IRVINGTON TOWN HALL THEATER IMPROVEMENTS STUDY

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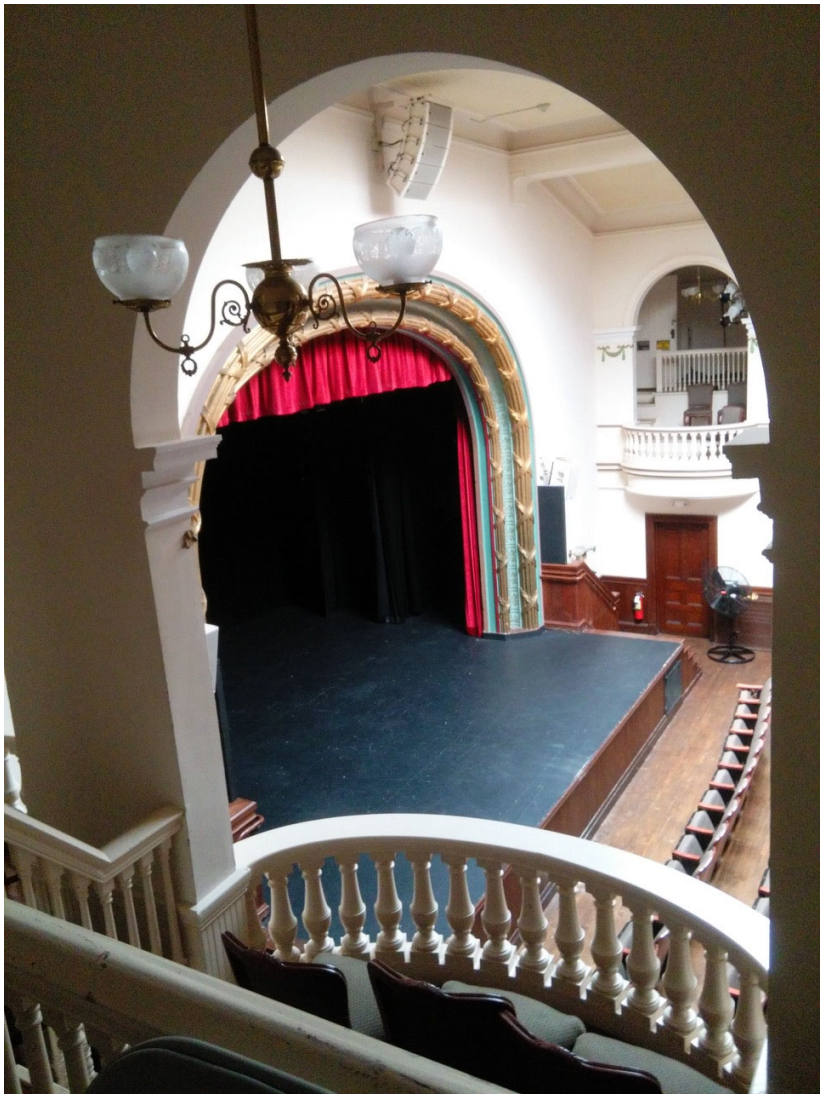


TABLE OF CONTENTS

I. EXECUTIVE SUMMARY

II. INTRODUCTION

III. PROJECT OBJECTIVES

IV. EXISTING CONDITIONS & OPERATIONAL DEFICITS

V. PROGRAM REQUIREMENTS

VI. SCHEMATIC DESIGN

VII. COMMUNITY BENEFITS

VIII. TRAFFIC & PARKING

IX. COST ESTIMATES

X. PROJECT PHASING, DELIVERY & SCHEDULE

APPENDIX

I. EXECUTIVE SUMMARY

The Irvington Town Hall Theater is owned by the Village of Irvington and directed by a manager and a volunteer commission appointed by the mayor. The theater's mission is to present challenging and entertaining productions of varied musical and dramatic styles and traditions. It is the focal point of civic and cultural life in the Village of Irvington and the Rivertown region of the Lower Hudson Valley.

Built in 1902 the theater is recognized as one of the finest examples of early twentieth century civic architecture in New York State and is patterned after the historic Ford's Theater in Washington. Virtually abandoned for several years, the theater was renovated and reopened after 1980. It currently brings in 11,500 people into Irvington's downtown annually.

The proposed project includes the following primary goals:

- Improve Identity & Visibility
- Increase Safety & Accessibility
- Increase Theater Usage
- Improve Operations
- Improve Theater Arrival Experience
- Address School District Synergies

The project has been designed to be respectful of the adjacent historic buildings, and the design approach has had informal preliminary review by a N.Y. State Historic Preservation Officer.

A three level, 6550 square foot addition has been proposed on the east side of the existing building and includes the following components:

- Entry Plaza
- Ground Level Entry Lobby and Ticketing
- Second Level Lobby Space for Concessions and Events
- Air Conditioning for Year Round Operation
- Restroom Improvements
- Improved Staff Space and Storage
- Lower Level Black Box Theater

The improvements and resulting expanded operations are expected to result in around 4,000 additional theater visitors annually, many of whom will be from out-of-town. The project will expand the diversity and age range of attendees by easing access for the disabled and elderly, and attracting children and families with summer camp and art programs. In addition to improving the theater experience, the completed project will create jobs, boost spending in the downtown area, mitigate traffic congestion, and improve safety.

The project is to be funded by a combination of private donations, state grants and local municipal investment and is estimated $5.2M. Preliminary support for the project has been expressed by the school district and municipality. The fundraising phase is to begin in 2019, and the project is scheduled to be complete in 2022.

II. INTRODUCTION

This report is the result of a study commissioned in 2017 by The Village of Irvington Mayor and Board of Trustees for the purpose of analyzing the feasibility of much needed improvements to the Irvington Town Hall Theater located in the historic Village Hall on Main Street in Irvington.

Operations

Owned by the Village, the theater is operated by The Town Hall Theater Commission and the theater manager. Commission members are appointed by the mayor of Irvington. The Commission is the policy-making organization that governs the use, and oversees maintenance and management of the theater. The Commission collaborates with the Friends of the Irvington Theater, Inc., a volunteer non-profit whose purpose is to support the physical enhancement of the theater by engaging in a broad spectrum of fundraising. The annual calendar and capital improvements are the direct responsibility of the Commission, whose goals include enhancements that will enable year round programs, a superior theater-going experience for diverse audiences, and assure that this community treasure can continue to play this vital role for generations to come.

Mission

The Irvington Town Hall Theater, located in the heart of historic Irvington, is a vital presenter and curator of high-quality innovative cultural programming that entertains, enlightens, and inspires. Our diverse offerings attract a broad range of audiences from the greater Metropolitan area.

History

The Irvington Town Hall Theater was built in 1902 as an integral part of the Classical Revival landmark Village Hall building designed by Alfred J. Manning. Recognized as one of the finest examples of early twentieth century civic architecture in New York State, the historically significant building is listed on the National Register of Historic Places. The building's development was made possible by contributions of several prominent local citizens. Patterned after the Ford's Theater in Washington, D.C., the theater occupies the building's entire third floor. Originally, the theater was accessed by an ornate open staircase that led up from the building's main floor central hall adjacent to the Library and Municipal Offices. Audiences and guests arrived through the main entrance doors of Village Hall on Main Street. For over a half century the theater space was the center of cultural life in Irvington, hosting concerts, plays, variety shows, recitals, balls, public meetings, school graduations, and social gatherings. Eleanor Roosevelt spoke there at a campaign rally for Franklin the year he was first elected President.

Around the mid-twentieth century, the theater no longer complied with modern fire and safety codes, and therefore could no longer serve as a public space. The urgent need for additional library space prompted the closing off of the original grand staircase, and a concrete fireproof stair tower was appended to the rear of the building for emergency egress. By 1960, the theater was virtually abandoned, falling into disrepair over the following two decades. As the 1972 Irvington Centennial approached, a group of residents reclaimed the theater for a historical exhibit, making much needed repairs. In 1978, an interest group made up of Village residents and The Junior League of Westchester-on-Hudson formed to study possibilities of restoring the theater to its original beauty and updating it for modern use. A proposal for restoration was presented to the Village Board of Trustees. The Village agreed to contribute $80,000 to the project, contingent on the group raising $20,000 to show community support. The non-profit corporation, Irvington Town Hall Theater Inc. was organized and charged with promotion and funding. With $5,000 seed money from the Jr. League, ITHT Inc. raised the $20,000, and the Thursday Club pledged an additional $11,500 for redecoration and refurbishment to return the theater to its original elegance.

In the early 1980's, the theater reopened with the addition of an elevator, second fire stairwell, plumbing upgrades, fire and safety systems, new "period" lighting, and skylight repair. The Youth Theater Program was launched, and the Village established The Town Hall Theater Commission to operate and manage the Theater.

Community Role

Since the Village renovated the theater forty years ago, restoring it to public use after years of lying fallow, the Irvington Town Hall Theater has provided increasingly varied live performance and cultural programming to people of all ages, bringing 11,500 or more people into Irvington's downtown during its short season.

Today, as the cultural and civic heart of the Village, it is a multipurpose performing arts, concert hall, and film venue, embracing the sense of community as a kind of "town square" that defines the increasingly diverse River Towns. It provides a stage for local performing artists to share their creations, and numerous children to hone their artistic craft and cherish fond memories of years spent on this stage. It also affords residents a venue to celebrate special events, intellectual exchanges, and other affairs in an enchanting multi-use space. The theater also accommodates community groups for meetings and presentations, including the Irvington Historical Society, Parent Teacher Association, and the Irvington Education Foundation.

For decades, the Irvington Town Hall Theater has hosted performances by numerous and diverse artists and performing groups. In addition to serving as the home of the Clocktower Players, Broadway Training Center and Common Ground Music, ITHT hosts groups such as See The Wish, SAY, Take a Number, River Arts Conversations, Prose of Pie, 4th Wall Theater, The India of Westchester, and Mercy College Theater Club.

In addition, ITHT produces its own programming, constantly evolving to better serve the community. Some past and present events have included: The International All Shorts Irvington Film Festival (As iFF); the Stage Door Theater Festival; Winter Blues Film Series; Cabaret on the Hudson Series; Best of Film Series (a collection of indie and foreign films); the ITHT Benefit Music and Comedy Series; and the Diversity Series throughout the season highlighting diversity of cultures, lifestyles, and people with disabilities.

III. PROJECT OBJECTIVES

The objectives of the proposed improvements include a new, more visible and convenient entrance lobby; improved, code compliant, universal access and emergency egress; new air conditioning for the main theater space to allow for year round operation; more efficient and convenient facilities for ticket sales; and breakout space for pre-show, intermission, after-theater gatherings and fundraising events. Also considered are improvements to the exterior site and landscape design, with the goal of enhancing the visitor's arrival experience while providing a public vest-pocket park for social and educational use.

Improve Identity/Visibility

When the theater was reopened, it was not operationally feasible to restore the original grand staircase. A new and separate entrance was constructed on the side and rear of the building, facing a side street. This entrance, having limited exposure to Main Street, presents continued operational challenges in terms of both visibility and identity. It is an unsightly, dysfunctional approach to a glorious historic theater. The new entrance should be exciting, elegant, and clearly visible to both pedestrian and vehicular traffic and also provide opportunity to promote the theater's identity with signage and marquee like advertising.

Increase Safety & Accessibility

The current entrance does not include a lobby. A utilitarian staircase that was designed primarily to provide emergency egress is doubling as the main entrance. This condition compromises fire safety and burdens elderly and disabled patrons that require assistance. The proposed addition will provide a separate lobby, a new elevator, and dedicated means for emergency egress that meets modern universal accessibility requirements.

Increase Theater Usage

Currently, the theater cannot be used in the summer months due to its lack of air conditioning. When originally designed the main skylight was operational and provided a measure of passive cooling when opened. Without additional ventilation the theater quickly overheats when occupied during warm weather. The addition of air-conditioning to the auditorium will allow the theater season to expand, affording opportunity for summer programs and increased revenue. Also, improved amenities and comfortable access will attract more patrons.

Improve Operations

The theater's existing box office is on the third level of the building and includes a single ticketing station. This configuration is operationally challenging when providing tickets immediately before a performance as the box office queue blocks the path of patrons entering the theater. The proposed lobby would provide a box office location that allows for convenient transactions at two ticket windows while not impeding access of ticket-holding patrons.

The theater as currently configured does not include a lobby. When the original grand staircase was in place, the central space on the main floor of the Village Hall acted as the lobby and gathering space for the theater. This amenity was not replaced in the early 80's renovation, and therefore there is no place for patrons to gather before and after a performance or during intermission. This act of gathering is a crucial part of the theater-going experience. The proposed project would correct this deficit by providing a dedicated lobby and concession area. Ample gathering space would also help support community programs and fundraising.

Improve Theater Arrival

Due to the location of the current entrance on a crowded side street toward the rear of the building, the approach to the theater entrance is unimpressive, cramped, and wholly inconsistent with the magnificent theater. The outdoor gathering space is limited to the width of the sidewalk, a sidewalk that includes parking for municipal vehicles. In addition there is no opportunity for convenient automobile drop-off at the entrance. Using the dead end side street requires vehicles to perform a U-turn to exit the street. As outlined in the new plans, the proposed new outdoor space not only provides a grand approach the main entrance, but includes the opportunity for outdoor gathering and convenient, safe drop- off and pick-up conditions.

Address School District Synergies

The theater is adjacent to the Main Street School and Main Street School Gym, the Irvington Union Free School District (IUFSD) facilities that serve 4th and 5th grade students. This adjacency provides excellent opportunity for use by teachers and students. The project assumes that the IUFSD leadership would agree to provide use of the land for the theater entrance, in the form of a land swap, a long term lease, an easement, or other mechanism. The project should consider possible synergies that would make the use of the theater by students more convenient and safe. The proposed outdoor space should provide a potential benefit to the district such as an outdoor classroom. Also the project should consider providing convenient and accessible access between the school and gymnasium buildings.

When implemented, the proposed improvements should fulfill a long-held commitment of the community to return the glorious, historic theater to year-round use with accessibility to all. It will also add much-needed vibrancy by creating a centerpiece to the downtown business district. The ability to offer programming year-round will add three full months of activity at this cultural hub for our region, drawing additional visitors and providing necessary performing venues for daytime use by summer programs for children and adults. During summer hours in particular, program participants are more likely to be able to attend by foot or bicycle, using the adjacent Old Croton Aqueduct. With an ADA-compliant elevator, entry and bathrooms, access to the theater by all residents and visitors will be greatly improved.

As presented in Part VII of this study, the completed Irvington Town Hall Theater project is expected to result in positive economic and social benefits for Irvington and the surrounding community. For instance, in its most recent Master Plan, The Village of Pleasantville cited the Jacob Burns Film Center as being the “core of its goal of being an arts and cultural magnet for the region”. The Village has prospered with the Film Center as a dynamic economic influence. The positive impact on the Village is measurable as related to investment and employment in restaurants, shops, and at the Center itself. Beyond that, the Film Center’s success casts a glow on the Village, creating excitement, local pride, and, predictably long-term increases in property values.

IV. EXISTING CONDITIONS & OPERATIONAL DEFICITS

The 432-seat theater includes a main orchestra level, a mezzanine, and loge with six gold leafed boxes with classically styled balustrades and arched openings separated by Doric posts with Adamesque detail. The stage features a classically ornamented double proscenium arch *(Fig. 1).*

Figure 1

Other architectural features include columns and pilasters with Ionic capitals, authentic reproduction Victorian lighting fixtures copied from the originals, and a wood framed Lord & Burnham skylight surrounded by heavy plaster molding that crowns the theater twenty-five feet above orchestra seating *(Fig. 2)* The reception area boasts dark oak moldings, paneled doors and wainscoting. Backstage are five dressing-rooms, a galley kitchen area, a cast restroom, and small storage space. There are two restrooms for audience use located along a corridor adjacent to the ticket office. The manager's office is also located adjacent to the hallway on the orchestra level *(See existing plan pg.16).*

Figure 2

While the historic theater itself has been lovingly restored and upgraded, its existing entrance is unappealing and functionally restrictive. Not noticeably visible from Main Street, the entrance is 130 feet north of the intersection on Ferris Street and obscured by police automobiles parked outside the

adjacent Courtroom and Police Station *(Fig.3)*. North Ferris Street has recently been changed from a thoroughfare into a dead end street, and drop off / pick up theater related traffic for shows or rehearsals must navigate not only a busy intersection, but also negotiate turnarounds in private driveways on a narrow two-way street, where parking competes with both civic and residential vehicles.
(See Existing Site Aerial View pg. 56).

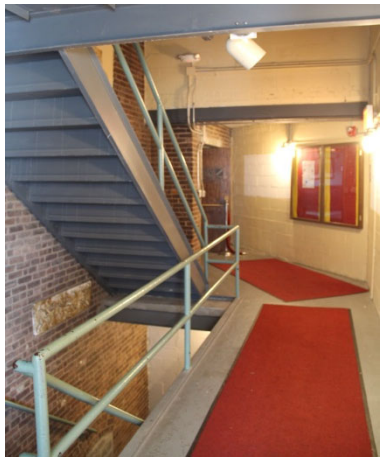
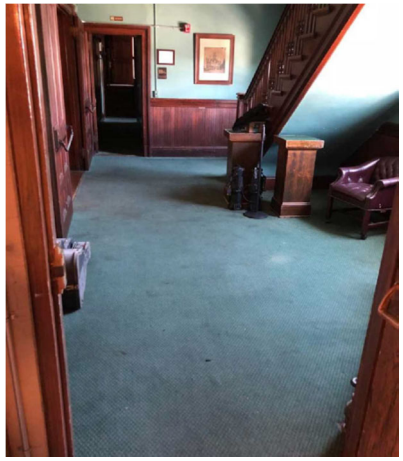
Arriving audiences enter on the first level of an existing utilitarian fire stair addition built along a rear alleyway between Village Hall and the school gymnasium. The absence of adequate queuing area and lobby space for comfortable gathering and mingling severely compromises the arrival experience of theater-going and diminishes the community-building potential of this wonderful Village asset.

The entrance does not have clearances required for wheelchair access, and elevator controls are not ADA compliant *(Fig. 4)*. To access the theater space, visitors must choose to either climb the fire stairs to the third level, or queue in a dingy cramped corridor space to wait for a dawdling, inelegant 40-year old elevator that also serves as a freight lift for stage set materials, band equipment, and refuse management.

The entry feels more like a rudimentary “stage door” area than a main entrance. There is no sense of arriving at an important civic space. That “arrival experience” for a night at the theater is drained of all anticipation and excitement.

Figures 3 and 4

Accessible from the third floor of the fire stair, the current box office is located outside the theater’s orchestra seating level. Admission to obtain or present tickets is slow and awkward. Interrupted by large theater doors opening outwards into the space, there is too little room to gather in the cramped 200 square foot reception area. Maneuvering requires fortitude and courteous agility. The space cannot accommodate pre-theater or post-performance events *(Fig 5-6)*.

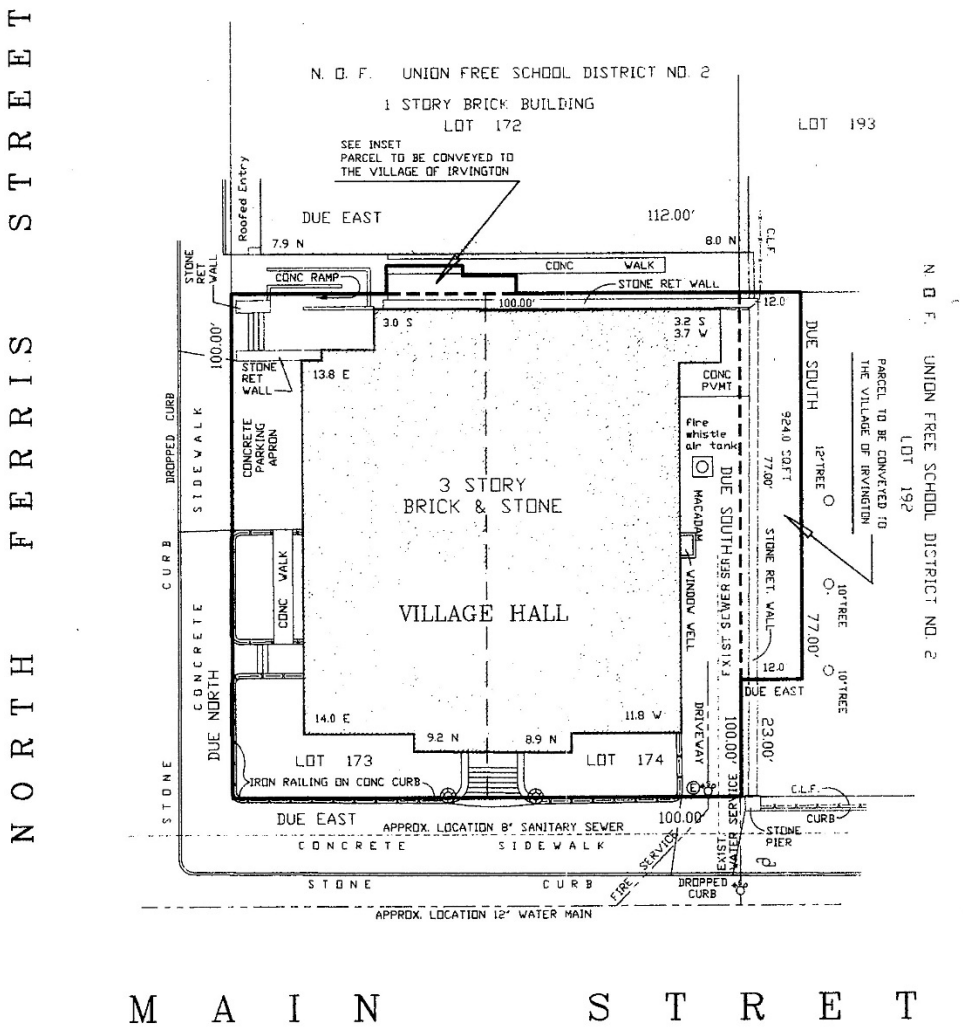
Figures 5 and 6

A cove seating area at the rear of the orchestra often doubles as a much needed concession stand, but is positioned on an elevated platform inaccessible to those with physical disabilities. These and other constraints deprive the theater of adequate space for “meet and greets” with artists, and hinders essential on-site fundraising events. *(See “Existing Orchestra & Stage Level” plan on pg. 16)*

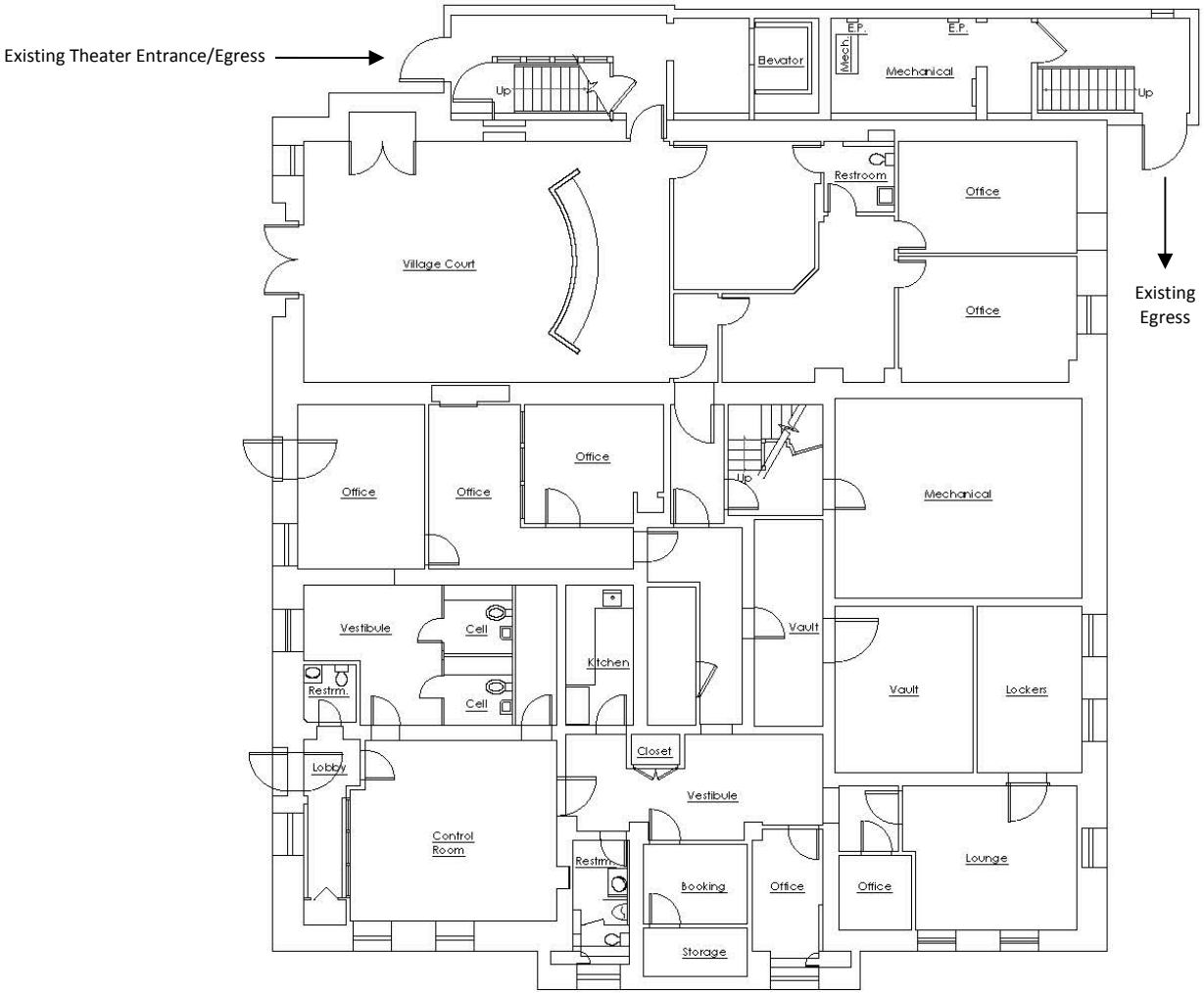
Existing restrooms are insufficient, lacking an adequate number of fixtures causing congestion in the main vestibule during concentrated periods of use, and the current access configuration does not meet required wheelchair accessibility standards.

Existing facilities spaces do not accommodate a production office for outside groups to manage their on-site productions, causing accumulation of production elements that present storage and egress concerns during both tech and public performances. As the technology used in live performance continues to change; storage space for tools, equipment and supplies required for maintenance, and for support of future growth is inadequate.

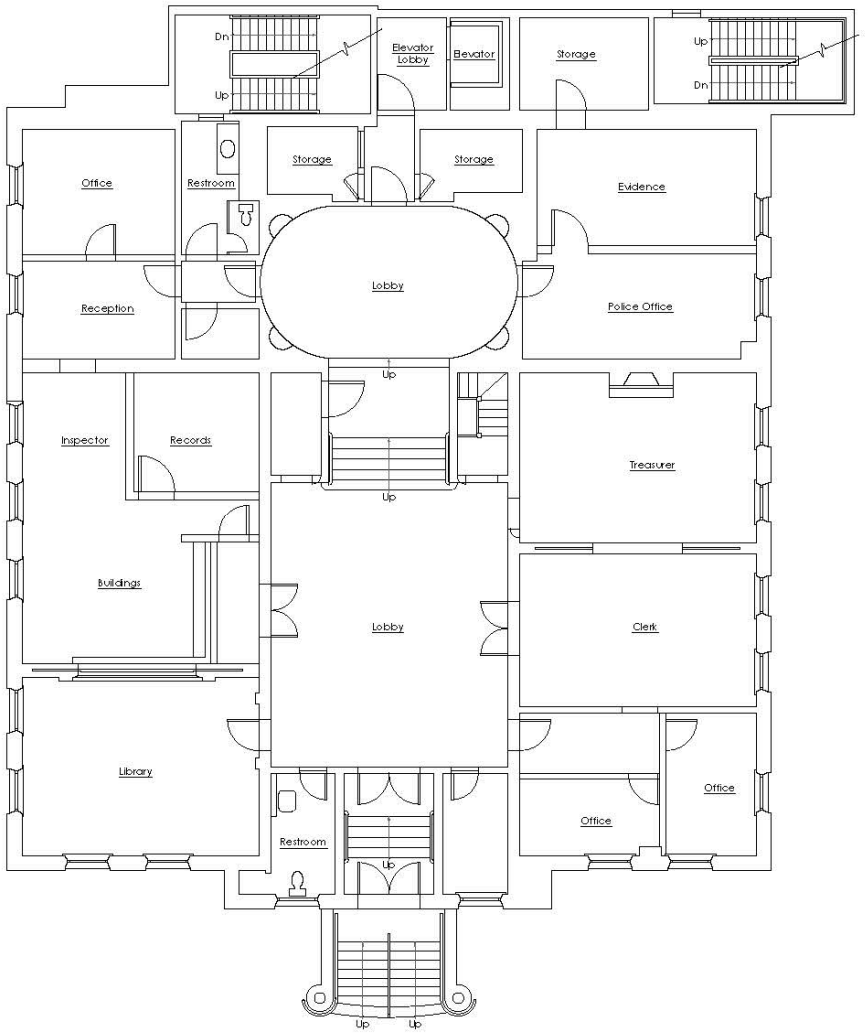
There is no mechanical cooling or ventilation being provided to the theater. The lack of air conditioning makes the theater unusable by audiences and performers from late spring to early fall, during which time vibrancy of the cultural hub is lost along with potential revenue for local merchants and restaurants. To enable year-round productions, an appropriate cooling and ventilation system is needed that will not alter the historic integrity of the theater or the landmark building.



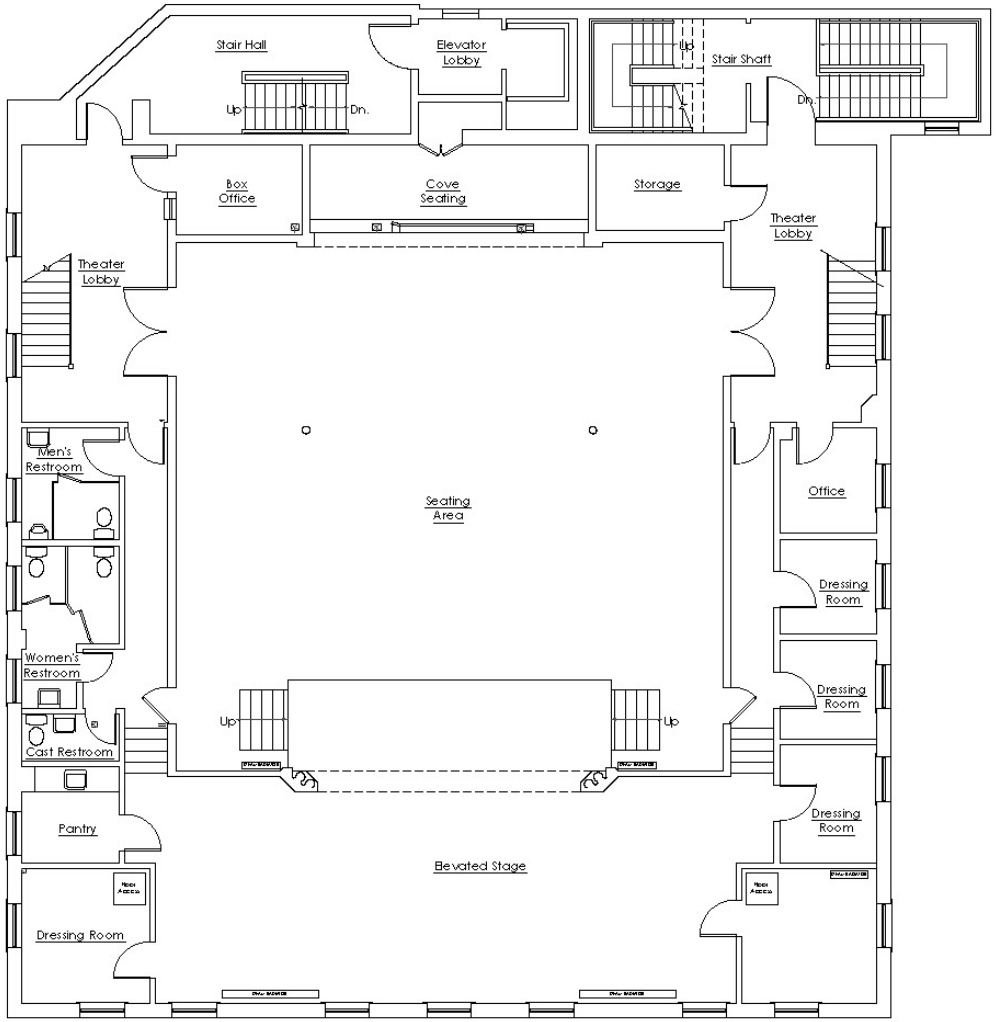
EXISTING SURVEY



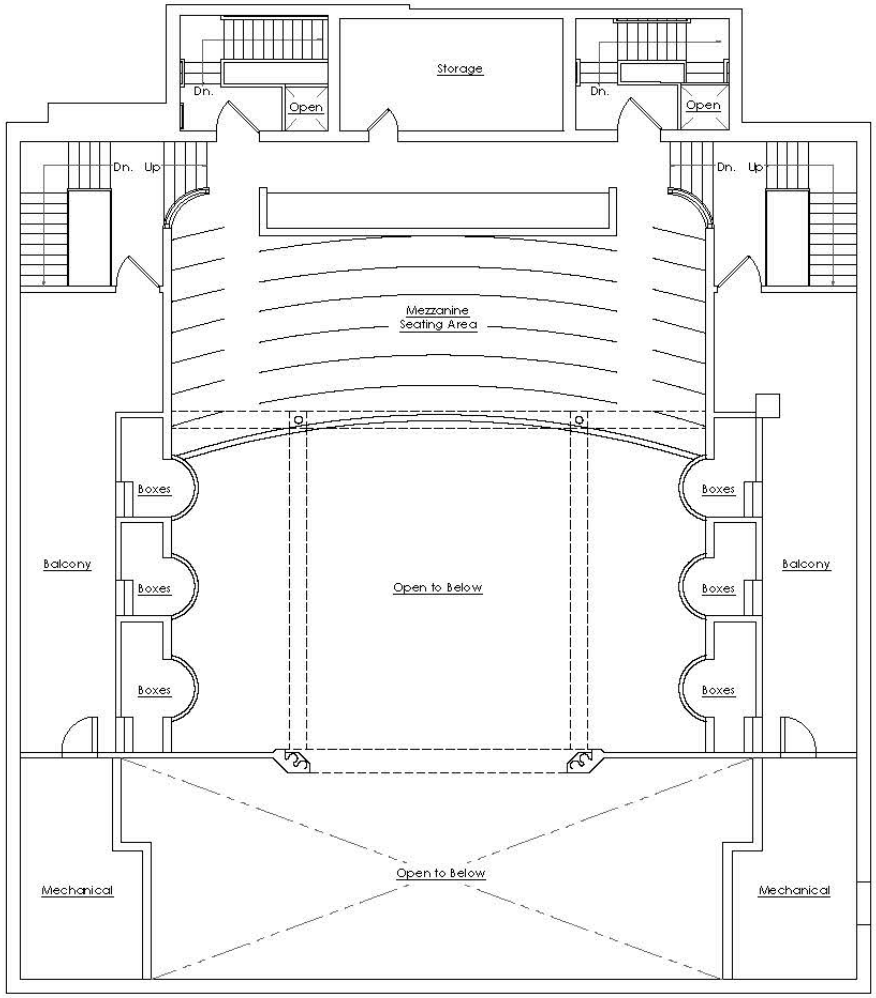
EXISTING LOWER LEVEL / VILLAGE HALL



EXISTING MAIN FLOOR / VILLAGE HALL



EXISTING THEATER ORCHESTRA & STAGE LEVEL



EXISTING THEATER MEZZANINE & LOGE LEVEL

V. PROGRAM REQUIREMENTS

- Box Office: On the ground floor level with two windows and ample queuing area that does not interfere with egress.

- Staff Workspaces: Workstations for staff to be provided within the box office. An office for the Theater Manager located on the entrance level. A private office for TD/Ops Manager located on the theater level.

- Restrooms: Code compliant restrooms on the ground floor providing universal access for audiences, guests and staff.

- Concession Area: Located adjacent to the theater space, including a bar, sink, refrigeration and adequate storage. This space may be designed to be reconfigurable.

- Lobby / Gallery: Located adjacent to the theater and concession area, accommodating pre-show, intermission, post-theater gathering, and fundraising events.

- Black Box Theater: To support rehearsals, small events and meetings. Adjacent storage space to be included.

- Elevator: A new handicap compliant elevator located in the addition to serve the theater, with a separate entrance to provide accessibility to the Main Street School Gym. The existing elevator to remain in service to staff and crew.

- Emergency Egress Stairs: To serve the new addition and to improve existing theater egress.

- Theater Improvements: Alterations to existing restrooms to meet access requirements and comply with Equity Union standards; alterations to add more dressing rooms.

- Entry Plaza: A universally accessible public park area, serving arriving audiences, informal performances, exhibits and education programs. A wheelchair access ramp at the Main Street drop-off / pick-up area to be included.

- HVAC Improvements: A new rooftop HVAC unit and associated ductwork and equipment is to be installed for the audience chamber utilizing an upgraded hot water boiler to provide heat and DX coils to provide cooling. This unit is to be mounted on the roof of the existing egress tower that is to remain.

VI. SCHEMATIC DESIGN

Site Selection

Irvington boasts a historic main street with largely intact buildings lining both sides of its "downtown" shopping corridor. The Main Street Historic District is listed on the National register of Historic Places, and includes the Village Hall along with many other buildings of historic value. The proposed project would dramatically upgrade the theater's presence at street level by improving visibility of its entrance; providing an arrival experience commensurate with the programming; mitigating existing problems with vehicular and pedestrian traffic flow; affording ADA compliant universal access to the theater; enabling year-round programs; and enhancing the overall experience of audiences. Proposed improvements include a new two-story addition with basement space totaling approximately 6,400 square feet. The addition will be located on the east side of the Village Hall and to the rear of the open space between the existing emergency egress stair tower and the Main Street School.

This location was chosen due to barrier-free access, visibility, adequate area for functional improvements, and separation from competing municipal uses. It also reinforces connection to the schools. The site allows convenient use of an existing designated curbside school drop-off & pick-up zone and improves universal access *(Fig. 7)*.

The addition will not displace any existing structure. It will be built as "infill," preserving and making the existing under-utilized open space on the site more usable.

A portion of the proposed site is owned by the Irvington Union Free School District whose board has indicated support for the proposed project presented in meetings with them. Upon completion of the schematic design phase of the project development, land ownership interest, easements and maintenance operations will be negotiated and executed.
(See Existing Survey, pg. 13, and Proposed Site Plan, pg. 24)

Figure 7

Architectural Style & Historic Impact

The design intent of the addition is to create a contrasting, yet attractive architectural style that will be aesthetically differentiated from the historic landmark building, while providing an inviting modern entrance to the theater. The connecting link between the main building and the new wing of the theater will be made onto a portion of the existing fire stair structure, expressing a "hyphenated" visual relationship with no added intervention imposed on the historical integrity of the landmark Village Hall building *(See Proposed Site Plan pg.24).* Existing historic ornamental features and materials will be undisturbed. Features defining the historic character of the interior theater space will be preserved except as necessary for compliance with barrier-free access requirements or life safety codes. Interior modifications will be minimized, and will have no impact on the exterior appearance of the historic building. Historic details will be protected and maintained during work on the proposed improvements. Conceptual plans were given informal preliminary review by a N.Y. State Historic Preservation Officer who opined that the proposed location, contemporary style and type of materials would be considered "of its time," appropriate, and compatible to adjacent historic buildings. Design of the proposed addition is based on quality standards of socially and environmentally responsible architecture. It will utilize modern means and methods of construction and mechanical systems that meet good environmental design and energy efficiency criteria.

Configuration of Program Elements

The region's aging population is increasing, and there is a significant growth in the population of younger families with school-age children. The proposed improvements aim to meet needs of the shift in demographics. To provide universal access, and improve physical safety conditions, the addition will house ADA compliant restrooms, an elevator and a grand open staircase. An additional fire stair will be included to create improved emergency egress. In addition to these essential facilities, the ground floor will feature an entry vestibule, a lobby with ample queuing space, a box office, staff and administrative offices and storage. Patrons ascending to the second floor of the addition will be welcomed to a larger lobby and gallery space where they can gather to attend shows, exhibits and other occasions. An area for concession functions will support efficient service of refreshments before curtain time, during intermissions or at fundraising events. An ample corner window will showcase a panoramic western view of the historic Village and beautiful Hudson River. From this level, guests and audiences will enter the theater through a doorway leading directly to the orchestra level and stair to the Mezzanine. The basement level will include additional storage space and a black box theater that will provide more flexibility for rehearsals or small performances, additional room for meetings, classes, or exhibition space that will

further enhance the vitality of the arts and education in the community *(See Proposed Plans pg. 26-33).* The existing entrance and elevator will be retained for service functions.

Plaza Design

An existing historically significant brick gateway kiosk adjacent to the Main Street sidewalk will be repurposed as a billboard display for program notices and performance posters. To create an accessible and sociable public "place" that can be shared by everyone in the social and cultural heart of the Village, the project will include an open, landscaped courtyard plaza adjacent to Main Street. With amphitheater style stepped seating, the casual public gathering space will also serve as a performance area for small informal entertainment, outdoor classes or music ensemble practices. The "mini-park" will offer a place to meet or relax, enhancing the linkage between people, homes, businesses and institutions in the historic district and surrounding community. The site design will form a gently sloped landscaped entrance path from the Main Street curb to the new theater entrance. Additional ADA compliant walks and steps will connect the Main Street School buildings, the theater, and the plaza space for enhanced partnership with the school. This connection will also position the plaza to function as a pre- and post-theater gathering area. It is anticipated to be a popular "Town Square" for casual lunchtimes, building ties with the business community. The creation of a new entrance addition will offer more visibility from the public way, ease access, and create a safer, more elegant theater-going experience. (See Proposed Site plan pg.24)

Sustainability

The addition is planned to meet a high standard of energy efficiency and will be constructed with environmentally sustainable materials and building practices. High-efficiency mechanical systems will be used for heating and cooling, lighting and plumbing fixtures. The design will utilize passive solar technology with sunscreens fitted over south facing windows, preventing heat gain to the building interior in the summer and attracting solar warmth in colder seasons. A skylight over the grand staircase will provide ample natural light into the upper two stories.

Restrooms

Two configurations for the ground floor have been provided. Option 2 maximizes restroom size at the expense of the Theater Manager's office. In this case the office would be relocated to the theater floor, possibly to the existing ticket office. The existing theater toilet count is 5. Option 1 and option 2 increase this count to 10 and 13 respectively. Both options exceed code requirements. The American Society of Theater Consultants recommends one toilet per 30 seats minimum (14 toilets) with a parity of 2 to 1 Women's to Men's. Option 2 more closely aligns with this standard.

HVAC Existing Conditions

The existing Village Hall building currently has heating supplied by two (2) existing oil-fired Weil-McLain boilers. One boiler provides hot water heating, serving the lower level and main level of the building. The other boiler provides steam heating, serving the theater space radiators on the second level. The steam boiler, model 576, serves a one (1) pipe system with both steam and condensate running through one pipe and is rated for approximately 257 MBH heating output. The hydronic boiler, model 80 series 1, is rated for approximately 551 MBH heating output.

Additionally, there is no mechanical cooling or ventilation being provided to the theater. There are existing direct expansion (DX) cooling-only split system units serving the lower level office spaces.

HVAC Proposed Systems Description

The HVAC scope for this project includes mechanical systems for the theater space ventilation and cooling and for the new addition heating, cooling, and ventilation.

The proposed design approach for cooling and ventilation to the theater space is a 35 ton single zone variable air volume (VAV) rooftop unit system. This rooftop unit will consist of a direct expansion (DX) cooling section, a hot water coil, supply fan (with VFD), exhaust/return fan (with VFD), filtration, and sound attenuation. The hot water coil will be served by the existing/upgraded hot water boiler plant (discussed below) and this coil will be located below the roof line for freeze protection. This hot water coil will temper the ventilation air while the existing steam radiators in the theater will remain to provide heating along the perimeter. New ductwork distribution will be provided to deliver conditioned air to the different seating areas and stage of the theater – field verification and review with the existing architecture will be required to fully assess this new ductwork distribution scope for the theater space.

The proposed design approach for cooling and ventilation to the theater support spaces on the 2nd Floor (including dressing rooms, restrooms, circulation space, and office) is an 8 ton rooftop unit system. This rooftop unit will consist of a direct expansion (DX) cooling, a hot water coil, supply fan (with VFD), and filtration. The hot water coil will be served by the existing/upgraded hot water boiler plant (discussed below) and will be located below the roof line for freeze protection. Proper zoning for the theater support spaces (and the possible need to split this system into 2 units) will need to be considered during the design phase of the project.

The proposed design approach for heating cooling and ventilation to the new addition building is a 20 ton multiple zone variable air volume (VAV) rooftop unit system and a rooftop toilet exhaust fan for the restrooms. This rooftop unit will consist of a direct expansion (DX) cooling or heat pump section, a hot water coil, supply fan (with VFD), exhaust/return fan (with VFD), filtration, and sound attenuation. The hot water coil will be served by the

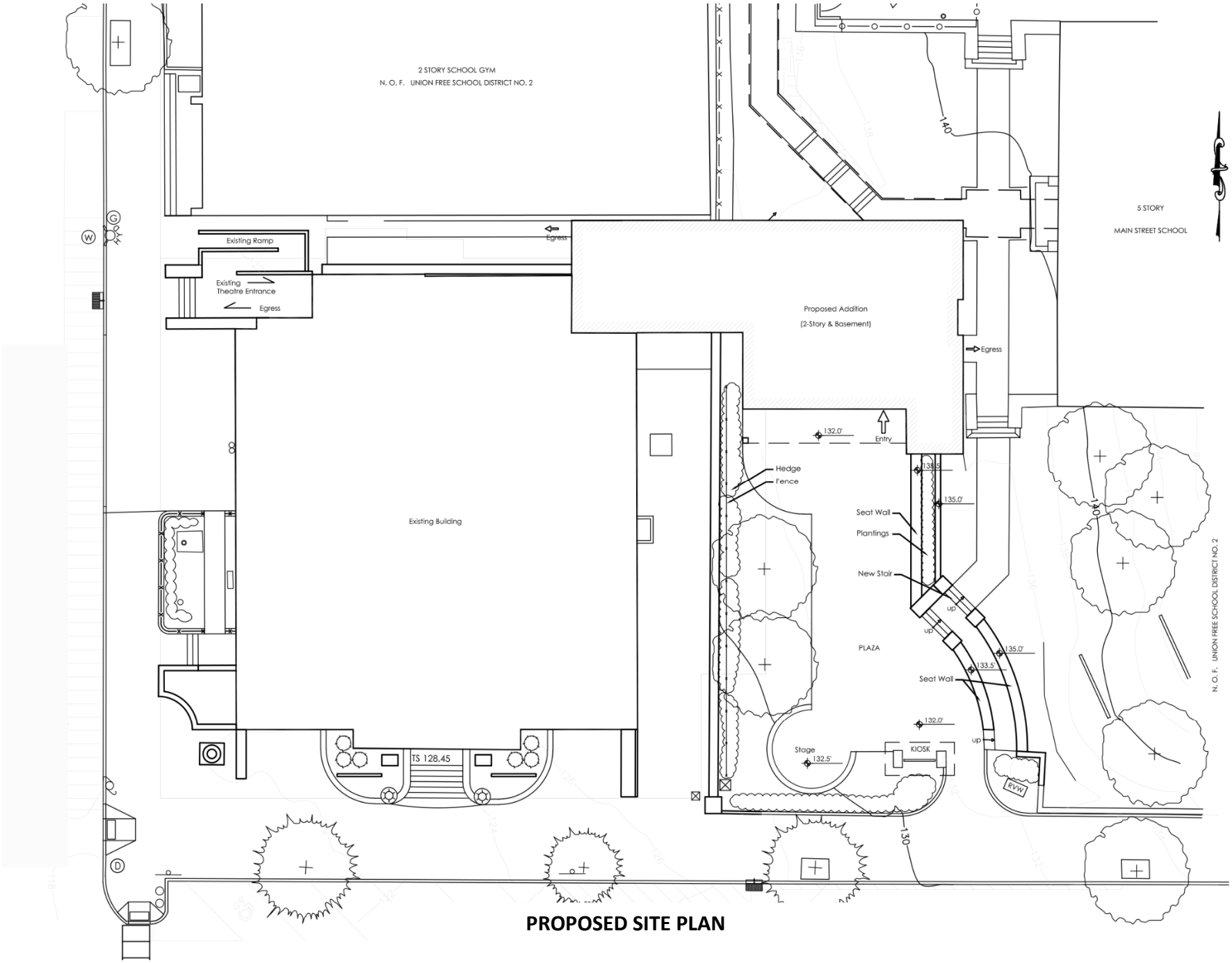
existing/upgraded hot water boiler plant (discussed below) and will be located below the roof line for freeze protection. New ductwork distribution and approximately six (6) variable air volume (VAV) boxes with hot water reheat coils will serve the different space types in the new addition building (e.g. Black Box Theater, Lobby, Box Office, Gallery, Restrooms). The heat pump option for this rooftop system is noted above for efficiency and potential opportunity for net zero energy goals of the new addition building, if this is a consideration going forward.

DDC controls will be provided for the above systems. Controls are assumed to include, at a minimum, code required system operation/sequences including economizer controls, single zone VAV control and demand control ventilation controls for the theater spaces, multiple zone VAV controls for the new addition, etc.

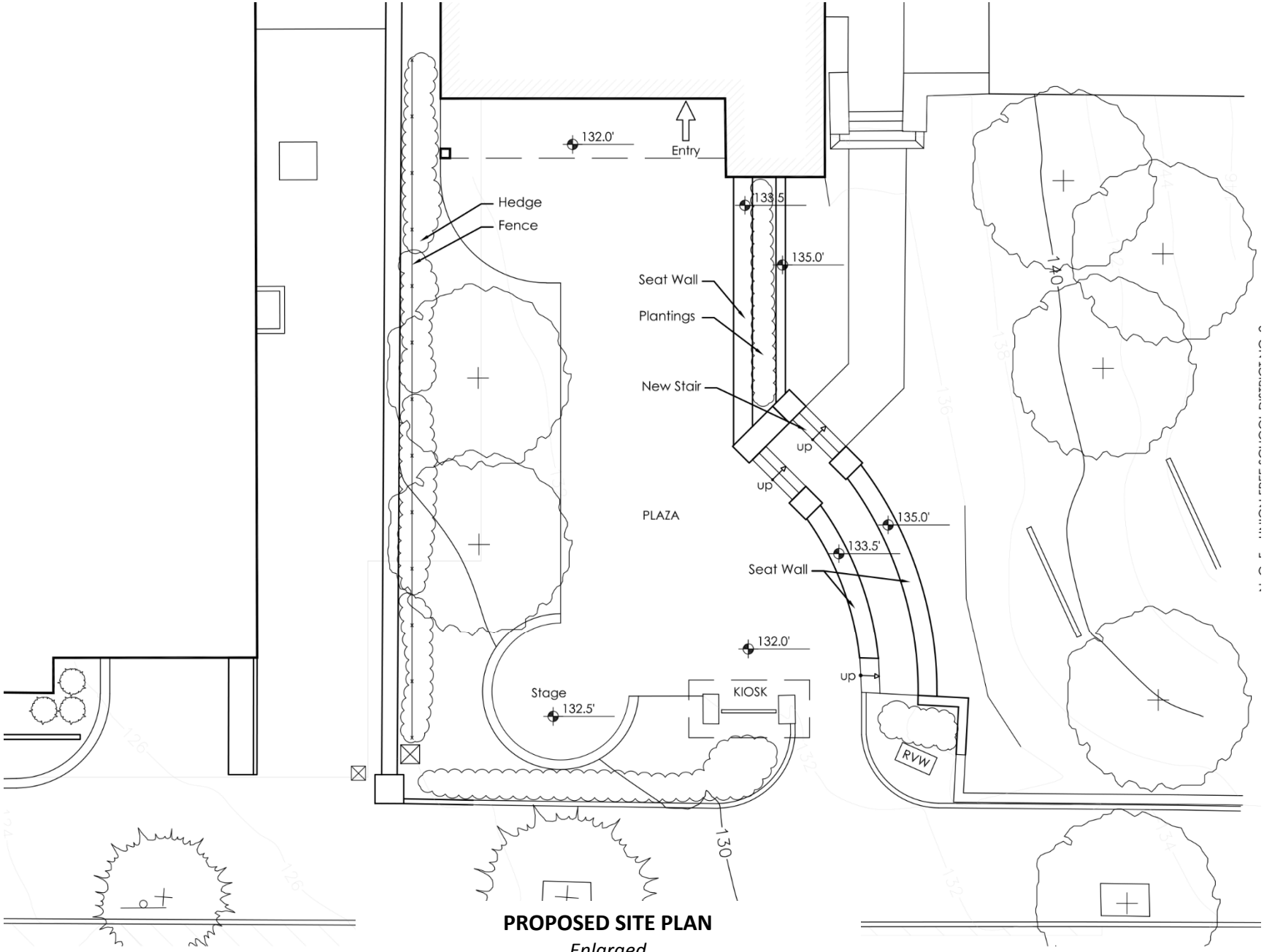
The heating source options for the ventilation of the theater spaces and for the new addition were evaluated during this study. Based on this review, the recommendation for this project is to upgrade the existing oil-fired hot water boiler system that currently serves the lower level and main level. This upgrade would involve changing the boiler fuel source from solely oil to dual fuel (oil and interruptible gas from Con Edison) and upsizing the boiler plant to account for the theater ventilation and new addition heating. This boiler plant upgrade can be provided as a separate capital upgrade project, but would need to be completed prior to the current proposed project. There were other heating source options reviewed during this study that were not found to be viable or recommended. Gas-fired rooftop units were not an option due to the fact that Irvington Theater does not currently have a gas service and is located within the Con Edison gas moratorium region.

HVAC Cost Estimate

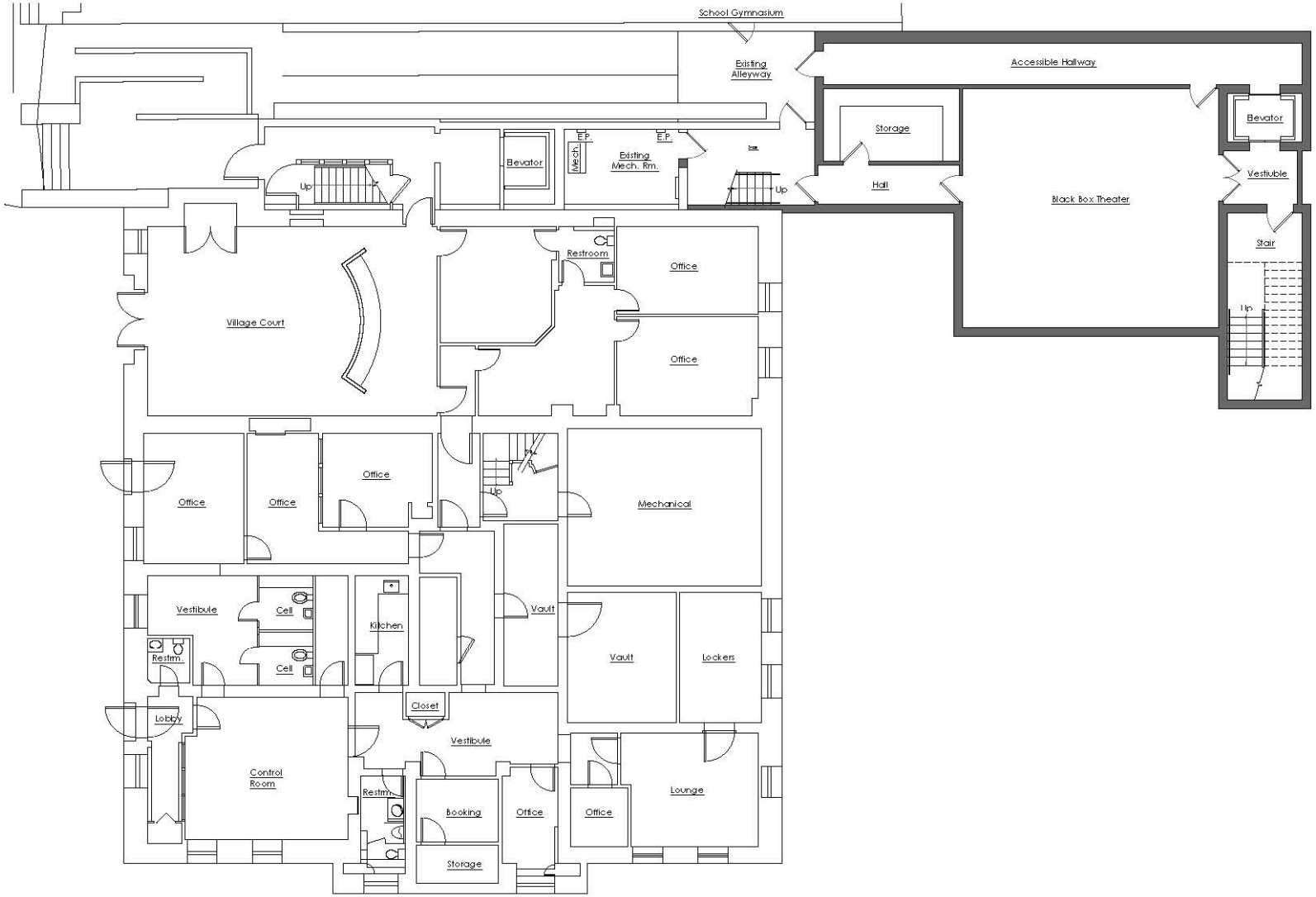
A rough order of magnitude HVAC cost estimate is provided for the above proposed systems. This cost estimate is provided in two sections, for the theater space work and for the new addition work, and is totaled at the bottom of the table. Low and high cost numbers are included for each breakdown item to provide a range in cost at this study stage of the project. Electrical, architectural, and structural work associated with the HVAC scope is assumed to be carried in these other trade costs and are not included in this HVAC cost estimate.



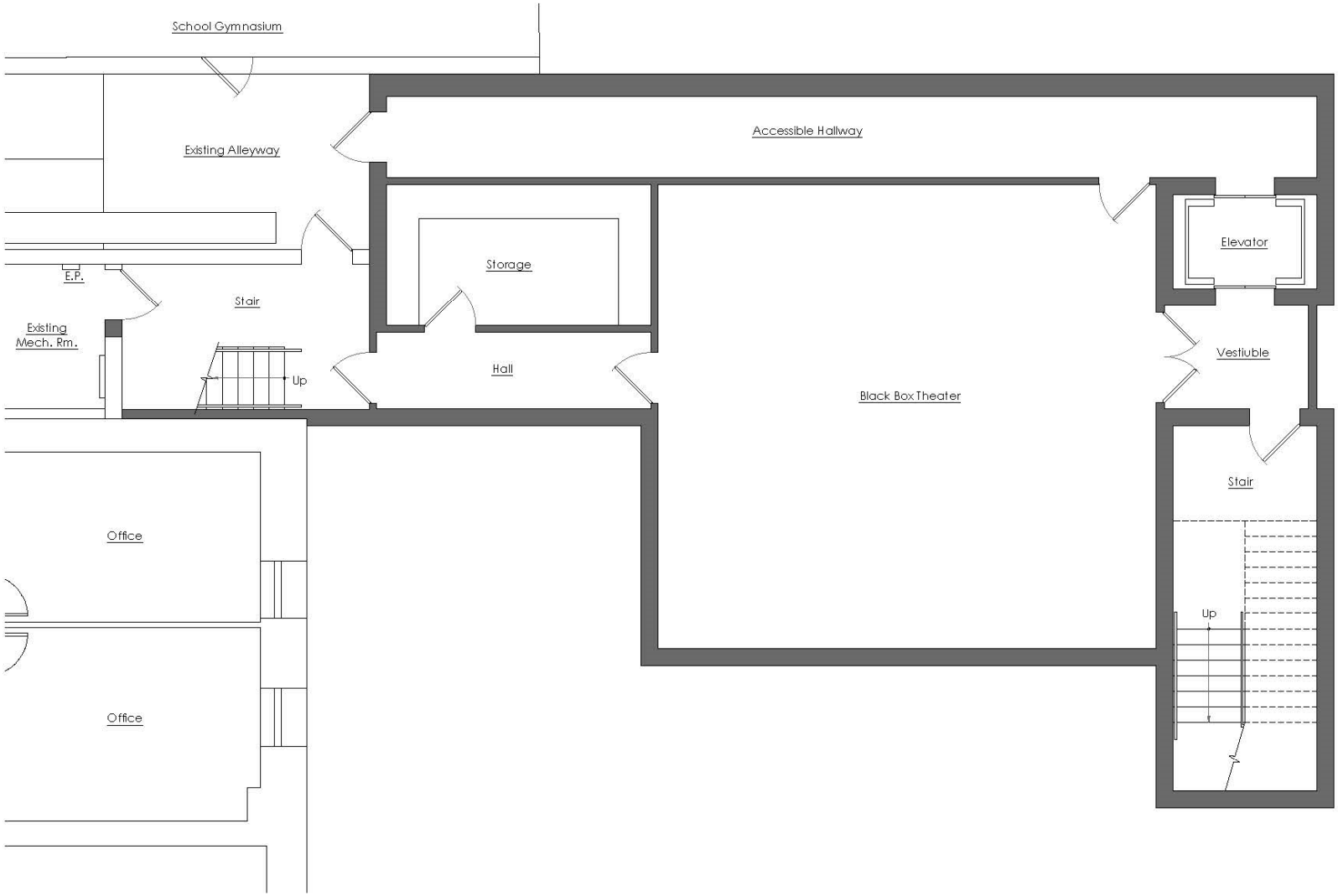
PROPOSED SITE PLAN



PROPOSED SITE PLAN
Enlarged



PROPOSED ADDITION / LOWER LEVEL



PROPOSED ADDITION / LOWER LEVEL

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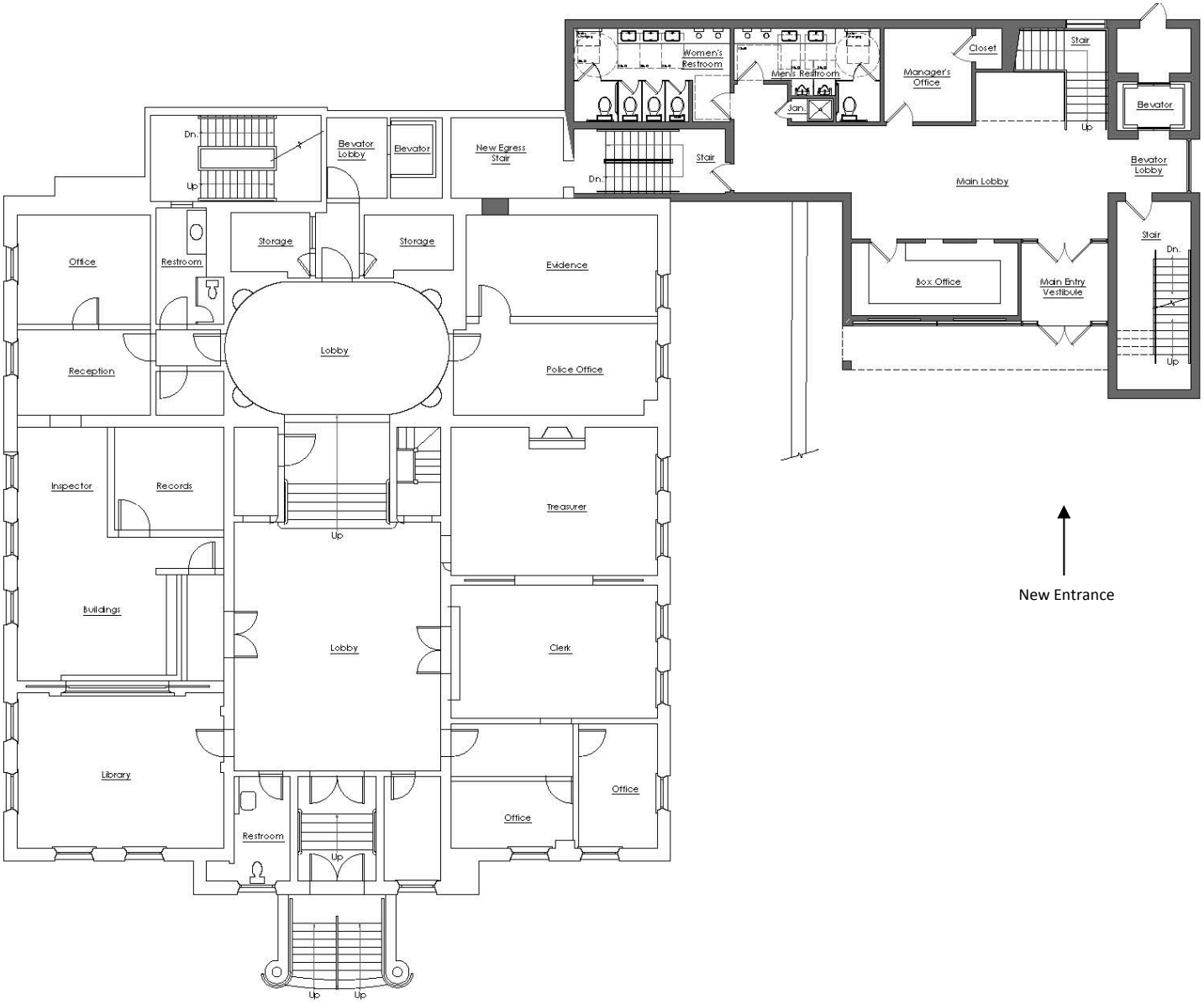
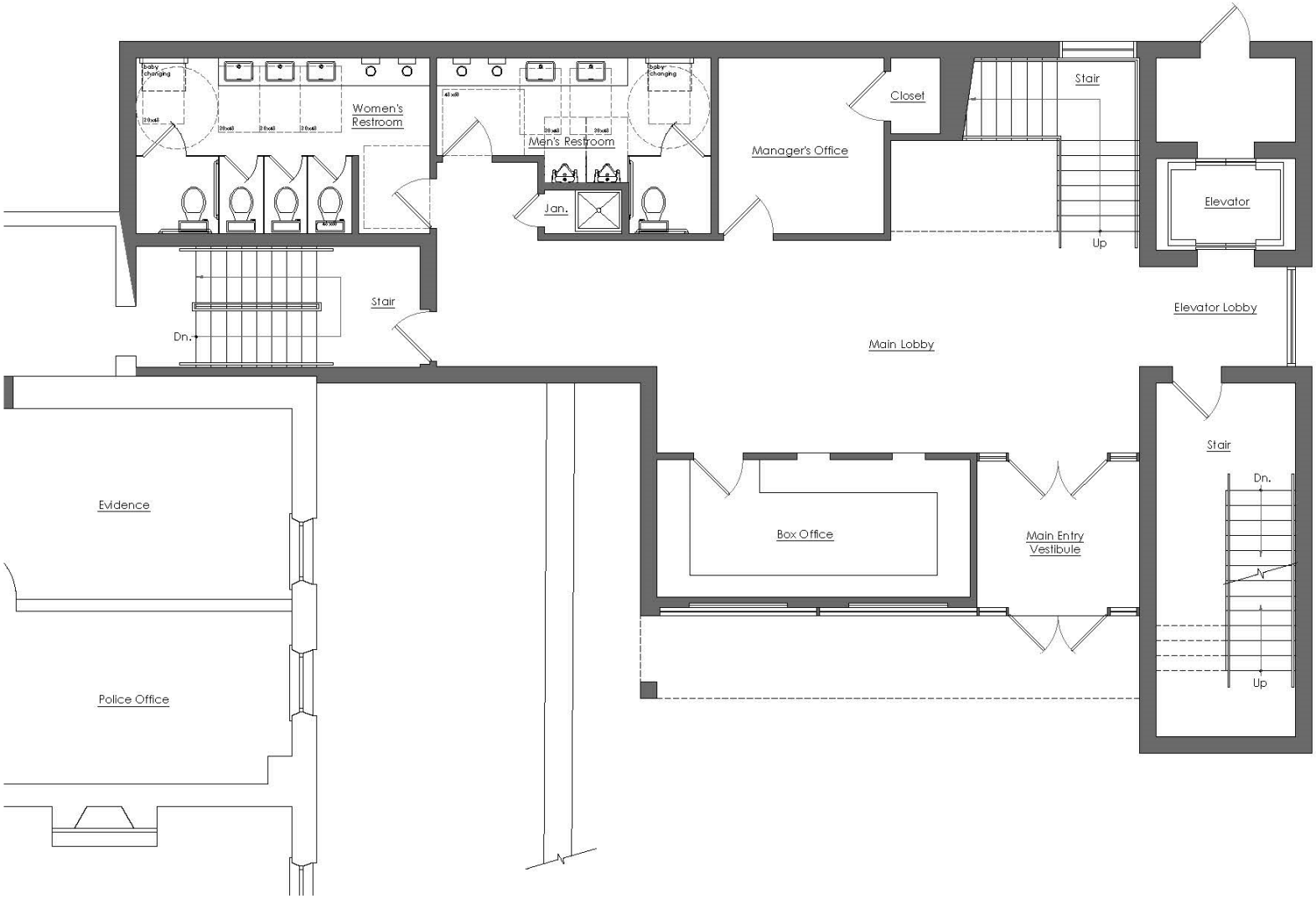


PROPOSED ADDITION / MAIN LEVEL OPTION 1



PROPOSED ADDITION / MAIN LEVEL OPTION 1

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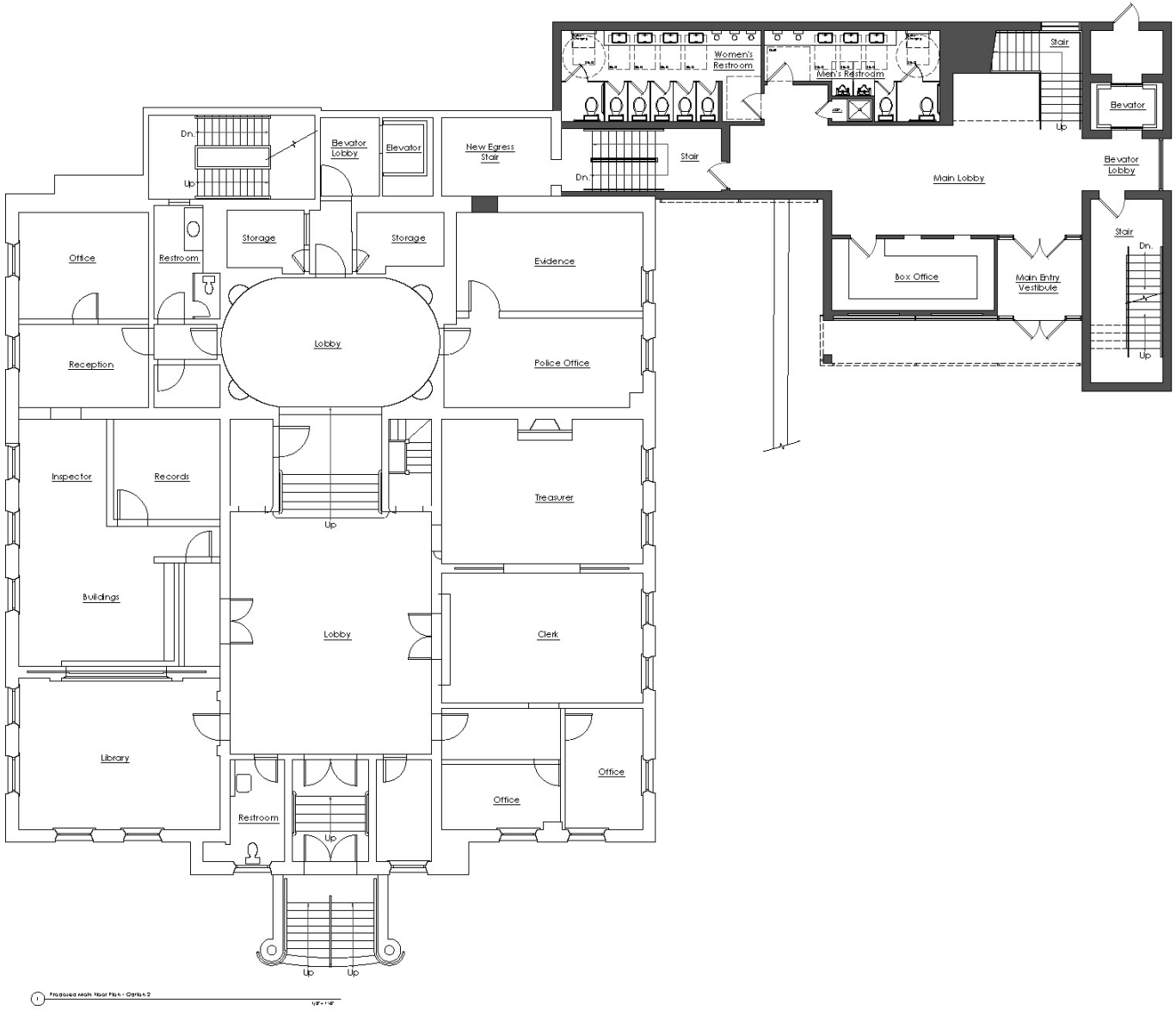

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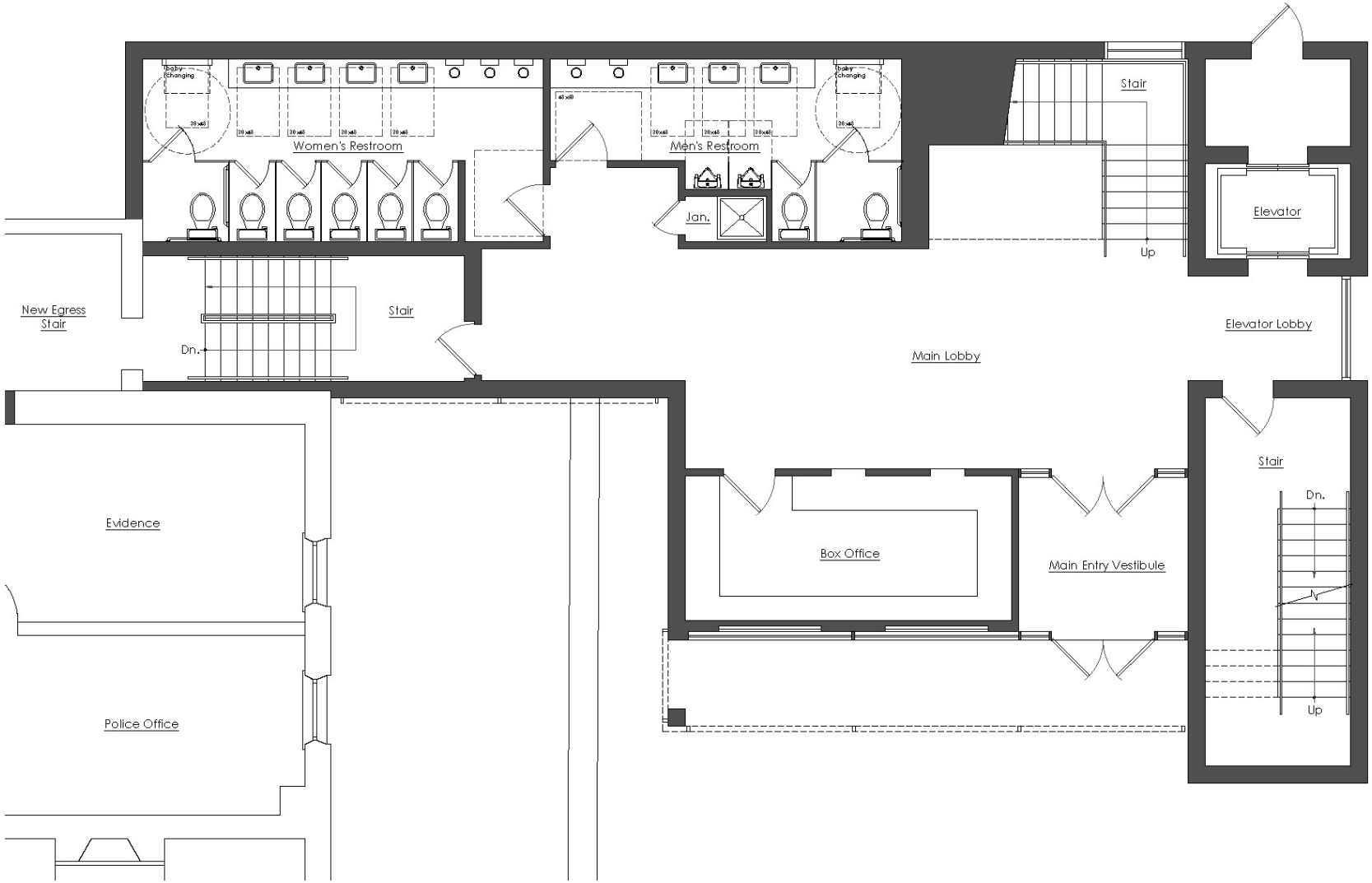

PROPOSED ADDITION / MAIN LEVEL OPTION 2

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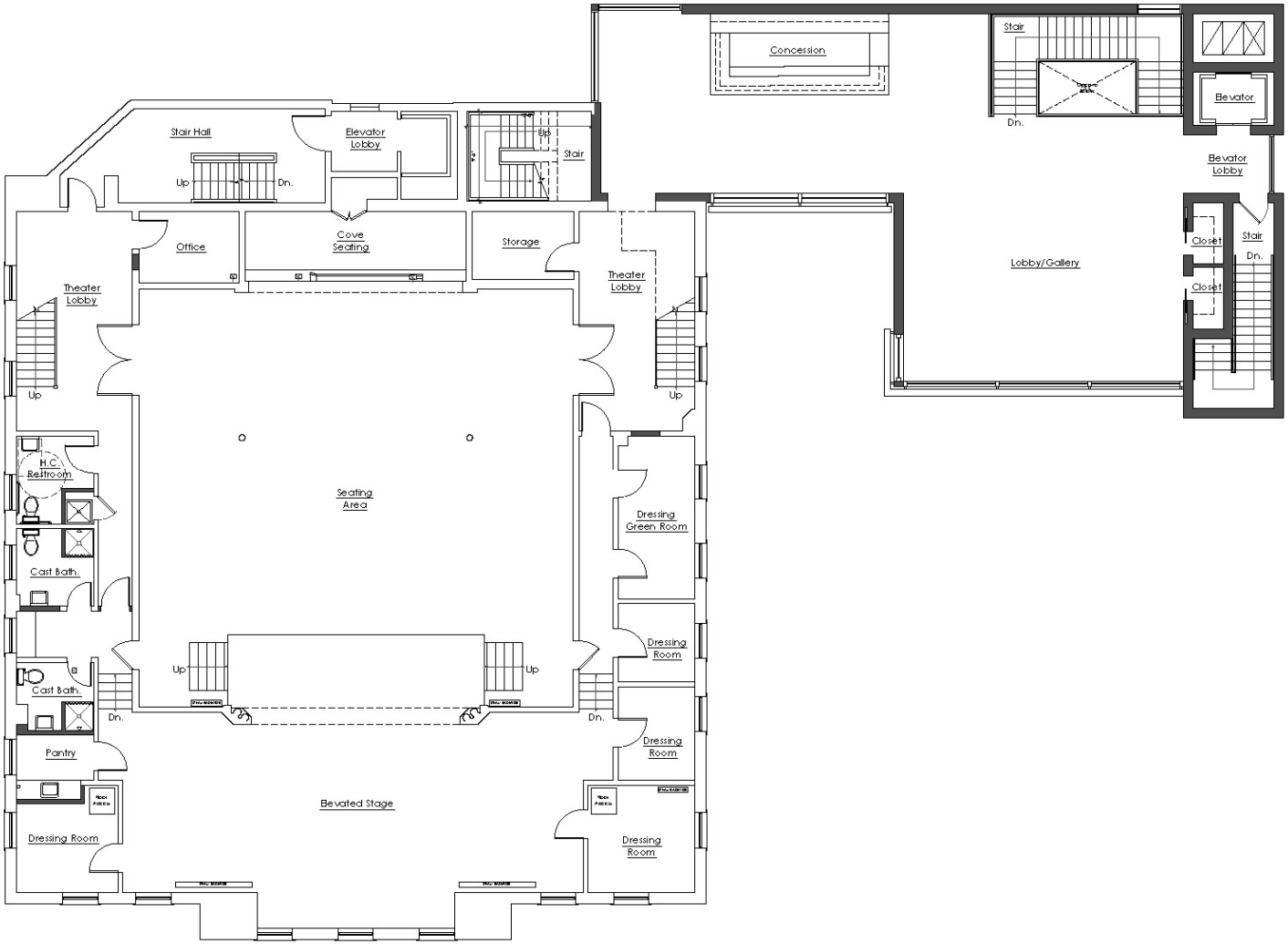
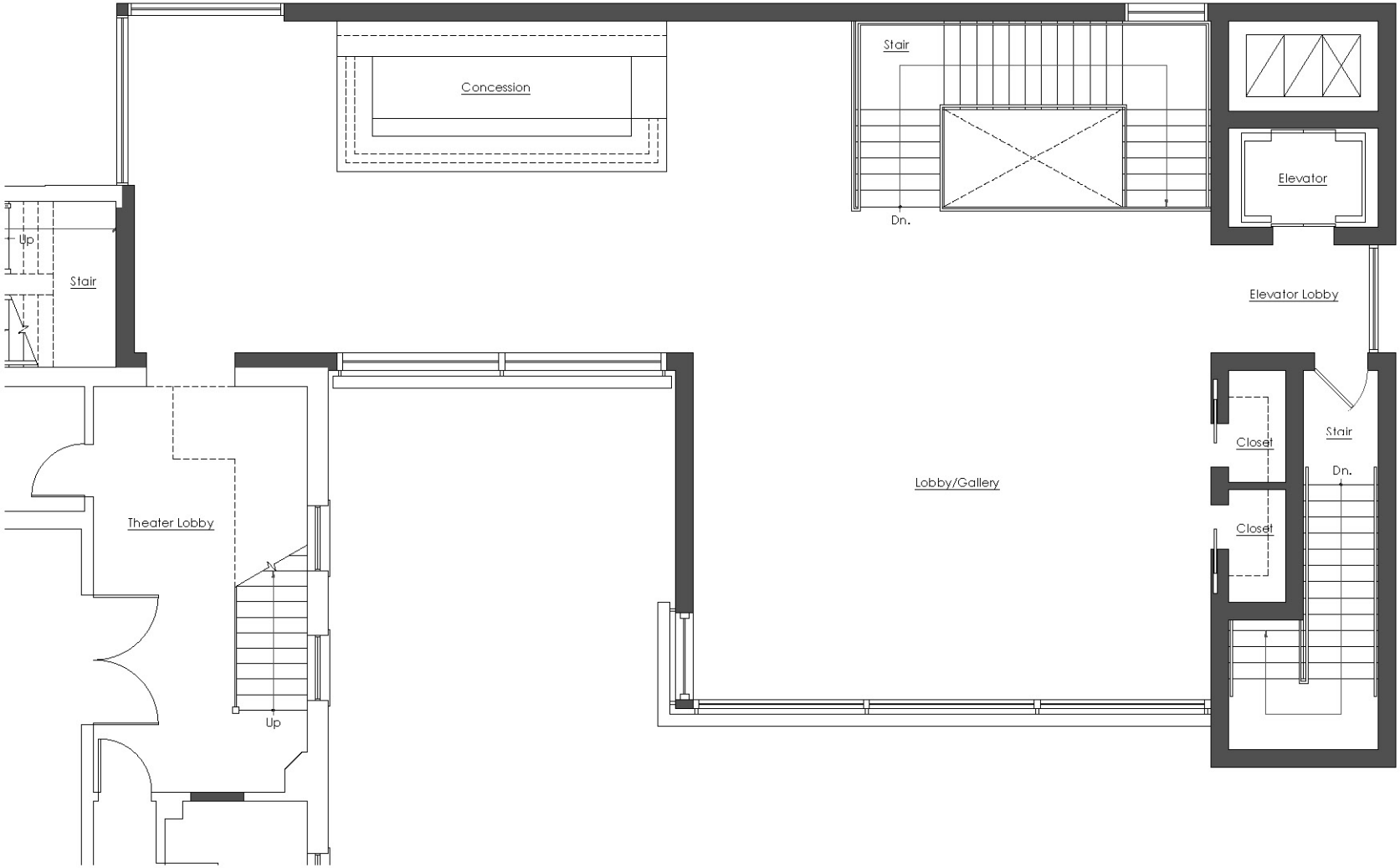


PROPOSED ADDITION / UPPER LEVEL & THEATER



PROPOSED ADDITION / UPPER LEVEL

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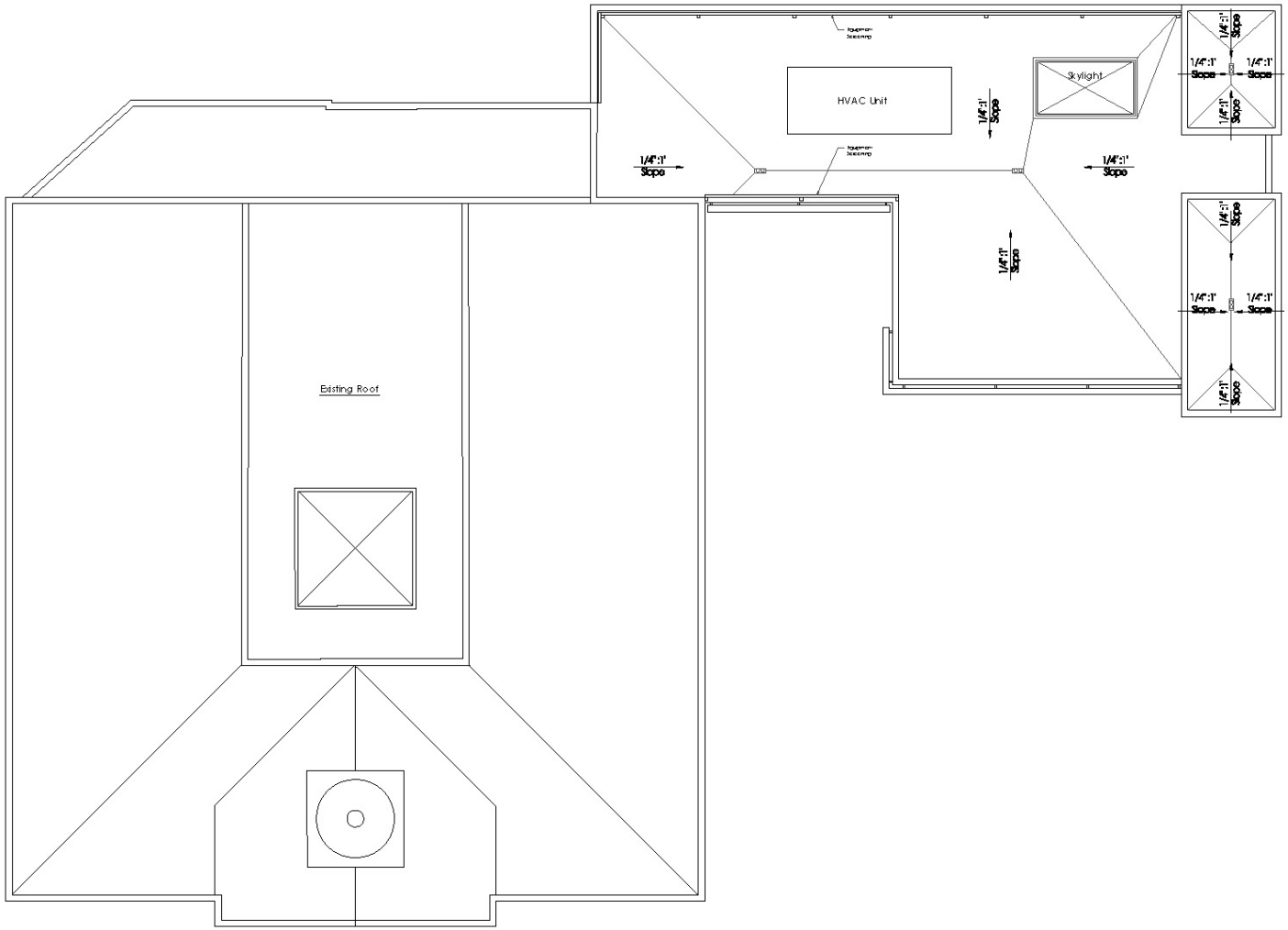
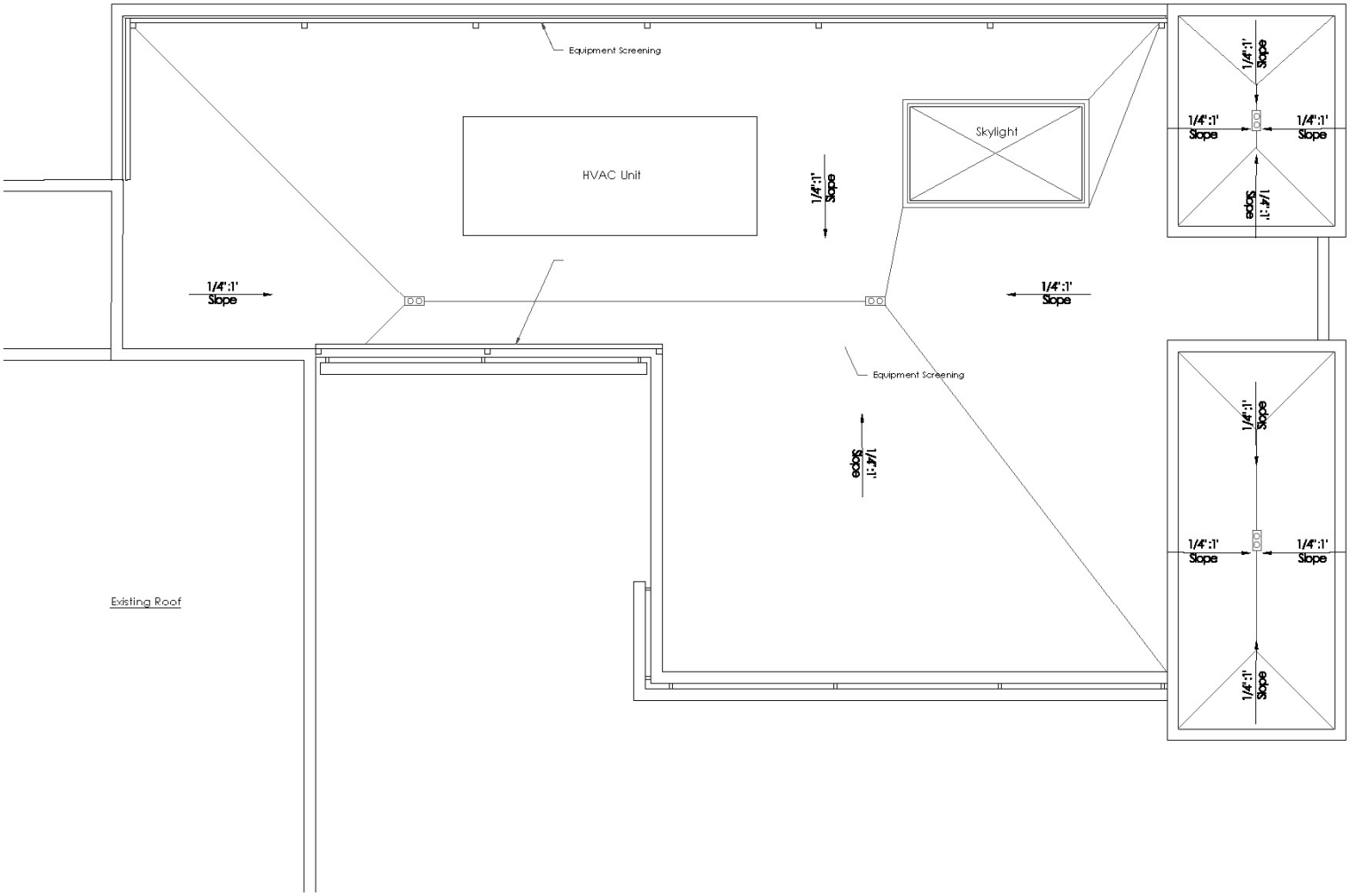


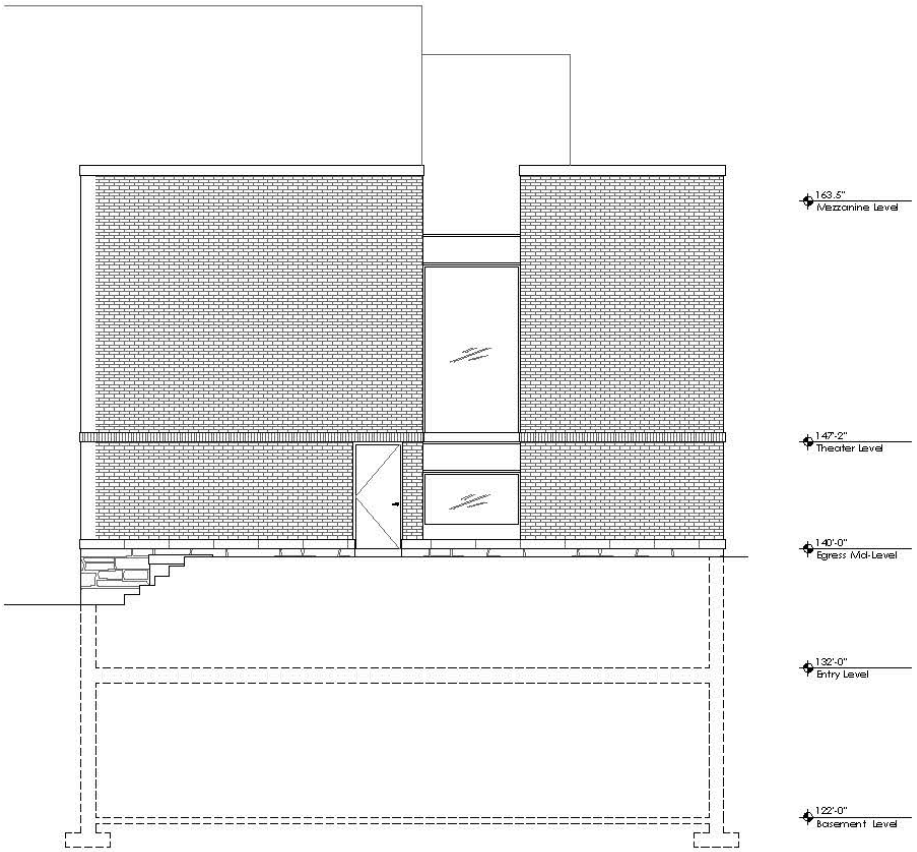
PROPOSED ADDITION / ROOF PLAN



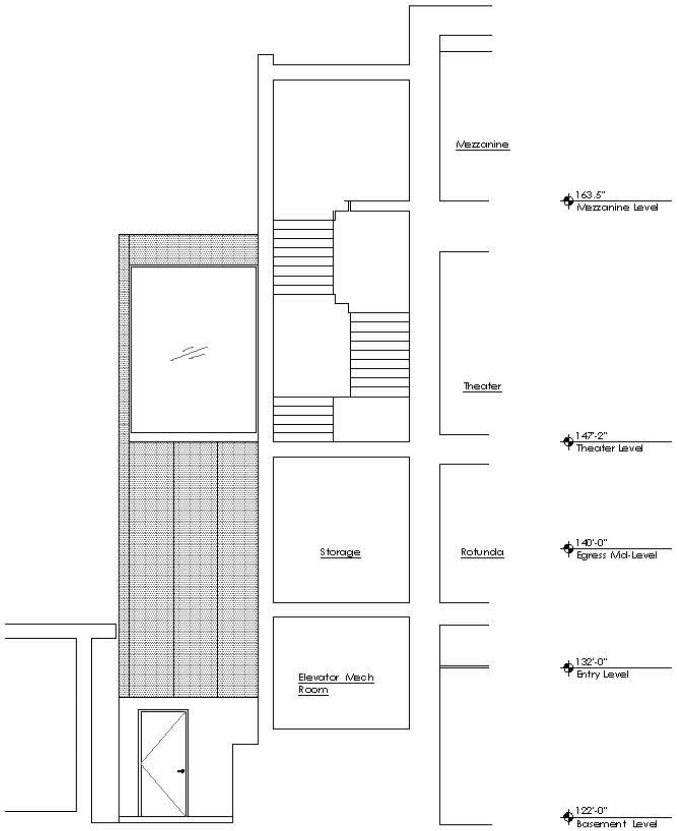
PROPOSED ADDITION / ROOF PLAN

Enlarged

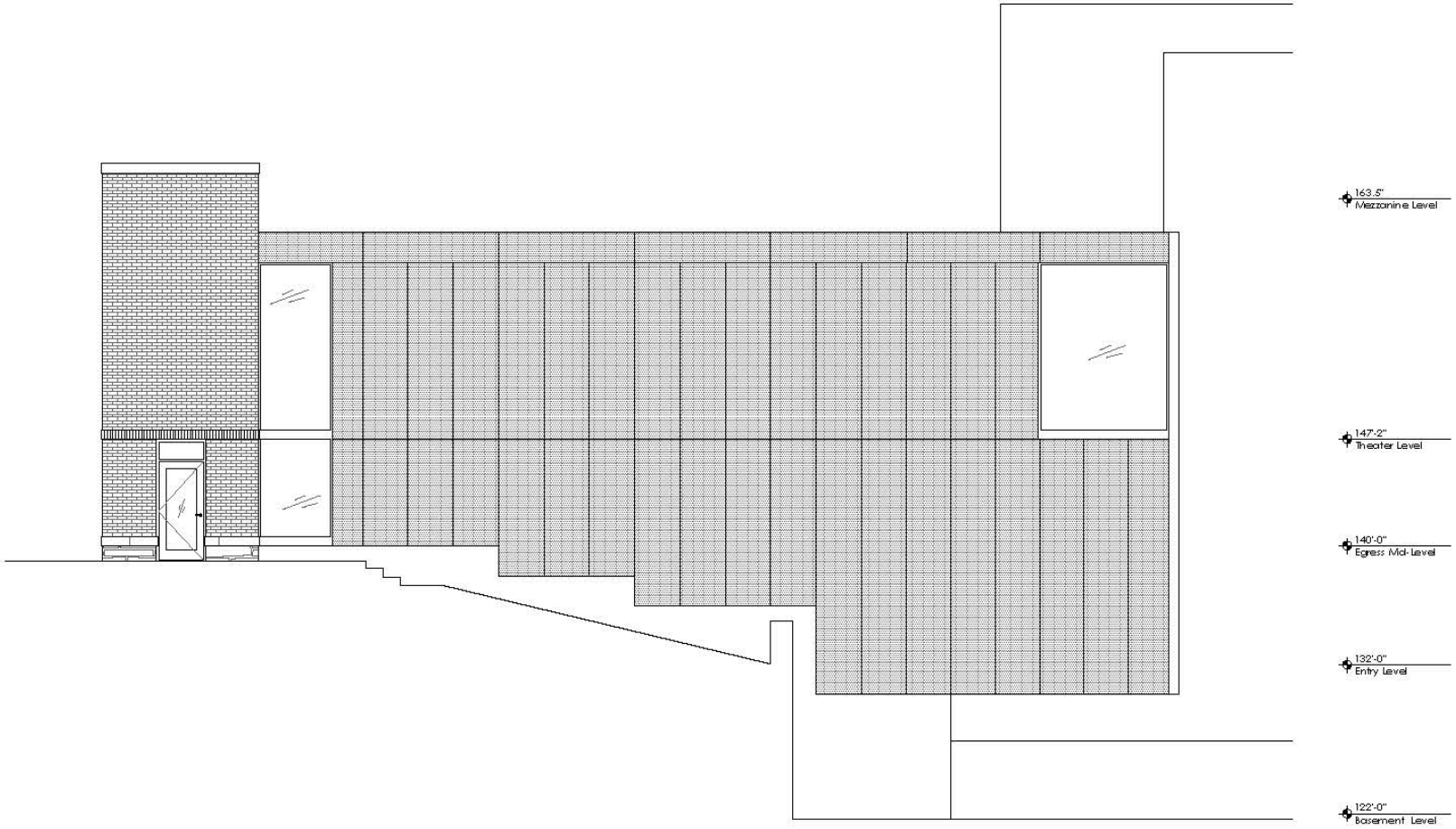
PROPOSED ADDITION / SOUTH ELEVATION



PROPOSED ADDITION / EAST ELEVATION



PROPOSED ADDITION / WEST ELEVATION



PROPOSED ADDITION / NORTH ELEVATION

PROPOSED EXTERIOR

PROPOSED INTERIOR / LOBBY / GALLERY

PROPOSED SITE VIEW

VII. COMMUNITY BENEFITS

AKRF, Inc. was retained to estimate the economic benefits that will result from the construction and annual operation of a proposed Irvington Town Hall Theater (ITHT) expansion project. This report estimates the incremental direct, indirect and induced jobs that will result from the project during the construction period and during annual operations, and describes additional economic and social benefits that will be realized in Irvington and in the broader Mid-Hudson Region.

Economic Impact

The project will renovate and enhance a historic and cultural amenity that is located on the village of Irvington's Main Street, in the heart of downtown. This enhanced neighborhood amenity will boost place making, neighborhood identity, and pride by giving an increased number of residents and visitors a reason to come to Main Street, traverse the downtown area, stay out later, and patronize stores or restaurants they might not otherwise. It will also highlight a historic village asset, as ITHT is both located within the Irvington Historic District and an individually listed State and National Historic Register building.

The project will result in 24 person-years of employment during the construction phase, an equivalent of 30 full time jobs over an estimated eight month construction period. After completion, the project's operations will create 4.5 new direct, indirect, and induced jobs. An additional $170,000 or more will be spent on food and beverages, retail and service, transport, and lodging as a result of ITHT summer operations, supporting 2 new jobs. This conservative estimate does not include other potential revenue that may be generated, including revenue from increased rental rates, black box theater operations, and summer camp sessions. It also does not include increased spending that will be driven by theater activity, including spending on refreshments and concession stand items and spending geared towards promoting performances such as printing and marketing services. The project will also create a general climate of investment that will attract and retain businesses in and around downtown Irvington by increasing consumer expenditures, business-to-business support services, and foot traffic, and facilitating outdoor performances that enhance street activity. These economic benefits have the potential to enhance property values within and around downtown Irvington, and more broadly, cultural amenities increase local demand for housing.

Analysis Methodology

Estimates of the direct, indirect, and induced jobs generated by the project were derived using IMPLAN (Impact Analysis for Planning), an economic input-output modeling system. The IMPLAN model was originally developed by the United States Department of Agriculture Forest Service in 1979 and was subsequently privatized by the Minnesota IMPLAN Group (MIG). The model uses economic data from sources such as the U.S. Bureau of Economic Analysis, the U.S. Bureau of Labor Statistics, and the U.S. Census Bureau to predict effects on the local economy from direct changes in spending.

The IMPLAN model contains data on 536 economic sectors, showing for any given geography how each sector affects every other sector as a result of a change in the quantity of its product or service. This indirect economic activity that is generated through direct investment is often referred to as the "ripple," or multiplier effect. This analysis is based on the IMPLAN data for the Mid-Hudson Region, including the following counties: Ulster, Duchess, Sullivan, Orange, Putnam, Rockland, and Westchester.

Using IMPLAN terminology, economic impacts are broken into three components: direct, indirect, and induced.

Direct effects represent the initial benefits to the economy of a specific new investment; e.g., this would include direct construction cost and the resulting demand in employment and changes in employee compensation.

Indirect effects represent the benefits generated by industries purchasing from other industries as a result of the direct investment; e.g., indirect employment resulting from construction expenditures would include jobs in industries that provide goods and services to the contractors. A direct investment triggers changes in other industries as businesses alter their production to meet the needs of the industry in which the direct impact has occurred. These businesses in turn purchase goods and services from other businesses, causing a ripple effect through the economy. The ripple effect continues until leakages from the region (caused, for example, by imported goods) stop the cycle. The sum of these iterative inter-industry purchases is called the indirect effect.

Induced effects represent the impacts caused by increased income in a region. Direct and indirect effects generate more worker income by increasing employment and/or salaries in certain industries. Households spend some of this additional income on local goods and services, such as food and drink, recreation, and medical services. Benefits generated by these household expenditures are quantified as induced effects.

Straight line extrapolation was used to determine future ticket and ticket sales revenue growth. Existing ticket sales revenues were extrapolated over the summer months, and are highly

conservative estimates given that they do not account for growth in ticket sales revenue that may be driven by an increase in rental rates, improved conditions of the facility, an increase in the number of rentals, performances, and camp sessions held each week, and use of the outdoor theater space.

Esri Business Analyst was used to estimate ITHT's trade area based on drive times. Using this geography, an inventory of competitive theaters in the area was compiled including theater size, amenities, and ticket prices to identify ITHT's unique niche in the region.

Off-site visitor spending was estimated using data from *Arts and Economic Prosperity 5: The Economic Impact of Non-Profit Arts and Culture Organizations and Their Audiences*, a study conducted by Americans for the Arts. This report provides audience spending estimates using expenditure data collected from 107 participating organizations in Westchester County.

Additional research support was provided by the Irvington Town Hall Theater, by the Cornell Program on Applied Demographics, by the 2014 report by the Center for Research, Regional Engagement, and Outreach (CRREO, The Benjamin Center), *Mid-Hudson Arts & Culture: The Economic Impact*, by the 2015 report by the United States Environmental Protection Agency, *How Small Towns and Cities Can Use Local Assets to Rebuild Their Economies: Lessons From Successful Places*, and by online research on competitor theater and music venues in the region.

Theater's Competitive Positioning

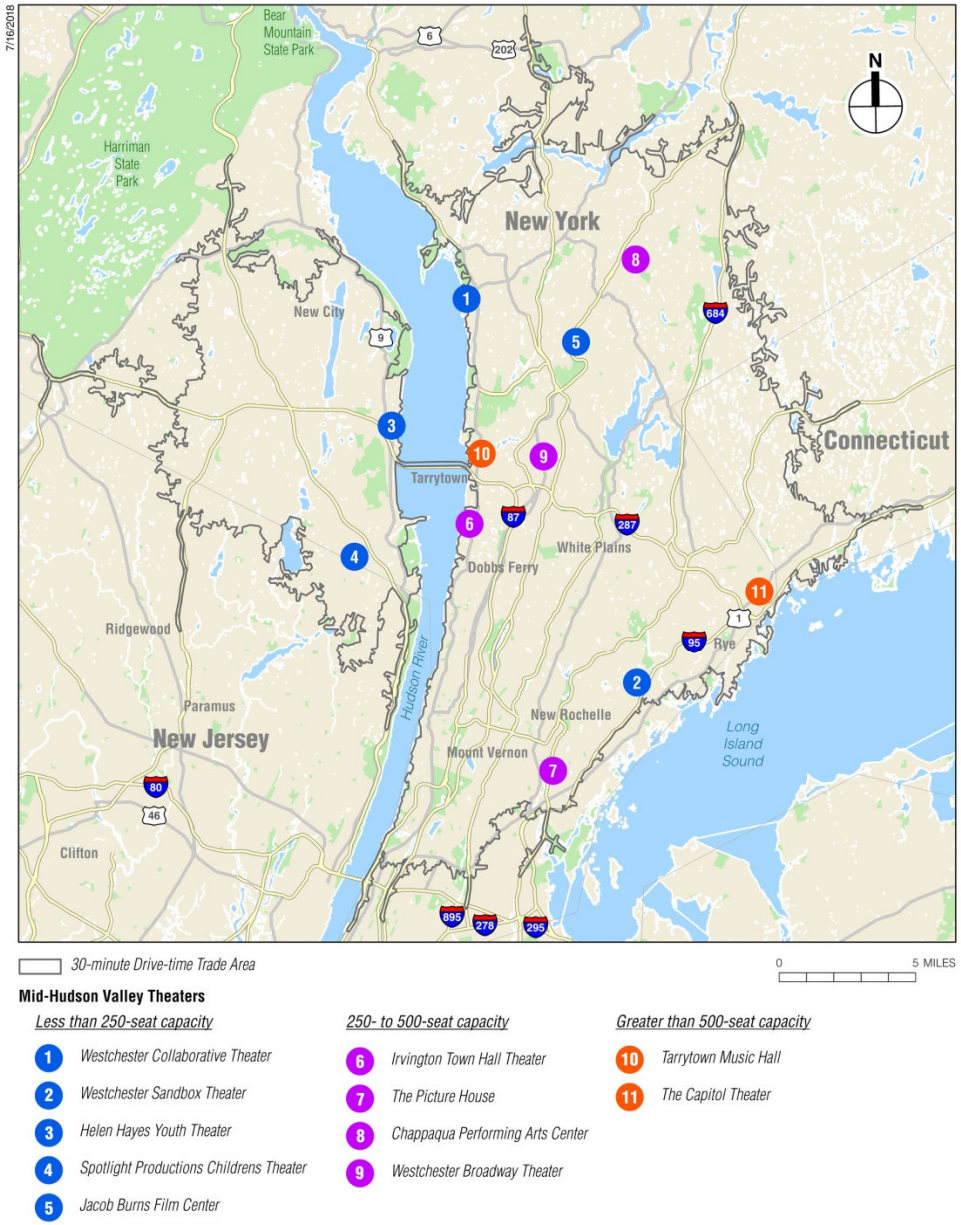
ITHT, located on Main Street in Irvington, is in the center of Irvington's historic downtown district and is approximately equidistant from Route 9 and the Metro-North railway station. In addition to its central location within the historic downtown district, ITHT is the only performance space within the village and serves as an important cultural anchor for downtown Irvington. Flanked by approximately 24 restaurants and cafes, ITHT benefits the other downtown establishments on and around Main Street, as theater patrons frequent the many eateries within close proximity to the theater.

The renovated theater will not only serve Irvington residents but will also attract theater-goers from the surrounding region. Based on information from ITHT and a review of similar theater venues, it is reasonable to assume that the theater's primary trade area (area within which a majority of ITHT "regular" patrons reside) is an approximately 30-minute drive-time. This 30-minute drive-time trade area is shown in Figure 1, along with comparable venues in the ITHT trade area. Of the over two million residents of the Mid-Hudson Region, approximately 42 percent live within this trade area and can regularly patronize the ITHT. Due to the theater's close proximity to Irvington's Metro-North station, ITHT is also

experiences regular patronage from areas along the Metro-North line outside of the drive-time radius shown.

There are approximately 16 theaters within ITHT's 30-minute drive-time trade area that offer a wide variety of performances, films, concerts, and programs for students. ITHT, however, is one of the few to anchor a local commercial core of a community, and is unique in that it is one of the only Mid-Hudson Region theaters to be located in a historic building from the early 20th century. In addition, ITHT's size makes it unique within the trade area, as many comparable theaters are either larger and tend to draw bigger acts, or too small to accommodate a diverse array of arts programming.

Of the 16 theaters identified, 7 have capacity for 250 patrons or fewer, which limits their ability to provide adequate space for local productions and outside performers. In addition, two other theaters were larger, 500+ seat establishments, and this limits their ability to provide space for more local, community-oriented performances such as children's theater, cultural programming, and local troupes. With its current 432-seat size, ITHT can focus on providing a comfortable and accessible performance space showcasing new and diverse programming of the arts for the community.



IRVINGTON TOWN HALL THEATER

Mid-Hudson Valley Theater Inventory
Figure 1

Existing Theater Operations

During the 2017-18 season (September through May), ITHT hosted approximately 62 live performances, with an estimated attendance of nearly 12,000 patrons. Theater offerings included musicals, film festivals, concerts, comedy shows, plays, and several free events. In addition to hosting arts-related performances, ITHT also rented out its facilities for rehearsals as well as private events such as weddings, bat mitzvahs and bar mitzvahs.

Employment Created from Operations

AKRF used a combination of direct theater employment, ticket and rent revenues, and off-site patron spending as inputs for modeling the direct, indirect, and induced employment that is supported by ITHT's existing operations.

According to ITHT management, the theater currently employs 6 part-time staff, and for the 2017-18 season it realized almost $276,000 in ticket revenue from fee-based events. In addition, ITHT hosts a number of free events (estimated ticket value of $30,000). The theater also collects revenues from renting the space to outside groups (estimated at $9,000 during nine months of operations). AKRF estimated total employment from the theater's operations in the Mid-Hudson Region based on the theater's direct employment (*see Table 1*).

Table 1 Existing Operational Employment

	Existing Jobs[1] in Mid-Hudson Region
Employment (FTE)[1]	
Direct (on-site)	6
Indirect (jobs in support industries)	6
Induced (jobs from household spending)	2
Total	**14**

Notes: 1 IMPLAN reports jobs in full- and part-time jobs. Jobs are reported in Full-time equivalents (FTE) using IMPLAN's ratios to convert full- and part-time jobs to FTE. The following IMPLAN sectors were used to model the existing operational employment: 488, "Performing Arts Companies," and 440, "Real Estate."
Sources: IMPLAN Pro, version 3.1; 2015 New York State Package; AKRF, Inc., July 2018.

At present, the theater directly employs six part-time workers. In addition to those directly employed by the theater, the theater hosts many positions involved in theater, including both personnel employed temporarily for a specific production, permanent staff of the in-house theatrical company, stage managers, producers, directors, playwrights, lighting and costume designers, scenic and set designers, sound technicians, choreographers, makeup designers, actors, and music directors and conductors, ushers, janitors, and stage crew, among others (the bulk of these positions are part-time and temporary).

In addition to direct jobs, the theater operations results in 6 indirect jobs (i.e., jobs created from business-to-business

purchases) and two induced jobs (i.e., jobs created from additional household spending), for a total of 14 jobs.

Employment Supported By Off-Site Visitor Spending

According to ITHT, approximately 70 percent of theater attendees (around 12,000 in the 2017-18 season) are from outside the village of Irvington. Therefore, their consumer spending—on items including dining at village restaurants and retail goods and services from local stores—is "net new" to the local economy and wholly attributable to the ITHT's presence in the community. Based on data on the local tourism industry, AKRF estimates that ITHT's existing non-local visitors spend approximately $103,600 on food and beverage, $15,000 on retail goods and services, $40,500 on transportation, and $12,400 on lodging annually within or immediately surrounding Irvington before or after their visits to ITHT.[1]

In total, it is estimated that ITHT's annual attendees spend approximately $152,000 on food and beverage, $20,500 on retail goods and services, $46,400 on transportation, and $12,400 on lodging in the local area before or after visits to ITHT. This off-site visitor spending results in direct employment at local restaurants and stores, in Irvington, as well as at taxi services and hotels in nearby communities *(see Table 2).*

Table 2 Existing Off-site Visitor Spend Employment

	Existing Jobs in Mid-Hudson Region
Employment (Person-years)	
Direct (village of Irvington	3
Indirect (jobs in support industries)	0
Induced (jobs from household spending)	1
Total	**4**

Notes: 1 The following IMPLAN sectors were used to model the economic effects of the visitor spend employment: 501 Full-service restaurants, 502 Limited-service restaurants, 405 Retail - General merchandise stores, 412 Transit and ground passenger transportation, and 499 Hotels and motels.
Sources: IMPLAN Pro, version 3.1; 2015 New York State Package; AKRF, Inc., July 2018.

As shown in Table 2, the existing off-site visitor expenditures result in one additional induced job in the Mid-Hudson Region, for a total of four jobs in the Mid-Hudson Region that are supported by the theater's operations.

It is important to note that the quantified jobs analysis is only one level of economic benefits provided by ITHT. Beyond this more readily-quantifiable job creation and retention, the theater currently provides other economic and social benefits to Irvington. Located in the heart of downtown Irvington on the village's Main Street, the theater adds to the street's vitality and vibrancy. The theater was also booked for shows nearly every weekend during the 2017-18 season. This centrally located theater will stand to build upon these and realize additional future benefits following the project, which are discussed in more detail on pages 51-52 of this report.

[1] Americans for the Arts, Arts & Economic Prosperity 5, 2016.

Construction Period Benefits

Construction of the proposed theater expansion is estimated at $4.3 million, including $3.9 million for the theater entrance and approximately $400,000 for site work[2]. Table 3 summarizes the estimated jobs that would result from construction of the proposed theater expansion. As shown in the table, construction will directly create an estimated 17 person-years of employment[3]. In addition, the project is anticipated to create two person-years of indirect employment in support industries (e.g. wholesale trade, architecture and engineering, real estate, truck transportation, marketing, legal services, accounting, landscaping, etc.). Moreover, the project would create five person-years of induced employment in various industries from the wages generated by the direct and indirect activity. Total direct, indirect, and induced jobs from construction of the project is estimated at 24 person-years in the Region.

Table 3 Construction Employment

	Jobs Created in Mid-Hudson Region
Employment (Person-years)[1]	
Direct	17
Indirect (jobs in support industries)	2
Induced (jobs from household spending)	5
Total	**24**

Notes: 1 A person-year is the equivalent of one person working full-time for a year. The following IMPLAN sectors were used to model the economic effects of project construction: 57, "Construction of new commercial structures," and 58, "Construction of other new nonresidential structures."
Sources: IMPLAN Pro, version 3.1; 2015 New York State Package; AKRF, Inc., July 2018.

Post Renovation Benefits

As noted earlier, the proposed project will expand and improve ITHT with the addition of a two-story entrance wing with a lobby, box office, support offices, elevator, concession area, and restrooms for visitors, bringing these elements up to ADA standards. It will also include air conditioning for year-round use, extending the performance season by 33 percent. A new black box theater will provide additional flexibility for rehearsals and performance; and the outdoor public gathering space and display spaces for community art exhibits will further enhance the vitality of the arts in the region.

[2] DACK Consulting Solutions, Inc., Irvington Town Hall Theater Entrance Conceptual Estimate, July 6, 2018.
[3] A person-year of employment is the equivalent of one person working full-time for a year.

Employment Created From Theater Operations

Post-renovation, it is expected that the theater will sell approximately 4,000 additional tickets, generating around $92,000 in additional revenue, along with additional revenues collected from space rentals conservatively estimated at $3,000). Table 4 summarizes the findings regarding the future annual operation following the proposed theater expansion (not including visitor spend).

Table 4 Post-Renovation Operational Employment

	Total Incremental Jobs in Mid-Hudson Region	Total Jobs in Mid-Hudson Region
Direct (on-site)	2	8
Indirect (jobs in support industries)	2	8
Induced (jobs from household spending)	0.5	2.5
Total	**4.5**	**18.5**

Notes: The following IMPLAN sectors were used to model the economic effects of projected operational revenues: 488, "Performing Arts Companies," and 440, "Real Estate."
Sources: IMPLAN Pro, version 3.1; 2015 New York State Package; AKRF, Inc., July 2018.

As shown in Table 4, the proposed theater expansion is anticipated to result in two incremental direct jobs. These jobs are anticipated to equate to more work for existing part-time staff, as well additional employment of personnel in the theater industry. Total permanent employment at the completed theater is estimated at eight part-time employees.

Including the indirect and induced economic activity that will result from the incremental direct employment, the total incremental employment from the expansion is estimated at 4.5 jobs in the Mid-Hudson Region. When added to the existing employment, the completed theater will result in a total of 18.5 direct, indirect, and induced jobs in the Mid-Hudson Region from theater operations.

Employment Supported By Off-Site Visitor Spending

As detailed above, ITHT directly contributes to local jobs offsite as a result of visitor spending in the region. With the project and additional patronage, there will also be additional consumer expenditures within the local economy.

Based on data from the local tourism industry,[4] with the proposed theater expansion, it is expected that non-local visitors will annually spend an additional $34,500 on food and beverage, $5,000 on retail, $13,500 on transportation, and over $4,000 on lodging within and surrounding Irvington.

In total, it is estimated that ITHT's additional annual attendees will spend approximately $60,000 on food and beverage, $7,000 on retail goods and services, $15,500 on transportation, and over $4,000 on lodging in the local area before or after visits to ITHT. This off-site visitor spending will result in direct employment at the local restaurants, stores, and services in Irvington.

[4] Americans for the Arts, Arts & Economic Prosperity 5, 2016.

Table 5 Post-Renovation Off-Site Visitor Spend Employment

	Total Incremental Jobs in Mid-Hudson Region	Total Jobs in Mid-Hudson Region
Direct (Village of Irvington)	1	4
Indirect (jobs in support industries)	1	1
Induced (jobs from household spending	0	2
Total	**2**	**7**

Notes: The following IMPLAN sectors were used to model the economic effects of the visitor spend aspects of the project: 501, "Full-service restaurants," 502, "Limited-service restaurants," and 405, "Retail – General merchandise stores."
Sources: IMPLAN Pro, version 3.1; 2015 New York State Package; AKRF, Inc., July 2018.

It is estimated that the total incremental visitor expenditures will result in two additional jobs within the local economy and within support industries in the broader Mid-Hudson Region *(see Table 5)*. Therefore, with the completed project, the theater will support a total of seven jobs in the Mid-Hudson Region, including four direct jobs (in the Village of Irvington) and two induced jobs in the larger region.

Total Operational and Visitor Spend Employment

Following completion, the project will result in over 25 jobs in the Mid-Hudson Region, including direct, indirect, and induced employment from existing and post-renovation operational employment and visitor expenditures *(see Table 6).*

Table 6 Existing Operational Employment

	Existing Employment	Incremental Employment	Total Jobs in Mid-Hudson Region
Direct	9	3	12
Indirect (jobs in support industries)	6	3	9
Induced (jobs from household spending)	3	0.5	5
Total	**18**	**6.5**	**25.5**

Sources: IMPLAN Pro, version 3.1; 2015 New York State Package; AKRF, Inc., July 2018.

Other Project Benefits

The projected incremental increases in direct, indirect, and induced jobs, as well as the incremental increases in theater spend and off-site spending, while significant to this analysis, only provide a partial and conservative snapshot of the project's total potential economic impact. As noted in the methodology, AKRF's estimates were made using straight-line extrapolation to determine future ticket and ticket sales revenue growth and did not account for any additional growth in ticket sales revenue that may be driven by the improved condition of the facility, an increased number rentals, performances, and camp sessions during the week, increased rental rates, and use of the outdoor theater space. These economic and social factors and their potentially influential role as drivers of increased economic activity are outlined in greater detail below.

Economic Benefits

Upon the project's completion, ITHT anticipates hosting rehearsals and performances during the weekdays as well as on the weekends, outdoor performances, and summer camp sessions. AKRF estimates that the theater will increase its revenues by $46,000-$51,000 from these added uses. This estimate will likely be even higher, as the rates ITHT charges from renting the space out to external groups are expected to go up in the 2019-20 season. Additionally, these added estimates do not take into account revenue generated from other non-theater related events, such as weddings, bat mitzvahs, bar mitzvahs, and other special celebrations.

Social and Community Benefits

In addition to the quantified and unquantified economic benefits of the proposed project, the renovated ITHT will create important social and community benefits in and around the theater. First, the Mid-Hudson Region's population is aging: those between the ages of 75-84 will increase approximately 20 percent by 2025.[5] The project's renovations respond to this trend. It will bring the facility up to ADA standards by incorporating a new, two-story addition with an ADA-accessible entryway, elevator, and restrooms for visitors; it will improve visibility of ITHT from Main Street and implement designs that will create safer and more convenient drop-off locations; and install air conditioning in the facility for the summer seasons. These improvements will increase ease of access to, within, and around the theater, allowing both the elderly and the disabled comfortable entry and use of the entire facility and outdoor amenities.

The project will not only better accommodate the disabled and the elderly, but will attract other groups as well. A younger demographic will be drawn to the theater if it offers camp sessions, as will their parents. ITHT can also help artists connect with audiences and will provide them with more opportunities to make a living; young adults and emerging artists early in their creative careers looking to test and refine their pieces and performances will also have more incentive to do so in Irvington if given the opportunity, the space, and the audience. And various ethnic and cultural groups may also utilize the space more often to put on festivals that honor and display their diverse heritage and backgrounds.

Increased activity from a growing, and more diverse set of performers, patrons, and camp goers will increase street-level vibrancy and activity as well. The project will invest in an asset that lies in the heart of downtown Irvington, and this kind of investment can significantly contribute towards retaining

[5]Cornell Program on Applied Demographics: https://pad.human.cornell.edu/counties/projections.cfm

existing residents as well as attracting new ones.[6] The project will boost place-making by giving an increased number of residents and visitors a reason to come to Main Street, traverse the downtown area, stay out later, and patronize stores or restaurants they might not otherwise, which in turn will enrich Irvington community life. These benefits also have the potential to enhance commercial property values within downtown Irvington, and more broadly cultural amenities increase local demand for housing.

Regional Benefits

Arts and culture is an economic driver for the Mid-Hudson Region. A 2014 report by the Center for Research, Regional Engagement, and Outreach (CRREO, The Benjamin Center) noted that arts and culture organizations generated $468 million in direct and indirect spending, created 4,970 jobs, and attracted 3.6 million day and overnight visitors to the region. Upon project completion, ITHT will be in a stronger structural and programmatic position to retain and attract spending on the arts in the Mid-Hudson Region.

Further, the Mid-Hudson Regional Economic Development Council's (MHREDC) Strategic Plan identifies 10 industries that are regional economic drivers, including "Tourism, Arts, and Culture." Tourism is an important industry in the Mid-Hudson Region. In 2016, the tourism industry brought $3.8 million to the region in visitor spending; 52 percent ($1.8 billion) of that spending occurred in Westchester County.[7] The summer season is the busiest season for tourists in the Mid-Hudson Region, and the project will allow ITHT to start tapping into that market demand.

The MHREDC Strategic Plan also focuses on attracting young, educated professionals to prevent 'brain drain' and 'youth flight' from the region. It does so by emphasizing "entertainment and recreation through downtown development" (MHREDC Strategic Plan, p.47). As young families become priced out of New York City or seek a more suburban lifestyle, Irvington has an opportunity to attract new residents when they expand their programming into the summer and possibly start hosting theater camps and theater or film festivals. These types of attractions could serve as a draw for younger residents who are seeking a dynamic and creative place to live.

In sum, the project will create additional capacity and ease of access to the historic and centrally located Irvington Town Hall Theater. Completion of the project will also create jobs, induce visitor spending, attract new and diversified audiences,

[6] United States Environmental Protection Agency, May 2015: https://www.epa.gov/sites/production/files/2015-05/documents/competitive_advantage_051215_508_final.pdf

[7] CRREO, July 2014. Mid-Hudson Arts & Culture: The Economic Impact. *http://www.newpaltz.edu/benjamincenter/crreo_artculture2014.pdf*

foster place making and neighborhood revitalization, and enrich the Mid-Hudson Region's arts and culture offerings.

VIII. TRAFFIC AND PARKING

AKRF, Inc. was retained to provide due diligence services to examine the potential impact of traffic and transportation conditions associated with the proposed conceptual design for improvements to the theater. For purposes of the limited service scope of this feasibility study, a full traffic and parking analysis is not practicable. The assessment is based on existing operating conditions, field observations, existing pedestrian circulation, traffic, and parking conditions surrounding the theater, as well as traffic, pedestrian, and parking conditions affected by the implementation of the project identifying potential benefits and impacts. Recommendations are made where necessary for measures to improve traffic, pedestrian, and parking conditions surrounding the Theater. The following memorandum is a summary of the findings.

Existing Conditions - Circulation and Parking

At present, the primary entrance to the Irvington Town Hall Theater (ITHT) is on N. Ferris Street, which runs two-way northbound and southbound to a dead end intersection. The intersection of N. Ferris and Main Street is a stop-controlled intersection, with Main Street as the major uncontrolled thoroughfare and N./S. Ferris Street as the minor stop controlled approaches. Drop off and pick-up for passengers needing close access to the theater entrance requires cars to pull onto N. Ferris Street and then execute a three-point turn to exit back onto Main Street. This movement is problematic and can be a safety concern, not only due to the limited 30-foot width of the roadway, but also because curbside parking is allowed on both sides of N. Ferris Street. Vehicles then turn from N. Ferris Street onto Main Street, where angled parking is allowed on the north side of the street, limiting sight distance for turning vehicles. Prior to and immediately following performances, the current circulation condition causes much confusion and traffic congestion on both North Ferris and Main Streets.

Parking for employees and visitors to the ITHT is generally accommodated by a combination on-street and off-street parking in the vicinity of the theater. Regulated parking is available on Main Street east and west of the theater, with angled parking on the north side and parallel parking on the south side, including six parking spaces fronting Town Hall. The ITHT website notes that these spaces are available for handicapped parking for theater events and notes that visitors are restricted from parking on N. Ferris Street. Hourly parking limits during the day (8 a.m. to 8 p.m.) vary widely along the Village's main and side streets, offering one, two, four and six hour increments.

For theater audiences, off-street parking for approximately 30 vehicles *1* is presently accommodated after 6pm in the Main Street School parking area located east of the Main Street School building – on N. Aqueduct Lane. Parking, during non-school hours is allowed via an informal agreement between the School District and the Village.

Visitors parking in the Main Street School lot access the theater entrance via Main Street and N. Ferris Street. The sidewalks are approximately 13 feet wide along Main Street and 10 feet wide along N. Ferris Street, which are sufficiently wide for pedestrian circulation. *2*

Proposed Conditions – Circulation and Parking

The proposed condition introduces a new two-story theater entrance on Main Street. At present, the Irvington Fire Department restricts parking along the northern curb of Main Street, for an approximately 70 foot stretch with an additional 30 foot buffer zone *2* designated as a Fire Zone used to allow Fire Department vehicles to turn into and out of the fire station located immediately across from the ITHT. The proposed entrance to the ITHT aligns with this restricted area. With permission from the Fire Department, this striped area could be utilized for patron pick-up and drop-off for theater events and would provide space for approximately five to six vehicles to queue. Providing a dedicated curbside drop-off area, would shift vehicles from obstructing the Main Street travel lanes and prevent traffic congestion prior to and after theater events. The proposed entrance would also eliminate the need for vehicles to circulate onto N. Ferris Street for drop-off and pick-up. In addition, prior to and immediately following theater events, ITHT staff could actively manage the passenger pick-up and drop-off area to ensure the operation runs smoothly and does not block Main Street or restrict Fire Department activities. *3*

The Village of Irvington continues to discuss on-street parking management initiatives within the most congested corridors, including along Main Street. The ITHT will continue to monitor these discussions to ensure on-street parking is available for theater events. Off-street parking for the ITHT (after 6pm) would continue to be provided in the Main Street School parking lot. A formal agreement between the Village and the Main Street School to allow theater parking within the school parking area would provide certainty with regard to available proximate off-street parking during ITHT events. In addition, the ITHT may consider providing managed parking via valet to maximize the availability of off-street parking within that lot. Visitors parking in the Main Street School lot would access the new theater entrance via Main Street, which would be a shorter distance compared to the current pedestrian circulation conditions. The Main Street sidewalk is sufficiently wide to accommodate both pedestrians and visitors loading and unloading at the proposed drop-off and pick-up area.
(See Arial photograph pg 53)

Due to the proximity of the theater to the Irvington Metro North Railroad station, it is anticipated that some percentage of theatergoers are currently and would continue to utilize public transport or the Metro North station parking lot for their theater trips. The Irvington Town Hall Theater may consider providing a bus to shuttle patrons to and from the train station, in advance of and following performances.

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1 Parking count is approximate and based on visual survey of aerial photography. Field counts are required to confirm available, legal, striped parking spaces.

2 Measurements are approximate. Additional field conditions analyses are required to confirm.

3 Any formal written agreement between the ITHT and the Fire Department to allow theater pick-up and drop off within the restricted area will include a detailed contingency plan if the space is not available for theater use. This plan would include active management of the parking area by theater staff to flush vehicles from the Fire Zone potentially to N. Ferris Street.

PARKING AND ENTRANCES

IX. COST ESTIMATES

The preliminary project budget includes the following five main categories: Architecture and Engineering Costs, Construction Management Services, Construction Costs, FF&E Cost, and Stipulated Required Scope. Also addressed are alternates and value engineering opportunities. The construction cost estimates have been developed by DACK Consulting Solutions Inc. The HVAC cost estimate was developed by OLA Consulting Engineers. The pre-contingency cost is approximately $5.2 million. See attached appendices for more detailed information.

Architecture and Engineering Costs

Design and engineering costs have been set at 10.5% of overall construction cost less contingency. This estimate is intended to include architectural services, civil engineering services, structural engineering services and MEP engineering services. It does not include theater specific services such as acoustic engineering, lighting design or theater design. It assumes a traditional delivery of the project.

Construction Management Services

Construction management costs have been set at 4.7% which is to accommodate construction management advisory services during construction, which may be required.

Construction Cost

[6]

The general contractor's general conditions (on-site costs) and project related insurance have been included in each line item, while overhead and profit have been include as a separate line item. The cost estimate is based on the following outline specifications:

- *Demolition and Excavation*– The site work estimate for the addition includes excavation, soil stockpiling and rock removal for basement level as well as support of excavation (SOE) sheeting, backfilling and grading.

- *Concrete* – the estimate includes concrete footings, foundations, slabs and stair pans

- *Masonry* – The estimate includes brick veneer and stone parapet copings.

- *Structural Steel/Architectural & Misc. Metals* – The estimate includes a structural steel frame with steel deck and concrete topping slabs for new elevated floor assemblies. Also included is the ornamental stair and railing and code compliant metal pan type egress stairs and railings.

- *Wood, Plastics and Composites– The estimate includes* custom casework and countertops in the concessions area, box office and restrooms, as well as miscellaneous carpentry.

- *Thermal and Moisture Protection* – the estimate includes all required water proofing and insulation as well as adhered TPO membrane with rigid insulation over steel deck at flat roofs. All flat roof assemblies include metal trim and typical accessories. The exterior walls not indicated to be brick are to be CRL type wet seal aluminum wall panel or cement wall panel.

- *Window and Door Assemblies* – New exterior window assemblies are indicated as a thermally broken aluminum system with high performance low-E insulated glazing. Exterior entry doors are to be commercial grade aluminum entrance system. Interior doors clear finished flush wood doors with sidelights in painted metal frames or glazed clear finished stile and rail wood doors with sidelights in painted metal frames. All other doors are to be painted standard hollow metal doors in painted standard hollow metal frames. Metal frames are to have full profile welded with mitered or coped corners.

- *GWB & Finishes* – The estimate includes interior partitions of light gauge metal with acoustic batt insulation and gypsum board finish, restrooms walls with ceramic tile finish to 8 feet above finish floor, ACT and gypsum board ceilings as well as specialized acoustic ceiling at Black Box Theater. Interior floors in assembly areas are to be polished concrete or wood. Restrooms floors are to be ceramic tile. Other floor areas are to be resilient flooring or carpet.

- *Specialties* – this category includes toilet partitions and restroom accessories, metal sun screens and signage

- *Conveying Systems* - The project includes 2500 pound elevator.

- *Fire Protection* – The estimate includes code compliant sprinklers for the addition and modifications to existing sprinklers.

- *Plumbing Systems* – The estimate includes all rough and finished plumbing, including typical commercial fixtures.

- *HVAC Systems* – the estimate is based upon the conceptual approach developed by OLA and includes for the main theater 35 ton single zone variable air volume (VAV) rooftop unit system w/ DX cooling, hydronic coil, VFD supply fan, VFD return fan, filtration, sound control and ductwork similar to the WRL proposal; for the theater support spaces, an 8 ton dual zone variable air volume (VAV) rooftop unit system w/ DX cooling, hydronic coil, VFD supply fan, VFD return fan, filtration, sound control and rooftop and interior ductwork; and for the addition – 20 ton dual zone variable air volume (VAV) rooftop unit system w/ DX cooling, hydronic coil, VFD supply fan, VFD return fan, filtration, sound control and new ductwork (6) variable air volume (VAV) boxes; and direct digital controls system controlling the entire scope.

- Boiler Upgrade – the HVAC approach assumes the upgrade of the existing hot water boiler to increase capacity, efficiency and provide dual fuel functionality.

- *Electrical Systems* – Electrical distribution and lighting systems are to be high quality, optimally efficient and code compliant, this section is to include minimal telecom and IT wiring and fire alarm system.

- Escalation Factor – a 7.5% escalation factor has been added to the construction cost.

See attached appendices for more detailed information.

Value Engineering Opportunities & Alternates

During the design development phase and value engineer process certain portions of the existing design may be able to be eliminated or isolated and included in a future phase of work. Also the design may include alternates that better meet operational needs.

- *Black Box Theater Fit Out* – In this option the basement would be left unfinished in the first phase of work and completed in a future phase. The raw space may be able to be used as storage prior to fit out. The first phase would need to include insulation, fire protection and egress components, but the wall floor and ceiling finish may be able to be delayed. If it is assumed that the interior fit-out cost is between $100 and $150 per square foot. This value engineering option could reduce the initial budget by $200K to $300K.

- Expanded Restrooms - The schematic design includes an alternate restroom design with a higher fixture count. The cost associated with this expansion is minimal, approximately $5000 and would not have a significant effect on the project budget.

Category	%	Cost	Cost/SF	SF
Architecture & Engineering Cost	**9.7%**	**$445,000**	**$67.94**	**6550**
Architectural Services		$275,000	$41.98	6550
Civil Engineering		$65,000	$9.92	6550
Structural Engineering		$40,000	$6.11	6550
MEP Engineering		$65,000	$9.92	6550
Construction Management Services	**4.4%**	**$200,000**	**$30.53**	**6550**
CM Services		$200,000	$30.53	6550
Construction Cost		**$3,895,100**	**$267.70**	**14550**
General Conditions 12%		$285,800	$19.64	14550
Demoliton/Excavation		$189,800	$13.04	14550
Concrete		$187,300	$28.60	6550
Masonry		$102,600	$15.66	6550
Structural Steel/Architectural & Misc. Metals		$261,800	$39.97	6550
Wood, Plastics & Composites		$76,400	$11.66	6550
Thermal & Moisture Protection		$266,000	$40.61	6550
Doors & Windows		$283,500	$43.28	6550
GWB & Finishes		$480,800	$33.04	14550
Specialties		$71,000	$4.88	14550
Conveying Systems		$112,500	$17.18	6550
Fire Protection		$52,200	$3.59	14550
Plumbing		$71,900	$10.98	6550
HVAC (Main Theater)		$350,000	$43.75	8000
HVAC (Addition)		$369,000	$56.34	6550
Electric& Communications		$225,700	$34.46	6550
Overhead & Profit 10%		$266,700	$40.72	6550
Cost Escalation Facttor 7.5%		$242,100	$36.96	6550
Furniture, Fixtures & Equipment		**$32,750**	**$5.00**	**6550**
General FF&E		$32,750	$5.00	6550
Stipulated Required Scope		**$668,900**		
Plaza Sitework		$411,900	$95.79	4300
Restroom Upgrades/Modifications Existing Theater		$157,000	$413.16	380
HVAC (Boiler Upgrade)		$100,000	$6.87	14550
Total Before Contingency:		**$5,241,750**		
Project Contingency @ 10%		$524,175		
Total with Contingency:		$5,765,925		

X. PROJECT PHASING, DELIVERY & SCHEDULE

The preliminary project schedule assumes a best case scenario where there is consensus around the design, land acquisition can be achieved and funding for the project is secured relatively rapidly and shows completion in 2022.

Project Phasing

In order to maintain the operation of the theater the project would be phased, with the addition and plaza to be constructed in the initial phase and the work associated with the existing theater to proceed in a second phase.

Phase I would include the basement level, two-story entrance wing addition and courtyard entrance plaza area as detailed above. During this phase egress for the theater, town hall and the adjacent school building will need to be maintained. Modifications to building systems and utilities will need to be designed to account for the operation of the adjacent buildings.

Phase II will include installation of air conditioning in the existing theater as well as the reconfiguration and renovation of the theater's existing restrooms. During this phase the connection between the entrance and theater building will be completed. The theater will not be able to operate for some portion of this phase, so the overall schedule should consider the time of this work carefully.

Project Delivery Methods

Typically municipal projects are limited to the traditional Design/Bid /Build method of project delivery due to State restrictions on bidding procedures.

The design/bid/build method of project delivery is the conventional method in which the design team develops and documents a design based on a budget and project program provided by the Owner. Once municipal approvals are secured, or concurrent with the final phase of municipal approvals, the project is put out to competitive bid. General contracting firms are invited to submit lump-sum bids to construct the project. The major advantage of this method is the cost benefit of competitive bidding.
Assuming that the construction documentation is thorough, this method provides excellent quality control of construction and efficiency of project management. One disadvantage of this method is that there are limited opportunities to abbreviate the schedule, as the documentation must be complete prior to bidding the project. Fast-tracking, the method of releasing one portion of the project for construction before the project is completely designed, is especially difficult in a municipal design/bid/build situation.

It is recommended that cost estimating services be included from the earliest design stages. Cost estimating services should be provided by an outside consultant to the Owner directly, or as part of services from a construction management consultant as advisor to the Owner.

Project Schedule

The attached project schedule includes five major categories: Feasibility Phase, Funding Phase, Land Acquisition Phase, Design Phase, and Construction Phase. Some of these phase are shown to overlap. The acceptance of this feasibility document by the village is indicated as the start of a dedicated fundraising phase, with funding targets established by the feasibility analysis.

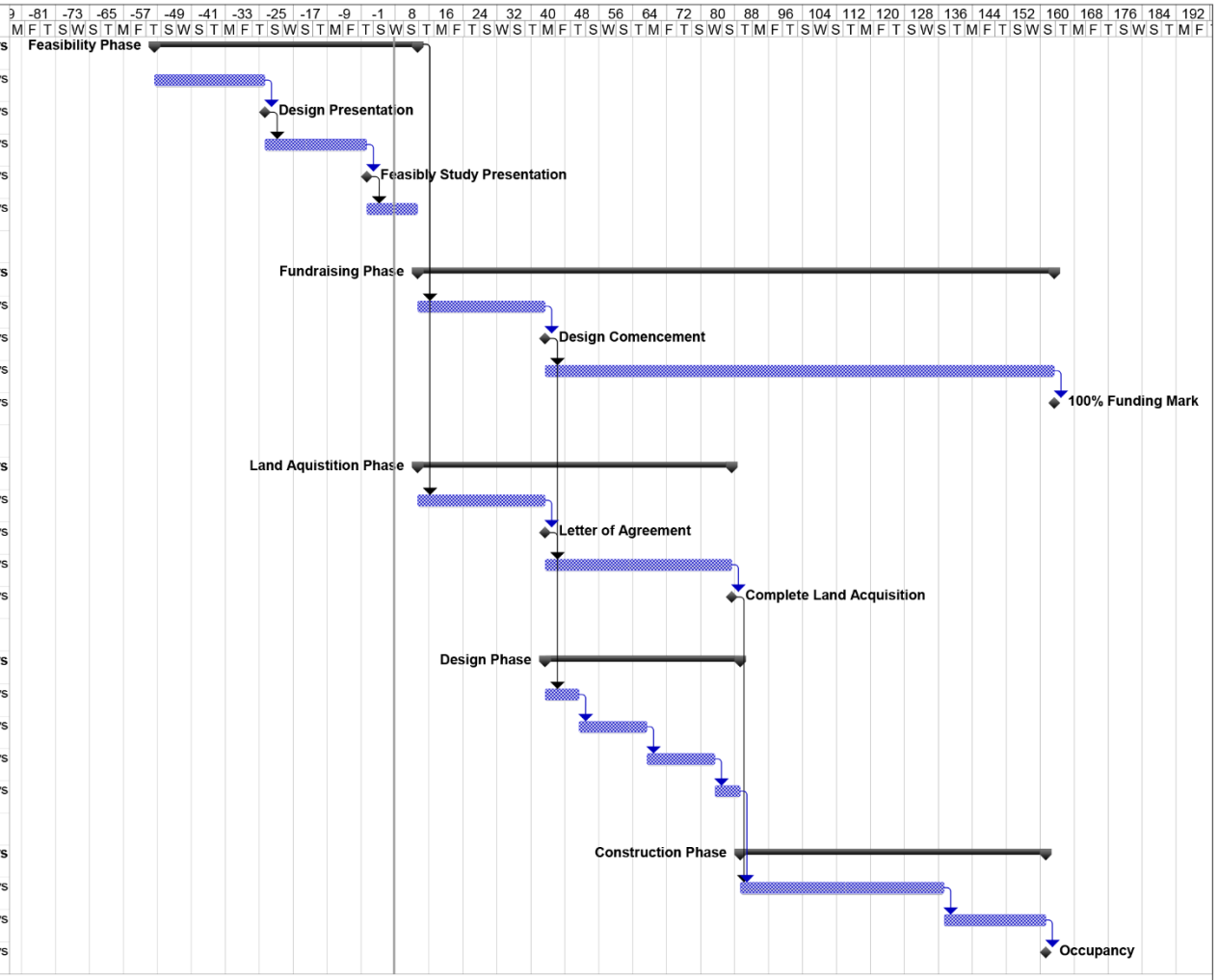
The fundraising phase is to extend approximately through the entire construction phase.

The Land Acquisition Phase is shown to overlap the fundraising phase and would also begin in earnest at the end of the feasibility phase. The phase includes an initial agreement in principal that should be in place as soon as possible to support fundraising, followed with a finalized agreement to be completed prior to the beginning of construction.

The design phase is shown beginning once funding has reached an owner specified threshold. There would be benefits to completing and bidding the design earlier in the fundraising phase so that the design could be value engineered and modified as necessary to coordinate with fundraising targets.

Finally the construction phase is shown to begin once t land acquisition has been completed. The construction would be completed in at least two phases to limit impact on the theater's operation.

ID	Task Name	Duration
1	**Feasibility Phase**	**310 days**
2	Schematic Design Development	130 days
3	Design Presentation	0 days
4	Feasiblity Study (Initial Draft)	120 days
5	Feasibly Study Presentation	0 days
6	Feasiblity Study (Final Draft)	60 days
7		
8	**Fundraising Phase**	**750 days**
9	Pursue Funding for Construction	150 days
10	Design Comencement	0 days
11	Complete fundraising for Construction	600 days
12	100% Funding Mark	0 days
13		
14	**Land Aquistition Phase**	**370 days**
15	Pursue Land Acquisition w/ District	150 days
16	Letter of Agreement	0 days
17	Finalize Agreement	220 days
18	Complete Land Acquisition	0 days
19		
20	**Design Phase**	**230 days**
21	Schematic Design Review	40 days
22	Design Development	80 days
23	Contract Documents	80 days
24	Bidding and Negoiation	30 days
25		
26	**Construction Phase**	**360 days**
27	Phase I General Construction	240 days
28	Phase II General Construction	120 days
29	Occupancy	0 days



Project: 1700_Project Schedule_05311
Date: Fri 5/31/19

Task		External Tasks		Inactive Summary		Start-only	
Split		External Milestone		Manual Task		Finish-only	
Milestone		Inactive Task		Duration-only		Progress	
Summary		Inactive Task		Manual Summary Rollup		Deadline	
Project Summary		Inactive Milestone		Manual Summary			

APPENDIX

Acknowledgements

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Page 2 photo / ITHT loge box & stage: The Fiona Company
Page 4 vintage photo / The Irvington Historical Society
Page 6 photo / Irvington Historic District: Anne Marie Leone
Page 10 photo / ITHT orchestra & stage: The Fiona Company
Page 10 photo / ITHT orchestra & balcony: The Fiona Company
Page 11 photo / ITHT entrance & vestibule: The Fiona Company
Page 12 photo / ITHT existing stair & reception: The Fiona Company
Page 19 photo / proposed site: Ferguson Malone Architects
Page 56 aerial photo / existing site: Google Earth

References

The following is a list of source references for selected content in this report:

Existing lot Survey and Proposed Site Plan: Based on topographic survey of property prepared by Ward Carpenter Engineers Inc.

National Parks Service / The Secretary of the Interior's Standards for the Treatment of Historic Properties:
https://www.nps.gov/tps/standards/treatment-guidelines-2017.pdf

HVAC Cost Estimate – 5/31/2019 - OLA Consulting Engineers

Schematic Cost Estimate – 5/31/2019 DACK Consulting Solutions Inc.