

TOWN OF SANDWICH

THE OLDEST TOWN ON CAPE COD

130 MAIN STREET
SANDWICH, MA 02563

TEL: 508-888-4910 AND 508-888-5144

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BOARD OF
SELECTMEN

TOWN
MANAGER

BOARD OF SELECTMEN AGENDA July 9, 2015 – 7:00 P.M. Sandwich Town Hall – 130 Main Street

1. Pledge of Allegiance
2. Review & Approval of Minutes (*Vote*)
3. Public Forum (*15 Minutes*)
4. Town Manager Report
5. Correspondence / Statements / Announcements / Future Items / Follow-up (*10 Minutes*)
6. Staff Meeting (*45 Minutes*)
 - Board of Selectmen Statement on Town Neck Beach Reconstruction Project & Required Easements

 - Assistant Town Manager – Draft CPA Historic Preservation Application for Clark-Haddad Building
7. Old Business (*15 Minutes*)
 - Update of Public Road & Public Safety Infrastructure Efforts
 - Other
8. New Business (*5 Minutes*)
 - Other
9. Public Forum (*15 Minutes*)
10. Closing Remarks
11. Executive Session
 - Exemption 6: Acquisition of Real Property – Town Neck Beach
 - Exemption 3: Collective Bargaining – Library Personnel
12. Adjournment

NEXT MEETING: Thursday, July 23, 2015, 7:00 P.M., Town Hall

Town of Sandwich
Annual Town Meeting

WARRANT

Monday, May 4, 2015

7:00 p.m. – Sandwich High School



BOARD OF SELECTMEN

Ralph A. Vitacco, Chair
Frank Pannorfi, Vice-Chair
R. Patrick Ellis
Susan James
James W. Pierce

MODERATOR

Garry N. Blank

FINANCE COMMITTEE

Gene Parini, Chair
Linell M. Grundman, Vice-Chair
Michael Dwyer
Robert Guerin
Thomas R. Hickey
James Lehane
Richard Reilly
Mark Snyder
Matthew Terry

ARTICLE 11

To see if the Town will vote to appropriate the sum of money, received or to be received, from the Chapter 90 State Aid to Highways Program for highway construction and/or maintenance on any State approved road during FY'16, or take any action relative thereto.

Recommended by the Board of Selectmen and Finance Committee.

ARTICLE 12

To see if the Town will vote to reduce the rate of interest that accrues on property taxes deferred by eligible seniors under M.G.L. c.59, §5, Clause 41A, the so-called Property Tax Deferral for Seniors program, from 8.0% to 5.0%, with such reduced rate to apply to taxes assessed for any fiscal year beginning on or after July 1, 2015, or take any action relative thereto.

Recommended by the Board of Selectmen and Finance Committee.

ARTICLE 13

To see if the Town will vote to transfer and appropriate the sum of \$54,899.76, or any other amount, from the beach renourishment receipts reserved for appropriation account, to be expended under the direction of the Board of Selectmen, for the purpose of funding future public ocean beach and dune renourishment projects, or take any action relative thereto.

Recommended by the Board of Selectmen and Finance Committee.

ARTICLE 14

To see if the Town will vote in accordance with M.G.L. c.40, §14 to accept by purchase, gift, eminent domain, or otherwise, from private property owners along the affected Town beaches, any and all permanent easements associated with the Army Corps of Engineers' proposed Town of Sandwich Dune and Beach Reconstruction Project for access and placement of sediment purposes, or take any action relative thereto.

Recommended by the Board of Selectmen.

ARTICLE 15

To see if the Town will vote to hear and act on the report of the Community Preservation Committee on the FY'16 Community Preservation budget and to appropriate from the Community Preservation Fund FY'16 estimated annual revenues the sum of \$75,000.00, or any other sum, to meet the administrative expenses and all other necessary and proper expenses of the Community Preservation Committee for FY'16; and further to reserve for future appropriation a sum of money from the Community Preservation Fund estimated annual revenues for open space, historic resources, and community housing purposes, as well as a sum of money to be placed in the FY'16 Budgeted Reserve for general Community Preservation Act purposes; and further to

**ARTICLE 14 – ACCEPT PERMANENT PRIVATE PROPERTY EASEMENTS
FOR ARMY CORPS OF ENGINEER’S
DUNE & BEACH RECONSTRUCTION PROJECT**

- this article seeks authorization from Town Meeting to accept permanent easements for access and placement of sand purposes from private property owners along the Army Corps of Engineers’ proposed Town of Sandwich Dune & Beach Reconstruction project
- this project, slated for the early winter of 2015 / 2016, includes the dredging of the Cape Cod Canal with compatible material beneficially reused and placed in the Town Neck Beach area from Horizons Restaurant to the last home before the Town Neck Beach parking lot
- in order to place sand on private property using federal and local funds, permanent access easements are needed from the affected property owners
- if the easements are not granted by the owners and accepted by both the Town and federal government, the project cannot move forward
- Town Meeting authorization is needed via a 2/3 vote for the Board of Selectmen to accept permanent easements

TOWN OF SANDWICH

THE OLDEST TOWN ON CAPE COD



145 MAIN STREET
SANDWICH, MASSACHUSETTS 02563
TEL: 508-888-0340 FAX: 508-888-2497
townclerk@townofsandwich.net

TOWN CLERK

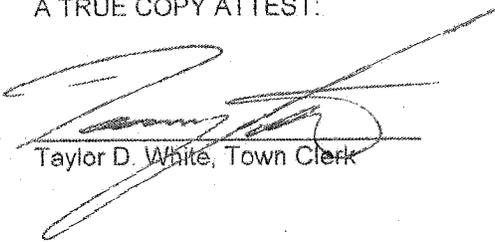
I, Taylor D. White, Town Clerk of the Town of Sandwich, hereby certify that the below stated Article 14 and Vote taken thereon is a true record from the Annual Town Meeting held in Sandwich on May 4, 2015

ARTICLE 14

To see if the Town will vote in accordance with M.G.L. c.40, §14 to accept by purchase, gift, eminent domain, or otherwise, from private property owners along the affected Town beaches, any and all permanent easements associated with the Army Corps of Engineers' proposed Town of Sandwich Dune and Beach Reconstruction Project for access and placement of sediment purposes, or take any action relative thereto.

VOTED: That the Town vote in accordance with M.G.L. c.40, §14 to accept by purchase or gift or take by eminent domain, from private property owners along the affected Town beaches, any and all permanent and temporary easements associated with the Army Corps of Engineers' proposed Town of Sandwich Dune and Beach Reconstruction Project for access and placement of sediment purposes. This was a voice vote and declared carried unanimously by the required two-thirds majority by the Moderator.

A TRUE COPY ATTEST:


Taylor D. White, Town Clerk

TOWN OF SANDWICH

APPLICATION FOR COMMUNITY PRESERVATION FUNDING

GENERAL INFORMATION

Name of Applicant (1): Sandwich Board of Selectmen

Name of Co-Applicant, if applicable:

Contact Name: George "Bud" Dunham, Town Manager

Mailing Address: Sandwich Town Hall

130 Main Street

Sandwich, MA 02563

Phone Number: (508) 888-5144 E-mail Address: townhall@townofsandwich.net

Project Name: Clark Haddad Memorial Building Historic Preservation Project

Project Location: 16 Dewey Avenue, Parcel ID 74-050 (street address and assessor's parcel)

CPA Category (circle all that apply): Open Space, Historic Preservation, Community Housing, Recreation

CPA Funding Requested: \$1,102,145.00 Total Cost of Proposed Project: \$1,102,145.00

(1) If the proposal involves town-owned land, either the applicant or the co-applicant must be the town agency in control of the land.

INFORMATION ABOUT THE PROJECT

Please provide a description of the proposed project. The description should address the following matters.

- 1. Goals: What are the goals of the proposed project?
2. Community Need: Why is the project needed? How does it address one or more of the specific criteria identified as Town priorities with respect to the CPA Category or Categories applicable to the Project?
3. Community Support: What is the nature and level of support for the project? Include evidence of support, such as letters and petitions.
4. Budget: What is the total project budget? How will CPA funds be spent? What are the sources of non-CPA funding for the project?
5. Timeline and Permits: What is the schedule for implementation of the project? What permits, if any are needed for the project?
6. Maintenance: If ongoing maintenance is required for the project, how will such maintenance be funded?

INFORMATION ABOUT THE APPLICANT

(Required for applicants other than Town departments or agencies).

- 1. Organizational goals and objectives of applicant.
2. Organizational history of applicant.
3. Resumes of senior officers
4. Names of members of governing board (e.g. directors or trustees)

5. Legal and tax status of applicant
6. Description of previously completed projects similar to proposed project

INFORMATION ABOUT THE PROJECT

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

The goal of the project is a complete interior and exterior historic preservation and rehabilitation of the building to make it functional for a variety of public and private uses, such as meetings, lectures, art shows, receptions, etc. The work would be done based on the detailed Assessment Report dated June 25, 2015 completed by the Town's consultant historic preservation architect Mcginley Kalsow & Associates, Inc., which is attached to this application for reference.

2. **Community Need:**

The building has been deteriorating for many years and is in desperate need of substantial interior and exterior rehabilitation. Since the building is vacant, vandalism has occurred. As a result, windows have been boarded-up, and the building is becoming unsightly in this historic neighborhood. In addition, there is a need in Town for more public and private meeting and function room space.

3. **Community Support:**

There is significant community support, as evidenced by the turnout and participation at the May 11, 2015 public forum held at the Town Hall on this potential project and at prior events conducted by the Sandwich Historical Commission.

4. **Budget:**

The total budget is \$1,102,145.00 as per the consultant's Assessment Report attached to this application. CPA funds will be used for all phases of the work, including: general work and site; exterior envelope repairs and site improvements; structural repairs; interior improvements; survey and site plans; architectural services; and engineering services. There are no specific proposed non-CPA funds associated with this application.

5. **Timeline and Permits:**

We anticipate finalizing the construction documents, receiving approval from the Old Kings Highway Regional Historic District Committee, and receiving a building permit in time to begin construction in the 3rd quarter (July – September) of 2016. We anticipate that construction should last approximately 8 months.

6. **Maintenance:**

The building will have new HVAC systems, designed to be simple for multiple users, as well as a new septic system. The interior and exterior of the building will be maintained by the Town's Public Facilities Director. The exterior landscaping of the property will be maintained by the Town's DPW Parks Department and the parking lot will be maintained and plowed by the DPW's Highway Department.

Clark Haddad Memorial Building Sand Hill School

16 Dewey Avenue
Sandwich, Massachusetts 02563

Assessment Report

June 25, 2015



**McGinley Kalsow
& Associates Inc.**

ARCHITECTS & PRESERVATION PLANNERS

324 Broadway ~ PO Box 45248
Somerville, MA 02145-2803



McGinley Kalsow
& Associates, Inc.
ARCHITECTS & PRESERVATION PLANNERS

TABLE OF CONTENTS

- **Section 1**
Executive Summary

- **Section 2**
Historical Background
 - Report
 - Timeline

- **Section 3**
Architectural Assessment
 - Report
 - Photographs

- **Section 4**
Structural Assessment
 - Report
 - Photographs
 - Existing framing plans

- **Section 5**
Existing Condition Drawings

- **Section 6**
Cost Estimate

- **Appendix 1**
Hazardous Materials Report



McGinley Kalsow
& Associates, Inc.
ARCHITECTS & PRESERVATION PLANNERS

EXECUTIVE SUMMARY

The Clark-Haddad Memorial Building, at 16 Dewey Street, Sandwich was built originally in 1885 as a schoolhouse for children of workers from the Sandwich Glass Factory, and was called the Sand Hill School. Later, it saw use as an American Legion post, and was named the Clark-Haddad Memorial Building in memory of Alden Clark and Michael Haddad, men who were the first two residents of Sandwich to give their lives in World War I. The building was also used for a number of community related activities, and its most recent use was for offices of the Sandwich Superintendent of Schools. The building is located within the Old King's Highway Regional Historic District.

In 2014, the Town of Sandwich commissioned preservation architects and planners McGinley Kalsow and Associates, Inc. to inspect the Clark-Haddad building to provide an assessment report of the building's condition, to provide existing condition drawings, identify code deficiencies, to prioritize repair recommendations, and establish budget pricing for the repairs. For this assessment, McGinley Kalsow and Associates also engaged structural engineer Arthur MacLeod to provide an assessment of the building's structural condition.

Historic Background



Clark-Haddad Memorial Building

Historical Background

March 9, 2015



Figure 1: The Clark-Haddad Memorial Building, as it looks today.

Introduction

The Clark-Haddad Memorial Building is a wood-framed structure at 16 Dewey Avenue, the outermost edge of the former glassworks factory grounds. The 1½-story structure is sided with clapboards and shingles, with a clipped gable roof and granite block foundation. The materials, however, speak more to the local vernacular of New England.

Originally a two-room schoolhouse, the Clark-Haddad Memorial Building is a piece of Sandwich's industrial revolution, which began in the 1820s with the opening of the first glass factory. This period of development and industry in the agricultural village would last for more than sixty years, and inspire the construction of schools, churches, and housing as the population of Sandwich grew and shifted demographically. When the factory closed and Sandwich returned to its agricultural roots, the Clark-Haddad Building continued to serve the town as an American Legion Hall, kindergarten, and school administration building.

Deming Jarves and The Boston & Sandwich Glassworks Company

Since the establishment of the town in 1637, Sandwich had maintained a sustainable agricultural economy. Farmers in the town raised dairy cows and sheep, feeding them the "salt hay" from the marshes. They also produced corn, oats, rye and wheat. Neighboring towns on the Cape relied on the coastal proximity for fishing, but Sandwich's lack of seaport proved an obstacle for the fishing industry to thrive. Farming continued until 1825, when Deming Jarves introduced the Boston & Sandwich Glassworks Company, making Sandwich one of the early industrial villages in Massachusetts.



Figure 2: Portrait of Deming Jarves, c.18--

Prior to the opening of the glass factory in Sandwich, Massachusetts had already seen some of the economic shift brought by the industrial revolution. Boston and neighboring communities, such as Charlestown and Cambridge, had begun producing glass in an urban environment, relying on the influx of Irish and Italian immigrants for labor. Smaller communities north and west of Boston, including Waltham and Lowell, were beginning to flourish industrially as a result of the new textile mills, which had opened by 1820. This was a economically opportune moment for Deming Jarves to open his glass factory in Sandwich.

Deming Jarves was born in 1790 in Boston, the eldest son of a cabinetmaker. He began his career as a dry goods merchant, before becoming clerk at the Boston Porcelain and Glass Company in East Cambridge. When the business collapsed in 1818, Jarves was among those who purchased the buildings and incorporated New England Glass Company, for which he became the agent. This company built the first red lead manufacturing furnace in the United States, and dominated the lead industry for 30 years.

Wishing to expand into his own business, he began buying large amounts of land in Sandwich, between the center of the town and the salt marsh. Contrary to popular belief, the location was not chosen for its ample supply of sand, which was not of the quality the factory needed to produce glass. Instead, it was selected for the proximity to timber and marsh grass, which were used for fuel and packaging material, respectively. In 1825, he opened the Boston & Sandwich Glass Company on this land.

Though Mr. Jarves had an excellent location for an industrial village in Sandwich, the population was not enough to create a workforce for the factory. Like the glass manufacturing in Boston and surrounding communities, he would rely on recent immigrants, mostly of Irish and Italian descent, as a source of labor. He advertised in Boston for "glass men," and the promise of work proved successful. The population of

Sandwich reached a high in 1855 with nearly 4,500 people.

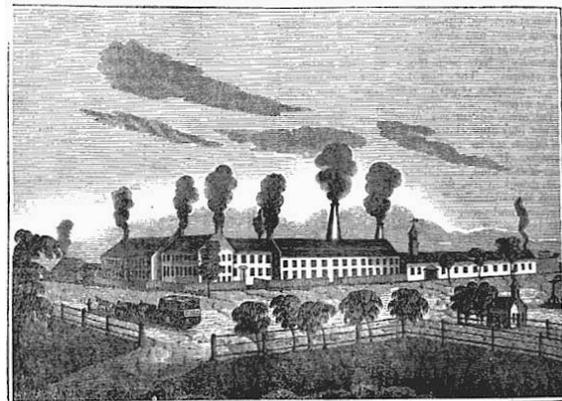


Figure 3: Boston & Sandwich Glassworks, American Magazine 1885

Even in the later decline of industry in Sandwich, immigrants would still seek work in Sandwich's glass factories. Michael Haddad, for whom the Clark-Haddad building would later be named, emigrated from Syria in 1900 with his father, who would become a glass factory worker in Sandwich.

In addition to laborers, Jarves also looked for craftspeople to design stained and novelty glass items. For these opportunities he sought English and Irish glassblowers, who had the best reputation internationally. The mid-19th century also saw a change in the technology of glassmaking, where pressed glass enabled glassmakers to create "lacy" designs in products. The factory continued to expand into the 1860s. It acquired additional land and buildings, as well as a railroad line. The industry peaked just before the Civil War, and would suffer greatly in the few decades afterward. Deming Jarves would eventually leave the Boston & Sandwich Glassworks in 1859. He would continue working on glass in Sandwich, starting a Cape Cod Glassworks in 1864. The Boston & Sandwich Glassworks Company closed in 1888, and the last of the following glass factories in Sandwich was closed in 1907. The area surrounding the original factory became known as Jarvesville.

Jarvesville and the Sand Hill School

A number of new buildings were erected near the salt marshes, to accommodate the influx of workers to sandwich. More than thirty-three tenements were built to house workers. Some single family homes also housed the highest level employees, including Deming Jarves's brother-in-law, William Stutson, who was appointed clerk. A Roman Catholic Chapel (no longer extant) was also built close the factory, and is considered to be the first of its kind on Cape Cod. Also among this flurry of development was the original schoolhouse.



Figure 4: Sand Hill Schoolhouse c. 1900

The extant Sand Hill Schoolhouse, now the Clark-Haddad Memorial Building, was the third school built for the children of the "glass men" in Sandwich. The first was constructed near the intersection of Factory and Jarves Streets in 1828. The school relocated in 1851, to a new building on the site of the Clark-Haddad building. This second schoolhouse, which collapsed in 1884 whilst under repair, was a two-story structure, accommodating a greater number of students than the two-room schoolhouse. This most likely correlates to the success of Boston & Sandwich Glassworks, which reached its peak in

1860 and was closed in the 1880s.

Providing education to immigrant children was an important political topic at the time the original school was constructed. Massachusetts had just extended universal public education to all ages in 1827. While public education advocate (and Massachusetts native) Horace Mann advocated for the secular nature of public schools, the reality of these new institutions was not always the ideal. As Irish immigrants came to Sandwich to work in the glass factories, the increased population meant a greater demand for schooling. This resulted in conflicts between

the traditional curriculum of the Protestant population and the Catholic factory workers who sought education for their children. This struggle for community control in the schools was pervasive throughout Massachusetts as it handled a changing population. As Sandwich had the highest immigrant population of any town on Cape Cod during the factory years, the Sand Hill School would have likely exemplified these first obstacles in Massachusetts public education.



Figure 5: Students at the Sand Hill School ca. 1900

The Sand Hill School had closed by 1931, when the American Legion began to lease the building. The post was named the Clark-Haddad Memorial Building, as the American Legion Hall before it had been. It would later return to educational use, serving as both a kindergarten and interim junior high school before becoming administrative offices for the school district until 2007.

Clark, Haddad and The American Legion



Figure 6: Clark-Memorial Building c.1960

American Legion organizations began in 1919, following the death and destruction of World War I. The organization was extremely active in the 1920s, and the post in Sandwich was chartered almost immediately after the war. World War I claimed 116,000 lives nationally and more than 1,500 lives from Massachusetts. Clark and Haddad were the first two casualties of the war that Sandwich experienced. Newspaper articles indicate that the original American Legion post was named for these men by February of 1920, within two years of their death and only three months of the armistice in November of 1919.

Michael Haddad (1892-1918) was born in Syria, and was the son of a worker in the glass factory. He lived with the McLaughlin Family in Sandwich for most of his adolescence, and continued to live with them after returning from work in Boston. He had shown great pride for what his obituary referred to as his "adopted country," and had enlisted in the U.S. Navy. He died following an operation, which was complicated by pneumonia.

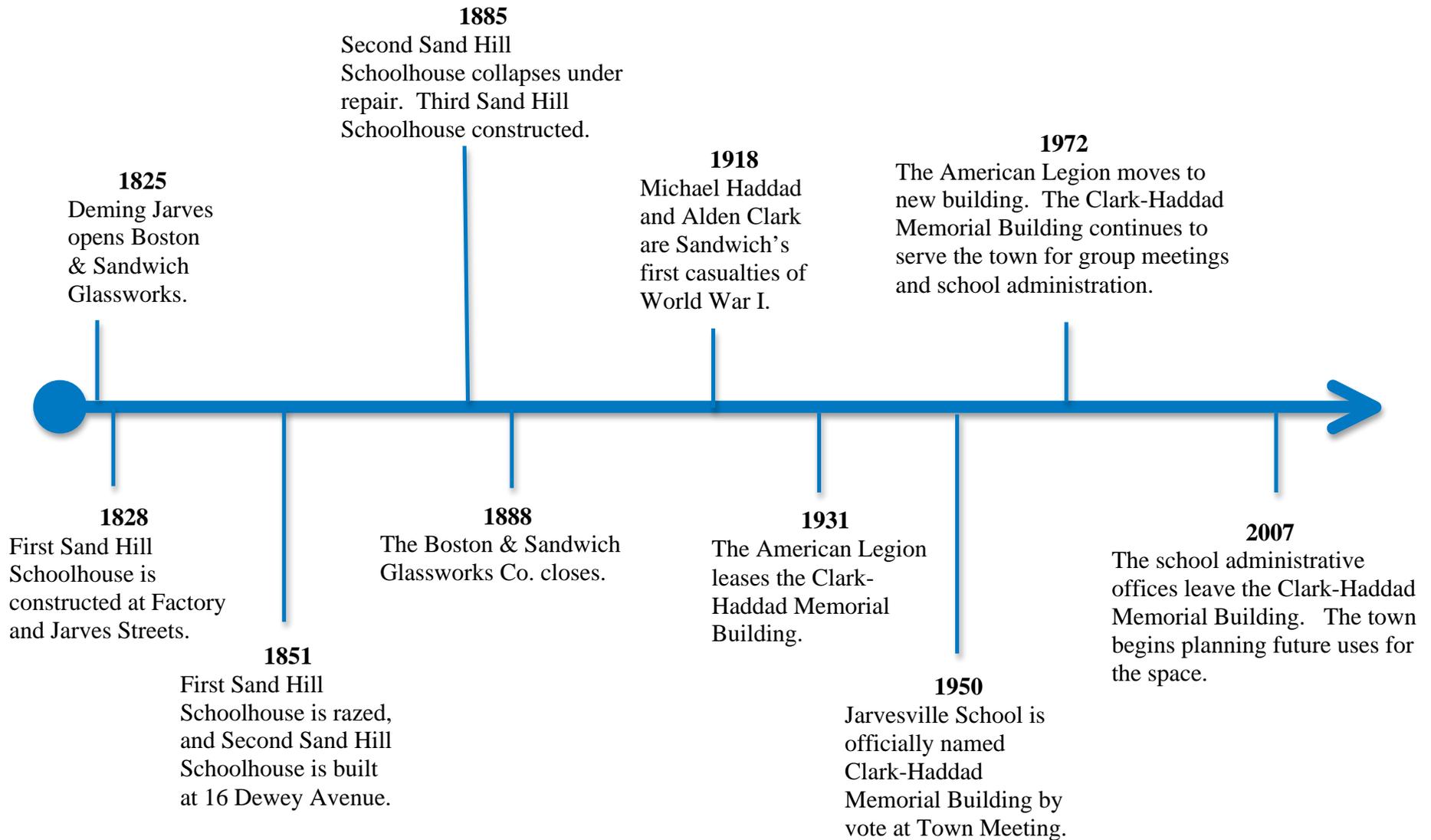
Corporal Alden Clark (1896-1918) was a Sandwich native and the youngest of six children. He grew up attending Sandwich public schools, and left to work in Brockton and Boston after graduating high school. He had spent the six months prior to his death training at Camp Devens, where he contracted an unidentified illness and died several weeks later.

A town meeting vote on March 6, 1950 formally changed the name of the Jarvesville School to the Clark-Haddad Memorial Building.

The American Legion continued the use of the Clark-Haddad Memorial Building until 1972. The American Legion was relocated to 20 Main Street, where they have a larger function space and are capable of accommodating more people than the two-room Clark Haddad. This was essential, as the Post 188 is one of the largest in Massachusetts, hosting almost 900 members. Like the two buildings before it, this new building is also named the Clark-Haddad Post.

Continued Use

The Clark-Haddad Building has served Sandwich residents of all ages and interests. In addition to its use as a school building and gathering place for veterans, it has also welcomed health clinics, scouting troops, a gardening club and a Baptist church. The recurring theme in this building's history is that it has been in service to the Town of Sandwich, whatever its current needs.



Architectural Assessment



McGinley Kalsow
& Associates, Inc.
ARCHITECTS & PRESERVATION PLANNERS

ARCHITECTURAL ASSESSMENT

SITE

The Clark-Haddad Memorial Building sits on a mostly open .61 acre site. The 16 Dewey Street site at the corner of Dewey Avenue (formerly Factory Street) and Georges Rock Road is zoned R1, medium density residential.

ROOFING, FLASHINGS, GUTTERS, AND DOWNSPOUTS

The existing roof is a fiberglass reinforced three-tab asphalt shingle roof. Its age is unknown, but it appears to be in fair to good condition, and there is not evidence of leaks. The normal life expectancy of an asphalt shingle roof is 25-30 years, so a comprehensive restoration of the building would likely include roof replacement at this point. The roof that is shown in the earliest of the available photographs indicates a wood shingle roof that features a wood cresting ornamentation at the ridge, with wood finials at the gable ends. (see historic photo) While such a ridge treatment was a popular style (see figure 1), it was not durable, as evidenced by the missing “teeth” in the historic photograph. It is likely that the cresting had a very short lifespan.

Gutters and downspouts are a residential quality aluminum with baked enamel (white) finish. The gutters are ogee-shaped, attached to building fascias via a spike-and-ferrule system. The downspouts are corrugated rectangle with aluminum mounting straps. (see photo 5) Generally, these lightweight materials and fastening systems do not provide the long-term durability of other metals and systems, and we don’t normally recommend them for our institutional clients, but they are a popular choice due to price and simplicity of installation.

WOOD SIDING AND TRIM

Again, looking at the historic photo, the building was originally clad with clapboard siding on all elevations. Currently the building features clapboard siding on the front (south) elevation, with cedar shingles used as cladding on the remaining elevations. The shingle condition varies greatly, with those of the east elevation showing the most deterioration (see photo 6) and there is evidence of newer replacements in areas of the north elevation. At the east elevation, one can see where shingles were removed to provide port holes for the installation of foam insulation at the exterior walls. In some locations these port holes have now become nesting spots for birds. There is some localized deterioration of the clapboards on the south elevation (see photos 7 and 8) The current paint is peeling and a restoration should include repainting.

The building still has the wide built-up corner boards, and the wide frieze board, and water table board that are evident in the historic photograph. With the exception of some repairs, these trim boards are most likely original to the building. At the west elevation one can observe a slight bow in the water table trim, indicative of the possible sill deterioration that is discussed in more detail in the attached structural assessment (see photo 5).

By comparing the historic photograph with the building today, there are a number of other obvious changes that have occurred at the building exterior over time. The black and white historic image shows that the clapboards and trim were of different shades; the trim boards being light colored or white, while the clapboards are a darker tone. Window placement, sizes, and details were different in the historical image. The front gable originally featured trim boards that panelized clapboards in a “stick style” treatment. The attic was vented by darker toned louvers. These louvers are stored in the building’s attic, and indicate that their original color was green (see photo 9) The original windows featured shutters, which were most likely painted the same green color. A hip-roofed entry canopy was supported by wood brackets, and overhung the recessed entry doors. These Victorian features with replaced with an entry porch that was built in a classical revival style as part of the 1935 Works Project Administration (WPA) renovations (see photos 10 and 11)

Deteriorated clapboards, shingles, and selective areas of trim should be replaced in a restoration of the building. The decision as to whether to return to all clapboards, and whether to

relocate windows to their original locations is subject to debate, depending on the era that the restoration would be based upon. The current vinyl siding in the front gable should be removed.

The bulkhead structure on the north elevation is very badly deteriorated and if it is decided to keep this exterior access to the basement, then it should be completely rebuilt. (see photo 12). The existing first floor exit door adjacent to the bulkhead is a metal door that is extremely rusted (see photo 13)

WINDOWS

As noted above, the windows have changed in size, location, and number since the building was originally constructed. The windows that exist today appear to be from the 1935 era WPA renovations. Today the windows are in poor condition, and would be much worse if the existing aluminum storm windows had not been added to protect them. The windows have broken glass, missing and deteriorated glazing putty, and have a bowed sill condition that is discussed in more detail in the attached structural assessment (see also photo 14) A wide number of options exist for windows as restoration/repair strategies for the building. The window sash can be restored and improved with new hardware and weatherstripping, window sash only could be replaced, or the entire window could be replaced. Replacements will offer further options to choose from, including material, glazing type, and muntin type and layout. All of this depends on budget and the overall preservation strategy. It should be noted that hazardous materials testing in 2012 identified that the glazing putty contained asbestos, so abatement and legal disposal must be done with whatever treatment option is selected.

INTERIOR

From evidence gathered with minimal destructive investigation, it appears that the building was originally divided into two equal sized rooms by an east-west demising wall that bisected the interior. Today the interior is layered from a series of renovations that correspond with the differing uses that the building has had. The WPA-era renovations changed the entry configuration, and further subdivided the space to add service spaces like pantry, kitchen, and

toilet rooms. Renovations for the school superintendent office use further subdivided the space, adding partitions to create smaller private offices (see photos 15 and 16).

Room finishes have been layered within the building along with the plan revisions. There are three layers of ceiling in the first floor. The original ceiling is lath and plaster applied to ceiling joists. The next ceiling was made of 1" thick wood strapping and wallboard with veneer plaster applied to the original ceiling. The last ceiling is a 2' x 4' suspended acoustic ceiling tile grid with lay-in fluorescent light fixtures (see photos 15 and 16) There are older suspended fluorescent light fixtures remaining in the space above the suspended ceiling.

Interior walls feature a painted bead board wainscot with chair rail moulding. There are paneled doors, and kitchenette cabinetry from the 1935 renovation (see photo 19), as well as newer cabinetry from 1980's renovation (see photos 18 and 20).

Floors are also comprised of a number of layers of finishes. Presently there is carpet, on top of vinyl tile on plywood. We did not confirm via destructive investigation, but the plywood is most likely installed over the original wood flooring. The vinyl tile was identified as asbestos-containing in a 2012 hazardous materials assessment that was done by the Town.

There is a currently a toilet room for each gender, and these also feature a layering of finishes. Presently walls and privacy partitions are faced with plastic laminate, most likely from the 1980's renovation. Floors are finished with vinyl tiles and linoleum, and the linoleum was identified as asbestos containing in the 2012 hazardous materials assessment. Ceilings are the same suspended acoustical ceiling tile system that is used in the former classrooms. The plumbing fixtures are old, but not of historic significance, and should be replaced when work is done on the building (see photos 22 and 23). As part of any renovation, these toilet rooms should be reconfigured to provide accessibility for all.

ATTIC

The building's attic is unfinished, though its floor is sheathed with board flooring, but not completely (see photo 24). Currently about 8" of chopped cellulose insulation has been loosely blown over the floor boards. The timbers that comprise the roof trusses were used in another structure prior to construction of the school. They exhibit mortise and pin holes that are

irrelevant to the current structure, and there was charring present in one location (see photo 26). A reasonable theory is that some of these timbers may have been used in the previous school building. The attached structural assessment further addresses condition and recommendations regarding attic framing.

BASEMENT

There is a full basement under the west half of the building, while the east half features a partially excavated crawl space (see photo 27). The basement is accessed by an interior stair in the southwest corner of the building, and by a bulkhead stair to the exterior on the north side of the building. The basement was used as an activity room during the American Legion's use of the building. Presently the boiler is located in the basement (see photo 28), and a separate small room houses the alarm and telephone/data panels and the fuel oil tank (see photo 29). The basement ceiling is finished with wall board with plaster. There are vinyl tiles on the floor, that were identified as asbestos-containing in the 2012 report. The pipe insulation that runs in the crawl space was also identified as asbestos containing. These materials will have to be abated as part of any construction project that takes place in the building.



Historic Photo circa 1902

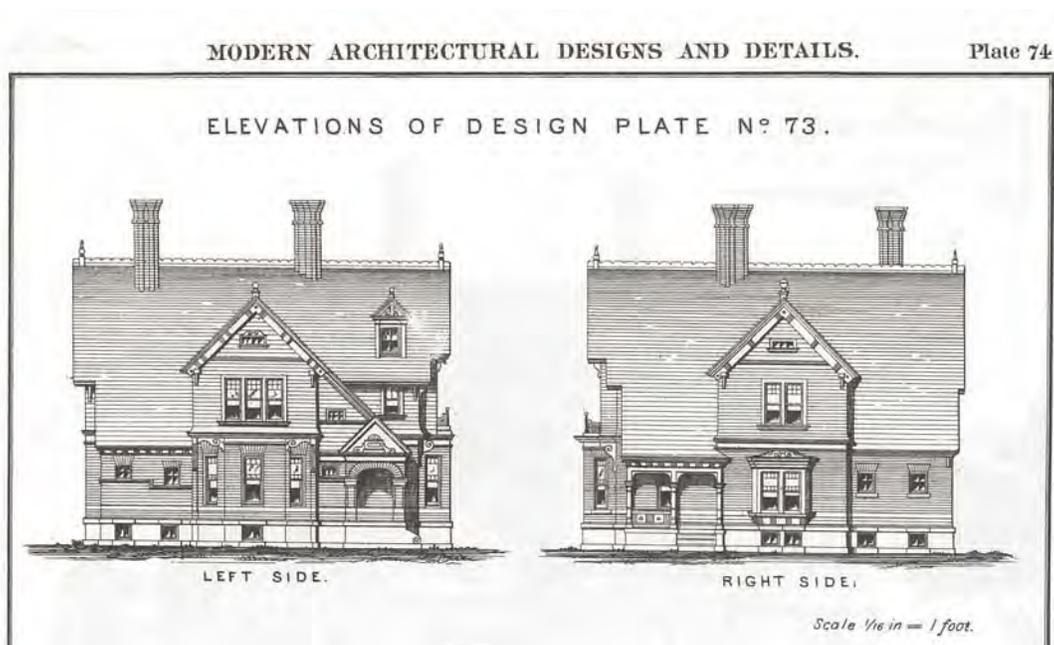
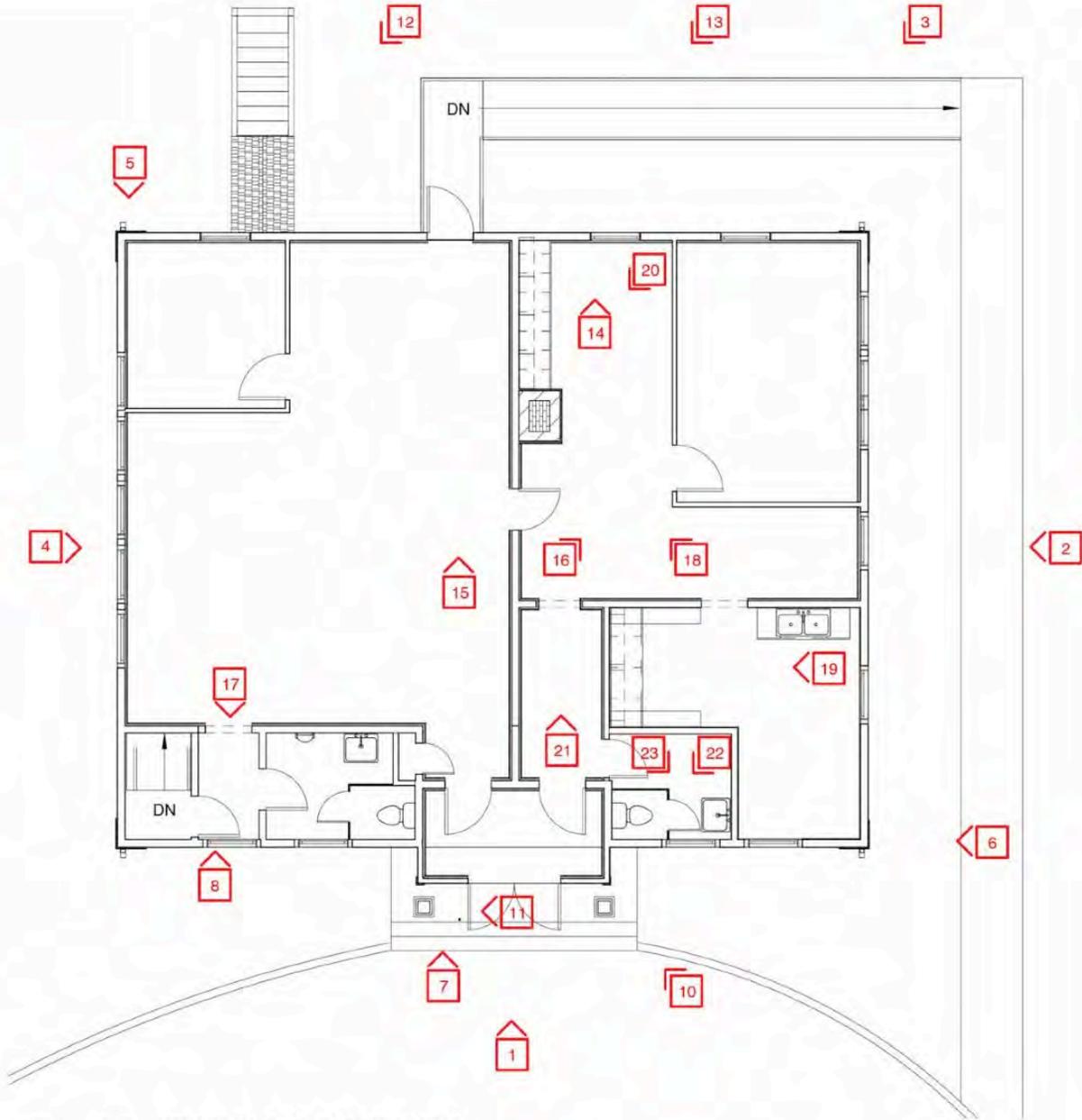


Figure 1: Roof cresting and gable finials were a popular feature for buildings of this era



 **1** FIRST FLOOR PHOTO KEY
1/8" = 1'-0"



Photo 1: Current South Elevation



Photo 2: Current East Elevation



Photo 3: North Elevation



Photo 4: West Elevation



Photo 5: Detail photo shows typical aluminum downspout and bow at watertable, West Elevation



Photo 6: Detail showing poor shingle condition at the East Elevation



Photo 7: Clapboard and trim deterioration at the South Elevation



Photo 8: Detail of clapboard and trim condition at South Elevation



Photo 9: Original shutters from the front gable were found in the attic



Photo 10: The 1935 WPA porch



Photo 11: Bronze commemorative plaque from the 1935 renovation



Photo 12: Detail of deteriorated bulkhead access to basement



Photo 13: Detail at rear ramp and exit door



Photo 14: Detail of window on the north wall shows the typical condition of windows (this one has exterior protective boarding) Note deformed window sill indicating possible rot at the wall sill



Photo 15: Current interior view of northwest corner of the building



Photo 16: Current interior view northeast corner of the building



Photo 17: Current interior view south end of the building near men's toilet room and door to basement stair



Photo 18: Current interior view shows chimney and circa 1980 cabinetry



Photo 19: Detail of built-in cabinetry



Photo 20: Current interior view



Photo 21: Entry corridor from 1935 renovation



Photo 22: Detail at women's toilet room



Photo 23: Detail at women's toilet room



Photo 24: Overall view of attic



Photo 25: Detail view in attic shows the front gable with framed openings for louver



Photo 26: Detail view of truss members. Note char on horizontal member.



Photo 27: Basement. Note asbestos-containing floor tiles and pipe wrap



Photo 28: Boiler.



Photo 29: Fuel oil tank is located in a separate room in the southeast corner of the basement, along with telephone and data panels.

Structural Assessment

MacLeod Consulting, Inc.
29 Woods Road
Belmont, MA 02478
(617) 484-4733
fax (617) 484-9708
www.macleod-consulting.com

March 6, 2015

Douglas Manley
McGinley Kalsow & Associates, Inc.
324 Broadway
PO Box 45248
Somerville, MA 02145

Re: Clark-Haddad Memorial Building
Structural Condition Assessment

Dear Doug:

At your request, I surveyed the condition of the Clark-Haddad Memorial Building at 16 Dewey Avenue, Sandwich, Massachusetts. The purpose of the survey is to determine the need and recommendation for restoration and repairs to the structure.

BACKGROUND

The Clark-Haddad Memorial Building was built in 1885 as a schoolhouse. This building has also seen use as a legion post, community activities, and as recent as 2007 the office of the School Superintendent. This one-story wood framed building has a finished first floor, a partial unfinished basement, and an unfinished attic. The Town requested this study to propose use options in order to make decisions about the future disposition of the property. Two possible uses considered herein have structural significance. One as an occupied building where the structure needs to meet code loadings. A second where floor framing does not meet code loadings and occupancy is limited by number of occupants.

SURVEY

On February 13, 2015, I visited Clark-Haddad. This was a clear cold day that followed several recent snow storms. The Town had cleared a path to the first floor. The property is located along the outer edges of Sandwich Harbor Marshes. To the north, Cape Cod Bay lies on the far side of these marshes. The front actually faces southwest and is referenced as the south in this report. For this report, north refers to the rear when facing the front of the building. I was able to access all levels of the structure for a visual survey. Attached to this report are three floor framing plans.

Site. The grade is relatively level. The building is partly sheltered from winds by surrounding trees for a distance of several hundred feet. This will meet ASCE-7 Exposure C for wind loading.

Basement. The basement is accessed from a stairway inside the building. One enters the basement into a rectangular utility room about one third the width of the building and the full depth front to back. The floor is concrete. I saw no water on the floor or coming

through the walls. The first floor framing is concealed by a gypsum board ceiling. The wall sills are concealed. In a few areas, I could see stone foundation walls concealed behind wall coverings. On the east side, the crawlspace can be seen for much of the length of this wall. Within the crawlspace, one can see three rows of eight-inch square brick piers supporting timber beams. Within the utility space, two rows of steel pipes support the floor beams.

The air in the crawlspace did not smell of mold or mildew. The wood visible from the vantage of the utility room appeared in good condition. The air was dry as expected at this time of year. However, I did not see evidence of openings to achieve an effective cross ventilation.

First floor framing. Joists spanning east-west are flush framed and supported by timber beams spanning north-south. The joists are 3 by 9 spaced at 19 inches spanning about 9.5 feet. Beams are 8 by 9 spanning either 9.75 feet in the crawlspace and 13 feet in the utility room.

On the first floor, one can see many windows where the stools have a crown. These crowns indicate the posts and jamb studs on the sides of the windows have settled relative to the stud framing under the openings.

Attic Floor framing. The attic is accessed through a hatch in the first floor ceiling. The attic joists are covered with insulation. Additionally, board flooring covers these joists. The extent of the board flooring is unknown. There are places where it has been removed. The insulation conceals the flooring. The joists are 3 by 10 spaced at 20 inches spanning on average 9.5 feet. These are flush framed and supported by 10 by 10 beams, as seen in one opening we made. These beams are hung from the roof framing with 2 by hangers at the third points of the span from front to rear. Over the central first floor wall spanning front to rear, hangers are absent indicating this is a bearing wall built during original construction.

Roof framing. The roof is supported with three intermediate trusses spanning front to rear. These are queen post trusses. Purlins, 6 by 6, along the front and rear roof slopes are supported next to the posts in the trusses. This is a Dutch hip roof where the front and rear slopes rise to a common ridge and the left and right sides end at a small gable wall part way up the roof. This gable wall is supported on a small 2 by 8 purlin. This purlin appears to be supported on rafters that trim the edge of the gable walls and extend from the supporting wall plates to the ridge. All rafters slope up their respective roof areas.

EVALUATION

State Building Code

The proposed work will need to meet applicable requirements of the Massachusetts State Building Code which is based upon the 2009 International Building Code (2009IBC), the 2009 International Existing Building Code (2009IEBC), and Massachusetts Amendments. The latest Massachusetts Amendments (MA) for Chapter 34: Existing Structures was published April 11, 2014.

The salient requirements of the above Codes will require dangerous conditions to be corrected (Section 1102.2 2009IEBC), floors are to meet code loading requirements except posted reduced loads are permitted (Section 1106.1 2009IEBC).

Foundation. Generally the exterior and interior foundation walls appear in good condition. Inside the footprint of the crawlspace, brick piers appear in correct locations.

Crawlspace. Crawlspaces can be hostile to wood framed floors as they can hold moisture favorable to many organisms that consume wood. The Code standard is to keep joists at least 18 inches above earth. Here most of the space is about 20 inches clear. The Code calls for natural ventilation on at least three sides with openings preferably near corners to ensure adequate air flow. At present, the natural ventilation conditions are not met.

First floor framing. The floor framing appears to be original construction. The brick piers spaced at 9.5 feet within the crawlspace would be original. The pipe columns within the utility room spaced at 13 feet appear as replacements. The joists are adequate to carry live loads close to 300 psf. The mortised beams within the crawlspace have the capacity to carry a live load of 54 psf. Those over the utility room only have a live load capacity of 15 psf because of the longer spans. The use of such robust joists on beams much weaker indicates the original designer made no calculations.

The crown in the window stools indicates framing next to windows is sinking into the wood sills. This is happening on all sides of the building. The scale of the building is not so great that the bearing weight is crushing the wood from overstress. It is more likely the sills have some degree of decay that has reduced its cross grain bearing stress.

The bow in the west wall at the sill suggests the sill is pulling away from the supported floor joists. There is no thrust associated with the geometry of the vertical wall and horizontal floor to cause this. Again, I would attribute this to decay in the wood sill.

Attic floor framing. The attic joists are likely covered with board sheathing. Some areas of flooring have been removed most likely by trades accessing electrical wiring. The insulation covering the floor makes walking on it a hazard. The 3 by 10 joists have a live load capacity approaching 300 psf. The beams have a capacity to carry a live load of 38 psf. Again, the disparity is striking. The hangers supporting the ceiling beams are grossly undersized and provide little opportunity to develop adequate connection support. The support of these hangers on single rafters is also dangerously undersized.

Roof framing. The roof trusses are adequate to carry a live load of 20 psf on the attic floor. The 6 by 6 purlins on the front and rear slopes have the capacity to carry a snow load of 22 psf whereas the code demand load would be 27 psf. They are undersized. The 2x8 purlins under the gable walls have a capacity to carry a snow load of about 8 psf. These are grossly undersized. The rafters are adequate to carry code loadings.

The reader should bear in mind that allowable stress figures in wood construction are based on trade specifications that have a safety factor of about four. Hence, the framing in this structure has likely seen greater loads in its long history. The greater loads did not collapse the structure, but they are not safe to rely upon for continued use.

RECOMMENDATIONS

Modern materials used to strengthen the structure should be concealed behind traditional materials. In general, the preservation work should meet the guidelines for preservation under *The Secretary of the Interior's Standards for the Treatment of Historic Properties*.

Improvements to the structure should take into consideration the removing of dangerous conditions (safety) and removing conditions that will accelerate deterioration (durability) as well as considering uses with limited occupancy or meeting full code load requirements.

The following recommendations are intended to meet the aforementioned needs.

Crawlspace. Provide openings in the exterior walls or install mechanical ventilation to move air sufficiently to keep the space dry. The need for ventilation is to reduce moisture during warm seasons when decay causing organisms are active. A mechanical system could dry and recycle the same air to minimize temperature change effects of fresh air.

Ensure the two access areas meet minimum access opening size of 18 by 24 inches.

First floor framing. The decay in the foundation sill needs to be abated to prevent further spread into the floor framing and provide adequate support for the walls. This will require carefully lifting (for reuse) skirts on the exterior walls to access compromised wood. The percent of affected framing is unknown as it is concealed. After removing the skirts and sheathing, survey the sills and replace rotted portions. Following replacement of sills, apply Bora-Care wood preservative to all exposed wood before closing up with finishes.

Improve the live load capacity over the utility room by resupporting the beams as the same spacing as the brick piers. This will make the capacity of the floor equal throughout the building. If a code compliant assembly live load of 100 psf is desired, a 1/4" thick cover plate added to the tops only would adequately strengthen the beams.

Attic floor framing. Add hangers supporting the attic floor beams to reduce support forces by distributing them over more of the supporting roof structure. Where hangers are supported with rafters, add rafters dedicated to supporting hangers. Where hangers are supported by trusses, add truss web members to create more truss panel points to load the trusses without compromising the overall strength of the trusses.

Roof framing. At the front and rear roof purlins, sister a LVL to increase capacity. At the 2x8 purlins on the east and west slopes, add several LVL's to increase capacity. Provide custom steel connections to the 4 by 7 rafters. Add connections to the 4 by 7 rafters to supporting sills.

Sincerely,



Arthur H. MacLeod, P.E., Principal
MacLeod Consulting, Inc.

Attachments: Captioned Photographs and Existing Condition Drawings



1. Roof framing under west end of building. Note two 2x wood hangers, one hanging from the truss and one hanging from a rafter, support beams beneath the insulation which support ceiling joists. The insulation covers board flooring and conceals random openings in the flooring.



2. Framing at hips at ends of Dutch hip walls. A 4x7 rafter supports a 2x8 purlin.



3. The Dutch hip wall is supported on a 2x8 purlin.



4. Roof truss heel bearing on wall plate. Wall plate is lap spliced and tied with two pegs.



5. Openings to investigate the center wall running on a north south axis. There is no beam above the wall. This wall is supporting ceiling joists.



6. A basement at the west end of the building serves as a utility room.



7. Crawlspace under the middle and east side of the building. Generally, the odor is free of any scent of decay. The space does not have adequate cross ventilation.



8. Window stools are crowned because of framing around them settling suggesting the wall studs are sinking into the foundation sills.



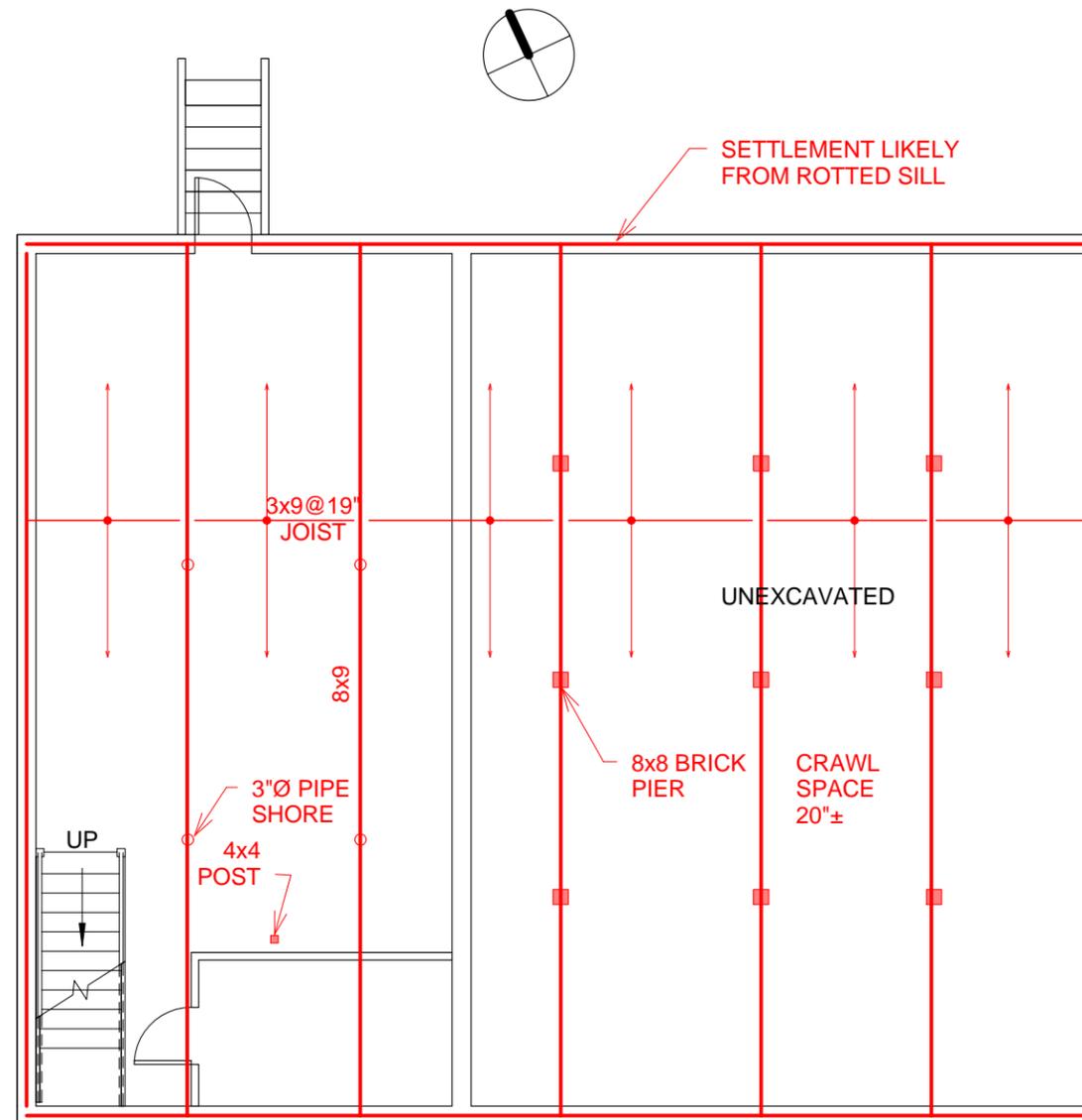
9. Another view of a window with a crown in the window stool.



10. More windows with crowning in the window stools.



11. West wall looking south.
Picture is rotated on its side. The wall is bowed out at its base.



1 FIRST FLOOR FRAMING PLAN
1/8" = 1'-0"

Clark-Haddad Memorial Building
16 Dewey Avenue
Sandwich, Massachusetts
Town of Sandwich

MacLeod Consulting, Inc.
29 Woods Road
Belmont, MA 02478
617-484-4733
structural engineering

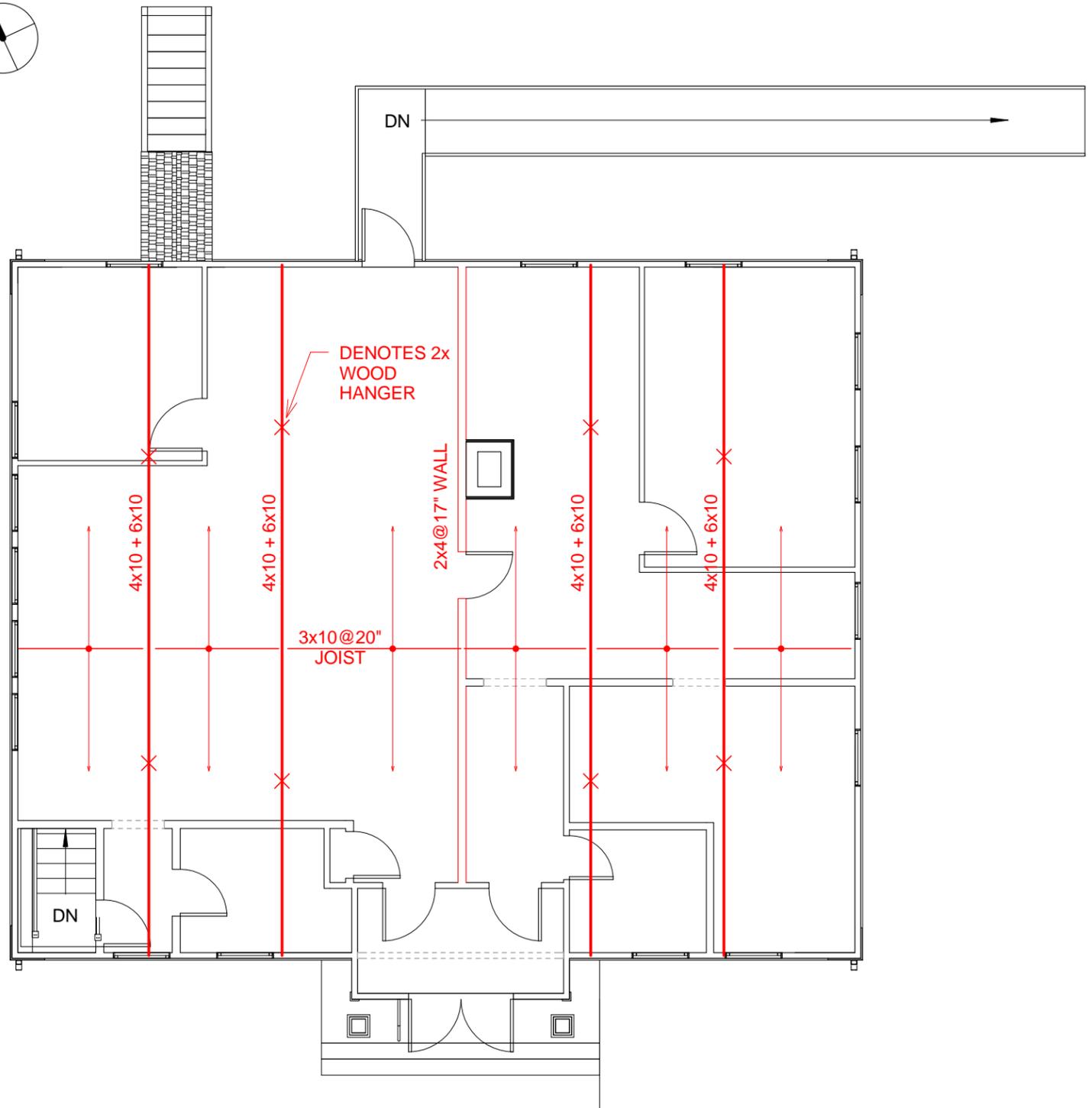
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Drawn By: AHM
Reviewed By: AHM
Project No: 2015.04.01

MK & A McGinley Kalsow & Associates, Inc.
ARCHITECTS & PRESERVATION PLANNERS
324 Broadway, P.O. Box 45248
Somerville, MA 02145
617.625.8901 - www.mcginleykalsow.com

FIRST FLOOR FRAMING PLAN

No.

S1.1



1 ATTIC FRAMING PLAN
1/8" = 1'-0"

Clark-Haddad Memorial Building
16 Dewey Avenue
Sandwich, Massachusetts
Town of Sandwich

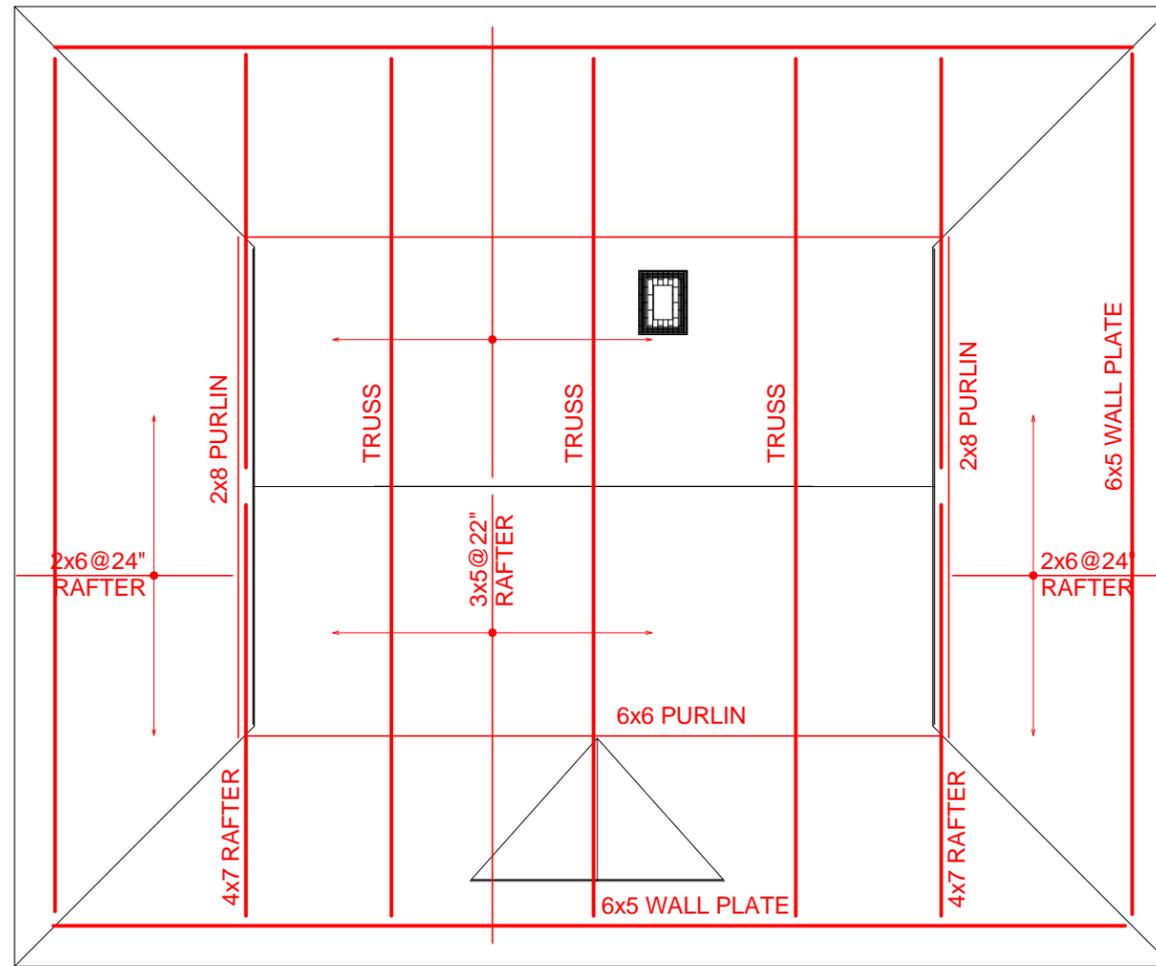
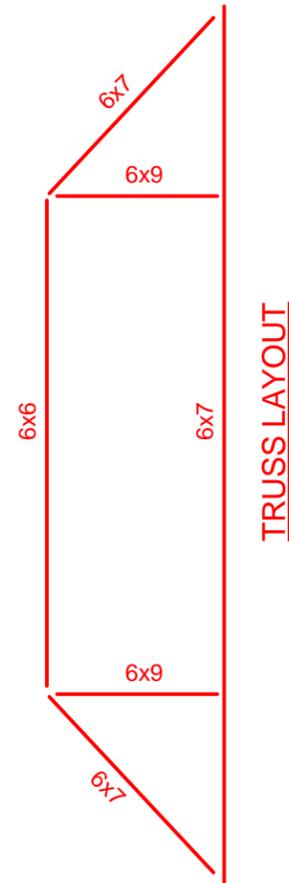
MacLeod Consulting, Inc.
29 Woods Road
Belmont, MA 02478
617-484-4733
structural engineering

Date: 3/4/2015
Scale: 1/8" = 1'-0"
Drawn By: AHM
Reviewed By: AHM
Project No: 2015.04.01

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ATTIC FRAMING PLAN

No.
S1.2



1 ROOF FRAMING PLAN
1/8" = 1'-0"

Clark-Haddad Memorial Building
16 Dewey Avenue
Sandwich, Massachusetts
Town of Sandwich

MacLeod Consulting, Inc.
29 Woods Road
Belmont, MA 02478
617-484-4733
structural engineering

Date: 3/4/2015
Scale: 1/8" = 1'-0"
Drawn By: AHM
Reviewed By: AHM
Project No: 2015.04.01

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ROOF FRAMING PLAN

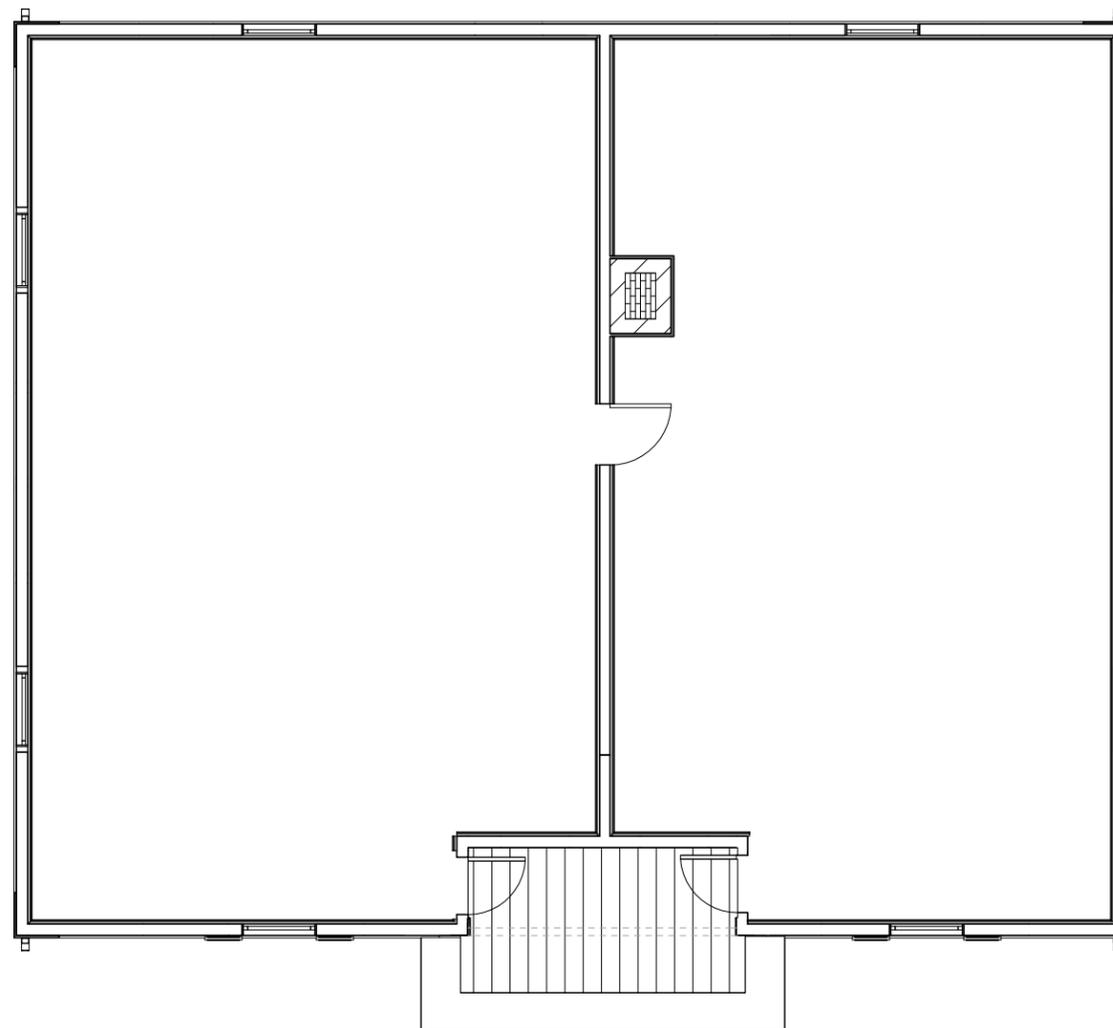
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S1.3

Drawings



**The Clark-Haddad
Memorial Building**
16 Dewey Ave, Sandwich,
MA, 02563
Client Name



 **1** HISTORIC FIRST FLOOR PLAN
1/8" = 1'-0"

Date: 04/01/15
Scale: 1/8" = 1'-0"
Drawn By: AR
Reviewed By: DLM
Project No: 1731.00

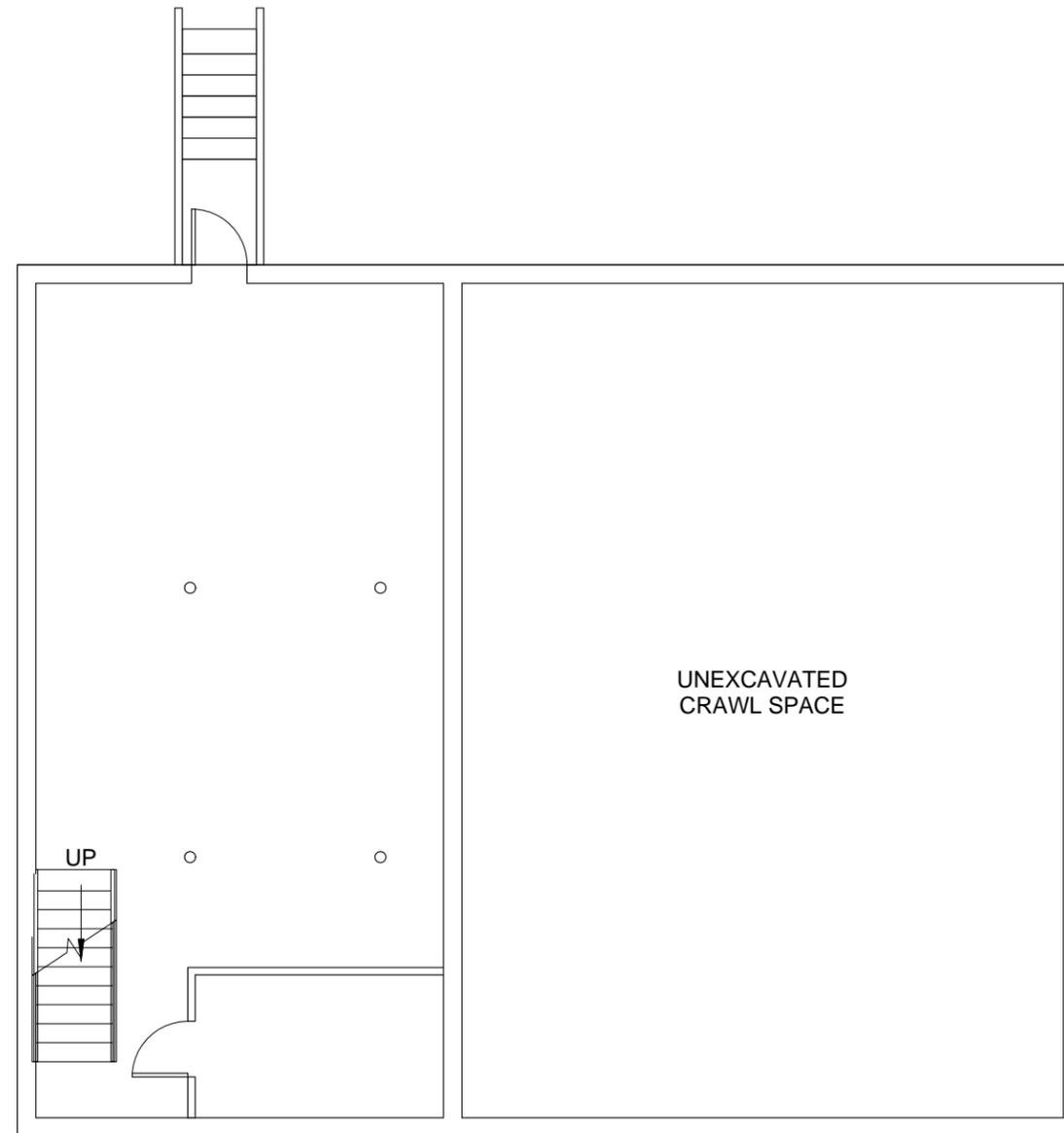
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**HISTORIC FIRST
FLOOR PLAN**

No.
A1.2a



The Clark-Haddad
Memorial Building
16 Dewey Ave, Sandwich,
MA, 02563
Client Name



Date: 04/01/15
Scale: 1/8" = 1'-0"
Drawn By: AR
Reviewed By: DLM
Project No: 1731.00

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BASEMENT
PLAN

 **1** BASEMENT FLOOR PLAN
1/8" = 1'-0"

No.

A1.1



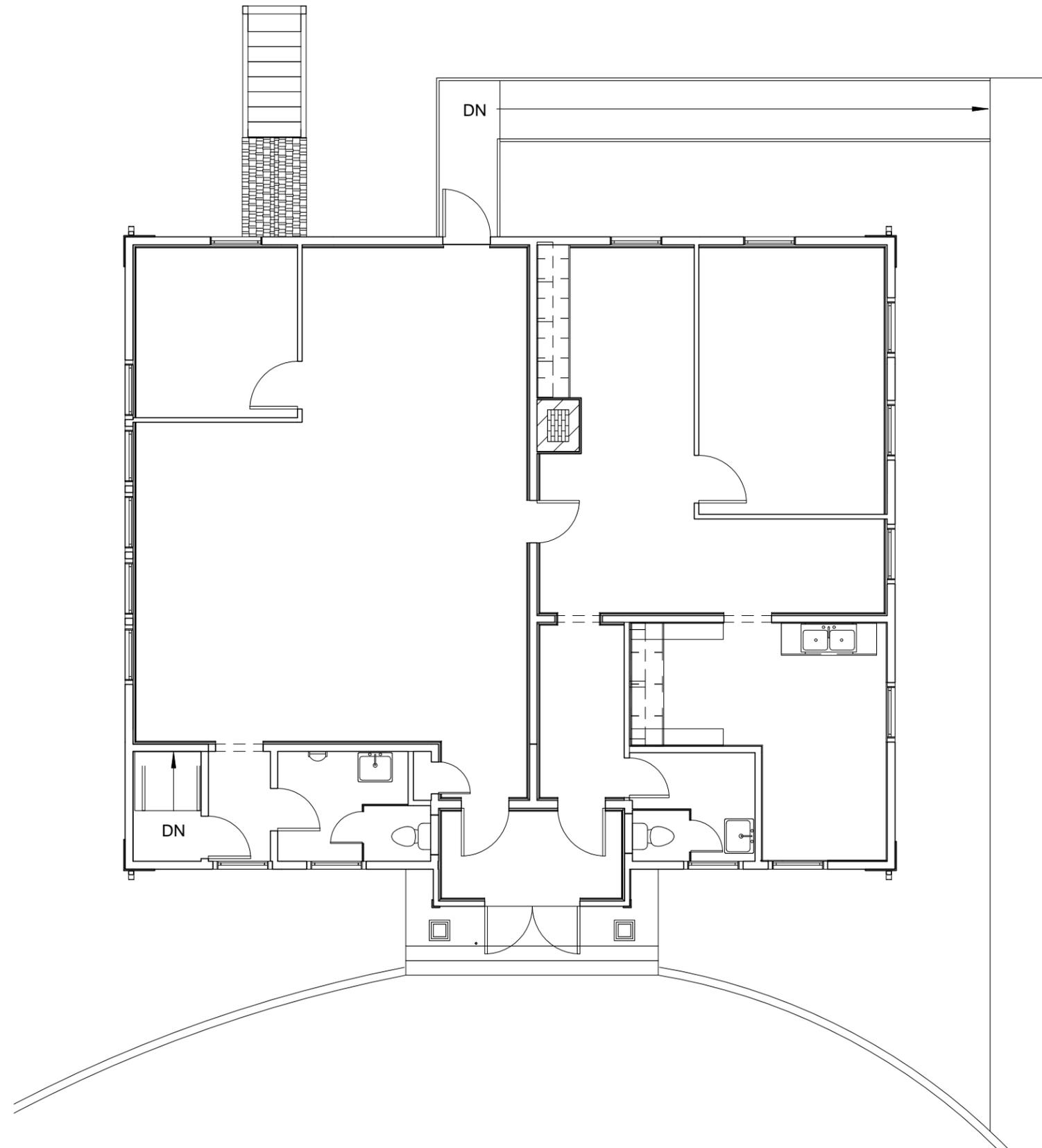
**The Clark-Haddad
Memorial Building**
16 Dewey Ave, Sandwich,
MA, 02563
Client Name

Date: 04/01/15
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Drawn By: AR
Reviewed By: DLM
Project No: 1731.00

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617.625.8901 - www.mcginleykalsow.com

**EXISTING FIRST
FLOOR PLAN**

No.
A1.2b



 **1** EXISTING FIRST FLOOR PLAN
1/8" = 1'-0"



**The Clark-Haddad
Memorial Building**
16 Dewey Ave, Sandwich,
MA, 02563
Client Name

Date: 04/01/15
Scale: 1/4" = 1'-0"
Drawn By: AR
Reviewed By: DLM
Project No: 1731.00

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**HISTORIC
SOUTH
ELEVATION**

No.

A2.1a



1 HISTORIC SOUTH ELEVATION
1/4" = 1'-0"



**The Clark-Haddad
Memorial Building**
16 Dewey Ave, Sandwich,
MA, 02563
Client Name

Date: 04/01/15
Scale: 1/4" = 1'-0"
Drawn By: AR
Reviewed By: DLM
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**EXISTING
SOUTH
ELEVATION**

No.

A2.1b



1 EXISTING SOUTH ELEVATION
1/4" = 1'-0"



**The Clark-Haddad
Memorial Building**
16 Dewey Ave, Sandwich,
MA, 02563
Client Name

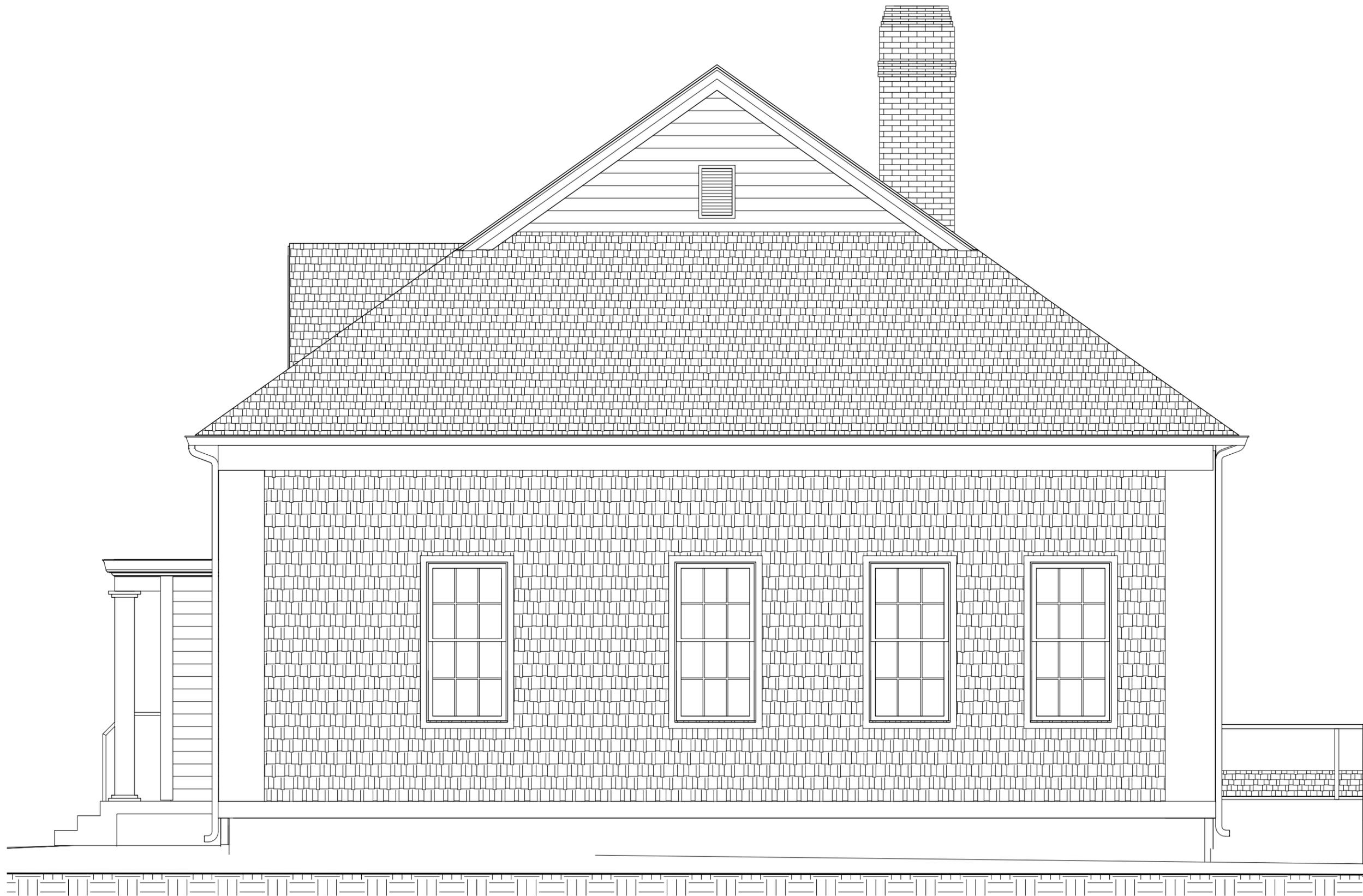
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Project No: 1731.00

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**EAST
ELEVATION**

No.

A2.2



1 EAST ELEVATION
1/4" = 1'-0"



**The Clark-Haddad
Memorial Building**
16 Dewey Ave, Sandwich,
MA, 02563
Client Name

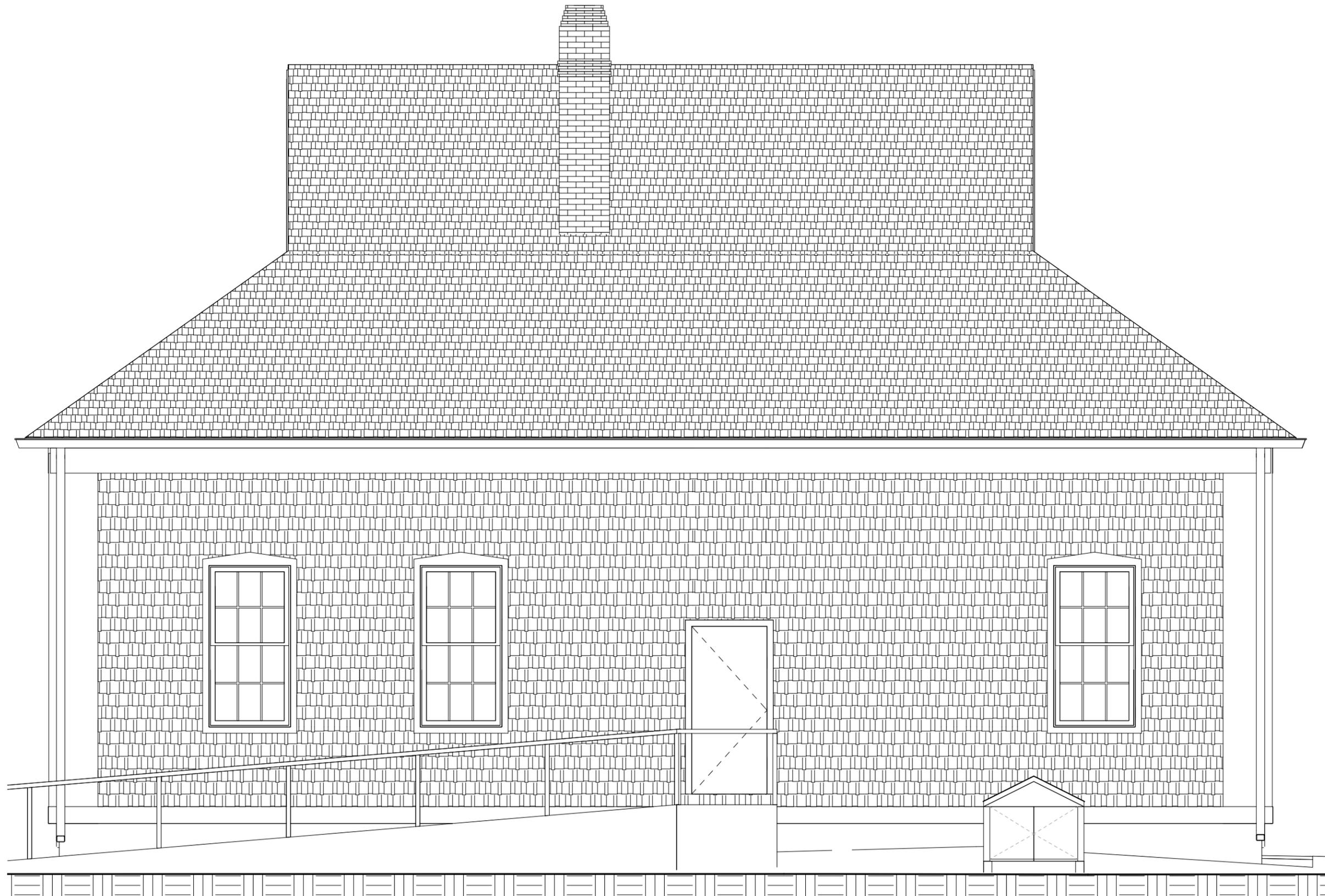
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**NORTH
ELEVATION**

No.

A2.3



1 NORTH ELEVATION
1/4" = 1'-0"



**The Clark-Haddad
Memorial Building**
16 Dewey Ave, Sandwich,
MA, 02563
Client Name

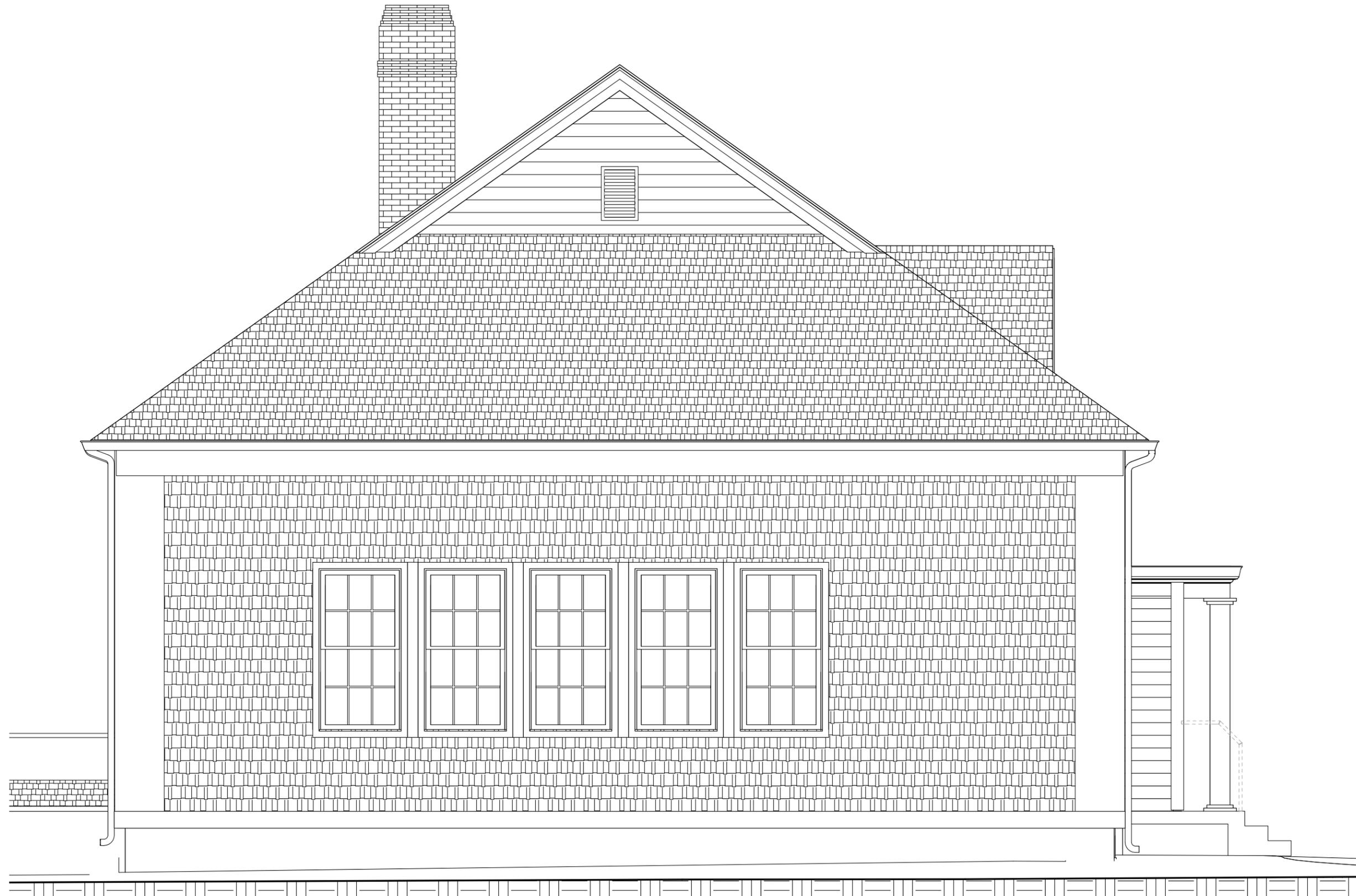
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**WEST
ELEVATION**

No.

A2.4



1 WEST ELEVATION
1/4" = 1'-0"



**The Clark-Haddad
Memorial Building**
16 Dewey Ave, Sandwich,
MA, 02563
Client Name

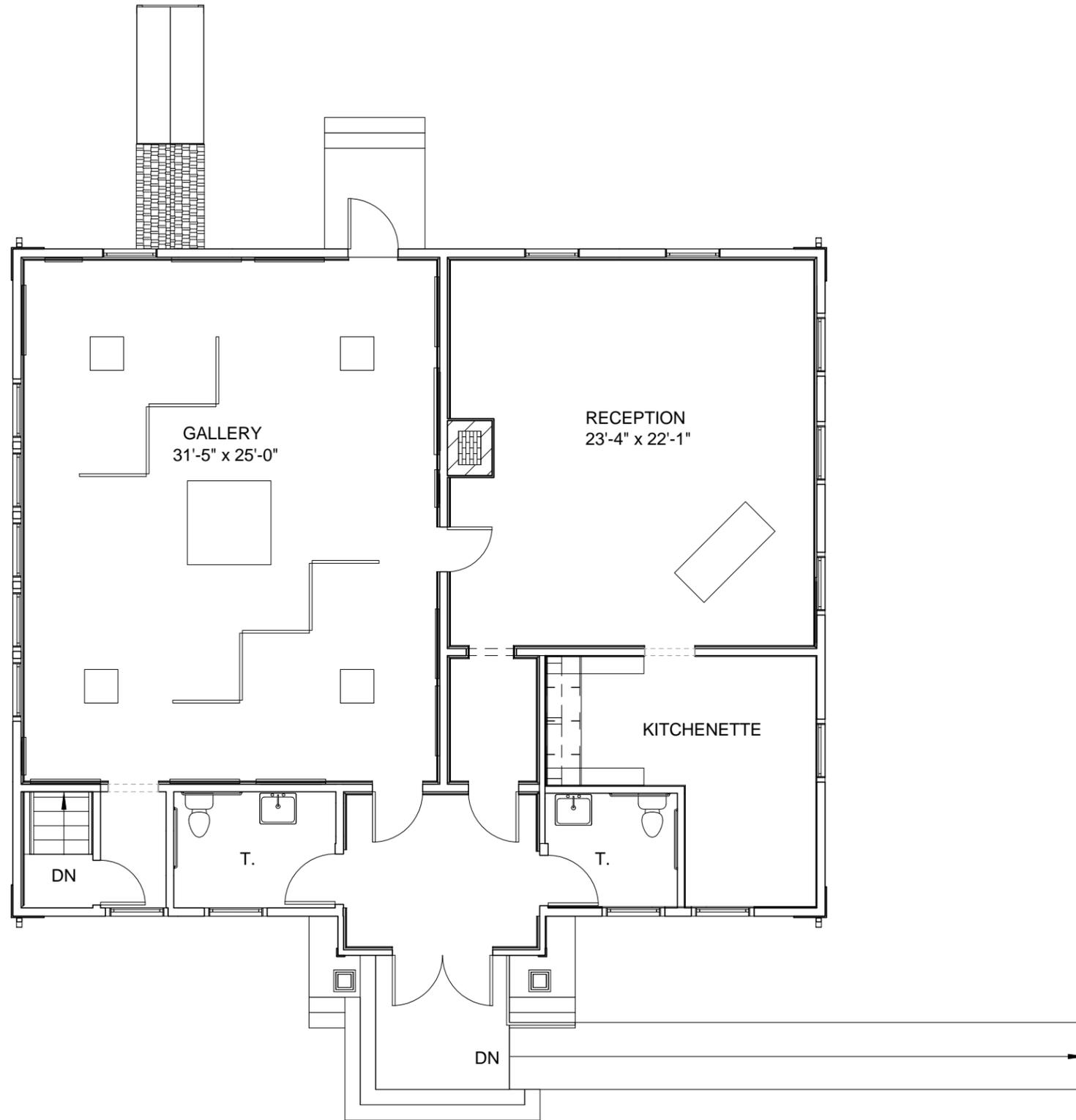
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Reviewed By: DLM
Project No: 1731.00

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PROPOSED FLOOR
PLAN - OPTION A -
GALLERY

No.

A1.2c

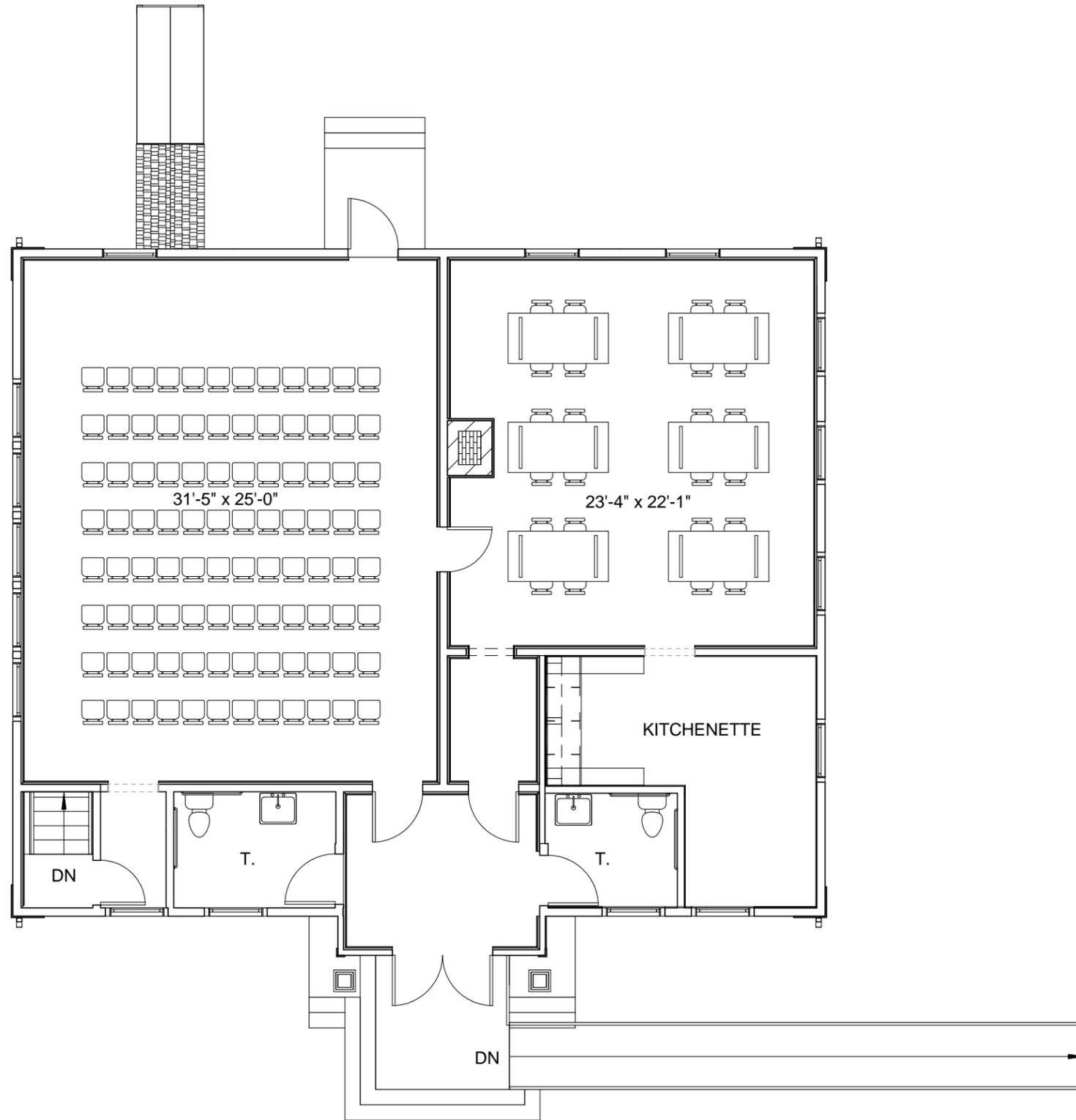


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PROPOSED FLOOR PLAN - OPTION A - GALLERY
1/8" = 1'-0"



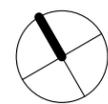
**The Clark-Haddad
Memorial Building**
16 Dewey Ave, Sandwich,
MA, 02563
Client Name



Date: 04/01/15
Scale: 1/8" = 1'-0"
Drawn By: AR
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Project No: 1731.00

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Somerville, MA 02145
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PROPOSED FLOOR
PLAN - OPTION A -
LECTURER
MULTIPURPOSE

 **1** PROPOSED FLOOR PLAN - OPTION A - LECTURER/ MULTIPURPOSE
1/8" = 1'-0"

No.
A1.2c



**The Clark-Haddad
Memorial Building**
16 Dewey Ave, Sandwich,
MA, 02563
Client Name

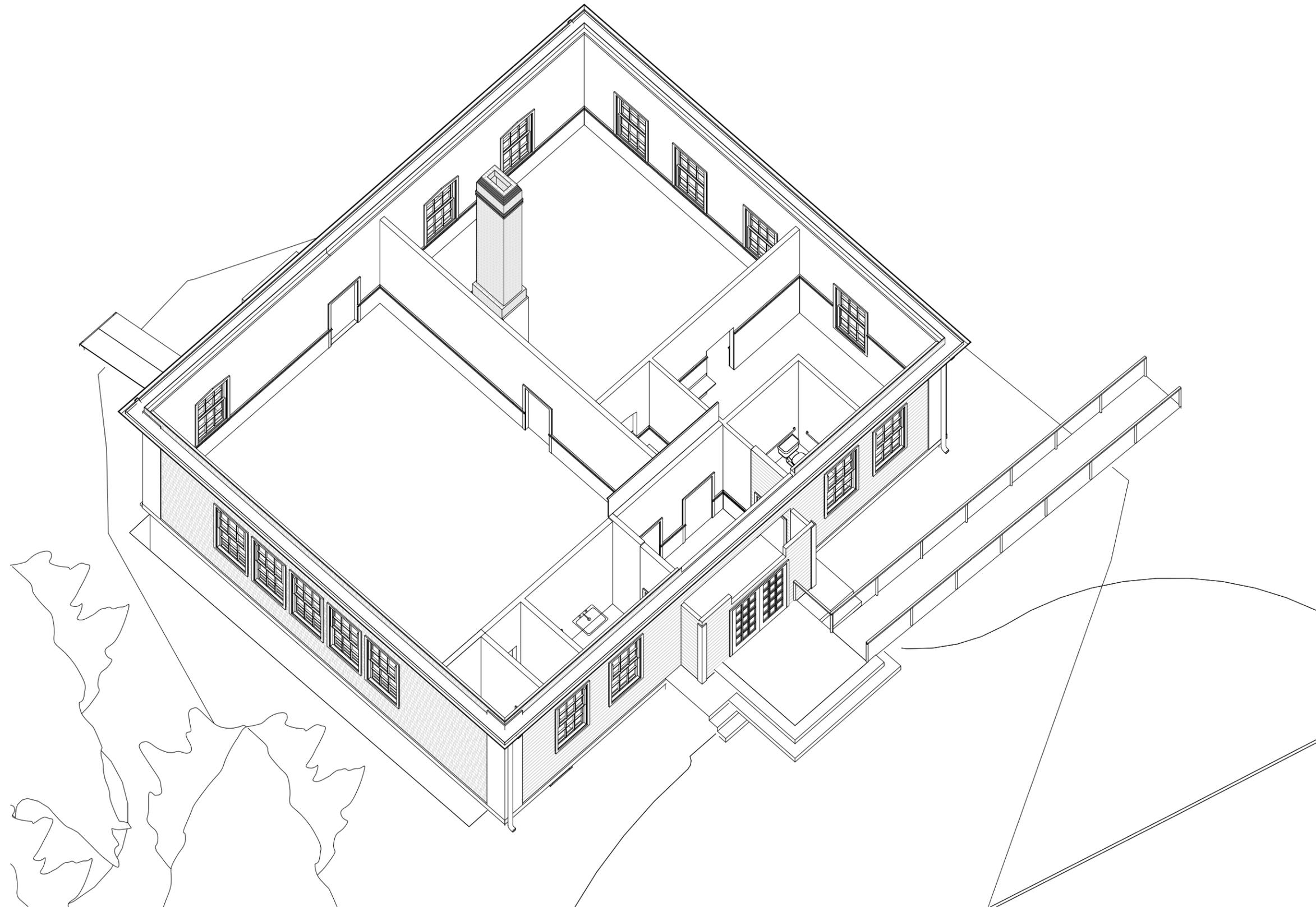
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Project No: 1731.00

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OPTION A - 3D

No.

A1.2c1



1 OPTION A - 3D



**The Clark-Haddad
Memorial Building**
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MA, 02563
Client Name

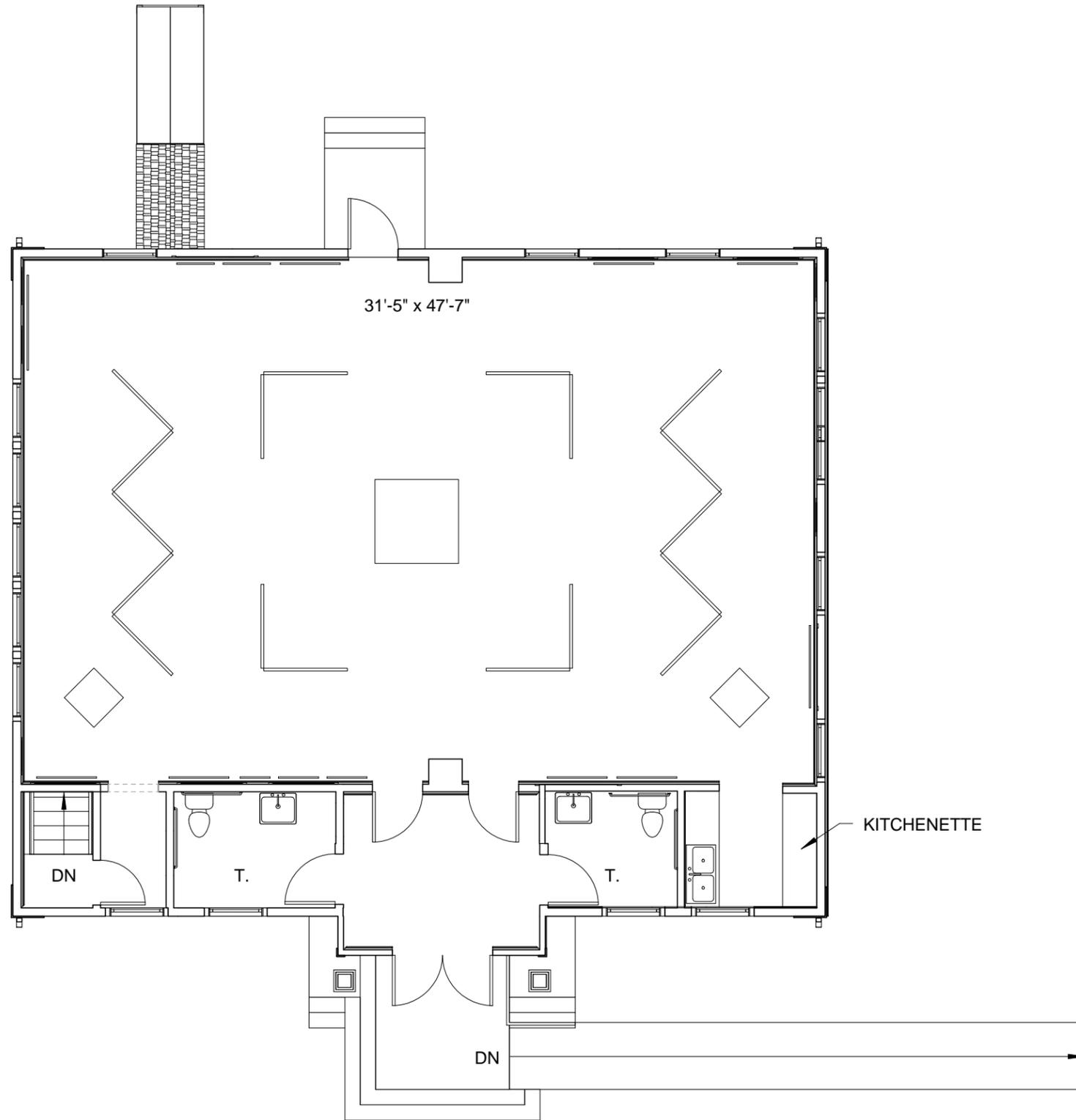
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Somerville, MA 02145
617.625.8901 - www.mcginleykalsow.com

PROPOSED FLOOR
PLAN - OPTION B1

No.

A1.2e



 **1** PROPOSED FLOOR - OPTION B - GALLERY
1/8" = 1'-0"



**The Clark-Haddad
Memorial Building**
16 Dewey Ave, Sandwich,
MA, 02563
Client Name

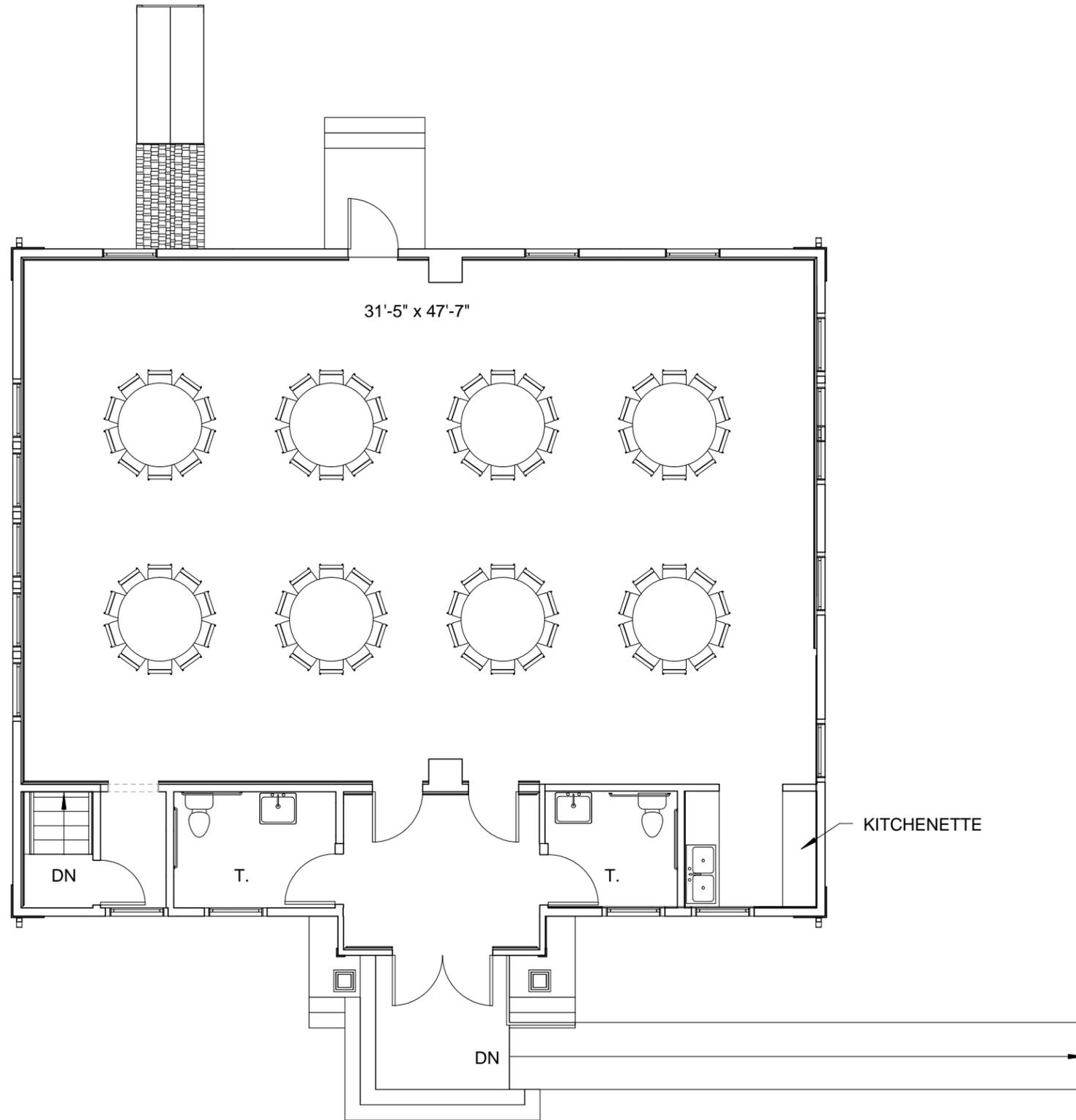
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Reviewed By: DLM
Project No: 1731.00

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& Associates, Inc.
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324 Broadway, P.O. Box 45248
Somerville, MA 02145
617.625.8901 - www.mcginleykalsow.com

PROPOSED FLOOR
PLAN - OPTION B -
TABLES & CHAIRS

No.

A1.2e



 **1** PROPOSED FLOOR PLAN - OPTION B - TABLES & CHAIRS
1/8" = 1'-0"



**The Clark-Haddad
Memorial Building**
16 Dewey Ave, Sandwich,
MA, 02563
Client Name

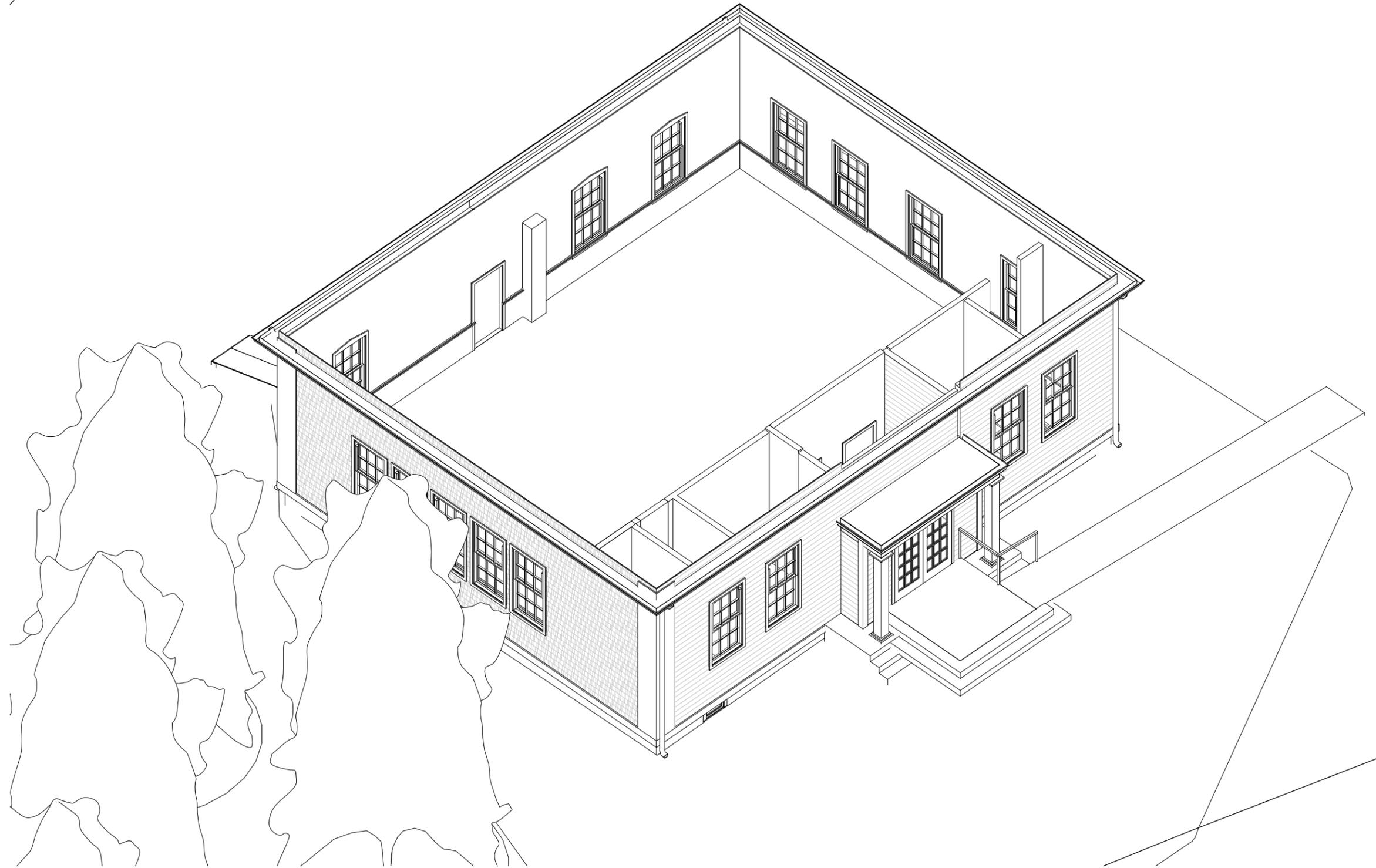
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Scale:
Drawn By: Author
Reviewed By: Checker
Project No: 1731.00

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& Associates, Inc.
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OPTION B - 3D

No.

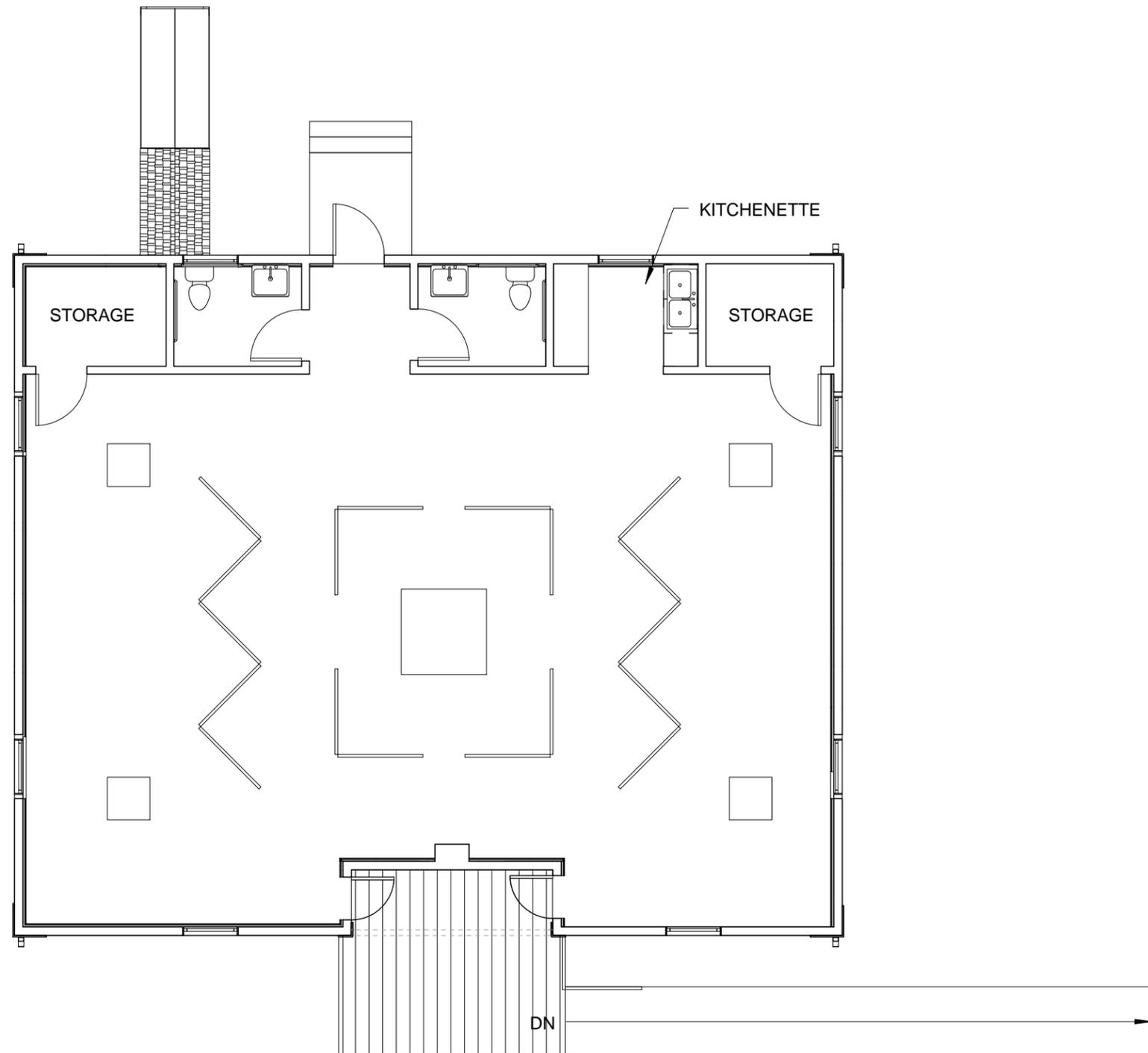
A1.2d1



1 OPTION B - 3D



**The Clark-Haddad
Memorial Building**
16 Dewey Ave, Sandwich,
MA, 02563
Client Name



 **1** PROPOSED FLOOR PLAN - OPTION C - GALLERY
1/8" = 1'-0"

Date: 02/09/15
Scale: 1/8" = 1'-0"
Drawn By: AR
Reviewed By: DLM
Project No: 1731.00

MK & A McGinley Kalsow & Associates, Inc.
ARCHITECTS & PRESERVATION PLANNERS
324 Broadway, P.O. Box 45248
Somerville, MA 02145
617.625.8901 - www.mcginleykalsow.com

PROPOSED FLOOR
PLAN - OPTION C -
GALLERY

No.

A1.2d



**The Clark-Haddad
Memorial Building**
16 Dewey Ave, Sandwich,
MA, 02563
Client Name

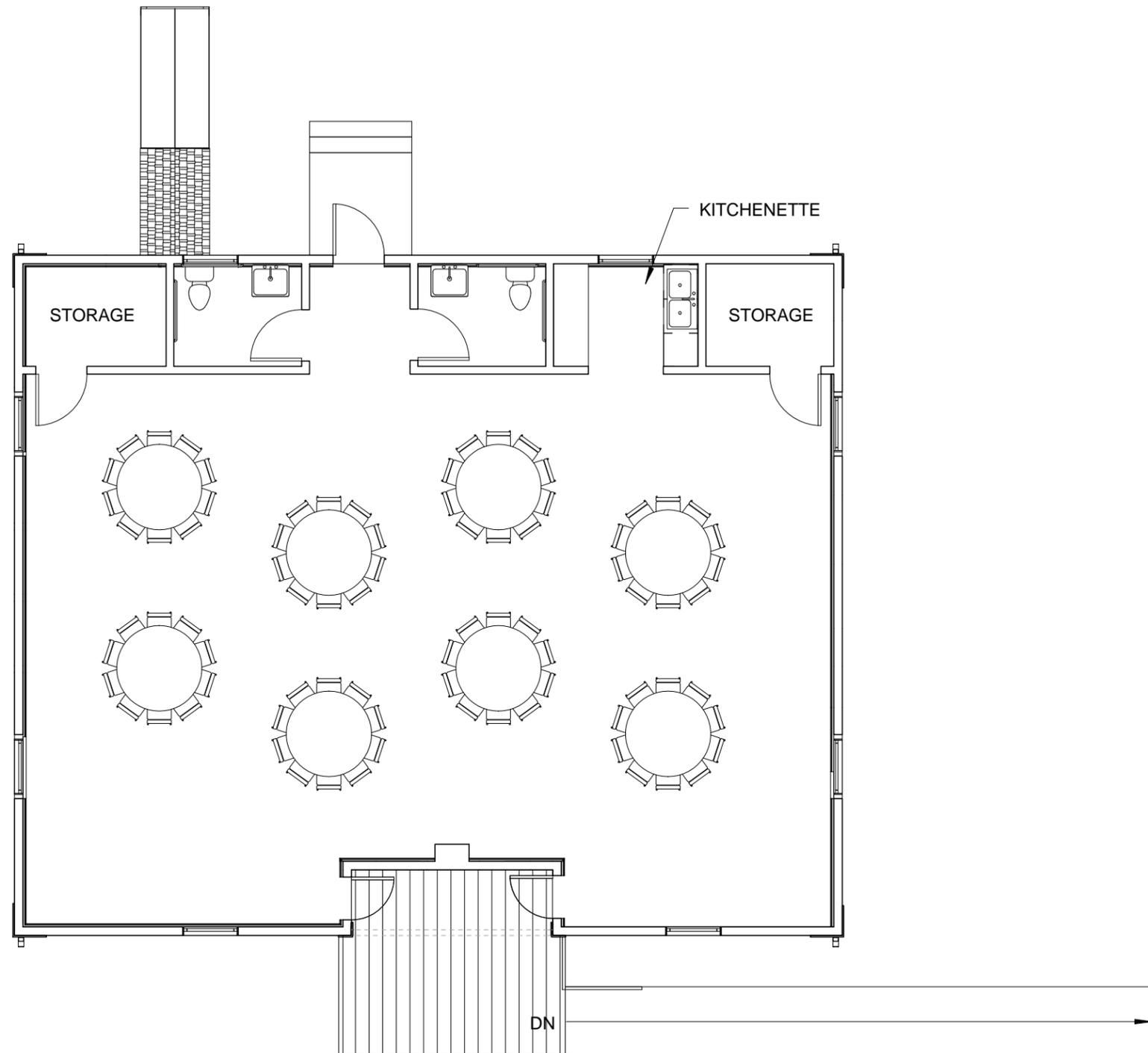
Date: 02/09/15
Scale: 1/8" = 1'-0"
Drawn By: AR
Reviewed By: DLM
Project No: 1731.00

MK & A McGinley Kalsow
& Associates, Inc.
ARCHITECTS & PRESERVATION PLANNERS
324 Broadway, P.O. Box 45248
Somerville, MA 02145
617.625.8901 - www.mcginleykalsow.com

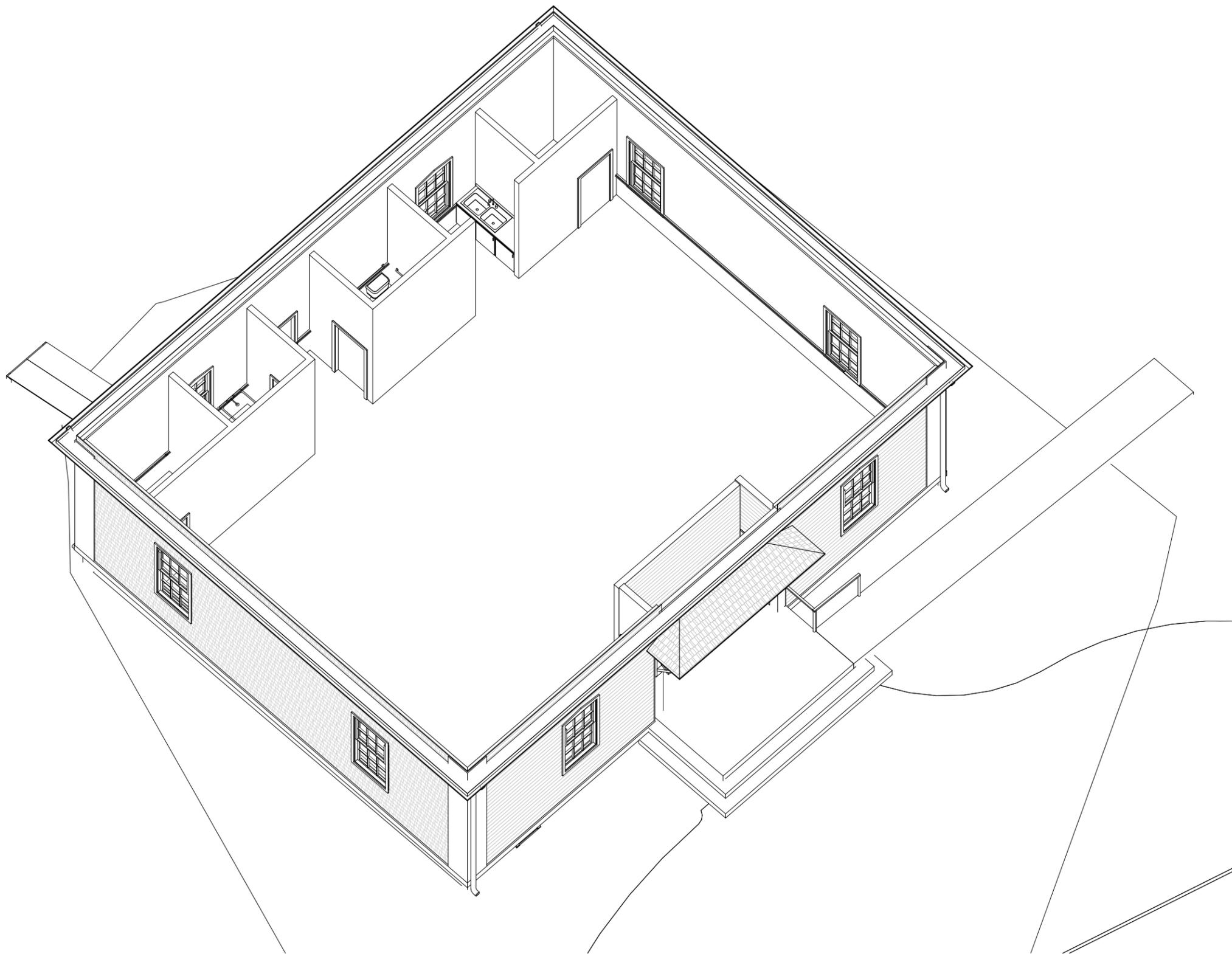
PROPOSED FLOOR
PLAN - OPTION C -
TABLES & CHAIRS

No.

A1.2d



 **1** PROPOSED FLOOR PLAN - OPTION C - TABLES & CHAIRS
1/8" = 1'-0"



1 OPTION C-3D



**The Clark-Haddad
Memorial Building**
16 Dewey Ave, Sandwich,
MA, 02563
Client Name

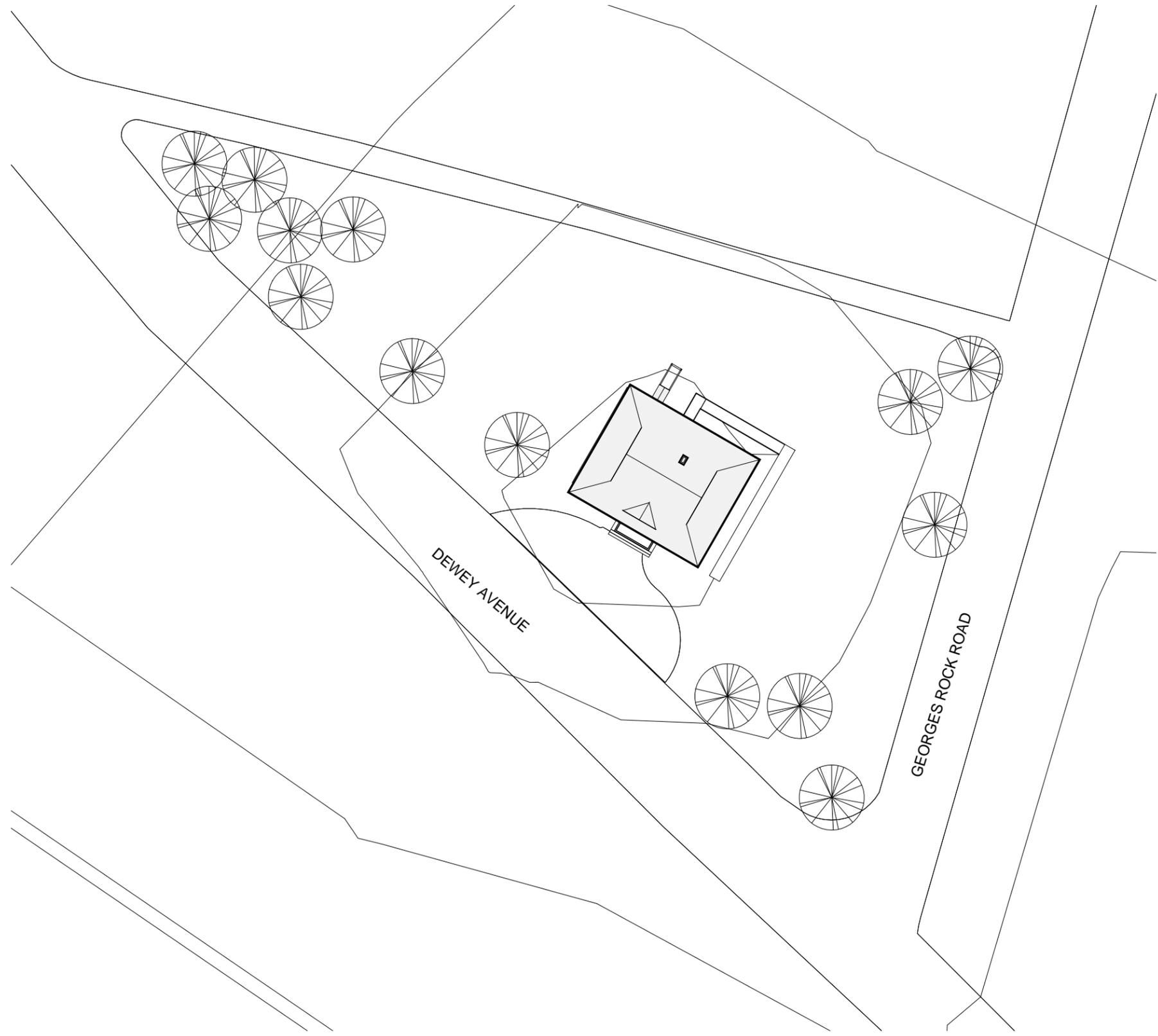
Date: 04/13/15
Scale:
Drawn By: Author
Reviewed By: Checker
Project No: 1731.00

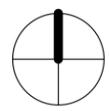
MK & A McGinley Kalsow
& Associates, Inc.
ARCHITECTS & PRESERVATION PLANNERS
324 Broadway, P.O. Box 45248
Somerville, MA 02145
617.625.8901 - www.mcginleykalsow.com

OPTION C - 3D

No.

A2.1e





EXISTING SITE PLAN
 1" = 40'-0"



**The Clark-Haddad
 Memorial Building**
 16 Dewey Ave, Sandwich,
 MA, 02563
 Client Name

Date: 04/01/15
 Scale: 1" = 40'-0"
 Drawn By: AR
 Reviewed By: DLM
 Project No: 1731.00


**McGinley Kalsow
 & Associates, Inc.**
ARCHITECTS & PRESERVATION PLANNERS
 324 Broadway, P.O. Box 45248
 Somerville, MA 02145
 617.625.8901 - www.mcginleykalsow.com

**EXISTING SITE
 PLAN**

No.
A1.0b



**The Clark-Haddad
Memorial Building**
16 Dewey Ave, Sandwich,
MA, 02563
Client Name

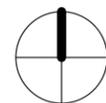
Date: 04/01/15
Scale: 1" = 40'-0"
Drawn By: AR
Reviewed By: DLM
Project No: 1731.00

MK & A McGinley Kalsow
& Associates, Inc.
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324 Broadway, P.O. Box 45248
Somerville, MA 02145
617.625.8901 - www.mcginleykalsow.com

PROPOSED SITE PLAN
- OPTION 1

No.

A1.0d



1

PROPOSED SITE PLAN-OPTION 1
1" = 40'-0"



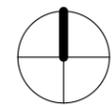
**The Clark-Haddad
Memorial Building**
16 Dewey Ave, Sandwich,
MA, 02563
Client Name

Date: 04/01/15
Scale: 1" = 40'-0"
Drawn By: AR
Reviewed By: DLM
Project No: 1731.00

MK & A McGinley Kalsow
& Associates, Inc.
ARCHITECTS & PRESERVATION PLANNERS
324 Broadway, P.O. Box 45248
Somerville, MA 02145
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PROPOSED SITE PLAN
- OPTION 2

No.
A1.0c



1

PROPOSED SITE PLAN-OPTION 2

1" = 40'-0"

Cost Estimate

Clark Haddad Building
Preliminary Budget
May 11, 2015

WORK ITEMS				TOTAL
General Work & Site (G)				
Parking Lot and Driveway				70,000
Septic System				30,000
Site Repairs				5,000
Landscape				5,000
Asbestos abatement				15,000
General Demolition (Remove ceilings, light fixtures, carpet, toilet room partitions, etc)				30,000
Subtotal				\$155,000
Exterior Envelope Repairs				
Replace asphalt shingle roof with new wood shingle roof				50,000
Replace gutters and downspouts				6,000
Replace wood shingles with new clapboard siding				70,000
Selective repair/replacement of wood trim				15,000
Replacement windows				25,000
Exterior painting				25,000
Replace exterior doors and hardware				15,000
Subtotal				\$206,000
Structural Repairs				
Sill repair / replacement				24,000
Add vapor barrier at crawl space				3,500
Add ventilation at crawl space				8,000
Add reinforcing at 1st floor beams				6,500
Add hangers in attic to support attic floor / first floor ceiling				5,000
Modify roof trusses and rafters to accommodate hangers				8,500
Sister LVLs at front & rear roof purlins				5,000
Add LVLs at east and west roof purlins				5,000
Add rafter connections				4,500
Subtotal				\$70,000
Interior Improvements				
Patching and drywall				40,000
Interior doors, frames & hardware				10,000
Refinish wood floors				4,000
Interior finish carpentry				20,000
Interior painting				15,000
Kitchenette				4,000
New toilet rooms				20,000
Plumbing and HVAC				60,000
Electrical and Fire Alarm				40,000
Furniture and equipment				15,000
Subtotal				\$228,000
Sub-Total Construction				\$659,000
Contractor's General Conditions				82,375
Escalation to mid-point of Construction 3Q2016				29,655
GC's fee				38,552
Estimating Contingency				80,958
Construction Contingency				89,054
Architect & Engineering services				117,551
Survey and Site Plan				5,000
TOTAL PROJECT COST				\$1,102,145

Appendix 1: Hazardous Materials Report



South Shore Environmental Services, LLC

P.O. Box 9130, Fall River, MA 02720 . Phone: 508 567-5298. Cell: 508 558-2138

E-Mail: richard.SSES@comcast.net

HAZARDOUS MATERIAL INSPECTION



Project: Former School Building

Project Address: 16 Dewey Ave.
Sandwich, MA 02563

Inspection Date (s): April 11, 2012

Inspected By: Richard Charpentier, MA Certification No.: AI 900210

Job Number: 12-0411.1

Report Date: April 20, 2012

Report Requested by: Ted Hamilton
Facilities Director
Phone: 617 479-2424

PURPOSE

The enclosed inspection is two-fold:

- (1) To thoroughly inspect the above stated property, where demolition and/or renovations will occur, for the presence of asbestos, including Category I and Category II nonfriable ACM in accordance with the EPA National Emission Standards for Hazardous Air Pollutants (NESHAP) Standard for Demolition and Renovation as described in 40 CFR Part 61.145 (a).
- (2) To collect homogeneous paint chip samples to determine the lead content by % of weight.

INSPECTION PROFILE

The property is a single story wood frame former school building that may be renovated for non-school use by the Sandwich community. This inspection focused on the following suspect asbestos containing building material (SACBM) and paint chips:

- ✓ Vinyl Flooring and Associated Mastics
- ✓ Suspended Ceiling Tiles
- ✓ Window Glazing
- ✓ Sheetrock and Joint Compound
- ✓ TSI pipe insulation (Basement)
- ✓ Paint Chips for Lead

SAMPLING METHOD FOR ASBESTOS

Samples of suspect asbestos containing material (ACBM) were collected in accordance with the EPA NESHAP Standard for Demolition and Renovation as described in 40 CFR Part 61.145, labeled, placed in leak-tight containers and recorded on a 'Chain of Custody' (See Appendix A). The Chain of Custody includes the date collected, the location where the sample was taken and the color of the material. The samples were delivered to EMSL Analytical, Inc., in Woburn, MA, for analysis and logged in with the date and time the samples were relinquished by the inspector and received by the laboratory technician.

TESTING PROCEDURE

All samples were analyzed by Polarized Light Microscopy (PLM) Bulk Asbestos Analysis in accordance with ERA 600/M4-82-020 per CFR 763 (NVLAP # 102079-0).

SAMPLING RESULTS

Sampling results are described in two categories: "Friable Asbestos Containing Material" and "Category I and Category II Non-friable Asbestos Containing Material" that is determined to contain equal to or greater than 1% asbestos.

Samples are identified by the following asbestos types: (1) Thermal System Insulation (TSI) which includes any and all material used for heat/cold control, i.e. pipe insulation, boiler or tank insulation, breech insulation, etc.; (2) Surfacing Material (SFM) which includes any and all sprayed-on or troweled-on material. i.e., spray-on insulation, textured paint, stucco, joint compounds, mastics, etc.; (3) Miscellaneous Material (MM) which includes vinyl floor tiles, vinyl sheet goods, duct wrap insulation, wallboard, cementitious materials including transite panels, roofing, etc.

Sample results are reported by sample number, location, sample description, sample color, type of asbestos and % of asbestos content of the homogeneous material represented by the sample.

Eighteen (18) samples were collected and eighteen (18) samples were analyzed.

SUMMARY OF RESULTS

(SEE TABLES on next pages)

A licensed and trained asbestos inspector has made an effort to characterize visible and readily accessible suspect ACM within the interior/exterior areas of the subject property building using destructive methods. However, no survey can be all encompassing. As such, should construction workers encounter and/or need to disturb product(s) suspected as being ACM, that have not been previously identified or sampled, during any renovation activities in the future, all proper precautions should be taken to ensure these materials are appropriately characterized and handled accordingly.

Table 1
Suspect Homogeneous Asbestos Containing Material Collected

<u>Sample #</u>	<u>Location</u>	<u>Description</u>	<u>Color</u>	<u>Amount</u>
NB-Bk01	Exterior - Right Side of Bldg.	6/6 Wood Sash Windows - Glazing	Grey	
NB-Bk02	Exterior - Left Side of Bldg.	6/6 Wood Sash Windows - Glazing	Grey	
NB-Bk03	Exterior - Cedar Shingles	Tar Paper Under Shingles	Black	
NB-Bk04	Interior - Throughout	2'x4' Suspended Ceiling Tile	Grey	
NB-Bk05	Interior - Left Side Rooms	12"x12" Floor Tile (Under Beige Carpet)	Green	
NB-Bk06	Interior - Left Side Rooms	Associated Mastic	Black	
NB-Bk07	Interior - Kitchen	12"x12" Floor Tile	Green	
NB-Bk08	Interior - Kitchen	Associated Mastic	Black	
NB-Bk09	Interior - Kitchen	Vinyl Goods (Under Green Floor Tiles)	White	
NB-Bk10	Interior - Front Bathroom	Linoleum	Brown	
NB-Bk11	Interior - Throughout	Sheetrock walls, Ceilings	Grey	
NB-Bk12	Interior - Throughout	Joint Compound	White	
NB-Bk13	Interior - Side Room w/ Cabinets	Seal Around Flue Vent	Grey	
NB-Bk14	Interior - Basement	12"x12" Floor Tile	Beige	
NB-Bk15	Interior - Basement	Associated Mastic	Black	
NB-Bk16	Interior - Basement, Above Boiler	Sheetrock	Grey	
NB-Bk17	Interior - Basement - Throughout	Ceiling Sheetrock	Grey	
NB-Bk18	Interior - Basement - Front of Crawl Space	Pipe and Elbow Insulation	Grey	

Highlighted samples indicate asbestos containing material (ACM)

Table 2
Friable Asbestos Containing Material Detected

<u>Sample #</u>	<u>Location</u>	<u>Description</u>	<u>Color</u>	<u>Type</u>	<u>% Asbestos</u>
NB-Bk18	Interior - Basement - Front of Crawl Space	Pipe and Elbow Insulation	Grey	TSI	80% Chrysotile

Table 3

NON-Friable Asbestos Containing Material Detected

<u>Sample #</u>	<u>Location</u>	<u>Description</u>	<u>Color</u>	<u>Type</u>	<u>% Asbestos</u>
NB-Bk01	Exterior - Right Side of Bldg.	6/6 Wood Sash Windows - Glazing	Grey	MM	2% Chrysotile
NB-Bk02	Exterior - Left Side of Bldg.	6/6 Wood Sash Windows - Glazing	Grey	MM	2% Chrysotile
NB-Bk05	Interior - Left Side Rooms	12"x12" Floor Tile (Under Beige Carpet)	Green	MM	3% Chrysotile
NB-Bk07	Interior - Kitchen	12"x12" Floor Tile	Green	MM	3% Chrysotile
NB-Bk10	Interior - Front Bathroom	Linoleum	Brown	MM	15% Chrysotile
NB-Bk14	Interior - Basement	12"x12" Floor Tile	Beige	MM	4% Chrysotile
NB-Bk18	Interior - Basement - Front of Crawl Space	Pipe and Elbow Insulation	Grey	MM	80% Chrysotile

TESTING PROCEDURE FOR LEAD (Pb) IN PAINT CHIPS

Paint chips from various exterior and interior surfaces throughout the building were collected for analysis by using the Flame AAS (SW 846 3050B*/7000B) method for determining the lead content by % of weight.

Sampling results are described by percent of weight (% wt) and are reported by sample number, location, sample description, sample color location, sample description and sample color.

Table 1a

Lead (Pb) in Paint Chips Detection

<u>Sample #</u>	<u>Location</u>	<u>Description</u>	<u>Color</u>	<u>% wt (Pb)</u>
NB-Pb01	Exterior - Front, Right of Entry	Clapboard Paint Chip	White	0.020 %
NB-Pb02	Exterior - Front, Left of Entry	Clapboard Paint Chip	White	0.017 %
NB-Pb03	Exterior - Front, Right of Entry	Window Trim Paint Chip	White	0.46 %
NB-Pb04	Exterior - Front, Right of Entry	Window Sill Paint Chip	White	7.6 %
NB-Pb05	Exterior - Front, Left of Entry	Window Trim Paint Chip	White	0.033 %
NB-Pb06	Exterior - Front, Left of Entry	Window Sill Paint Chip	White	1.7 %
NB-Pb07	Exterior - Right Side of Bldg.	Entry Double Door Paint Chip	White	1.5 %
NB-Pb08	Exterior	Body Trim Paint Chip	White	16 %
NB-Pb09	Interior - Entryway	Wainscot Paint Chip	Tan	0.12 %
NB-Pb10	Interior - Throughout	Wainscot Paint Chip	Green	1.3 %
NB-Pb11	Interior - Throughout	Walls Paint Chip	White/Green Base	13%

Highlighted samples indicate Lead (Pb) content greater than 0.5 %

The table below shows the levels of lead in paint, soil and dust considered hazardous by the U.S. Environmental Protection Agency (EPA):

HAZARDOUS LEVELS OF LEAD	
PAINT	<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; width: 20px; height: 10px; margin-right: 5px;"></div> <div style="border-bottom: 1px solid black; width: 100%;"></div> </div> Lab test results of 5,000 ppm (parts per million) or 0.5% or more (by weight)
	<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; width: 20px; height: 10px; margin-right: 5px;"></div> <div style="border-bottom: 1px solid black; width: 100%;"></div> </div> XRF test results of 1.0 milligrams of lead per square centimeter (1.0 mg/cm ²) or more
BARE SOIL	<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; width: 20px; height: 10px; margin-right: 5px;"></div> <div style="border-bottom: 1px solid black; width: 100%;"></div> </div> Lab test results of 400 ppm or more in play areas
	<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; width: 20px; height: 10px; margin-right: 5px;"></div> <div style="border-bottom: 1px solid black; width: 100%;"></div> </div> Lab test results of 1,200 ppm or more (average) in bare soil in the rest of the yard
DUST	<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; width: 20px; height: 10px; margin-right: 5px;"></div> <div style="border-bottom: 1px solid black; width: 100%;"></div> </div> Dust from floors with 40 micrograms of lead per square foot (40 mg/ft ²) or more
	<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; width: 20px; height: 10px; margin-right: 5px;"></div> <div style="border-bottom: 1px solid black; width: 100%;"></div> </div> Dust from window sills with 250 micrograms of lead per square foot (250 mg/ft ²) or more

Though there are no Lead Statutes and Regulations in the state of Massachusetts for commercial buildings regarding the handling and/or disposal of lead containing material, the following EPA guidelines must be considered prior to disposal of suspect lead containing material:

ASTM E1908: Standard Guide for Sample Selection of Debris Waste from a Building Renovation or Lead Abatement Project for Toxicity Characteristic Leaching Procedure (TCLP) Testing for Leachable Lead (Pb).

- Perform TCLP testing prior to disposal.

If lab test results are ≥ 0.05 % wt, material must be disposed as hazardous material.

If lab test results are < 0.05 % wt, Material may be disposed as regular construction debris.

TCLP is one of the Federal EPA test methods that are used to characterize waste as either hazardous or non-hazardous for the purpose of disposal. The TCLP analysis simulates landfill conditions, Over time, water and other liquids permeate through landfills, These liquids often react with the solid waste in the landfill, and may pose public and environmental health risks because of the contaminates it absorbs.

TCLP is an acronym for 'Toxicity Characteristic Leaching Procedure' and is performed by environmental testing labs.

APPENDIX A
LABORATORY ANALYSIS



EMSL Analytical, Inc.

7 Constitution Way, Suite 107, Woburn, MA 01801

Phone/Fax: (781) 933-8411 / (781) 933-8412

bostonlab@emsl.com

EMSL Order: 131201733

CustomerID: SSEV26

CustomerPO: cc/ 662465

ProjectID:

Attn: **Richard Charpentier**
South Shore Environmental
P.O. Box 9130
Fall River, MA 02720

Phone: (774) 313-8973
Fax:
Received: 04/13/12 10:40 AM
Analysis Date: 4/20/2012
Collected: 5/18/2011

Project: 12-0411.1 / Former School Building; 16 Dewey Ave; Sandwich, MA 02563

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
NB-Bk01 131201733-0001	Exterior; Right Side of Bldg - 6/6 Wood Sash Windows; Glazing	White Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile
NB-Bk02 131201733-0002	Exterior; Left Side of Bldg - 6/6 Wood Sash Windows; Glazing	White Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile
NB-Bk03 131201733-0003	Exterior; Cedar Shingles - Tar Paper under Shingles	Brown Fibrous Homogeneous	40% Cellulose	60% Non-fibrous (other)	None Detected
NB-Bk04 131201733-0004	Interior; Throughout - 2x4 Suspended Ceiling Tile	Gray/White Fibrous Heterogeneous	35% Cellulose 35% Min. Wool	30% Non-fibrous (other)	None Detected
NB-Bk05 131201733-0005	Interior; Left Side Rooms - 12x12 Floor Tile under Beige Carpet	Green Non-Fibrous Homogeneous		97% Non-fibrous (other)	3% Chrysotile
NB-Bk06 131201733-0006	Interior; Left Side Rooms - Associated Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
NB-Bk07 131201733-0007	Interior; Kitchen - 12x12 Floor Tile under Beige Carpet	Green Non-Fibrous Homogeneous		97% Non-fibrous (other)	3% Chrysotile

Analyst(s)

Allison Libeskind (18)

Renaldo Drakes, Laboratory Manager
or other approved signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. None Detected = <1%
Samples analyzed by EMSL Analytical, Inc. Woburn, MA NVLAP Lab Code 101147-0, CT PH-0315, MA AA000188, RI AAL-107T3 and VT AL357102

Initial report from 04/20/2012 14:15:14



EMSL Analytical, Inc.

7 Constitution Way, Suite 107, Woburn, MA 01801

Phone/Fax: (781) 933-8411 / (781) 933-8412

bostonlab@emsl.com

EMSL Order: 131201733

CustomerID: SSEV26

CustomerPO: cc/ 662465

ProjectID:

Attn: **Richard Charpentier**
South Shore Environmental
P.O. Box 9130
Fall River, MA 02720

Phone: (774) 313-8973
Fax:
Received: 04/13/12 10:40 AM
Analysis Date: 4/20/2012
Collected: 5/18/2011

Project: 12-0411.1 / Former School Building; 16 Dewey Ave; Sandwich, MA 02563

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
NB-Bk08 131201733-0008	Interior; Kitchen - Associated Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
NB-Bk09 131201733-0009	Interior; Kitchen - Vinyl Goods; under Green Floor Tiles	Red/Black Non-Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (other)	None Detected
NB-Bk10 131201733-0010	Interior; Front Bathroom - Linoleum	White/Green Fibrous Heterogeneous		85% Non-fibrous (other)	15% Chrysotile
NB-Bk11 131201733-0011	Interior; Throughout - Sheetrock Walls, Ceilings	Gray Non-Fibrous Homogeneous	30% Cellulose	70% Non-fibrous (other)	None Detected
NB-Bk12 131201733-0012	Interior; Throughout - Joint Compound	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
NB-Bk13 131201733-0013	Interior; Side Room w/ Cabinets - Seal around Flue Vent	White Fibrous Heterogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
NB-Bk14 131201733-0014	Interior; Basement - 12x12 Floor Tile	Tan Non-Fibrous Homogeneous		96% Non-fibrous (other)	4% Chrysotile

Analyst(s)

Allison Libeskind (18)

Renaldo Drakes, Laboratory Manager
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Woburn, MA NVLAP Lab Code 101147-0, CT PH-0315, MA AA000188, RI AAL-10773 and VT AL357102

Initial report from 04/20/2012 14:15:14



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Attn: **Richard Charpentier**
South Shore Environmental
P.O. Box 9130
Fall River, MA 02720

Phone: (774) 313-8973

Fax:

Received: 04/13/12 10:40 AM

Analysis Date: 4/20/2012

Collected: 5/18/2011

Project: 12-0411.1 / Former School Building; 16 Dewey Ave; Sandwich, MA 02563

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
NB-Bk15 <i>131201733-0015</i>	Interior; Basement - Associated Mastic	Black Non-Fibrous Homogeneous			100% Non-fibrous (other) None Detected
NB-Bk16 <i>131201733-0016</i>	Interior; Basement above Boiler - Sheetrock	Brown/White Fibrous Homogeneous	3% Glass 15% Cellulose		82% Non-fibrous (other) None Detected
NB-Bk17 <i>131201733-0017</i>	Interior; Basement; Throughout - Ceiling Sheetrock	Brown/White Fibrous Heterogeneous	40% Cellulose		60% Non-fibrous (other) None Detected
NB-Bk18 <i>131201733-0018</i>	Interior; Basement; Front of Crawlspace - Pipe and Elbow Insulation	White Fibrous Heterogeneous			20% Non-fibrous (other) 80% Chrysotile

Analyst(s)

Allison Libeskind (18)

Renaldo Drakes, Laboratory Manager
or other approved signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. None Detected = <1%
Samples analyzed by EMSL Analytical, Inc. Woburn, MA NVLAP Lab Code 101147-0, CT PH-0315, MA AA000188, RI AAL-107T3 and VT AL357102

Initial report from 04/20/2012 14:15:14



EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077

Phone: (856) 858-4800 Fax: (856) 858-9551 Email: cinnaminsonleadlab@emsl.com

Attn: **Richard Charpentier**
South Shore Environmental
P.O. Box 9130
Fall River, MA 02720

Customer ID: SSEV26
Customer PO: CC 664389
Received: 04/16/12 9:34 AM
EMSL Order: 201203776

Fax: Phone: (774) 313-8973
Project: **Former School Building; 16 Dewey Ave. Sandwich, MA**
02563/ Job # 12-0411.1

EMSL Proj:

Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B*/7000B)

<i>Client Sample Description</i>	<i>Lab ID</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Lead Concentration</i>
NB-Pb01 Site: Exterior-Front,Right of Entry Desc: Clapboard Paint Chip	0001	5/18/2011	4/20/2012	0.020 % wt
NB-Pb02 Site: Exterior-Front,Left of Entry Desc: Clapboard Paint Chip	0002	5/18/2011	4/20/2012	0.017 % wt
NB-Pb03 Site: Exterior-Front,Right of Entry Desc: Window Trim Paint Chip	0003	5/18/2011	4/20/2012	0.46 % wt
NB-Pb04 Site: Exterior-Front,Right of Entry Desc: Window Sill Paint Chip	0004	5/18/2011	4/20/2012	7.6 % wt
NB-Pb05 Site: Exterior-Front,Left of Entry Desc: Window Trim Paint Chip	0005	5/18/2011	4/20/2012	0.33 % wt
NB-Pb06 Site: Exterior-Front,Left of Entry Desc: Window Sill Paint Chip	0006	5/18/2011	4/20/2012	1.7 % wt
NB-Pb07 Site: Exterior-Right Side of Bldg Desc: Entry Double Door Paint Chip	0007	5/18/2011	4/20/2012	1.5 % wt
NB-Pb08 Site: Exterior Desc: Body Trim Paint Chip	0008	5/18/2011	4/20/2012	16 % wt
NB-Pb09 Site: Interior- Entryway Desc: Wainscoat Paint Chip	0009	5/18/2011	4/20/2012	0.12 % wt
NB-Pb10 Site: Interior- Throughout Desc: Wainscoat Paint Chip	0010	5/18/2011	4/20/2012	1.3 % wt

Initial report from 04/20/2012 20:12:43

Julie Smith - Laboratory Director
NJ-NELAP Accredited:04653
or other approved signatory

Reporting limit is 0.010 % wt based on the minimum sample weight per our SOP. The QC data associated with these results included in this report meet the method QC requirements, unless specifically indicated otherwise. Unless noted, results in this report are not blank corrected. EMSL bears no responsibility for sample collection activities. Samples received in good condition unless otherwise noted. * slight modifications to methods applied. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NELAP Certifications: NJ 03036, NY 10896, PA 68-00367, AIHA-LAP, LLC ELLAP 100194, A2LA 2845.01



EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077

Phone: (856) 858-4800 Fax: (856) 858-9551 Email: cinnaminsonleadlab@emsl.com

Attn: **Richard Charpentier**
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Received: 04/16/12 9:34 AM
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Fax: Phone: (774) 313-8973
Project: **Former School Building; 16 Dewey Ave. Sandwich, MA**
02563/ Job # 12-0411.1

EMSL Proj:

Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B*/7000B)

<i>Client Sample Description</i>	<i>Lab ID</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Lead Concentration</i>
NB-Pb11	0011	5/18/2011	4/20/2012	13 % wt
Site: Interior- Throughout				
Desc: Walls Paint Chip				

Initial report from 04/20/2012 20:12:43

Julie Smith - Laboratory Director
NJ-NELAP Accredited:04653
or other approved signatory

Reporting limit is 0.010 % wt based on the minimum sample weight per our SOP. The QC data associated with these results included in this report meet the method QC requirements, unless specifically indicated otherwise. Unless noted, results in this report are not blank corrected. EMSL bears no responsibility for sample collection activities. Samples received in good condition unless otherwise noted. * slight modifications to methods applied. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request.
Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NELAP Certifications: NJ 03036, NY 10896, PA 68-00367, AIHA-LAP, LLC ELLAP 100194, A2LA 2845.01

APPENDIX B
CHAIN OF CUSTODY



131201733

South Shore Environmental Services, LLC

P.O. Box 9130, Fall River, MA 02720 . Phone: 508 567-5298 Fax: 508 567-6429 . Cell: 508 558-2138

ASBESTOS BULK SAMPLE CHAIN OF CUSTODY

Project Name : Former School Building
Client : Town of Sandwich, MA

Project Address : 16 Dewey Ave.
Sandwich, MA 02563

Please E-Mail Results to:
richard.SSES@comcast.net

Inspector : Richard Charpentier

Mass. Inspector Lic. # : AI 900210 exp: 8/17/2012

Job # : 12-0411.1

TURN-AROUND TIME: RUSH 24 HOURS 48 HOURS 72 Hours 5 Days

Sample Date	Sample Number	Sample Location	Sample Description	Color	Footage Amount (SF/LF)
5/18/2011	NB-Bk01	Exterior - Right Side of Bldg.	6/6 Wood Sash Windows - Glazing	Grey	
4/11/2012	NB-Bk02	Exterior - Left Side of Bldg.	6/6 Wood Sash Windows - Glazing	Grey	
	NB-Bk03	Exterior - Cedar Shingles	Tar Paper Under Shingles	Black	
	NB-Bk04	Interior - Throughout	2'x4' Suspended Ceiling Tile	Grey	
	NB-Bk05	Interior - Left Side Rooms	12"x12" Floor Tile (Under Beige Carpet)	Green	
	NB-Bk06	Interior - Left Side Rooms	Associated Mastic	Black	
	NB-Bk07	Interior - Kitchen	12"x12" Floor Tile (Under Beige Carpet)	Green	
	NB-Bk08	Interior - Kitchen	Associated Mastic	Black	
	NB-Bk09	Interior - Kitchen	Vinyl Goods (Under Green Floor Tiles)	White	
	NB-Bk10	Interior - Front Bathroom	Linoleum	Brown	
	NB-Bk11	Interior - Throughout	Sheetrock walls, Ceilings	Grey	
	NB-Bk12	Interior - Throughout	Joint Compound	White	
	NB-Bk13	Interior - Side Room w/ Cabinets	Seal Around Flue Vent	Grey	
	NB-Bk14	Interior - Basement	12"x12" Floor Tile	Beige	
	NB-Bk15	Interior - Basement	Associated Mastic	Black	
	NB-Bk16	Interior - Basement, Above Boiler	Sheetrock	Grey	
	NB-Bk17	Interior - Basement - Throughout	Ceiling Sheetrock	Grey	
↓	NB-Bk18	Interior - Basement - Front of Crawl Space	Pipe and Elbow Insulation		

Relinquished by: [Signature]
Date: 4/12/12 Time: sent by USPS via express

Received By: [Signature]
Date: APR 13 2012 Time: 10:40
By: sa 1040 us mail



201203776

South Shore Environmental Services, LLC

P.O. Box 9130, Fall River, MA 02720 . Phone: 508 567-5298 Fax: 508 567-6429 . Cell: 508 558-2138

2012 APR 16 AM 9:34

Plan for Richard

LEAD PAINT SAMPLE CHAIN OF CUSTODY

Project Name : Former School Building
Client : Town of Sandwich, MA

Project Address : 16 Dewey Ave.
Sandwich, MA 02563

Please E-Mail Results to:
richard.SSES@comcast.net

Inspector : Richard Charpentier

Mass. Inspector Lic. # : AI 900210 exp: 8/17/2012

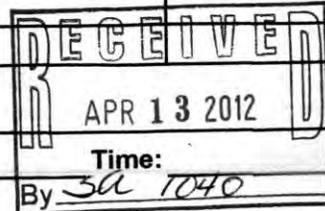
Job # : 12-0411.1

TURN-AROUND TIME: RUSH 24 HOURS 48 HOURS 72 Hours 5 Days

Sample Date	Sample Number	Sample Location	Sample Description	Color	Footage Amount (SF/LF)
5/18/2011	NB-Pb01	Exterior - Front, Right of Entry	Clapboard Paint Chip	White	
	NB-Pb02	Exterior - Front, Left of Entry	Clapboard Paint Chip	White	
	NB-Pb03	Exterior - Front, Right of Entry	Window Trim Paint Chip	White	
	NB-Pb04	Exterior - Front, Right of Entry	Window Sill Paint Chip	White	
	NB-Pb05	Exterior - Front, Left of Entry	Window Trim Paint Chip	White	
	NB-Pb06	Exterior - Front, Left of Entry	Window Sill Paint Chip	White	
	NB-Pb07	Exterior - Right Side of Bldg.	Entry Double Door Paint Chip	White	
	NB-Pb08	Exterior	Body Trim Paint Chip	White	
	NB-Pb09	Interior - Entryway	Wainscoat Paint Chip	Tan	
	NB-Pb10	Interior - Throughout	Wainscoat Paint Chip	Green	
	NB-Pb11	Interior - Throughout	Walls Paint Chip	White/Green Base	

Relinquished by: *Richard Charpentier* by USPS
Date: 4/12/12 Time: sent by express

Received By: _____
Date: _____
Time: _____
By: SA 1040 *us mail*



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201203776



McGinley Kalsow & Associates, Inc.
Architects & Preservation Planners

324 Broadway PO Box 45248 Somerville, MA 02145

Tel. 617.625.8901

Fax. 617.625.8902

LONG RANGE CAPITAL PLAN

November 19, 2012



BOARD OF SELECTMEN

John G. Kennan, Jr., Chairman

Ralph Vitacco, Vice Chairman

Linell Grundman

Frank Pannorfi

James Pierce

Bud Dunham, Town Manager

Doug Lapp, Assistant Town Manager

CAPITAL IMPROVEMENT PLANNING COMMITTEE

John Juros, Chairman

John Vibberts, Vice Chairman

Mike Baker

Michael Dwyer

Don Leighton

Chris Richards (Former Member)

TABLE OF CONTENTS

1. Introduction and Executive Summary (p. 3)
2. Historical Perspective (p. 9)
3. Explanation of Funding Alternatives (p. 21)
4. Discussion of Capital Needs, Estimated Costs, and Likely Funding Sources (p. 25)
5. Recommended Priorities (p. 38)
6. Estimated Tax Impact (p. 42)
7. List of Attachments Found Electronically (p. 47)



Section 1: Introduction and Executive Summary

Introduction

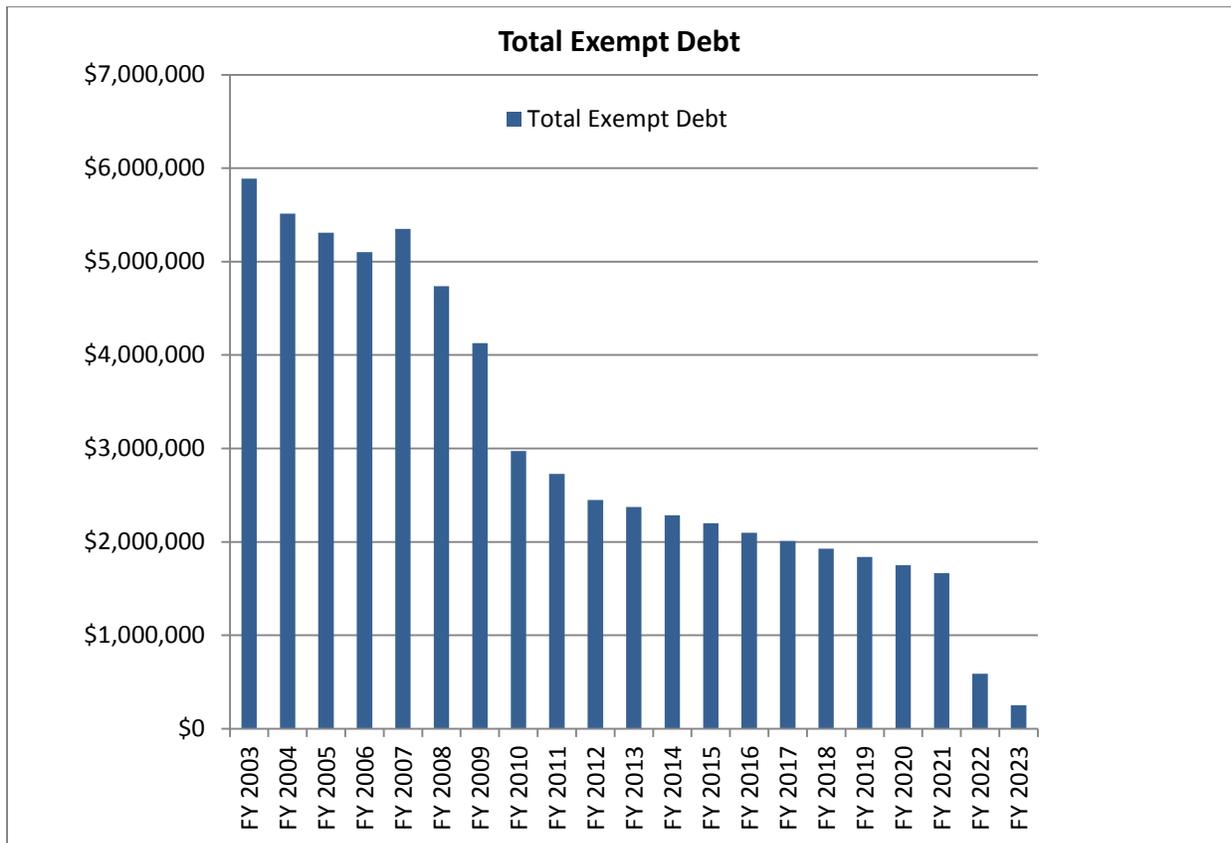
The Town of Sandwich has developed many Long Range Capital Plans and project-specific studies over the last several decades. While these plans have not been acted upon for the most part, they have been critical in raising the level of understanding about the larger capital needs of the Town and School Department. The Board of Selectmen, with the support of the Capital Improvement Planning Committee (CIPC), has identified the development of a new, comprehensive Long Range Capital Plan (LRCP) by the conclusion of 2012 as one of the primary goals of the current Long Range Plan (LRP).

It is important to point out that while there is no standard definition of the types of projects and improvements that make up a Long Range Capital Plan, the general definition we have followed is a significant project or improvement that could not be funded within the constraints of Proposition 2.5 or within the Town's existing tax levy capacity. A more detailed explanation of funding mechanisms for the projects included in this Plan is found in Section 3. These projects include the construction of new buildings, the renovation of existing buildings, and the improvement of existing public infrastructure. An example of a potential new building would be a joint public safety building. An example of renovating an existing building would be improving and reusing the Henry T. Wing School if the existing School services currently provided there were reconfigured and/or relocated to another School building. An example of improving existing public infrastructure would be a road bond and/or override to improve the condition of public roads, drainage, and other similar municipal infrastructure like access roads, parking lots, and outdoor recreation courts.

The Long Range Capital Plan does not include the replacement and purchase of vehicles, equipment and minor building repairs which are typically funded through the annual capital budget within the Town's tax levy capacity, not requiring an exclusion or override. The annual capital plan developed by the Town and approved by the Selectmen, CIPC, and Finance Committee addresses and identifies many of these needs. It should be noted that occasionally, very expensive pieces of capital equipment may need to be purchased through an exclusion. An example of this is the effort to purchase the Fire Department's ladder truck in 1992 and 1995. It's likely the eventual replacement of the existing ladder truck will need a future exclusion vote as its current replacement cost is approximately \$1.5 million.

Before identifying several needs and projects in the Long Range Capital Plan, it is important to point out why it is so critical to have a plan adopted by the Selectmen today. One of the primary reasons is because it is healthy for a community to realistically plan and project future needs and how they might be funded. The vast majority of long term capital needs are well known to Town officials and have been identified for many years. The real difficulty is determining how to fund these needs and actually implement the Plan.

The Town's debt payments outside of Proposition 2.5 have declined substantially over time. Since its recent peak in FY'07, annual debt payments have decreased by \$2.7 million by FY'13. The main reason for this significant decrease is that large School building projects – the construction of the Oak Ridge and Forestdale Schools and the major renovations to Sandwich High School – have either been fully paid off (Oak Ridge and Forestdale) or we're far enough along in the bonding schedule that annual payments have dropped over time (Sandwich High School). A chart depicting the dramatic decrease in annual debt payments since FY'07 is found below and as Attachment 1. We have also attached the Town's full Debt Schedule as it exists today as Attachment 2.



The concept of issuing new debt as previously approved debt is retired is not new. The 2005 Town of Sandwich Long Range Plan (2005 LRP) adopted by the Selectmen stated that the plan “gives the Selectmen the opportunity to prioritize projects and then schedule them when funds are available. In the case of capital building projects, this document would be used in conjunction with the Town’s debt schedule to time new capital expenditures as the debt on old ones is retired.” The 2005 LRP also set the following goal to achieve financial stability and to better manage the Town’s debt: plan future capital projects to coincide with retirement of existing debt as much as possible in order to stabilize the Town’s total debt level.

Another factor that makes the timing of this Plan so critical is the fact that the Town is very close to reaching its build out population. As explained in great detail below, Sandwich grew so rapidly from 1970 – 2000 that substantial building projects, almost exclusively School construction and renovation projects, had to be addressed. At one point in the early 1990s, Sandwich had the second largest amount of total authorized debt in the Commonwealth, behind only the City of Springfield. Now that we have approached build out, with an expected maximum future population of 28,750 based on a 30-year build out analysis in the latest Local Comprehensive Plan (p. 1-50), it’s likely that any future buildings we construct, or major renovations we undertake, will be sufficient for our maximum population in light of our current population of 22,000. This is particularly true now that it appears the 10-year trend of declining school enrollment figures will continue in the future and the possibility of reusing existing school facilities for other municipal needs is more of a reality. Attachment 3 shows the actual Town population and school enrollment figures for almost two decades.

Since the Town is so close to its projected build out population, we have a more accurate estimate of the square footage of buildings that are needed to serve this population. It’s clear that any new construction should include a reasonable amount of space to allow for future growth, but it’s also clear that the likelihood of needing substantial additions in the future to address a growing population is much less than if the buildings were constructed 20 years ago.

Yet another reason why the development of this Plan is so important at this time is the realization that the Town has, in many ways, neglected to approve the issuance of new debt to either renovate existing buildings and infrastructure or construct new ones. As identified by the primary municipal bond rating agencies, the issuance of debt is seen as a healthy sign that a community recognizes its long term infrastructure needs and takes the appropriate, responsible steps to fund these efforts for the benefit of future generations. Simply stated, towns that regularly agree to address growing

infrastructure needs are rated higher in terms of their credit ratings and are deemed healthier than towns that don't.

Today, Sandwich has the best bond rating it has ever had (AA- through Standard & Poors), interest rates to borrow money are at historic lows, and it's indisputable that the longer the Town waits to address its capital needs, the cost to do so will only increase over time. Projects that were analyzed 10-20 years ago with accurate cost estimates would cost more than double that amount today. This trend will continue in the future with public construction costs and prevailing wage rates increasing constantly.

Prior to reviewing the entire Plan, it should be noted that during the numerous, widespread capital planning efforts identified below, professional advice and input was sought from architects the Town had worked with previously, but in virtually every case, funding for these professionals was not provided, so cost figures are truly best educated estimates. The same holds true for square footage needs estimates. Except in the cases where professional architects have been retained to fully analyze space and programmatic needs and develop construction costs based on schematic design plans or detailed construction plans, it's important to remember estimates of both space requirements and project costs are purely estimates.

Finally, certain assumptions have to be made in terms of estimating construction costs, bonding rates and costs, and the commensurate impact on Town taxes. In discussing capital needs and estimated costs, the assumptions we have used in arriving at our figures, and the reasoning behind these assumptions, will be explained in greater detail in Section 6.

Executive Summary

The prioritized listing of long term capital projects and infrastructure improvements, based on the Selectmen's prioritized project list, are explained in much greater detail in the remaining sections of this Plan. In listing the prioritized rankings, we have broken out the projects into three separate groupings. The first group – Group A – represents the highest priority projects, with the Joint Public Safety Building and Public Roads & Infrastructure projects being the clear, top two priorities. Group B represents the next several projects, most of which should be reviewed as part of the recommended feasibility study on potential reuse of the Henry T. Wing School if the School Department abandons use of this building. Group C represents the least important projects. In addition to this list, the CIPC also makes five separate recommendations to the Board of Selectmen which are explained in detail immediately following the prioritized grouping of long term capital projects.

SUMMARY OF PRIORITIZED LARGE-SCALE CAPITAL PROJECTS

Group A – Top Priorities:

1. Joint Public Safety Building
2. Public Roads / Infrastructure
3. Water Resources Management
4. Beach Erosion Prevention

Group B – Secondary Priorities:

(Subject to Completion of Feasibility Study of Henry T. Wing School Re-Use)

5. Municipal Offices Consolidation
6. Henry T. Wing School Re-Use
7. School Consolidation (STEM)
8. Senior / Community Center
9. Library Facilities

Group C – Lowest Priorities:

10. Recreation Field Development Plan
11. Marina Office Building
12. Pedestrian / Bike Path Improvements

CIPC RECOMMENDATIONS TO BOARD OF SELECTMEN

1. The Board of Selectmen should proceed as soon as possible with debt exclusions for the Joint Public Safety Building and Public Roads & Infrastructure projects. These projects are the unanimous top priorities of both the Selectmen and the CIPC and are desperately needed.
2. The Board of Selectmen should support funding a feasibility study on the potential re-use of the Henry T. Wing School. Several of the projects on the LRCP list could potentially be addressed by the extensive renovation and/or construction of new space at the Henry T. Wing School if the School Committee declares the building surplus in the future. It is anticipated the cost to perform such a feasibility study based on the desired scope of work would be \$75,000.
3. In projecting future debt service obligations, the Board of Selectmen should plan on issuing new debt so it at least equals the levels funded in FY'07. The Town has not issued significant debt for several years which has led to the list of needed projects outlined in the LRCP. The only way the vast majority of these projects can be funded is through debt exclusions. Delaying project needs will undoubtedly increase costs over time. Projections of future debt exclusions are found in Section 6.
4. As required by M.G.L. c.44, §63, any funds from the sale of Town land and buildings need to be placed in a Sinking Fund, with specific restrictions on how the sale receipts can be used. The CIPC recommends that this fund only be used to pay for the issuance of new debt, not debt already issued. The Town's long range capital needs are too voluminous to spend these monies on previously issued debt.
5. The CIPC recommends a threshold be established for any New Growth over and above an amount to be determined by the Board of Selectmen, which would be dedicated for capital improvement purposes. The 10-year average of New Growth is \$550,000. Since debt payments made within the constraints of Proposition 2.5 would still need to be funded in difficult financial times, caution needs to be exercised if recurring debt payments are considered to be funded this way.

PAVEMENT MANAGEMENT UPDATE

**BOARD OF SELECTMEN MEETING
JANUARY 22, 2015**

SANDWICH DEPARTMENT OF PUBLIC WORKS



UPCOMING PROJECTS

2014 ATM APPROVAL (\$1.3m)

- MAIN STREET
- BEALE AVENUE
- OLD COUNTY ROAD
- PUBLIC LIBRARY

2015 TOWN MEETING APPROVAL & CHAPTER 90 FUNDS

- ROUTE 130
- BOARDWALK ROAD
- COUNTRY CLUB ROAD
- HOLLY RIDGE DRIVE
- SANDWICH HOLLOWES, BEALE AVE LOT, AND/OR JSD LOT
- VARIOUS SUBDIVISIONS

INVENTORY & INSPECTION

- ANNUAL ASSESSMENT OF ROADS
- PAVEMENT MANAGEMENT UPDATE
 - ROAD INVENTORY & INSPECTION
 - SIDEWALK INVENTORY & INSPECTION
 - TOWN FACILITY INVENTORY & INSPECTION

ROAD SELECTION PROCESS

- PRIORITIZATION OF ROADS/FACILITIES
 - PAVEMENT CONDITION INDEX
 - BENEFIT VALUE
 - COMMUNITY VALUE



TREATMENT OPTIONS

- DETERIORATION CURVE - KEEP THE GOOD ROADS GOOD
- PREVENTATIVE MAINTENANCE
 - CRACKSEALING, SURFACE TREATMENT
- STRUCTURAL IMPROVEMENTS
 - MILLING, OVERLAY
- BASE REHABILITATION
 - RECLAMATION, FULL-DEPTH RECONSTRUCTION

DECISION MAKING FACTORS

- AVAILABLE FUNDING
- CONDITION OF ROAD AND TIMELINE WITHIN ON DETERIORATION CURVE
- BASE & PAVEMENT EVALUATION
- COMPLETE STREETS REQUIREMENTS
- TIME OF YEAR
- PLANNED ACTIVITIES OR EVENTS

QUESTIONS ?

ROAD INFRASTRUCTURE UPDATE – 7/9/15 SELECTMEN MEETING

- Library lot done
- Main Street on-going
- Beale on-going
- Dillingham Avenue & Kensington Drive almost complete
- Old County Road likely to start in a month
- dependent on contractor availability, attempting to squeeze in Boardwalk Road before Old County
- VHB fully updating Pavement Management Report using Ch. 90 funds; last full update a decade old with annual assessments done in-house
- DPW completed allowed work under Governor's "2015 Winter Pothole Program" and is submitting appropriate reimbursement requests
- need more money for additional repairs either through regular capital exclusions or larger debt exclusion of at least \$5.0 million

Sandwich Public Safety Planning

Outreach Presentation

February 9, 2015

←
Never Presented
to
STM

Lessons Learned

- Concerns from the Public:
 - Cost of the project (\$30M)
 - Loss of service to downtown area with 2-station plan
 - Feeling that Town leaders were not listening to residents/taxpayers
 - Wanted an alternative “plan B”

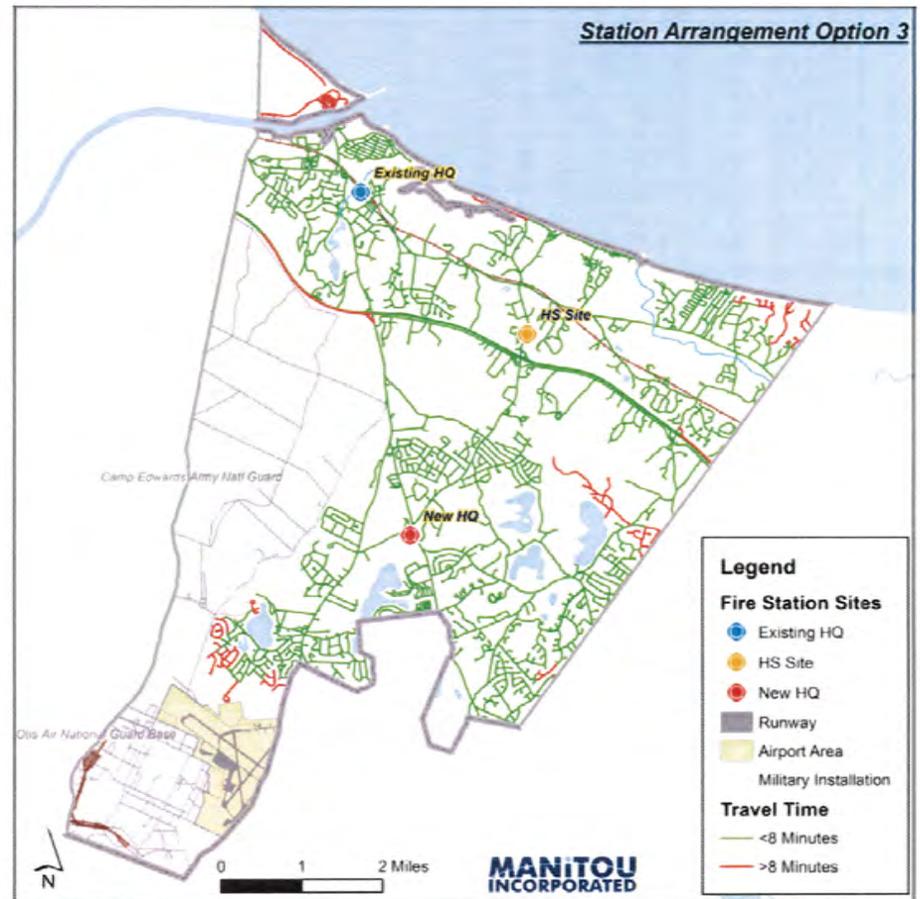
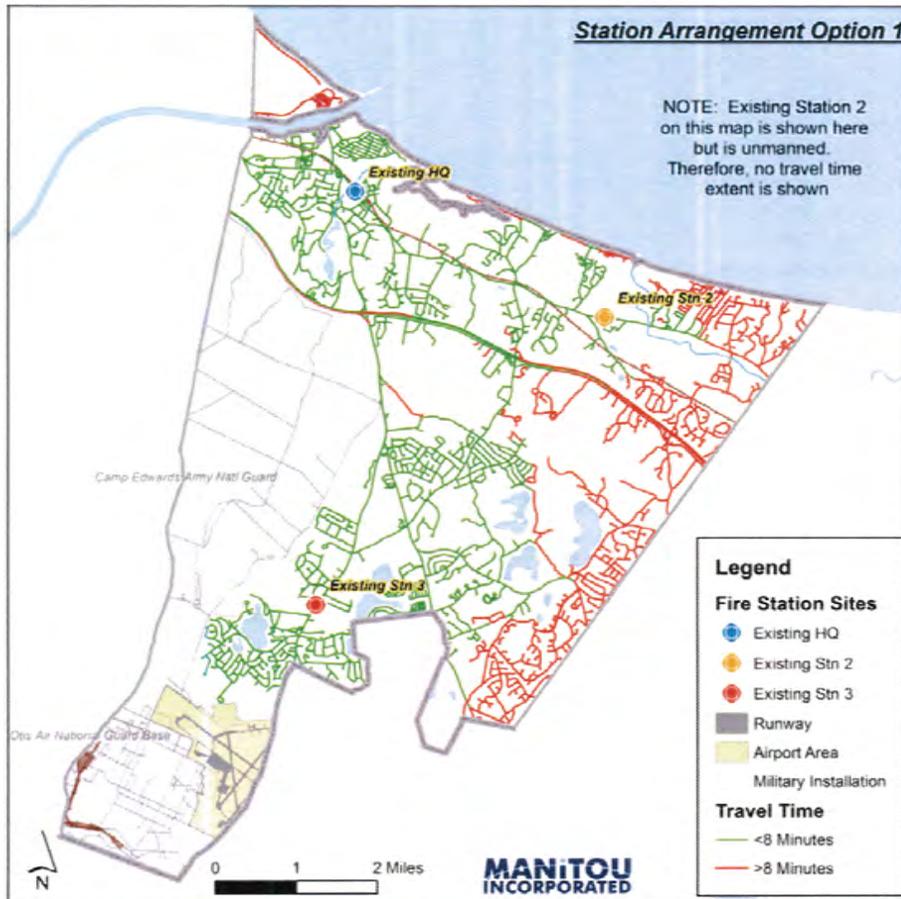
What We've Done Since May '13

- Listened to resident/taxpayer input
- Gone 'back to the drawing board'
- Multiple public, televised presentations & workshops with Board of Selectmen
- Received unanimous direction from the Board to staff a 3-station solution
- Problems of current station locations & level of service have not gone away

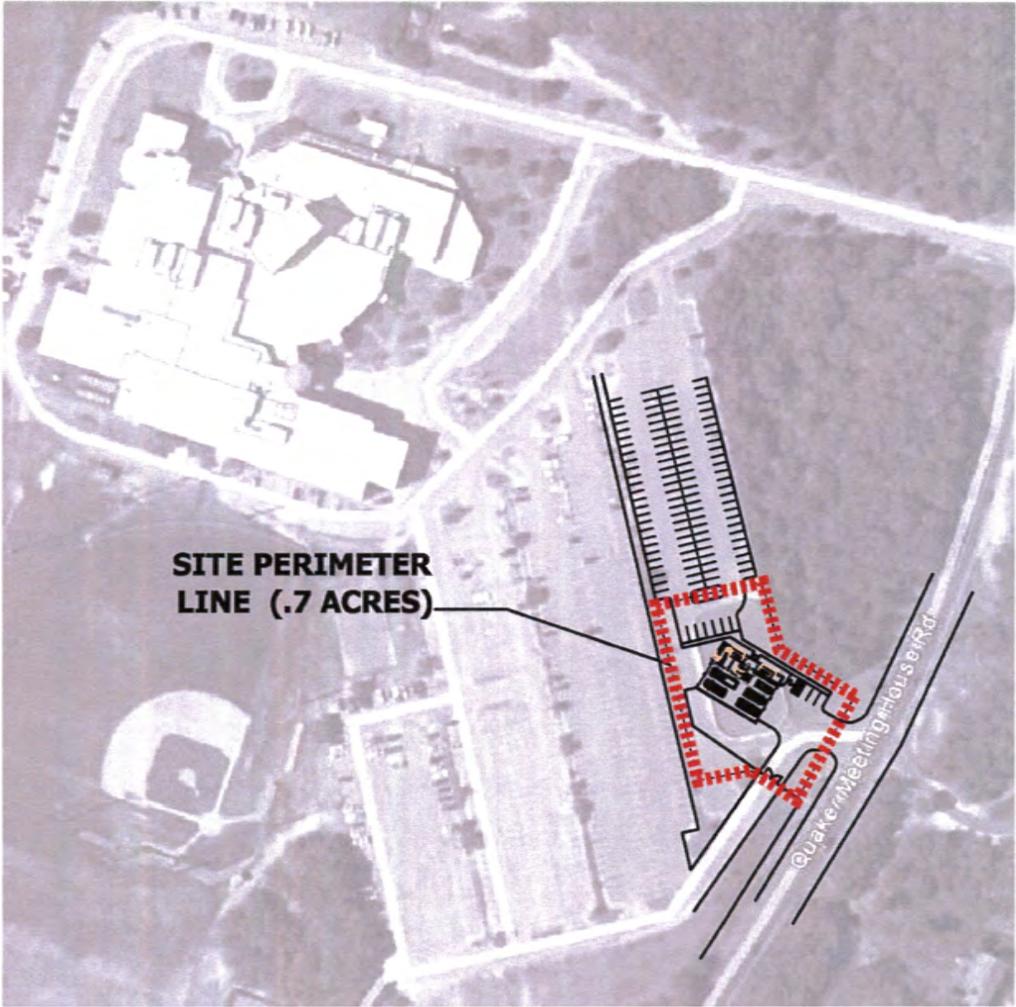
New Proposal

- New HQ at corner of Quaker Meetinghouse & Cotuit Roads
 - Significantly reduced size by at least 45%
- New staffed substation in East Sandwich
 - High School site preferred to optimize response times
 - Reduced building footprint to maximize efficiency
- Retain current staffed downtown HQ building as new staffed downtown substation
 - Temporary, until new substation can be built in the future at DPW location
 - Significant change from last proposal

Response Time Maps



Proposed East Sandwich Site Sandwich High School



New Proposal

- Implement joint civilian dispatch immediately in proposed FY'16 budget
- Will hire additional EMS/Fire personnel if the 3rd substation is approved and funded
- Cost: \$30.0M
 - Would not commence until FY'19 or later
 - \$175 annual average increase to tax bill over 25 years
 - The longer we wait, the more expensive it gets + 6% increase per year since May '13

Next Steps

- Opportunity for public input at every Thursday night Selectmen meeting, 7:00 p.m., Town Hall
- Annual Town Meeting Warrant – May '15 ~~15~~ 16
- Annual Town Election Ballot – May '15 ~~15~~ 16
- Finalize architect's design & construction documents – Summer '15 ~~15~~ 16
- Go out to bid for construction – Winter '15 ~~15~~ 16
- Construction begins – Spring '16 ~~16~~ 17

A Complete Solution

