

SSV Architects  
ARCHITECTURE • PRESERVATION

# BUTTERFIELD SCHOOL

## FEASIBILITY & REUSE STUDY



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# ACKNOWLEDGMENTS

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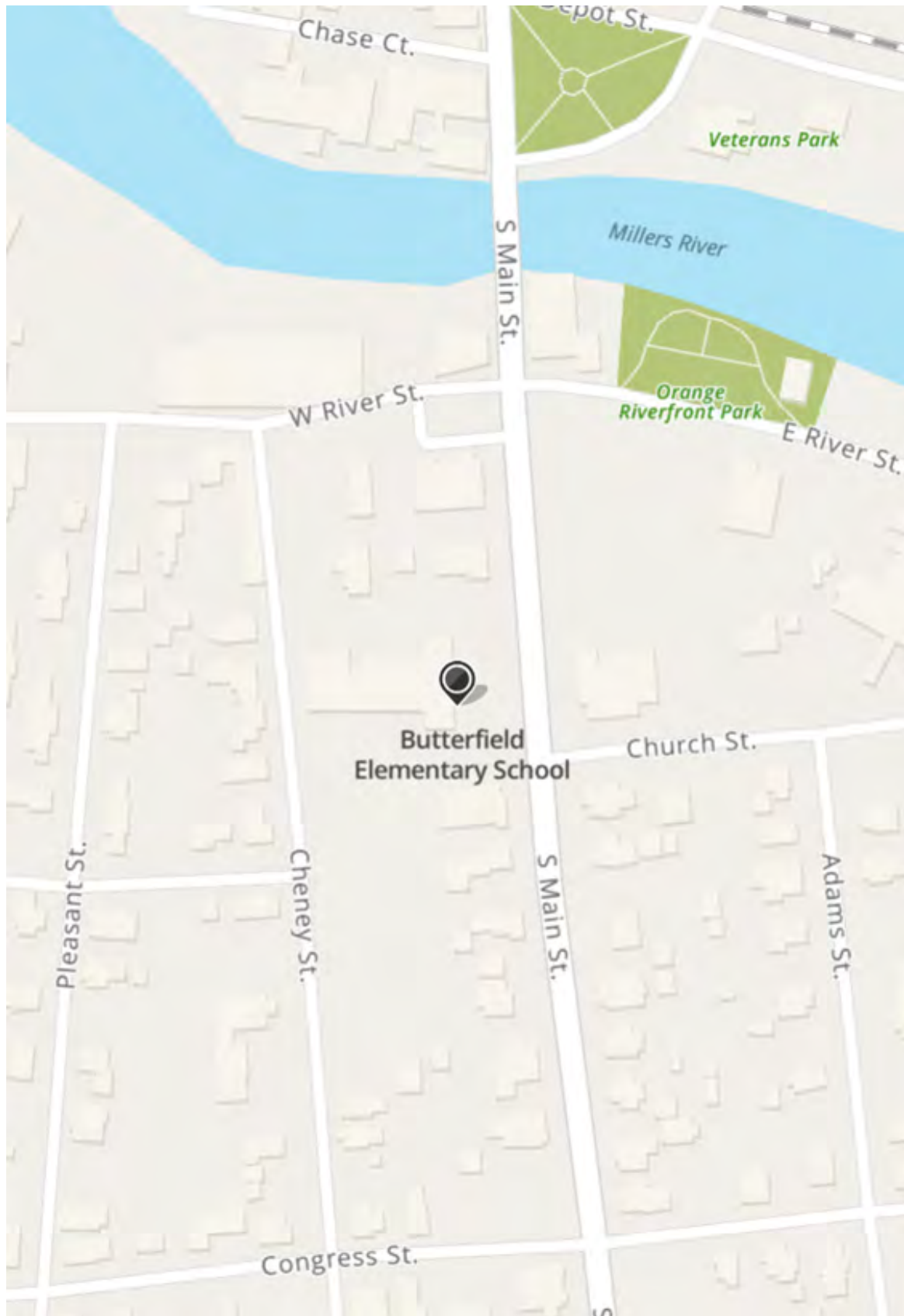
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## LOCUS PLAN





# Executive Summary

This feasibility study proposes a re-use and re-purposing of the vacant Butterfield School in downtown Orange, MA. The existing Three-story school building was once part of the Ralph C. Mahar & School Union 73 District, served over 500 pre-kindergarten through 6th-grade students in western Massachusetts. The 37,533 square foot building was built in 1910 and sits on 1.58 acres, including the parking lot and a neighborhood playground that was improved with CDBG funds. The school is located along Orange's primary travel corridor within a residential area at 94 South Main Street. Its location is .1 mile from Orange's Riverfront Park and .1 mile from Orange's commercial center. The committee and the architectural team engaged in evaluating the physical conditions of the existing building and site to provide a cost effective, energy efficient, and safe facility to meet the future needs of the town.

The adaptive reuse feasibility study of the existing building will consider three options. All three options propose an outdoor garden area facing south for seniors. An existing gymnasium and assembly space will be left as is for community activities such as town voting and youth basketball. Alternate uses for these areas may be considered in the future. An existing parking lot is also located on south side of the site, with some minor adjustments and added parking to the north side. The building has existing ramps from grade down to the sub-basement gymnasium on both the south and north-west sides that are not to code. There are fire escapes attached to the second floor that will remain in place at locations other than the new addition, which will house a new egress staircase.

The project goal's three options are based on current industry and local program trends.

## Option 1 - Multi-Family Housing

1-4 bedroom housing units to be rented at market rates.

## Option 2 - Senior Center

Provide the seniors of the town a place to congregate and engage in daily activities.

## Option 3 - Town Offices/Senior Center

A shared town hub that houses town offices as well as a senior center.

This document, along with the accompanying drawings and comments shall constitute a feasibility study for the Butterfield School, 94 S. Main St., in the town of Orange MA 01364.

Located in Franklin County, Orange has a land area of 35.1 sq. mi. and a density of 210.90/square miles. Orange has a projected 2023 census of 7,394 citizens, which is a -47 person growth resulting in a growth rate of -0.63%.

Orange has a Population by Age as seen in the following chart:

<https://worldpopulationreview.com/us-cities/orange-ma-population>



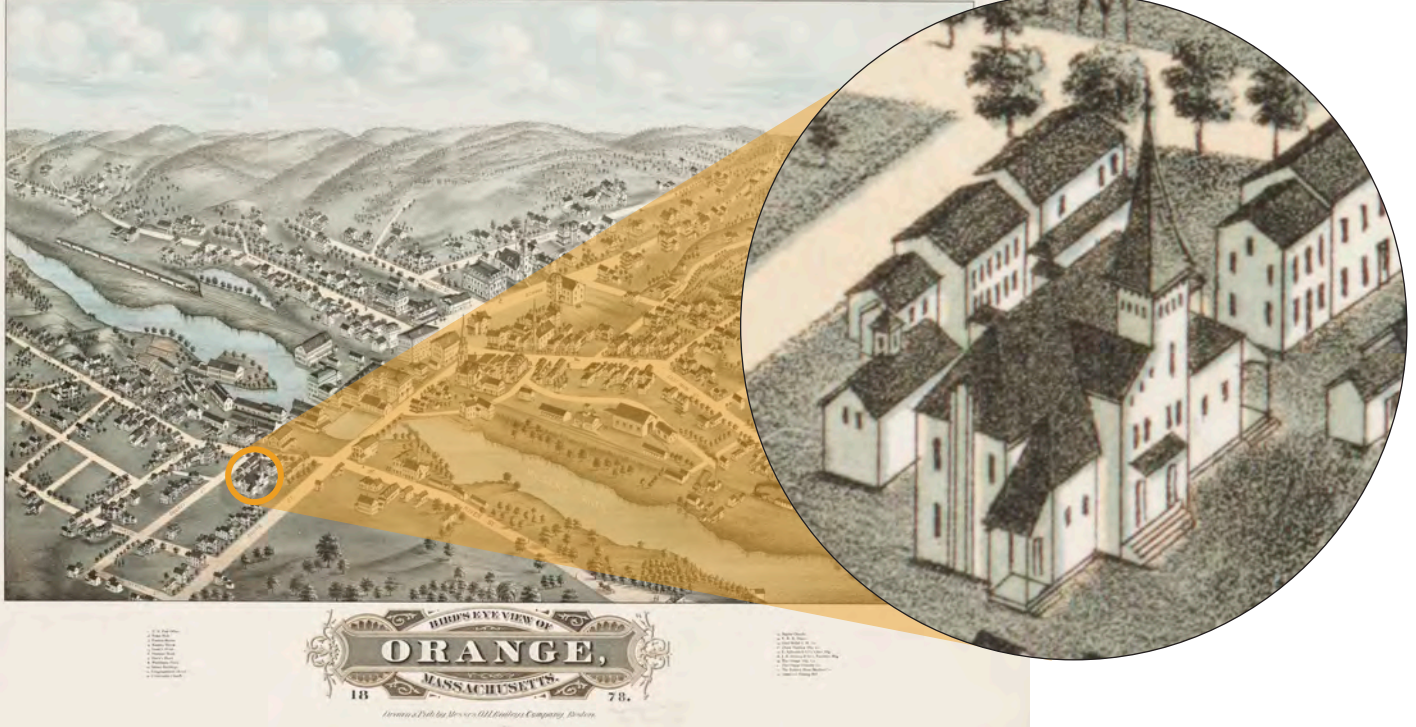
## PROJECT INTENTIONS

The intent of the study is to provide an assessment of the existing building and site and to recommend options for the rehabilitation and renovation of the building. All three options include the following:

- Provide adequate parking for adaptive reuse and additional growth.
- Consider building an addition with a second new elevator for MAAB required access.
- Orient accessible parking to accessible entrances. Provide a covered entrance.
- Develop the building on each level to the greatest extent possible.
- Provide outdoor spaces for walking, gardening, games, picnics, concerts and other activities.
- Incorporate covered outdoor activity space.
- Configure interior spaces for security, privacy and independent use.
- Maximize visual access of activities for staff.
- Orient spaces to maximize efficiency and provide privacy where appropriate.
- Promote energy efficiency in design and execution.



1878



# PART I HISTORY & SIGNIFICANCE

1883





## Brief Historical Narrative

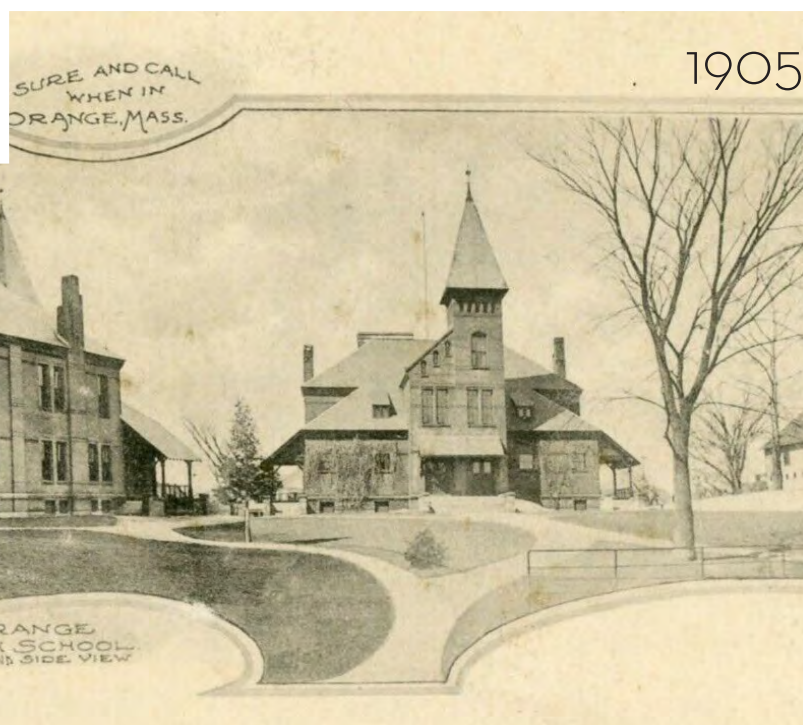
Our research has uncovered little textual information about the Butterfield School's history. However, various historical images exist. Postcards comprise the bulk of the historic evidence and are useful in that they are often dated to give us an idea of how the building looked at a specific point in time. We were also able to uncover two 19<sup>th</sup>-century maps of Orange, which provided further evidence as to the school's original construction date.



The bird's eye view maps on p. 10 both depict Orange High School on the current site of the Butterfield School on South Main Street. The earlier of the two dates to 1878, the earliest image of the school encountered during the research stage. It follows that the original building dates to 1878 *at the latest*, at which time it barely resembled the current structure. Notwithstanding, close inspection of the collected images suggests that some portions of the original school remain between two flanking additions (see the annotated images on p. 13). The building's presumed chronology is as follows:

**Before 1878** – Orange High School is constructed. The asymmetry and slender proportions of the original building's tower, paired with its low sloping hip roofs and canopies, are suggestive of the Stick Style, which was popular throughout the United States in the 1870s.

**Between 1883 and 1903** – A sizable addition is constructed at the rear of the school, closest to Cheney Street. The wide





2023



chimneys and protruding pilasters at the side elevations seem to denote the location of the original (c. 1870s) rear wall. The building's original hipped dormers still remain and can be observed in the attic (see the image, left).

1909



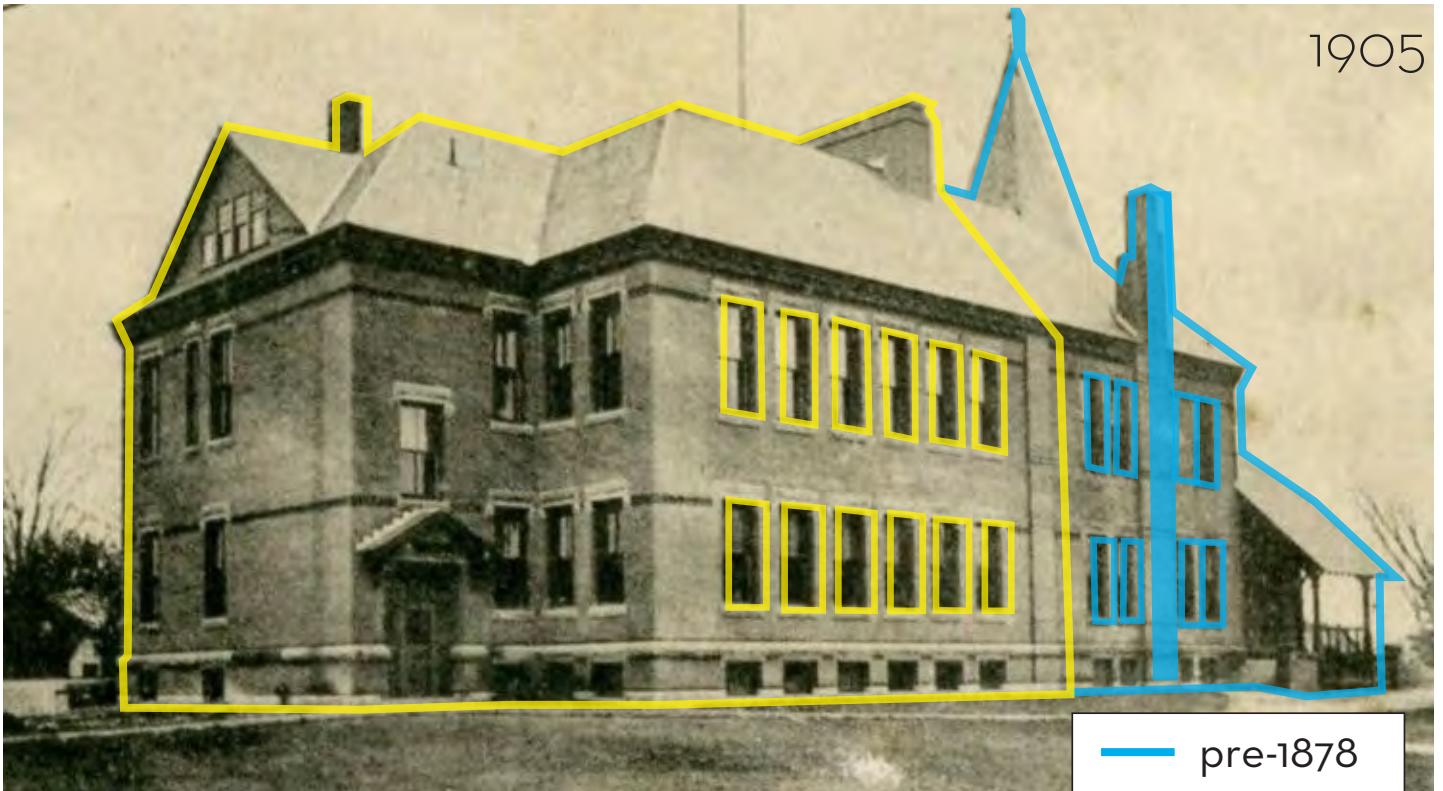
**Circa 1925** – The front- and rearmost portions of the original building, including the tower and rear wing, are demolished to make way for two new wings, designed and constructed in the high Colonial Revival style typical for civic and residential structures between about 1910 and 1930. The claim that the front and rear wings date to the same building campaign is largely based in the observation that they are strikingly similar in design and materiality (note the identical precast cornices/water tables and similar brick and mortar compositions, interrupted by what remains of the 19th-century construction in-between). The current building's classical facade, with a closed pediment and large half-round window over the transformed entrance, would have been the height of architectural style in 1925.

**Between 1925 and Present** – The building's exterior was evidently changed very little during this time, short of some landscape improvements and materials upgrades like the installation of membrane roofing and some new sheet metal assemblies.

1940







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## Character Defining Features

The Butterfield School has a distinctive identity and character. Its character defining features are significant, observable, with experiential aspects of a building that define its architectural power and personality. These features should be retained in any restoration or rehabilitation scheme in order to protect the building's historic integrity and maintain its eligibility for preservation grant funding and rehabilitation tax credits if available.

Character defining elements include the overall shape of the building along with its materials, craftsmanship, and decorative details. In many cases, site and environment also play a key role in defining a historic building's character. These are critical considerations in planning any modification to an old building, as inappropriate changes can undermine its historical and architectural significance, sometimes irreparably.

This survey of the Butterfield School identifies the exterior elements that contribute to the unique character of the building. Bulleted items in this section should be considered important aspects of the building's historic nature, and any changes to them should be made only after careful consideration and/or consultation with a preservation specialist.

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**Setting/ Site Plan & Massing:** *The topography, population density, and other influences that are noteworthy of the property and its surrounding landscape. The form and organization of the building, which give the initial visual impression and define the user's experience.*

- The Butterfield School is located on South Main Street, the primary commercial/civic corridor passing through Orange. Located just south of the Millers River across from the intersection of South Main and Church Streets, the church is situated in one of the town's most densely populated areas.
- As previously outlined, the Butterfield School is an amalgamation of three distinct parts: the late 19<sup>th</sup>-century 'core' and two flanking wings dating to 1925. The original construction and later interventions are readily distinguishable due to differences in style and materials.

**Openings:** *Windows and doors. While often reflecting the hallmark features of a specific architectural style, these are also integral to climate control and circulation.*

Windows are single pane and need to be repaired or replaced for energy efficiency measures.

- There is only a handful of distinct window types at the Butterfield School. That said, most are not historic and therefore not character defining. Window surrounds, on the other hand – architraves and sills – vary according to the part of the building on which they are located.
- Windows at the pre-1925 (henceforth 'historic') portion of the building have carved brownstone lintels and sills. The windows are single pane and need to be repaired or replaced for energy efficiency measures.



## ***Building Envelope/Materials***

*The visual kit of parts that comprise the exterior envelope of a building. While they can often be telling of a building's construction date, some materials are timeless and have been used for centuries.*

- The primary material used at the Butterfield School is red brick. Often – particularly at brick buildings older than 96 years – differences in brick and mortar composition can provide clues as to the age of different areas or additions. Here, bricks and mortar are consistent throughout; few modifications have been made to the building since its initial completion. Dark red bricks have here been laid in a Flemish bond, an elevated stylistic choice that reflects the craftsmanship of the builders while also suggesting that the exterior walls are in double wythe. The diagram to the left illustrates this construction method in detail. A light-color mortar has been employed throughout the building.
- All masonry accents, including keystones around clockfaces and the Neoclassical plaque over the front entrance, are architectural precast, which is effectively a fine-grade cement poured into and fully set *before* installation (not to be confused with poured concrete, which is, as the name suggests, poured and set in place). Precast was starting to gain popularity around the time that the school was built; preferences have since shifted toward cast stone, which offers more flexibility in matching natural stone species.

# Preservation Guidelines

*The consideration of repairs, renovations, and maintenance of the Butterfield School should be guided by the significance of the buildings and site as framed by the National Register, Massachusetts Historical Commission, and the character defining features identified in this report. The Secretary of the Interior's Standards for the Treatment of Historic Properties should be used to inform all work at the building that are considered historical. The Standards provide advice on the preservation and protection of cultural resources and recognize four treatments: Preservation, Rehabilitation, Restoration, and Reconstruction. The first three are relevant to this project.*

## **Preservation**

Preservation is defined “as the act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials rather than extensive replacement and new construction. New exterior additions are not within the scope of this treatment; however, the limited and sensitive upgrading of mechanical, electrical and plumbing systems and other code-required work to make properties functional is appropriate within a preservation project.”

## **Rehabilitation**

Rehabilitation is defined “as the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural or architectural values.”

## **Restoration**

Restoration is defined “as the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a restoration project.”

## **GENERAL APPLICATION OF THE STANDARDS**

### **Materials**

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

### **Siding & Trim**

Substitute siding materials cannot rival the distinctive, historic appearance of wood clapboards, or shingles. Although substitute materials such as vinyl or cement board siding may offer short-term benefits in terms of maintenance and durability of color finish, they have inherent disadvantages. Vinyl siding severely compromises the historic integrity of a building and its application often obscures character defining trim elements or necessitates their removal. Cement board siding lacks the distinctive tapered profile of wood siding, is difficult to install (it requires screws instead of nails), and degrades over time. It performs poorly and takes on water during freeze-thaw cycles and where butt ends have not been properly prepared.

PVC and fiberglass materials do not match the physical properties of original materials.

### ***Wood Windows and Doors***

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

### ***Paint Finishes***

Original paint formulations and colors are character-defining elements that are often lost over time because the paint materials themselves are relatively short-lived. When repainting is necessary to preserve the integrity of the envelope, the colors chosen should be appropriate to the style and setting of the building. If the intent is to reproduce the original colors or those from a significant period in the building's history, they should be based on the results of a scientific paint analysis.

Traditional lead-based paints, which offer excellent longevity, durability, and color stability, are no longer available in the United States. The highest quality latex-based paints available should be employed instead, after thorough surface preparation and priming. The application of a permanent vinyl or ceramic liquid coating system is damaging to wood, irreversible, and historically inappropriate.

## **APPLICATION OF THE STANDARDS AT BUTTERFIELD SCHOOL**

*Preservation of the character-defining features and architectural integrity of the building should be of paramount concern for the building's stewards.*

### ***Preservation of Exterior Character Defining Features***

#### ***Brick & Masonry***

The brick used on the building varies. Masonry materials should be retained, repaired, and maintained to the degree possible. If changes are contemplated or elements become damaged and require repair, the original brick should be matched. As natural stone was not employed anywhere at the building exterior, cost prohibitive masonry repairs such as dutchmen and other types of patching will not be necessary.

#### ***Windows***

Most of the windows have been replaced over the years. As a result, replacement of windows should be based on the condition of the window and its energy efficiency. If replaced, the new window design should be based on historic patterns. Original window positions should be maintained throughout. If possible, existing windows should be retained and restored. Missing sections of original glass should be replicated by a qualified glazier to match original designs. Low profile storm panels are preferred to more traditional storm windows as they minimally disrupt windows' historic appearance and can often be fabricated to closely match the color of the casings.

#### ***Doors***

The original door materials and design are important to the design aesthetic of the building. All the exterior doors are not original and should be replaced according to historic photographs where possible with appropriate modifications necessary to meet current code requirements. Replacement doors should use energy efficient design and materials.

# PART II:

## CONDITIONS ASSESSMENT & TREATMENT RECOMMENDATIONS

The following section includes (a) a narrative identifying problem areas at the building exterior in which recommendations for proper treatment are presented. The building was carefully documented during two visits to the site: one for measurements on November 14<sup>th</sup> and one for detailed assessment on December 28<sup>th</sup>. Most of the photos included herein were taken by SSV representatives Gerald Sullivan, Joe Metrano, Matthew Wolfson, and/or Conor Keane; hard-to-reach areas including the roof, tower, and steeples were assessed from a 100' aerial lift provided by Acella Construction Corporation. The inside of columns at the front portico were assessed via endoscope.

The roof plans and elevations included throughout this report have been prepared in Revit and AutoCAD, based on a survey from EagleView and measurements taken during the above-mentioned November 14<sup>th</sup> site visit.

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Existing conditions observations are organized according to category: masonry and concrete; doors and windows; roofs, drainage, and flashings; and carpentry and mill work. Each observation is keyed to an image wherein the relevant areas are identified.

A recommended treatment is provided for each observed condition. *These are shown in red italics.* In some cases, more than one treatment recommendation is provided, along with a summary of the potential benefits and drawbacks of each option. These treatment recommendations provide the basis for the scope of work outlined in Part III.

The locations of each photograph are called out on the roof plan and elevations included on pp. xx-xx, which are color-coded according to the conditions' severity (urgent, high priority, and low priority).

## Masonry & Concrete:

The primary building material utilized at the Butterfield School is brick. Other areas of masonry, including accents around windows and **the plaque over the front entrance**, are fabricated in architectural precast.

Masonry deficiencies are typically among the most pressing concerns at an old building's envelope, as their unchecked development can lead to leaks and structural problems. That said, Butterfield School's relatively young age have left most components of the masonry – including brick, precast, concrete, and mortar – in relatively good condition. In the interest of comprehensive assessment, masonry and concrete conditions are outlined below.



As explained in Part I of this report, Butterfield School is over 100 years old.

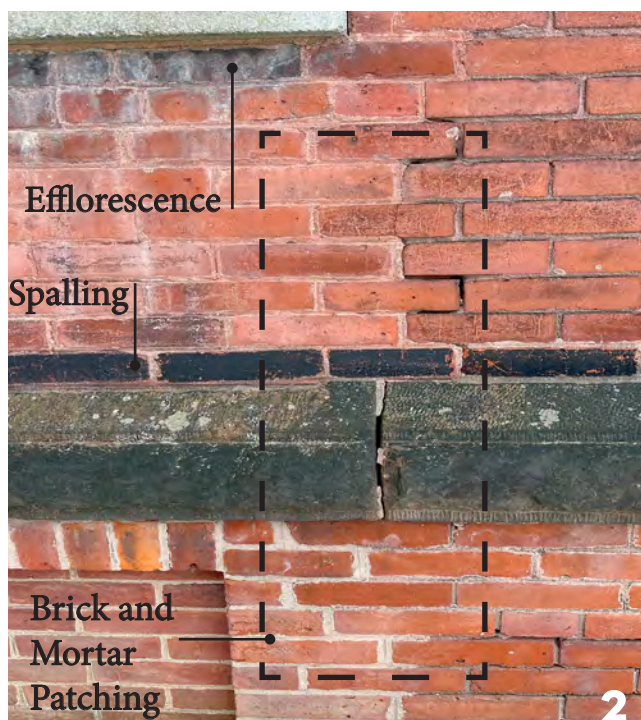
The building is set on a poured concrete foundation. The landing of the front steps – also poured concrete – is level with the top of the foundation wall.

While one would hesitate to refer to the building as ‘young,’ it should be noted that even century-old structures are relatively new additions to the New England landscape. While all building materials have some degree of variability in their usable lifespan, the condition of brick masonry is particularly subject to the circumstances of its fabrication, specifically the location from which the clay was sourced and the approximate year it was fired.

Through a visual inspection, the bricks utilized at Butterfield School appear to be quite durable, having proven themselves to be fairly weather-tight over the course of the last century. Inspection of the masonry yields that many of the brick faces are rough, suggesting spalling. Spalling is one of the many processes in which brick and stone deteriorate; being particularly prevalent in ‘spongy’ stone species like limestone, sandstone and brick. It occurs primarily as a result of the many air pockets that form during the firing process. When water is allowed to flow through the brick, it can over time dissolve some of the minerals binding the material together. The result is crumbling – typically of the outer faces, where moisture is most readily absorbed.

A mild degree of spalling is typical, even at newer masonry structures. The mild level of spalling present at Butterfield School can comfortably be categorized as un concerning.

The lack of advanced spalling here is fortunate, given that the only effective solution is replacement of affected units. **It follows that no related interventions are necessary at this time.**



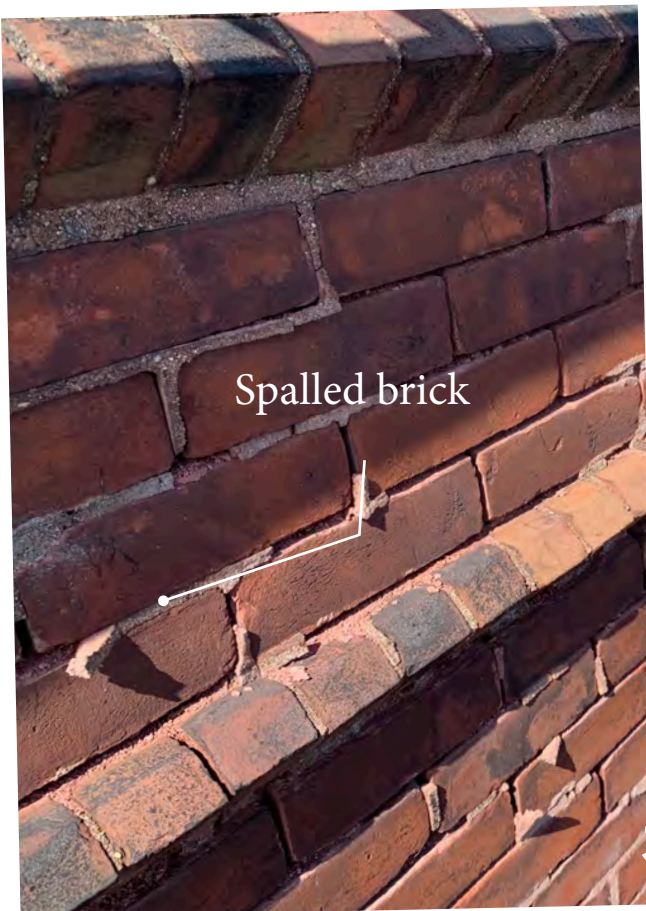


What is more prevalent on the school's exterior walls is efflorescence. Much like spalling, this condition is caused by masonry units absorbing moisture. The resulting white stains are merely salts deposited as the bricks leach moisture and are typically no cause for concern. Efflorescence can more readily be observed in the spring, when moisture absorbed into the walls during the winter (often containing dissolved de-icing salts) begins to weep. Removal of efflorescence is by no means necessary. If desired, staining can be removed via gentle cleaning with water.

Despite obvious evidence that selective areas of brick masonry at the school have at some time been repointed, few to no open mortar joints or stepped cracks are readily observable at the exterior. As such, no repointing is necessary at this time. In the event that some areas of masonry abruptly lose their mortar (as can happen shortly after periods of repeated freezing and thawing), cutting and repointing of the damaged joints is recommended. Any mortar mix used for exterior repointing should be carefully selected by a preservation professional to match the color and composition of the existing.

The building foundation is poured concrete. Notable cracks have been sealed and do not seem to be suggestive of a greater (that is, structural) problem. Any minor cracks that arise can be patched just as they have been (with caulk or mortar). If existing cracks grow larger over time, a structural engineer should be engaged.

As mentioned, architectural precast has here been employed for window sills, cornices and headers. All decorative precast pieces have proven durable and show little to no deterioration. That said, areas of precast that receive a higher level of wear and tear are in need of some intervention. Neither is drastic, especially considering their unlikelihood of allowing water to enter the building envelope. Notwithstanding, any cracked pieces of precast should be replaced in-kind. All mortar joints at the stair should be cut and comprehensively re-pointed with mortar closely matching the existing.



## Doors & Windows:

Doors and Windows have the ability to readily define the architectural character of any building through their design and arrangement. They are however, more often than not the leading cause of water infiltration at historic buildings. Often, the concerns caused by aged, broken, or otherwise deficient openings come with some degree of immediacy; as such, their treatment is generally a high priority in exterior restoration projects.

There are many window openings and seven exterior doors. Their condition may vary according to their form and placement. The windows and doors are to be categorized into distinct types.



*At the Butterfield School, the condition and functionality of the windows may vary considerably. This is particularly relevant as window enhancements often constitute a significant portion of our restoration efforts, especially in historic buildings. Typically, this need arises due to natural aging combined with a history of deferred maintenance.*

*The previously replaced windows appear to be functioning satisfactorily. We suggest that until the point of need of replacement, these windows would remain. When replaced, a thorough study of the old photographs of the original windows should be used so that the new windows would closely match the original windows as possible.*

*At the time of replacement, we would categorize the windows by their type and also their location for the sake of clarity and organization. We'll first assess the windows that are oldest, followed by those that generally appear to be in relatively good condition that in part, can be attributed to their age. It's worth noting that the exterior casings, despite exposure to the elements, are also in commendable condition. Measures such as repainting casings and cleaning sashes are integral to ensuring the long-term preservation of the new replacement windows.*

*The Palladian window at the second floor of the east wing seems to be in relatively good condition, as well as the exterior casings are in just as good condition despite being exposed to the elements. We anticipate that the building's stewards are receptive to exterior deficiencies as they arise. Such proactive measures as re-painting casings and cleaning sash are integral to windows' long-term protection.*



*If any of the larger windows are difficult to open because of some combination of sash cord failure and improper balancing, all pulleys should be oiled. Those beyond repair should be replaced.*

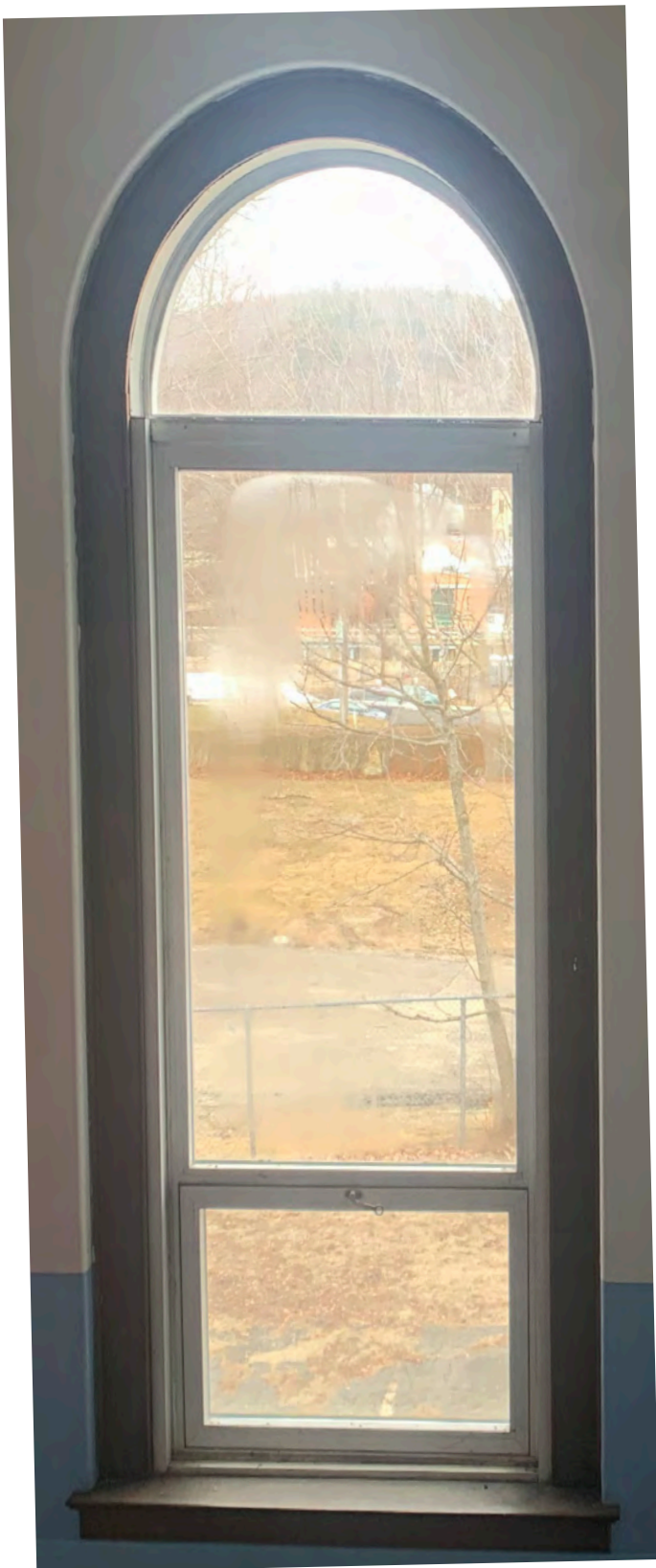
*Comprehensive replacement of sash cords is recommended, as these have a shorter lifespan than the sash themselves. However, a phased approach wherein only the most difficult-to-open windows receive new cords (or chains, which have a longer lifespan) would be an effective means of controlling the budget. At the time of cord replacement, sash should be re-balanced to ensure smooth operation.*

*Traditional aluminum storm windows, while an affordable option, are not necessarily the most cost effective solution. Storm windows like these have a maximum lifespan of fifty years but their thermal performance tends to decline after twenty-five or thirty years. As mentioned in the 'Preservation Guidelines' narrative, we typically recommend low-profile storm panels from Allied Window (Cincinnati, OH) or an equivalent provider. Historical review boards at various levels, from local to federal, often sing the praises of low-profile storms, for both their subtlety and durability. We have enjoyed great success with Allied's products at buildings with similar windows.*

*All that said, we have observed that the building's existing windows are in working order. If required improvised solutions such as applying cut Plexiglas over certain areas, though aesthetically questionable, can be effective in protecting these character defining features from weathering.*

*We do not recommend that the town immediately replace the existing storm windows. However, we do recommend that the building's stewards keep a careful eye on them and, at the sign of any leak or glazing failure, replace them with custom fabricated low-profile storm panels. Operable and inoperable options are available (the latter requiring that a member of the maintenance crew change out the glass panels for screens in the spring and vice versa in the fall).*





*Smaller operable windows at the north of the building tend to be in worse condition. It is not uncommon that less visible windows such as these receive less proactive care. All windows would be tested for operability during future site visits, and their functionality would be determined.*

*In the case where the sashes are poorly balanced with deteriorating weatherstripping are to be determined. If the tracks of their storms are full of organic debris that has a tendency of getting caught; some storm windows may not open more than a few inches without the sash popping out of its track.*

*However, much like the larger windows these sash show little to no glazing failure and their casings are in equally good condition. That is to say, perhaps these windows could benefit from new weatherstripping and cords. All should be re-balanced.*

*If required in the future, replacement of the existing storm windows with low-profile storms are recommended, but more typical aluminum storms have a lower price tag and would minimally disrupt the building's overall appearance (as this is the least visible elevation). However, as previously mentioned, these storm windows have a notably shorter lifespan than those offered by Allied and other manufacturers of that caliber.*

*Most windows appear to be in good condition, including those not protected by a storm panel. There is no evidence of interior of water infiltration. The building's stewards should be conscientious to ensure that the sash and casings regularly receive a new coat of paint.*

*That said, this may benefit from an inoperable storm panel. This measure is less for energy efficiency and more for long-term protection of the sash.*

*Most of the sashes show little evidence of glazing failure, In the case that a sash should be removed and restored, certain to be determined steps should be followed.*

*The building's seven exterior doors show some variation in condition, but are mostly in good condition. It is likely that the doors will require replacement or restoration. This, however, is not a high priority. Each door will be evaluated, with special attention given to the main entrance doors because of their key role in defining the historic character of the building.*



## Roofs, Drainage & Flashings:

Though they can appear simple from ground level, roofs are actually complex assemblies of various parts. That is to say: there are many opportunities for deficiencies to develop, and a problem with one part of the assembly could easily cause problems with the other parts. This is especially true of historic roofs, which are typically comprised of materials with very different lifespans. The asphalt shingled roof at the central body of the building appears to be in manageable shape. There are areas where the coping and flashing need to be repaired or replaced. Condition of the EPDM flat roof areas on the east and west wings need to be determined. The roofs have copper flashing at some locations.



As discussed in the 'Character Defining Features' narrative, the Butterfield School has three distinct roof areas: the EPDM flat roof over the main body of the building and the hip roofs over the East and West wings. The two roofs at the wings have similar materials and as such can be assessed as a group. Metal flashings, and gutters all need to be replaced or restored. Instead of by location, this narrative will be organized by material; asphalt and EPDM.

### 1. Asphalt Shingles:

At the main body, asphalt is the primary material in of which the shingles are composed of. It consist of a layered composition, typically featuring a fiberglass or organic mat core that provides structural integrity. This core is saturated with asphalt to enhance waterproofing properties and coated with mineral granules to protect against UV rays and weathering. Asphalt shingles come in various styles, colors, and designs, making them a versatile and cost-effective choice for roofing projects.

*Organic growth on shingles can be removed via gentle cleaning, either with water or chemicals.* When a sizable portion of the shingle exposure is missing, it can allow moisture to migrate and be absorbed into the subroof. During times of heavy rain and ice melt, this moisture can travel through minuscule openings in the subroof into the plaster and/or gypsum below. This is more often the process by which interior finishes are damaged. What is more: upon freezing, the trapped moisture can push up on the shingles and accelerate their breakage; this of course exacerbates the condition by which water is allowed to enter the envelope. *Asphalt Shingles with major breakage (3-5%) should be replaced in-kind matched to the color employed at the roof.*

### 2. EPDM:

The Flat roof at the east and west wings of the building are constructed of of a rubber EPDM material

An EPDM roof, short for Ethylene Propylene Diene Terpolymer roof, is a type of single-ply roofing membrane widely used in commercial and residential construction. EPDM roofing is known for its exceptional durability, weather resistance, and longevity, making it a popular choice for low-slope and flat roofs.

EPDM roofing membranes are typically composed of synthetic rubber compounds, primarily ethylene and propylene, with added diene for enhanced flexibility and UV resistance. These materials are engineered to withstand extreme weather conditions, including exposure to sunlight, rain, snow, and temperature fluctuations. This inherent resilience makes EPDM roofs an excellent choice for areas with harsh climates.

The EPDM roof appears to be in good condition and does not appear to require any major repair or restoration





## Carpentry & Millwork:

Deficiencies with carpentry and millwork can vary in importance. At wood framed buildings, of course, deterioration of rough carpentry can cause serious problems, ranging from settlement of the structure to collapse in the most serious cases. Even masonry structures can be seriously affected by issues with wood framing, as roofs were typically wood framed throughout the 19th century. Fortunately, the building's asphalt and EPDM roofs have properly protected the framing below from deterioration; framing issues are not a relevant concern here. However, fine carpentry - or millwork - has faced some deterioration. The following section highlights the areas of highest concern.

**HEAD HOUSE:** The existing head house at the north facade has been integrated into the basement design's three options, each for emergency egress from the new switchgear room.

**COVERED RAMPS:** Both existing ramps to the existing gym do not meet code. Both must be demolished and replaced with code compliant ramps. Also a new covering for the ramps should be designed.



## EXISTING SITE CONDITIONS:

*The topography, population density, and other influences that are noteworthy of the property and its surrounding landscape. The form and organization of the building, which give the initial visual impression and define the user's experience.*

- Site circulation is relatively easy as most of the site is flat. The driveway entrance is flat off of Cheney St.. The two ramps mentioned above to the gymnasium are not to code. The main entrance on the East Facade has the most challenging slope of the site and runs down to South Main Street. New ADA compliant ramps are required to replace existing ramps at the East and West entrances of the gymnasium.
- The school is flanked by two parking lots: to the north, a smaller one between the school and the neighboring property; and to the south, a much larger one with a playground at the far end. The parking lots surface are relatively flat. The asphalt is deteriorated resulting in surfaces that are uneven and rutted creating a hazardous walking surface.
- New Accessible parking spaces need to be situated nearby the new ADA compliant ramps. Stripping of parking lot and signage needs to be upgraded. Number of required parking spots to be accommodated.
- Parking for larger delivery and passenger vans can be accommodated at the south side parking lot. There is no covered pick up drop off area at the existing parking lot.
- Spaces for outdoor activities such as picnics and concerts, as well as walking paths are to be determined





## EXISTING BUILDING CONDITIONS:

- There are several means of egress from the building, with the primary entrance centered on the east elevation facing South Main Street. This entrance to the East is in fine condition but has a small landing which restricts the space for a person to stand on the landing and simultaneously open the out swinging door safely. There is no covered pick up drop off area at the main east façade. New ADA ramp required running from south east corner connecting to existing parking area.
- The most widely used entrance, however, faces the parking lot on the south elevation. The north and south elevations of the east wing have smaller entrances. There are egresses from the auditorium and gymnasium, which are located at the second and basement levels, respectively.
- The front entrance facing South Main St. to the East is in fine condition but has a small landing which restricts the space for a person to stand on the landing and simultaneously open the out swinging door safely. There is no covered pick up drop off area at the main east façade. New ADA ramp required running from south east corner connecting to existing parking area.
- The primary stairwell is situated at the southern portion of the connector between the gymnasium and original building; this accesses all three levels. There are narrower stairwells on either end of the east wing; these provide no access to the basement.
- The basement level is primarily comprised of support spaces, with a gymnasium/cafeteria (with flanking kitchen) in the west wing, locker rooms in the middle, and mechanical/storage spaces to the east.
- The first floor is comprised primarily of classrooms and offices, most of which are connected by secondary doors (as is typical of school buildings), and a mezzanine overlooking the gymnasium.
- The second floor is also comprised mainly of classrooms, with a large auditorium in the west wing over the gymnasium.
- The original building's attic is accessed via ladders, one on each side (north and south) of the central massing. The basement is primarily occupied by storage and ductwork, with several hatches accessing the roofs.
- Windows are single pane and need to be repaired or replaced for energy efficiency measures.
- The asphalt shingled roof at the central body of the building appears to be in alright shape. There are areas where the coping and flashing need to be repaired or replaced.
- Condition of the flat roof areas on the east and west wings need to be determined. The roofs have copper flashing at some locations.

## EXISTING INTERIOR CONDITIONS:

- A lobby space, waiting area where one could visually access the pick up drop off area for security is lacking.
- A main building entrance lobby should be visible to staff and secured from the program spaces.
- Currently there is no ability to monitor the basement area access points resulting in a lack of security and supervision of the future activities carried out in the basement.
- Existing toilet facilities in the basement must be entirely redesigned and rebuilt.
- There are three existing egress stairs in the building, well located and in good shape.
- Programs in the basement are limited due to the current floor to sill heights of the windows.
- A camera monitoring system is recommended.
- Corridors on the existing first floor are wide to accommodate large student gatherings. This may change due to the new program and security requirements to be discovered in Schematic Design.
- Privacy of visitors in the new design should be considered such as adjacency of waiting areas and offices to major program spaces.
- Circulation through program spaces must facilitate functions on all three floors.
- Office sizes need to be sufficient.
- New Storage spaces are well placed on the basement level, east wing where there are presently no basement windows. These storage areas are to be climate controlled.
- New Mechanical, electrical, switchgear etc. etc. to be placed on the central/south area of the basement where there are presently no basement windows.
- New mechanical equipment
- Air conditioning

### *The Gym:*

The existing gymnasium must accommodate multiple demands from diverse user groups. Older gym has a sports flooring that is not cushioned, the lighting is of poor quality, the acoustics may be bad, the sound system may be difficult to hear, the space may be stuffy because of poor ventilation or lack of air conditioning, interior finishes look worn and the seating does not meet modern standards. Many gymnasiums today are used as true multipurpose spaces. That means its surface should be tough and flexible to handle everything from basketball and volleyball tournaments to large community celebrations and town elections.

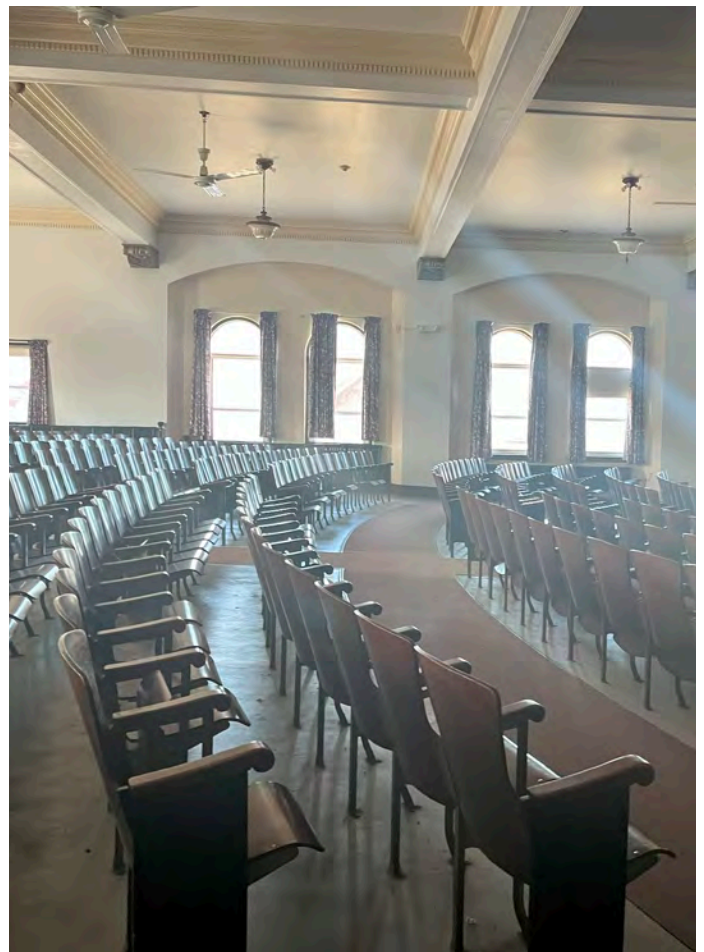
Wood flooring might not be the best surface choice. Use of the gym for town elections, meetings, church services, fundraisers and other non-sports activities, consider durable, easy-to-clean options include multiple-layer vinyl, polyurethane and even linoleum.

### *The Auditorium:*

The Butterfield school auditorium is a sloped assembly space on the second floor of the former high school and is in reasonably good condition. The seats are made of plywood and are fixed to the concrete floor. They are mostly intact and although their spacing and comfort level is slightly below today's standards, the seats are adequate for today's activities. In addition to a center aisle, a cross aisle is provided at the mid-point of the auditorium. Seating capacity in the auditorium is 504. The plaster is relatively good condition with some water damage at the plaster beam surrounds. Dentil work on the molding is in good condition and the lighting appears to be original with modifications being made at the canopy to provide additional lighting. A bar for stage lighting has been added to the at some point in its history.

It is recommended that the blue safety curtain be inspected for hazardous materials Asbestos began to be incorporated into safety curtains in the latter part of the 19th century, particularly in the 1870s and 1880s. This was a period of significant industrialization, and asbestos was valued for its fire-resistant properties. The use of asbestos in safety curtains continued to be common throughout the early to mid-20th century. During this time, theaters and public buildings often used asbestos-containing materials for fireproofing purposes, and safety curtains were no exception.

In addition to the safety curtain, four traveler curtains were used. Traveler curtains horizontally across the stage, either from side to side or from top to bottom. They are used to change scenes, create dramatic reveals, or hide props and actors.





# PART III:

## ADAPTIVE REUSE OPTIONS

### SUMMARY:

The Feasibility Study of the existing three-story school building will consider three adaptive reuse options. All three options propose an outdoor garden area facing south for seniors. An existing gymnasium and assembly space will be left as is for community activities such as basketball and town voting. An existing parking lot is also located on south side of the site, with some added parking to the north side. The building has existing ramps from grade down to the sub-basement gymnasium on both the south and north-west sides that are not to code. There are fire escapes attached to the second floor that will remain in place at locations other than the new addition, which will house an egress staircase.

The project will result in Assembly group A-3; Gymnasium, Community and Lecture Halls. Business group B; Town Offices, Commercial Kitchen and Institutional Group I-1 Senior Center (not I-4 Custodial care). The building will be divided by appropriate fire rated separation walls and doors. And card readers at junctions between public, semi-private and private.

The study's goal is to provide three options based on current industry and local program trends:

- Option One: Multi-Family.
- Option Two: Senior Center.
- Option Three: Town Offices with a reduced Senior Center (Preferred).

The Multi-Family Option places a new floor at the mezzanine level and flattens the second floor auditorium for new residential units.

The Senior Center and Town Office Options leave the entire west end of the building; the existing sub-basement Gymnasium, the first floor mezzanine and the second floor Auditorium as is.

Consistent for all three options; the portion of the semi basement to the east of the Gym is designed to house the required Men's and Women's bathrooms that are stacked floor to floor. Also in the sub-basement are the program's storage and most, if not all of the utility rooms that do not require exterior windows. In two schemes, the Switch Gear Room is placed at an existing egress stair to the north at grade that satisfies the code requirement. By ganging the utility rooms and bathrooms adjacent to each other, there is a greater ease of coordination. Also consistent in all three schemes is the addition of two new elevators for ADA required access; one near Stair 1 on the east side and the other near Stair 4 on the south-west near to the parking lot.



Option One: Multi-Family - New Addition



Option Two: Senior Center - New Addition



Option Three: Town Offices with a reduced Senior Center - New Addition

# Building Programs

1. Multi-Family Program
2. Senior Center Program
3. Senior Center/Town Offices Program

## MULTI-FAMILY PROPOSED BUILDING PROGRAM

<b>PROGRAM</b>	<b>SF.</b>
Residential	16709
Community	0

<b>NET PROGRAM SF.</b>	<b>16709</b>
Circulation and Support	0

<b>NET BUILDING SF.</b>	<b>16709</b>
Gross Building SF.	42500

<b>EFFICIENCY RATIO (NET)</b>	<b>100.00%</b>
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### RESIDENTIAL UNITS

Total One Bedroom	5
Total Two Bedroom	9
Total Three Bedroom	5
Total Four Bedroom	2
<b>Total Residential</b>	<b>21</b>

<b>TARGET UNIT SIZES</b>	<b>AVG. SF.</b>	<b>BEDS</b>	<b>COST/SF</b>	<b>AVG RENT</b>
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DEPARTMENT	SF.	COMMENTS
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<b>Residential Program</b>		
Basement	4411	See Community Spaces
<b>Totals:</b>	<b>4411</b>	

<b>First Floor</b>		
R101	1104	
R102	850	
R103	850	
R104	950	
R105	600	
R106	608	
R107	655	
R108	791	
<b>Totals:</b>	<b>6408</b>	

<b>Second Floor</b>		
R201	850	
R202	950	
R203	850	
R204	890	
R205	847	
R206	850	
R207	950	
R208	600	
R209	600	
R210	950	
R211	860	
R212	1104	
R213	1000	
<b>Totals:</b>	<b>10301</b>	

**Grand Total:** **16709**

## COMMUNITY/SHARED SPACE

DEPARTMENT	SF.	COMMENTS
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<b>Community Spaces</b>		
Multi-Purpose (Gym)		
Basement	4411	Gym - Town Elections as well as Senior Activities
First Floor	1915	Track
Second Floor		Auditorium demolished for residential units
<b>Total:</b>	<b>6326</b>	

<b>Fitness</b>		
Fitness Room	1053	
Personal Trainer	297	
Trainer Storage	76	
Gym Storage	91	
<b>Total:</b>	<b>1517</b>	

**Grand Total** **7843**

**CIRCULATION&SUPPORT**

<b>DEPARTMENT</b>	<b>SF.</b>	<b>COMMENTS</b>
<b>Circulation</b>		Corridors and Stairs
Basement	2643	
First Floor	70	
Second Floor	325	
<b>Total:</b>	<b>3038</b>	
<b>Support Spaces</b>		Bathrooms Closets
Basement	2176	
First Floor	200	
Second Floor	172	
<b>Total:</b>	<b>2548</b>	
<b>Grand Total</b>	<b>5586</b>	

## Associated Costs/Partial

DEPARTMENT	SF.	BEDS	COST/SF	RENT	COMMENTS
<b>Residential Program</b>					
Basement	4411	0			See Community Spaces
<b>Totals:</b>	<b>4411</b>				
<b>First Floor</b>					
R101	1104	4	\$2.61	\$2,881.44	
R102	850	2	\$1.81	\$1,538.50	
R103	850	2	\$1.81	\$1,538.50	
R104	950	3	\$1.38	\$1,311.00	
R105	600	1	\$1.31	\$786.00	
R106	608	1	\$1.31	\$796.48	
R107	655	1	\$1.31	\$858.05	
R108	791	2	\$1.81	\$1,431.71	
<b>Totals:</b>	<b>6408</b>	<b>16</b>		<b>\$11,141.68</b>	
<b>Second Floor</b>					
R201	850	2	\$1.81	\$1,538.50	
R202	950	3	\$1.38	\$1,311.00	
R203	850	2	\$1.81	\$1,538.50	
R204	890	2	\$1.81	\$1,610.90	
R205	847	2	\$1.81	\$1,533.07	
R206	850	2	\$1.81	\$1,538.50	
R207	950	3	\$1.38	\$1,311.00	
R208	600	1	\$1.31	\$786.00	
R209	600	1	\$1.31	\$786.00	
R210	950	3	\$1.38	\$1,311.00	
R211	860	2	\$1.81	\$1,556.60	
R212	1104	4	\$2.61	\$2,881.44	
R213	1000	3	\$1.38	\$1,380.00	
<b>Totals:</b>	<b>10301</b>	<b>30</b>		<b>\$19,082.51</b>	
<b>Grand Total:</b>	<b>16709</b>	<b>46</b>		<b>\$30,224.19</b>	

## Associated Costs/Partial

	BUILDING DATA	
	NET S.F.	\$ 16,709
	RENT PER S.F.	\$ 1.80
	OTHER INCOME	N/A
	VACANCY YEAR 1	10.00%
<b>FIRST YEAR OPERATING STATEMENT</b>		
POTENTIAL RENTAL INCOME	\$	360,914
VACANCY & CREDIT LOSS	10.00%	
<b>EFFECTIVE RENTAL INCOME</b>	<b>\$</b>	<b>324,823</b>
OTHER INCOME	\$	-
<b>GROSS OPERATING INCOME PER MONTH</b>	<b>\$</b>	<b>27,069</b>
AVERAGE PROPERTY TAXES		TBD
INSURANCE		TBD
(50% OF RENTAL INCOME) MAINTENANCE	\$	162,412
( 6% OF RENTAL INCOME PER YEAR MANAGEMENT FEE)	\$	19,489
RESERVES FOR REPLACEMENT		TBD
OTHER EXPENSES		TBD
<b>TOTAL EXPENSES</b>	<b>\$</b>	<b>181,900.88</b>
<b>NET OPERATING INCOME</b>	<b>\$</b>	<b>142,922</b>
DEBT SERVICE		TBD
<b>CASH FLOW BEFORE TAX</b>	<b>\$</b>	<b>142,922</b>

## Target Unit Size

AVG. SF.	BEDS	COST/SF	AVG RENT
500	Studio		
600	One	\$1.31	\$786.00
750	Two	\$1.81	\$1,357.50
1000	Three	\$1.38	\$1,380.00
1100	Four	\$2.61	\$2,871.00



# SENIOR CENTER PROPOSED BUILDING PROGRAM

<b>PROGRAM</b>	<b>SF.</b>
Senior Center	16205
Community	9635
<b>NET PROGRAM SF.</b>	<b>25840</b>
Circulation and Support	12627
<b>NET BUILDING SF.</b>	<b>38467</b>
Gross Building SF.	42500
<b>EFFICIENCY RATIO (NET) 67.17%</b>	

## SENIOR CENTER/BUILDING PROGRAM

DEPARTMENT	SF.	COMMENTS
<b>Council on Aging</b>		
Café	419	
Kitchen Meals on Wheels	730	
Kitchen Storage	91	
Kitchen Office	137	
Gift Shop	100	
Pantry	89	
Outreach Coordinator	252	
Outreach Coordinator Assist.	144	
Directors Office	291	
Meeting Room	450	
Meeting Room	147	
Health and Wellness	269	
Nurse Waiting	153	
Conference SM	329	
Meeting Room	144	
Conference LG	653	
Admin Work Station	88	
Closet	22	
Transport Coordinator	218	
Office	166	
Office	190	
Supplies	50	
Copy	99	
General	1081	
Meeting Room	519	
Volunteer Coordinator	227	
<b>Total:</b>	<b>7058</b>	

<b>Fitness</b>		
Fitness	739	
Gym Storage	77	
Personal Trainer	486	
Personal Trainer Storage	61	
Bike Storage	850	
Gym Storage	90	
Exercise Room	994	
Walk	1923	
<b>Total:</b>	<b>5220</b>	

# SENIOR CENTER PROPOSED BUILDING PROGRAM

<b>Senior Activities</b>		
Game Room	1611	
CLS	57	S105, S107, S108
CLS	46	S114, S119
Arts and Crafts	571	
A&C Storage	126	
Tech Learning	699	
Library/Lounge Area	418	
Media	399	
<b>Total:</b>	<b>3927</b>	

**Grand Total: 16205**

## COMMUNITY / SPACES

### DEPARTMENT SF. COMMENTS

<b>Community Spaces</b>		
Gym	4410	
Vestibule	55	
Assembly (Auditorium)	3570	
Auditorium Stage	789	
Office	166	
Storage	50	
Lobby SE	367	
Lobby	228	

**Total: 9635**

**Grand Total: 9635**

## CIRCULATION & SUPPORT

### DEPARTMENT SF. COMMENTS

<b>Basement Level</b>		
Storage		
Storage	86	
Storage Room	167	
Storage Room	167	
Trash	420	
Janitor's Closet	29	Equipment and supplies - large sink per floor
Services		
Switch Gear	143	
Communication	75	
Electric Room	288	
BDA	19	
Water/Sprinkler	98	
Elevator Control Room	28	
Mechanical Room	448	
WC	79	
Maintanance	138	
Circulation		
Stair 1	351	
Vestibule	88	
Elevator	100	(2 Total)
Corridor	1248	
Lobby	247	
Lobby SE	138	
Lobby NE	337	
Vestibule	88	
Toilet Rooms		
Public Men's Toilet Rooms	100	
Public Women's Toilet Rooms	106	

**Total: 4988**

# SENIOR CENTER PROPOSED BUILDING PROGRAM

<b>First Floor</b>		
Services		
Chase	21	
Circulation		
Stairwell	729	(Stair 1, 2, 3, 4)
Elevator	100	(2 Total)
Corridor	1445	(C106, C107, C109)
Lobby	515	(C105 and C110)
Lobby SE	103	
Lift	54	
Reception/Wait	263	
Toilet Rooms		
Public Men's Toilet Rooms	234	
Public Women's Toilet Room	241	
Senior Men's Toilet Room	106	
Senior Women's Toilet Room	100	

**Total:** **3911**

<b>Second Floor</b>		
Storage		
Closets	188	(S204, S210, S214)
Services		
Chase	21	
Circulation		
Stairwell	194	(Stair 1, 2, 3)
Elevator	86	(2 Total)
Corridor	1625	(C207, C208, C210, C212)
Lobby	228	
Lobby NE	338	
Lobby SE	367	
Toilet Rooms		
Public Men's Toilet Rooms	107	
Public Women's Toilet Rooms	99	
Town Men's Toilet Room	234	
Town Women's Toilet Room	241	

**Total:** **3728**

**Grand Total:** **12627**

## OUTDOOR FEATURES

### DEPARTMENT                      SF.                      COMMENTS

<b>Outdoor Activities</b>		
Outdoor Courts	600	
Senior Garden	800	

**Total:** **1400**

**Grand Total:** **1400**



# TOWN OFFICES/SENIOR CENTER PROPOSED BUILDING PROGRAM

PROGRAM	SF.
Town Offices	5407
Senior Center	4937
Community	11163
<b>NET PROGRAM SF.</b>	<b>24309</b> D
Circulation and Support	12769
<b>NET BUILDING SF.</b>	<b>37958</b>
Gross Building SF.	42500

**EFFICIENCY RATIO (NET) 64.04%**

## TOWN OFFICES

DEPARTMENT	SF.	COMMENTS
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<b>Administration</b>		
Town Administrator	194	Private office
Vault	20	8x6
Admin. Assistant		

**Total:** 214

<b>Town Clerk</b>		
Record Storage		In Basement and Second Floor
Open Office	279	25x22
Town Clerk		
Assist. Clerk		
Vault	20	Ballots 8x6 not large enough
Reception/Counter		Long enough for 2 people to stand and write

**Total:** 299

<b>Collector/Assessor</b>		
Open Office	144	Shared
Assessor		
Assessor Assist.	111	Future position
Collector's Office	144	Part-time afternoon
Vault	20	For after-hours payment storage
Water/Sewer Clerk	152	8x6

**Total:** 571

<b>Human Resources</b>		
Open Office	316	13.5x16.5
Secure Storage	37	Employee files
Private Offices	145	For employee discussion and matters

**Total:** 498

<b>Accounting</b>		
Accountant Office	109	Needs an extra work station for Senior Work-off person
Vault	51	Or safe (Shared with HR)
Open Office	352	22x22
Accountant		
Assist. Accountant		Works mornings for accountant and for collector afternoons

# TOWN OFFICES/SENIOR CENTER PROPOSED BUILDING PROGRAM

**Total:** **512**

<b>Meeting Room</b>		
Board of Selectman	870	26 x 14 For BOS and Committee meetings. Currently set up for
Closet	65	
AV Closet	65	Cable access storage, projectors, etc.
Large Conference	706	
Closet	40	
Small Conference	265	New space needed to facilitate gatherings
Town Storage	254	Currently used for storage - could be used for local cable a
Closet	40	

**Total:** **559**

<b>Storage</b>		
Office Supplies	40	Towels, toilet paper, etc.
Town Office Storage	475	In Basement
Election Storage	250	Ballots

**Total:** **765**

<b>Shared Space</b>		
Break/Lunch Room	312	Shared between departments
Mail Room	105	Needs to be larger - provide space for preparing large docum
Copy Room	90	One on each floor - located with Town Clerk & Collector

**Total:** **507**

<b>Community Development/Planning</b>		
Open Office	434	400sf 4 employees
Building Department	211	
Closet	55	

**Total:** **700**

<b>Building/Board of Health</b>		Must be located on 1st floor for handicap access
Open Office	470	400sf currently 4 employees will add 3-4 in future
File Storage	61	216sf for BOH files
Storage	80	
BOH Office	171	Necessary in new design - no divisions existing

**Total:** **782**

**Grand Total:** **5407**

# TOWN OFFICES/SENIOR CENTER PROPOSED BUILDING PROGRAM

# SENIOR CENTER

DEPARTMENT	SF.	COMMENTS
<b>Council on Aging</b>		
COA Director	285	Must be located on 1st floor for handicap access
Storage	20	Private office
Senior Center Admin	178	Private office
COA Assistant	190	
COA Senior Admin Mtg	224	
Closet	20	
Volunteer/Transport	185	
Closet	20	
<b>Total:</b>	<b>1757</b>	

<b>Senior Activities</b>		
Games Room/Arts & Crafts	441	
Storage	70	
Closet	20	
Media/Tech Learning	302	
Closet	20	
Gift Shop	113	Location for Seniors to sell handmade goods
Community Meals	1349	Senior and Visitor Café space
Kitchen	596	
Kitchen Office	91	
Closet	40	
Storage	90	COA supplies for meals and programs
<b>Total:</b>	<b>2315</b>	

<b>Health</b>		
Nurse Waiting	100	
Health/Wellness	489	
<b>Total:</b>	<b>589</b>	

Grand Total: 4937

## COMMUNITY/SHARED SPACE

DEPARTMENT	SF .	COMMENTS
Community Spaces		
Gym	4411	
Assembly (Auditorium)	3570	Public hearings, elections and meetings
Auditorium Stage	780	
Civic/Breakout Room	1282	Area for social gatherings after public events
Lobby	1120	Entry and informal lounge area
<b>Total:</b>	<b>11163</b>	Total Books: 25,460
<b>Grand Total:</b>	<b>11163</b>	



**CIRCULATION & SUPPORT**

<b>DEPARTMENT</b>	<b>SF.</b>	<b>COMMENTS</b>
<b>Basement Level</b>		
Storage		
Storage Room	80	
Trash	145	
Janitor's Closet	30	Equipment and supplies - large sink per floor
Services		
Switch Gear	280	
Communication	75	
Electric Room	255	
BDA	20	
Water/Sprinkler	100	
Elevator Control Room	55	
Mechanical Room	395	
Maintenance	140	
Circulation		
Stairwell	400	(Stair 1 & 5)
Vestibule	85	
Elevator	100	(2 Total)
Corridor	630	
Service Corridor	120	
Waiting Area	320	
Lobby	480	
Toilet Rooms		
Public Men's Toilet Rooms	115	
Public Women's Toilet Rooms	130	
<b>Total:</b>	<b>3955</b>	

<b>First Floor</b>		
Storage		
Coats	75	
Closets	110	
Janitor's Closet	30	
Services		
Chase	20	
Circulation		
Stairwell	400	(Stair 1, 2, 3, 4)
Lift	55	
Elevator	100	(2 Total)
Corridor	1025	(C108, C111)
Lobby	1585	(C106, C107, C109)
Reception	80	
Toilet Rooms		
Public Men's Toilet Rooms	115	
Public Women's Toilet Rooms	115	
Senior Men's Toilet Room	270	
Senior Women's Toilet Room	240	
<b>Total:</b>	<b>4220</b>	

**PROGRAM**

<b>Second Floor</b>		
Storage		
Closets	40	
Services		
Chase	20	
Circulation		
Stairwell	200	(Stair 1, 2, 3)
Elevator	100	(2 Total)
Corridor	1744	
Civic Lobby	1215	
Library Lobby	475	
Toilet Rooms		
Public Men's Toilet Rooms	115	
Public Women's Toilet Rooms	115	
Town Men's Toilet Room	270	
Town Women's Toilet Room	300	
<b>Total:</b>	<b>4594</b>	

**Grand Total:** **12769**

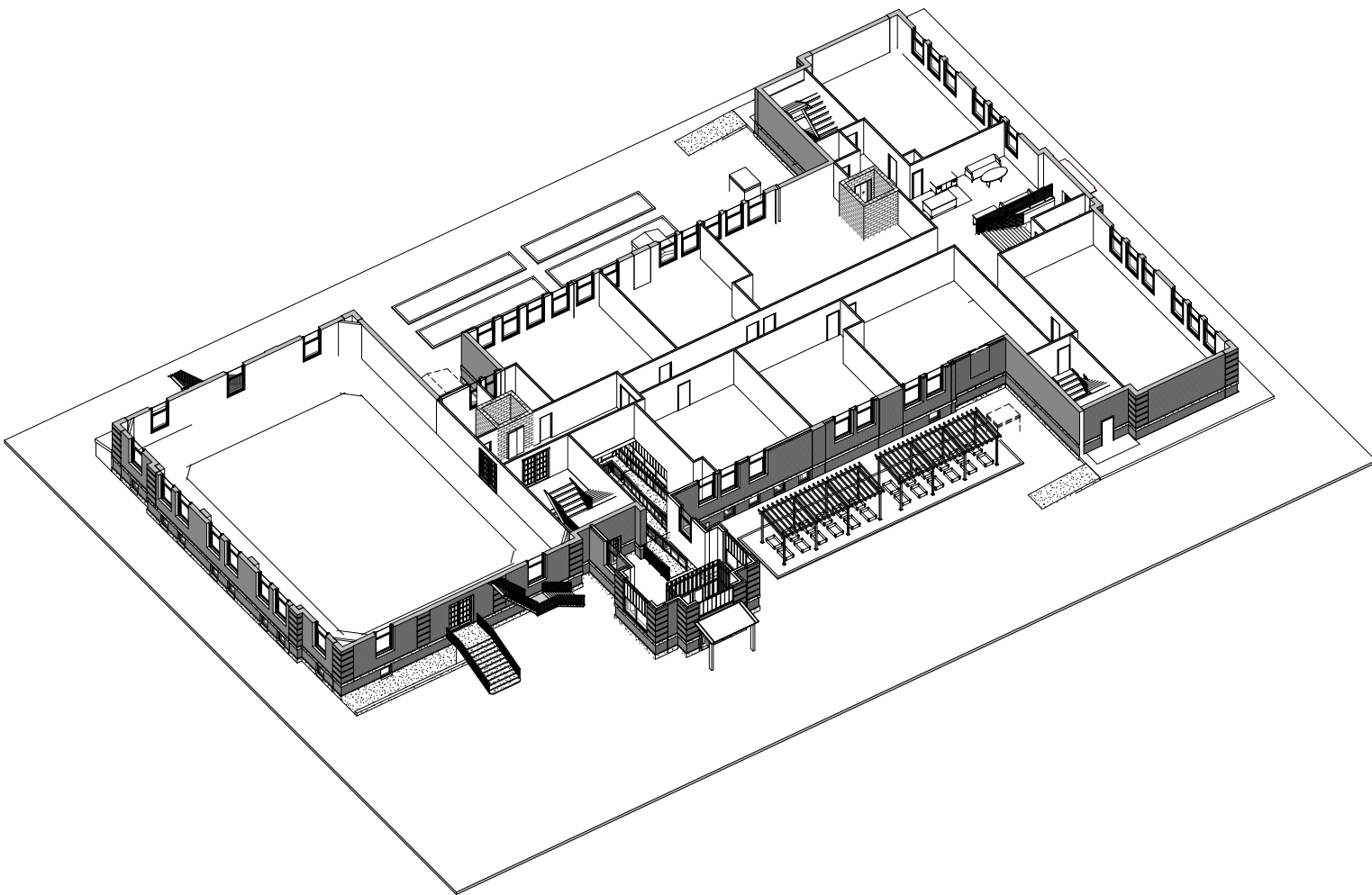
**OUTDOOR FEATURES**

<b>DEPARTMENT</b>	<b>SF.</b>	<b>COMMENTS</b>
Outdoor Activities		
Outdoor Courts	600	
Senior Garden	780	
<b>Total:</b>	<b>1380</b>	
<b>Grand Total:</b>	<b>1380</b>	

# Option One: Multi-Family

The Proposed Grade Level of this option has a new Entrance Lobby Addition, located to the South West but smaller in size than the Senior Center Option Two, adjacent to Stair 4. This scheme applies an internal ramp down to the semi-basement lobby and new elevator as a means of showing another possibility. It's massing and exterior wall assemblies match the existing building's rusticated brick columns that often occur at the corners of both the existing building and new addition. Proposed to span between these brick columns are translucent, rugged panels that will fill the lobby with museum quality daylighting. Within the panels are windows placed at eye level. These panels also have the outstanding thermal performance and solar heat gain control for energy savings. Within the building, each Residential Unit has an existing exterior window for each bedroom. This scheme's proforma income is approximately \$30,224.00. Please see attached spread sheet.

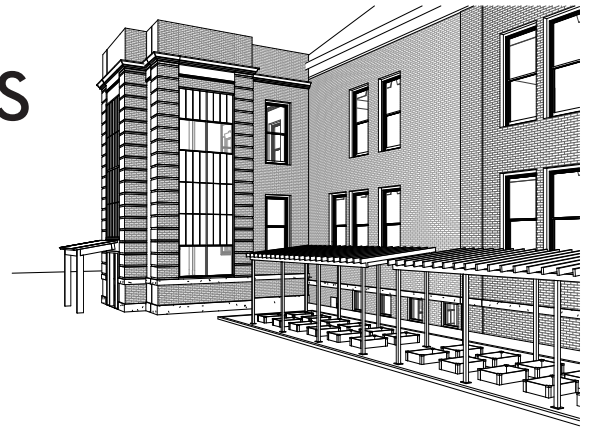
The Proposed Level 1 has a new main lobby at the main entrance to South Main Street. This open lobby, Reception and Waiting Area is surrounded by a 2 bed Residential Unit to the north and a 4 bed Residential Unit to the South. There is a central double loaded corridor to the body of the building with three Residential Units to each side; three 1 bed, two 2 beds and one 3 bed Residential Unit.



## Multi-Family Level 1 with New Lobby at Grade Level



# ADAPTIVE REUSE OPTIONS

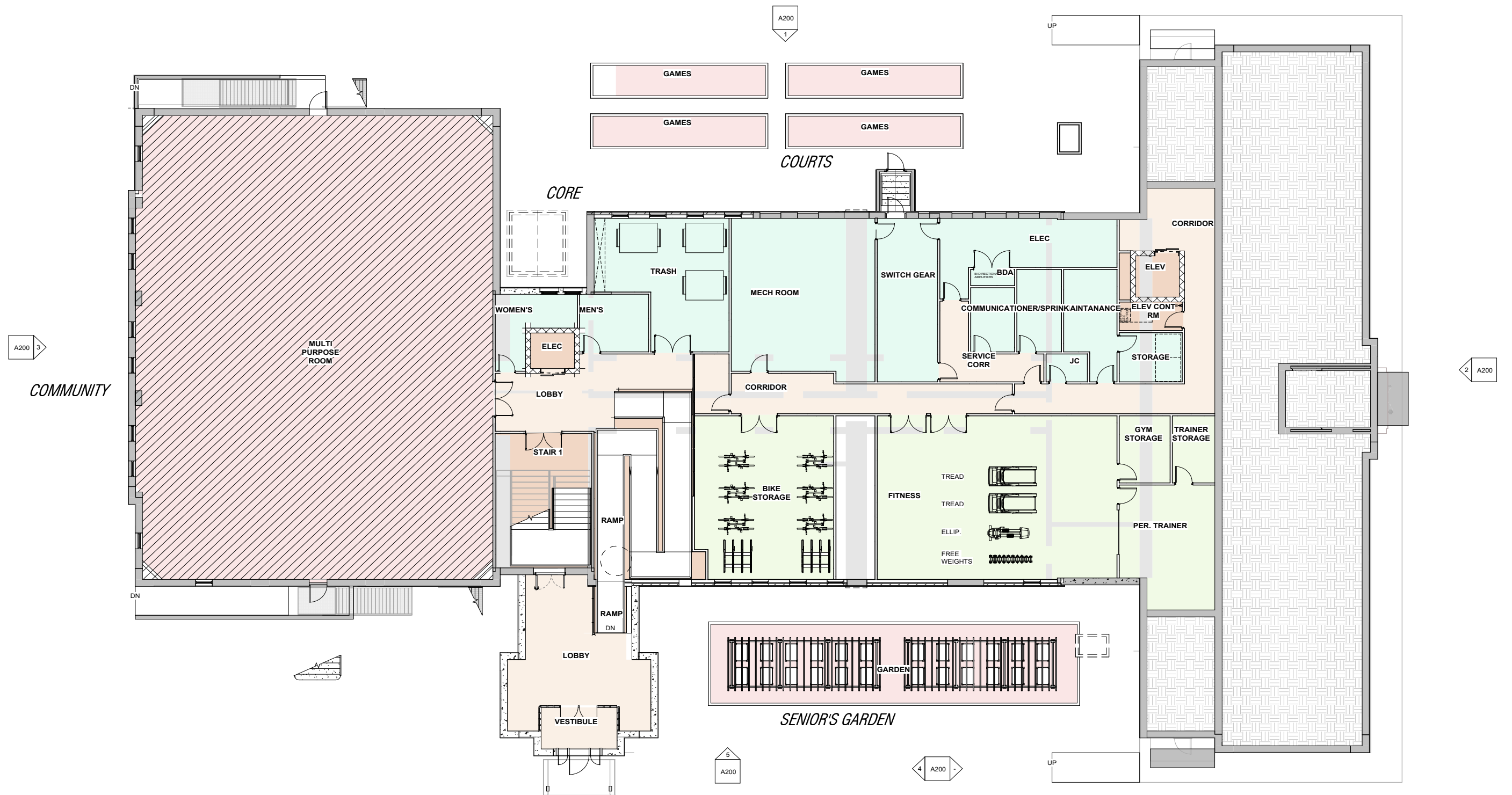


The Proposed Level 2 has various Residential Units. At the East Wing, there are three Units; two 2 beds Units and a 3 bed Unit. There is a central double loaded corridor to the body of the building with three Residential Units to each side; two 1 bed, three 2 beds and one 3 bed Residential Unit.

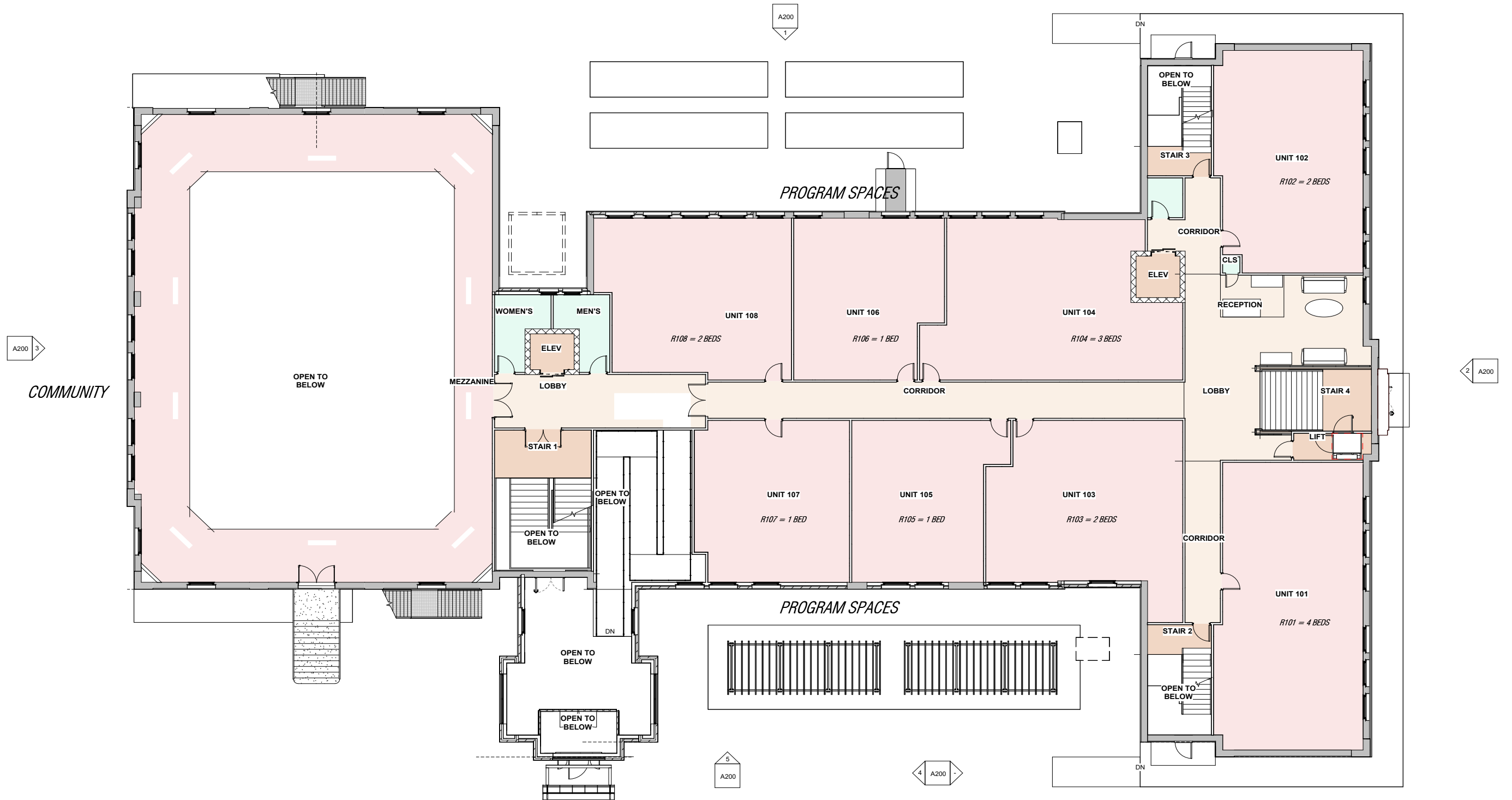
The existing Auditorium's floor of this scheme must be demolished, and a new flat floor be installed in its place. This West Wing has four Residential Units; One 2 bed, two 3 beds and a 4 bed Unit.



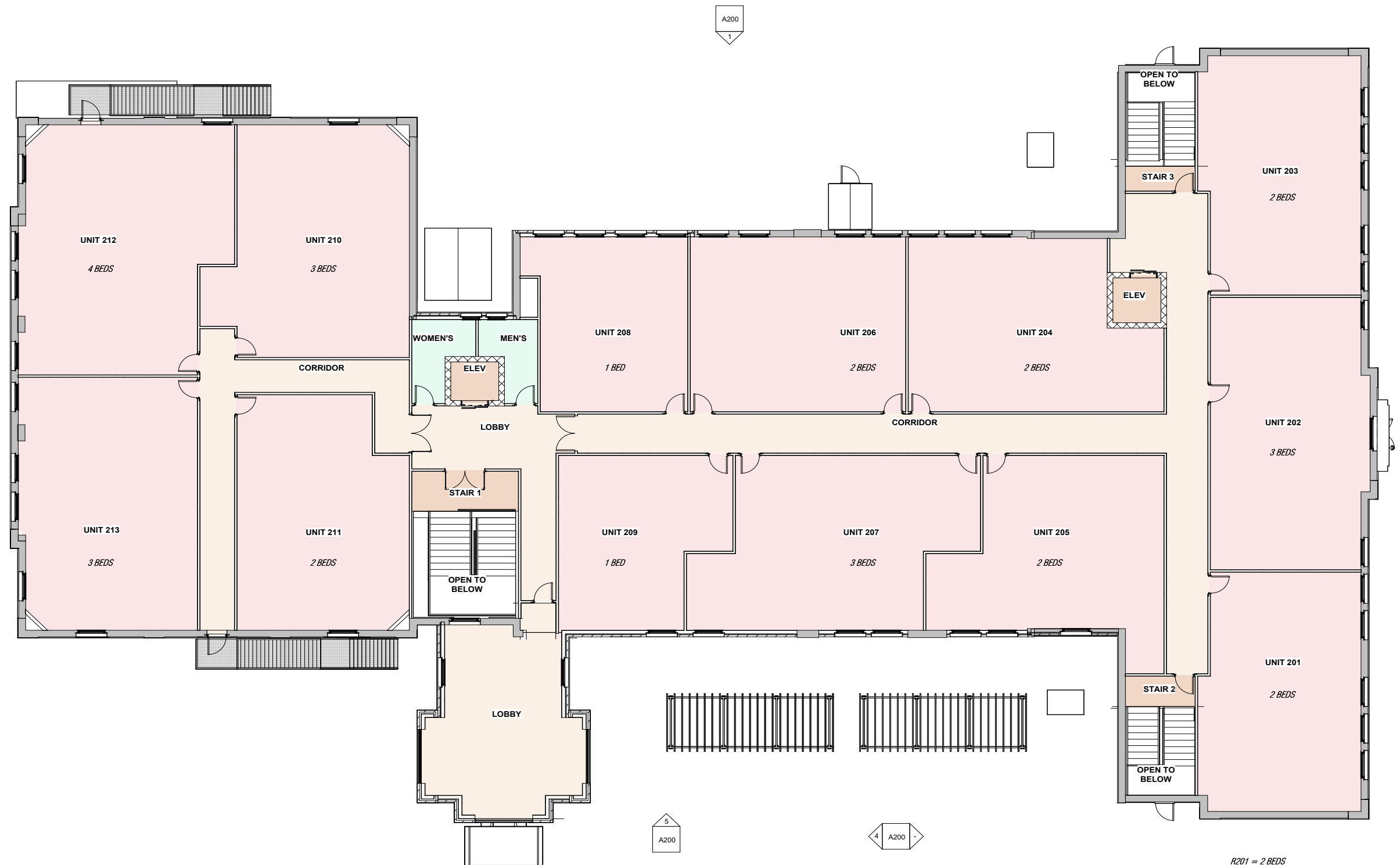
Multi-Family **Level 2**



Multi-Family Level Semi Basement with New Lobby



Multi-Family Level 1



R201 = 2 BEDS  
R202 = 3 BEDS

## Multi-Family Level 2



DIHCD CONSTRUCTION/REHABILITATION GUIDELINES

JULY 13, 2007

OVERALL UNIT SIZE:

New construction and rehabilitation units typically cannot be no smaller than the following:

- SRO: 135 sq.ft.
- Enhanced SRO: 175 sq.ft. (includes food prep area & bathroom)
- One-bedroom unit: 600 sq.ft. (or applicable HUD program standards, if 302, etc.)
- Two-bedroom unit: 859 sq.ft.
- Three-bedroom unit: 950 sq.ft.
- Four or more bedroom unit: 1100 sq.ft.

MINIMUM ROOM SIZE:

Rooms in new construction and rehabilitation projects must meet the following minimums (including a dimensional minimum):

- Primary bedrooms: 120 sq.ft. (10' 3" ft.)
- Secondary bedrooms: 100 sq.ft. (9' ft.)
- Living room: 150 sq.ft. (12 ft.)
- Dining room: 100 sq.ft. (10 ft.)
- Living/dining room combo: 200 sq.ft. (12 ft.)
- Full bathroom: 40 sq.ft. (5 ft.)

If a room has a sloped ceiling, any portion of the room measuring less than 5 feet from the finished floor to the finished ceiling shall not be included in the measurement of the floor area.

Closets and storage cannot be included in the measurement of the floor area.

MF FIRST FLOOR SCHEDULE - CIRCULATION (C)			
No.	Name	Department	Area
C101	STAIR 1	Circulation Vert	123 SF
C102	STAIR 2	Circulation Vert	50 SF
C103	STAIR 3	Circulation Vert	50 SF
C104	ELEV	Circulation Vert	42 SF
C105	ELEV	Circulation Vert	49 SF
C106	STAIR 4	Circulation Vert	188 SF
C107	LIFT	Circulation Vert	54 SF
C108	LOBBY	Circulation	299 SF
C109	CORRIDOR	Circulation	456 SF
C110	CORRIDOR	Circulation	121 SF
C112	CORRIDOR	Circulation	151 SF
C113	LOBBY	Circulation	586 SF
Grand total: 12			2168 SF

MF FIRST FLOOR SCHEDULE - SUPPORT (U)			
No.	Name	Department	Area
U101	WOMEN'S	Support	86 SF
U102	MEN'S	Support	86 SF
U103	CLS	Support	7 SF
U104	CLS	Support	37 SF
Grand total: 4			217 SF

MF FIRST FLOOR SCHEDULE - FITNESS (F)			
N0.	Name	Department	Area
F101	MEZZANINE	Residential	1903 SF
Grand total: 1			1903 SF

MF FIRST FLOOR SCHEDULE - MULTI FAMILY (R)			
N0.	Name	Department	Area
R101	UNIT 101	Residential	1104 SF
R102	UNIT 102	Residential	850 SF
R103	UNIT 103	Residential	850 SF
R104	UNIT 104	Residential	950 SF
R105	UNIT 105	Residential	600 SF
R106	UNIT 106	Residential	608 SF
R107	UNIT 107	Residential	655 SF
R108	UNIT 108	Residential	791 SF
Grand total: 8			6407 SF

R101 = 4 BEDS  
R102 = 2 BEDS  
R103 = 2 BEDS  
R104 = 3 BEDS  
R105 = 1 BED  
R106 = 1 BED  
R107 = 1 BEDS  
R108 = 2 BEDS

TOTAL = 16 BEDS

THREE = 1 BED  
THREE = 2 BEDS  
ONE = 3 BEDS  
ONE = 4 BEDS

PROGRAM LEGEND	
<div></div>	Circulation
<div></div>	Circulation Vert
<div></div>	Residential
<div></div>	Open to below
<div></div>	Support

TOTALS - FIRST FLOOR	
Department	Area
Circulation	1684 SF
Circulation Vert	555 SF
Open to below	3982 SF
Residential	8310 SF
Support	217 SF
Grand total: 33	14749 SF

GROSS SQ FT = 15,091

1 PROPOSED FIRST FLOOR PLAN - MULTI FAMILY  
SCALE: 1/8" = 1'-0"

## Multi-Family Level 1

MF SECOND FLOOR SCHEDULE - CIRCULATION (C)			
No.	Name	Department	Area
C201	STAIR 1	Circulation Vert	96 SF
C202	STAIR 2	Circulation Vert	49 SF
C203	STAIR 3	Circulation Vert	49 SF
C204	ELEV	Circulation Vert	43 SF
C205	ELEV	Circulation Vert	43 SF
C206	LOBBY	Circulation	228 SF
C207	CORRIDOR	Circulation	654 SF
C208	CORRIDOR	Circulation	680 SF
C209	LOBBY SE	Circulation	362 SF
C210	CORRIDOR	Circulation	130 SF
C211	LOBBY NE	Circulation	338 SF
C212	CORRIDOR	Circulation	161 SF
Grand total: 12			2832 SF

MF SECOND FLOOR SCHEDULE - SUPPORT (U)			
No.	Name	Department	Area
U211	WOMEN'S	Support	107 SF
U212	MEN'S	Support	99 SF
U213	CHASE	Support	21 SF
Grand total: 3			227 SF

MF SECOND FLOOR SCHEDULE - MULTI FAMILY (R)			
N0.	Name	Department	Area

R203 = 2 BEDS  
R204 = 2 BEDS  
R205 = 2 BEDS  
R206 = 2 BED  
R207 = 3 BEDS  
R208 = 1 BED  
R209 = 1 BED  
R210 = 3 BEDS  
R211 = 2 BEDS  
R212 = 4 BEDS  
R213 = 3 BEDS

TOTAL = 30 BEDS

TWO = 1 BED  
SIX = 2 BEDS  
FOUR = 3 BEDS  
ONE = 4 BEDS

PROGRAM LEGEND	
<div></div>	Circulation
<div></div>	Circulation Vert
<div></div>	Residential
<div></div>	Open to below
<div></div>	Support

TOTALS - SECOND FLOOR	
Department	Area
Circulation	2553 SF
Circulation Vert	279 SF
Civic/Gather	4358 SF
Open to below	550 SF
Senior Center	6363 SF
Support	702 SF
Grand total: 44	14806 SF

GROSS SQ FT = 15,091

1 PROPOSED SECOND FLOOR PLAN - MULTI FAMILY  
SCALE: 1/8" = 1'-0"

## Multi-Family Level 2

MF BASEMENT SCHEDULE - CIRCULATION (C)			
No.	Name	Department	Area
C001	STAIR 1	Circulation Vert	352 SF
C004	ELEC	Circulation Vert	42 SF
C005	ELEV	Circulation Vert	69 SF
C006	ELEV CONT RM	Circulation Vert	48 SF
C007	RAMP	Circulation Vert	486 SF
C007	RAMP	Circulation Vert	41 SF
C008	LOBBY	Circulation	348 SF
C009	CORRIDOR	Circulation	252 SF
C010	CORRIDOR	Circulation	405 SF
C011	SERVICE CORR	Circulation	118 SF
C012	LOBBY	Circulation	399 SF
C013	VESTIBULE	Circulation	85 SF
Grand total: 12			2644 SF

MF BASEMENT SCHEDULE - SUPPORT (U)			
No.	Name	Department	Area
U001	MECH ROOM	Support	602 SF
U002	SWITCH GEAR	Support	265 SF
U003	ELEC	Support	255 SF
U004	BDA	Support	19 SF
U005	COMMUNICATION	Support	75 SF
U006	WATER/SPRINK	Support	98 SF
U007	MAINTANANCE	Support	139 SF
U008	JC	Support	31 SF
U009	STORAGE	Support	83 SF
U010	TRASH	Support	393 SF
U011	WOMEN'S	Support	108 SF
U012	MEN'S	Support	108 SF
Grand total: 12			2176 SF

MF BASEMENT SCHEDULE - FITNESS (F)			
N0.	Name	Department	Area
F001	BIKE STORAGE	Health / Fitness	602 SF
F002	FITNESS	Health / Fitness	1053 SF
F003	GYM STORAGE	Health / Fitness	91 SF
F004	TRAINER STORAGE	Health / Fitness	76 SF
F005	PER. TRAINER	Health / Fitness	297 SF
Grand total: 5			2119 SF

MF BASEMENT SCHEDULE - MULTI FAMILY (R)			
N0.	Name	Department	Area
R001	MULTI PURPOSE ROOM	Residential	4411 SF
R002	GARDEN	Residential	779 SF
R003	GAMES	Residential	141 SF
R004	GAMES	Residential	122 SF
R005	GAMES	Residential	141 SF
R006	GAMES	Residential	141 SF
Grand total: 6			5735 SF

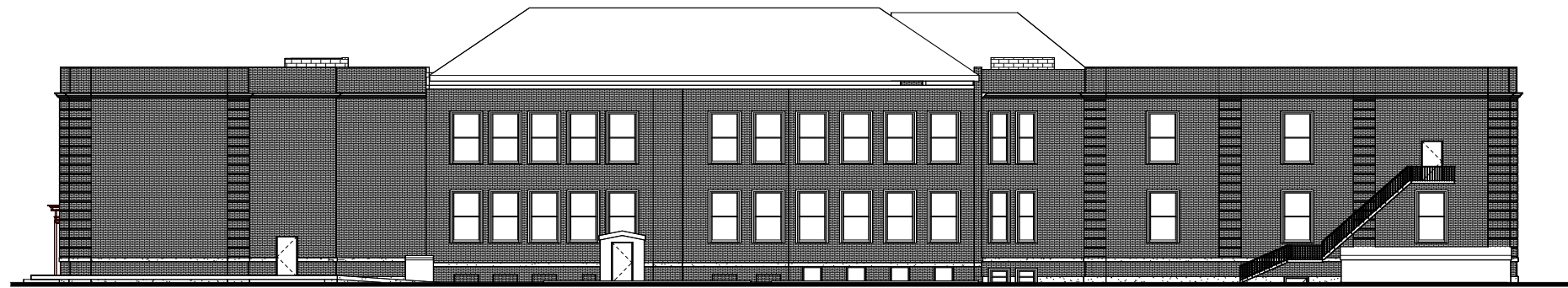
PROGRAM LEGEND	
<div></div>	Circulation
<div></div>	Circulation Vert
<div></div>	Residential
<div></div>	Health / Fitness
<div></div>	Support

TOTALS - BASEMENT	
Department	Area
Circulation	1607 SF
Circulation Vert	1038 SF
Health / Fitness	2119 SF
Residential	5735 SF
Support	2176 SF
Grand total: 35	12674 SF

GROSS SQ FT = 11,872

1 PROPOSED BASEMENT PLAN - MULTI FAMILY  
SCALE: 1/8" = 1'-0"

## Multi-Family Level Semi Basement with New Lobby



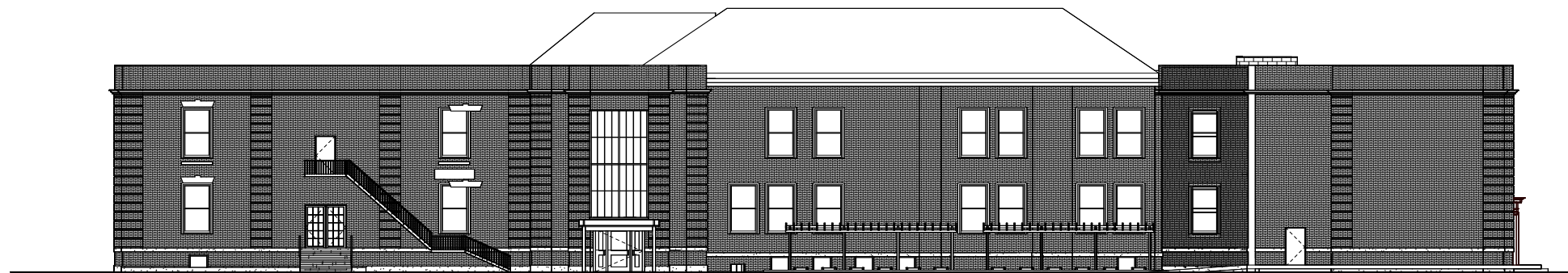
1 EXTERIOR ELEVATION - NORTH  
SCALE: 1/8" = 1'-0"  
DATE: 10/1/2023



2 EXTERIOR ELEVATION - EAST  
SCALE: 1/8" = 1'-0"  
DATE: 10/1/2023

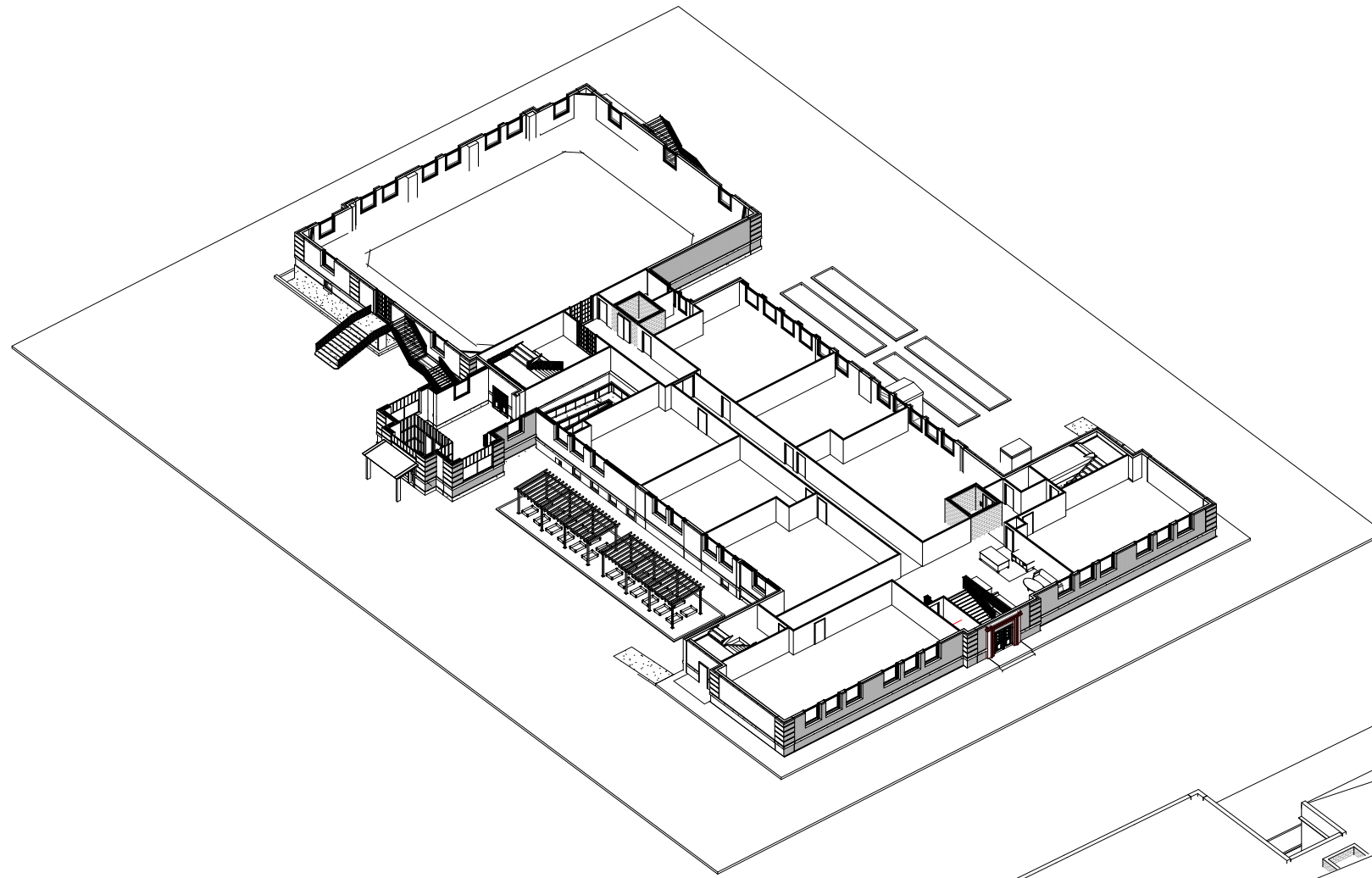


3 EXTERIOR ELEVATION - WEST  
SCALE: 1/8" = 1'-0"  
DATE: 10/1/2023

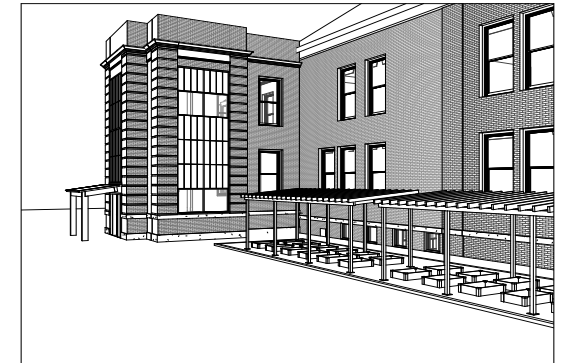


4 EXTERIOR ELEVATION - SOUTH  
SCALE: 1/8" = 1'-0"  
DATE: 10/1/2023

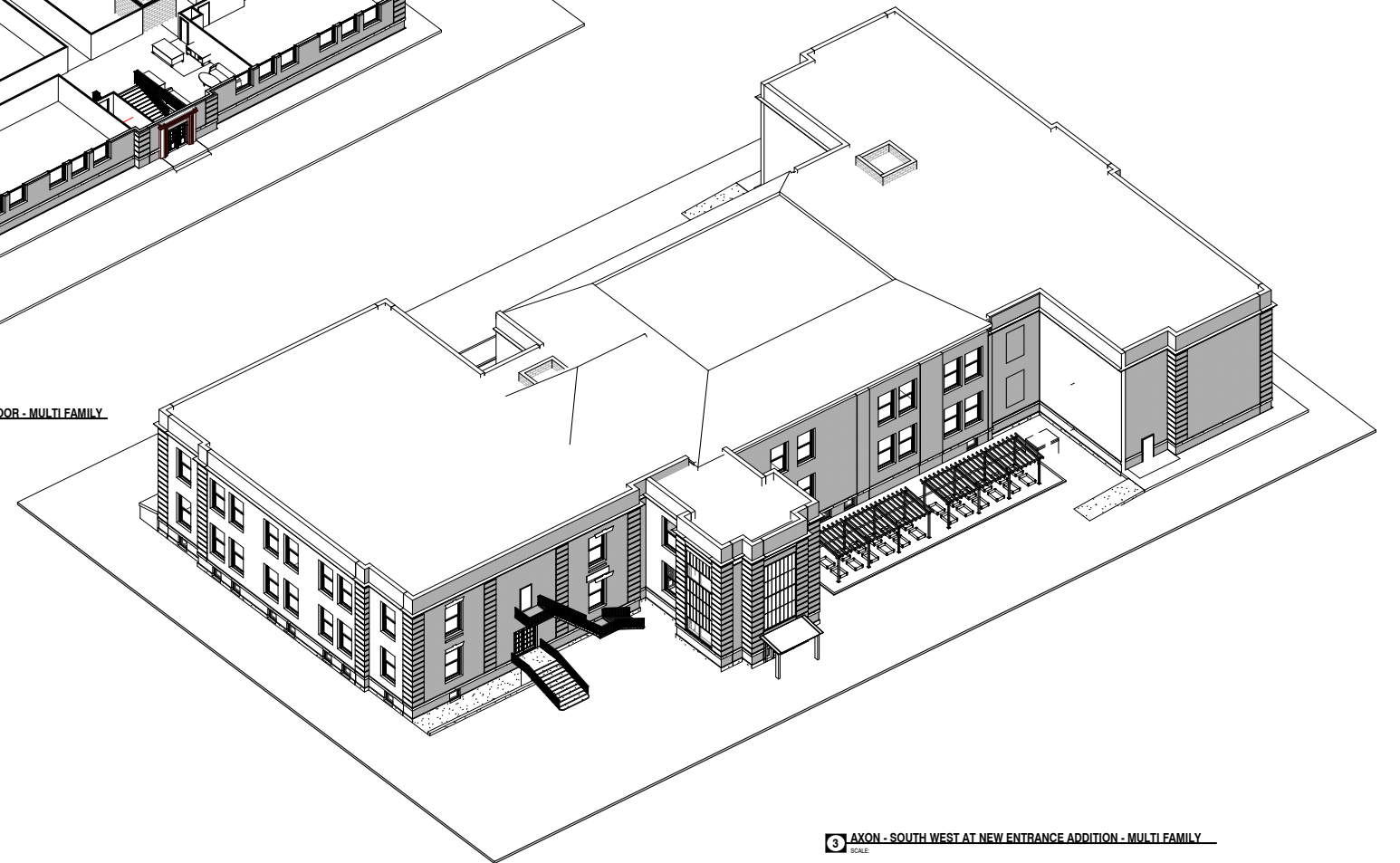
Multi-Family Exterior Elevations



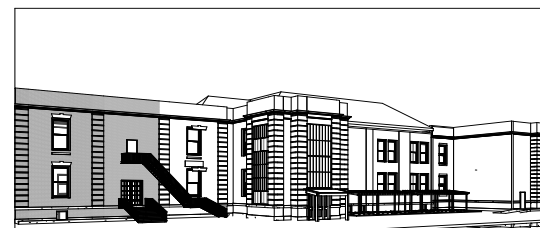
2 AXON - SOUTH EAST AT NEW ENTRANCE ADDITION FIRST FLOOR - MULTI FAMILY



8 PERSPECTIVE OF SENIOR GARDEN - MULTI FAMILY TO LOBBY



3 AXON - SOUTH WEST AT NEW ENTRANCE ADDITION - MULTI FAMILY



6 PERSPECTIVE FROM STREET - MULTI FAMILY

## Multi-Family Axons and Perspectives



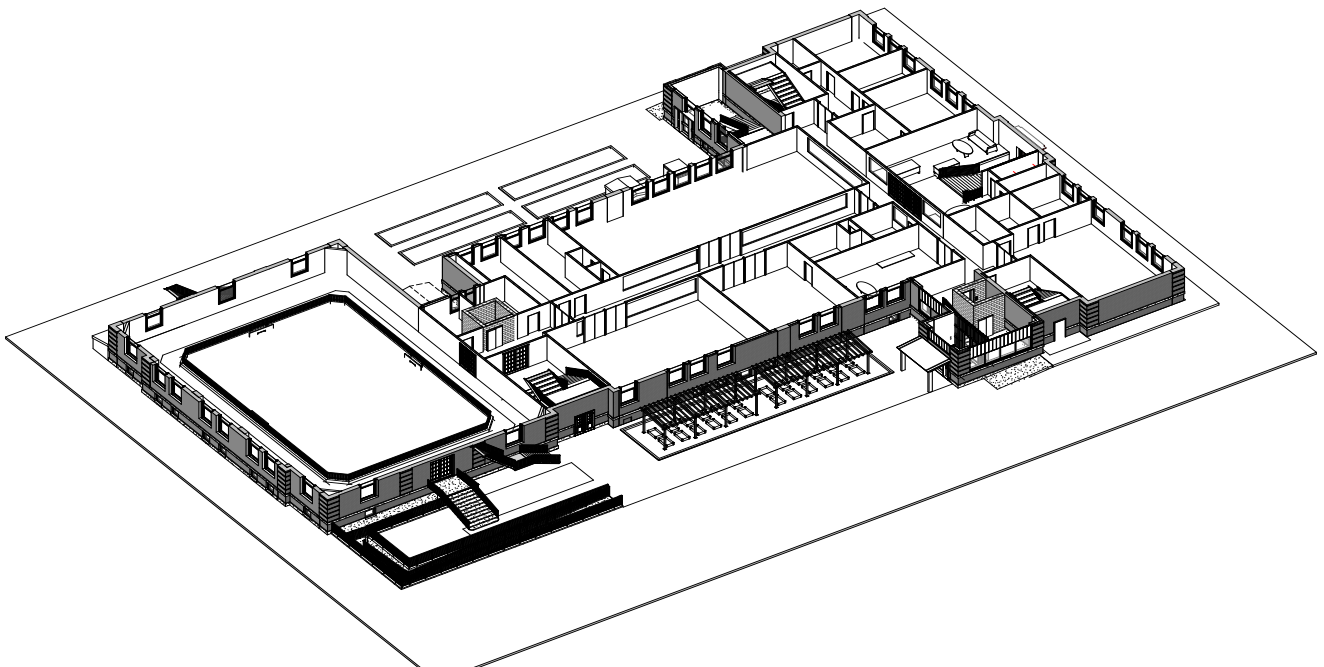
# Option Two: Senior Center

The Senior Center's New Entrance Lobby addition is located at the East Wing on the South side near the parking lot. It's massing and exterior wall assemblies match the existing building's rusticated brick columns that often occur at the corners of both the existing building and new addition. Proposed to span between these brick columns are translucent, rugged panels that will fill the lobby with museum quality daylighting. Within the panels are windows placed at eye level. These panels also have the outstanding thermal performance and solar heat gain control for energy savings. There is also a symmetrical new minor Lobby addition on the Northern part of the East Wing.

The Proposed Grade Level's new Entrance Lobby addition is parallel to Stair 2 on the South-East which includes a new elevator and stairs. New exterior handicap ramps are added to the South and North sides of the Gymnasium. The basement of this scheme also adds a Fitness Room and Bike Storage to the program's storage and most, if not all of the utility rooms that do not require exterior windows. The new western elevator is located in the body of the building, near the gymnasium and it's internal Lobby.

The Proposed Level 1 at the East Wing of the building, consistent with all three options, has a Reception and Waiting area at the Main Entrance. To the South East there is the community Meals on Wheels Kitchen, close to the south Parking Lot for convenient pickup and drop off of meals. There is a community Café across the hall. To the North East are the Director, Outreach Coordinator rooms, with an Assistant's room between them. A shared Meeting Room is adjacent as well. The major room portion of the Senior Center is located at the central body of the building has a large Exercise Room, Arts and Crafts Room and a large Game Room to the North.

## Senior Center Level 1



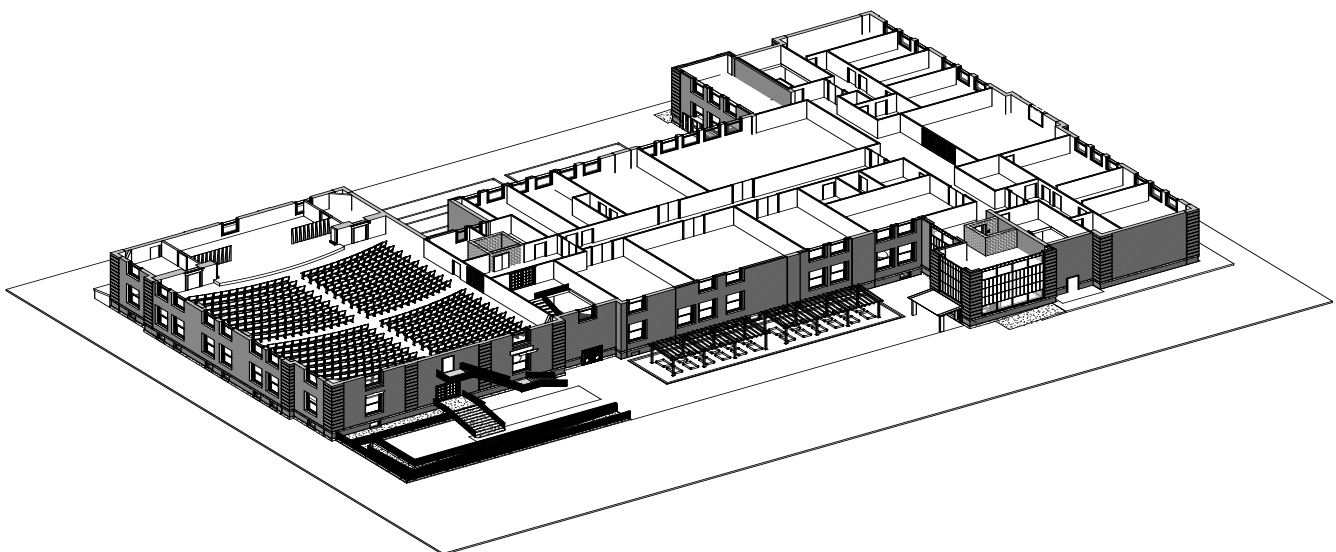


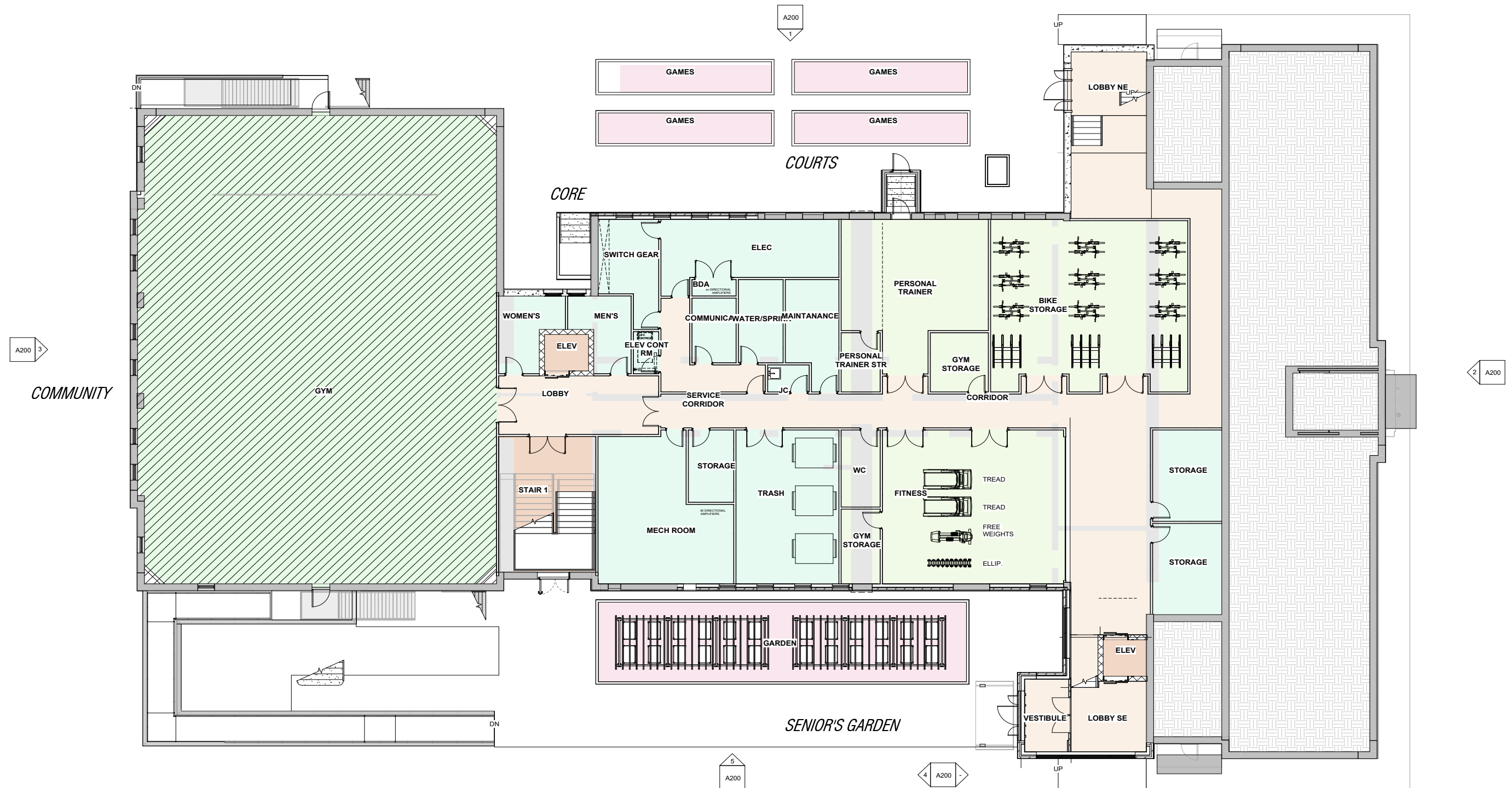


The Proposed Level 2 has a Large Conference Room at the center with a large arched window. To the South East is the Health/Wellness area that includes a Nurse Waiting, a Small Conference Room and a Meeting Room. To the north-east, the Volunteer Coordinator and Transport Coordinator are flanked by two Meeting Rooms. Across the hall is a Library/Lounge Area and the Copy Room.

More Senior Center Program is located at the body of the building. To the South is the Meeting Room, Tech Training Room and the Media Room. To the North is another Meeting room across the hall and a General Room for future expansion of the program.

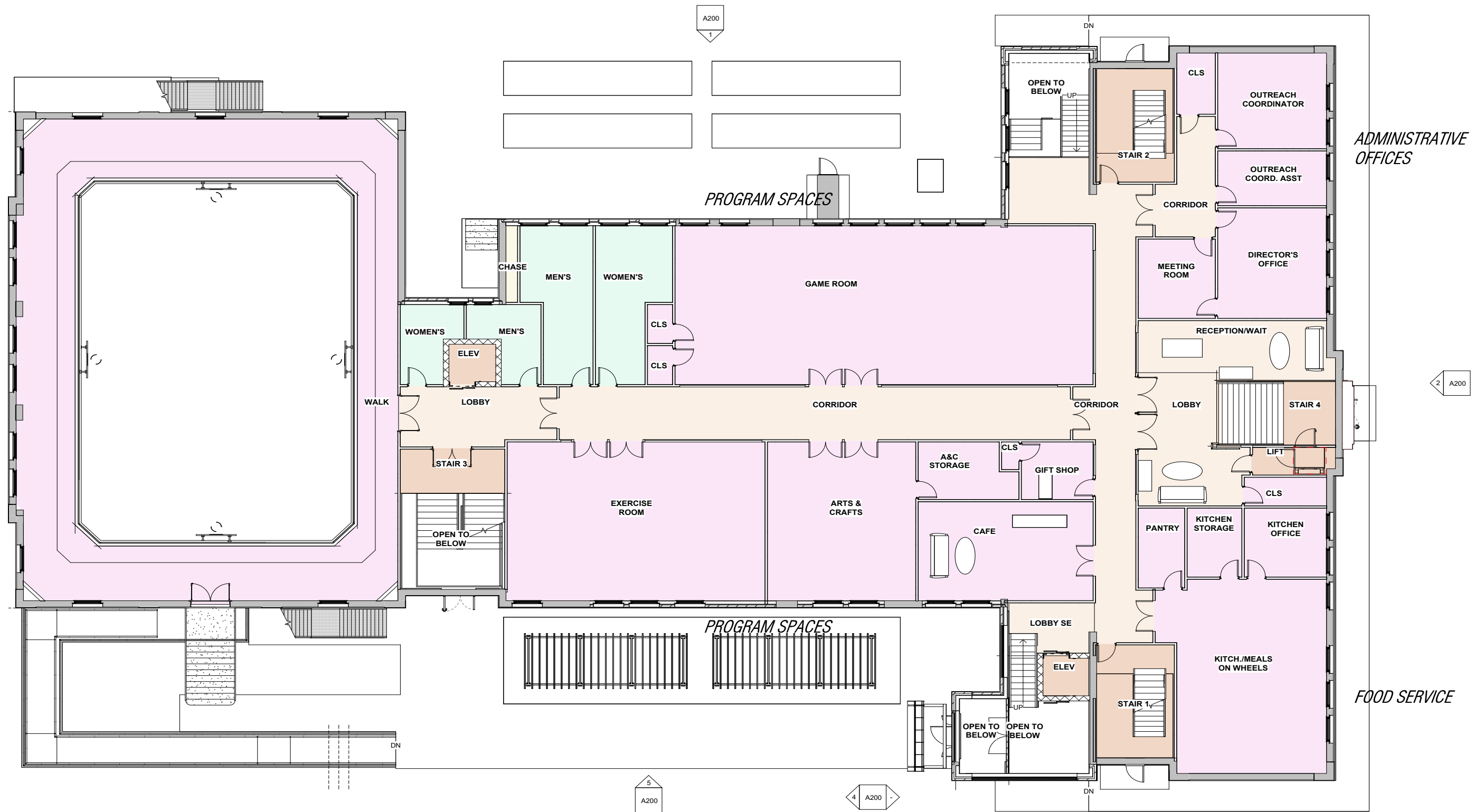
## Senior Center Level 2





Senior Center Level Semi Basement with New Lobby

USE/GYM



## Senior Center Level 1





Senior Center Level 2

SC SECOND FLOOR SCHEDULE - SUPPORT (U)			
No.	Name	Department	Area
U211	WOMEN'S	Support	107 SF
U212	MEN'S	Support	99 SF
U213	CHASE	Support	21 SF
Grand total: 3			227 SF

SC SECOND FLOOR SCHEDULE - CIRCULATION (C)			
No.	Name	Department	Area
C201	STAIR 1	Circulation Vert	96 SF
C202	STAIR 2	Circulation Vert	49 SF
C203	STAIR 3	Circulation Vert	49 SF
C204	ELEV	Circulation Vert	43 SF
C205	ELEV	Circulation Vert	43 SF
C206	LOBBY	Circulation	228 SF
C207	CORRIDOR	Circulation	654 SF
C208	CORRIDOR	Circulation	680 SF
C209	LOBBY SE	Circulation	367 SF
C210	CORRIDOR	Circulation	130 SF
C211	LOBBY NE	Circulation	338 SF
C212	CORRIDOR	Circulation	161 SF
Grand total: 12			2837 SF

SC SECOND FLOOR SCHEDULE - SENIOR CENTER (S)			
N0.	Name	Department	Area
S201	MEETING ROOM	Senior Center	450 SF
S202	TECH LEARNING	Senior Center	699 SF
S203	MEDIA	Senior Center	399 SF
S204	CLS	Senior Center	86 SF
S205	SUPPLIES	Senior Center	50 SF
S206	COPY	Senior Center	99 SF
S208	GENERAL	Senior Center	1081 SF
S209	MEETING ROOM	Senior Center	519 SF
S210	CLS	Senior Center	48 SF
S211	MEN'S	Support	234 SF
S212	WOMEN'S	Support	241 SF
S213	LIBRARY/LOUNGE AREA	Senior Center	418 SF
S214	CLS	Senior Center	54 SF
S215	HEALTH/Wellness	Senior Center	269 SF
S216	NURSE WAITING	Senior Center	153 SF

SC SECOND FLOOR SCHEDULE - SENIOR CENTER (S)			
N0.	Name	Department	Area
S217	CONFERENCE SM	Senior Center	329 SF
S218	MEETING ROOM	Senior Center	144 SF
S219	CONFERENCE LG	Senior Center	653 SF
S220	ADMIN WORK STATION	Senior Center	88 SF
S221	CLS	Senior Center	22 SF
S222	TRANSPORT COORDINATOR	Senior Center	218 SF
S223	OFFICE	Senior Center	166 SF
S224	OFFICE	Senior Center	190 SF
S225	VOLUNTEER COORDINATOR	Senior Center	227 SF
S230	AUDITORIUM	Civic/Gather	3570 SF
S231	AUDITORIUM STAGE	Civic/Gather	789 SF
Grand total: 26			11197 SF

- PROGRAM LEGEND
- Circulation
  - Circulation Vert
  - Civic/Gather
  - Senior Center
  - Open to below
  - Support

TOTALS - SECOND FLOOR	
Department	Area
Circulation	2558 SF
Circulation Vert	279 SF
Civic/Gather	4358 SF
Open to below	550 SF
Senior Center	6363 SF
Support	702 SF
Grand total: 44    14811 SF	

1 PROPOSED SECOND FLOOR PLAN - SENIOR/COMMUNITY CENTER  
SCALE: 1/8" = 1'-0"

Senior Center Level 1

SC FIRST FLOOR SCHEDULE - TBD (X)			
No.	Name	Department	Area
X100	WALK	Senior Center	1903 SF
Grand total: 1			1903 SF

SC FIRST FLOOR SCHEDULE - SUPPORT (U)			
No.	Name	Department	Area
U113	CHASE	BOH / Core	21 SF
U111	WOMEN'S	Support	100 SF
U112	MEN'S	Support	106 SF
U113	MEN'S	Support	234 SF
U114	WOMEN'S	Support	241 SF
Grand total: 5			702 SF

SC FIRST FLOOR SCHEDULE - CIRCULATION (C)			
No.	Name	Department	Area
C100	RECEPTION/WAIT	Circulation	263 SF
C101	STAIR 1	Circulation Vert	214 SF
C102	STAIR 2	Circulation Vert	216 SF
C103	STAIR 3	Circulation Vert	112 SF
C104	ELEV	Circulation Vert	42 SF
C105	ELEV	Circulation Vert	43 SF
C105	LOBBY	Circulation	219 SF
C106	CORRIDOR	Circulation	654 SF
C107	CORRIDOR	Circulation	652 SF
C108	LOBBY SE	Circulation	103 SF
C109	CORRIDOR	Circulation	139 SF
C110	LOBBY	Circulation	296 SF
C111	STAIR 4	Circulation Vert	187 SF
C112	LIFT	Circulation Vert	54 SF
Grand total: 14			3192 SF

SC FIRST FLOOR SCHEDULE - SENIOR CENTER (S)			
N0.	Name	Department	Area
S101	EXERCISE ROOM	Senior Center	994 SF
S102	ARTS & CRAFTS	Senior Center	571 SF
S103	A&C STORAGE	Senior Center	126 SF
S104	GIFT SHOP	Senior Center	100 SF
S105	CLS	Senior Center	11 SF
S106	GAME ROOM	Senior Center	1611 SF
S107	CLS	Senior Center	23 SF
S108	CLS	Senior Center	23 SF
S109	CAFE	Senior Center	419 SF

SC FIRST FLOOR SCHEDULE - SENIOR CENTER (S)			
N0.	Name	Department	Area
S110	KITCH/MEALS ON WHEELS	Senior Center	730 SF
S111	KITCHEN OFFICE	Senior Center	137 SF
S112	KITCHEN STORAGE	Senior Center	91 SF
S113	PANTRY	Senior Center	89 SF
S114	CLS	Senior Center	57 SF
S115	OUTREACH COORDINATOR	Senior Center	252 SF
S116	OUTREACH COORD. ASST	Senior Center	144 SF
S117	DIRECTOR'S OFFICE	Senior Center	291 SF
S118	MEETING ROOM	Senior Center	147 SF
S119	CLS	Senior Center	57 SF
Grand total: 19			5874 SF

- PROGRAM LEGEND
- BOH / Core
  - Circulation
  - Circulation Vert
  - Civic
  - Senior Center
  - Open to below
  - Support

TOTALS - FIRST FLOOR	
Department	Area
BOH / Core	21 SF
Circulation	2326 SF
Circulation Vert	867 SF
OPEN TO BELOW	2703 SF
Open to below	97 SF
Senior Center	7777 SF
Support	681 SF
Grand total: 43    14462 SF	

1 PROPOSED FIRST FLOOR PLAN - SENIOR/COMMUNITY CENTER  
SCALE: 1/8" = 1'-0"

SC BASEMENT SCHEDULE - TBD (X)			
No.	Name	Department	Area
X001	GYM	Civic/Gather	4410 SF
Grand total: 1			4410 SF

SC BASEMENT SCHEDULE - SUPPORT (U)			
No.	Name	Department	Area
U003	MECH ROOM	Support	448 SF
U004	STORAGE	Support	86 SF
U005	TRASH	Support	420 SF
U006	ELEV CONT RM	Support	28 SF
U007	SWITCH GEAR	Support	143 SF
U008	ELEC	Support	288 SF
U009	BDA	Support	19 SF
U010	COMMUNICATION	Support	75 SF
U011	WATER/SPRINK	Support	98 SF
U011	WOMEN'S	Support	106 SF
U012	MAINTANANCE	Support	138 SF
U012	MEN'S	Support	100 SF
U013	JC	Support	29 SF
U014	STORAGE	Support	167 SF
U015	STORAGE	Support	167 SF
Grand total: 15			2313 SF

SC BASEMENT SCHEDULE - CIRCULATION (C)			
No.	Name	Department	Area
C001	STAIR 1	Circulation Vert	351 SF
C004	ELEV	Circulation Vert	42 SF
C005	ELEV	Circulation Vert	43 SF
C006	LOBBY	Circulation	247 SF
C007	CORRIDOR	Circulation	1248 SF
C008	LOBBY SE	Circulation	138 SF
C009	LOBBY NE	Circulation	337 SF
C016	VESTIBULE	Circulation	88 SF
Grand total: 8			2493 SF

SC BASEMENT SCHEDULE - FITNESS (F)			
N0.	Name	Department	Area
F001	FITNESS	Health / Fitness	739 SF
F002	GYM STORAGE	Health / Fitness	77 SF
F003	WC	Health / Fitness	79 SF
F004	GYM STORAGE	Health / Fitness	90 SF
F005	PERSONAL TRAINER	Health / Fitness	486 SF
F006	PERSONAL TRAINER STR	Health / Fitness	61 SF
F007	BIKE STORAGE	Health / Fitness	850 SF
Grand total: 7			2382 SF

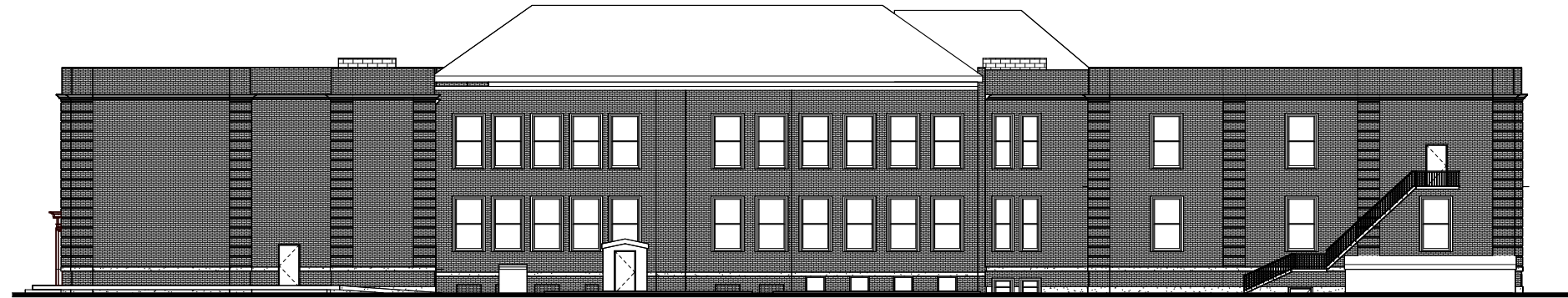
SC BASEMENT SCHEDULE - SENIOR CENTER (S)			
N0.	Name	Department	Area
S002	GARDEN	Civic	803 SF
S003	GAMES	Civic	141 SF
S004	GAMES	Civic	110 SF
S005	GAMES	Civic	141 SF
S006	GAMES	Civic	141 SF
Grand total: 5			1336 SF

- PROGRAM LEGEND
- Circulation
  - Circulation Vert
  - Civic
  - Civic/Gather
  - Health / Fitness
  - Support

TOTALS - BASEMENT	
Department	Area
Circulation	2182 SF
Circulation Vert	436 SF
Civic	1336 SF
Civic/Gather	4410 SF
Health / Fitness	2382 SF
Support	2313 SF
Grand total: 37    13059 SF	

1 PROPOSED BASEMENT PLAN - SENIOR/COMMUNITY CENTER  
SCALE: 1/8" = 1'-0"

Senior Center Level Semi Basement with New Lobby



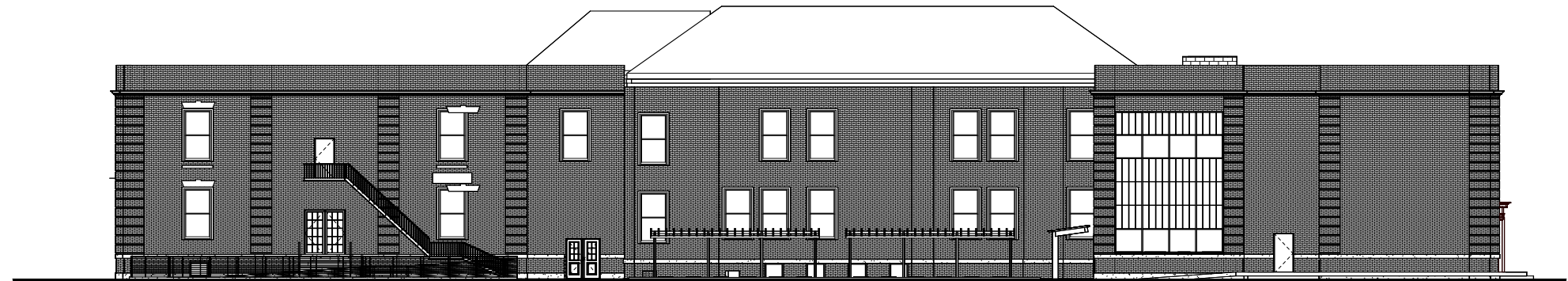
1 EXTERIOR ELEVATION - NORTH  
SCALE: 1/8" = 1'-0"  
A110



2 EXTERIOR ELEVATION - EAST  
SCALE: 1/8" = 1'-0"  
A110

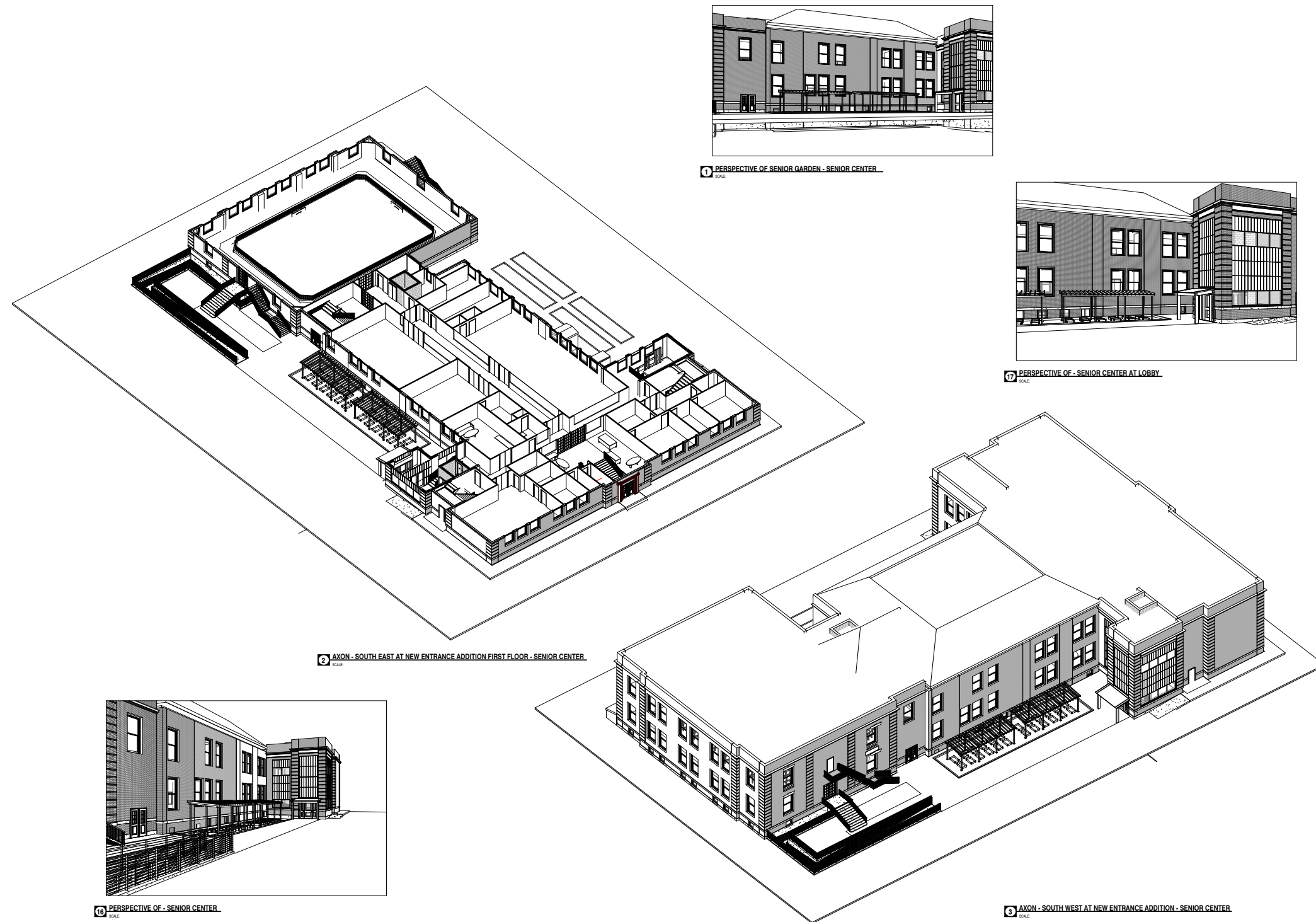


3 EXTERIOR ELEVATION - WEST  
SCALE: 1/8" = 1'-0"  
A110



4 EXTERIOR ELEVATION - SOUTH  
SCALE: 1/8" = 1'-0"  
A110

Senior Center Elevations



## Senior Center Axons and Perspectives





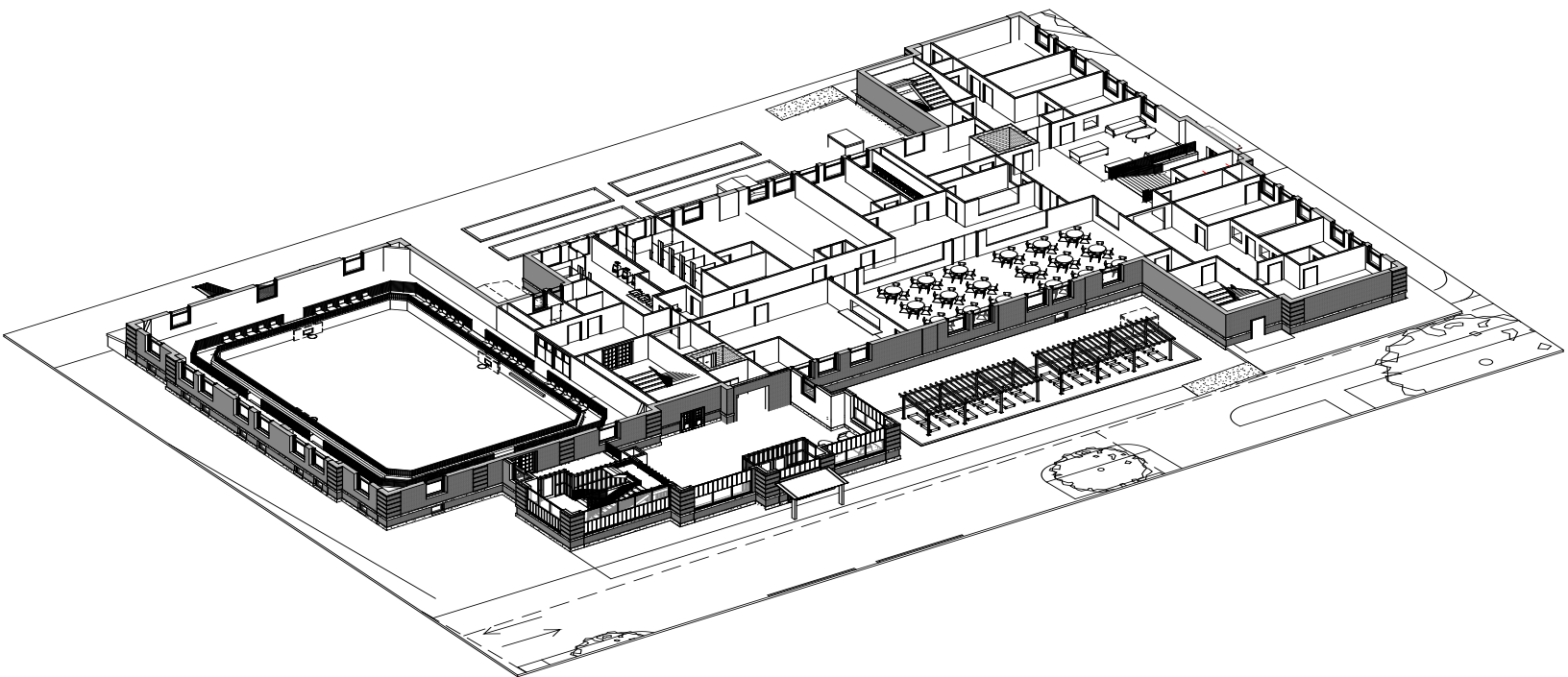
# Option Three: Town Offices with Senior Center

The Proposed Semi Basement of this option adds election storage and Town Office storage at the east wing to the typical support functions located on the semi basement of all the schemes.

The Proposed Grade Level of this option has a new entrance lobby addition at the central-south-west body of the building, adjacent to Stair 4. It's massing and exterior wall assemblies match the existing building's rusticated brick columns that often occur at the corners of both the existing building and new addition. Proposed to span between these brick columns are translucent, rugged panels that will fill the lobby with museum quality daylighting. Within the panels are windows placed at eye level. These panels also have the outstanding thermal performance and solar heat gain control for energy savings. Inside the addition, there is a waiting area for seniors at grade level and a new egress stair from grade up to the second floor auditorium's new large gathering space for before and after community events. There is a new elevator interior of the existing building, adjacent to the new lobby addition.

The Proposed Level 1 has a new main lobby at the main entrance to South Main St.. This open lobby is surrounded by Town Office program to the South East including the Town Administrator, Collector/Assessors, Admin. Assistant and the Town Administrator. The North-East includes the Water/Sewer Clerk. It also houses such Senior Center spaces as the Administration and the Council on Aging (COA) Director. This area also has a new elevator that communicates with Health/Wellness directly above on the second floor. Adjacent to the main central corridor, at the Lobby area is the, COA/Senior Admin. Meeting Room, Mail Room and the Gift Shop. The Senior Center spaces are deeper inside at the main body of the building, with Senior activity spaces to the north such as Game Room/Art and Crafts, Media/Tech Learning and the Volunteer Transportation Coordinator. The mezzanine above the Gym is intended for Seniors to walk. And a large dining area with a kitchen over looking the Senior Garden outside.

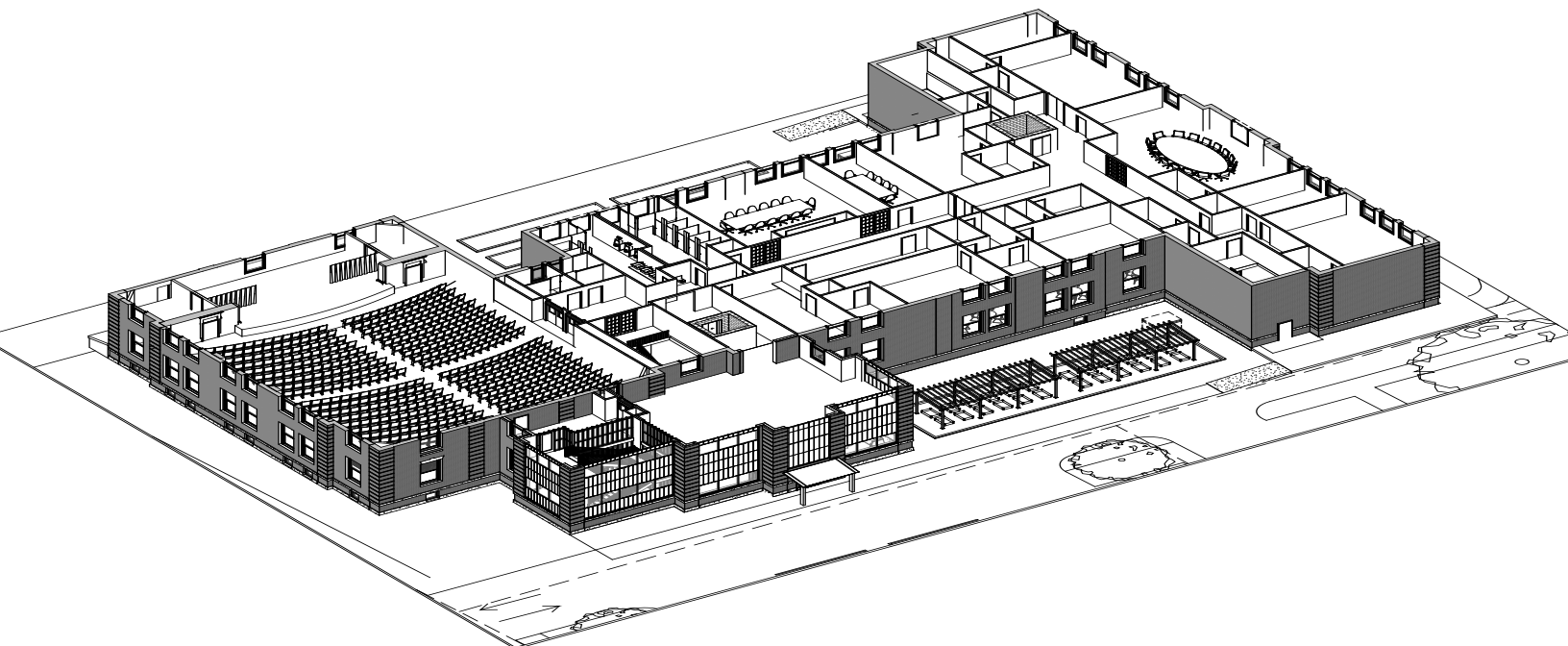
## Town Offices Level 1

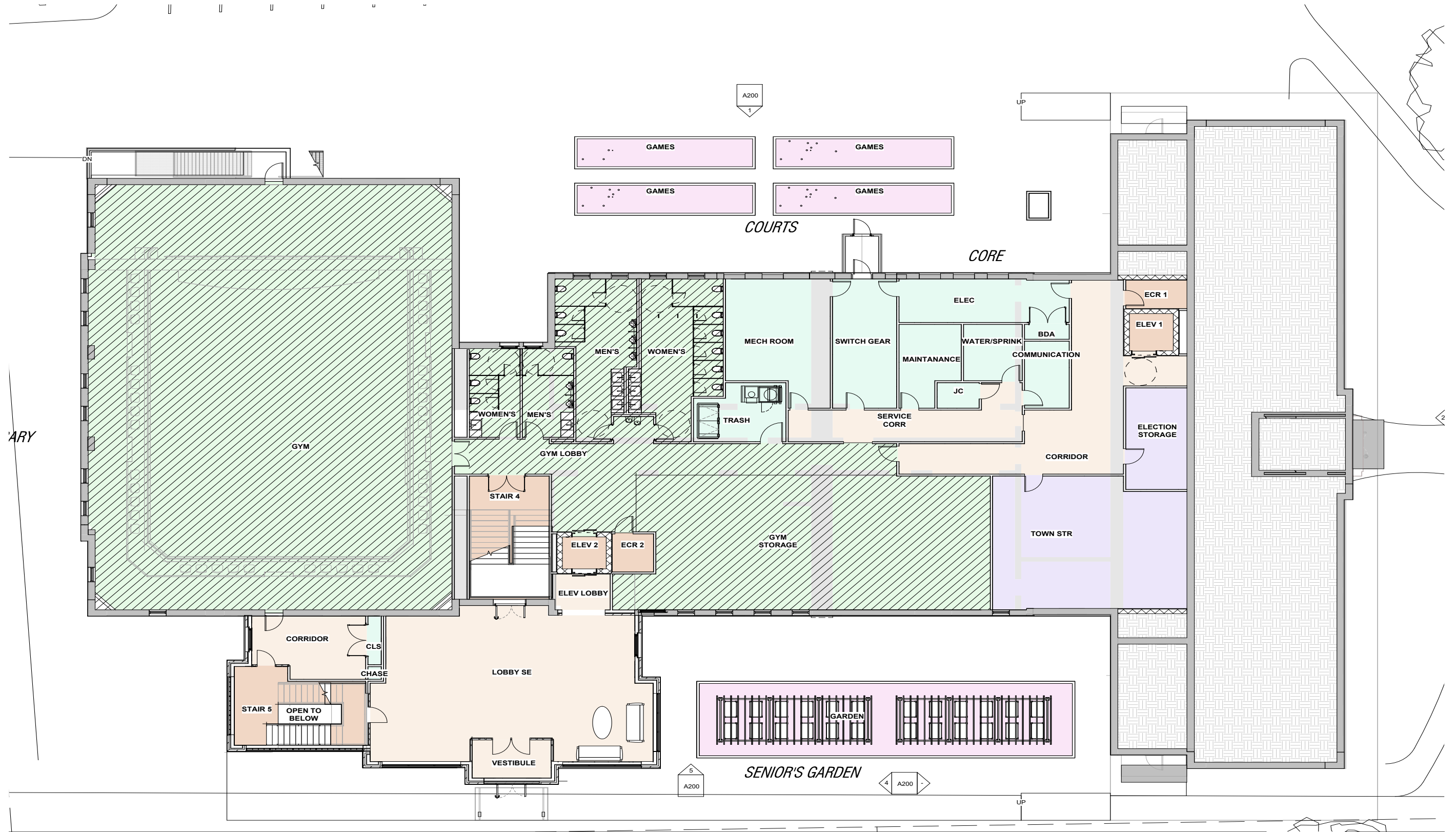




The Proposed Level 2 has the Board of Health, Nurse Waiting and Health/Wellness offices adjacent to the new elevator, as mentioned above. The remainder of the Town Offices program can be found on this level, away from the main public level at the first floor. Centered at the East Wing is a large Board Selectmen Conference Room. North of that is Health/Wellness, communicating by elevator the COA Director etc. on the first floor. South of the Board Selectmen Room is the offices for the Building Department and Community development. In the main body of the building, to the south, The Accounting and Human Resources suite. To the west of that is the Break/Lunch Room which also communicates by the nearby second new elevator to the Kitchen down on the first floor. To the North are Large and Small Conference Rooms. As mentioned above, The second floor of the New Addition to the South has a corridor from the existing Auditorium to a new, large gathering space for before and after community events.

## Town Offices Level 2



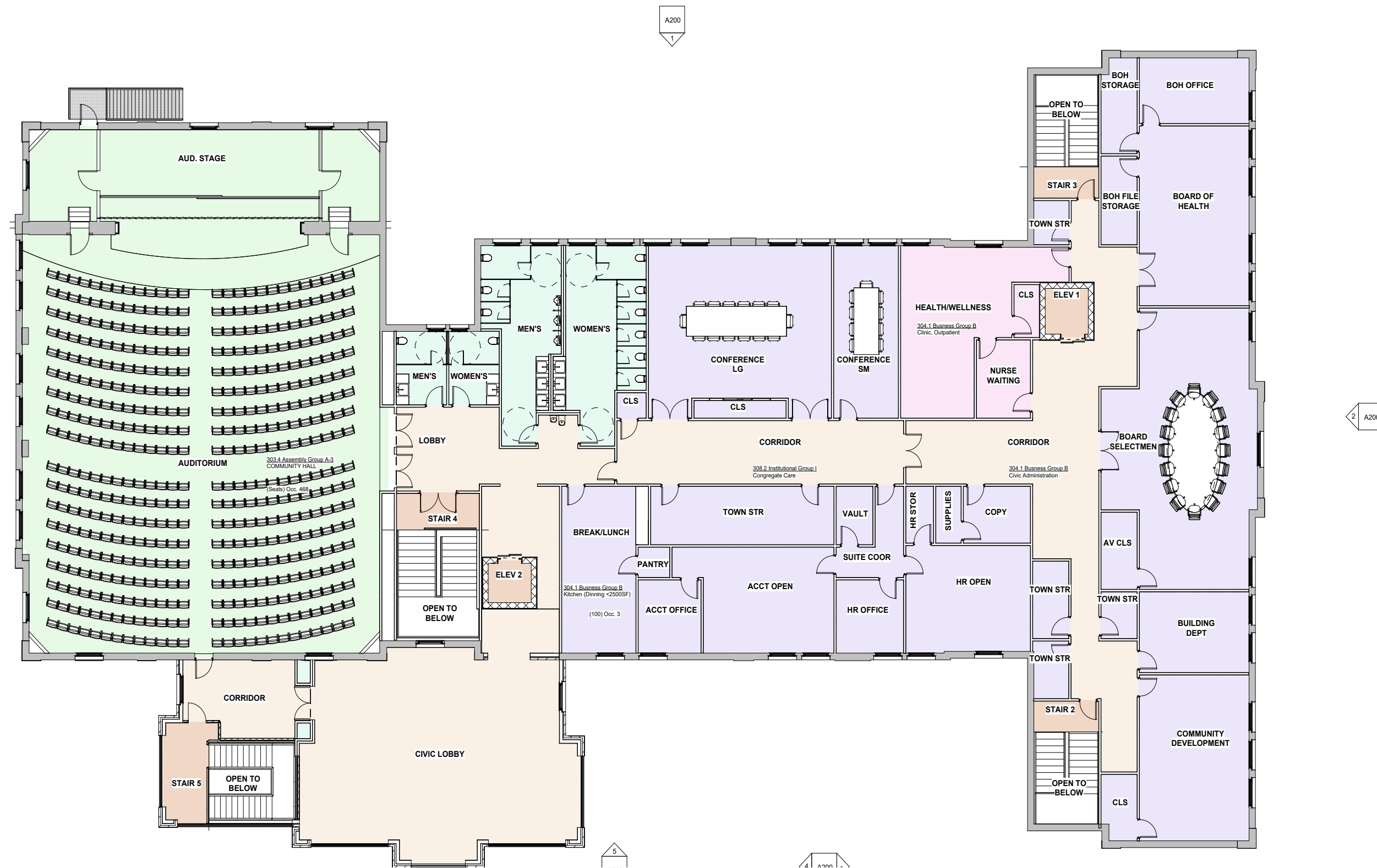


Town Offices with Senior Center **Level Semi Basement**









SSV Archite  
ARCHITECTURE • PRESERV

1 Thompson Square | Suite  
Charlestown, MA 02129-3  
T: (617) 861-4291  
www.SSVarchitects.com

CONSULTANT:

OWNER:

TOWN OF  
ORANGE



PROJECT:

ADAPTIVE  
REUSE

FEASIBILITY STUDY

BUTTERFIELD SCHOOL  
ORANGE, MA 0136

Town Offices with Senior Center Level 2



SC SECOND FLOOR SCHEDULE - SUPPORT (U)			
No.	Name	Department	Area
U211	WOMEN'S	Support	107 SF
U212	MEN'S	Support	99 SF
U213	CHASE	Support	21 SF
Grand total: 3			227 SF

SC SECOND FLOOR SCHEDULE - CIRCULATION (C)			
No.	Name	Department	Area
C201	STAIR 1	Circulation Vert	96 SF
C202	STAIR 2	Circulation Vert	49 SF
C203	STAIR 3	Circulation Vert	49 SF
C204	ELEV	Circulation Vert	43 SF
C205	ELEV	Circulation Vert	43 SF
C206	LOBBY	Circulation	228 SF
C207	CORRIDOR	Circulation	654 SF
C208	CORRIDOR	Circulation	680 SF
C209	LOBBY SE	Circulation	367 SF
C210	CORRIDOR	Circulation	130 SF
C211	LOBBY NE	Circulation	338 SF
C212	CORRIDOR	Circulation	161 SF
Grand total: 12			2837 SF

SC SECOND FLOOR SCHEDULE - SENIOR CENTER (S)			
N0.	Name	Department	Area
S201	MEETING ROOM	Senior Center	450 SF
S202	TECH LEARNING	Senior Center	699 SF
S203	MEDIA	Senior Center	399 SF
S204	CLS	Senior Center	86 SF
S205	SUPPLIES	Senior Center	50 SF
S206	COPY	Senior Center	99 SF
S208	GENERAL	Senior Center	1081 SF
S209	MEETING ROOM	Senior Center	519 SF
S210	CLS	Senior Center	48 SF
S211	MEN'S	Support	234 SF
S212	WOMEN'S	Support	241 SF
S213	LIBRARY/LOUNGE AREA	Senior Center	418 SF
S214	CLS	Senior Center	54 SF
S215	HEALTH/WEELLNESS	Senior Center	269 SF
S216	NURSE WAITING	Senior Center	153 SF

SC SECOND FLOOR SCHEDULE - SENIOR CENTER (S)			
N0.	Name	Department	Area
S217	CONFERENCE SM	Senior Center	329 SF
S218	MEETING ROOM	Senior Center	144 SF
S219	CONFERENCE LG	Senior Center	653 SF
S220	ADMIN WORK STATION	Senior Center	88 SF
S221	CLS	Senior Center	22 SF
S222	TRANSPORT COORDINATOR	Senior Center	218 SF
S223	OFFICE	Senior Center	166 SF
S224	OFFICE	Senior Center	190 SF
S225	VOLUNTEER COORDINATOR	Senior Center	227 SF
S230	AUDITORIUM	Civic/Gather	3570 SF
S231	AUDITORIUM STAGE	Civic/Gather	789 SF
Grand total: 26			11197 SF

PROGRAM LEGEND

- ☐ Circulation
- ☐ Circulation Vert
- ☐ Civic/Gather
- ☐ Senior Center
- ☐ Open to below
- ☐ Support

TOTALS - SECOND FLOOR	
Department	Area
Circulation	2558 SF
Circulation Vert	279 SF
Civic/Gather	4358 SF
Open to below	550 SF
Senior Center	6363 SF
Support	702 SF
Grand total: 44 14811 SF	

1 PROPOSED SECOND FLOOR PLAN - SENIOR/COMMUNITY CENTER

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

## Town Offices Level 2

TO FIRST FLOOR SCHEDULE - SUPPORT (U)			
No.	Name	Department	Area
U110	CHASE	Support	5 SF
U111	WOMEN'S	Support	88 SF
U112	MEN'S	Support	88 SF
U113	MEN'S	Support	288 SF
U114	WOMEN'S	Support	346 SF
Grand total: 5			814 SF

TO FIRST FLOOR SCHEDULE - TBD (X)			
No.	Name	Department	Area
X110	SEATING	Civic/Gather	576 SF
Grand total: 1			576 SF

TO FIRST FLOOR SCHEDULE - CIRCULATION (C)			
No.	Name	Department	Area
C101	STAIR 1	Circulation Vert	188 SF
C102	STAIR 2	Circulation Vert	51 SF
C103	STAIR 3	Circulation Vert	50 SF
C104	STAIR 4	Circulation Vert	89 SF
C105	STAIR 5	Circulation Vert	251 SF
C106	LIFT	Circulation Vert	54 SF
C107	ELEV 1	Circulation Vert	47 SF
C108	ELEV 2	Circulation Vert	40 SF
C109	RECEPTION/WAIT	Circulation	294 SF
C110	CORRIDOR	Circulation	225 SF
C111	LOBBY NE	Circulation	513 SF
C112	CORRIDOR	Circulation	313 SF
C113	CORRIDOR	Circulation	742 SF
C114	LOBBY	Circulation	347 SF
C115	CORRIDOR	Circulation	217 SF
Grand total: 15			3420 SF

TO FIRST FLOOR SCHEDULE - SENIOR CENTER (S)			
N0.	Name	Department	Area
S100	WALK	Senior Center	1327 SF
S101	COMMUNITY MEALS	Senior Center	1349 SF
S102	CLS	Senior Center	39 SF
S103	KITCHEN	Senior Center	596 SF
S104	KITCHEN OFFICE	Senior Center	91 SF
S105	KITCHEN STR	Senior Center	103 SF
S106	GAME/ARTS & CRAFTS	Senior Center	441 SF
S107	A&C STORAGE	Senior Center	31 SF
S108	CLS	Senior Center	21 SF
S109	MEDIA/TECH LEARNING	Senior Center	302 SF
S110	VOL. & TRANSP. COORD.	Senior Center	185 SF
S111	CLS	Senior Center	17 SF
S112	GIFT SHOP	Senior Center	113 SF
S113	CLS	Senior Center	25 SF
S114	SENIOR CENTER ADMIN	Senior Center	178 SF
S115	COA DIRECTOR	Senior Center	285 SF
S116	CLS	Senior Center	29 SF
Grand total: 17			5130 SF

TO FIRST FLOOR SCHEDULE - TOWN OFFICES (T)			
N0.	Name	Department	Area
T101	MAIL	Office	105 SF
T102	COA/SENIOR ADMIN MEETING	Office	224 SF
T103	CLS	Office	23 SF
T104	TOWN STR	Office	37 SF
T105	WATER/SEWER CLERK	Office	152 SF
T106	CLS	Office	14 SF
T107	COATS	Office	75 SF
T108	VAULT	Office	22 SF
T109	TOWN ADMINISTRATOR	Office	194 SF
T110	ADMINISTRATIVE ASST	Office	111 SF
T111	COLLECTOR/ ACCESSORS	Office	144 SF
T112	VAULT	Office	20 SF
T113	TOWN CLERK	Office	279 SF
Grand total: 13			1400 SF

TOTALS - FIRST FLOOR	
Department	Area
Circulation	2650 SF
Circulation Vert	770 SF
Civic/Gather	576 SF
Office	1420 SF
Open to below	4090 SF
Senior Center	5130 SF
Support	814 SF
Grand total: 59 15451 SF	

1 PROPOSED FIRST FLOOR PLAN - TOWN OFFICES/SENIOR CENTER

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

## Town Offices Level 1

TO BASEMENT SCHEDULE - SUPPORT (U)			
No.	Name	Department	Area
U011	WOMEN'S	Civic/Gather	129 SF
U012	MEN'S	Civic/Gather	131 SF
U013	MEN'S	Civic/Gather	288 SF
U014	WOMEN'S	Civic/Gather	346 SF
U015	TRASH	Support	142 SF
U016	MECH ROOM	Support	340 SF
U017	SWITCH GEAR	Support	238 SF
U018	MAINTANANCE	Support	129 SF
U019	JC	Support	30 SF
U020	WATER/SPRINK	Support	95 SF
U021	COMMUNICATION	Support	86 SF
U022	BDA	Support	19 SF
U023	ELEC	Support	212 SF
U024	CLS	Support	18 SF
U025	CHASE	Support	5 SF
Grand total: 15			2206 SF

TO BASEMENT SCHEDULE - TBD			
No.	Name	Department	Area
X001	GYM	Civic/Gather	4411 SF
X002	GYM LOBBY	Civic/Gather	586 SF
X003	GYM STORAGE	Civic/Gather	1376 SF
Grand total: 3			6373 SF

TO BASEMENT SCHEDULE - CIRCULATION (C)			
No.	Name	Department	Area
C001	IVESTIBULE	Circulation	87 SF
C002	LOBBY SE	Circulation	1100 SF
C003	ELEV LOBBY	Circulation	63 SF
C004	CORRIDOR	Circulation	192 SF
C005	STAIR 4	Circulation Vert	283 SF
C006	STAIR 5	Circulation Vert	223 SF
C007	ELEV 1	Circulation Vert	49 SF
C008	ELEV 2	Circulation Vert	42 SF
C009	ECR 1	Circulation Vert	57 SF
C010	ECR 2	Circulation Vert	51 SF
C011	CORRIDOR	Circulation	555 SF
C012	SERVICE CORR	Circulation	246 SF
Grand total: 12			2947 SF

TO BASEMENT SCHEDULE - TOWN OFFICES (T)			
N0.	Name	Department	Area
T001	TOWN STR	Office	716 SF
T002	ELECTION STORAGE	Office	179 SF
T003	GARDEN	Senior Center	779 SF
Grand total: 3			1673 SF

SC BASEMENT SCHEDULE - SENIOR CENTER (S)			
N0.	Name	Department	Area
S002	GAMES	Senior Center	147 SF
S004	GAMES	Senior Center	141 SF
S005	GAMES	Senior Center	141 SF
S006	GAMES	Senior Center	141 SF
Grand total: 4			570 SF

PROGRAM LEGEND

- ☐ Circulation
- ☐ Circulation Vert
- ☐ Civic/Gather
- ☐ Senior Center
- ☐ Office
- ☐ Open to below
- ☐ Support

TOILETS = 35  
URINALS = 11  
SINKS = 24  
FIXTURES = 70

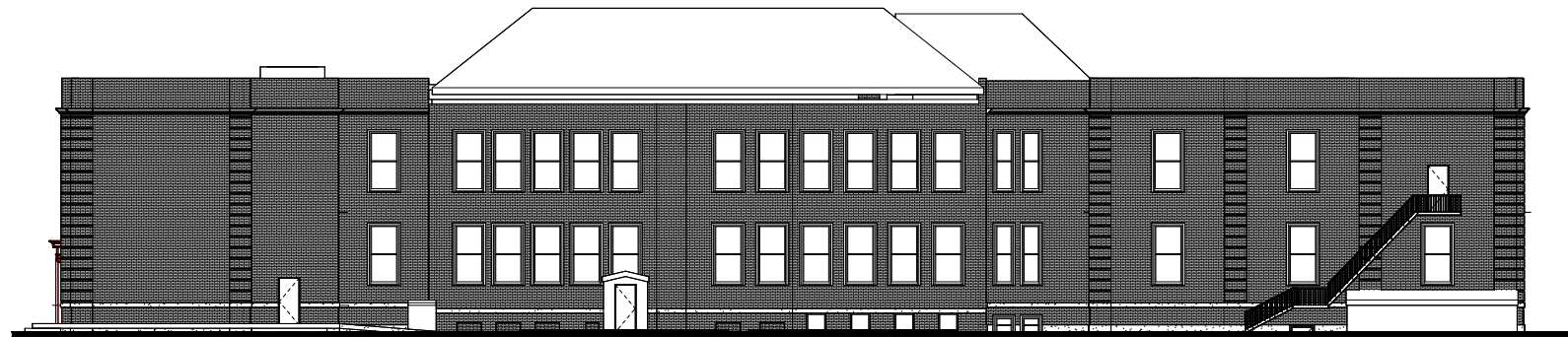
TOTALS - BASEMENT	
Department	Area
Circulation	2243 SF
Circulation Vert	704 SF
Civic/Gather	7266 SF
Office	894 SF
Open to below	36 SF
Senior Center	1349 SF
Support	1313 SF
Grand total: 39 13805 SF	

GROSS SQ FT = 12,862

1 PROPOSED BASEMENT PLAN - TOWN OFFICES/SENIOR CENTER

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

## Town Offices with Senior Center Level Semi Basement with New Lobby



1 EXTERIOR ELEVATION - NORTH  
SCALE: 1/8" = 1'-0"



2 EXTERIOR ELEVATION - EAST  
SCALE: 1/8" = 1'-0"



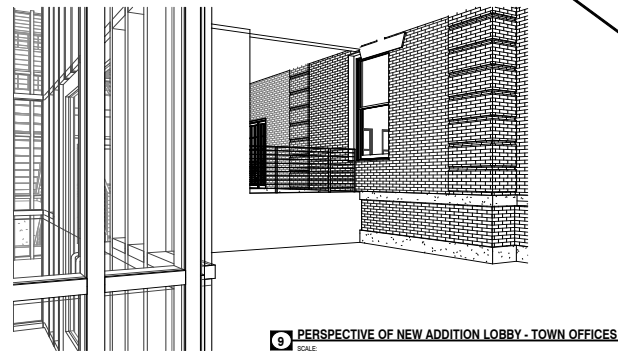
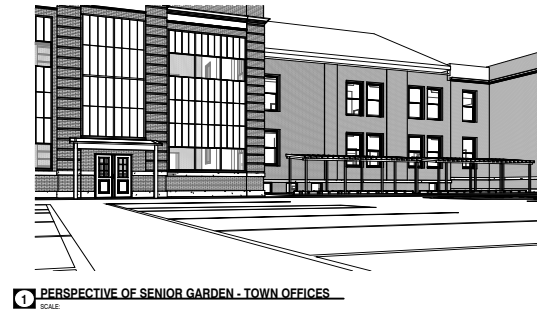
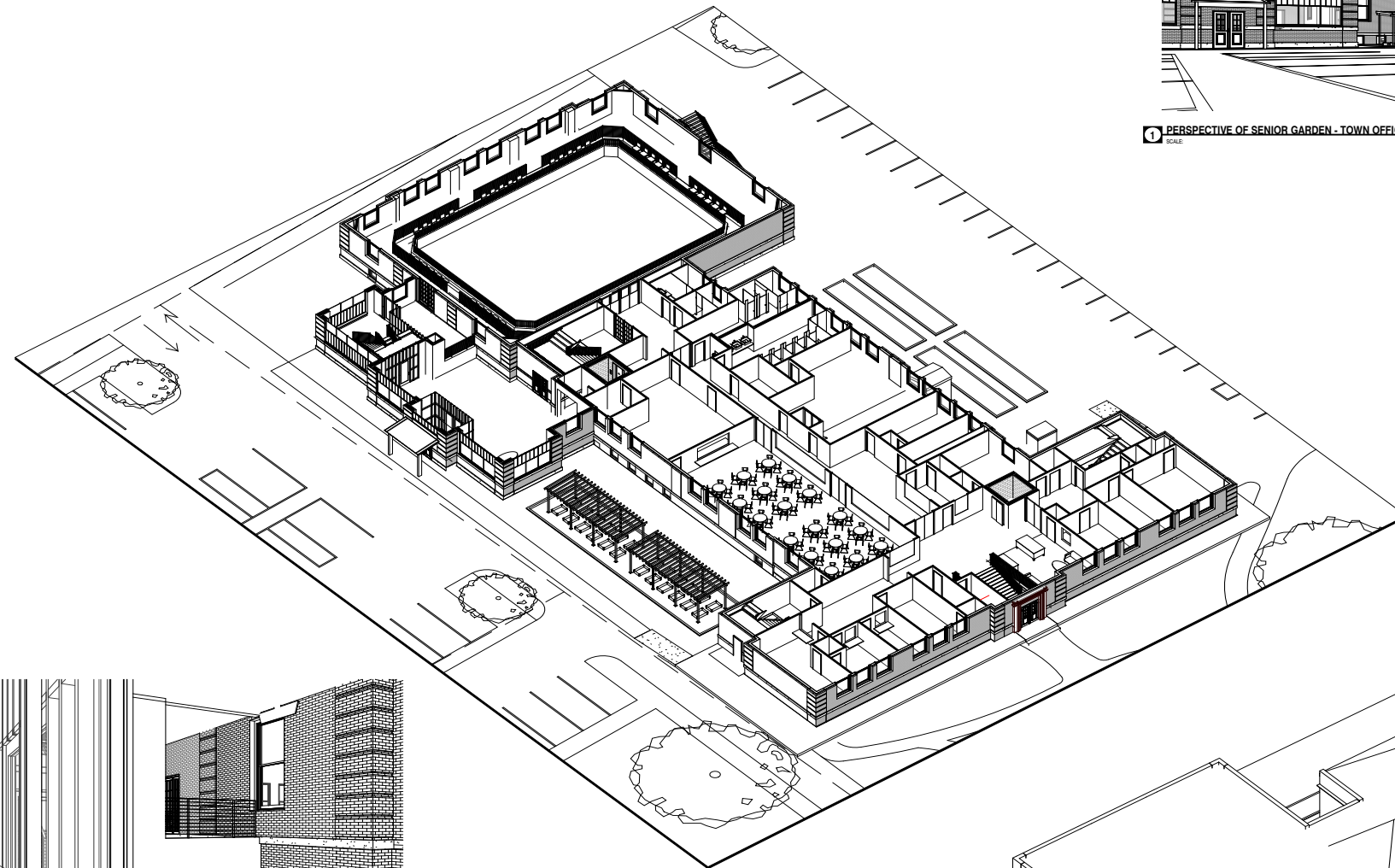
3 EXTERIOR ELEVATION - WEST  
SCALE: 1/8" = 1'-0"



4 EXTERIOR ELEVATION - SOUTH  
SCALE: 1/8" = 1'-0"

Town Offices with Senior Center **Axons**





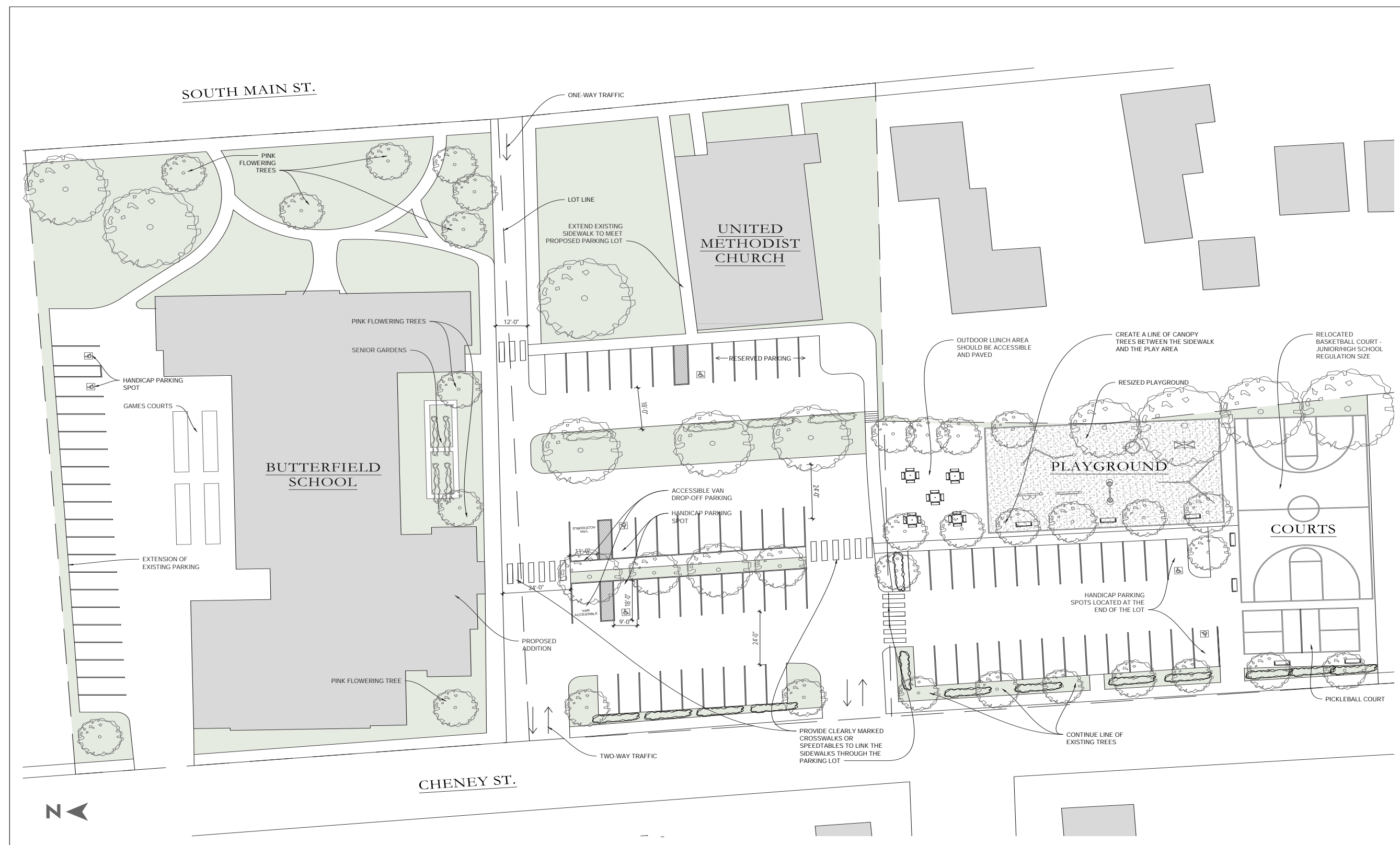
2 AXON - SOUTH EAST AT NEW ENTRANCE ADDITION FIRST FLOOR - TOWN OFFICES  
SCALE



3 AXON - SOUTH WEST AT NEW ENTRANCE ADDITION - TOWN OFFICES  
SCALE

Town Offices with Senior Center **Axons**





ARCHITECT:

**SSV Architects**  
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Charlestown, MA 02129-3308  
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www.SSVarchitects.com

CONSULTANT:

OWNER:

**TOWN OF ORANGE**

**COMMONWEALTH OF MASSACHUSETTS**  
INCORPORATED FEB. 24, 1836  
ORANGE

PROJECT: 2247

**ADAPTIVE REUSE**  
FEASIBILITY STUDY

BUTTERFIELD SCHOOL,  
ORANGE, MA 01364

ISSUANCES:	DATE	DESCRIPTION
00	2023	DESCRIPTION

SEAL:

SHEET TITLE:  
SITE PLAN

SHEET #:  
**A301**

SITE PLAN **Parking**

## Narrative- Landscape

### **The following is an analysis of the landscape plan for the Butterfield Parking Area:**

- Regrade the front lawn leading up to the building such that grade can raise and provide a flush entry. Formal oval framed by two walks the proposed trees are flowering understory trees, (not canopy to block views). That will provide seasonal interest and frame the space.
- Add Pink Flowering Trees in the north and west section of the building.
- Eliminate a line of parking in order to keep line of existing trees on the property line.
- The outdoor eating area should be accessible and paved.
- Accessible parking should be at the end nearest to the courts, building, and church.
- Create a line of canopy trees between the play area and as part of the center spine
- Continue existing line of trees in the south section of the building near the courts.
- Paved terrace to call out the new entry. Provide benches for waiting and gathering, frame this terrace with shrub/perennial plantings to mark the entrance.
- A formal paved terrace, framed by garden plantings, should be added on the north side of the building. This terrace can generally slope up along its length to aid in providing accessibility to the historic entrance. Also, provide benches for resting in this area.

# COST ESTIMATE(Taveli & Haesche)

TALEVI and HAESCHE, LLC  
CONSTRUCTION CONSULTANTS

21 Old Warren Road, West Brookfield, MA 01585  
PHONE (508) 867-3222  
FAX (508) 867-3993

BUTTERFIELD SCHOOL FEASIBILITY and REUSE STUDY  
Town Offices with Senior Center  
Cheney Street  
Orange, Massachusetts

5 Dec. 2023

SSV Architects - Feasibility Study Cost Model

SUMMARY	29,800	GSF of New and Renovated Area	As if Separate Prices incl. Mark-Ups		
Town Office with Sr. Center Renovations	25,400	GSF	\$290 \$/GSF	\$7,360,000	\$10,400,000
Work at the Balance of the Building incl. the Attic	18,700	GSF	\$41 \$/GSF	\$758,000	\$1,100,000
Historic Restoration of the Existing Exterior Wall and Sloped Roof				Not Included	Not Included
Existing Building including Attic	44,100	GSF	\$184 \$/GSF	\$8,118,000	\$11,500,000
New Lobby Addition	4,400	GSF	\$437 \$/GSF	\$1,921,000	\$2,700,000
Sitework	1.8	Acres	\$563,344 \$/Acre	\$1,000,000	\$1,400,000
SUBTOTAL, Rounded	29,800	GSF	\$370 \$/GSF	\$11,039,000	\$15,600,000
GENERAL CONDITIONS AND GENERAL CONTRACTOR'S OH & P			18%	\$1,987,000	Included Above
SUBTOTAL				\$13,026,000	
ESTIMATING CONTINGENCY			20%	\$2,605,000	Included Above
SUBTOTAL				\$15,631,000	
CONSTRUCTION/OWNER CONTINGENCY				Not Included	Not Included
SUBTOTAL - TODAY'S DOLLARS				\$15,631,000	
ESCALATION TO MIDPOINT OF CONSTRUCTION				Not Included	Not Included
				\$15,631,000	
			SAY	\$15,600,000	\$15,600,000

\$523 \$/GSF of New and Renovated Area

PROBABLE CONSTRUCTION COST RANGE BETWEEN  
\$14,000,000 AND \$17,900,000  
\$470 \$601  
\$/GSF \$/GSF

SUMMARY - GROSS AREAS				
Butterfield School	Total Area	New Lobby Addition	Existing Building	
- Lowest Level	11,667	667	11,000	
- Grade Level Entry	1,195	1,195	0	
	12,862	1,862	11,000	
- First Floor	13,581	667	12,914	
- Second Floor	16,076	1,862	14,214	
- Attic	6,000	0	6,000	
	48,519	4,391	44,128	
Rounded to	48,500	4,400	44,100	
	GSF	GSF	GSF	

**BUTTERFIELD SCHOOL FEASIBILITY and REUSE STUDY**  
**Town Offices with Senior Center**  
**Cheney Street**  
**Orange, Massachusetts**

**5 Dec. 2023**

**SSV Architects - Feasibility Study Cost Model**

<b>TRADE COST SUMMARY - BY SYSTEMS</b>		<b>4,400 GSF</b>		
EXISTING CONDITIONS	\$22.73	/GSF		\$100,000
EXCAVATION, FOUNDATIONS AND SOG	\$34.09	/GSF		\$150,000
SUPERSTRUCTURE	\$93.18	/GSF		\$410,000
EXTERIOR ENCLOSURE	\$106.82	/GSF		\$470,000
ROOFING	\$20.45	/GSF		\$90,000
INTERIOR CONSTRUCTION WORK	\$43.18	/GSF		\$190,000
CONVEYING SYSTEMS	\$0.00	/GSF	Included with Renovation Work	\$0
MECHANICAL SYSTEMS				
PLUMBING	\$1.14	/GSF	Roof Drains Only	\$5,000
FIRE PROTECTION	\$5.00	/GSF	\$/GSF HISTORICAL ALLOWANCE	\$22,000
HVAC	\$75.00	/GSF	\$/GSF HISTORICAL ALLOWANCE	\$330,000
ELECTRICAL SYSTEMS				
ELECTRICAL	\$35.00	/GSF	\$/GSF HISTORICAL ALLOWANCE	\$154,000
FIRE/SECURITY				Included Above
IT/COMM. - INFRASTRUCTURE ONLY				Included Above
IT/COMM. - DEVICES/WIRE/ETC.				By Owner
<b>TOTAL TRADE COST</b>	<b>\$436.59</b>	<b>/GSF</b>		<b>\$1,921,000</b>

**AREAS**

<b>New Lobby Addition</b>	<b>Gross Area</b>	<b>Lobby/Civic Lobby</b>
- Basement	667 GSF	
- Grade Level	1,195 GSF	1,195 GSF
- First Floor	667 GSF	0 GSF
- Second Floor	1,862 GSF	1,195 GSF
	<b>4,391 GSF</b>	<b>2,390 GSF</b>
	<b>Rounded to</b>	<b>4,400 GSF</b>

**STRUCTURAL AREAS**

- Slab On Grade	1,862	sf
- Slab On Deck	2,529	sf
- Roof	1,862	sf



**5 Dec. 2023**

## EXISTING CONDITIONS

Main Building					
Remove Windows/Doors Infill or Adjust Existing Openings	8	loc	\$2,500	\$20,000	
Remove Louvers/Infill Openings	1	Loc	\$1,000	\$1,000	
Cut Openings for Connections w/Existing Bldg., +- 3' wide	3	ea	\$7,500	\$22,500	
Cut Openings for Connections w/Existing Bldg., +-6' wide	4	ea	\$15,000	\$60,000	
				<u>\$103,500</u>	<u>\$103,500</u>
				<b>\$103,500</b>	<b>\$103,500</b>
			<b>\$22.73 /GSF</b>	<b>SAY</b>	<b>\$100,000</b>

## EXCAVATION, FOUNDATIONS, AND SLAB ON GRADE

Column Footings	13	cy	\$850	\$11,081
Continuous Footing	16	cy	\$625	\$10,000
Foundation Wall	35	cy	\$1,150	\$40,655
Set Anchor Bolts / Grout Baseplates	44	loc	\$450	\$19,800
S.O.G				
Slab On Grade	1,862	sf	\$11	\$20,482
Control Joints	200	lf	\$4	\$800

Vapor Barrier	2,141	sf	\$1.25	\$2,677
Foundation Dampproofing / Water Proofing	544	sf	\$12	\$6,528
Perimeter Insulation	544	sf	\$4	\$2,176

Footing Excavation / Backfill / Haul Away Excess Material	1	ls	\$20,000	\$20,000	
Perimeter Drains	136	lf	\$30	\$4,080	
Underslab Utility Excavation and Backfill, Minimal	1	ls	\$2,500	\$2,500	
Stone Under SOG	79	cy	\$55	\$4,362	
Deep Foundations [ Piles / Caissons etc. ]					
				Not Included	
				\$145,141	\$145,141
				<b>\$145,141</b>	<b>\$145,141</b>
			<b>\$34.09 /GSF</b>	<b>SAY</b>	<b>\$150,000</b>

**BUTTERFIELD SCHOOL FEASIBILITY and REUSE STUDY**  
**Town Offices with Senior Center**  
**Cheney Street**  
**Orange, Massachusetts**

5 Dec. 2023

**SSV Architects - Feasibility Study Cost Model**

**SUPERSTRUCTURE**

**Cast-In-Place Concrete**

Concrete Topping On Deck	40	cy	\$650	\$26,000
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**Metals**

Structural Steel	28	ton	\$6,500	\$182,000
- Beams [ averaging 12#/sf ]	23	ton		Included Above
- Columns	5	ton		Included Above
Allowances for Additional Steel	9	ton	\$6,500	\$58,500
- Connections [ given 15% additional steel ]	4	ton		Included Above
- Misc. Spandrel and Facade Support [ 40#/lf per level ]	5	ton		Included Above
Shear Studs	1	ls	\$1,500	\$1,500
Metal Floor Deck	2,529	sf	\$8	\$20,232
Metal Roof Deck	1,862	sf	\$6	\$11,172
Expansion Joint	245	lf	\$100	\$24,500
Stairs incl. Mid Landings	2	flights	\$40,000	\$80,000

**Thermal / Moisture Protection**

Spray Fireproofing	4,400	sf	\$2.50	\$11,000	
				\$414,904	<b>\$414,904</b>
				<b>\$414,904</b>	<b>\$414,904</b>
			<b>\$93.18 /GSF</b>	<b>SAY</b>	<b>\$410,000</b>

**EXTERIOR WALL**

**5,100 SF OF ENCLOSURE WALL**

**EXTERIOR WALL**

61% Brick Wall w/Metal Stud and GWB Backup incl Parapet	3,123	sf	\$75	\$234,225	
Added Cost - Rustication at Piers	891	sf	\$25	\$22,275	
4% Cast Stone Base	195	sf	\$100	\$19,500	
Cast Stone Water Table	130	lf	\$100	\$13,000	
1% Cast Stone Panels	76	sf	\$75	\$5,700	
Cast Stone Cornice	136	lf	\$175	\$23,800	
23% Kalwall	1,170	sf	\$50	\$58,500	
11% Windows	536	sf	\$85	\$45,560	
Entry Doors	1	pr	\$5,000	\$5,000	
Interior Vestibule and Doors	1	ls	\$25,000	\$25,000	
Entry Canopy, Complete	1	ls	\$12,500	\$12,500	
Interface with New / Existing Construction	74	lf	\$100	\$7,400	
				\$472,460	<b>\$472,460</b>
				<b>\$472,460</b>	<b>\$472,460</b>
			<b>1.2 SF of Skin/GSF</b>		
			<b>\$92.16 \$/SF of Skin</b>	<b>SAY</b>	<b>\$470,000</b>

**BUTTERFIELD SCHOOL FEASIBILITY and REUSE STUDY**  
**Town Offices with Senior Center**  
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**ROOFING**

New Roofing and Insulation Complete	1,862	sf	\$40	\$74,480	
Green Roofing				Not included	
Roof Coping	136	lf	\$55	\$7,480	
Flashing Including Roofing / Wall Intersections	203	lf	\$20	\$4,060	
Skylights or Other Roof Features				Not included	
Miscellaneous Other Roofing Items [ Lightning Protection / Tie Offs / Hatches / Ladders etc. ]	1	ls	\$2,500	\$2,500	
				<u>\$88,520</u>	<b>\$88,520</b>
				<b>\$88,520</b>	<b>\$88,520</b>
		<b>\$20.45 /SF</b>	<b>SAY</b>		<b>\$90,000</b>

**INTERIOR CONSTRUCTION WORK**

**Subdivision:**

Partitions	1,240	sf	\$15	\$18,600	
Glazed Partitions (Not Fire Rated)	720	sf	\$65	\$46,800	
Furr Inside Face of Existing Exterior Wall	2,230	sf	\$5	\$11,150	
Glazed Door, Complete	4	lvs	\$3,000	\$12,000	
All Other Doors, Complete	8	lvs	\$2,300	\$18,400	

**Ceilings:**

Mixture of Drywall and ACT	4,400	sf	\$7	\$30,800	
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**Floor Finishes:**

Recessed Entry Matt and Frame	50	sf	\$150	\$7,500	
Carpet at Lobby/Civic Area	2,390	sf	\$5	\$11,950	
VCT or Sheet Vinyl Elsewhere	1,664	sf	\$4	\$5,824	
Rubber Risers/Treads	296	sf	\$20	\$5,920	

**Walls:**

Paint Walls	7,300	sf	\$1.50	\$10,950	
Base - Wood/Vinyl	664	lf	\$5	\$3,318	
Misc. Accent Painting	1	ls	\$2,500	\$2,500	

Specialties, Equipment, Millwork	4,400	sf	\$2	\$8,800	
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Fixtures Furnishings and Fitting				Not Included	
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Special Theatrical or Gallery Lighting or Hanging Systems				Not Included	
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<u>\$194,512</u>	<b>\$194,512</b>
<b>\$194,512</b>	<b>\$194,512</b>

**\$43.18 /SF** **SAY** **\$190,000**

**BUTTERFIELD SCHOOL FEASIBILITY and REUSE STUDY**  
**Town Offices with Senior Center**  
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**SSV Architects - Feasibility Study Cost Model**

<b>Town Office with Sr. Center Renovations</b>	<b>25,400 GSF</b>
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**SHELL AND CORE:**

New Core Building Construction including Core Interior Construction and all MEP	<b>25,400</b>	<b>GSF</b>	<b>\$203</b>	<b>\$5,156,700</b>	<b>\$5,160,000</b>
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<b>INTERIOR ARCHITECTURAL CONSTRUCTION BY SPACE TYPE: AREAS ARE FIT-UP AREAS INCL. SECONDARY CIRCULATION</b>	<b>\$2,198,000</b>
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**Program Areas - Departmental Gross Square Footage**

52% Town Offices	7,736	SF		
Basement Storage Areas	913	SF	\$75	\$68,475
First and Second Floor Office and Admin Areas	4,982	SF	\$125	\$622,750
Second Floor Conference Areas	1,841	SF	\$150	\$276,150
<i>Senior Center - Total</i>	<i>4,365</i>	<i>SF</i>		
Senior Center	3,796	SF	\$125	\$474,500
Senior Center Commercial Kitchen	569	SF	\$150	\$85,350
36% Corridors /Elev. Lobbies	5,327	SF	\$126	\$671,202
88% Subtotal Fit-up including Circulation	14,765	SF	\$148.90	\$2,198,427
Balance of Work at the Core Areas	10,636	SF		With Core Above
Renovation Area	25,400	SF		\$2,198,427

SITEWORK

FURNITURE AND FURNISHINGS

MOVABLE AND LOOSE EQUIPMENT

SEE SEPARATE PRICE

NOT INCLUDED

NOT INCLUDED

SUBTOTAL, Rounded	<b>\$289.76</b>	<b>/GSF</b>		<b>\$7,360,000</b>
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**HAZARDOUS WASTE REMOVALS AND ABATEMENT, SITE REMEDIATION, ETC. HAVE BEEN EXCLUDED FROM THIS ESTIMATE.**



**BUTTERFIELD SCHOOL FEASIBILITY and REUSE STUDY**

**5 Dec. 2023**

**Town Offices with Senior Center**  
**Cheney Street**  
**Orange, Massachusetts**

**SSV Architects - Feasibility Study Cost Model**

**AREAS**

**Existing Building Areas**

	Town Office with Sr. Center Renovations	Work at the Balance of the Building incl. the Attic	Total
- Basement	4,090	6,910	11,000 GSF
- Grade Level	0	0	0 GSF
- First Floor	10,650	2,264	12,914 GSF
- Second Floor	10,650	3,562	14,212 GSF
- Attic	0	6,000	6,000 GSF
	25,390	18,736	44,126 GSF
<b>Areas, Rounded</b>	<b>25,400</b>	<b>18,700</b>	<b>44,100</b>
	<b>GSF</b>	<b>GSF</b>	<b>GSF</b>

**Roofing**

	Plan Area		Surface Area
Flat Roof Areas - No Attic	8,212 SF		
Roof Areas - Attic Below	1,776 SF		
Total Flat	9,988 SF		9,988 SF
Sloped Roof Areas - Attic Below	4,224 SF	1.44	6,083 SF
	<b>14,212 SF</b>		<b>16,071 SF</b>

	Program Areas			Core Areas		Total Renovation
	Town Offices	Senior Center	Corridors /Elev. Lobbies	Core Areas incl. Mechanical, Stairs, Elevators, Back of House, Shafts, Exterior Wall	Toilet Areas	
Town Office with Sr. Center Renovations						
- Basement	913	-	618	2,559	0	4,090
- First Floor	1,400	3,804	2,651	1,986	809	10,650
- Second Floor	5,423	561	2,058	1,799	809	10,650
	7,736	4,365	5,327	6,344	1,618	25,390
	GSF	GSF	GSF	GSF	GSF	GSF

**25,400 GSF of Renovations**

**BUTTERFIELD SCHOOL FEASIBILITY and REUSE STUDY**  
**Town Offices with Senior Center**  
**Cheney Street**  
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**5 Dec. 2023**

**SSV Architects - Feasibility Study Cost Model**

<b>SHELL AND CORE:</b>		<b>25,400 GSF</b>		
EXISTING CONDITIONS	\$3.94	/GSF		\$100,000
EXCAVATION, FOUNDATIONS AND SOG	\$4.33	/GSF		\$110,000
SUPERSTRUCTURE	\$8.27	/GSF		\$210,000
EXTERIOR ENCLOSURE	\$0.00	/GSF		Not Evaluated
ROOFING	\$0.79	/GSF		\$20,000
CORE INTERIOR CONSTRUCTION WORK	\$17.55	/GSF		\$445,700
TOILET ROOMS	1,618	SF	\$150	\$242,700
ALL OTHER CORE AREAS				
SUBDIVISION	6,344	SF	\$15	\$95,000
FINISHES	6,344	SF	\$12	\$76,000
SPECIALTIES AND EQUIPMENT	6,344	SF	\$5	\$32,000
PLUMBING	6,344	SF	Included w/Plumbing Below	
FIRE PROTECTION	6,344	SF	Included w/Fire Protection Below	
HVAC	6,344	SF	Included w/HVAC Below	
ELECTRICAL	6,344	SF	Included w/Electrical Below	
CONVEYING SYSTEMS	\$15.35	/GSF		\$390,000
MECHANICAL SYSTEMS				
PLUMBING - Assumes Equip. Piping Sized to Accommodate Total Fit-Out	\$27.72	/GSF	Based on Fixture Count, Areas, Etc.	\$704,000
FIRE PROTECTION	\$5.00	/GSF	\$/GSF HISTORICAL ALLOWANCE	\$127,000
HVAC	\$75.20	/GSF	\$/GSF HISTORICAL ALLOWANCE	\$1,910,000
ELECTRICAL SYSTEMS				
ELECTRICAL	\$44.88	/GSF	\$/GSF HISTORICAL ALLOWANCE	\$1,140,000
FIRE/SECURITY				Included Above
IT/COMM. - INFRASTRUCTURE ONLY				Included Above
IT/COMM. - DEVICES/WIRE/ETC.				By Owner
<b>TOTAL TRADE COST</b>	<b>\$203.02</b>	<b>/GSF</b>		<b>\$5,156,700</b>

**BUTTERFIELD SCHOOL FEASIBILITY and REUSE STUDY**  
Town Offices with Senior Center  
Cheney Street  
Orange, Massachusetts

5 Dec. 2023

**SSV Architects - Feasibility Study Cost Model**

**EXISTING CONDITIONS**

Gut Demolition at Areas Scheduled for Renovations	25,400	GSF	\$4	\$101,600	
				\$101,600	\$101,600
				\$101,600	\$101,600
		\$3.94 /GSF		SAY	\$100,000

**EXCAVATION, FOUNDATIONS, AND SLAB ON GRADE**

**EXCAVATION, FOUNDATIONS, AND SLAB ON GRADE**

<i>Elevator Pits</i>	2	each			
- Sawcut And Remove Slab on Grade	684	sf	\$4	\$2,736	
- Mats	8	cy	\$750	\$6,000	
- Walls	11	cy	\$1,500	\$16,500	
- Sumps	2	ea	\$1,000	\$2,000	
- Patch Slab on Grade	540	cy	\$15	\$8,100	
- Dampproof Pit	416	sf	\$10	\$4,160	
Cut/Patch Slab On Grade for Plumbing/Floor Drains/Utilities Etc.	1	ls	\$10,000	\$10,000	
Topping Slab /Floor Prep at Basement Areas	4,090	sf	\$3	\$12,270	
Foundation Dampproofing / Water Proofing Walls	2,364	sf	\$12	\$28,368	
Perimeter Insulation	2,364	sf	\$4	\$9,456	
Misc. Other Items - Footings for Point Loads, Etc.	1	ls	\$15,000	\$15,000	
				\$114,590	\$114,590
				\$114,590	\$114,590
		\$4.33 /GSF		SAY	\$110,000

**SUPERSTRUCTURE**

Frame New Openings for Elevators/Lift ( assumes new CMU shaft walls can pick up some loads and elevator overrides penetrate attic/areas above ceilings but not the roof )	7	openings	\$7,500	\$52,500	
Modify Existing Stair Railings to Meet Code	6	flights	\$10,000	\$60,000	
Misc. Structural Upgrades, Repairs, Etc.	25,400	sf	\$4	\$101,600	
Seismic Upgrades				Not Included	
Increase Floor Loading				Not Included	
				\$214,100	\$214,100
				\$214,100	\$214,100
		\$8.27 /GSF		SAY	\$210,000

**EXTERIOR WALL**

EXTERIOR WALL				Not Evaluated	\$0
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**BUTTERFIELD SCHOOL FEASIBILITY and REUSE STUDY**  
**Town Offices with Senior Center**  
**Cheney Street**  
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**5 Dec. 2023**

**SSV Architects - Feasibility Study Cost Model**

**ROOFING**

Sloped Roofing Areas	6,083	sf		Not Evaluated	
Assume 10% of Flat roofing areas will require repairs due to Mechanical and Electrical work.	999	sf	\$25	\$24,970	
Balance of Flat Roofing to Remain	8,989	sf		Not Evaluated	
				<u>\$24,970</u>	<b>\$24,970</b>
				<b>\$24,970</b>	<b>\$24,970</b>
		<b>\$0.79 /SF</b>		<b>SAY</b>	<b>\$20,000</b>

**CONVEYING SYSTEMS**

Hydraulic Elevator - 3 Stops / 3 Openings	1	ea	\$150,000	\$150,000	
Hydraulic Elevator - 4 Stops / 4 Openings - Front and Rear	1	ea	\$215,000	\$215,000	
Wheelchair Lift - roughly 90" lift	1	ea	\$20,000	<u>\$20,000</u>	
				<b>\$385,000</b>	<b>\$385,000</b>
				<b>\$385,000</b>	<b>\$385,000</b>
		<b>\$15.35 /SF</b>		<b>SAY</b>	<b>\$390,000</b>



**BUTTERFIELD SCHOOL FEASIBILITY and REUSE STUDY**

**5 Dec. 2023**

Town Offices with Senior Center  
Cheney Street  
Orange, Massachusetts

**SSV Architects - Feasibility Study Cost Model**

<b>Work at the Balance of the Building incl. the Attic</b>	<b>18,700 GSF</b>
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The Feasibility Study suggests that the Balance of the Building will remain in use.

This does not seem feasible to us. Boilers, Electrical, Plumbing removals required to perform the renovations will effectively cut off the Balance of the Building.

The Monies carried here are intended to provide minimal heat, lighting, and life safety to allow the Balance of the Building to be shut down and effectively treated as if shell space.

Maintaining the Balance of the Building "as-is" while renovating for the Town Offices and Senior Center will be a challenging job and will require an engineered transitional design.

EXISTING CONDITIONS - Minor Demolition Clean out	\$1.50	/GSF		\$28,000
EXCAVATION, FOUNDATIONS AND SOG				No Work
SUPERSTRUCTURE				No Work
EXTERIOR ENCLOSURE				No Work
ROOFING				No Work
CORE INTERIOR CONSTRUCTION WORK				No Work
CONVEYING SYSTEMS				No Work
MECHANICAL SYSTEMS				
PLUMBING - Cut / Cap / Etc.	\$0.53	/GSF	ALLOWANCE	\$10,000
FIRE PROTECTION - Below Ceilings - Upturned Heads	\$3.48	/GSF	\$/GSF HISTORICAL ALLOWANCE	\$65,000
HVAC - Minimal Conditioned	\$15.03	/GSF	\$/GSF HISTORICAL ALLOWANCE	\$281,000
ELECTRICAL SYSTEMS				
ELECTRICAL	\$20.00	/GSF	\$/GSF HISTORICAL ALLOWANCE	\$374,000
FIRE/SECURITY				Included Above
IT/COMM. - INFRASTRUCTURE ONLY				Included Above
IT/COMM. - DEVICES/WIRE/ETC.				By Owner
<b>TOTAL TRADE COST</b>	<b>\$40.53</b>	<b>/GSF</b>		<b>\$758,000</b>

**HAZARDOUS WASTE REMOVALS AND ABATEMENT, SITE REMEDIATION, ETC. HAVE BEEN EXCLUDED FROM THIS ESTIMATE.**

**5 Dec. 2023**

## Sitework

Sitetework Area	
Paved Areas - Roadways and Parking Areas	33,514 SF
Basketball Court - as Asphalt - Reuse Existing Equip.	4,160 SF
Pickleball Court - as Asphalt	850 SF
Paved Accessible Outdoor Lunch Area	1,600 SF
Playground	4,440 SF
Paved Walkways, as Concrete	7,030 SF
Senior Gardens	550 SF
Game Courts	600 SF
Lawn and Landscape Area	24,580 SF
	<b>77,324 SF</b>

Sitework
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Sitework	Paved Areas - Roadways and Parking Areas	33,514	sf	\$16	\$536,224
	Price per SF Complete incl. Demo, Site Prep, Paving, Curbs, Storm Drainage, Site Lighting, Utility Trenching, Etc.	75	cars	\$7,150	
	Basketball Court - as Asphalt	1	ea	\$48,700	\$48,700
	Pickleball Court - as Asphalt	1	ea	\$14,300	\$14,300
	Paved Accessible Outdoor Lunch Area	1,600	sf	\$10	\$16,000
	Playground incl. Surface and 7 Structures	4,440	sf	\$16.89	\$75,000
	Paved Walkways, as Concrete including Regrading as Req'd.	7,030	sf	\$10	\$70,300
	Senior Gardens incl. Planters and Terrace	550	sf	\$50	\$27,500
	Game Courts	4	ea	\$2,500	\$10,000
	Benches	7	sf	\$1,000	\$7,000
	Picnic Tables	5	sf	\$1,200	\$6,000
	Lawn, as Loam and Seed - Assumed 90% of Lawn/Landscape Area, Loam and Seed	22,122	sf	\$1	\$22,122
	Landscape Area - Assumed 20% of Lawn/Landscape Area	2,458	sf	\$15	\$36,870
	New Entry, Paved Terrace Enhancements, Benches, Etc.	1	ls	\$35,000	\$35,000
	Pink Flowering Trees	21	ea	\$1,000	\$21,000
	Trees along Cheney Street at Rear Lot	9	ea		Existing to Remain
	Trees along Lot Line behind United Methodist Church				Assumed Existing to Remain
	Large Trees along South Main Street				Assumed Existing to Remain
	Utility Removal, Relocations, Maintain Existing, New, Etc.	1	Allowance	\$75,000	<u>\$75,000</u>
					<u>\$1,001,016</u>
					<b>\$1,001,016</b>
			<b>\$39.37 /GSF</b>	<b>Called</b>	<b>\$1,000,000</b>