



GAR Hall
Beverly, MA

**Building Assessment,
Preservation and Reuse Plan**

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GAR Hall
Building Assessment, Preservation Plan and Reuse Plan Study
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Executive Summary

Adams & Smith was engaged to conduct this study in July 2016. The working group for the City of Beverly included Allison Crosbie (Planning), Steve Frederickson (Inspectional Services) Mike Collins (Facilities), Bruce Doig and Joscelyn Ruelle-Kersker (Recreation), Suzanne LaMont and William Finch (Historical Commission).

The objectives of the study were to research and document the historic significance of GAR Hall, evaluate building condition and code compliance, accessibility, potential reuse and project costs. The major conclusions are as follows:

- The history and historic significance of GAR Hall is well documented, and historic photographs can be found in a number of places. Many historic features have been removed or obscured, but enough remains, with historic photo documentation, to develop a restoration program that reinstates the historic significance and character of the building.
- There is a need for small and medium size meeting spaces for many groups in Beverly, and GAR Hall can provide a hall seating 100-150, gallery space, and smaller meeting rooms for groups of 10-30 on the basement level.
- For current uses, the building is code compliant and generally the building envelope is intact. If the building remains in City control, meeting uses do fit the current zoning.
- The building does not presently comply with accessibility regulations, but the proposed design can provide accessibility to the first floor and basement levels in a manner that supports use by multiple groups.
- Building mechanical and electrical systems will need to be replaced for new uses and loads, as well as code compliance.
- A phased construction program can allow the restoration and renovation to take place over several years. A Phase 1 restoration of the front façade can re-present GAR Hall to the community, enhancing the downtown and helping the City to understand the potential of further renovations to serve the City.

The proposed renovation design addresses the conclusions above, including a Phase 1 restoration of the front façade, a Phase 2 first floor renovation and restoration, including new building systems, and a Phase 3 basement renovation and stair/elevator addition to the rear for accessibility, including further building systems work. Based on an estimate provided by a professional cost estimator, the Phase 1 construction work is estimated at \$290,825. The Phase 2 is estimated at \$1,067,787, and Phase 3 at \$1,124,476. Project costs (architectural fees, contingences, administrative and legal costs, testing and miscellaneous expenses should be budgeted at 22-25% of the construction cost for each phase.

Zoning

Zoning district: R-6. Adjacent church parcel is CC. Under MGL Chapter 40A, section 6, GAR Hall predates zoning and is not required to alter non-conforming elements of the building.

Uses: One and two family residential; historic dwellings and sites operated not for profit. 38-6A: Government uses and buildings under the jurisdiction of the City of Beverly are permitted in all districts. Use by religious organizations or for educational uses on land owned by the City is also exempt under MGL 40A.

Dimensional Requirements for R-6 District

	Required	Existing	Proposed
Lot area	6,000 sf	7,100 sf	7,100 sf
Frontage	65 feet	60 feet	60 feet
Front yard setback	20 feet	7 feet	7 feet
Side yard setback	10 feet	6 feet and 10 feet	6 feet and 10 feet
Rear yard setback	25 feet	47 feet (basement stair)	40'-8"
Building height	35 feet	38 feet	38 feet
Parking	11-12 spaces	6 spaces*	45**

*Additional parking shared with adjacent property(?)

**4 spaces onsite, plus additional leased offsite

Building areas:

Basement:	2132 sf
First floor	2132 sf
<u>Mezzanine</u>	<u>686 sf</u>
Total	4950 sf

Building Use

At present, the governmental use of the building conforms to zoning. If the building is managed by another non-governmental institution as an assembly use, it may raise issues with the uses permitted in this district. Given the adjacency to the downtown commercial district and distance from residential areas, a change of zoning could be considered.

Parking

The GAR Hall lot affords minimal space for parking, with a maximum of four spaces possible. There is an existing arrangement to lease space from the Dane Street Church adjacent; more space could be leased here. Additionally, this is part of the downtown Arts District, and the parking plan currently being developed for downtown should include the needs of GAR Hall in the planning.

Building Code Compliance

Type of Construction:	Type 5B; Combustible, unprotected
Occupancy:	Existing: B, Business. At 100 sf/person, 20 per floor, 7 on mezzanine. Proposed: A-3, Assembly other than restaurant or nightclub
Height and area:	2132 sf gross (basement and first floors), 686 SF (mezzanine).
Allowable area:	B Business: 9,000 sf, 2 stories. For A-3 Assembly occupancy, 6,000 sf, 1 story
Separations:	+6 feet to east property line. 1 hour construction required at east wall, unrated at west wall; existing rating unknown. Max 10% unprotected openings at east wall; current design is 12 sf over this limit. Compliance could be accomplished by adding opening protectives at basement windows.
Means of egress:	2 per floor provided. Door and stair widths are adequate for occupancy
Sprinklers:	Not required for in existing building for business occupancy, under 12,000 sf; also under threshold for assembly occupancy (5,000 sf, 300 persons). Consider installing for life safety and risk mitigation; the accessibility addition will push area over the threshold for requiring sprinklers in phase 3.
Fire alarm system:	Generally adequate; a new system should be included in a major renovation
Accessibility:	See section following; most elements are not in compliance.

Historic Significance and Restoration Issues

History

GAR Hall was built in 1863 at 248½ Cabot Street to serve as the vestry to the Baptist Church adjacent. From the MHC Macris database inventory form:

“Originally erected on Cabot Street in 1863, the building was moved to its present location in October, 1941. The building was erected by the First Baptist Church in Beverly for use as a chapel and was formally dedicated on Feb. 24 1864. The architectural firm of Lord & Fuller of Salem, Mass. designed the structure and the construction was done by Meacom & Butman of Beverly. The design is Romanesque with octagonal buttresses at each corner which rise above the roof in pinnacles, flanking a central turret. After the Church vacated the building, upon completion of their new Meeting House, the Town of Beverly purchased the building for the use of the High School class. The High School was housed here until 1875 when the Briscoe Building was completed. In March of 1876, the Town meeting voted to allow the Beverly Light Infantry Company, an organization of veterans of the War of 1812, use the building for an Armory. From that time on, until the 1930's, the building housed other veterans groups, most notably the John H. Chipman Post 89, Grand Army of the Republic. As a result, the building is known as the GAR Building. During the time that the GAR occupied the building, it was fitted up as a meeting hall and decorated with souvenirs and memorabilia of the Civil War. Since the Post was dissolved, the books, records and artifacts have been housed at the Beverly Historical Society in a special GAR room.”

The City retained possession of the building, and in 1941 decided to move GAR Hall to its present location. In 1960, the Massachusetts Sons of the Union Veterans of the Civil War sold the building to the City of Beverly for \$4,800, with provisions that it would always be known as GAR Hall, that relics and memorabilia of the GAR might be exhibited in the building or elsewhere, and that the Massachusetts Sons of the Union Veterans of the Civil War could continue to use the building for two nights a month.

Subsequently it was assigned to the Beverly Recreation Dept. and was used for meetings by various local groups such as senior citizens and several fraternal organizations. In more recent years, it has served as overflow office space for City departments and currently houses the Inspectional Services Department.

Physical history

The original construction was in a Romanesque style, executed in wood. The main level was three steps above grade, with a substantial balustrade along the sidewalk that obscured the foundation. The primary exterior material was flush wood siding on the front and clapboards on the sides, with a broad detailed trim following the rake on the front façade, octagonal corner turrets and spires, and a pair of arched front entrance doors with elaborate wood casings and an arch surmounted by a medallion. The peak of the rake is crowned with an arched, paneled acroteria block that originally supported a cross. The rake detail was extended into an arch supported by corbels on either side of the rose window. The 12/9 arched windows are relatively simple in pattern, with a plain rectangular pattern in both upper and lower sash, a molded casing supported on corbels at the arch and a minimal casing at the window frame below the corbel. The arches at the windows were the only decorative elements on the sides in wood clapboards. Whether there were windows on east side as well is not verified, but it is likely that they existed.

A 1902 photograph, subsequent to the building's occupancy by the GAR, shows the front façade largely unchanged, except for the addition of a flat panel around the rose window with fan shaped quarter round panels below the arch corbels.

In 1905-7 more extensive alterations were carried out. A bay was built that extends the main room in the mezzanine outward about four feet. It is supported on two brackets with carved fan detailing. This interrupted the arch above the main entrance doors, and the door transom panels were reduced to simple rectangles. The bay has a hip roof, which was brought up to the bottom of the panel around the rose window. 2 over 1 double hung windows dominate the exterior of the bay, with flat panels below. The flush siding was covered by clapboards, and casings were added to the original windows to terminate the clapboards on either side. The original flush siding is still visible immediately adjacent to the windows.

In 1941 the City moved the GAR Hall to 8 Dane Street. A new concrete block foundation was constructed to create a basement with windows, raising the building to put the first floor four feet above the Dane Street sidewalk, and a flight of concrete stairs was constructed to the entrance doors. A kitchen was installed as part of the basement space to provide for its use as a banquet hall. Toilets were also provided in the basement. Later alterations have included the following:

- Residing the building, including the turrets, with wood shingles. Removal of the rose window and the decorative detail around it.
- Creation of enclosed vestibules and steps at the front and back for basement access.
- Creation of a handicapped ramp at the west side of the building, wrapping around the back and up to a new rear entrance door.
- Replacement of original double hung windows on the west elevation with modern windows (after 1974). Replacement of basement windows with modern vinyl double hung windows.
- Construction of men's and women's toilet rooms on the first floor adjacent to the original main entrance.
- Installation of a dropped ceiling, fluorescent lighting and part height partition in the main space for governmental office use.
- Installation of split system air conditioning for office use.
- Construction of a wood exterior fire exit stair serving the mezzanine on the east side of the building.
- Provision of gas, electrical, and communications services and wiring.
- Replacement of the roof with asphalt shingles and plywood underlayment. This appears to be in good condition.

Preservation Issues

The many alterations to GAR hall have resulted in the loss of some significant features and the deterioration of others. The key historic features include the following elements, some of which still exist and some of which have been lost:

- The street façade massing and overall proportions remain, with the alteration of having been raised three feet further above grade.

- The corner turrets remain, but they have been covered with shingles and are missing some detail. A complete evaluation of the condition of the original woodwork would require removal of shingles.
- Metalwork on the finials and acroterion need repair work. They appear to have been galvanized sheet metal and were probably painted. Today they are rusted and probably leaking.
- The front entrance doors remain, but the transom panels were altered for the projecting bay in 1905-7.
- The original double hung windows remain on the front facade. They are in poor condition but should be evaluated for restoration, and they could serve as a model for the replication of windows on the sides of the building.
- The block at the roof peak remains, but it is in need of repair and restoration.
- The rake trim detail remains, including the arch at the center.
- The rose window and the adjacent trim are missing.
- The bay window was added in 1905-7. It is the biggest single alteration to the original façade, but after a century it has its own significance in the history of the building. The structural condition needs to be assessed, and the present windows, which are vinyl replacement windows, compromise the historic character.
- The windows on the side elevation are modern and nondescript; consideration should be given to replicating the original windows in these locations.
- The enclosure of the side entrance to the basement is very utilitarian and rough
- The shingle siding is rather rustic in the context of the Romanesque character of the original design. It is also deteriorating, especially on the front façade, which exacerbates the contrast.

Remaining interior historic features on the first floor and mezzanine include:

- The main entrance doors and casings at the first floor on the Dane Street elevation
- The door and frame of the existing room to the right on the historic entrance
- Door casings at the opening to the existing toilet rooms to the right of the main entrance
- Wood wainscot in the lobby at the first floor on the exterior wall
- Casings and corbels at remaining historic windows in the mezzanine stair and on the mezzanine
- Doors and casings at entrance to the main room
- Wood wainscot in the main room on the first floor
- Arch and details at the raised platform.
- Cove plaster ceiling (above hung ceiling)
- Plaster medallion at the center of the main space plaster ceiling
- Cast iron radiator in the entry and steam pipe heating in the main space

Recommended preservation approach

The present building's historical appearance is primarily the result of the 1905 renovations. Given that the bay appears to be in good structural condition, we would recommend a restoration of the front façade based on the 1905 appearance and in particular on the 1905 photograph in this report. The front façade work could be done as a stand-alone project. The scope will involve the following:

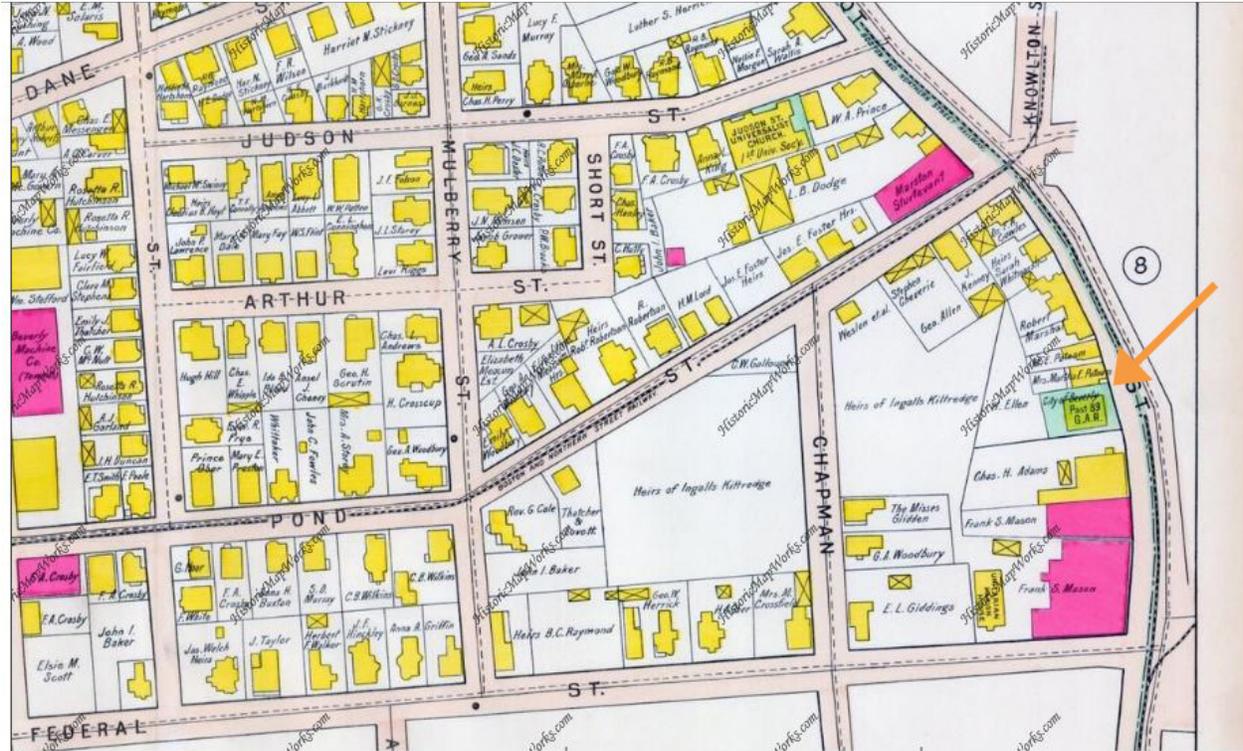
1. Removal of the present wood shingles and examining the substrate, making repairs where required.
2. The 1905 siding was wood clapboards applied over the original flush wood siding. This should be reconstructed, with a water table at the base as can be seen in the historic photograph.
3. The wood brackets supporting the bay appear to be in good condition, but they should be inspected when the renovation proceeds.
4. Restoration of the two double hung windows from the original construction, including the sash and casings. If the sash cannot be salvaged, new sash to match the existing should be fabricated. Repair and replication of moldings and details at the window frames and casings.
5. Replacement of the vinyl windows in the bay with 2 over 1 wood windows to replicate the originals.
6. Reconstruction of the rose window and the trim around it. Pieces of the sash were stored in the attic, and an accurate reconstruction using these parts should be feasible.
7. Repair of the wood trim at the rakes of the front gable. The existing trim appears to be original, with deterioration in some areas. There is also evidence of an unusual decorative paint pattern on the rake woodwork which should be further explored.
8. Reconstruction of the wood detailing at the flanking spires, including flush wood vertical finish, molding bands, and the lambs tongue profile that originally ended the chamfers at the corners.
9. Replacement of the decorative metal roofing and flashing at the spires and the central acroterion.
10. Reconstruction of the acroterion, based on remaining physical evidence and the historic photograph.
11. Paint sampling during design to determine the original color palette. Painting of all new work.

The side elevations were simple clapboard walls with double hung windows. The restoration scope here, which should be carried out in conjunction with the restoration of the main first floor space, includes the following:

- Removal of the present modern windows and replacement with arched double hung windows to match the originals. There are three windows on the west façade, and three more should be installed on the east façade, which currently has no windows but originally matched the west facade.
- Removal of the shingle siding and repair of the substrate.
- New clapboard siding, with narrow corner boards and a water table. This should also be done on the rear elevation.
- Redesign and new exterior finishes for the existing side exit from the basement.
- Repair of eaves and fascias and new gutters.

Interior restoration scope is primarily part of the first floor work. Design should include planning to reuse existing spaces and leave historic details in place. Restoration or replacement of key details will be required at some locations. Interior details at new windows in the main space should use the detail of the window in the stair to the mezzanine as a model, and new doors and casings at toilet rooms should be based on the historic doors. In the main space, the wood wainscot should be retained, and field work should be done to verify the profile of the chair rail. The wall and ceiling plaster would be restored, and the arch at the platform should have its moldings restored where they were cut for the acoustic tile ceiling.

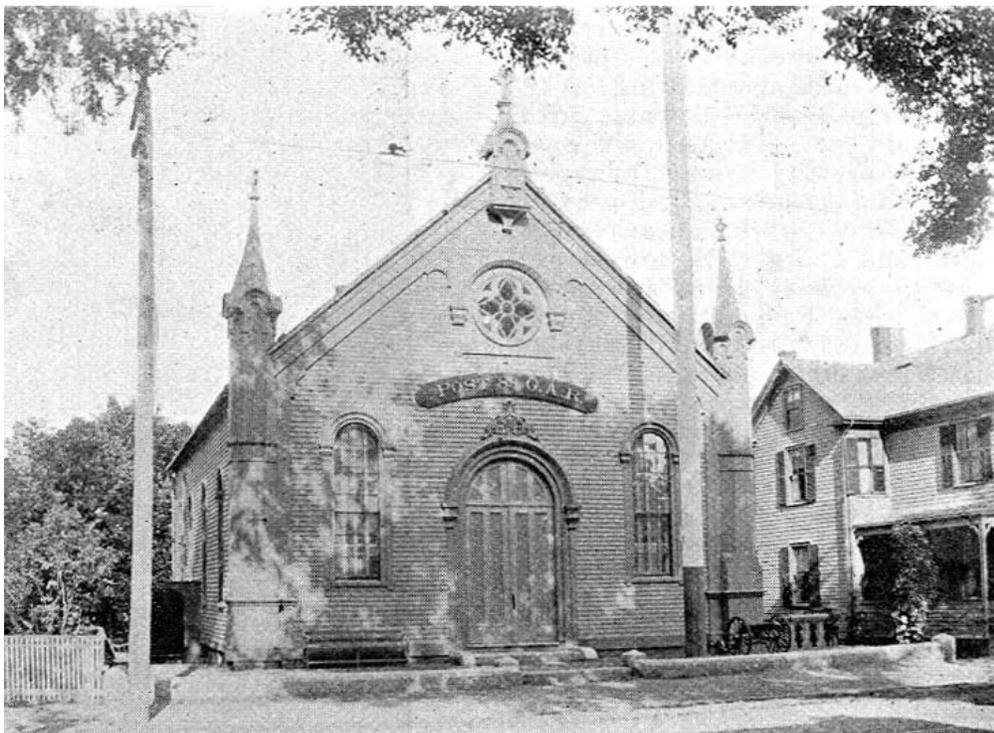
The basement dates from 1941, and all elements there are from that period or later. There is no historic material there; use of details based on the historic first floor details is an option.



Original location on Cabot Street at right, midway between Federal and Pond streets



Earliest known photograph c. 1875



Date unknown- between 1875 and 1900



GAR Hall c. 1902

GAR HALL
BEVERLY, MA



GAR Hall c. 1905-7



GAR Hall March 2016

Accessibility

GAR Hall is a 19th century building on an early 20th century foundation. As such, it predates modern requirements for handicapped accessibility. Its relocation onto a higher foundation made access to the main level more challenging, and the lower level has no accessibility provisions.

The current configuration includes renovations for accessibility which appear to have been done within the past twenty five years. To provide access to the first floor, a concrete ramp was wrapped around the back of the building. The total rise is about four feet; the slopes on the present ramp do appear to meet the 1 in 12 requirement of the Access Code. In places, however, the space between handrails does not meet the required four foot clearance, and the landing at the top of the first leg is not five feet square as required.

The lower level has no accessible entrance and there is no accessible connection between floors. This makes any functions that would use both floors problematic.

The mezzanine is a relatively small space; the useable area is about 560 sf. ADA would not require that access be provided to this space, and consideration should be given to requesting a variance for that reason.

The single occupant toilet rooms in the basement appear to have been part of the 1941 relocation, and the first floor toilets appear to have been added more recently. The toilets on both levels do not meet the dimensional standards of the Access Code, and the toilet seat heights and clearances are inadequate. Additionally, the fixture counts would not be adequate for many of the proposed uses.

A redesign of the building should include an elevator that connects the two main levels. If this has a side or rear door at grade, it can also do away with the need for the exterior ramp. Accessible toilet rooms should be provided at both floors, and the fixture counts should be increased to accommodate the proposed uses. The Inspectional Services department is agreeable to putting the bulk of the fixtures in the basement; this makes it possible to preserve the large room adjacent to the street entrance for various uses instead of making both front spaces toilet rooms.

To explore the ramifications of various approaches to accessibility, a series of alternatives were developed, which are illustrated in the sketches in Appendix 2. The alternatives and analysis are as follows:

- A. Keeps existing first floor access ramp and adds a ramp down to serve the basement. No accessible connection between floors, lower ramp is potentially a swimming pool. A₁ is similar with a wheelchair lift in a vestibule to serve the basement. Stays dry, but provides no accessible interconnection between floors.
- B. Continues to use the existing ramp and rear door as the accessible entrance, with a LULA (small) elevator in the main space. This can serve all three floors, but it disrupts the main space, both visually and because traffic to the basement needs to cut through whatever is happening on the first floor. This is a fairly crude, utilitarian approach.
- C. A side door to an intermediate level with a LULA elevator up and down. Provides access to all three levels and preserves the main space, but the clearances are very tight and do not meet code. Another couple of feet would help, but the main space would need to be altered to do that. Is it

worth it for mezzanine access? Also, there is only elevator access between the first floor and the basement unless the existing stairs in the northeast corner are kept in service.

- D. Elevator in a new addition at the back, with new stairs down and up to the main spaces on each level. Less impact on the historic building, all vertical travel is interior and no ramp to maintain and shovel. Does not provide mezzanine access. The D1 variation of this alternate includes larger toilet rooms at the back in the basement and single occupant toilet rooms on the first floor. This preserves the front room on the first floor for other uses, but means that first floor auditorium users would be using the basement toilet rooms.
- E. LULA elevator in a new addition at the back with stairs up and down to either side. Most elegant solution to access for the main levels- all vertical circulation is in the addition. A LULA elevator gives less service benefit than full size elevator as in D. Does not provide mezzanine access. . Like D1, this alternate could include larger toilet rooms at the back in the basement and single occupant toilet rooms on the first floor, preserving the front room on the first floor for other uses.

The consensus of the working group reviewing the alternates was to pursue the rear addition for access to the primary levels and to put the bulk of the toilet fixtures in the basement. Providing a full elevator is, according to the cost estimator, about \$100,000 more than a LULA elevator. Consequently, the final design is based on Alternate E above, with the larger toilet rooms in the basement.

Building Systems Evaluation

The building systems for GAR Hall were evaluated by John Wathne of Structures North Consulting Engineers and Eric Johnson of Johnson Engineering and Design, Inc. The structural visit was made on 23 September 2016, and the mechanical and electrical engineers made their visit on 30 September. The engineering reports are in the appendices; a summary follows.

The structural system appears to be in good condition. The building was relocated in 1941 on to a 12" concrete block foundation. The block appears to be in good condition, with no visible cracking or differential settlement. The wood frame of the building is also in good condition, with no sagging or decay of primary structural members visible. The floor is framed with 1-3/4" x 9-3/4" joists 15-16" o.c. and 8" x 10" girders. The exterior walls have 2" x 4" wood studs, and the roof is framed with heavy timber trusses, which are spanned by purlins holding up the roof deck. Members appear to be plumb and level.

There are two issues with the existing structure. First, the framing of the first floor does not meet the floor loading requirements of the proposed uses; the joists are cogged (notched) into the 8x8 girders, which weakens both. Second, the exterior walls, because they are sheathed in boards rather than plywood, do not have adequate lateral load (wind and earthquake) resistance. To address these deficiencies, the first floor framing would need to have two of the girders reinforced by sistering them with new PSL members. This would involve cutting the ends of the existing floor joists and resupporting them with joist hangers. This would bring the capacity to 60 pounds per square foot. Providing a 100 psf load capacity would require sistering the floor joists in the three longer structural bays. The exterior wall lateral load issue can be addressed by adding a layer of plywood sheathing as the building is resided. Before committing to this, further investigations should be undertaken to see whether there is let-in wind bracing in the existing frame. The floor load capacity of the mezzanine is low, but it does not seem worthwhile to attempt to reinforce this.

Otherwise, the renovation plan would not require any substantial structural alterations, except for door and window openings. New construction for the accessibility addition would be framed conventionally in wood, with either a steel frame or concrete block at the elevator shaft.

The mechanical and electrical systems present a more complex picture. The heating system for the building is essentially the original steam system with a newer boiler and some more modern radiation. Two split system air conditioning units cool the main first floor space. The existing plumbing system is essentially obsolete, primarily due to accessibility issues posed by the existing space plan. There is no fire protection (sprinkler) system in the building. The electrical and fire alarm systems are adequate for the present uses, but they would need to be brought up to code in a major renovation.

The recommended changes to building mechanical and electrical systems are as follows:

1. HVAC: Replace the existing boiler. New hot water perimeter radiation. New air handling units with hot and chilled water coils and exterior condensers for cooling, one per floor. Energy recovery unit
2. Plumbing: assess existing street connection; replace if necessary. New water conserving plumbing fixtures in new toilet rooms, with new supply and waste piping.

3. Fire protection: A sprinkler system is not required for the current building, given the building totals less than 5,000 sf and has an occupancy under 300. Once the Phase 3 accessibility addition is built, the total area will be over the threshold for the sprinkler requirement in an assembly use.
4. Electrical: New electric service to supply new HVAC systems and elevator or lift. New main and distribution panels and branch circuits. New lighting in all areas, including decorative fixtures in the main space. New addressable fire alarm system.

Potential Building Uses

The potential users and uses identified by the working group included the following:

- Meeting space - to be used by various clubs/organizations such as
 - Rotary,
 - Chamber of Commerce
 - Friendly Garden Club
 - Veterans groups
 - Ward 2 Civic Association
 - Beverly Guild of Artists
 - Beverly Main Streets, etc.
- Event space for Public and/or Private Uses –
 - Art shows
 - Small concerts
 - Fundraisers
 - Craft fairs
 - Reunions
 - Birthday parties
 - Bridal/baby showers
- Educational Programming
 - Art classes
 - Music classes
 - Yoga classes
 - Exercise and dance classes
 - Historic lectures
 - Book readings and signing
 - Demonstrations
 - Photography classes
 - Rec. Department programs
 - After-school programs

As part of the study process, a questionnaire was developed and circulated to potential user groups in Beverly. Seven individuals and groups responded, and the answers are compiled in the table in the appendix.

The questionnaire responses indicated a desire for meeting rooms of varying sizes. A number of respondents would use rooms of 12-18 people seated around a table. Others would use a lecture format with an audience of 60-150 people. Others would use a larger room for up to 300 people.

In addition to the groups that responded to the questionnaire, the following groups were identified by Suzanne LaMont of the Beverly Historic Commission as potential users for space at GAR Hall:

- Veteran's Groups (VFW 545, and Purple Hearts) - their interest in use of the Hall is firm.

- Beverly Guild of Artists - they have inquired more than a few times about the potential to use the space for art shows or lessons.
- North Shore Players - they approached Ms. LaMont after the survey deadline to inquire about using the space of small theater plays and rehearsals. Further details regarding the group are unknown.
- Ward 2 Civic Association - the group is clearly interested in using the space for meetings (as evidenced by the spearheading of this study). Group meets once/month. Approx 20-30 in attendance. They often have guest presenters so accessible AV facilities would be desirable.
- Beverly Recreation Department - They seem eager to have the GAR Hall as a dedicated resource for their activities. They are also willing to oversee the resource. Their scope of need is undefined.
- Other City Boards & Commissions - General meeting space is needed and the GAR Hall could serve many meeting and activities of the various groups.
- Mudeye Puppet Company (Bruce Orr); Sean Devlin - These are both small local artists who have expressed an interest in a community space for smaller theater productions and creative expression.
- Beverly Public Library - Response from Pat Cirone, director of the Beverly Public Library regarding potential reuse of the GAR Hall: "I'm wondering if you would consider a Beverly Public Library sponsored Makerspace. There is a growing movement - and demand - for makerspaces where people can explore their creative talents. Often folks live in small apartments or houses and don't have room for the tools, or don't want to invest in tools that are either too expensive or which they want to learn how to use first. One of the most popular offerings at the Peabody Public Library's makerspace are the sewing machines! We would love to be able to offer more for our patrons but don't have the space to set aside for a makerspace at this time. We have 3D printers, but the place where our patrons use the printer is the special collections room which is not a great fit for either the makers or the historical researchers. There could be other options to explore as well, such as arduino, classes combining 3D printing with fabric arts, etc. I don't know how much space you are currently looking at or if this would be a good fit, but I thought I would throw it into the mix as a possibility."

Ms. LaMont also offered some personal thoughts as someone who knows the Beverly community well: "I feel there are future potential uses for the GAR Hall that do not currently exist in our community. As a City that is heavily investing in downtown infrastructure and development, it is evident that the downtown will grow in population and activity. Having a flexible space available to accommodate these potential future needs would be clear asset, in my mind. Its prominent location downtown, inclusion in the main perimeter of the Beverly Arts District, proximity to Montserrat College of Art all point to a strong potential future for the GAR Hall to serve our community full-time in many ways."

The program for GAR Hall would be limited by the space actually available. On the first floor, the main space could accommodate up to 150 people in a lecture format, or 80-100 seated around tables for 6-8 people. The lower level must provide space for mechanical equipment, storage and toilets, but it could provide a useable space of about 1000 square feet. The proposed design divides this into two meeting spaces, to allow for groups of varying sizes. It also retains the existing kitchen facilities with improvements to use as a caterer's serving pantry rather than a commercial kitchen.

On the first floor, the main meeting room would be used for lecture/presentations or large groups seated at tables. It can also serve as a gallery space with appropriate lighting. Furnishing for this space should include:

- Stacking chairs (150+) for main auditorium
- Tables 12- 2' -6" x 8' -0" or 9- 5' -0" round
- Lectern
- Projection screen

On the lower level, the two rooms proposed could be used for smaller group meetings, discussions or activities, possibly including limited craft activities. Meetings on either floor could involve meals cooked elsewhere, brought in and served from the serving pantry. Folding tables and stacking chairs should be provided.

It appears that the most appropriate entity to manage GAR Hall would be the Recreation Department. They are currently managing other facilities for similar uses and would have the management tools to operate this building.

Proposed Design and Phasing

The proposed building renovation design consists of three major components.

- Restoration of the Dane Street façade, including siding, woodwork, windows, turrets and roof metalwork, front steps, and plantings. See drawing A-6.
- Restoration of the first floor, including new windows and exterior siding, restoration of historic finishes in the main space, lobby, stair and office, new toilet rooms, and new building HVAC, plumbing and electrical systems
- A rear addition providing an ongrade entrance and a LULA elevator and stairs to provide accessibility and interconnection to the two main levels. Renovation of the basement for meeting space functions and additional toilet rooms to serve both levels. HVAC, plumbing and electrical systems for basement level.

These can be carried out as separate phases; for estimating it has been assumed that the first floor renovation phase would include new plumbing, gas and electrical services and associated mechanical rooms in the basement. If the accessibility addition is not built with or before the first floor renovation, it can continue to use, on an interim basis, the existing ramp and rear door for accessibility. Finances may dictate doing the work in phases; however, the most economical approach would be to do the entire project at once.

An additional element is the addition of a fire protection system. The existing building area is small enough that this is not required by the state building code, but once the Phase 3 accessibility addition is added, the building will be large enough that it will be required. The City may want to consider installing the system in Phase 2 in conjunction with interior finish work on the first floor, and this report has carried this as part of the Phase 2 estimate.

Green Energy

Green energy is also a consideration. The southeasterly slope of the main roof has a good orientation to the sun for a photovoltaic system, subject to verification that it would not be excessively shaded by the Dane Street Church. The installation of a system here could be done independently of other work phases in the building, and it would be done by a vendor contracting directly with the city. If the entire slope is suitable, there could be an array of 68- 3' x 5' photovoltaic panels. Based on two installations in Swampscott, this size array might generate about 22-23 Mwh annually. The Director of Facilities indicated that the City would probably prefer an outright purchase of the solar array to a leasing approach, which means the SREC's generated by the array would be the property of the City..

Construction costs

The proposed design was estimated by A.M. Fogarty, Inc. of Hingham in November-January 2016. The estimate is based on a phased construction program, with the initial phase, the Dane Street façade restoration, to be bid in early 2017. The estimate treats this as a public construction project, which requires public bidding, bonding and prevailing wage. The estimate carries cost escalation to Spring 2017 for the first two phases and to winter 2018 for the third phase. It assumes 1.5% for bonding, a 10% factor for general conditions, a 7% overhead and profit markup, and 15% design contingency to cover elements that are not yet in the design documents.

The estimated costs are as follows:

<i>Phase</i>	<i>Base cost</i>	<i>Design Contingency</i>	<i>Cost escalation</i>	<i>Total</i>
1- Façade restoration	\$245,525	\$36,829	\$8,471	\$290,825
2- First Floor	\$901,466	\$135,220	\$31,101	\$1,067,787
3- Accessibility and Basement	\$914,656	\$137,198	\$72,621	\$1,124,475
Total costs	\$2,061,647	\$309,247	\$112,193	\$2,483,087

These figures include adding a fire suppression (sprinkler) system, with \$81,154 in Phase 2 and \$25,966 in Phase 3. Other alternates estimated included upgrades to interior finishes and to the operable partition between the meeting rooms in the basement in Phase 3 (\$8,575).

Some savings may be achieved if the project is done as a single phase, and delays in proceeding with the work could result in cost increases driven by general construction industry cost inflation over time. Another approach would be to minimize the mechanical and electrical work in Phase 2 to see if the new utility services, air handlers and boilers could be deferred to Phase 3. This runs the risk of making the restored hall on the first floor inadequately heated and cooled for large groups.

In addition to the construction costs, the project budget will include architectural and engineering fees, a construction contingency of 5-10% for unknown conditions, furniture and equipment, utility connection fees and back charges, legal and administrative expenses, and miscellaneous expenses. These will add 22-25% of the construction costs in each phase. It would be advisable, however, to develop the entire design for Phases 2 and 3 at once for coordination.

Adams & Smith LLC

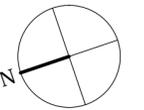
55 Thomas Road
Swampscott, MA 01907

Issue Date: 1 Nov 2016

Revisions:

G.A.R. Hall

6 Dane Street
Beverly, MA 01915



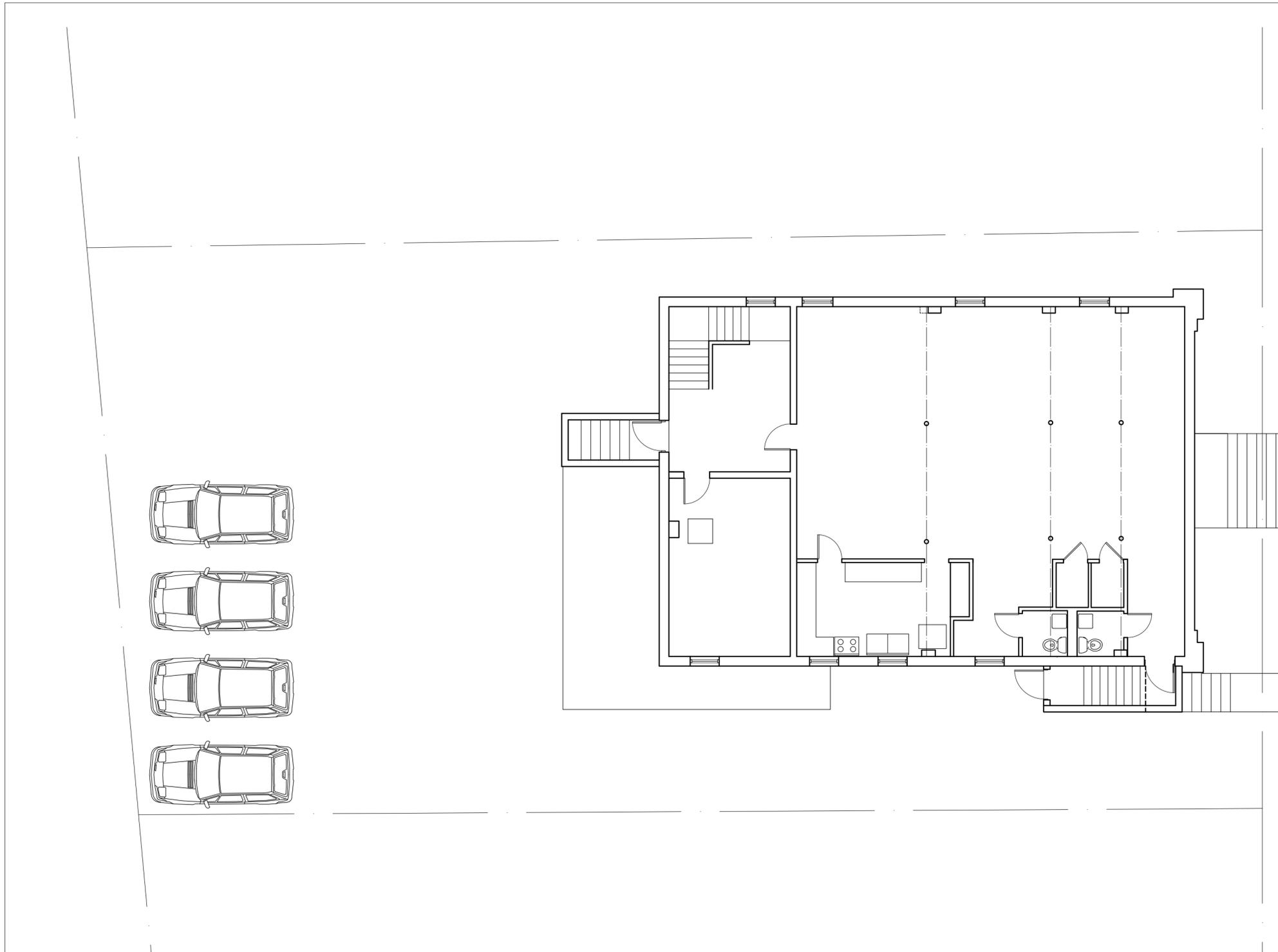
Job Number: 1606

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Drawing Name:

Existing
Site Plan

ES-1



Adams & Smith LLC

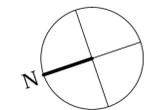
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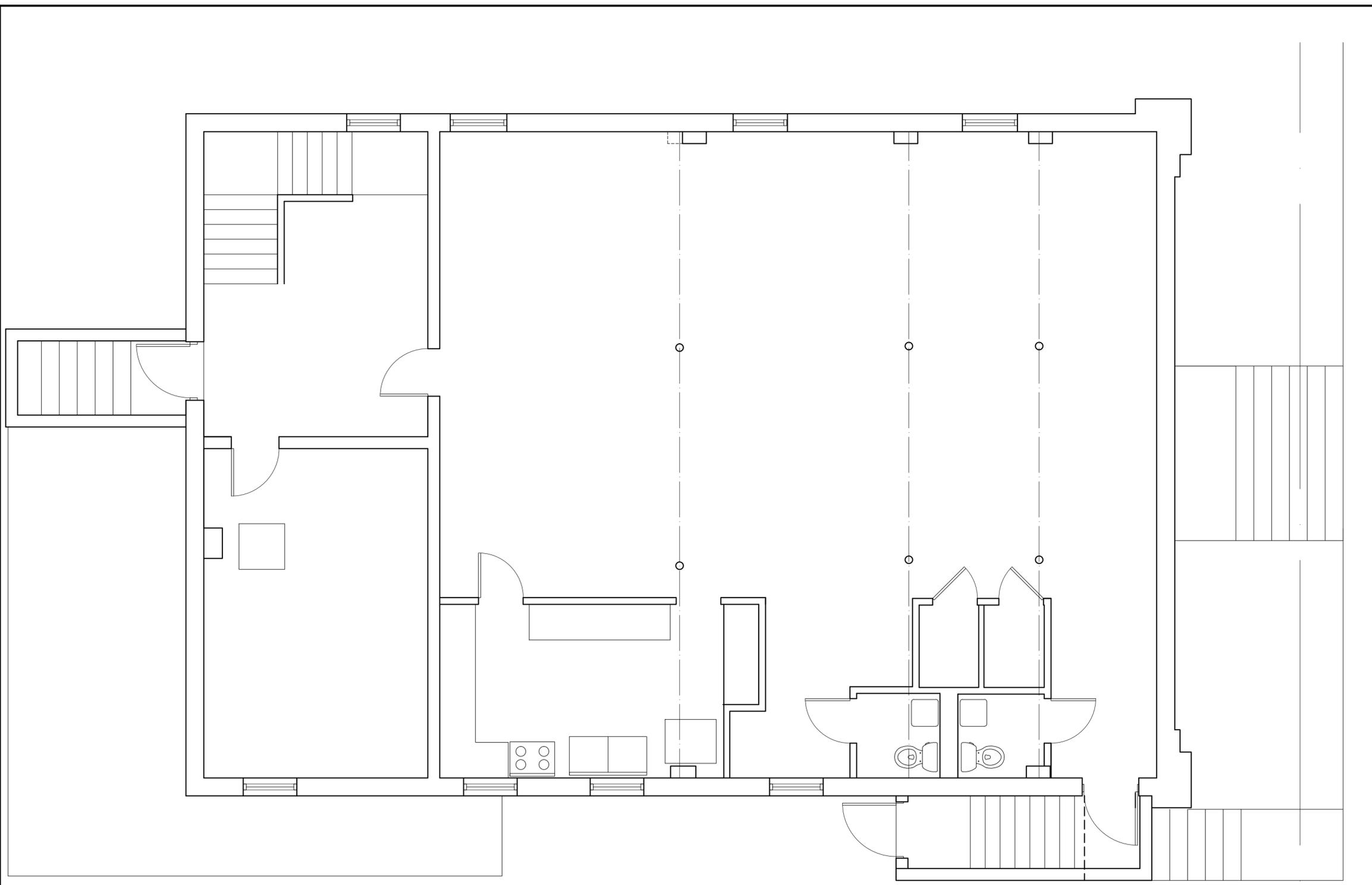
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Drawing Name:

Existing
Basement Plan

EX-1



Adams & Smith LLC

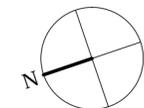
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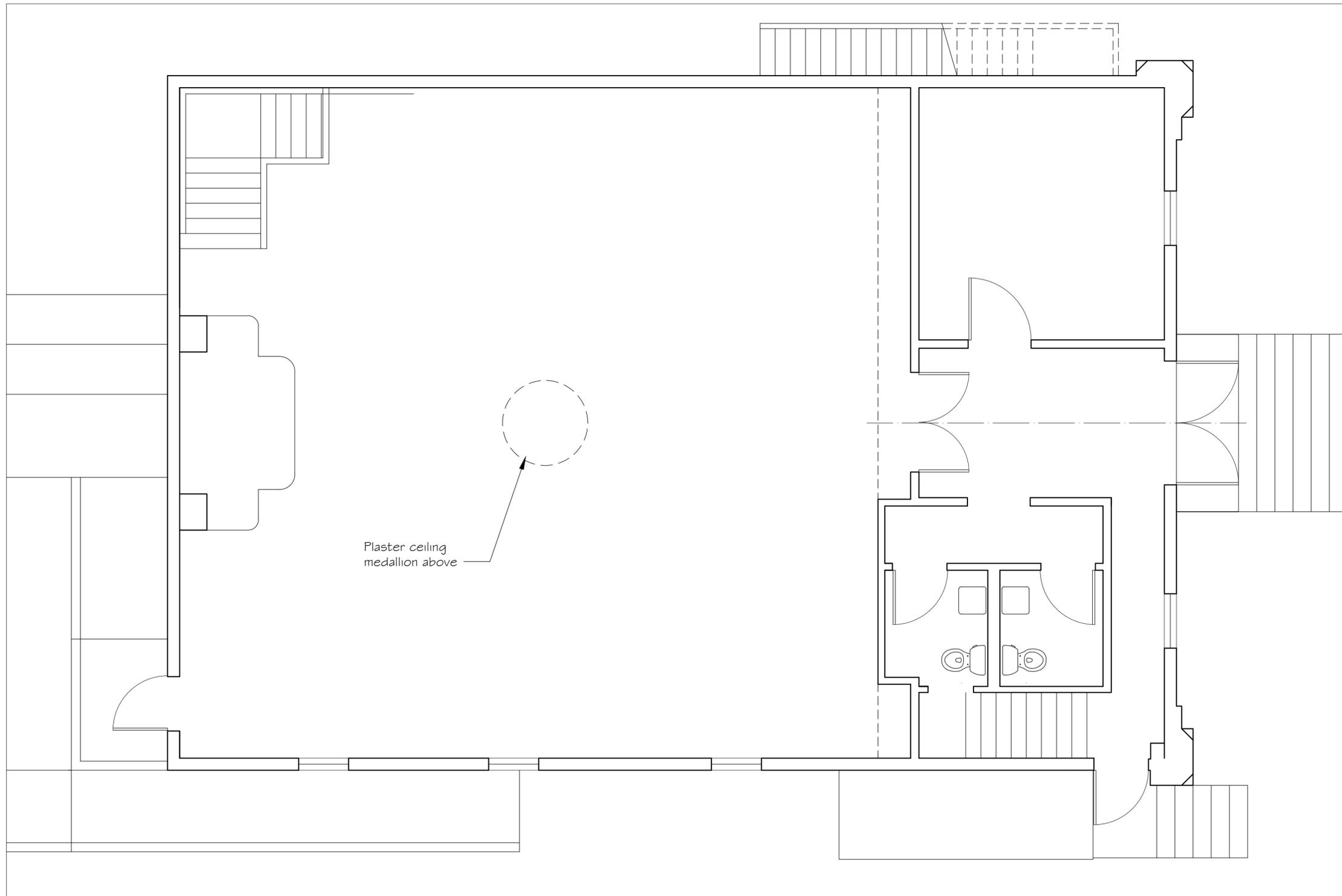


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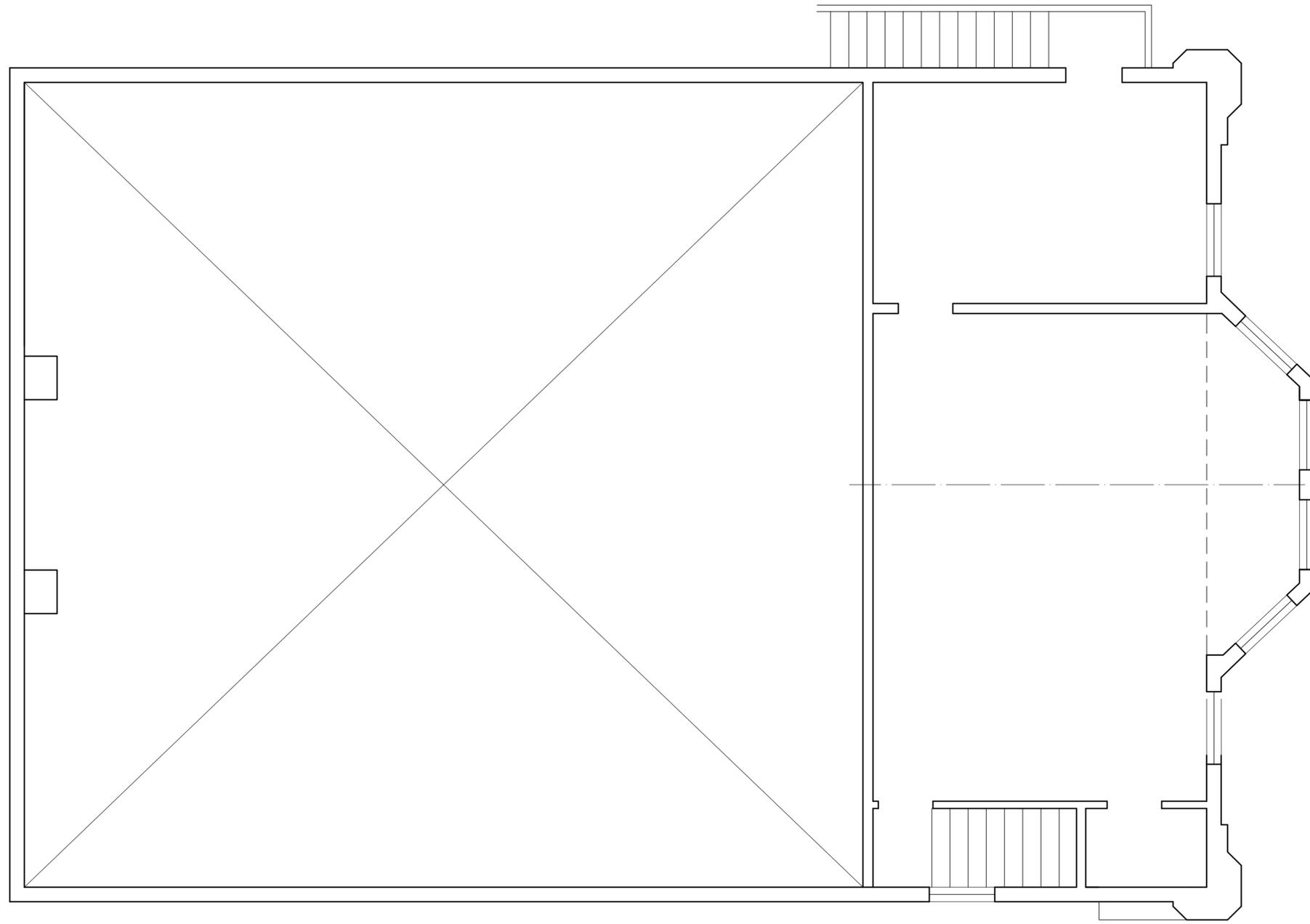
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Drawing Name:
Existing
First Floor Plan

EX-2



Plaster ceiling
medallion above



Adams & Smith LLC

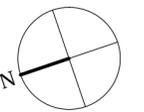
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Revisions:

G.A.R. Hall

6 Dane Street
Beverly, MA 01915



Job Number: 1606

Scale: 1/4"=1'-0"

Drawing Name:

Existing
Mezzanine Plan

EX-3

Adams & Smith LLC

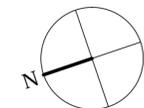
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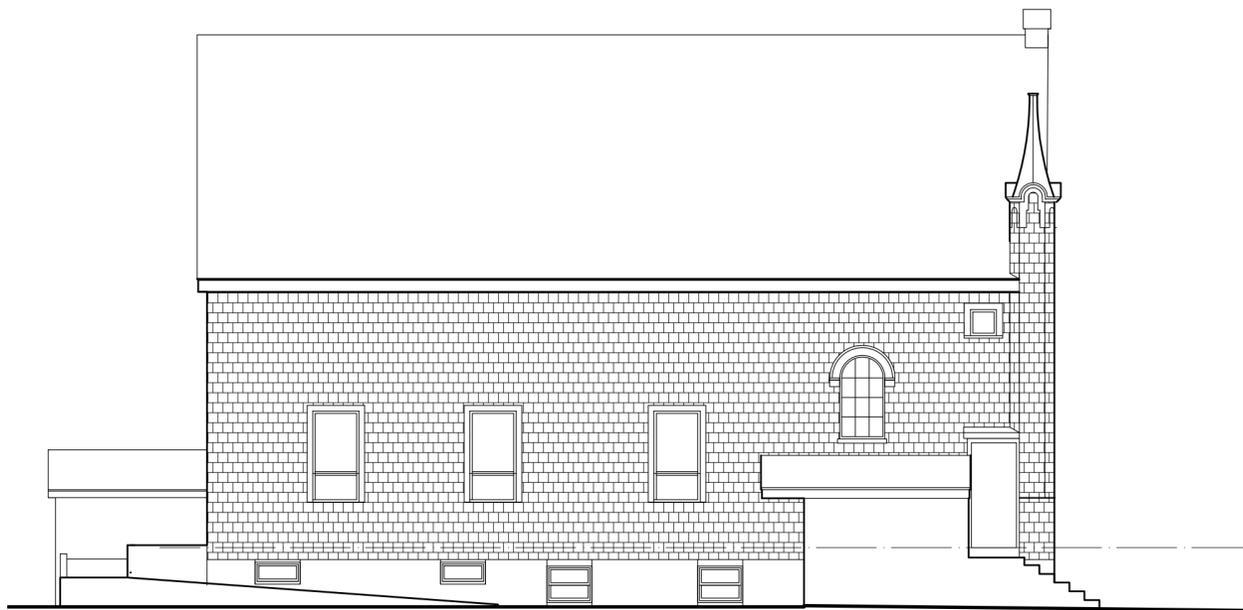


Job Number: 1606

Scale: 1/8" = 1'-0"

Drawing Name:
Existing
Building Elevations

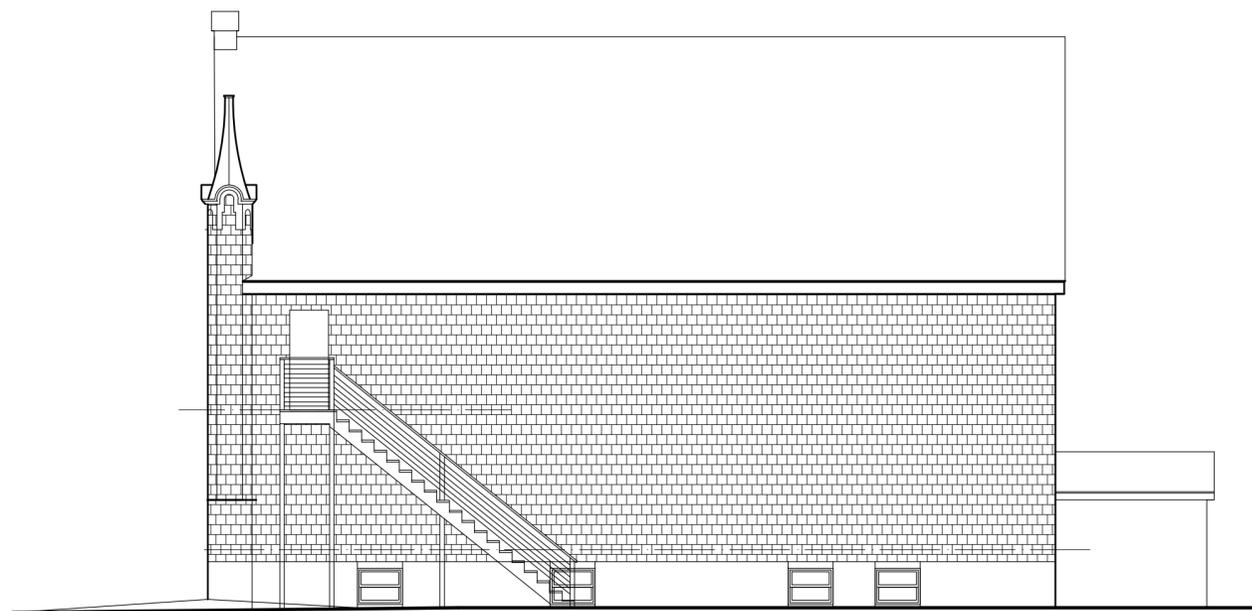
EX-4



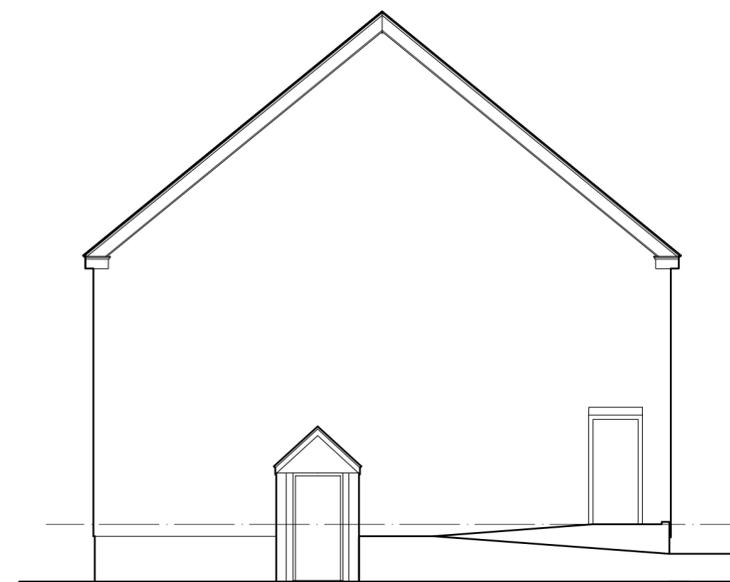
2 West Elevation
A-4 1/8" = 1'-0"



1 South Elevation
A-4 1/8" = 1'-0"



4 East Elevation
A-4 1/8" = 1'-0"



3 North Elevation
A-4 1/8" = 1'-0"

Adams & Smith LLC

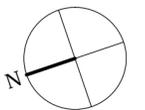
55 Thomas Road
Swampscott, MA 01907

Issue Date: 1 Nov 2016

Revisions:

G.A.R. Hall

6 Dane Street
Beverly, MA 01915

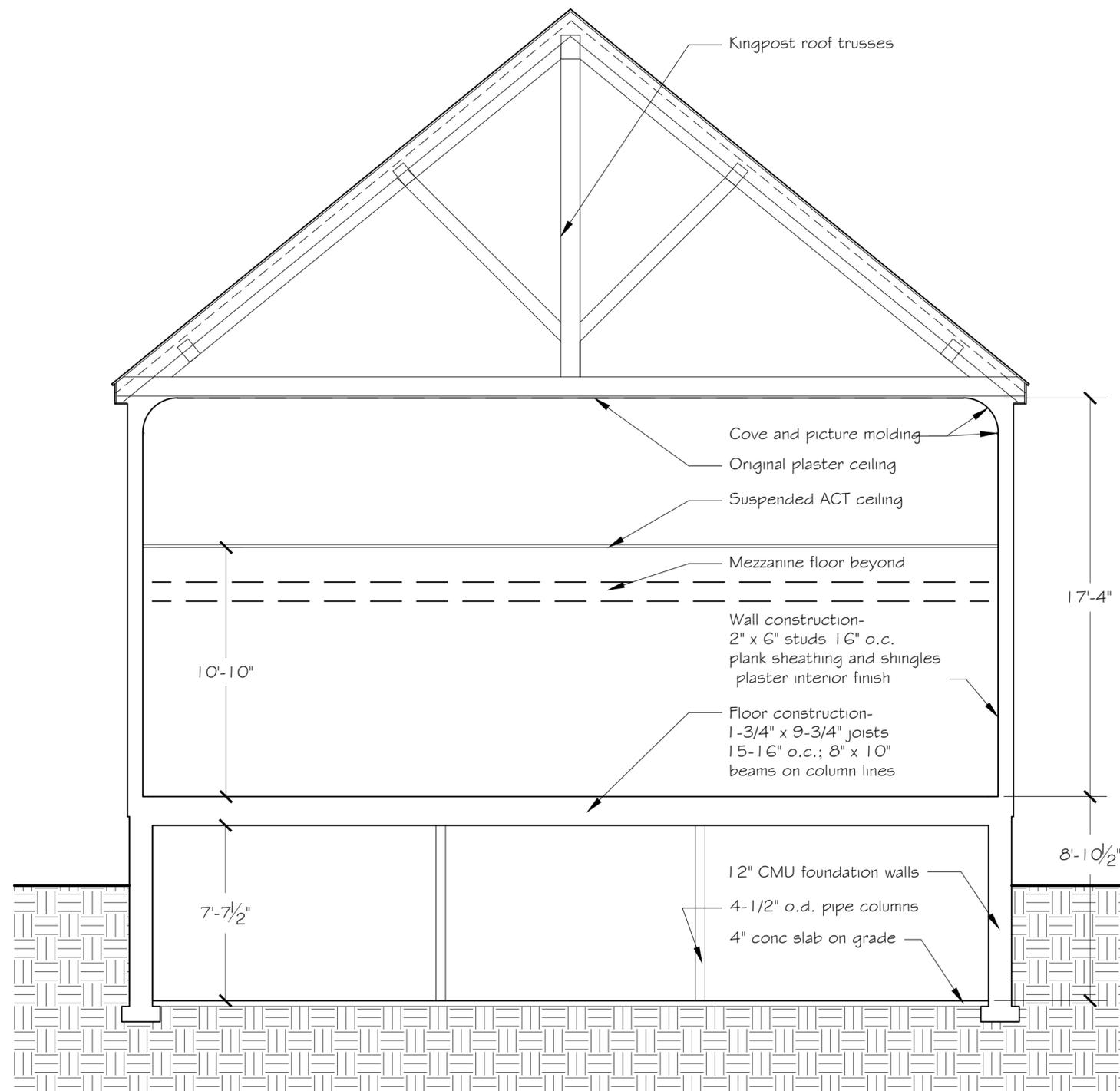


Job Number: 1606

Scale: 1/4" = 1'-0"

Drawing Name:
Existing
Building Section

EX-5



Existing Conditions Photographs



View from Dane Street SW



View from Dane Street SE



Front façade



Detail of spire



Front façade detail



Side elevation at driveway



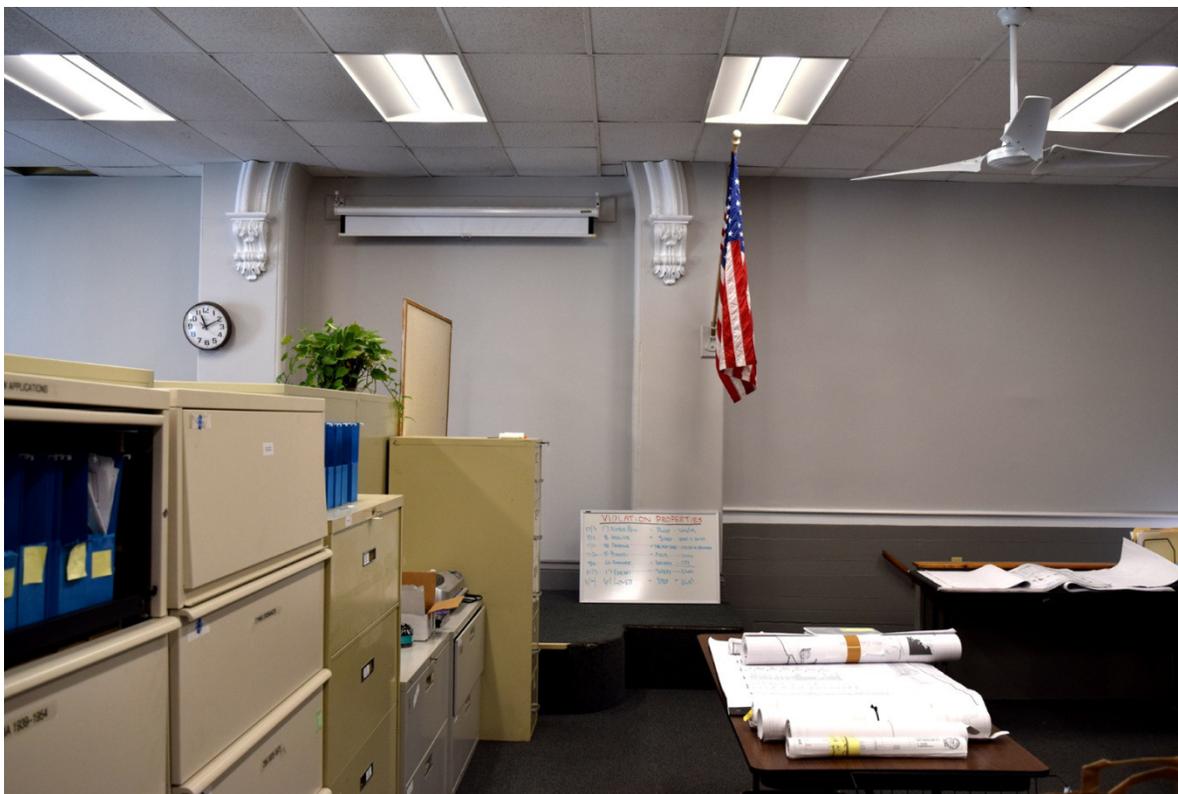
Side elevation and existing ramp



Rear elevation and ramp



First floor (office)



First floor- moldings above platform were cut for acoustic tile ceiling



First floor vestibule and original entrance doors



Existing kitchen in basement



Existing basement



Existing basement



Boiler room



Toilet in basement



Mezzanine- main room



Mezzanine-storage room



Attic with kingpost trusses



Attic- framing for plaster ceiling



Attic- fragments of round window from front façade



Attic- salvaged scrollwork from original entrance

CITY OF BEVERLY
IN BOARD OF ALDERMEN

February 15, 1960

RESOLVED: Whereas the Massachusetts Department Sons of Union Veterans of the Civil War, John Low Camp No. 6 Sons of the Union Veterans of the Civil War and Post 89 G.A.R. Memorial Hall Association, Inc., have offered to convey the Grand Army of the Republic Hall and land appurtenant thereto located at 8 Dane Street, to the City of Beverly in consideration for the sum of Four thousand eight hundred dollars (\$4800.00),

BE IT HEREBY RESOLVED by the Board of Aldermen of the City of Beverly that:

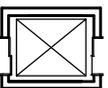
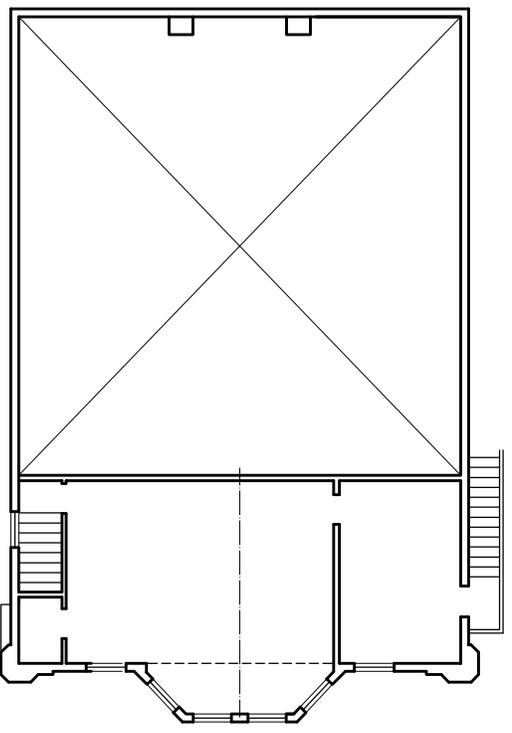
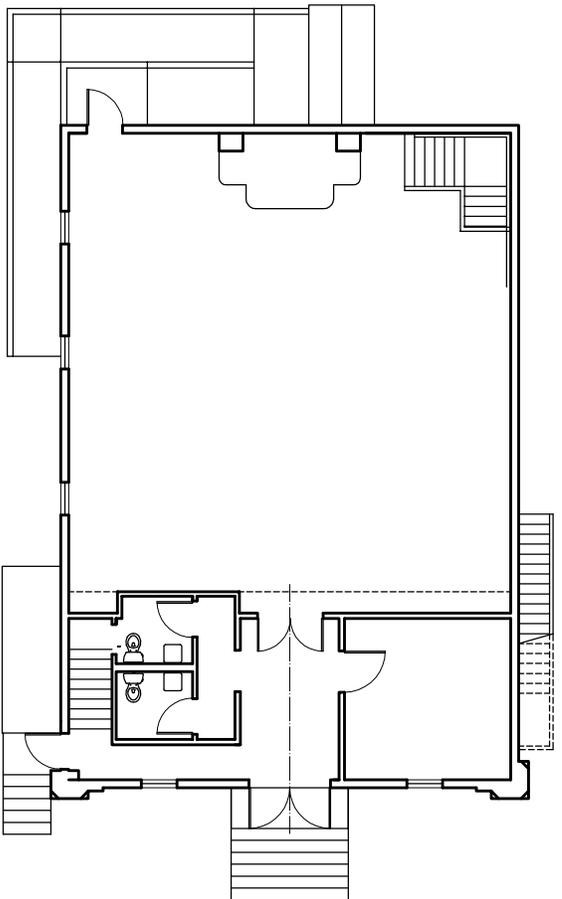
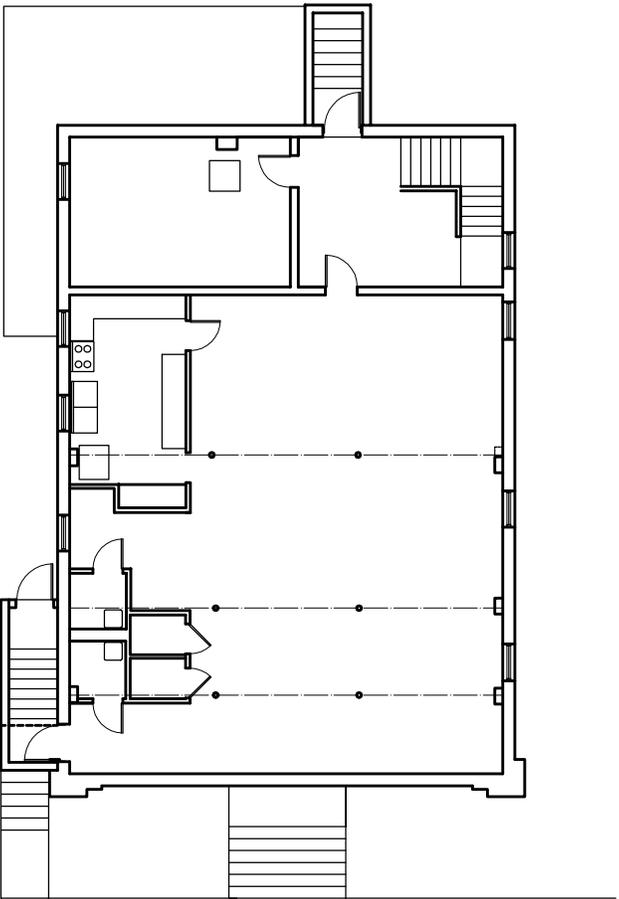
1. The Mayor be and hereby is authorized to accept a deed of said property in behalf of the City of Beverly and is hereby authorized to pay the consideration of Four thousand eight hundred dollars (\$4800.00) therefor.
2. That so long as said building shall remain in being, it shall be known as the "G.A.R. Hall".
3. That all the relics, mementoes and other personal property included in a list attached hereto, shall be the personal property of the John Low Camp No. 6 Sons of the Union Veterans and the Massachusetts Department Sons of Union Veterans of the Civil War.
4. That the City of Beverly may exhibit such relics, mementoes and other personal property in said hall or other public places with the permission of the owners thereof.

CITY OF BEVERLY
IN BOARD OF ALDERMEN

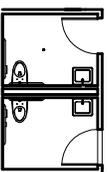
February 15, 1966

5. That the City of Beverly shall suitably pack and store in a safe place any of said relics, mementoes and other personal property not on exhibition or use from time to time.

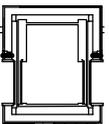
6. That John Low Camp No. 6 Sons of the Union Veterans of the Civil War and their Auxiliary shall be allowed to use said hall two nights per month so long as said hall shall remain in being.



LULA Elevator

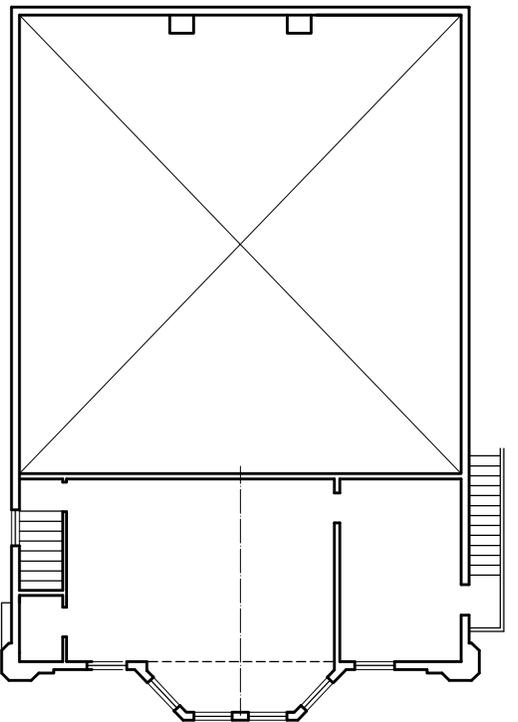
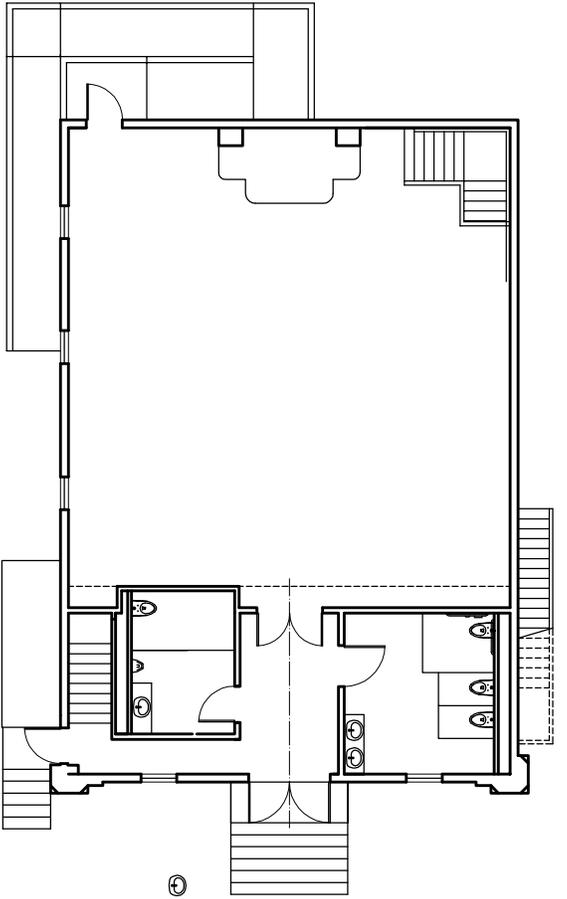


Single Occupant
Accessible Toilet rooms

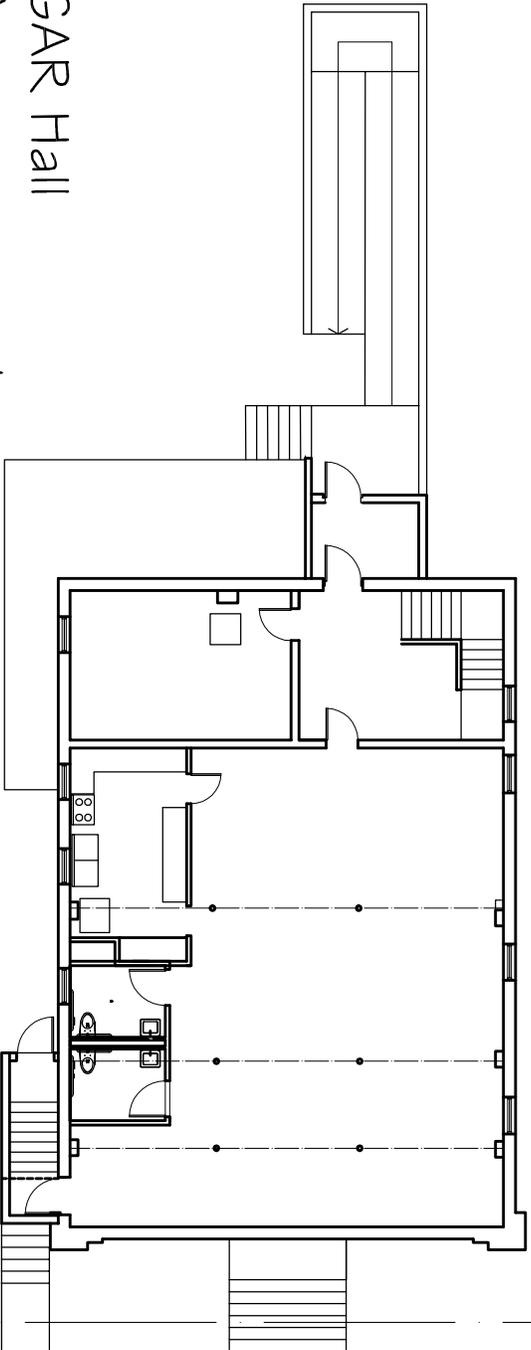


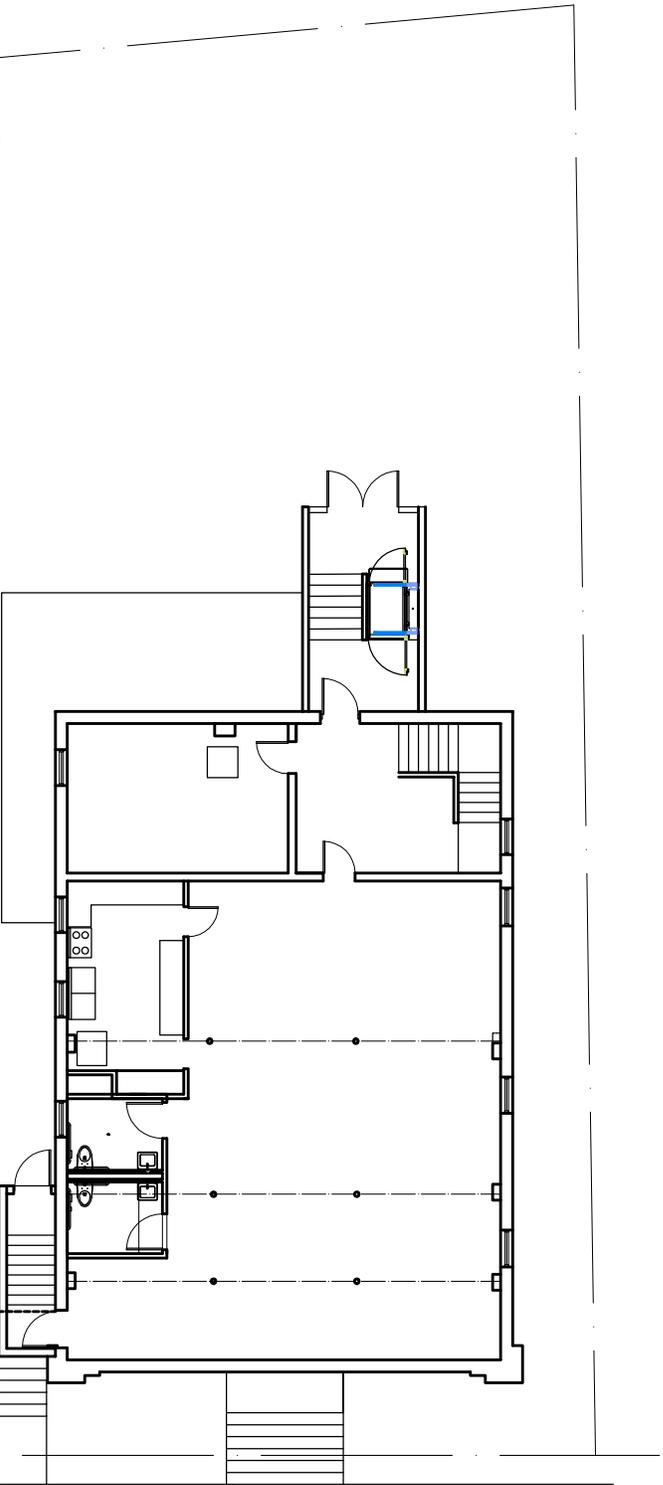
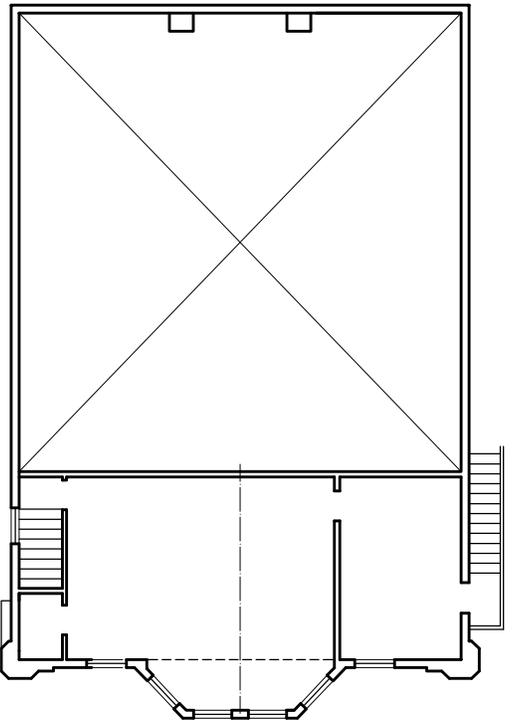
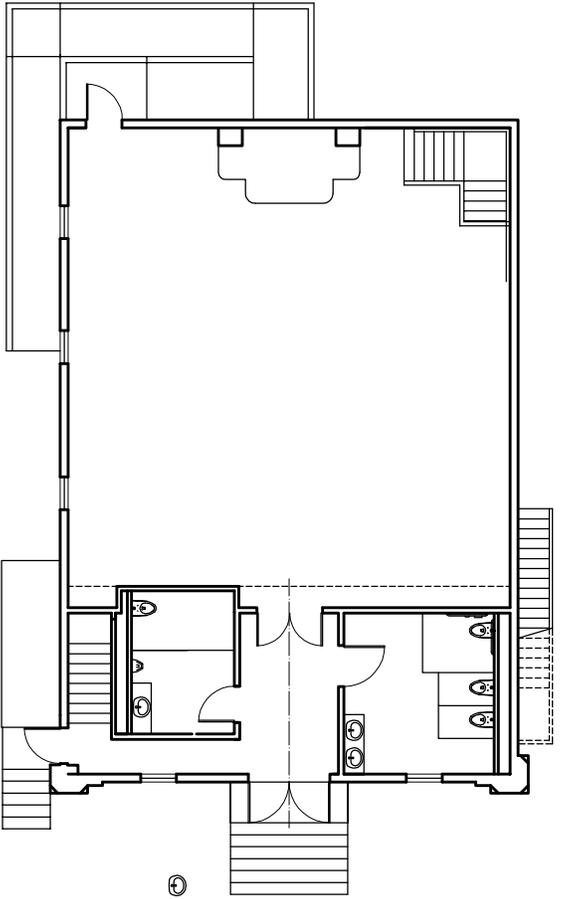
Standard Elevator

GAR Hall
 Access concepts
 Existing plans 1" = 16'



GAR Hall
Access concepts
Alternate A 1"=16'

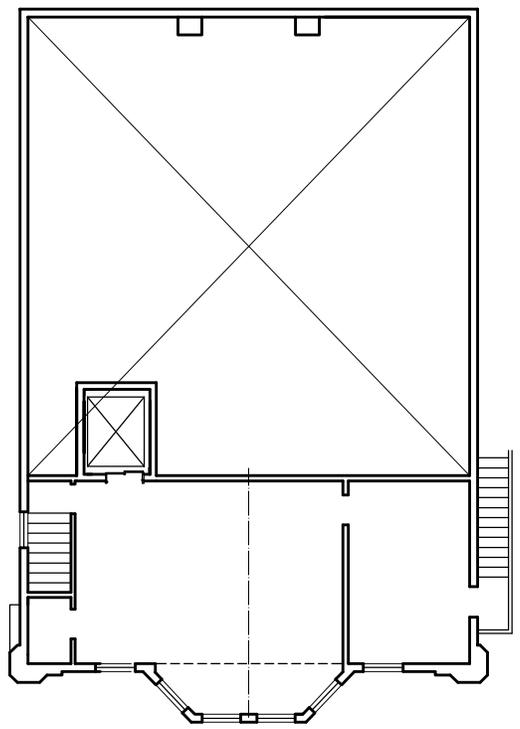
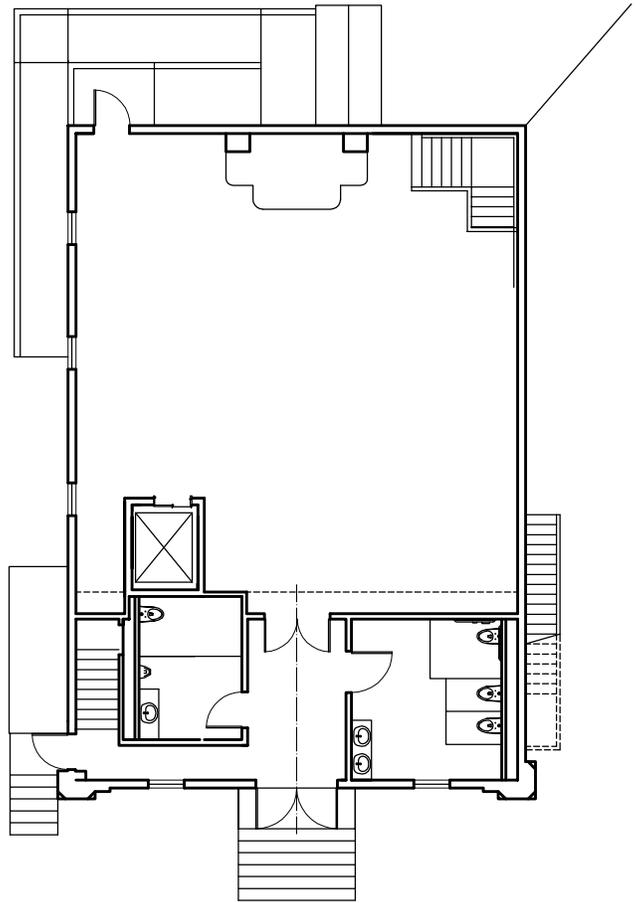
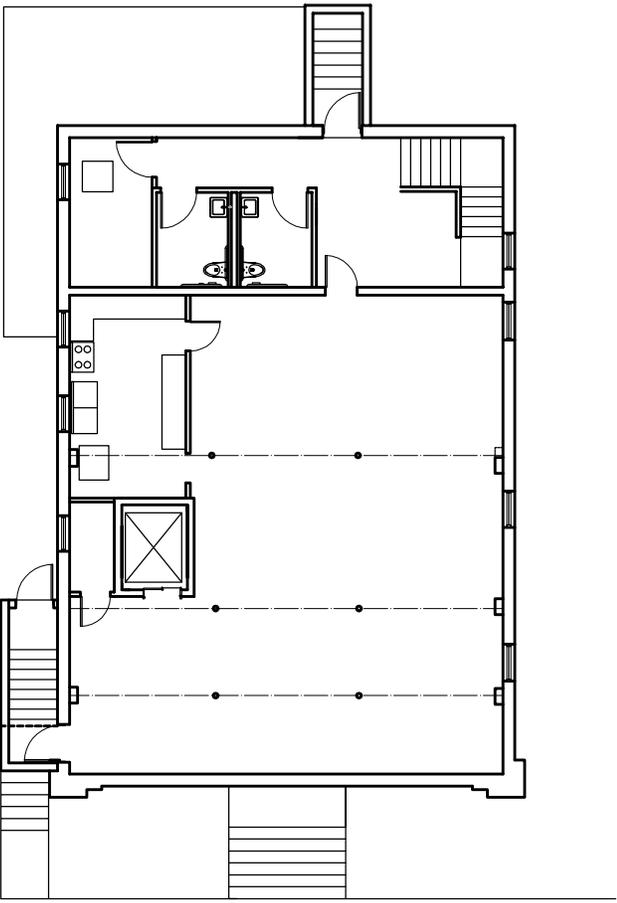




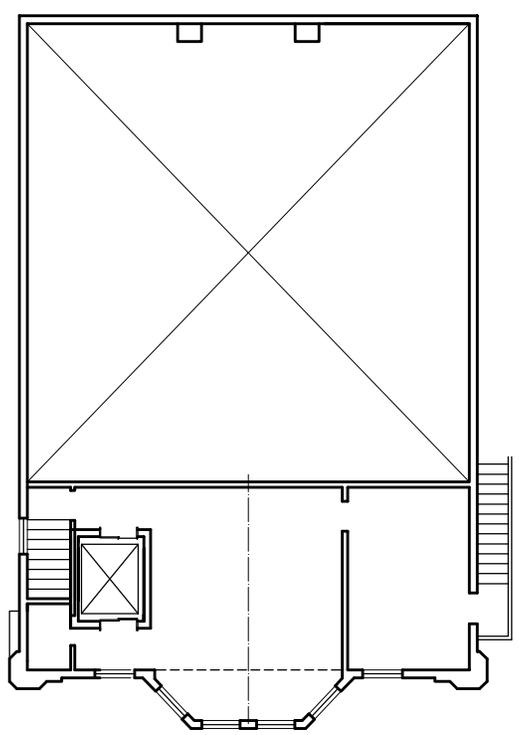
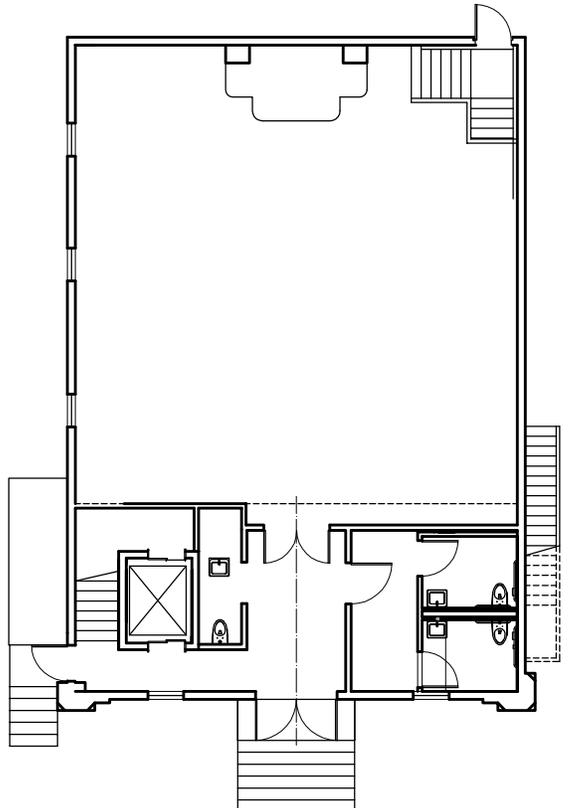
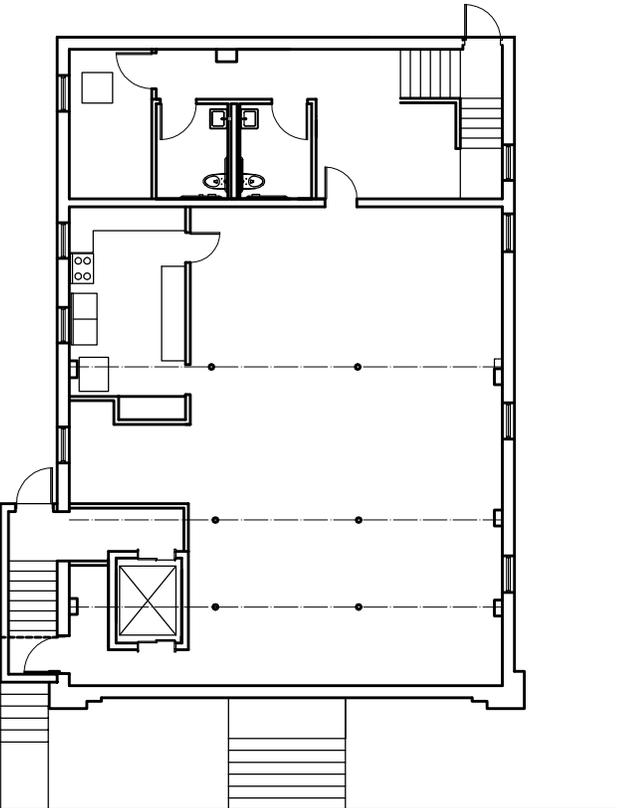
GAR Hall

Access concepts

Alternate A | 1" = 16'



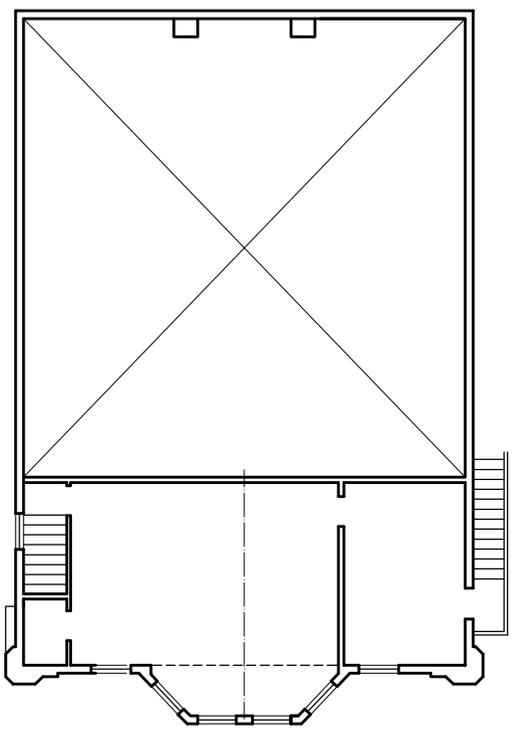
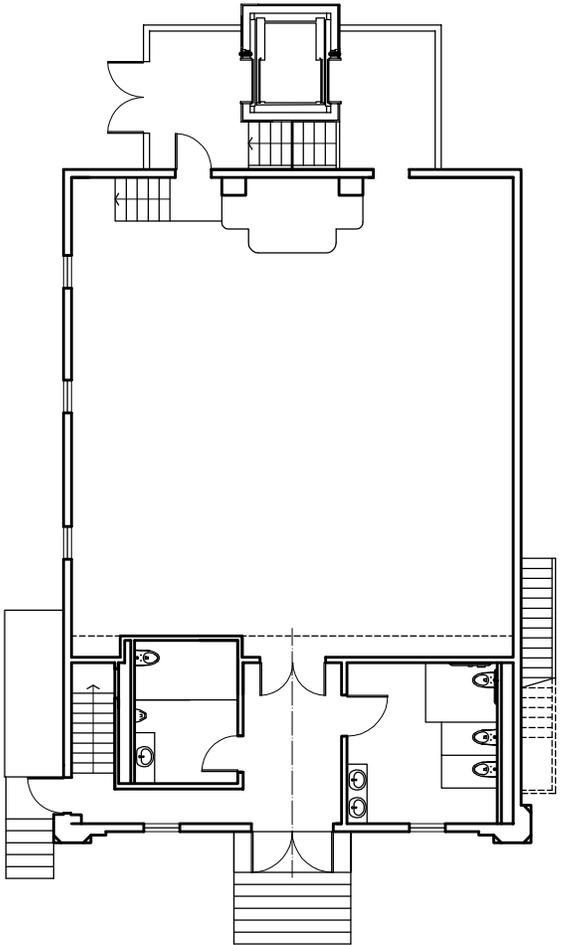
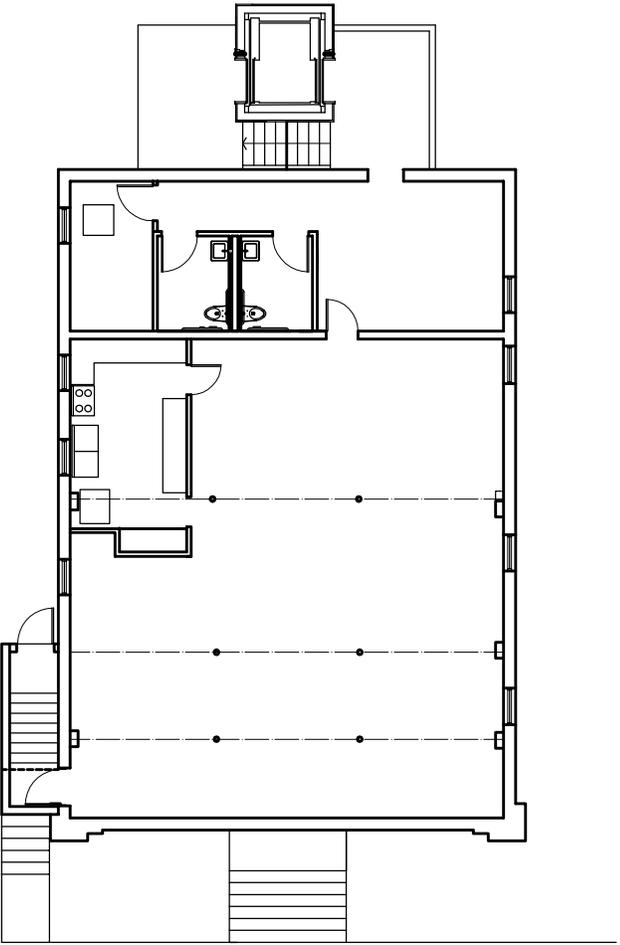
GAR Hall
 Access concepts
 Alternate B 1"=16'



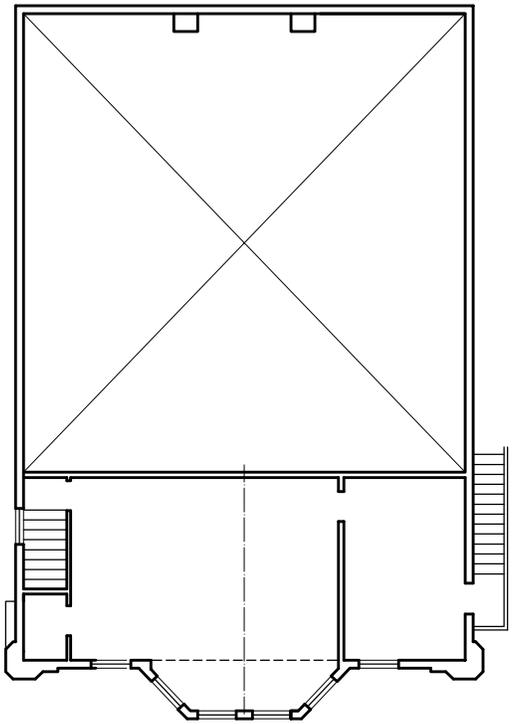
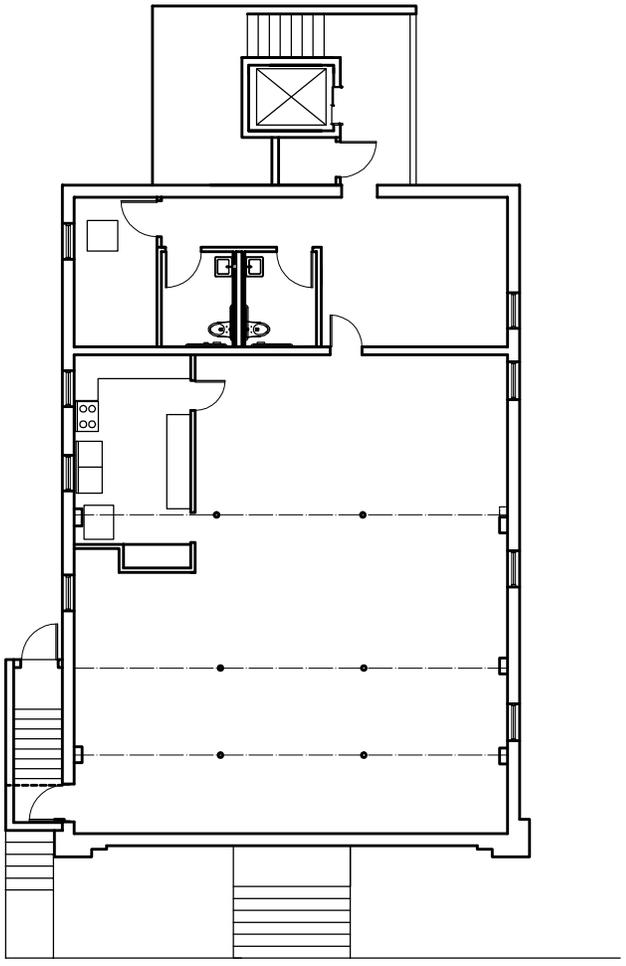
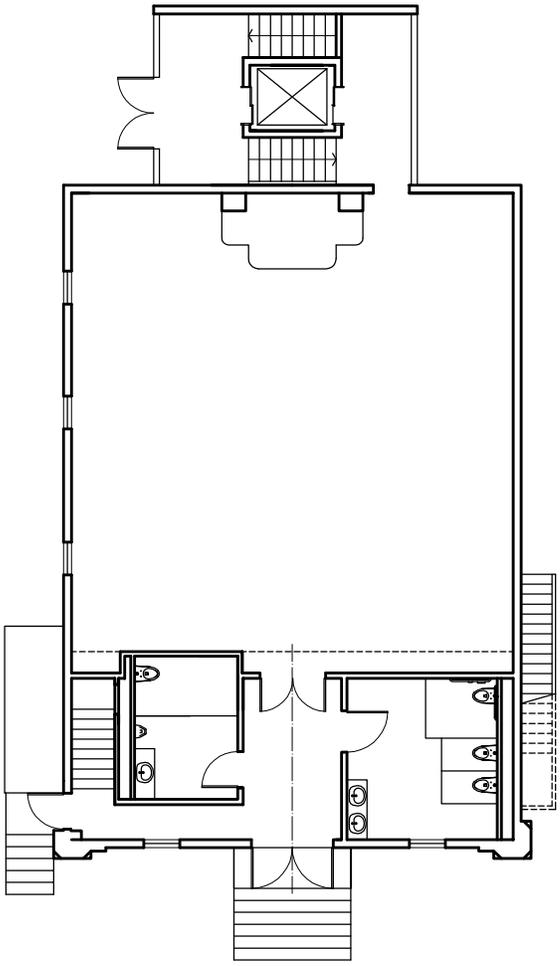
GAR Hall

Access concepts

Alternate C 1" = 16'



GAR Hall
 Access concepts
 Alternate D 1" = 16'



GAR Hall
 Access concepts
 Alternate E 1"=16'

Adams & Smith

Architects/Consultants

**GAR Hall
Beverly, MA**

Community Group Questionnaire

18 August 2016

Name of group:	Type of activities:
Number of group members:	Number of people at typical event:
Frequency of events:	Time of day and duration:
Parking spaces needed:	Accessibility needs:
Configuration : ___ people around table ___ people seated in rows facing lecturer ___ people seated facing musicians ___ display on walls ___ Open floor space Other (describe)	Equipment and/or furniture needed:
Security needs:	Food service? Kitchen needs:
Lighting/sound needs:	Other needs:

<i>Name of Group</i>	Beverly Community Council	Beverly Philosophy Salon	Family Promise
<i>Number of members</i>	30	~ 50 +-	1000
<i>Number of people at typical event</i>	40	60	350-450
<i>Type of activities</i>	Lunch & Learn Events	micro conferences	Gala
<i>Frequency of events</i>	1X / Every other month	approx 13 but we would consider this venue as a 1-time event and then assess	1 x per year
<i>Time of day and duration</i>	Thursday, noon to 1:30	a day long event	Evening hours, 6-10pm
<i>Parking spaces needed</i>	Some, yes. Given the public parking lots, I don't think it's critical to have more than a dozen. Important to have some for those who cannot walk.	0	200-300
<i>Accessibility</i>	If it's a city building, it should be as accessible as possible.	wheelchair	Yes
<i>Configuration</i>	People around a table; Display on walls	People around a table; People seated in rows facing lecturer	People around a table; Open floor space
<i>Equipment and/or furniture needed</i>	It would be great if it had the ability to plug in for projection display and sound accessibility	Podium, window treatments	Projector screens, sounds system, etc
<i>Security needs</i>	None	None	None
<i>Food service or kitchen needs?</i>	It would be great to have basic kitchen accessibility, but we don't need it, we have food brought in		Yes
<i>Lighting/sound needs</i>		audio and digital projection system, lights that dim	Yes
<i>Other needs</i>			

<i>Name of Group</i>	Matthew O Anderson trustee Summit Ave Condominiums Trust	Holly Stern - Harrington Events	Zen Center North Shore aka Marblehead Zen Center
<i>Number of members</i>	23	1	18 dues paying, 30 regular drop ins
<i>Number of people at typical event</i>	15-18	50-300	15, ideally we would like to bring in well known speakers who would draw crowds ! ;)
<i>Type of activities</i>	Trustee , Owners Meetings, Committee and Project Meetings	I am an event planner who organizes all types of events.	lectures, children & youth - arts crafts, movement, yoga, potluck dinners
<i>Frequency of events</i>	2 to 5 meetings a month	Often	some 1x a week, some monthly
<i>Time of day and duration</i>	week nights or week days		late afternoon and evening, Saturday day time
<i>Parking spaces needed</i>	some can walk 5 spaces to 15,	100	10
<i>Accessibility</i>	None		Wheelchair
<i>Configuration</i>	People seated in rows facing lecturer	People around a table; People seated in rows facing lecturer; People seated facing musicians; Display on walls; Open floor space	People seated in rows facing lecturer; People seated facing musicians; Display on walls; Open floor space
<i>Equipment and/or furniture needed</i>	black board, tables , screen for slides	Tables, chairs, lights on a dimmer, catering kitchen, coat check, dance floor, sound system to plug personal devices into , microphone capability...	chairs and tables, yoga mats & props
<i>Security needs</i>	None	None	None
<i>Food service or kitchen needs?</i>	water cooler and toilets	catering kitchen	it would be great to have a kitchen available
<i>Lighting/sound needs</i>	Dimmer	At the very least lights on a dimmer	
<i>Other needs</i>	None at present	I am an event planner with extensive experience in venue rental and event needs. Feel free to reach out for consultation.	

<i>Name of Group</i>	Colleen Michaels/Improbable Places Poetry Tour		
<i>Number of members</i>	1		
<i>Number of people at typical event</i>	50-100		
<i>Type of activities</i>	Poetry readings		
<i>Frequency of events</i>	4-6 times a year		
<i>Time of day and duration</i>	Varies, about 2 hours		
<i>Parking spaces needed</i>	Yes		
<i>Accessibility</i>	Yes		
<i>Configuration</i>	People seated in rows facing lecturer		
<i>Equipment and/or furniture needed</i>	Chairs		
<i>Security needs</i>			
<i>Food service or kitchen needs?</i>			
<i>Lighting/sound needs</i>			
<i>Other needs</i>			

Adams & Smith LLC

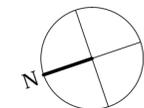
55 Thomas Road
Swampscott, MA 01907

Issue Date: 12 Dec 2016

Revisions:

G.A.R. Hall

6 Dane Street
Beverly, MA 01915



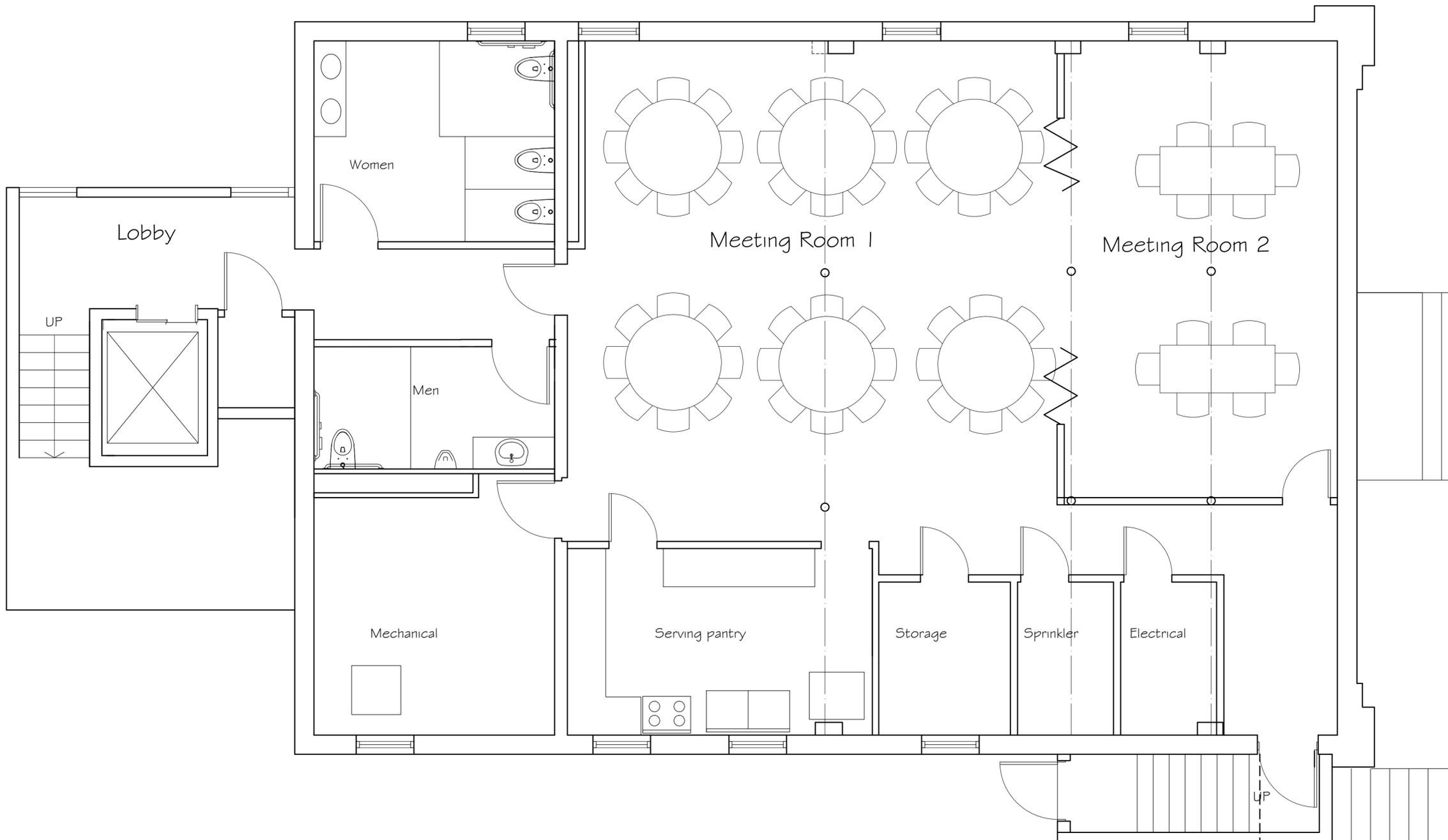
Job Number: 1606

Scale: 1/4" = 1'-0"

Drawing Name:

Proposed
Basement Plan

A-1



Adams & Smith LLC

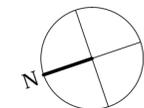
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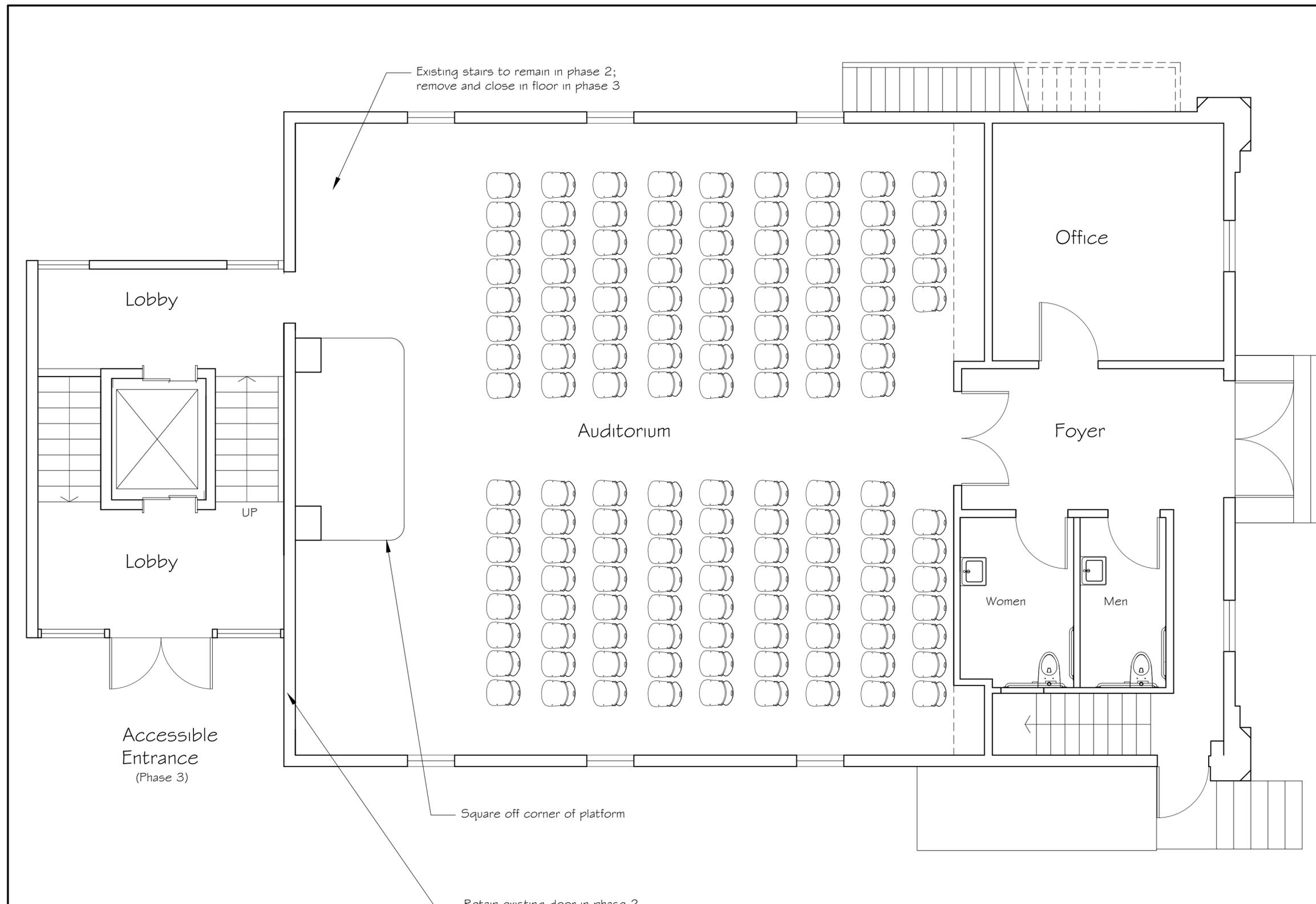


Job Number: 1606

Scale: 1/4"=1'-0"

Drawing Name:
Proposed
First Floor Plan

A-2



Adams & Smith LLC

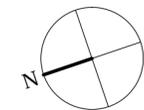
55 Thomas Road
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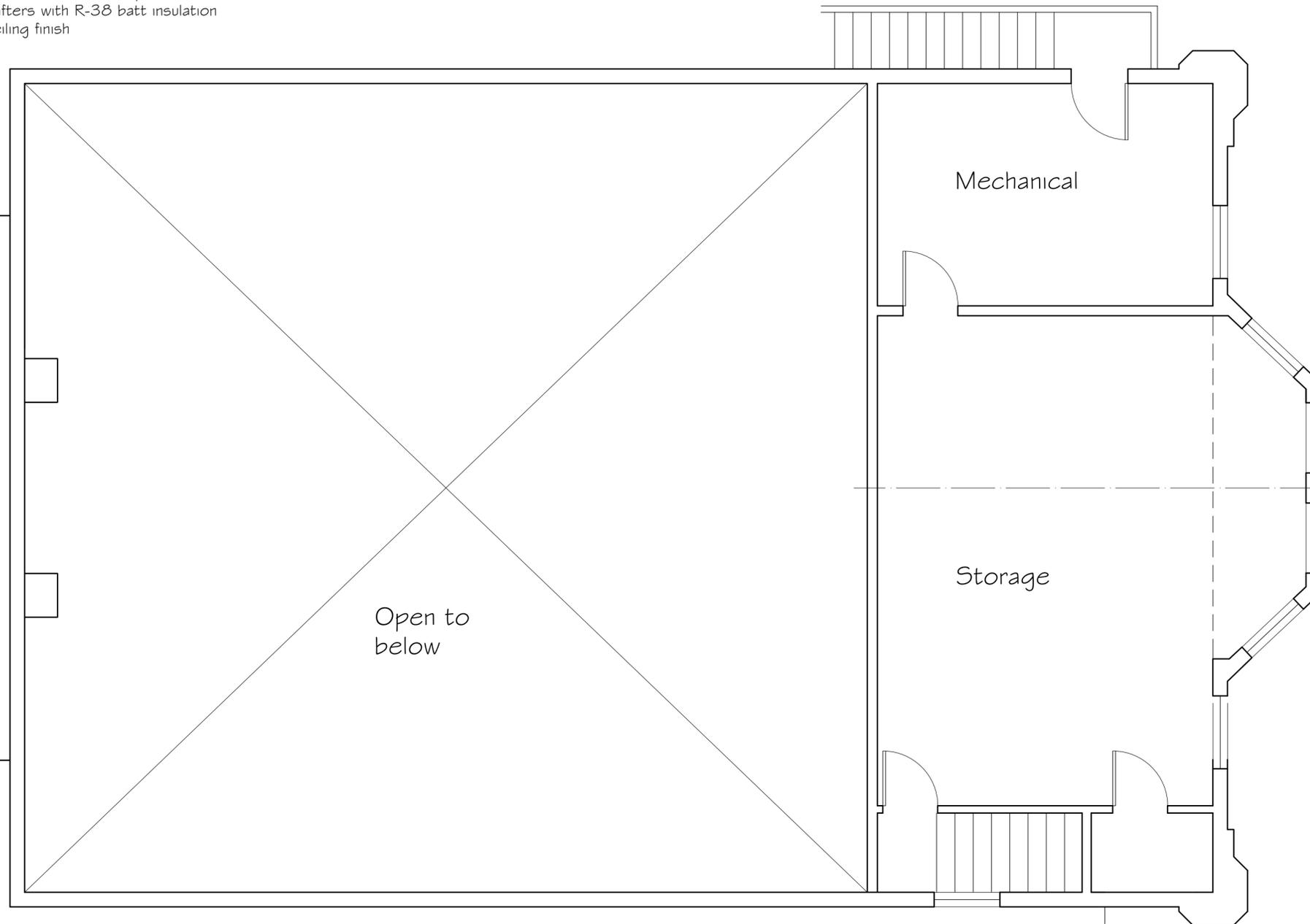
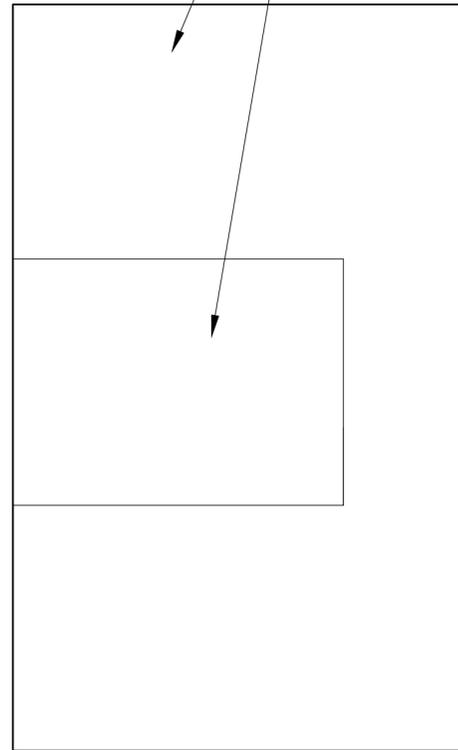
Job Number: 1606

Scale: 1/4"=1'-0"

Drawing Name:
**Proposed
Mezzanine Plan**

A-3

Roof- EPDM membrane on protection board;
2x10 rafters with R-38 batt insulation
GWB ceiling finish



Adams & Smith LLC

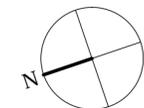
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Beverly, MA 01915



Job Number: 1606

Scale: 1/8" = 1'-0"

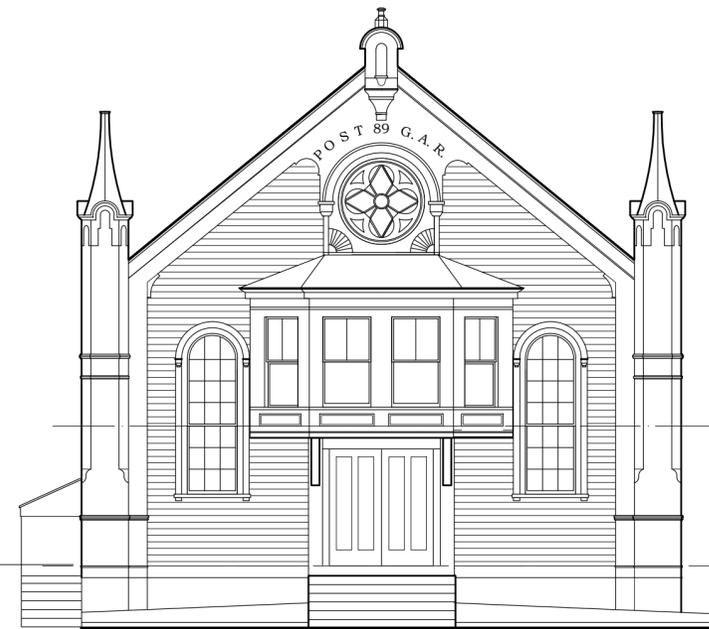
Drawing Name:

Proposed Phase 1 & 2
Building Elevations

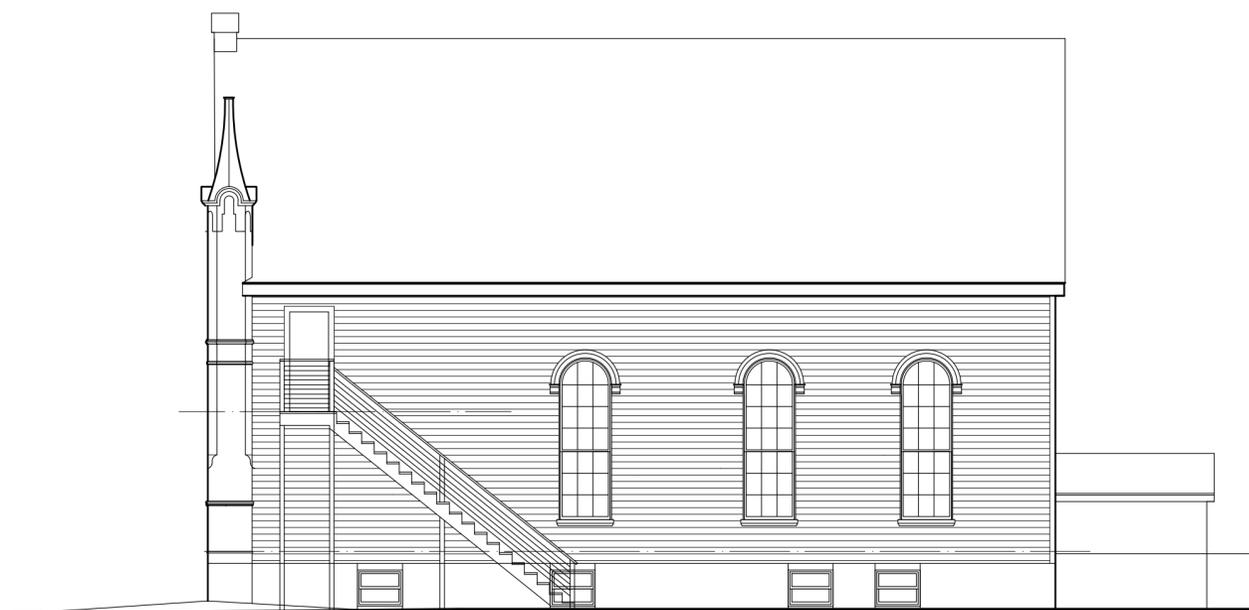
A-4



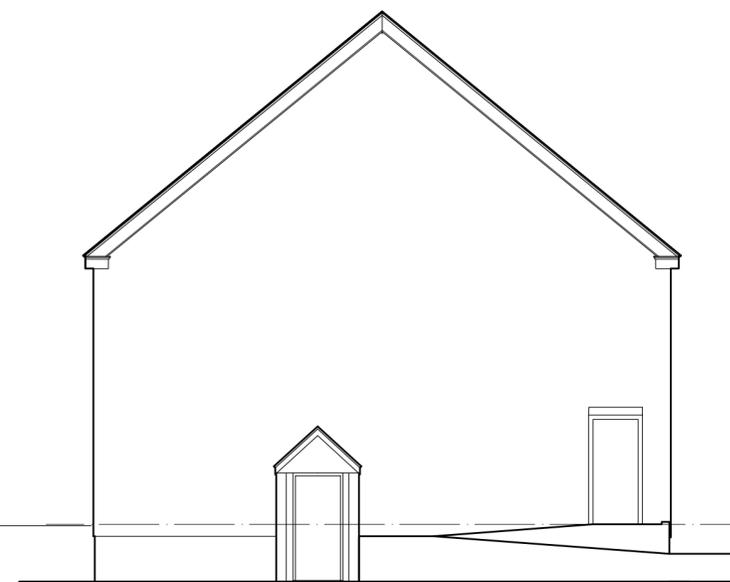
2 West Elevation
A-4 1/8" = 1'-0"



1 South Elevation
A-4 1/8" = 1'-0"



4 East Elevation
A-4 1/8" = 1'-0"



3 North Elevation
A-4 1/8" = 1'-0"

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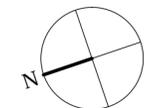
55 Thomas Road
Swampscott, MA 01907

Issue Date: 12 Dec 2016

Revisions:

G.A.R. Hall

6 Dane Street
Beverly, MA 01915

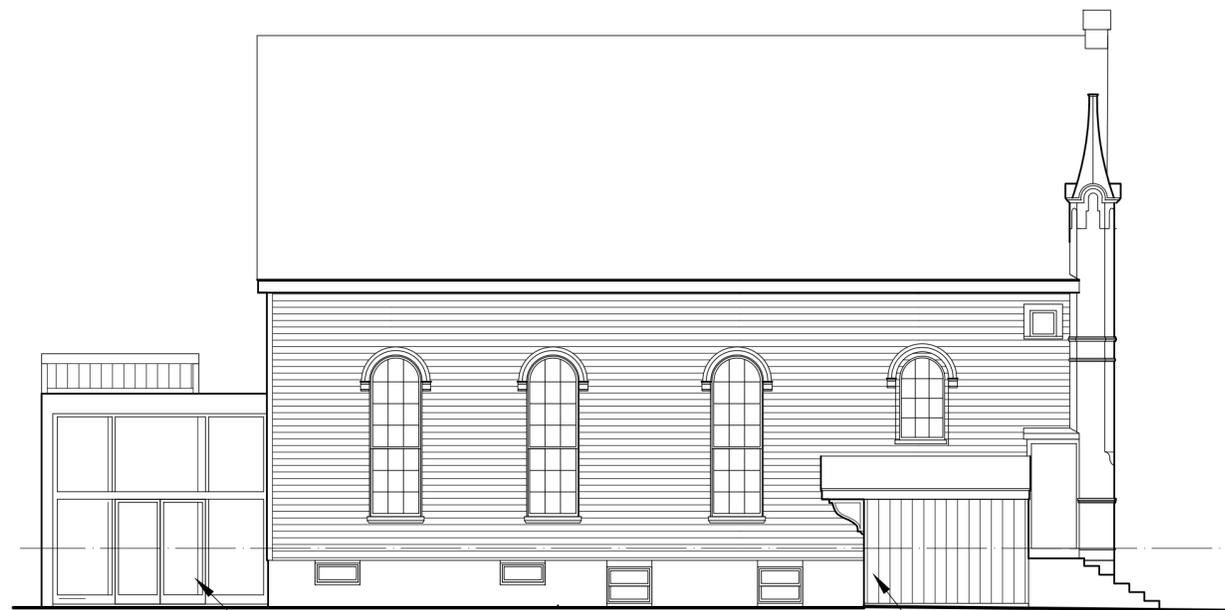


Job Number: 1606

Scale: 1/8" = 1'-0"

Drawing Name:
Proposed Phase 3
Building Elevations

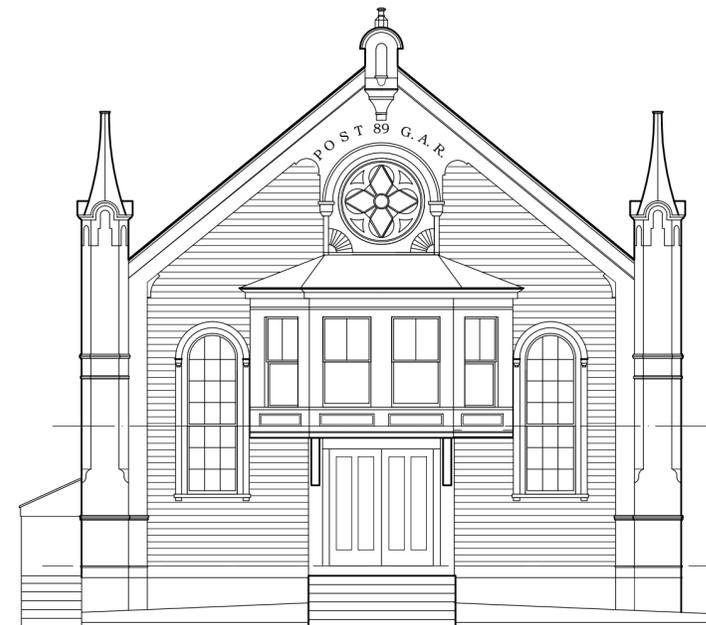
A-4A



2 West Elevation
A-4 1/8" = 1'-0"

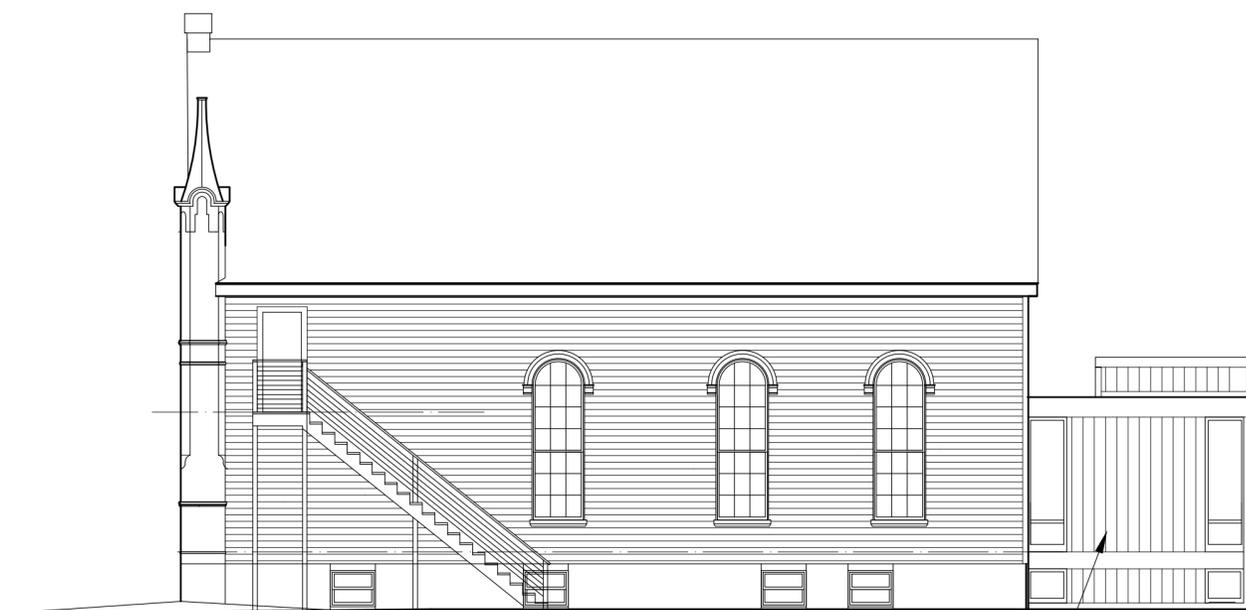
New accessible entrance (Phase 3)

Re-clad stair enclosure
new bracket at roof



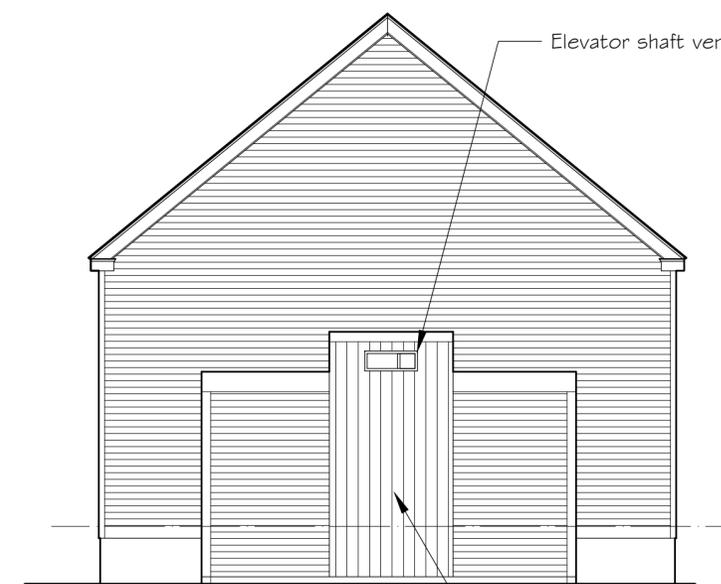
1 South Elevation
A-4 1/8" = 1'-0"

See detail elevation on A-6 for
Phase 1 facade restoration



4 East Elevation
A-4 1/8" = 1'-0"

Accessible entrance
addition (phase 3)



3 North Elevation
A-4 1/8" = 1'-0"

Elevator shaft vent

Accessibility addition-
cladding- shiplap cedar and
cedar clapboards painted



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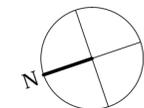
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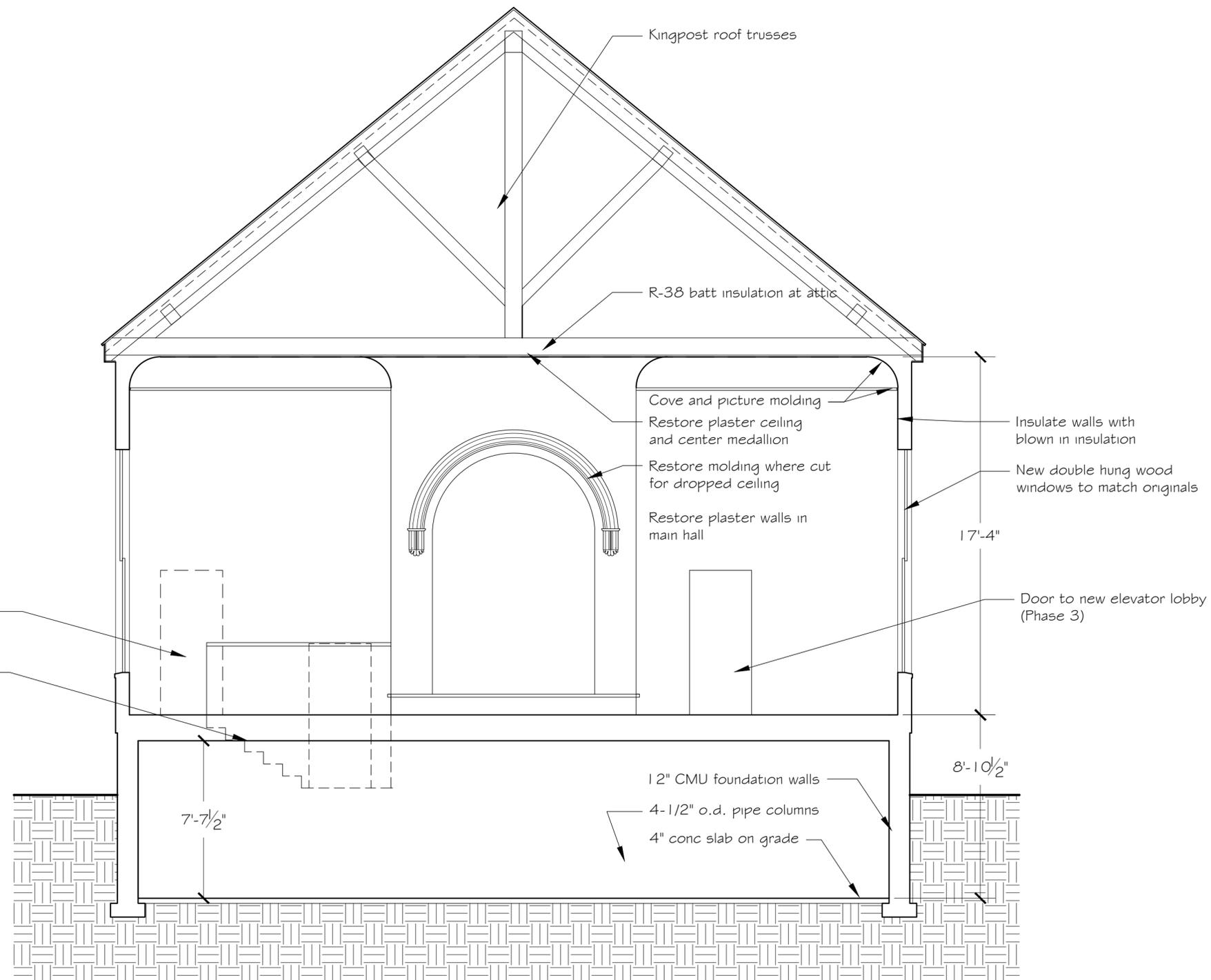


Job Number: 1606

Scale: 1/4" = 1'-0"

Drawing Name:
Building Section
Looking North

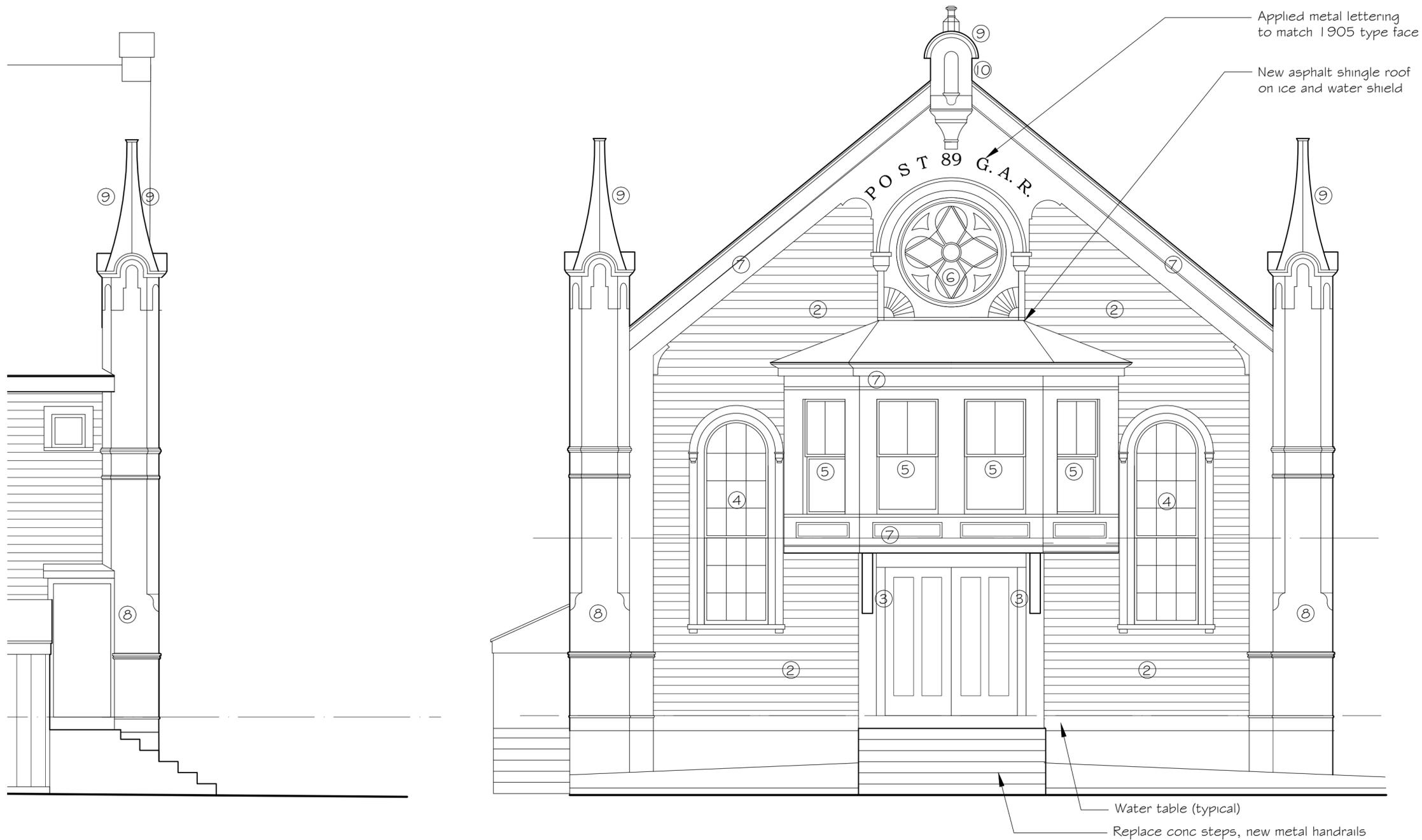
A-5



Existing exterior door to remain in phase 2; remove and close in wall in phase 3

New door and steps from accessible entrance (Phase 3)





2 West Elevation

A-4 1/8"=1'-0"

1 South Elevation

A-4 1/8"=1'-0"

Facade restoration scope

1. Remove the present wood shingles and examining the substrate, making repairs where required.
2. Wood clapboard siding applied over the original flush wood siding, with a water table at the base
3. Inspect structural condition of wood brackets under projecting bay.
4. Restore the two double hung windows, including the sash and casings. repair or replicate sash, frame and casings.
5. Replace vinyl windows in the bay with 2 over 1 wood windows to replicate the originals.
6. Reconstruct the rose window and the decorative trim and panels around it. use fragments of sash stored in the attic, as a basis for reconstruction.
7. Repair the wood trim at the rakes of the front gable. The existing trim appears to be original, with deterioration in some areas. There is also evidence of an unusual decorative paint pattern on the rake woodwork which should be further explored.
8. Reconstruction of the wood detailing at the flanking spires, including flush wood vertical finish, molding bands, and the lambs tongue profile that originally ended the chamfers at the corners.
9. Replacement of the decorative metal roofing and flashing at the spires and the central acroterion.
10. Reconstruction of the acroterion, with cast fiberglass decorative details.
11. Paint facade and metal roofing. Paint sampling during design to determine the original color palette.



Adams & Smith LLC

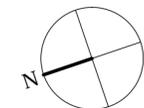
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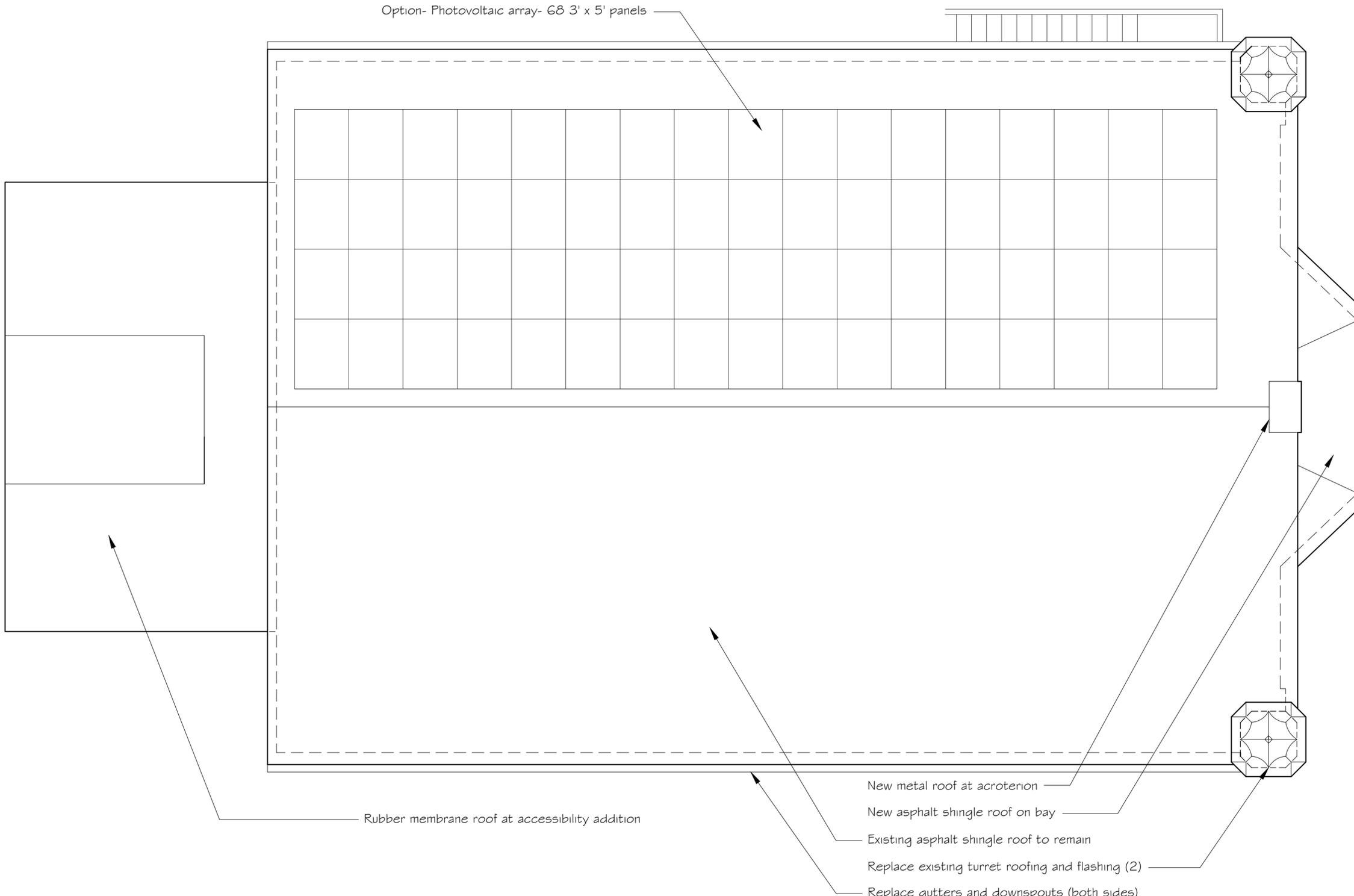
Job Number: 1606

Scale: 1/4" = 1'-0"

Drawing Name:
**Roof Plan with
PV Array**

A-7

Option- Photovoltaic array- 68 3' x 5' panels



Adams & Smith

Architects/Consultants

GAR Hall Renovations Scope of Work and Major Materials 1 November 2016

Scope of project and phases:

1. Front façade historic restoration
2. Side façade restoration and restoration of first floor, including main hall, entry, new accessible toilets. Retain existing concrete ramp and rear door for first floor accessibility. New utility rooms in basement for new building systems. New 1st floor HVAC and lighting. New sprinkler system both floors.
3. Rear addition- doors at grade, elevator, stairs and lobbies, rear elevation of existing building. Remove existing communicating stair from first floor to basement; new door and stair from new lobby to first floor hall. Basement renovations, toilet rooms and misc. accessibility improvements. Basement HVAC system.

02050- Demolition

1. Removal of existing wood shingles
2. Removal of existing partitions where noted.
3. (Phase 2) Removal of 3 existing windows at side elevation
4. (Phase 3) Removal of existing concrete ramp and rear basement bulkhead.

02200- Earthwork

1. (Phase 3) Excavation and backfill for new rear vestibule and elevator.
2. (Phase 2) Trenching and backfill for new utilities.

02500- Paving and surfacing

1. (Phase 2 & 3) Asphalt paving at areas disturbed by new work on west side.

02600- Utilites

1. (Phase 2) New electric service
2. (Phase 2) New gas service
3. (Phase 2) New 6" fire service and 2" domestic water service
4. (Phase 2) New 4" sewer connection to street

02900- Landscaping

1. (Phase 1) Grade and plant front of building
2. (Phase 3) Grade, loam and seed behind addition

03100- Concrete

1. (Phase 1) Repair existing concrete front steps
2. (Phase 3) New footings and foundation walls at addition and elevator pit
3. (Phase 3) Cut and patch slab on grade in basement for utility work

04200- Masonry

1. (Phase 3) Alternate- in lieu of steel frame and gypsum drywall infill, construct elevator shaft with 8" CMU
2. (Phase 3) New door openings in existing CMU partition in basement; infill former locations

05500- Metal fabrications

1. (Phase 3) Steel frame at elevator shaft and exterior walls and roof of addition.

06100- Rough Carpentry

1. (Phases 2 & 3) New framing at interior partitions- 2x4 and 2x6 studs 16"± o.c.
2. (Phase 2) Repairs to existing wood framing where required.
3. (Phase 3) New framing at addition: 2x6 wall construction infilling steel frame, 2x10 roof framing, 2x10 framing at first floor landing/
4. (All) Blocking, joist hangers, bolts and connectors
5. (Phase 3) Plywood sheathing: ½" CDX at exterior walls; 5/8" at roof
6. (Phase 3) Dupont Tyvek drainwrap or equal over sheathing at all exterior walls.
7. (Phase 3) Wood framed interior stairs at addition.
8. (all) Shoring and temporary protection and closures.

06200- Finish Carpentry

1. (Phase 1) Restoration of front facade- mahogany or Spanish red cedar; back primed all sides. Turrets- vertical T&G red cedar.
2. (Phase 1) Window casings, corbels, rake moldings, and miscellaneous exterior trim- Spanish red cedar, profiles and dimensions to match historic pieces.
3. (All) Preprimed cedar clapboard siding; exposure to match original.
4. (All) Preprimed 1x pine for corner piers, door and window casings, soffits columns and other exterior trim. Cornice moldings to match existing at eaves and rakes.
5. (Phase 1) Reconstruction of rose window and associated exterior detail
6. (Phase 1) Remove, rehang and reverse swing of front entrance doors. Modify frame as required.
7. (Phase 2) Reclad and reroof existing stair enclosure at side basement exit. Cladding vertical T&G red cedar. Decorative wood bracket at roof overhang.
8. (Phase 2) Wood floor at first floor- match existing; hard pine assumed.
9. (Phase 3) Accessibility addition exterior cladding- T&G vertical red cedar.
10. (Phase 2 & 3) Interior moldings and profiles for painted finish- poplar or #1 white pine
11. (Phase 2 & 3) Install new doors and hardware.
12. (Phase 3) Plastic laminate clad counters at basement toilet rooms.

07100 - Waterproofing, Dampproofing and Caulking

1. (Phase 3) Vapor barrier under slab on grade- Stego Wrap Vapor barrier by Stego Industries or equal.
2. (All) Exterior sealant between all dissimilar materials.
3. (All) Caulking at interior of all exterior door and window frames.
4. (Phase 3) Mastic dampproofing at all below grade foundation walls.

07300- Insulation

1. (Phase 2) Attic: R-38 batt insulation
2. (Phase 2) Exterior walls: R-13 at existing cavities
3. (Phase 3) R-20 in addition walls, R-30 rigid on roof

07500- Roofing

1. (Phase 1) Restoration of metal roofing and flashing at front façade turrets and acroterion; copper, to be painted
2. (Phase 2) Basement exit stair roof: architectural grade asphalt shingles on 15# felt; ice and water barrier 3'-0" wide at perimeters and valleys
3. (Phase 3) Addition roof- .060 EPDM roof fully adhered on roof deck.
4. Phase 3) Base flashings and expansion joints - neoprene to match flat roofing system.
5. (Phase 3) Prefinished metal gravel stop at addition roof
6. (Phase 3) Gutters and downspouts: seamless acrylic finish aluminum

08100- Wood doors

1. (Phase 2) New doors for first floor toilet rooms - 4 panel to match existing.
2. (Phase 3) New doors at basement- flush solid core wood with applied moldings; painted.

08500- Wood Windows

1. (Phase 1) Restore two windows at front façade- sash and frames.
2. (Phase 1) Remove existing vinyl windows at bay- 2 over 1 double hung wood windows to match originals
3. (Phase 1) Replicate rose window from fragments in attic
4. (Phase 2) New windows at side elevations to match original sash, profiles, casings, and details.
5. (Phase 3) Doors and windows at accessibility addition- aluminum clad wood system, Eagle or equal, low E insulating glass

08700- Door hardware

1. (Phase 1) Front entrance doors- new hardware, closers and panic devices
2. (Phase 2& 3) Pantry and toilet room doors- (each) 1-1/2 pair hinges, drilled lever handle lockset, closer
3. (Phase 3) new pair exterior doors- hinges, closers, panic devices, kick plates
4. Locksets and latchsets - Schlage Commercial Grade, lever handles.
5. Closers – LCN 1460.
6. Hinges - Stanley Commercial Grade FBB or equal
7. Crash bars- Stanley PHI Olympian- M308x4908xRHx613xS982
8. Finish to be US 10 throughout.
9. Thresholds and weatherstripping at all exterior doors- Pemko or equal, ADA complaint thresholds.

08800 - Glass and Glazing

1. Reconstructed rose window- 3/16" clear glass

2. Borrowed lites: 3/16" laminated safety glass.
3. Mirrors at toilet rooms - 3'-8" high, 24" wide
4. 24" X 41" glazing panel in doors at classrooms- laminated safety glass.

09200- Plaster

1. (Phase 2) Patch existing plaster walls and ceiling in main space and front entry, including center medallion and cove at wall-ceiling. Patching for electrical and plumbing work.

09250- Gypsum Drywall

1. New drywall partitions at toilet rooms, mechanical rooms and storage
2. All ground and first floor walls and partitions - 5/8" gypsum board, 3-5/8" metal studs. Firecode GWB where noted- see partition types.
3. Acoustic batts - 2" typical at offices, toilet rooms, corridors.
4. Acoustic caulking - at all perimeters of gypsum partitions.
5. Soffits - 5/8" gypsum board over furring.
6. Toilet rooms - M.R. gypsum board.
7. Alternate- blue board and skim coat plaster.
8. (Phase 3) 2 hour shaftwall construction at elevator shaft.
9. (Phase 3) new lobbies- gypsum board finish over poly vapor barrier
10. Alternate wall finish- blue board and skim coat

09300 - Ceramic Tile

1. Toilet room floors - 2" x 2" Granitones by American Olean, 4" cove base
2. Toilet room walls- 3" x 6" subway tiles full height on chase walls

09600- Wood floors

1. Refinish existing wood floors at first floor

09650 - Resilient Flooring

1. (Phase 3) Basement meeting rooms- Armstrong Premium Grade VCT
2. Armstrong Commercial Grade VCT in custodian areas
3. 4" vinyl base, typical except at ceramic tile areas

09900- Painting

1. Gypsum board and plaster – latex, one prime and two finish coats, eggshell.
2. Toilet room gypsum board- epoxy paint
3. Interior woodwork for natural finish – Stain and strain controller, one coat sealer, two coats varnish. Match existing color & gloss.
4. New interior woodwork for painted finish- Prime and two finish coats, color & gloss to match existing.
5. Existing exterior woodwork- prep surface and spot prime, one coat finish.
6. New painted exterior woodwork- latex, one coat primer, two coats finish, semigloss
7. Metal - one coat zinc rich primer, two finish coats.
8. Manufacturer - Benjamin Moore, ICI, Pittsburg, or equal.
9. Back prime all new and reinstalled exterior woodwork

10160- Toilet Partitions

1. Toilet partitions- Steel with baked enamel finish, honeycomb core. Global , Metpar or equal

10200- Louvers

1. Louvers- stormproof, with insect screens. Kynar finish on aluminum

10650-Operable Partitions

1. (Phase 3) Classroom partition- Modernfold Soundmaster 12 Series- STC 40
2. (Phase 3) Alternate- Modernfold Acoustiseal 900 series panels on ceiling track- STC 45-52

10800 - Toilet Accessories

1. Bobrick or equal - stainless steel finish.
2. One toilet paper dispenser per stall or toilet room
3. One paper towel dispenser and disposal per toilet room.
4. One soap dispenser per sink, mounted in sink.
5. Changing unit in new basement toilet rooms

10900 - Miscellaneous Specialities

1. Directory 24" by 36".
2. Signage- one per door, ADA compliant, 6" x 8"
3. Fire extinguisher cabinets- recessed.
4. Marker boards at classrooms.

15200- Plumbing

1. Toilet - vitreous china, floor mounted, white with flush valves, Kohler Wellworth or equal.
2. Lavatory - vitreous china – wall hung, American Standard or Equal. Faucets - automatic shut-off - Chicago, chrome finish.
3. In vanity counter- American Standard Ovalyn or equal, self rimming.
4. Pantry sink- Stainless steel, 25 x 21, Elkay or equal, Moen lever handle faucet
5. Water supply piping - copper.
6. Drain, waste and vent – cast iron and copper. New 4" main to street; backflow preventer at basement fixture branch
7. Floor drains at basement toilet rooms and boiler room- self priming traps
8. Tankless high efficiency water heater - A. O. Smith or equal.

15400 - Fire Protection System

1. (Phase 2) Water service entrance with backflow preventer.
2. (Phase 2) Sprinklers – code mandated design with concealed heads; one head per 130 square feet, dry pipe zone in attic spaces above insulation line
3. Fire department connection

15400- HVAC

1. (Phase 2) New gas fired condensing boiler
2. (Phase 2) New air handler unit on mezzanine serving first floor- hot water and DX cooling coils, exterior condenser, insulated distribution ductwork in attic.
3. (Phase 2) Fin tube perimeter radiation serving first floor and mezzanine
4. (Phase 2) Ceiling mounted energy recovery ventilator
5. (Phase 2 & 3) Toilet room exhaust systems with fans.
6. (Phase 3) New air handler unit in basement- hot water and DX cooling coils, exterior condenser, insulated ductwork in perimeter soffits
7. Direct digital control system.

16100- Electrical

1. New 200 amp 3 phase service and distribution panels
2. New telephone at CATV service
3. Lighting to IES standards, energy efficient fluorescent, with decorative lighting in main public areas.
 - a. Auditorium: Pendant translucent bowls with biax fluorescent source)- OCL or equal.
 - b. Sconce fixtures: same series as bowl fixtures
 - c. Downlights: recessed, PL lamped
 - d. Track system with gallery lighting in auditorium and entry foyer
 - e. Basement meeting rooms: Litecontrol Mod 72 or equal.
 - f. Decorative uplighting from ground at front facade - Kim Lighting LTV 730 series, 6 total
4. Lighting controls
 - a. Occupancy sensors for toilet rooms, ground floor meeting rooms and office.
 - b. Exterior photocell and timed function.
5. Emergency Lighting via individually battery backed ballasts and battery backed exit signs.
6. Power for HVAC equipment and controls.
7. Power and communications wiring and conduit with provision for computer wiring and power requirements.
8. Empty conduit for telephone, communications and cable TV system.
9. Option: Rooftop solar array on east side of roof- max 68 -3' x 5' panels

16100 - Fire Alarm System

1. New addressable fire alarm system with control panel and annunciator panel.
2. New manual pull stations, detection and signalling devices compliant with ADA.
3. Sprinkler flow and tamper monitoring
4. Duct smoke detection and AHU shutdown.
5. Annunciator and microphone control panel at main entrance.
6. Tie to Beverly Fire Department.

16200 - Security System

1. Provide basic system with 10 motion sensors throughout the building and exterior door and ground floor window contactors.

16 December 2016

Adams and Smith
55 Thomas Road
Swampscott, MA 01907

Attention: Richard Smith

Reference: GAR Building Beverly, MA

Dear Richard:

We have completed our investigation analysis at the GAR Building in Beverly and have the following observations and recommendations:

General Structural Description and Condition

The GAR Building is a former church with a north-south running gabled roof, and the formal front façade facing Dane Street on its south end. There is a basement, first floor and a mezzanine under a tall roof-trussed attic.

The first floor is constructed of sawn lumber joists running in the north-south direction between sawn timber beams that run east-to-west. There are five framing bays ranging from 6'-6" in span to 13'-9", with joists that appear to be spaced on approximate 16" centers. The northernmost framing bay has 2" x 10 1/2" joists and is separated by a load bearing masonry wall from the remaining four beam-supported bays which have 2" x 9 3/4" joists.

The first floor joists are butt-cogged into the sides of the beams, which have 12'-0" to 12'-4" spans between round metal columns. According to our microscopic examination of wood samples, the first floor framing members appear to be Eastern Spruce, but may also include some Pine or Hemlock, as we did not do an exhaustive sampling.

The roof is constructed of repetitive rod and timber trusses landing on the building's east and west walls, with the sawn lumber framed attic floor spanning between.

Based upon my visual observations, all of the exposed structural members and components appeared to be generally sound condition with the exception of the attic floor and mezzanine ceiling furring just to the west of the attic access scuttle, which are partially rotted and water damaged.

Proposed Floor Loading and Existing Capacity

According to our structural analysis and a somewhat modestly liberal assumption of #1 grade, the first floor joists have a safe live load capacity of approximately 65 pounds per square foot (psf) in bending but only a capacity of approximately 15 psf in shear, due to the half-depth butt cogging of the joists.

Also with an assumption of #1 grade, the beams have a calculated of approximately 35 psf.

With the proposed use of the first floor being assembly, there would be the option of flexible seating or fixed seating. Flexible seating requires a live load capacity of 100 psf, whereas fixed seating only requires 60 psf.

- 100 psf would have the joists being sistered, along with the beams. One should also look at the footings and columns below the beams for the increased loads. Joist sisters could be single 2x10s on each joist whereas beam sisters would need to be steel channels on each side. These will need to be supported on new columns, column sisters, or bearing-connected to the existing beams depending upon the columns' capacities.
- 60 psf would have the beams being sistered but not joists, which would be sufficient in bending but not shear. Because the joist ends would need to be cut in order for the beams to be sistered, they could be re-supported on full depth hangers, which would eliminate the reduction in shear that the present notched/ cogged ends create. Beam sisters could be 3 1/2" x 9 1/4 PSLs on each side. The over-the-column sister connections will need to be detailed for proper load transfer.
- The 6'-6" span joists would not need to be sistered in either case, however the notched, cogged joist ends would need to be given hangers.

We have not looked at the mezzanine as the structure was not exposed. If any added load is considered for the mezzanine, then load path to the basement should be investigated as well.

The attic floor and bottom truss chords are minimally framed. Should the attic floor ever be turned into an occupied space, the joists would require full sistering along with significant reinforcement of the trusses and side walls to support any reasonable live load as this was not the intent of the original construction.

Seismic Considerations

The reassignment of the building to an assembly use from its present office use would trigger a full seismic analysis unless the structure's earlier use as a house of worship

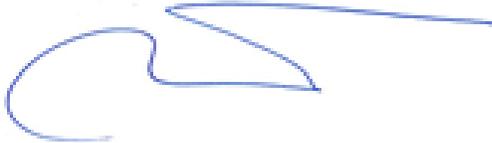
could be “grandfathered” forward, which is doubtful.

Seismic compliance would require the exterior walls to act as shear walls in order for the building to function as a “box” type structure. Given that the walls are sheathed with nailed boards between tall window openings, a layer of blocked and nailed plywood would likely need to be added at the interior or exterior up to at least the roof eave level. In addition, the sill would need to be bolted to the existing perimeter foundation.

Understandably the above is based upon limited observations and should a project result from this that goes into design, much more of the structure should be exposed.

Thank you for the opportunity to provide this assessment. Please contact me if you have any questions or we can be of further assistance.

Respectfully Yours,
Structures North Consulting Engineers, Inc.



John M. Wathne, PE, President

JOHNSON ENGINEERING AND DESIGN, INC.

5 Elm Street, Suite 14, Danvers, MA 01923

E-mail: ejohnson@johnsonengineering.biz

Telephone (978) 646-9001

Facsimile (978) 646-9002

**G.A.R. HALL
8 Dane Street
Beverly, MA 01915**

Mechanical, Electrical and Plumbing and Fire Protection Systems Assessment

**Prepared for: Richard Smith
Adams & Smith LLC
55 Thomas Road
Swampscott, MA 01907**

Date: October 17, 2016

Job #: JE-2808

**Prepared by: Johnson Engineering and Design, Inc.
Eric D. Johnson
Electrical Engineer
MA Engineering License No. 32641**

Introduction

This report prepared by Johnson Engineering and Design, Inc. is based on an existing conditions survey conducted on site on September 30, 2016. Building systems were visually inspected and condition noted. Recommended solutions are also included and based on an overall building renovation to take place in the near future.

Mechanical

We conducted a site building heating, ventilating and air conditioning systems inspection for the G.A.R. Hall facility located on at 8 Dane Street in Beverly, Massachusetts on September 30, 2016. The dual scope of services in this analysis consisted of not only documenting and accessing the existing HVAC system, but also to advise and propose a new up to date and efficient system consistent with the latest codes for building environmental and comfort standards.

Existing Conditions

Presently the G.A.R. Hall is occupied and being utilized for offices by the towns building department. The present steam cast iron radiator circuit is a heating only system in part approximately 145 years old. The oil fired steam boiler now in service is not that old and was installed in 1985 (31 years old). This boiler is past its nominal expected life. The toilet rooms all have in ceiling exhaust fans. The large open assembly space is at present being used as open office space and is served by a new multi-zone ductless split heat pump system in addition to the steam radiators. The entire steam heating system is obsolete and needs replacement.

Recommendations

Current plans the Building Department will be moving to new town offices and the G.A.R. Hall will be restored and returned to its original assembly/gathering use. In consideration of the future for this historical building, we recommend that a completely new, efficient and up to code system be installed. The new system should include an up to code ventilation system considering the possible large gatherings that may occur in the assembly area. In order to serve this historic facilities new use, we would recommend a new forced hot water perimeter fin tube heating system together with a forced air heating, cooling and ventilation system. We estimate a basement mechanical room of 15 feet by 8 feet would be required, a similar size room would also be required on the second level.

The forced hot water system would consist of a new high efficiency natural gas fired hot water boiler. The heating water is supplied to perimeter fin tube radiators and also to the heating coils within the air handling units. The air handling blower unit will house not only heating coils, but also direct expansion cooling coils. Fresh ventilation air will be delivered via a new ceiling mounted energy recovery ventilator. The DX coils will work

in conjunction with two new exterior condensing. New ceiling exhaust fans would be installed in all the toilets along with an area fan or ducted cooking hood in the kitchen. This proposed new heating, ventilation and cooling system would provide this facility and its occupants with an efficient, up to code and comfortable system well into the future of this buildings history.

Electrical

Existing Conditions

Electrical Service

The existing electrical system is a 200 amp, grounded, 120/240 volt, single phase system. There is one 24 pole electrical panel located in the basement at the service entrance location. The electrical systems are in adequate condition given the buildings current use as a temporary office facility for the Beverly Building Department.

The existing electrical service appears to be fed from a National Grid manhole near the buildings entrance drive at 8 Dane Street. The 200A service enters below grade at the front corner of the building.

CATV/Data Telephone

Recently, the City has installed CATV lines routed below the sidewalk area in front of the adjacent Dane Street Congregational Church and into the basement of the G.A.R Hall. This service is currently not in use but is in good condition. Telephone service is extended from the rear of the building, surface mounted on building exterior.

Security Lighting

Security lighting is currently installed on building exterior. Fixtures should probably be re-selected and coordinated with a comprehensive building improvement plan.

Exit and Emergency Lighting

Emergency lighting and exit signage are battery type, no emergency generator is existing. Existing fixtures are in good condition; however, the positions of exit signs do not clearly illuminate the front building two exit doors. Upgrading is required to make the building code complaint.

Fire Alarm System

The existing fire alarm system is comprised of a main, 4 zone, fire-lite type MS-4 panel. The panel is operational and connected to radio-type call out to the Beverly Fire Department.

Smoke detectors are located throughout the building as are notification appliances. These are in good condition, however, pull stations are older and should be replaced if failures are noted during routine testing.

Fixtures

Throughout the basement, existing screw-in type incandescent fixtures have been replaced by screw-in type LED fixtures. Fluorescent 2 x 4 fixtures are existing on upper floors. In the main assembly space 2 x 4 fixtures were installed in new ceiling grid for temporary building department offices.

Recommendations

Main Service

A building upgrade should include a new, larger electrical service, preferably three phase, to support a fully air conditioned building. We estimate the new service size to be 200A, 3 phase, 4 wire, 120/208 volt. The existing panel location appears to be adequate, but a second panel located in upper second floor is also recommended. New electrical room requirements are approximately 5 x 8 feet to serve electrical and telephone equipment.

Telephone and Data

The existing telephone line, surface mounted on the building exterior should be removed and replaced with a new below grade service. Consideration should be made to remove these telephone lines should the newly installed CATV lines have capability for both telephone and data. All existing surface mounted CATV and telephone lines should be re-routed within walls.

Fire Alarm

Upgrading of the fire alarm system is recommended. A new addressable system should be installed to replace the conventionally zoned system.

Lighting Fixtures

Lighting fixtures while in good condition should be replaced to be all LED type and also to better illuminate new architectural concepts and space usage. New branch circuit wiring should be installed concealed within wall and ceiling spaces.

Receptacles

Temporary power systems, installed for temporary office partitions, should be removed. Receptacles and all associated branch circuits should be replaced with new concealed branch circuit and receptacles to better serve Assembly use group.

Plumbing

Existing Conditions

The plumbing work in the building is generally original, or work that was performed over the years to modify and add elements to the plumbing system.

The domestic water service enters the building through the foundation wall on the Dane street side of the building and appears to be in good condition, is a 1 inch copper line, and connects to a ¾" water meter. The piping downstream of the meter is generally ¾ inch and ½ inch sized and supplies water to the existing bathrooms and kitchen sink in the Basement.

Most of the domestic water piping that is exposed is copper tubing, and appears to be in good serviceable condition. However, some connections between the copper tubing and fine threaded brass were noted. The fine threaded brass piping where noted are short lengths of pipe that run to concealed locations either above ceilings or within walls. The fine threaded brass piping is beyond its useful life.

The domestic hot water is generated by a gas fired 40 gallon storage type water heater that was installed in 1991, appears in fair and operational condition, but is beyond its normal life expectancy. The flue for this unit is connected to the main chimney of the building, it appears original, and is not considered viable as it is shared by the boiler and was originally constructed to serve a fireplace.

The gas service is extended to the building through the foundation wall on the Dane street side of the building and supplies a low pressure gas meter located in the Basement. The gas meter is rated to 300 CFH, and serves the water heater and gas range in the kitchen. The piping is exposed in some areas and concealed within walls and hard-ceilings in others so could not be fully viewed. Some of the exposed piping appears to have been installed with the last 25 years and in good condition, while other piping appears to be original to the building. This original piping is well beyond its life expectancy, and in some cases is still connected to old light fixture gas cocks with open ends. Due to portions of the piping system being concealed, it was not possible to determine what piping may be connected to the active portions of the gas piping system.

The sanitary waste and vent system piping is generally original, with some newer piping installed for the kitchen sink. There were some portions of the piping system that have been repaired and replaced. The piping system appears to exit the building below the basement floor on the Dane Street side of the building. The general condition of the piping system, as a whole, is beyond its useful life.

The kitchen sink waste piping does not include a grease trap, and it would be required. It connects to the sanitary system under the basement floor, and based on its position in the

building (below the sewer manhole in the street) is subject to backflow from the municipal sewer system.

There are two toilet rooms (one water closet and one lavatory, each) in the basement and they connect by gravity to the under floor sanitary system, and are also subject to backflow from the municipal sewer system.

During the visit, we could not determine if a backwater valve, to prevent backflow from the municipal sewer, is installed in the system.

There are no outdoor sill faucets installed.

The storm drainage from the roof areas are collected with exterior gutters and downspouts and these spill to grade in 4 locations around the building. There is one downspout boot located below a downspout, but the downspout is not directed to discharge into the boot, and the boot appears to be fully blocked with debris.

Recommendations

Based on the options for providing new toilet facilities throughout the building, the number of plumbing fixtures envisioned, the use of flush valves (in lieu of flush tank) for water closets, the condition and size of the existing piping systems, and potential sewage backflow into the Basement fixtures, the following is the recommended approach for the plumbing systems.

Domestic water service: Provide a complete new domestic water service from a new connection to the municipal water main in Dane street. This new connection would be a 2 inch size to adequately serve the intended fixtures, be fitted with a building isolation reduced pressure principal backflow preventer, a new water meter, and extend to all new plumbing fixtures within the building. All piping would be new.

Domestic hot water would be generated by a new tankless type, gas fired, high efficiency water heater. A new intake and flue would be provided and exit the building to the fresh air using PVC piping located at 4 feet (+/-) above grade. All piping would be new.

Sanitary waste system: The system would be all new and include a grease trap on the kitchen sink. All fixtures located in the Basement would be piped independent from the upper level fixtures, and include a single backwater valve to prevent backflow from the municipal sewer system. The upper floor sanitary system would connect to the Basement sanitary piping system, downstream of the back water valve, and a new 4 inch sewer connection to the municipal sanitary sewer in Dane Street would be proposed. This system would include floor drains in the Basement utility room, for serving the building isolation reduced pressure principal backflow preventer and boiler blow-off. This would require trenching a portion of the Basement floor. This trenching would also be needed to collect the waste from all Basement level plumbing fixtures.

Roof drainage: As the existing roof drainage is exterior to the building, and is intended to remain exterior, it is not part of the plumbing system, and would be addressed by the Architect and Civil Engineer, for site storm water management.

Fire Protection

Existing Conditions

There presently is no sprinkler system to protect building.

Recommendations

It is recommended that a full wet-pipe sprinkler system be installed in this building, to improve the life safety condition. This would require a new fire service connection to the water main in Dane Street, a cross connection control device, a sprinkler alarm valve, fire department pumper connection, and sprinklers positioned throughout the building in compliance with NFPA-13. Although, the building appears to be smaller than the minimum square foot area that would require the installation of sprinklers, it is betterment.

Selected Photographs

Photographs describing building systems are as follows:

Electrical System Photographs



P9300002 – Electric Service



P9300006 – Fire Alarm Panel



P9300013 – Surface Building Wiring

Mechanical System Photographs



P9300015 – Typical Cast Iron Radiator



P9300016 – Oil Fired Cast Iron Boiler



P9300017 – Oil Storage Tank and Gas Hot Water Heater



P9300020 – Exterior AC Condenser

Plumbing System Photographs



Basement Kitchen



Basement Toilet



Domestic Water Heater



Downspout over low roof



Downspout to grade



Gas Meter



Kitchen Sink Waste



Third Floor Toilet



Water Service

-End of Report-

GAR Hall Renovation
Beverly, MA

January 16, 2016

GRAND SUMMARY

PHASE 1 RENOVATION		\$203,485

	TOTAL DIRECT COST	\$203,485
GENERAL CONDITIONS	10%	\$20,349
GENERAL ADMINISTRATIVE O&P	7%	\$15,668
INSURANCE	1%	\$2,395
P&P BOND	1.5%	\$3,628
DESIGN CONTINGENCY	15%	\$36,829
ESCALATION (spring 2017)	3%	\$8,471

	TOTAL CONSTRUCTION COST	\$290,825
	COST/SF	N/A

PHASE 2 RENOVATION		\$690,330

	TOTAL DIRECT COST	\$690,330
GENERAL CONDITIONS	10%	\$69,033
GENERAL ADMINISTRATIVE O&P	7%	\$53,155
INSURANCE	1%	\$8,125
P&P BOND	1.5%	\$12,310
DESIGN CONTINGENCY	15%	\$124,943
ESCALATION (spring 2017)	3%	\$28,737

	TOTAL CONSTRUCTION COST	\$986,633
	COST/SF	\$375.29

PHASE 3 RENOVATION AND ADDITION		\$739,875

TOTAL DIRECT COST		\$739,875
GENERAL CONDITIONS	10%	\$73,988
GENERAL ADMINISTRATIVE O&P	7%	\$56,970
INSURANCE	1%	\$8,708
P&P BOND	1.5%	\$13,193
DESIGN CONTINGENCY	15%	\$133,910
ESCALATION (winter 2018)	7%	\$71,865

TOTAL CONSTRUCTION COST		\$1,098,510
COST/SF		\$434.71

PHASE 2 ALTERNATES:

ALTERNATE NO. 1 - ALTERNATE WALL FINISH - BLUE BOARD AND SKIM COAT	\$5,200
ALTERNATE NO. 3 - ADD SPRINKLER SYSTEM	\$81,154

PHASE 3 ALTERNATES:

ALTERNATE NO. 1 - ALTERNATE WALL FINISH - BLUE BOARD AND SKIM COAT	\$26,869
ALTERNATE NO. 2 - ROOFTOP SOLAR ARRAY ON EAST SIDE OF ROOM - MAX 68-3'X5' PANELS	inc above
ALTERNATE NO. 3 - IN LIEU OF STEEL FRAME & GYPSUM DRYWALL IN FILL, CONSTRUCT ELEV. SHAFT W/8" CMU	\$12,100
ALTERNATE NO. 4 - MODERNFOLD ACOUSTISEAL 900 SERIES PANEL ON CEILING TRACK ILO MODERNFOLD SOUNDMASTER 12 SERIES	\$8,575
ALTERNATE NO. 5 - ADD SPRINKLER SYSTEM	\$25,966

PROJECT: GAR Hall Renovation
 LOCATION: Beverly, MA
 CLIENT: Adams & Smith Architects
 DATE: 16-Jan-16

No.: 16114

**PHASE 1
 HISTORIC RENOVATION**

SUMMARY	DIVISION TOTAL	PERCENT OF PROJECT
DIVISION 02 - EXISTING CONDITIONS	7,102	3%
DIVISION 03 - CONCRETE	24,000	12%
DIVISION 04 - MASONRY	0	0%
DIVISION 05 - METALS	0	0%
055000 METAL FABRICATIONS	6,000	3%
DIVISION 06 - WOOD, PLASTICS & COMPOSITES	23,465	12%
DIVISION 07 - THERMAL & MOISTURE PROTECTION		
071000 DAMPPROOFING, WATERPROOFING & SE	2,040	1%
072000 THERMAL PROTECTION	3,513	2%
073100 ROOFING, FLASHING & ACCESSORIES	16,340	8%
074012 SIDING & TRIM	44,825	22%
DIVISION 08 - OPENINGS	7,000	3%
085000 WINDOWS	33,200	16%
088000 GLAZING	0	0%
DIVISION 09 - FINISHES		
092000 GYPSUM BOARD ASSEMBLIES	2,000	1%
093000 TILE	0	0%
096500 RESILIENT FLOORING	0	0%
097200 WOOD FLOORING	0	0%
099000 PAINTING	14,651	7%
DIVISION 10 - SPECIALTIES	4,050	2%
DIVISION 11 - EQUIPMENT	0	0%
DIVISION 12 - FURNISHINGS	0	0%
DIVISION 13 - SPECIAL CONSTRUCTION	0	0%
DIVISION 14 - CONVEYING EQUIPMENT	0	0%
DIVISION 21 - FIRE SUPPRESSION	0	0%
DIVISION 22 - PLUMBING	0	0%
DIVISION 23 - HVAC	0	0%
DIVISION 26 - ELECTRICAL	2,800	1%
DIVISION 31 - EARTHWORK	11,300	6%
DIVISION 32 - EXTERIOR IMPROVEMENTS	1,200	1%
DIVISION 33 - UTILITIES	0	0%

TOTAL	203,485	100%

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
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DIVISION 02 - EXISTING CONDITIONS

022600 HAZARDOUS MATERIAL ASSESSMENT NIC

024100 DEMOLITION

Building Exterior Remove Existing:

Wd shingle siding(base flush siding rema	388	SF	2.50	970
Wd shingle Siding @ flanking spires	383	SF	4.00	1,532
#9 & #10 Ridge spire cladding		W /075000		
#9 Corner spire cladding		W /075000		
Bay window roofing & flashing		W /075000		
Salvage Door & frame - dbl		w/ 082500		
Salvage Rad top window		w/ 085000		
Vinyl DH Window	4	EA	150.00	600
Window Protection	4	EA	250.00	1,000
High Roof- Roofing and Flashing		REMAINS		
Wall structure - new wind opening		W/ Rough Carpentry		
Trim		REMAINS		
Staging And Sidewalk Protection	1	LS	3,000.00	3,000

				7,102

DIVISION 03 - CONCRETE

033000 CAST IN PLACE CONCRETE

Main Front Entrance:

Demolish Front Stair	1	LS	4,000.00	4,000
Replace / restore concrete entry stair	1	LS	10,000.00	10,000
*Noted both repair & replace				

West Egress -Allow:

Demolish Side Stair	1	LS	2,500.00	2,500
Replace / restore concrete entry stair	1	LS	7,500.00	7,500

				24,000

DIVISION 04 - MASONRY

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
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042000 UNIT MASONRY

12" CMU Foundation wall restoration		NIC		----- 0
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DIVISION 05 - METALS

051000 STRUCTURAL METAL FRAMING		N/A		----- 0
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055000 METAL FABRICATIONS

New Alum. guardrail @ main entry stair (16	LF	250.00	4,000
New Alum. guardrail @ w egress stair (:	8	LF	250.00	2,000
Misc. Metals		NIC		----- 6,000

DIVISION 06 - WOOD, PLASTICS & COMPOSITES

061000 ROUGH CARPENTRY

Exterior Wall:				
Cut in / frame rose wind open	1	EA	1,500.00	1,500
Exterior Repair / Reinforce:				
Bay window roof	80	SF	20.00	1,600
High Roof		NIC		
Spire		W / Roofing		
Typ Ext wall frame		NIC		
#1 flush siding /sheathing -allow	50	SF	50.00	2,500
Misc. rough carpentry	1	LS	2,500.00	2,500

062000 FINISH CARPENTRY

Replace /Restore Interior Wood Trim-:

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Radial Rose Window trim	18	LF	125.00	2,250
Radial Window sill	10	LF	125.00	1,250
Radial Window trim	46	LF	125.00	5,750
Bay Window sill	17	LF	75.00	1,275
Bay Window trim	64	LF	55.00	3,520
Wood Door Trim	24	LF	55.00	1,320

				23,465

DIVISION 07 - THERMAL & MOISTURE PROTECTION

071000 DAMPPROOFING , WATERPROOFING & SEALANTS

Foundation waterproofing		NIC		
Foundation dampproofing		NIC		
Air & vapor barrier-perim ext wall open	170	LF	12.00	2,040
Ext joint sealants		W /Unit Costs		

				2,040

072000 THERMAL PROTECTION

Ext wall - blown in insul.	750	SF	3.75	2,813
Bay window Roof	80	SF	5.00	400
Bay window ext clg	60	SF	5.00	300

				3,513

073100 ROOFING, FLASHING & ACCESSORIES

High Roof - PTD Copper:				
#9 & #10 Restore ridge spire	1	EA	4,000.00	4,000
#9 Restore corner spire	2	EA	4,000.00	8,000
Bay Window:				
Remove roofing & flashing 100%	80	SF	10.00	800
Adhered Ice and water shield - 100%	80	SF	15.00	1,200
Archi. Grade Asphalt shingles	80	SF	15.00	1,200
Drip edge	24	LF	10.00	240
Cheek wall flashing	20	LF	45.00	900

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL

				16,340
 074012 SIDING & TRIM				
New Siding:				
Mahogany/Spanish red cedar-per spec	330	SF	35.00	11,550
*Façade restoration note #2 Wood clapboard siding(over flush wd siding)				
T & G Red Cedar flanking spires	383	SF	55.00	21,065
* Façade restoration note #8 flanking spires				
 Tyvek drain wrap	 713	 SF	 2.30	 1,640
New Trim:				
#2 Water table / sill trim	24	LF	75.00	1,800
Restore Trim:				
#7 Rake 10"	41	LF	12.00	492
#7 Rake / corner 12"	78	LF	20.00	1,560
#7 decorative gable/ rose wind surround	54	SF	25.00	1,350
10" Door trim	24	LF	12.00	288
Bay Window trim (panels)	140	SF	15.00	2,100
Bay wind soffit / entry ceiling	60	SF	20.00	1,200
Bay window support bracket	2	EA	500.00	1,000
Typ Wind trim	45	LF	12.00	540
Radial Wind trim	16	LF	15.00	240

				44,825

DIVISION 08 - OPENINGS

0825000 DOOR OPENING ASSEMBLIES

Restore Main Entrance Door (1 EA):

Salvage & refurbish - dbl	1	EA	1,500.00	1,500
Reinstall /reverse swing - dbl	1	EA	1,500.00	1,500
Hardware set - dbl	1	EA	4,000.00	4,000
*Complete includes painting				

087000 HARDWARE

*Hardware is included in Sections 082500
 *Excludes card access system

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
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7,000

085000 WINDOWS

#4 Restore Rad Top (2 EA)	70	SF	200.00	14,000
#5 Replace vinyl bay w/ WD (4 EA)	78	SF	150.00	11,700
#6 Refurbish rose 5'9" dia. - complete	25	SF	300.00	7,500

*Prefinished Unit Includes paint, glass and glazing

*Includes use of Rose window salvaged materials and 3/16" clear glass

33,200

088000 GLAZING

*Glass and glazing also included in Section 082500 & 085000,

0

DIVISION 09 - FINISHES

092000 GYPSUM BOARD ASSEMBLIES

Misc int patching at Window WORK	1	LS	2,000.00	2,000
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2,000

093000 TILE N/A

0

096500 RESILIENT FLOORING N/A

0

097200 WOOD FLOORING N/A

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
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0

099000 PAINTING

Exterior Painting - New Trim & Siding:

Mahogany/Spanish red cedar-per spec	330	SF	5.00	1,650
T & G Red Cedar flanking spires	383	SF	5.00	1,915
New Water table / sill trim	24	LF	5.00	120

Exterior Painting - Existing Trim & Siding:

#7 Rake 10"	41	LF	8.00	328
#7 Rake / corner 12"	78	LF	8.00	624
#7 decorative gable/ rose wind surround	54	LF	8.00	432
#7 decorative trim painting analysis	1	LS	1,000.00	1,000
#8 flanking spires	383	SF	10.00	3,830
10" Door trim	24	LF	8.00	192
Bay Window trim	140	SF	8.00	1,120
Bay wind soffit / entry ceiling	60	SF	5.00	300
Bay window support bracket	2	EA	200.00	400
Typ Wind trim	45	LF	8.00	360
Radial Wind trim	16	LF	10.00	160
Exposed 12" CMU Foundation wall	72	SF	10.00	720
Refurbished Main entry - DBI		W / 082500		
#4 Restored Rad Top Window (2 EA)		W / 085000		
#5 Replace vinyl Bay Window with WD (4 EA)		W / 085000		
#6 Refurbish rose window 5'9" dia. - complete		W / 085000		
*Trim restoration is included in 074000				

Interior Painting:

Touch up	1	LS	1,500.00	1,500
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14,651

DIVISION 10 - SPECIALTIES

101400 SIGNAGE

Exterior Signage -Allowance:

BLD MTD letter / num	9	EA	450.00	4,050
Site sign		NIC		

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
109000 MISCELLANEOUS SPECIALTIES				
Alum. louvers - allow		NIC		----- 4,050
DIVISION 11 - EQUIPMENT				
		N/A		----- 0
DIVISION 12 - FURNISHINGS				
12900 FURNISHINGS				
Window shades		NIC		----- 0
DIVISION 13 - SPECIAL CONSTRUCTION				
130000 SPECIAL CONSTRUCTION				
		N/A		----- 0
DIVISION 14 - CONVEYING EQUIPMENT				
		N/A		----- 0
DIVISION 21 - FIRE SUPPRESSION				
		N/A		----- 0
DIVISION 22 - PLUMBING				
		N/A		

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
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0

DIVISION 23 - HVAC N/A

0

DIVISION 26 - ELECTRICAL

260000 ELECTRICAL

Electrical Demolition	1	LS	100.00	100
Main entrance Lighting Fixture	1	EA	1,200.00	1,200
Misc. Electrical	1	LS	1,500.00	1,500
				----- 2,800

DIVISION 31 - EARTHWORK

310000 EARTHWORK WITH UNIT COSTS

311000 SITE CLEARING

Erosion control - allow	1	LS	200.00	200
Construction staging area	1	LS	5,000.00	5,000
Sidewalk protection	45	LF	100.00	4,500
Remove main entry stair rails	2	LOC	150.00	300
Remove w egress stair rails	2	LOC	150.00	300
Misc. site prep. & demolition	1	LS	1,000.00	1,000
				----- 11,300

DIVISION 32 - EXTERIOR IMPROVEMENTS

321000 BASES, BALLASTS AND PAVING

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Granite street curbing		REMAINS		
Concrete planter curbing		REMAINS		
Concrete sidewalk		REMAINS		
329000 SITE IMPROVEMENTS				
Restore plant bed - complete	240	SF	5.00	1,200
Misc. site improvements		NIC		
				----- 1,200
DIVISION 33 - UTILITIES				
		REMAIN		
				----- 0

PROJECT: GAR Hall Renovation
 LOCATION: Beverly, MA
 CLIENT: Adams & Smith Architects
 DATE: 16-Jan-16

NO. OF SQ. FT.: 2,629
 COST PER SQ. FT.: \$262.58

*GSF main level and Mezzanine 622 GSF

No.: 16114

PHASE 2 RENOVATION

SUMMARY	DIVISION TOTAL	PERCENT OF PROJECT	COST PER SF
DIVISION 02 - EXISTING CONDITIONS	34,334	5%	13.06
DIVISION 03 - CONCRETE	6,700	1%	2.55
DIVISION 04 - MASONRY	0	0%	0.00
DIVISION 05 - METALS	0	0%	0.00
055000 METAL FABRICATIONS	1,500	0%	0.57
DIVISION 06 - WOOD, PLASTICS & COMPOSITES	113,495	16%	43.17
DIVISION 07 - THERMAL & MOISTURE PROTECTION			
071000 DAMPPROOFING, WATERPROOFING & SE.	4,168	1%	1.59
072000 THERMAL PROTECTION	18,159	3%	6.91
073100 ROOFING, FLASHING & ACCESSORIES	15,636	2%	5.95
074012 SIDING & TRIM	46,924	7%	17.85
DIVISION 08 - OPENINGS	19,900	3%	7.57
085000 WINDOWS	35,850	5%	13.64
088000 GLAZING	0	0%	0.00
DIVISION 09 - FINISHES			
092000 GYPSUM BOARD ASSEMBLIES	31,694	5%	12.06
093000 TILE	6,802	1%	2.59
095100 ACOUSTICAL CEILINGS	0	0%	0.00
096500 RESILIENT FLOORING	0	0%	0.00
097200 WOOD FLOORING	13,820	2%	5.26
099000 PAINTING	25,236	4%	9.60
DIVISION 10 - SPECIALTIES	7,006	1%	2.66
DIVISION 11 - EQUIPMENT	0	0%	0.00
DIVISION 12 - FURNISHINGS	0	0%	0.00
DIVISION 13 - SPECIAL CONSTRUCTION	0	0%	0.00
DIVISION 14 - CONVEYING EQUIPMENT	0	0%	0.00
DIVISION 21 - FIRE SUPPRESSION	0	0%	0.00
DIVISION 22 - PLUMBING	45,775	7%	17.41
DIVISION 23 - HVAC	114,886	17%	43.70
DIVISION 26 - ELECTRICAL	108,371	16%	41.22
DIVISION 31 - EARTHWORK	10,000	1%	3.80
DIVISION 32 - EXTERIOR IMPROVEMENTS	2,500	0%	0.95
DIVISION 33 - UTILITIES	27,575	4%	10.49

TOTAL	690,330	100%	262.58

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
DIVISION 02 - EXISTING CONDITIONS				
022600 HAZARDOUS MATERIAL ASSESSMENT			NIC	
024100 DEMOLITION				
Building Interior 1st Floor Remove Existing:				
Toilet rm plumbing Fixture	4	EA	55.00	220
Toilet rm finishes	75	GSF	6.00	450
Toilet rm Door and Frame - sgl	2	EA	75.00	150
Aud Door and Frame - dbl	1	EA	150.00	150
Wood framed Partition - 8' 4"	327	SF	2.15	703
ACT	1,425	SF	1.50	2,138
MEP Disposal Basement	1,993	GSF	1.00	1,993
MEP Disposal 1st & 2nd	2,629	GSF	1.00	2,629
Misc. Interior Demolition	2,007	GSF	1.00	2,007
Building Interior Basement Remove Existing (For MEP):				
Storage rm finishes(2 EA)	35	GSF	1.00	35
Toilet rm Plumb Fix & finishes(2 EA)	48	GSF	4.00	192
Kitchen Casework & finishes	170	GSF	10.00	1,700
Ceiling finish	1,993	SF	1.35	2,691
Selective First Floor Structural Demo	1,993	SF	1.50	2,990
Misc. Interior Demolition	1,993	GSF	1.00	1,993
Mezzanine removals @ sprinkler sys	622	GSF	1.00	622
Mezzanine removals @ new MEP	622	GSF	1.00	622
Basement removals @ sprinkler sys	1,993	GSF	1.00	1,993
Basement removals @ utility / Mech sys	1	LS	500.00	500
Building Exterior Remove Existing:				
Door & frame - SGL	3	EA	75.00	225
Basement Window (8 EA)		REMAINS		
High Roof- Roofing and Flashing		REMAINS		
West Egress -Roofing and Flashing		W / 075000		
West Egress -siding & trim	183	SF	2.50	458
Ext wall structure		W/ Rough Carpentry		
Gutters & downspouts		W / 075000		
Door & window trim	117	LF	1.60	187
Wd shingle Siding	1,750	SF	2.25	3,938
Fascia / eave trim	110	LF	5.00	550
Mezz egress stair	1	FLT	1,200.00	1,200
Misc. Exterior Demolition	1	LS	1,500.00	1,500

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Misc. temporary protection & shoring	1	LS	2,500.00	2,500

				34,334
DIVISION 03 - CONCRETE				
033000 CAST IN PLACE CONCRETE				
Basement slab patch @ new utilities	1	LS	3,000.00	3,000
Mech equip pad	1	LS	1,500.00	1,500
Ext Mezz egress stair sonotube ftgs	8	EA	275.00	2,200

				6,700
DIVISION 04 - MASONRY				
042000 UNIT MASONRY				
12" CMU Foundation wall restoration		NIC		

				0
DIVISION 05 - METALS				
051000 STRUCTURAL METAL FRAMING				
		N/A		

				0
055000 METAL FABRICATIONS				
Misc. Metals	1	LS	1,500.00	1,500

				1,500
DIVISION 06 - WOOD, PLASTICS & COMPOSITES				

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
061000 ROUGH CARPENTRY				
Exterior Wall East & West Elevation:				
Cut in frame Rad top Window	6	EA	750.00	4,500
Exterior Wall Reinforcing				
Ext wall sheathing replacement :				
Remove Sheathing on Side walls	1,600	SF	1.12	1,792
New 3/4" Plywood sheathing	1,600	SF	4.00	6,400
Secure existitng sill plate	1	LS	2,500.00	2,500
Fascia /eave frame replacement				
1st Floor Frame Reinforcing				
Mezzanine Floor Frame Reinforcing				
High Roof Floor Frame Reinforcing				
Interior Partition Framing				
Basement 2x part- 8'H	397	SF	2.50	993
1st Floor 2x part- 8' 6"H	447	SF	2.50	1,118
West Egress:				
Reinforce roof frame 84 sf		NIC		
Roof Sheathing replacement 84 sf		NIC		
Reinforce wall frame 183 sf		NIC		
Wall Sheathing replacement 183sf		NIC		
Interior blocking	2,629	GSF	0.30	789
Misc. rough carpentry	2,629	GSF	0.50	1,315
Structural Reinforcement at First Floor:				
Sister floor joist	1,386	SF	32.00	44,352
Sister Girder w/ PSL Beam (3 ea)	109	LF	165.00	17,985
Add joist Hanger to existing	1,672	SF	1.50	2,508
062000 FINISH CARPENTRY				
New Interior Wood Trim(to match):				
New Door Trim	168	LF	15.00	2,520
Radial window trim	56	LF	50.00	2,800
Typ Window trim	192	LF	15.00	2,880
Window sill / apron	31	LF	45.00	1,395
Wood wall base(to match)	30	LF	15.00	450
Misc. renovation interior trim	1	LS	2,500.00	2,500

Restore / Replace Interior Trim:

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Raised platform - modify corner	2	LOC	1,000.00	2,000
Trim & wall rails stair 1st - Mezz		REMAINS		
Wood Base	30	LF	15.00	450
Platform radial molding	17	LF	25.00	425
Trim & wall rails stair 1st - Attic		REMAINS		
Auditorium Cove and picture molding	151	LF	75.00	11,325
Misc. interior trim	1	LS	2,500.00	2,500
Casework		N/A		
Closet shelving		NIC		

				113,495

DIVISION 07 - THERMAL & MOISTURE PROTECTION

071000 DAMPPROOFING , WATERPROOFING & SEALANTS

Foundation waterproofing		NIC		
Foundation dampproofing		NIC		
Air & vapor barrier-perim ext wall open	271	LF	8.00	2,168
Misc. int joint sealants	1	LS	2,000.00	2,000
Ext joint sealants		W /Unit Costs		

				4,168

072000 THERMAL PROTECTION

Attic batt R-38	2,007	SF	3.00	6,021
Basement clg F.G. Batt	2,007	SF	2.25	4,516
Ext wall - blown in insul.	1,760	SF	3.75	6,600
West egress Roof	84	SF	4.00	336
Ext wall - W egress	183	SF	3.75	686

				18,159

073100 ROOFING, FLASHING & ACCESSORIES

High Roof:				
Roofing & flashing		REMAIN		
Salvage Gutters	110	LF	25.00	2,750
Salvage downspout (6 EA)	132	LF	25.00	3,300

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Reinstall Gutters	110	LF	20.00	2,200
Reinstall downspout (6 EA)	132	LF	15.00	1,980
Main roof general repairs		NIC		
Main roof flash /patch @ MEP	1	LS	2,500.00	2,500
West Egress -Roofing:				
Remove roofing & flashing 100%	84	SF	3.00	252
Adhered Ice and water shield - 100%	84	SF	6.00	504
Asphalt shingles	84	SF	15.00	1,260
Drip edge	26	LF	10.00	260
Cheek wall flashing	14	LF	45.00	630
Gutters & downspout		NIC		

				15,636

074012 SIDING & TRIM

East & West Elev New Siding & New 1x Primed Wood Trim :

Wood clapboard siding(over flush wd sid	1,600	SF	13.50	21,600
Tyvek drain wrap	1,600	SF	2.30	3,680

*Preprimed cedar clapboard siding

East & West Elev New Exterior 1x Primed Wood Trim (match exist):

Water table / sill trim	110	LF	25.00	2,750
Fascia /eave	110	LF	28.00	3,080
Door trim	40	LF	9.50	380
Corner board	36	LF	12.00	432
Window sill (NIC basement)	31	LF	45.00	1,395
Window trim (NIC basement)	192	LF	10.50	2,016
Rad Window trim	56	LF	30.00	1,680

West Egress -Siding and Trim:

Red Cedar Vert T & G Wood siding	183	SF	24.00	4,392
Tyvek drain wrap	183	SF	2.30	421
Dr trim	20	LF	9.50	190
Water table / sill trim	24	LF	25.00	600
Fascia	14	LF	28.00	392
Rake	12	LF	28.00	336
Soffit / entry ceiling	15	SF	22.00	330
Roof bracket	1	EA	250.00	250

PT Exterior Mezzanine Egress stair	1	FLT	3,000.00	3,000

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
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46,924

DIVISION 08 - OPENINGS

0825000 DOOR OPENING ASSEMBLIES

New Exterior Door, Frame, Glass, Glazing and Finish Hardware:

Mezzanine egress -E elev	1	EA	2,500.00	2,500
1sst floor egress -W elev	1	EA	2,500.00	2,500
Basement egress -W elev	1	EA	2,500.00	2,500

New Interior Basement Door, Frame and Finish Hardware:

Mechanical rm -sgl	1	EA	1,100.00	1,100
Sprinkler rm -sgl	1	EA	1,100.00	1,100
Electric rm -sgl	1	EA	1,100.00	1,100

New Interior 1st Flr Door, Frame and Finish Hardware:

Toilet rm - sgl user	2	EA	1,250.00	2,500
Auditorium - dbl	1	EA	4,000.00	4,000

Refurbish Interior 1st Flr Door, Frame and Finish Hardware:

Office - sgl	1	EA	500.00	500
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Refurbish Interior Mezzanine Door, Frame and Finish Hardware:

Stair hall - sgl	1	EA	1,000.00	1,000
Storage rm -sgl	1	EA	300.00	300
Mechanical rm -sgl	1	EA	300.00	300

083000 SPECIALTY DOORS AND FRAMES

Access panels	1	LS	500.00	500
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087000 HARDWARE

*Hardware is included in Sections 082500

*Excludes auto opener and card access system

19,900

085000 WINDOWS

Basement replacement Window (8 EA)	existing to remain			
Upper flr replacement Window (1 EA)	3	SF	150.00	450
Rad top replacement Window (1 EA)	16	SF	150.00	2,400
Rad top Window - new opening(6 EA)	220	SF	150.00	33,000

*Prefinished Unit Includes glass and glazing

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
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35,850

088000 GLAZING

*Glass and glazing also included in Section 082500 & 085000,

0

DIVISION 09 - FINISHES

092000 GYPSUM BOARD ASSEMBLIES

Basement MEP RM New Partitions (NIC 2 x): Mech / elec rm 8' (2 side)	397	SF	7.50	2,978
1st Floor New Partitions -allow(NIC 2 x): Typ 8' 4" (2 side)	357	SF	5.00	1,785
Chase 8'4" (1 side)	90	SF	2.50	225

Patch / New Ceilings - NIC framing: Underside mezzanine - reno areas	313	SF	12.00	3,756
Misc Soffits	1	LS	2,000.00	2,000

*GWB includes tape and joint compound finish

Plaster Patching :

Auditorium medallion	1	EA	1,500.00	1,500
Auditorium Ceiling	1,424	SF	5.00	7,120
Auditorium wall	2,400	SF	2.50	6,000

Foyer clg & wall patch @ MEP	574	GSF	5.00	2,870
Mezzanine clg & wall patch @ MEP	622	GSF	5.00	3,110

Veneer Plaster Finish:

New Wall		Alternate		
New Ceiling		Alternate		

Sound attenuation blanket - new part	350	SF	1.00	350
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31,694

093000 TILE

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Entry Floor tile		NIC		
New Toilet Rm(2 EA):				
Floor tile-thin set	118	SF	26.00	3,068
WPG / crack suppress	118	SF	8.00	944
Wall base	60	SF	12.00	720
8' Full Ht wet wall tile	80	SF	22.00	1,760
Tile backer bd premium	80	SF	2.00	160
Stone threshold	2	EA	75.00	150

				6,802
095100 ACOUSTICAL CEILINGS		N/A		

				0
096500 RESILIENT FLOORING				
Resilient flooring & wall base		N/A		
New Stair Rubber stair tread		NIC		
*Excludes mezzanine and basement floor finishes				-----
				0
097200 WOOD FLOORING				
Renovation - Refinish Wood Floor :				
Existing first floor	1,762	SF	4.75	8,370
Existing raised platform	75	SF	6.00	450
Mezzanine level		NIC		
Stair 1st - B		NIC		
Stair 1st - Mezz	1	FLT	2,500.00	2,500
Misc repairs - allow	1	LS	2,500.00	2,500
*Hard Pine Wood Flooring				-----
				13,820
099000 PAINTING				

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Renovation Interior Painting:				
1st flr	2,007	GSF	5.00	10,035
Mezzanine	622	GSF	5.00	3,110
Exterior Painting E & W Elev- New Siding & Trim:				
New Doors & frame -sgl	3	EA	450.00	1,350
PT Exterior Mezzanine Egress stair	1	FLT	2,000.00	2,000
New Windows		Prefinished		
Water table / sill trim	110	LF	8.00	880
Fascia /eave	110	LF	8.00	880
Door trim	40	LF	8.00	320
Corner board	36	LF	8.00	288
Window sill (NIC basement)	31	LF	10.00	310
Window trim (NIC basement)	192	LF	8.00	1,536
Rad Window trim	56	LF	10.00	560
Exposed 12" CMU Foundation wall	225	SF	10.00	2,250
Exterior Painting West Egress -New Siding and Trim:				
Red Cedar Vert T & G Wood siding	183	SF	5.00	915
Dr trim	20	LF	5.00	100
Water table / sill trim	24	LF	8.00	192
Fascia	14	LF	10.00	140
Rake	12	LF	10.00	120
Soffit / entry ceiling	15	SF	10.00	150
Roof bracket	1	EA	100.00	100

				25,236

DIVISION 10 - SPECIALTIES

101100 VISUAL DISPLAY SURFACES

Misc. marker and tack boards	1	LS	1,500.00	1,500
Display cases		NIC		

101400 SIGNAGE

Interior signage system (ADA & general)	1	LS	1,500.00	1,500
Exterior Signage -Allowance:		W / Phase 1 & 3		

102800 TOILET ACCESSORIES

Toilet grab bar	4	EA	85.00	340
TP dispenser	2	EA	45.00	90
Coat hook	2	EA	25.00	50

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Paper towel dispenser/disposal	2	EA	175.00	350
Elec hand dryer		NIC		
Mirror @ wall hung lav	2	EA	250.00	500
Soap dispenser	2	EA	38.00	76
104400 FIRE PROTECTION SPECIALTIES				
Fire extinguishers- allow	2	EA	550.00	1,100
109000 MISCELLANEOUS SPECIALTIES				
Alum. louvers - allow	1	LS	1,500.00	1,500

				7,006
DIVISION 11 - EQUIPMENT				
110000 MISCELLANEOUS EQUIPMENT				
AV equipment		NIC		
Central vacuum system		NIC		

				0
DIVISION 12 - FURNISHINGS				
12900 FURNISHINGS				
Entry mat		NIC		
Window shades		NIC		
Auditorium seating		NIC		

				0
DIVISION 13 - SPECIAL CONSTRUCTION		N/A		
DIVISION 14 - CONVEYING EQUIPMENT		N/A		

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
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DIVISION 21 - FIRE SUPPRESSION

210000 FIRE SUPPRESSION

see alternates

0

DIVISION 22 - PLUMBING

220000 PLUMBING

Demolition & disconnects	1	LS	1,000.00	1,000
Fixtures:				
ADA Toilet	2	EA	1,750.00	3,500
Wall hung lav	2	EA	1,225.00	2,450
Drinking fountain - allow	1	EA	1,225.00	1,225
Fixt Connection	5	EA	4,200.00	21,000
Gas Piping:				
Boiler Piping	50	LF	50.00	2,500
Boiler Connection	1	EA	750.00	750
Gas Service	1	LS	2,500.00	2,500
Plumbing Equipment:				
40 gal Electric water heater	1	LS	2,200.00	2,200
HWRP1 Recirculating pump	1	EA	750.00	750
New Water Service and BFP	1	LS	2,200.00	2,200
New Sanitary Service	1	LS	2,200.00	2,200
Plumbing cut, cap and demo	1	LS	2,500.00	2,500
Test, Permit, Cleaning	1	LS	1,000.00	1,000
				----- 45,775

DIVISION 23 - HVAC

230000 HVAC

New Gas Fired Boiler	1	LS	15,000.00	15,000
First Floor AHU	2,629	GSF	25.00	65,725
Energy Recovery Unit	1	LS	7,500.00	7,500

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Hydronic Hear	2,629	GSF	5.00	13,145
Bathroom exhaust	1	LS	3,000.00	3,000
ATC System	2,629	GSF	3.00	7,887
Test and Balance	2,629	GSF	1.00	2,629

				114,886

DIVISION 26 - ELECTRICAL

260000 ELECTRICAL

New 200 Amp Service	1	LS	4,500.00	4,500
New Panel and Feeder	2,629	GSF	2.50	6,573
Interior Lighting	2,629	GSF	15.00	39,435
Lighting Control	2,629	GSF	2.50	6,573
Decorative Ext Bldg Light	6	EA	3,200.00	19,200
Emergency Lighting	1	LS	1,200.00	1,200
Power and Devices	2,629	GSF	2.75	7,230
Tele data Box and Wiring (only)	2,629	GSF	2.50	6,573
Fire Alarm	2,629	GSF	3.50	9,202
Security System	2,629	GSF	3.00	7,887

				108,371

DIVISION 31 - EARTHWORK

310000 EARTHWORK

*Site utilities include excavation & backfill

N/A

Building Earthwork -Excavation/backfill:

Basement plum trench	1	LS	2,500.00	2,500
Mezz egress stair fgs	1	LS	2,000.00	2,000

311000 SITE CLEARING

Erosion control - allow	1	LS	500.00	500
Construction staging area	1	LS	2,500.00	2,500
Misc. site prep. & demolition	1	LS	2,500.00	2,500

				10,000

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
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DIVISION 32 - EXTERIOR IMPROVEMENTS

321000 BASES, BALLASTS AND PAVING

*Pavement patching is included with utilities

329000 SITE IMPROVEMENTS

Restore Disturbed Area -Allow	1	LS	2,500.00	2,500
Misc. site improvements		NIC		

				2,500

DIVISION 33 - UTILITIES

330000 UTILITIES

Gas - Allow :

Gas service		By Others		
Gas meter pad	1	EA	750.00	750
Trench excavation & backfill	75	LF	50.00	3,750
Sidewalk / street pavement patch	1	LOC	2,000.00	2,000

Sanitary allow:

4" Sewer Main	75	LF	125.00	9,375
Grease trap		NIC		
Sanitary manhole	1	EA	3,200.00	3,200
Street connection	1	LOC	6,000.00	6,000
Sidewalk / street pavement patch	1	LOC	2,500.00	2,500

Site Drainage : Existing to Remain

Electrical:

*OVERHEAD SERVICE BY OTHERS

27,575

PROJECT: GAR Hall Renovation
 LOCATION: Beverly, MA
 CLIENT: Adams & Smith Architects
 DATE: 16-Jan-16

NO. OF SQ. FT.: 2,527
 COST PER SQ. FT.: \$292.79

*GSF basement level and addition

No.: 16114

PHASE 3 RENOVATION & ADDITION

SUMMARY	DIVISION TOTAL	PERCENT OF PROJECT	COST PER SF
DIVISION 02 - EXISTING CONDITIONS	14,302	2%	5.66
DIVISION 03 - CONCRETE	34,797	5%	13.77
DIVISION 04 - MASONRY	7,500	1%	2.97
DIVISION 05 - METALS	2,070	0%	0.82
055000 METAL FABRICATIONS	4,264	1%	1.69
DIVISION 06 - WOOD, PLASTICS & COMPOSITES	71,276	10%	28.21
DIVISION 07 - THERMAL & MOISTURE PROTECTION			
071000 DAMPPROOFING, WATERPROOFING & SE.	6,810	1%	2.69
072000 THERMAL PROTECTION	9,338	1%	3.70
073100 ROOFING, FLASHING & ACCESSORIES	8,060	1%	3.19
074012 SIDING & TRIM	37,023	5%	14.65
DIVISION 08 - OPENINGS	31,830	4%	12.60
085000 WINDOWS	8,400	1%	3.32
088000 GLAZING	0	0%	0.00
DIVISION 09 - FINISHES			
092000 GYPSUM BOARD ASSEMBLIES	47,531	6%	18.81
093000 TILE	13,577	2%	5.37
095100 ACOUSTICAL CEILINGS	0	0%	0.00
096500 RESILIENT FLOORING	12,847	2%	5.08
097200 WOOD FLOORING	6,600	1%	2.61
099000 PAINTING	24,741	3%	9.79
DIVISION 10 - SPECIALTIES	26,948	4%	10.66
DIVISION 11 - EQUIPMENT	0	0%	0.00
DIVISION 12 - FURNISHINGS	0	0%	0.00
DIVISION 13 - SPECIAL CONSTRUCTION	0	0%	0.00
DIVISION 14 - CONVEYING EQUIPMENT	65,000	9%	25.72
DIVISION 21 - FIRE SUPPRESSION	17,975	2%	7.11
DIVISION 22 - PLUMBING	65,550	9%	25.94
DIVISION 23 - HVAC	96,418	13%	38.16
DIVISION 26 - ELECTRICAL	84,432	11%	33.41
DIVISION 31 - EARTHWORK	27,240	4%	10.78
DIVISION 32 - EXTERIOR IMPROVEMENTS	12,850	2%	5.09
DIVISION 33 - UTILITIES	2,500	0%	0.99

TOTAL	739,875	100%	292.79

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
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DIVISION 02 - EXISTING CONDITIONS

022600 HAZARDOUS MATERIAL ASSESSMENT NIC

024100 DEMOLITION

Building Interior Remove Existing:

Stair B- 1st flr	1	FLT	1,200.00	1,200
Door and Frame - sgl	2	EA	75.00	150
Remove Slab at Plumbing	750	SF	8.00	6,000
Misc. Interior Demolition	1,993	GSF	0.50	997

Building Exterior Remove Existing:

Rear Basement bulkhead - complete	56	GSF	20.00	1,120
Door and Frame - sgl	1	EA	75.00	75
Rake	52	LF	10.00	520
Rake return	2	EA	125.00	250
Corner board	36	LF	10.00	360
Siding & trim	940	SF	2.00	1,880
Misc. Exterior Demolition	1	LS	1,000.00	1,000

Misc. Temporary Protection	1	LS	750.00	750
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14,302

DIVISION 03 - CONCRETE

033000 CAST IN PLACE CONCRETE

Addition:

Lift mat Slab	5	CY	650.00	3,250
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Wall Footing 1 X 2 - LF :

4000 psi, NW, (incl. placement)	3.5	CY	220.00	770
Formwork	92	SFCA	12.00	1,104
Rebar	175	LBS	1.14	200

*unit cost \$592.43

10" Basement Wall 4- 6'H - 44 LF:

4000 psi, NW, (incl. placement)	8	CY	220.00	1,760
Formwork	456	SFCA	15.00	6,840
Reinforcing steel	1,200	LBS	1.14	1,368

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
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**unit cost \$1,246.00*

Underpinning		NIC		
Pin ftg / wall into existing	3	LOC	150.00	450
Stepped ftg premium	1	LS	500.00	500
Slab on Grade - basement lvl	137	SF	15.00	2,055
Slab on Grade - entry lvl	100	SF	15.00	1,500

Renovation:

New int Column Footing		NIC		
Slab infill @ New plumbing trench	750	SF	20.00	15,000

34,797

DIVISION 04 - MASONRY

042000 UNIT MASONRY

Addition Allowance:

Cut in /patch basement B connector	1	LOC	2,500.00	2,500
Cut in /patch basement 1st FL connector	1	LOC	2,500.00	2,500
12" CMU Foundation wall restoration		NIC		
Repair FND @ ramp removal	1	LS	2,500.00	2,500

7,500

DIVISION 05 - METALS

051000 STRUCTURAL METAL FRAMING

Addition Supplemental Framings:

Lobby Flr Aud LVL	100	GSF	5.00	500
Flat roof	314	GSF	5.00	1,570

Renovation:

Basement pipe stl col		REMAIN		
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2,070

055000 METAL FABRICATIONS

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
New elevator framing and metals	1	LS	3,000.00	3,000
Misc. Metals	2,527	GSF	0.50	1,264

				4,264

DIVISION 06 - WOOD, PLASTICS & COMPOSITES

061000 ROUGH CARPENTRY

Addition :**Exterior Wall**

Typ wall -6" stud	650	SF	5.10	3,315
1/2" CDX Ply sheathing	650	SF	2.15	1,398

Floor Frame

Lobby Flr Aud LVL 2x10	100	GSF	30.00	3,000
3/4" Subfloor	100	SF	2.25	225

Addition Roof :

Flat roof 2x10	314	GSF	28.00	8,792
5/8" Sheathing	314	SF	2.15	675
Typ roof edge BLK	77	LF	10.00	770

Addition Interior Partition Framing

Elev shaft wall W 092000

Addition Interior:

Frame stair B - entry lobby (riser)	1	FLT	2,500.00	2,500
Frame stair entry lobby -Aud lobby(riser)	1	FLT	2,500.00	2,500
Interior blocking	534	GSF	1.00	534
Misc. rough carpentry	534	GSF	1.00	534

Renovation :**Ext wall sheathing replacement :**

Remove Sheathing on Side walls	760	SF	1.12	851
New 3/4" Plywood sheathing	760	SF	4.00	3,040
Secure existitng sill plate	1	LS	1,000.00	1,000

Remove flr struct & frame @ Aud stair c	35	SF	25.00	875
Cut in & frame stair entry lobby -Aud (r	1	FLT	3,500.00	3,500
Infill frame Aud LVL stair flr open	60	SF	25.00	1,500
Cut in / frame B mech rm dr open	1	EA	225.00	225
Cut in / frame new lobby / aud dr open	2	EA	225.00	450

Renovation Basement New Partitions -allow:

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Typ 8' (2 side)	448	SF	2.50	1,120
Plumb Chase 8' (1 side)	160	SF	2.50	400
Fnd wall Chase 8' (1 side)	1,104	SF	2.50	2,760
Exist wall wall furr & gyp 8' (1 side)	385	SF	2.50	963
Temporary shoring	1	LS	2,000.00	2,000
Interior blocking	1,993	GSF	0.30	598
Misc. rough carpentry	1,993	GSF	0.50	997
062000 FINISH CARPENTRY				
New Stair Trim & Wall Rails:				
B - entry lobby	1	FLT	2,200.00	2,200
Entry lobby -Aud lobby	1	FLT	2,200.00	2,200
Entry lobby -Aud	1	FLT	2,200.00	2,200
Addition Interior Wood Trim-:				
Basement HM applied wd Dr trim		NIC		
Cased opening trim (2 EA)	40	LF	75.00	3,000
Window trim	60	LF	15.00	900
Window sill	10	LF	45.00	450
Misc. addition interior trim	1	LS	2,000.00	2,000
*Interior molding and profiles for painted finish -poplar or #1 pine				
Renovation New Interior Wood Trim :				
Basement Window trim		NIC		
Basement Window sill	24	LF	45.00	1,080
Restore / Replace Interior Trim:				
Trim & wall rails basement egress stair	1	FLT	1,500.00	1,500
Casework :				
Serving Pantry Kitchen - Allow:				
Base cab w/ ctr	20	LF	350.00	7,000
Wall cab	10	LF	220.00	2,200
P Lam Lav counter (2 EA)	9	LF	225.00	2,025
Closet shelving		NIC		

				71,276

DIVISION 07 - THERMAL & MOISTURE PROTECTION

071000 DAMPPROOFING , WATERPROOFING & SEALANTS

Addition:

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Elevator pit waterproofing	1	LS	3,850.00	3,850
Foundation waterproofing		NIC		
Foundation dampproofing	396	SF	2.00	792
Air & vapor barrier-perim ext wall open	113	LF	8.00	904
Misc. int joint sealants	2,527	GSF	0.50	1,264

				6,810

072000 THERMAL PROTECTION

Addition:

Rigid found insulation - 2 "	396	SF	3.10	1,228
2 " Rigid slab insul -100%	314	SF	3.50	1,099
R-20 ext wall	650	SF	4.00	2,600
Flat Roof R-30	314	SF	3.50	1,099

Renovation:

Basement chase - fnd wall insul	1,104	SF	3.00	3,312
Replacement slab -2 " Rigid slab insul		NIC		

				9,338

073100 ROOFING, FLASHING & ACCESSORIES

Addition Flat Roof :

EPDM .060 Membrane roofing (nic insul	314	SF	9.50	2,983
Gutter - allow	28	LF	45.00	1,260
Downspout (2EA)	30	LF	25.00	750
Scupper	1	EA	750.00	750
Splash block	1	EA	55.00	55
Gravel stop	77	LF	6.00	462
Base flashing @ exist wall	25	LF	26.00	650
Base flashing @ new wall	25	LF	26.00	650
Entry canopy-allow		NIC		
Misc. flashing & accessories -allow	1	LS	500.00	500

				8,060

074012 SIDING & TRIM

Addition New Siding:

Red Cedar Vert T & G Wood siding	650	SF	24.00	15,600
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DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Tyvek drain wrap	650	SF	2.30	1,495
Addition Exterior Wood Trim :				
Water table / sill trim	43	LF	25.00	1,075
Fascia	77	LF	15.00	1,155
Renovation New Siding:				
Wood clapboard siding	760	SF	18.00	13,680
Tyvek drain wrap	760	SF	2.30	1,748
*Preprimed cedar clapboard siding				
Renovation Restore Trim:		NIC		
Renovation New 1x Preprimed Pine Trim:				
#2 Water table / sill trim	14	LF	25.00	350
Rake	52	LF	15.00	780
Rake return	2	EA	300.00	600
Corner board	36	LF	15.00	540

				37,023

DIVISION 08 - OPENINGS

0825000 DOOR OPENING ASSEMBLIES

Exterior ALUM Clad Entrance :

Main Entrance door - dbl	1	EA	8,000.00	8,000
Entrance storefront	98	SF	85.00	8,330

*Includes glass, glazing & HDW

New Interior WD Door , HM Frame, Glass, Glazing and Finish Hardware:

Storage rm -sgl	1	EA	1,050.00	1,050
Serving panty -sgl	1	EA	1,500.00	1,500
Toilet rm - multi user	2	EA	1,200.00	2,400
Meeting rm - sgl	1	EA	1,500.00	1,500
Corr / Meeting rm - sgl	1	EA	2,500.00	2,500
Lobby / Aud- sgl	1	EA	3,000.00	3,000

*MEP rooms are included with phase 2

New Interior HM Frame , Glass and Glazing:

Sidelight		NIC		
Window		NIC		

083000 SPECIALTY DOORS AND FRAMES

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Serving pantry - pass thru	1	EA	2,800.00	2,800
Access panels	1	LS	750.00	750
087000 HARDWARE				
*Hardware is included in Sections 082500				
*Excludes auto opener and card access system				

				31,830
085000 WINDOWS				
Addition:				
New Alum Clad Window	56	SF	150.00	8,400
*Basement windows are included with phase 2				
*Prefinished Unit Includes glass and glazing				

				8,400
088000 GLAZING				
*Glass and glazing also included in Section 082500 & 085000,				

				0
DIVISION 09 - FINISHES				
092000 GYPSUM BOARD ASSEMBLIES				
Renovation Basement New Partitions -allow(NIC 2 x):				
Typ 8' (2 side)	448	SF	5.00	2,240
Plumb Chase 8' (1 side)	160	SF	2.50	400
Fnd wall Chase 8' (1 side)	1,104	SF	2.50	2,760
Exist wall wall furr & gyp 8' (1 side)	385	SF	2.50	963
Renovation Basement New Ceilings - NIC fraqming:				
Underside 1st flr typ	1,672	SF	6.50	10,868
Mech /elec rm	263	SF	15.00	3,945
Misc Soffits	1	LS	2,000.00	2,000
*GWB includes tape and joint comppond finish				
Renovation Patching:				
Patch @ 2nd flr new dr open	2	EA	750.00	1,500

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Infill Patch 2nd flr dr rem'l	1	EA	750.00	750
Existing plaster repairs -addition tie	1	LS	1,500.00	1,500
Addition New Partitions -allow(NIC 2 x):				
New Ext wall - 1 lyr 5/8" GWB	378	SF	2.50	945
Exist Ext wall - 1 lyr 5/8" GWB	320	SF	2.50	800
Elev shaft wall -complete	612	SF	22.00	13,464
Addition Ceilings (NIC 2 x):				
Typ clg - 1 lyr 5/8" GWB	392	SF	6.50	2,548
Elev shaft - 2 lyr 5/8" GWB	60	SF	15.00	900
Misc Soffits	1	LS	1,500.00	1,500
Veneer Plaster Finish:				
New Wall		Alternate		
New Ceiling		Alternate		
Sound attenuation	448	SF	1.00	448
*GWB includes tape and joint compound finish				
				----- 47,531
093000 TILE				
New Entry Lobby:				
Floor tile	93	SF	35.00	3,255
New Toilet Rm(2 EA):				
Floor tile-thin set	222	SF	26.00	5,772
Wall base	82	SF	8.00	656
8' Full Ht wet wall tile	156	SF	22.00	3,432
Tile backer bd premium	156	SF	2.00	312
Stone threshold	2	EA	75.00	150
Serving pantry tile		NIC		
				----- 13,577
095100 ACOUSTICAL TREATMENT				
Acoustical ceilings		NIC		
Acoustical wall panels		NIC		

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
				----- 0
096500 RESILIENT FLOORING				
Floor prep - reno	1,519	SF	1.50	2,279
VCT	1,526	SF	5.00	7,630
New Basement lobby		Above		
Meeting rm # 1 & 2		Above		
Serving pantry		Above		
Storage rm				
Resilient wall base	1	LS	1,200.00	1,200
Existing Stair Rubber stair tread	32	LFT	11.50	368
New Stair Rubber stair tread	80	LFT	11.50	920
New Stair Rubber landing	18	SF	25.00	450
				----- 12,847
097200 WOOD FLOORING				
Renovation :				
Wood flr Infill Aud LVL @ stair flr ope	60	SF	35.00	2,100
Wood flr patch @ Aud LVL new stair flr	1	LOC	1,000.00	1,000
Basement level wood flooring		NIC		
Addition New wood flooring:				
New 1st Flr lobby	100	SF	35.00	3,500
				----- 6,600
099000 PAINTING				
Interior Painting:				
Basement & addition	2,527	GSF	5.00	12,635
1st flr touch up	1	LS	2,500.00	2,500

Addition Exterior Painting:

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Red Cedar Vert T & G Wood siding	650	SF	5.00	3,250
Water table / sill trim	43	LF	10.00	430
Fascia	77	LF	10.00	770
Renovation Exterior New Siding & Trim Painting :				
Wood clapboard siding	760	SF	5.00	3,800
#2 Water table / sill trim	14	LF	10.00	140
Rake	52	LF	8.00	416
Rake return	2	EA	100.00	200
Corner board	36	LF	5.00	180
Exposed 12" CMU Foundation wall	42	SF	10.00	420

				24,741

DIVISION 10 - SPECIALTIES

101100 VISUAL DISPLAY SURFACES

Classroom marker boards	2	EA	800.00	1,600
Display cases		NIC		

101400 SIGNAGE

Interior signage system (ADA & general)	1	LS	1,000.00	1,000
Directory 24" x 36"	1	LOC	2,200.00	2,200

Exterior Signage -Allowance:

Entry building mounted sign	1	LOC	2,500.00	2,500
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102800 TOILET ACCESSORIES

ADA Toilet Partition	2	EA	1,250.00	2,500
STD Toilet Partition	2	EA	1,050.00	2,100
Urinal screen	1	EA	250.00	250
Toilet grab bar	4	EA	85.00	340
TP dispenser	4	EA	45.00	180
Coat hook	4	EA	25.00	100
Paper towel dispenser/disposal	2	EA	175.00	350
Elec hand dryer		NIC		
Mirror @ wall hung lav	3	EA	250.00	750
Soap dispenser	3	EA	38.00	114
Baby changing STA	2	EA	550.00	1,100

104400 FIRE PROTECTION SPECIALTIES

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Fire extinguishers- allow	2	EA	550.00	1,100
109000 MISCELLANEOUS SPECIALTIES				
Shelving sys		NIC		
Alum. louvers - allow	1	LS	1,200.00	1,200
Elev louvers - allow	1	LS	1,500.00	1,500
MTG rm op partition(16' x 7')	112	SF	72.00	8,064
*Modernfold Sound master 12 Series STC 40				
				----- 26,948

DIVISION 11 - EQUIPMENT

110000 MISCELLANEOUS EQUIPMENT

AV equipment		NIC		
Central vacuum system		NIC		

114500 RESIDENTIAL APPLIANCES

Serving Pantry Kitchen Appliances		NIC		
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0

DIVISION 12 - FURNISHINGS

12900 FURNISHINGS

Entry mat		NIC		
Window shades		NIC		

0

DIVISION 13 - SPECIAL CONSTRUCTION

130000 SPECIAL CONSTRUCTION		N/A		
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DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
DIVISION 14 - CONVEYING EQUIPMENT				
142000 ELEVATORS & LIFTS				
LULA	1	LS	65,000.00	65,000

				65,000
DIVISION 21 - FIRE SUPPRESSION				
210000 FIRE SUPPRESSION				
Wet sprinkler system: Addition	534	GSF	15.00	8,010
Rework Wet sprinkler system: Basement	1,993	GSF	5.00	9,965

				17,975
DIVISION 22 - PLUMBING				
220000 PLUMBING				
Demolition & disconnects	1	LS	1,500.00	1,500
Fixtures:				
ADA Toilet	2	EA	1,750.00	3,500
STD Toilet	2	EA	1,750.00	3,500
Urinal	1	EA	1,750.00	1,750
Ctr mtd lav	3	EA	1,225.00	3,675
Kitchen sink	1	EA	1,225.00	1,225
Drinking fountain - allow	1	EA	1,225.00	1,225
Laundry conn - allow	1	EA	1,225.00	1,225
Fixt Connection	11	EA	3,500.00	38,500
Toilet rm floor drain	2	EA	1,500.00	3,000
Boiler rm floor drain	1	EA	1,500.00	1,500
EWH-1	1	LS	2,450.00	2,450
Grease trap		NIC		

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Test, Permit, Cleaning	1	LS	2,500.00	2,500

				65,550

DIVISION 23 - HVAC

230000 HVAC

Basement/Addition Floor AHU	2,527	GSF	25.00	63,175
Energy Recovery Unit	1	LS	7,500.00	7,500
Hydronic Heat	2,527	GSF	5.00	12,635
Bathroom exhaust	1	LS	3,000.00	3,000
ATC System	2,527	GSF	3.00	7,581
Test and Balance	2,527	GSF	1.00	2,527

				96,418

DIVISION 26 - ELECTRICAL

260000 ELECTRICAL

New Panel and Feeder	2,527	GSF	2.50	6,318
Interior Lighting	2,527	GSF	15.00	37,905
Lighting Control	2,527	GSF	2.50	6,318
Elevator Feed and Disconnect	1	LS	3,000.00	3,000
Emergency Lighting	1	LS	1,200.00	1,200
Power and Devices	2,527	GSF	2.75	6,949
Tele data Box and Wiring (only)	2,527	GSF	2.50	6,318
Fire Alarm	2,527	GSF	3.50	8,845
Security System	2,527	GSF	3.00	7,581

				84,432

DIVISION 31 - EARTHWORK

310000 EARTHWORK

Site Earthwork:				
Site grading - minimum	167	SY	5.00	835
8" Gravel base @ walk	8	CY	42.00	336
12" Gravel base @ drive	33	CY	42.00	1,386

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Building Addition Earthwork:				
Basement hand excavation - allow	1	LS	3,000.00	3,000
Basement excavation	50	CY	35.00	1,750
Foundation excavation	50	CY	35.00	1,750
Foundation backfill	25	CY	75.00	1,875
Haul surplus	50	CY	25.00	1,250
8" Gravel base - bldg. SOG	8	CY	40.00	320
Foundation drain	75	LF	28.50	2,138

*Excludes ledge removal

*Assumes suitable soil

311000 SITE CLEARING

Allow:

Construction fence	150	LF	18.00	2,700
Construction gate	1	EA	500.00	500
Erosion control	150	LF	5.50	825
Saw cut bit drive	100	LF	4.00	400

Site Remove Existing::

Concrete ramp w/ rails	345	SF	15.00	5,175
Bit drive-allow	1,000	SF	1.50	1,500
Misc. site prep. & demolition	1,500	SF	1.00	1,500

27,240

DIVISION 32 - EXTERIOR IMPROVEMENTS

321000 BASES, BALLASTS AND PAVING

Disturbed Area @ New Addition -Allow:

Curbing		N/A		
Bituminous drive/parking	100	SY	26.50	2,650
Concrete walk	300	SF	29.00	8,700

329000 SITE IMPROVEMENTS

Loam & seed disturbed areas	1	LS	1,500.00	1,500
Misc. site improvements		NIC		

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
				12,850
DIVISION 33 - UTILITIES				
330000 UTILITIES				
Site Drainage Modifications @ Addition	1	LS	2,500.00	2,500
				----- 2,500

PROJECT: GAR Hall Renovation
LOCATION: Beverly, MA
CLIENT: Adams & Smith Architects
DATE: 16-Jan-16

ALTERNATES

PHASE 2 ALTERNATES:

ALTERNATE NO. 1 - ALTERNATE WALL FINISH - BLUE BOARD AND SKIM COAT	5,200
ALTERNATE NO. 3 - ADD SPRINKLER SYSTEM	81,154

PHASE 3 ALTERNATES:

ALTERNATE NO. 1 - ALTERNATE WALL FINISH - BLUE BOARD AND SKIM COAT	26,869
ALTERNATE NO. 2 - ROOFTOP SOLAR ARRAY ON EAST SIDE OF ROOM - MAX 68-3'X5' PANELS	0
ALTERNATE NO. 3 - IN LIEU OF STEEL FRAME & GYPSUM DRYWALL IN FILL, CONSTRUCT ELEV. SHAFT W/8" CMU	12,100
ALTERNATE NO. 4 - MODERNFOLD ACOUSTISEAL 900 SERIES PANEL ON CEILING TRACK ILO MODERNFOLD SOUNDMASTER 12 SERI	8,575
ALTERNATE NO. 5 - ADD SPRINKLER SYSTEM	25,966

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
PHASE 2 ALTERNATES:				
ALTERNATE NO. 1 - ALTERNATE WALL FINISH - BLUE BOARD AND SKIM COAT				
Add:				
Premium Blue bd & Skim coat Finish: Phase 2	1,200	SF	3.00	3,600
SUBTOTAL				3,600
GENERAL CONDITIONS		10 %		360
SUBTOTAL				3,960
GENERAL ADMINISTRATIVE O&P		3 %		119
SUBTOTAL				4,079
INSURANCE		1 %		41
SUBTOTAL				4,120
P&P BOND		1.5 %		62
SUBTOTAL				4,390
DESIGN CONTINGENCY		15 %		659
SUBTOTAL				5,049
ESCALATION		3 %		151
TOTAL ALTERNATE NO. 1				5,200

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
ALTERNATE NO. 3 - ADD SPRINKLER SYSTEM				
Water Service:				
2" Domestic	10	LF	68.00	680
6" Fire	75	LF	95.00	7,125
2" Gate valve	1	EA	1,075.00	1,075
6" Gate valve	1	EA	1,350.00	1,350
Street connection	1	LOC	7,500.00	7,500
Sidewalk / street pavement patch	1	LOC	2,500.00	2,500
Wet sprinkler system:				
Basement	1,993	GSF	5.00	9,965
1st floor	2,007	GSF	5.00	10,035
Mezzanine	622	GSF	5.00	3,110
Dry sprinkler system:				
Attic	2,007	GSF	5.50	11,039
Fire Dept connection	1	LS	1,800.00	1,800
SUBTOTAL				56,179
GENERAL CONDITIONS		10 %		5,618
SUBTOTAL				61,796
GENERAL ADMINISTRATIVE O&P		3 %		1,854
SUBTOTAL				63,650
INSURANCE		1 %		637
SUBTOTAL				64,287
P&P BOND		1.5 %		964
SUBTOTAL				65,251
FEE		5 %		3,263
SUBTOTAL				68,514
DESIGN CONTINGENCY		15 %		10,277
SUBTOTAL				78,791
ESCALATION		3 %		2,364
TOTAL ALTERNATE NO. 3				81,154

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
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PHASE 3 ALTERNATES:

ALTERNATE NO. 1 - ALTERNATE WALL FINISH - BLUE BOARD AND SKIM COAT

Add:

Premium Blue bd & Skim coat Finish Phase 3	6,200	SF	3.00	18,600
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SUBTOTAL				18,600
GENERAL CONDITIONS			10 %	1,860

SUBTOTAL				20,460
GENERAL ADMINISTRATIVE O&P			3 %	614

SUBTOTAL				21,074
INSURANCE			1 %	211

SUBTOTAL				21,285
P&P BOND			1.5 %	319

SUBTOTAL				21,604
FEE			5 %	1,080

SUBTOTAL				22,684
DESIGN CONTINGENCY			15 %	3,403

SUBTOTAL				26,087
ESCALATION			3 %	783

TOTAL ALTERNATE NO. 1				26,869
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DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
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DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
ALTERNATE NO. 3 - IN LIEU OF STEEL FRAME & GYPSUM DRYWALL IN FILL, CONSTRUCT ELEV. SHAFT W/8" CMU				
Delete:				
Elev shaft wall -complete	-612	SF	22.00	-13,464
Add:				
Elev shaft wall - 8" CMU	612	SF	35.00	21,420
Loose lintel	15	LF	28.00	420
SUBTOTAL				8,376
GENERAL CONDITIONS		10 %		838
SUBTOTAL				9,214
GENERAL ADMINISTRATIVE O&P		3 %		276
SUBTOTAL				9,490
INSURANCE		1 %		95
SUBTOTAL				9,585
P&P BOND		1.5 %		144
SUBTOTAL				9,729
FEE		5 %		486
SUBTOTAL				10,215
DESIGN CONTINGENCY		15 %		1,532
SUBTOTAL				11,747
ESCALATION		3 %		352
TOTAL ALTERNATE NO. 3				12,100

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
ALTERNATE NO. 4 - MODERNFOLD ACOUSTISEAL 900 SERIES PANEL ON CEILING TRACK ILO MODERNFOLD SOUNDMASTER 12 SERIES				
Delete:				
MTG rm op partition(16' x 7') *Modernfold Sound master 12 Series STC 40	-112	SF	72.00	-8,064
Add:				
MTG rm op partition(16' x 7') *Modernfold Acoustical 900 series STC 45	112	SF	125.00	14,000
SUBTOTAL				5,936
GENERAL CONDITIONS		10 %		594
SUBTOTAL				6,530
GENERAL ADMINISTRATIVE O&P		3 %		196
SUBTOTAL				6,725
INSURANCE		1 %		67
SUBTOTAL				6,793
P&P BOND		1.5 %		102
SUBTOTAL				6,895
FEE		5 %		345
SUBTOTAL				7,239
DESIGN CONTINGENCY		15 %		1,086
SUBTOTAL				8,325
ESCALATION		3 %		250
TOTAL ALTERNATE NO. 4				8,575

ALTERNATE NO. 5 - ADD SPRINKLER SYSTEM

Wet sprinkler system:				
Addition	534	GSF	15.00	8,010
Rework Wet sprinkler system:				
Basement	1,993	GSF	5.00	9,965

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
SUBTOTAL				17,975
GENERAL CONDITIONS		10 %		1,798
SUBTOTAL				19,773
GENERAL ADMINISTRATIVE O&P		3 %		593
SUBTOTAL				20,366
INSURANCE		1 %		204
SUBTOTAL				20,569
P&P BOND		1.5 %		309
SUBTOTAL				20,878
FEE		5 %		1,044
SUBTOTAL				21,922
DESIGN CONTINGENCY		15 %		3,288
SUBTOTAL				25,210
ESCALATION		3 %		756
TOTAL ALTERNATE NO.5				25,966