Massachusetts Ave.
Arlington, MA 02476

RE: Project for Exterior Improvements to the Arlington Town Hall

Dear Chair Rowe:

I respectfully request favorable consideration by the Community Preservation Act Committee for funding of the project submitted for exterior improvements to the Town Hall.

Many of the windows for the offices of the Treasurer – Collector office are not functioning and paint on the exterior is peeling away from them.

We have received comments from the public regarding the condition of the exterior drop box location imbedded into the front of the Town Hall and the fact that the wood frame is exposed due to paint peeling.

In addition, the front doors are difficult to operate and remain open during hours when the Town Offices are open. During the months when this occurs, it makes the public areas of the building hotter or colder than the offices and humidity makes the public doors to offices difficult to open and close.

Thank you,

Phyllis L. Marshall
Treasurer – Collector