Historic Renovations and Additions to Memorial Auditorium- Burlington, Vermont

FINAL REPORT

Bargmann Hendrie + Archetype, Inc.
January 31, 2019

P:\3387 Memorial Auditorium, Burlington VT\graphic\Final Report

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SECTION 1

SUMMARY

SUMMARY

Memorial Auditorium has a long history as a significant civic asset to the City of Burlington, Vermont and the residents of Chittenden County. Since opened in 1927, it has served as a civic gathering place, athletic facility and a performance and entertainment venue.

Over the couse of 80 years, the building experienced deterioration with age and was closed in 2016. In spite of this, Memorial Auditorium has remained a valued City asset awaiting funding for upgrades and contemporary use. The building has remained in mostly original condition and is a contributing structure within a district listed on the National Register of Historic Places.

Over the course of the last 20 years, The City of Burlington has commissioned studies and forensic evaluations of the building to keep updated on the condition of the building and to understand the magnitude, and cost, of re-commissioning.

During the Summer and Fall of 2018, the Community Economic Development Office (CEDO) engaged the residents of the City in a dialog to determine the preferred uses for a re-instituted Memorial Auditorium. CEDO conducted a City- wide survey and guided two public workshops with Burlington residents designed to solicit input and preferred uses for the building, including the lower level annex and ancillary spaces. As part of that effort, Bargmann Hendrie + Archetype was commissioned to participate in the dialog, listen to the participating residents, to study and evaluate the building for reuse and to prepare a report summarizing the findings. The goals of the report are:

- Update and Aggregate previous studies into a definable renovation strategy.
- Analyze and Evaluate how the building can accommodate the preferred uses as identified by the community.
- Guide and Develop a baseline construction cost estimate.
- Maintain the historic integrity and value of the building.

This report studies, in narrative and graphic form, the characteristics of three performance venues- the Auditorium, the lower level Annex and ancillary spaces. The studies evaluate each space as a multi-purpose venue serving a variety of uses including music and dance performance, lecture and community gathering and Market space. The perfomance spaces are considered to operate independently or in complement to one another. Support spaces for food service, storage and restroom facilities are also included. Baseline recommendations include:

- Provide direct access to the stage for loading and un-loading of shows.
- Maintain a capacity of at least 2,000 spectators in the main auditorium to differentiate it from the Flynn Theater and to maintain its distinction as one of the largest concert venues in the State.
- Introduce a flexible seating riser to improve the sightlines for a larger seating population.
- Provide adequate storage space and ready access for movable seating and equipment.

A recommendation for an 11,000 sf. addition addresses contemporary operational requirements not otherwise provided within the building or which would require excessive intervention. The addition includes office space for facility administration and new meeting spaces.

The report includes a complete theatrical equipment list and budget. Using the architectural and engieering narratives and drawings, a conceptual cost estimate for construction was developed. The estimate, based upon a 2020 construction start, is used to develop an overall capital project cost and operational pro-forma.

SECTION 2

RENOVATION APPROACH

Project Site

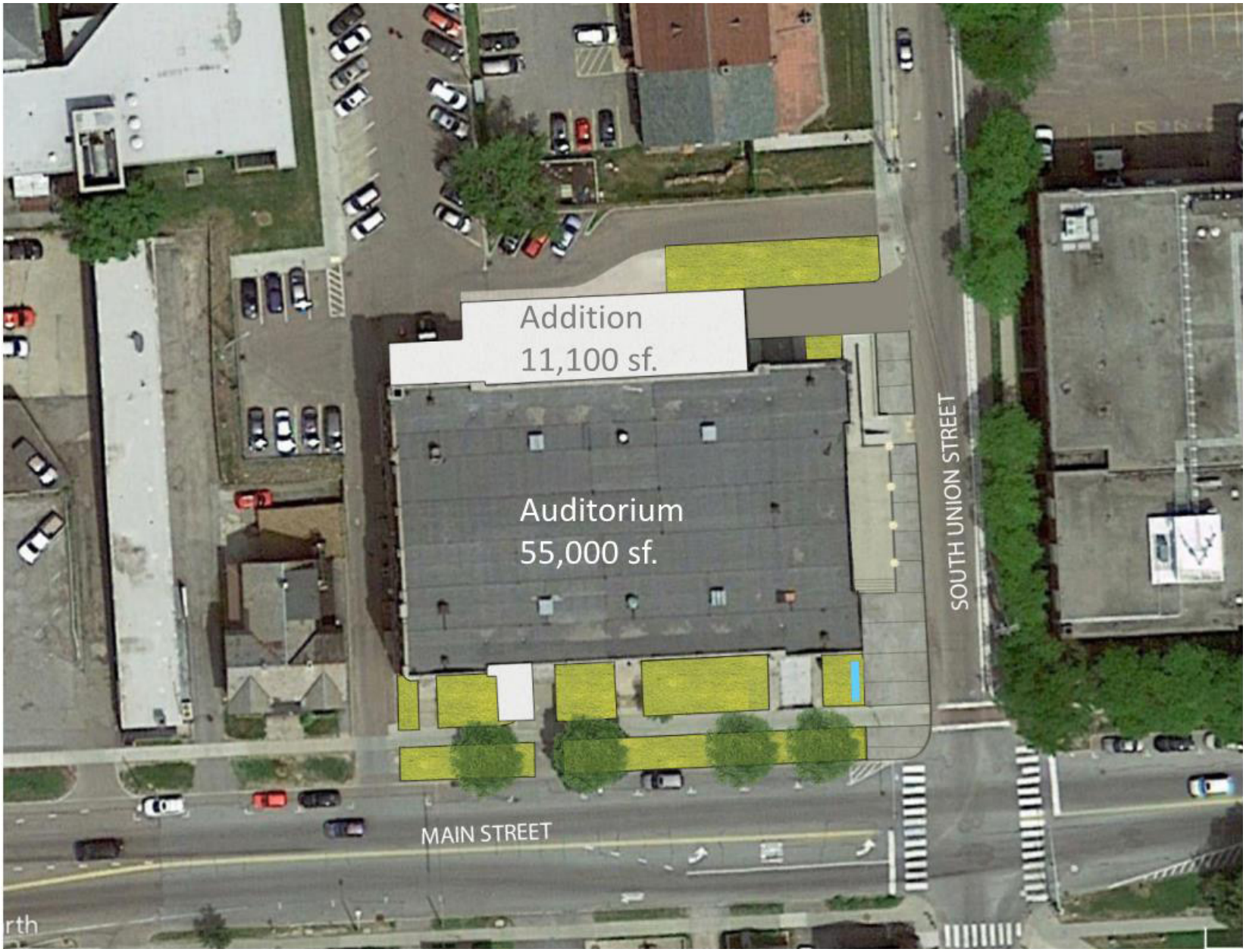
Situated on the corner of South Union and Main Streets, Memorial Auditorium is located on a city block containing four historic or architecturally significant structures that include the Fire Station, Fletcher Library and the College Street Congreational Church. The spaces between the buildings are used for public parking or pedestrian pathways to and through the site. As a result, Memorial Auditorium has no back side- all sides are considered public.

The topography of the site slopes down from east to west toward the lake. The existing grade is approximately 16 feet higher along South Union than the alley way bordering Memorial to the west.

Although a proposed addition to the building will anticipate access from the north the main entrance to Memorial will remain on South Union Street.

A 2-1/2 story residential structure containing retail and a motel occupy land parcels to the west of the building. A parking lot at the corner of Main Street and South Winooski Avenue is municipaly- owned and could be developed for uses that include residential, office and retail space.

Additionally, the City is planning street and infrastructure improvements along Main Street from South Union Street- west to the railroad station on the lakefront. Under the Great Streets Initiative, improvements to travel lanes, parking and landscaping are anticipated.


Addition
11,100 sf.
Auditorium
55,000 sf.
SOUTH UNION STREET
MAIN STREET

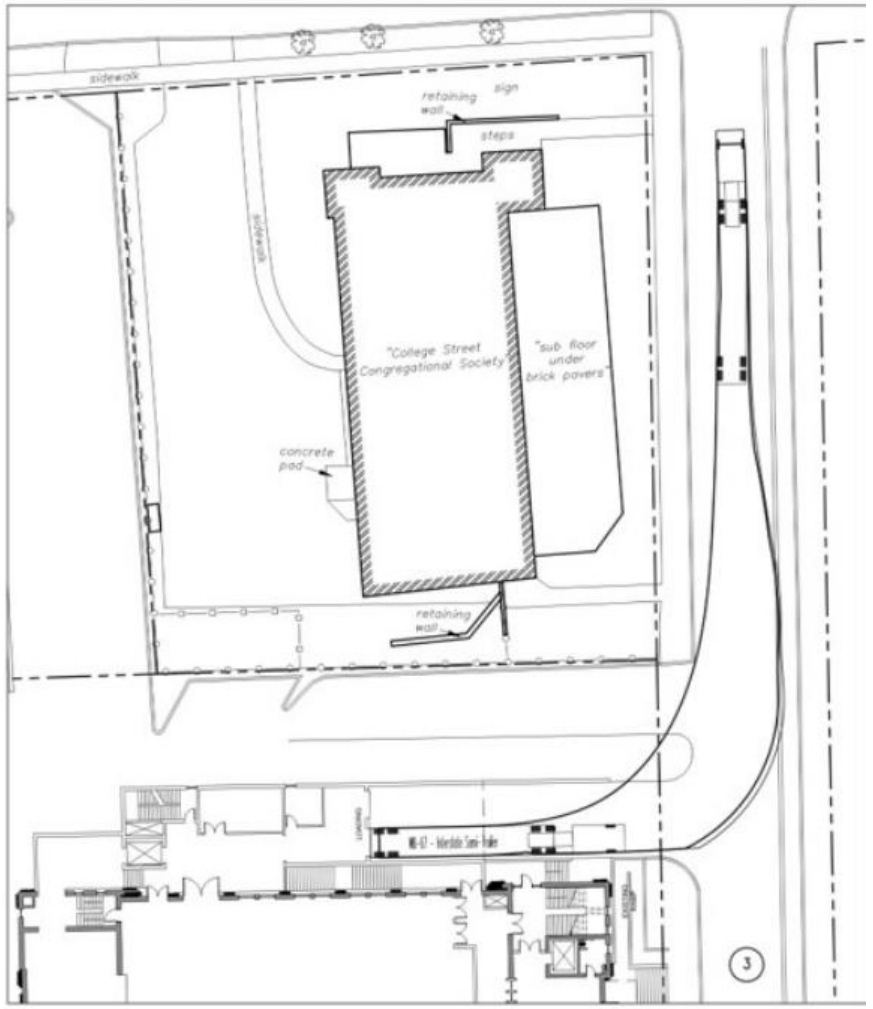
Site Plan

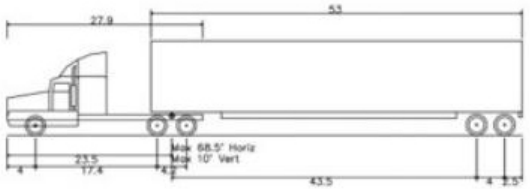
Site improvements are considered on three sides of the building. The entrance stairs to the building are to be demolished and rebuilt to current standards. Hard paving is expanded along South Union Street to accommodate large crowds. A digital signage panel is proposed at the corner of South Union and Main.

Landscape improvements that include propositions for art and sculpture are considered for the streetscape along Main street. Improvements to the sidewalk and curbing will be included under the Great Sreets Initiative.

A proposed addition to the north includes loading for the Auditorium. The existing service drive is maintained to access trash and recycling functions and to access the Annex Level for servicing. The alley along the west side of the building is maintained for egress from the municipal parking lot.

The Design Team studied the ability for truck access to the north addition. All but the largest trucks can back into the proposed loading dock off of South Union Street. To accommodate loading by large tractor trailers (53'), modification to the dedicated bike lane along the east side of South Union Street will be needed in order to facilitate the turn back into the loading dock.





Truck Loading Study

Municipal Parking Lot adjacent to Fletcher Library

West Side of Memorial

The approach to the building from the City includes the municipal lot and pathway from Fletcher Library. There is no “back” to the project as pedestrians may take this approach to the building.

The upper portion of the exterior walls has experienced degradation from water penetration. Extensive restoration of the masonry is expected.
The foundations and lower walls of the building are in satisfactory condition.
Cosmetic improvements are modeled in the approach.

The existing sloped driveway from South Union is to remain.

College Street
Congregational Society

Accessible Ramp from South Union Street

View West from South Union Street

The existing handicapped ramp is considered in good condition and is considered to remain in use. The entrance staircase and plaza is to be rebuilt to current standards using historically appropriate materials. A drop off area along South Union street is expected. The original marquee is to replicated.

The view west towards City Hall is where the new North addition will be located and will contain a loading dock with two truck bays.

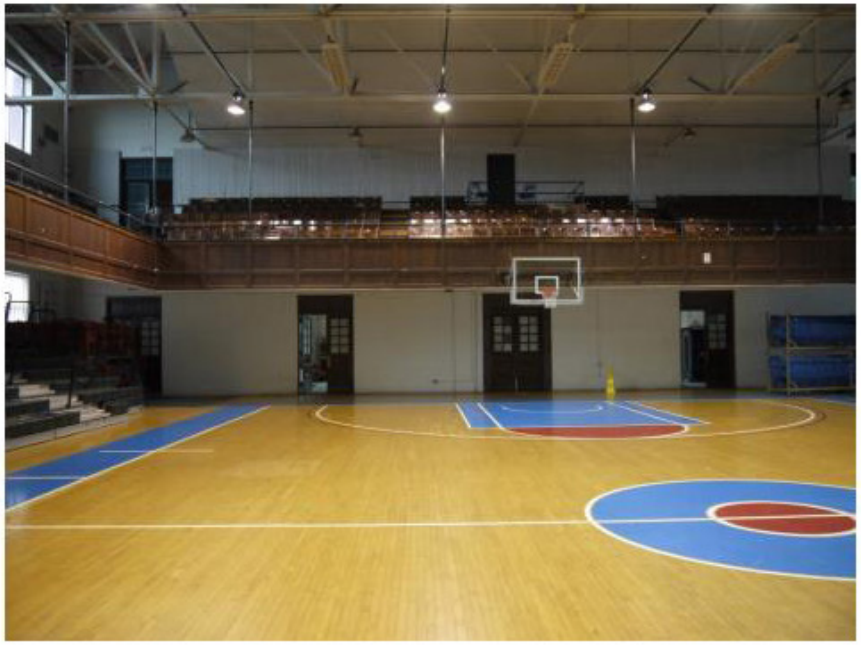
Service Zone- North side of Memorial

Alley along West side of Memorial

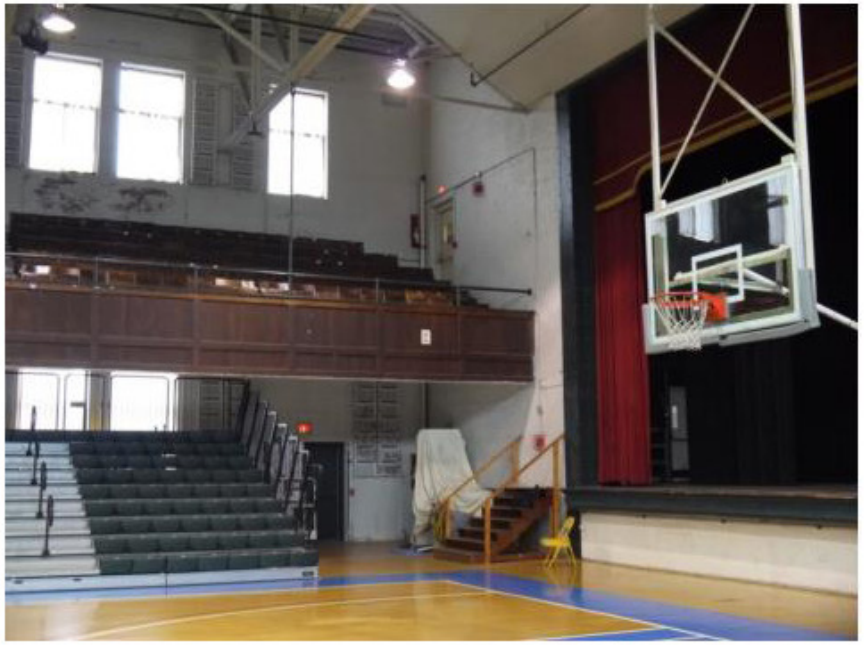
Staircase along Main Street

Courtyard along Main Street

Project Site



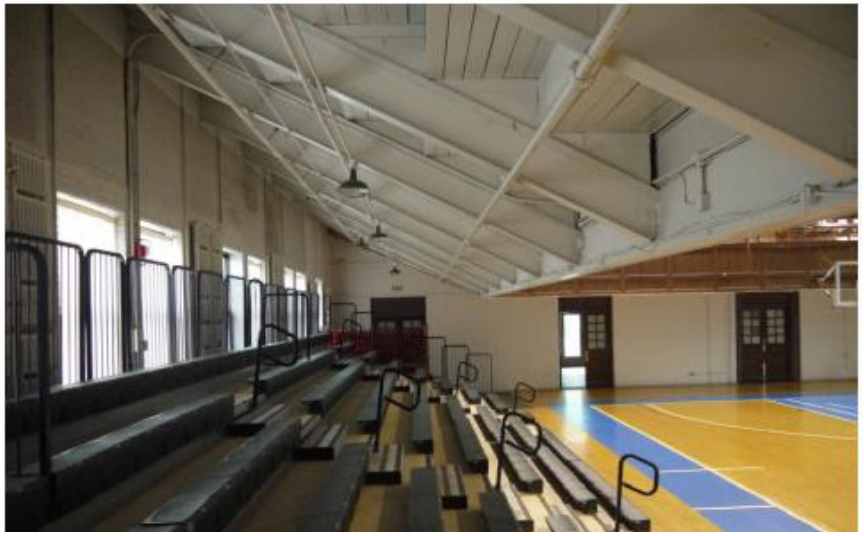
Auditorium – Looking East toward Lobby



South Balcony at the Stage

The existing staircase and fire escape along Main Street are to be demolished and replaced with new stairs meeting current safety standards. The entrances to the Annex level are renovated. The old Club 242 entrance is kept for building egress only.

Inside, the auditorium is in good condition. The approach to renovation maintains the existing balcony with cosmetic upgrades. 120 wood seats in the balcony are slated for restoration and reuse. The gym floor striping and basketball backstops will be removed.

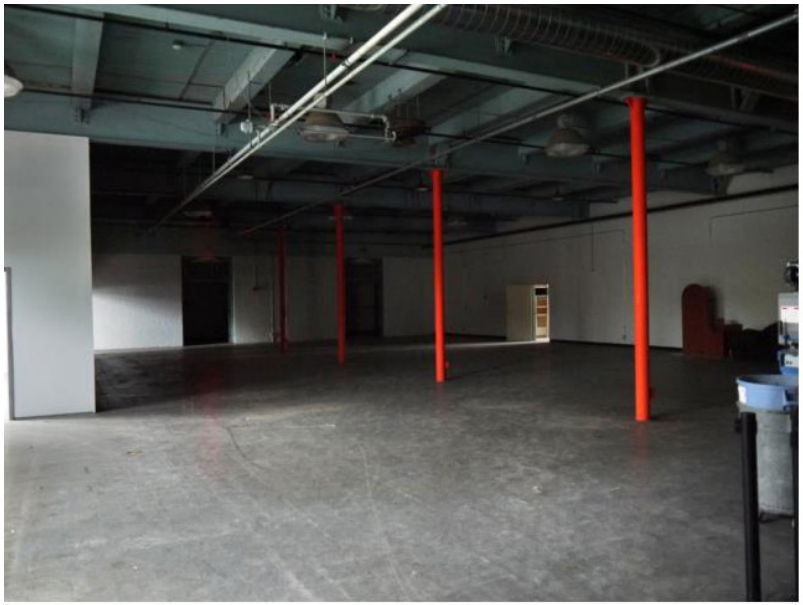


Underside of
North Balcony

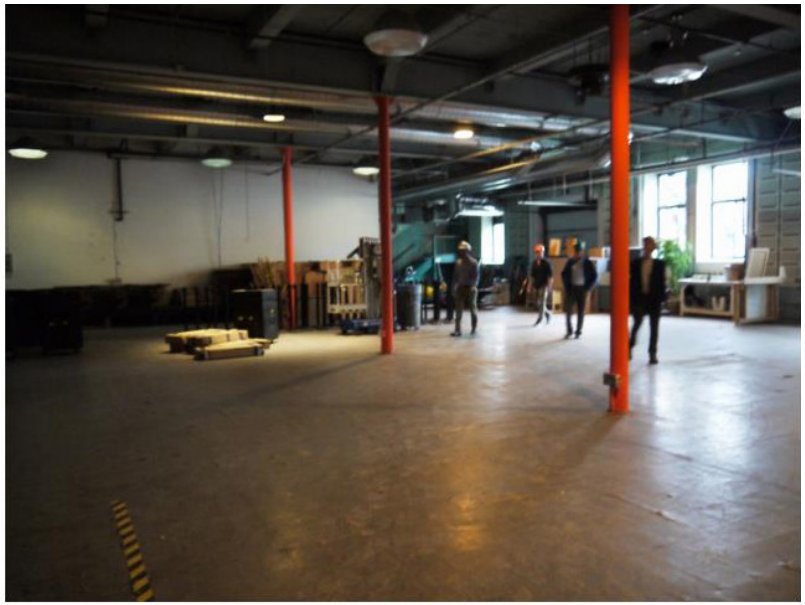
Third Floor Studio

Main Lobby

Memorial Plaques



Ground Level Annex



Annex – Looking Northwest

The third floor studio is renovated and reused as a multi-purpose space. A Memorial Museum is also considered for the room.

The existing lobby is renovated. A budget is set aside for memorial plaque restoration.

The Annex level is blessed with high ceilings- needed for consideration as a performance space. A new acoustical separation ceiling is proposed.

SECTION 3

SCOPE DEFINITION

Included in this section are narratives and drawings that define the scope of work for the building as well as the surrounding landscape and site work. The scope of work is used to establish a reasonably detailed cost model for construction.

The architectural narrative is broken into the Auditorium renovation and the North Addition (new construction) with systems and materials identied for each. Based upon the review of engineering reports, condition review and exploratory work performed by the City, descriptions of the extent of masonry and cast stone replacement, along with structural steel repair, is provided. Specific products (and/or equals) are used to define the level of quality for estimating. Historically significant items for matching are identified and salvaged items for reuse or restoration are included.

Theatrical equipment for the Auditorium, Annex and Youth- oriented perfomance spaces, is included. The equipment list includes both fixed and loose equipment such as seating and includes cost. The listing includes theatrical lighting, rigging, acoustical and theatrical curtains. The recommendation and cost for a seating riser system is identified.

Engineered systems approach and description are defined in narrative form. Generally, most of the systems are new as the existing building systems are fully depreciated or no longer meet current standards for safety or efficiency. A ground level mechanical room within the North Addition contains the majority of new equipment for heating and cooling for the entire project. Some localized rooftop equipment serves the third floor studio, the stagehouse and top floor of the addition.

The extent of structural modification to Memorial Auditorium includes the magnitude of work and approach to repair of localized deficiencies. The design of the building is sufficient for its intended purpose however, some degradation of the existing structure has occurred over time- primarily with work associated with wood beam repair or reinforcement. Foundations and wall construction below the third floor are considered in good condition with little or no settlement observed. Scope is limited to cosmetic repair.

Utility infrastructure is defined by new service lines for gas, water, sewer and storm systems to the street from the existing building as existing lines are anticipated as inadequate or degraded. Drawings define the basis of cost and approach to the landscape surfaces surrounding Memorial Auditorium. Annotated site diagrams identify restoration and replacement of the existing exterior staircases. Work is limited to the site boundaries with the sidewalk along Main Street considered as out of scope. A new entrance plaza is proposed- subject to acceptance of historic review. Hardscape improvements include increased sidewalk paving to the corner of South Union and Main Streets. The scope also includes a digital signage panel for event announcement.

The driveway edge along the North Addition accommodates an entrance for the building. Bollards protect the entance area from vehicles. A loading driveway is located along the northwest corner. The exit driveway along the west side of the Auditorium is maintained.

Architectural Narrative

Exterior Work

Demolition

1. Demolish existing exterior stone and concrete stair cases and landings at main entrances and exterior stairs.

2. Remove existing steel fire escapes; remove all existing exterior doors, overhead doors and windows; remove all exterior wall vents, fans and thru- wall louvers; remove existing roof fans and hatches.

3. Remove existing light fixtures.

4. Salvage items for restoration/ replication

    a. Select doors and windows for replication

    b. Select light fixtures for restoration and or replication.

Roof

5. Not Used

6. Existing singly- ply membrane to remain- flash in all new roof penetrations.

7. Flash- in newly constructed parapets. New painted aluminum copings at perimeter.

Masonry

8. Selectively demolish and reconstruct the exterior load- bearing masonry walls from the precast cornice at the third floor window heads to the top of copings along the entire building perimeter; cast new matching profiles (70%); replace corroded steel beams embedded within walls(50%)

9. Replace corroded third floor window lintels (100%); install thru- wall flashing.

10. Selectively replace existing corroded steel lintels at openings below the third floor (50%); install thru-wall flashings; patch in new brick and precast masonry.

11. Remove all thru-wall or reglet flashings associated with former or current exterior canopies.

12. Selectively remove architectural precast sills and trims and profiles below third floor; cast new matching profiles (50%); provide new thru wall flashings at reconstructed work.

13. Selectively demolish and reconstruct the top 15' of exterior load- bearing masonry walls at column locations (16); repair and protect existing steel columns with new coatings; reconstruct new masonry to allow for expansion.

14. Replace spalled or cracked brick (5% of wall area); cleaning of existing brick, precast concrete and granite wall surfaces (100%); selective repointing of exterior masonry not otherwise reconstructed (25% of wall area).

15. Areas of north wall where covered and enclosed by the north addition are not subject to structural or visual masonry repairs or replacement profiles. Masonry work is limited to uncovering and repair of embedded steel beams columns and corroded lintels.

Windows

16. Remove and replace existing windows with new custom- grade Steel or aluminum windows. Windows to reflect mullion and muntin profiles consistent with original window profiles.

17. Fixed and awning units at stairs; fixed and center- pivot units at office areas, lobbies, auditorium. Three coat Kynar finish, Custom Color.

18. Windows to have high performance 1" insulated glazing.

    a. Hope's

    b. Wausau

    c. Graham Architectural.

Doors

19. Building main entry doors- Oversize custom wood and glass doors- Transparent finish; bronze hardware.

20. Interior lobby doors- oversize custom wood and glass doors and transoms- transparent finish- White Oak. Bronze hardware.

21. Annex level entrances doors along Main Street (3). Aluminum stile and rail glass doors. Historic muntin and mullion profiles.

22. Back of house doors- Flush, painted wood.

23. Service doors- insulated (exterior) hollow metal, painted.

Entrances and Storefront

24. Not Used

25. Entrance canopies at Main Entry and at historic exterior stair exits (3 total): Projecting steel and wood decking canopies with suspension rods and swaged connections. Hammered copper decorative fascia.

26. Annex Level Entrances along Main Street (3) Projecting steel and wood decking with suspension rods and swaged connections.

Interior Work

Demolition

27. Demolish non- load bearing partitions, doors walls and sidelights at Annex space.

28. Demolish toilet rooms including plumbing fixtures and finishes

29. Demolish, ductwork and ventilation systems- all spaces.

30. Selective masonry demolition at front of house lobbies and back of house stairs and stagehouse for new openings or space reconfiguration.

31. Selective masonry demolition at new egress doors through exterior wall.

32. Demolish non- load bearing partitions, doors walls and sidelights at dressing rooms including plumbing fixtures and finishes.

33. Remove basketball backstops and associated framing and winching systems; scoreboards and bleacher systems.

34. Remove interior sloped ceiling surfaces and non- load bearing construction at above proscenium and lighting position; remove existing corrugated wall panels at east wall of auditorium.

35. Remove light fixtures.

36. Selective demolition of balcony stepped seating tiers at connections to North addition and at new HCP seating positions.

37. Salvage items for restoration/replication/ reuse:

a. High bay light fixtures at auditorium.

b. Interior wood doors, transoms and sidelights at lobbies.

c. (120) wood seats culled from balcony seating.

d. (1) of each type of suspended or wall- mounted light fixtures.

e. (2) Portable Lobby ticket booths.

f. (3) Historic lanterns at Annex Entries, Club 242 Entry

Masonry

38. Clean and repair all brick masonry surfaces. Remove flaking paint/scale; infill holes larger than 2” and all piping/ ductwork penetrations.

39. Replace spalled or ‘soft’ brick (1% wall area)

40. Seal brick left unpainted; paint brick at painted locations.

Doors

41. Not used

42. Lobby doors first and second floors connecting to auditorium and mezzanine- oversize custom wood and glass doors and transoms-transparent finish- White Oak. Bronze hardware.

43. Other lobby doors first and second floors. Custom stile and rail doors; glass and wood panels- transparent finish, white oak.

44. Office doors- flush wood; balance match; transparent finish- white oak.

45. Back of house doors- Flush, painted wood.

46. Service doors- hollow metal

47. Stair egress doors- type NL, painted wood.

Windows

48. Demountable partitions at office areas- 50% of new wall areas.

49. Ticket window at main lobby.

Millwork

50. Counters/ benches at dressing rooms. HPL finish at counters, oak benches. Continuous mirrors with makeup lighting.

51. Concession counters at first and second floor lobbies. Custom wood paneled; transparent finish- white oak; quartz countertops and backsplashes.

52. Ticket counter at main lobby.

Finishes

53. Repair/ refinish terrazzo floors at main entrance lobby.

54. Sand and refinish wood floor at auditorium floor, stage, balcony tiers, second floor lobby third floor office area and stair landings.

55. New nosings and stair tread finish at egress stairs; new metal handrails.

56. Existing guardrails at balcony- refinish (painted steel); new 42"H glass guardrails at balcony aisles (10).

57. Repair/refinish oak balcony fronts at auditorium.

58. Paint trusses and hanger system.

59. Sealed or painted concrete at Annex; sealed concrete at Flexible Performance space, storage rooms; back of house and service rooms

60. Environmental Graphics/ Historic Curation

61. Removal, cleaning and restoration and reinstallation of historic memorial plaques (16).

62. Creation of Historic documentation graphics, curation and restoration of memorabilia for Memorial Auditorium- Allowance of $65,000.

North Addition

9,500 GSF. on 3 floors and 1 mezzanine.

Type 2B construction fire protected steel and composite concrete slabs; 2hr fire-rated.

Building massing and articulation- medium to high.

Roof

63. TPO or Single- ply PVC roof membrane over roof cover board; 6"minimum polyisocyanate insulation on ½" gypsum board base layer; adhesive-backed roof vapor barrier.

64. Roof pavers at roof deck- 2'X 2'X 2 ¼" pedestal paver deck system. Exposed aggregate finish.

a. Hanover paver or equal

65. Roof Screen at Community room roof- 6' high corrugated and perforated metal panel screen on galvanized steel stanchions.

b. Kingspan

c. Metalspan

Exterior walls

Ground Level and Mezzanine-

66. 4" architectural concrete masonry units as rainscreen with rigid polystyrene insulation and 8" reinforced cmu backup (60% of exterior wall areas). Color from manufacturer's range of premium colors. Ground faced, exposed aggregate.

d. Arriscraft or equal.

67. Preformed aluminum louvers- 6" sightline blade design; mitered corners; 3 coat Kynar finish; insulated blank off panels (35% wall area).

e. CS louvers or equal.

68. Aluminum entrances and storefront (5% wall area). 2 ½" x 4 ½" profiles; thermally broken; 3 coat Kynar; color- custom.

f. Kawneer

g. EFCO

Second Level-

69. 10" insulated architectural precast concrete wall panels; coarse sandblast finish; finished return outside corners (85% of wall area).

70. Aluminum windows- 2 ½" depth; fixed, casement and awing; match storefront and

curtainwall systems (15% wall area).

Third Level-

71. 10” insulated architectural precast concrete wall panels; 6” rigid, closed- cell foam insulation; supported from steel structure; 2-sided finish at roof terrace parapet (20% wall area).

72. Aluminum Curtainwall- Donor Room and Community Room. 2 1/2” X 6 ½” profiles; full height of wall (11’); match storefront finish.

73. Fascias/ Copings/ Eaves- custom stepped and profiled; zinc or zinc- coated copper; concealed splice butt joints.

Interior Work

Masonry Partitions

74. All Levels- Exit stair and elevator shaft

75. Ground Floor- Mechanical Room; Trash Room

76. Second Floor- Chair Storage Room

Gypsum Board Assemblies

77. Ground Floor- Toilet rooms; Coat Room

78. Second Floor- Dock Office

79. Third floor- Elevator Lobby; Community Room.

Finishes

80. Toilet rooms- Porcelain tile floors; ceramic tile wainscot; full height tile at wet wall.

81. Staircase to second floor- preformed rubber treads and risers on concrete-filled metal pan.

82. Ground Floor- Lobby polished concrete- integral color; trash Room- sealed concrete.

83. Mezzanine- Star Dressing- carpet; elevator lobby, polished concrete

84. Second Floor- dock area, stage extension- sealed concrete

85. Third Floor- Elevator Lobby- sealed concrete; Community Room- T&G Rock maple strip flooring; donor room- carpet.

Millwork

86. Ground Floor Concession counter

87. Donor Room- 20 lf. X10’ H. Custom transparent finish bookcase/ shelving. White Oak.

Elevators- see attachments

Dock equipment- Bock bumpers; dock seals

South Stair Addition

88. 2 Story Concrete- filled pans/ landing- painted steel guards and exposed stringers.

89. 2- Story Curtainwall

Acoustics

Floor assembly between Auditorium and Annex- 11,800 sf.

90. Remove existing resilient wood gymnasium floor ; install new Acoustimat sound isolation layer; replace wood floor and refinish; install 2 layers 5/8” gypsum board on spring hanger system at Annex ceiling below wood floor.

Room Acoustics- Auditorium

91. (17@12’X24’) suspended ceiling reflectors: 2 layers of 5/8” GWB on suspended hangers at bottom of existing roof trusses with 6” acoustic batts above. 5,000 sf. total

92. (14) 15’ L X 8’ H acoustic drapery- Balcony windows at Auditorium. Motorized; single – acting.

600 sf of surface- applied sound absorption panels at east wall of Auditorium- balcony level- perforated gypsum panels with 6” acoustic batts.

HVAC Systems

The Auditorium occupancy determines the fresh air requirement for the space. The International Mechanical Code requires that fresh air be delivered to the space at the rate of 5 CFM per person plus .06 CFM per square foot., which equals approximately 13,000 CFM of outdoor air at full occupancy. In addition, the Lobby and Concession areas require another 850 CFM of outdoor air. The heating and air conditioning requirement for the Auditorium, Balcony, Concession areas and Lobby require approximately 45,000 CFM of heated and cooled air of which is up to almost 1/3 outdoor air or 14,000 CFM of outdoor air. The total heating and cooling loads for the Auditorium, Balcony, Concession and Lobby areas are approximately 100 tons of cooling and 1500 MBH of heat.

The Farmer's Market area in the Annex is approximately 8000 sq.ft and could have an occupancy of between 400 and 800 people, and at the ventilation rate of 7.5 CFM per person plus .06 CFM per square foot could require up to 6500 CFM of outdoor air. This space could require as much as 50 tons of cooling and 500 MBH of heat.

The air handling system that serves the Auditorium, Balcony, Lobby and Concessions, and the Farmer's Market areas will be comprised of an air handling unit sized to deliver up to 55,000 CFM of heated or cooled air, a return air fan sized to be capable of handling up to 50,000 CFM of return air, an economizer system with fully modulating outdoor air, return air and exhaust air dampers, a 125 square foot outdoor air intake louver, and a 125 square foot exhaust louver. The ductwork serving the Farmer's Market area in the Annex and the main supply and return ducts serving the Auditorium and ancillary spaces will run overhead in the Annex. The ductwork serving the Auditorium and Balcony levels will penetrate the Auditorium and Balcony floors in the northeast and southeast corners of the Auditorium and Balcony floors. The duct penetrations of the Auditorium floor will be provided with fire dampers. A pair of five foot long midrange sound attenuators will be installed in the rise from the floor to the underside of the balcony in each duct rise. Four 42"x48" floor grilles will be installed along the east wall of the Auditorium under the "deployable" risers. Four 24" x 48" return ducts with 5 foot long sound attenuators will be run through the ceiling area of the Farmer's Market, Catering Kitchen and Market Kitchen to the return air fan located in the mechanical room. The main supply air and return air ducts in the ceiling of the Annex will be lined with 1" sound lining. Six 30"diameter supply ducts tapering down to 18" diameter will run the length of the Auditorium from north to south. One along the exterior wall below the north balcony, one along the exterior wall below the south balcony, and four down the 1/5th points in the roof trusses. The supply ducts will be provided with grilles and diffusers to supply a total of 36,000 CFM. There will be two additional duct runs under the east balcony and into the Lobby and Concession areas on the east end of the building running from the main risers to the middle of east end of the building. The ductwork for the east end of the Auditorium, Lobby and Concession areas will be sized to supply approximately 9,000 CFM and will be provided with grilles and diffusers to supply that are quantity. The air supplied to the Lobby will pass through a pair of reheat coils sized to raise the temperature of the supply air from 50°F to 90°F. The Farmer's Market area will be provided with up to 15,000 CFM of supply air served via a 40"x40" supply main that serves four 24" diameter branch ducts tapering to 15 "diameter.

The duct mains supplying air to the Farmer's Market area and the Auditorium and ancillary spaces will be provided with motorized dampers to allow independent operation of each space from the same air handling unit. The air handling unit will be provided with a speed controller on the supply air fan that will modulate to maintain the supply air static pressure at the 1.0" w.g. (adj) when the Farmer's Market is operating and 2"0 w.g. (adj).

The return air fan will modulate to track the supply air fan. The exhaust damper will modulate to maintain the building pressure at 0.1"w.g. CO2 will be monitored in the Farmer's Market area and the Auditorium. The fresh air damper shall modulate open and closed to maintain the CO2 levels of each space at 400 PPM (adj).

The air handler will be equivalent to a Carrier 39M110 with a mixing box, a low velocity filter, a coil section with a 6 row 8 fin per inch chilled water cooling coil and a 4 row 8 fin per inch heating coil in the reheat position and a variable speed fan capable of providing 55,000 CFM at an external static pressure of 4" w.g. The unit will be located in the new mechanical room in the addition and will have a 75 horsepower fan motor. The return air fan will be a Greenheck QEI-44 with a 40 horsepower motor suspended on spring vibration isolators.

The office spaces on the third floor of the east tower will be heated and cooled with a 7.5 ton gas heat electric cooling rooftop unit equal to a Carrier 48TCFD08. The unit will be roof mounted with a factory provided economizer and roof curb.

The Flexible Performance Space, the Community Art Display area and the Retail space on the ground floor will be heated and cooled with a Carrier 48LCF12 a 10 ton gas heat electric cooling rooftop unit. Each space will be provided with a motorized damper to control airflow to the space when not occupied. The unit will be located on the roof of the west tower and will be provided

with a factory provided economizer, CO2 sensor and roof curb. The supply and return air ducts will be run in a new shaft located in the northwest corner of the west tower. Individual spaces will be controlled with variable volume boxes and space thermostats

The Market Kitchen and the Catering Kitchen will be provided with 5,000 CFM of Make up air. The make up air unit will be roof mounted and located on the roof of the west tower. The make up air unit will be equal to a Greenheck IGX-118-H32 with 8:1 turndown ratio heat exchanger and factory fabricated roof curb. Unit to be located on the roof of the west tower.

The Market Kitchen will be provided with a 10 foot long wall mounted 30" tall double wall stainless steel grease exhaust hood. The exhaust from the grease exhaust hood will be 14 gauge welded black iron with clean out doors located at every change in direction and every 20 feet of horizontal run. The grease exhaust duct will be equal to a Greenheck USGF-200HP capable of exhausting 4800 CFM at 1.75" w.g. To be provided with a hinged fan, grease cup and ventilated roof curb. Fan to be located on the roof of the east tower.

The Stage will be heated and cooled with a 15 ton gas heat electric cooling rooftop heating and cooling unit equal to a Carrier 48TCFD01 with a factory installed economizer with barometric relief and a factory fabricated roof curb. Unit to be located on the roof of the west tower.

The Dressing Rooms on the Lower Mezzanine will be heated and cooled with a 7.5 ton gas heat electric cooling rooftop heating and cooling unit located on the roof of the west tower. Unit to be equal to a Carrier 48TCFD08 with a factory installed economizer with barometric relief and a factory fabricated roof curb.

The Community Room on the Second Floor of the addition will be heated and cooled with a 7.5 ton gas heat electric cooling rooftop heating and cooling unit located on the roof of the west tower. Unit to be equal to a Carrier 48TCFD08 with a factory installed economizer with barometric relief and a factory fabricated roof curb.

Stairwells, entryways, toilet rooms, exterior storage rooms, the west wall of the stage, the loading docks and the main mechanical room will be provided with hydronic heating devices to supplement the heating provided by the heating and cooling units, if any.

Heat will be provided by a pair of Weil-McClain Slimfit SF2000 gas fired condensing boilers. The water chiller will be provided with a factory installed pump package. The pumps for the boilers and hydronic heat loop will be capable of providing 200 GPM at 50 feet of head, equal to Bell & Gossett.

Cooling will be provided by an air cooled water chiller. The chilled water loop will be filled with 50% propylene glycol. The chiller will provided with a factory installed pump package capable of providing 300 GPM at 45 feet of head. A vertical, insulated 750 gallon buffer tank, equal to Lochinvar RVU750 with 6" flanged connections.

The chilled water and hydronic heating system will be provided with Spirovent air separators. The glycol system will be provided with a 50 gallon glycol feeder. All cooling and heating coils will be provided with modulating 3-way control valves. All pumps will be provided with variable speed drives. All air handling units and rooftop units will be provided with smoke detectors in the supply and the main air handling unit will be provided with a return air smoke detector. The outdoor air, return air and exhaust air dampers as well as the supply fan and all motorized dampers in the supply ductwork and the return air fan will be provided with controls to effect a smoke removal and control system. The stage will be provided with a smoke exhaust system comprised of a smoke detection system and a roof mounted axial exhaust fan capable of exhaust 20,000 CFM and shall be equal to a Greenheck TCBRU-2-36-100 with a 10 horsepower motor. The unit shall be provided with a factory fabricated roof curb and shall be tied into the building fire alarm/smoke control system.

There will be some ancillary spaces requiring cooling year round. These spaces will be provided with cooling only ductless splits with low ambient controls. There could be as many as four two ton ductless cooling only units.

Fire Suppression Sprinkler System

The condition of the piping of the existing Fire Suppression Sprinkler System is unknown. Corrosion has limited the value of the piping and all sprinkler heads must be replaced. All sprinkler piping and fire suppressions system piping will be removed. The building will require a new 8" Fire Service and new 8" backflow preventer with new OS&Y valves and new 8" alarm check valve. New fire department connection for the sprinkler system and a new fire department connection for the standpipe system, The standpipe system shall be comprised of four new 4" Class 3 standpipes with 2½" hose valves on each floor landing. Each standpipe shall have an isolation valve at the base. All piping larger than 2 ½" shall be seismically braced in accordance with the requirements of NFPA 13. The system will require all new sprinkler piping, a new sprinkler riser and all new sprinkler heads. Pipe sizes shall be determined by hydraulic calculation.

Plumbing Systems

The existing plumbing system and fixtures are to be removed and/or abandoned. The existing gas service will be retained, but all existing gas piping within the building will be removed.

A new 2½“ gas main will be run from the existing gas service located in the southwest corner of the building to the Market Kitchen. A new 4” gas main will be run from the existing gas service to the main mechanical room in the addition.

A new domestic hot water system will be installed. The system will be comprised a 120 gallon indirect water heater dedicated to the Market Kitchen, a 60 gallon indirect water heater dedicated to serve the hot water loads in the west tower including the dressing room showers on the mezzanine level and the unisex toilet room on the ground floor, and a 60 gallon indirect water heater dedicated to the Concession stands and toilet rooms in the east tower. Hot water for the lavatories located in the new toilet rooms of the addition will be provided by undercounter instant hot electric heaters.

A new 4” water service will be provided into the main mechanical room of the addition. All new toilet fixtures will be wall hung and provided with flush valves. All cold water mains to the toilet rooms will be a minimum of 1½“. Two accessible shower enclosures will be provided win the new dressing room area.

All underground sanitary system piping will be removed or abandoned and new piping will be installed as required to serve the new layout. All new sanitary piping not below the slab will be cast iron. All new sanitary piping will discharge from the building at the new sanitary system connection located in the new mechanical room.

The Market Kitchen will have a 75 gallon grease interceptor shall be installed in the floor. Four new floor drains and two floor sinks will be installed in the Market Kitchen. All floor drains and floor sinks in the Market Kitchen will drain to the new grease interceptor. The new triple pot sink will drain to the grease interceptor. The new dishwashers will drain to the grease interceptor. There will be a handwashing sink in the Market Kitchen and a handwashing sink in the catering Kitchen.

A new janitorial closet shall be provided on each floor. Dual height water fountains will be provided on every floor. All new sanitary system piping shall be cast iron and all new vent piping smaller than 3” shall be copper. All new water piping will be copper.

New roof drains and a new rain water leader system shall be provided and it will tie into a new underground storm water connection located in the main mechanical room. All new storm water piping will be cast iron and insulated with 2” fiberglass insulation for sound. A new sump pump will be provided in the existing underground boiler room. The existing natural gas generator shall be re-used and gas piping to the generator will remain.

Electrical Systems

The electrical system voltage will be 208Y120, three phase, four-wire, 60 Hz. The new service entrance switchgear will be located in the boiler room (the boiler equipment will be removed as part of the HVAC scope). The switchgear will feed branch panels dispersed throughout the building, elevator and larger pieces of HVAC equipment.

All equipment will be located in Electrical/Mechanical rooms or closets with no public access. All new panels should have copper bussing, be NEMA-1 and be manufactured by Siemens, Square “D” or Eaton. All circuits shall be clearly identified at panelboards with typed circuit schedules. All other electrical equipment shall be labeled with white engraved with black lettering laminated nameplates.

Initial calculations indicate that a new 1600 amp electrical service is required. The major loads include the chiller, elevator, AHU and return air fan. The main panel will feed the following branch panels: 300 amp generator panel (with an additional 125 amp sub-panel), 200 amp theatrical lighting control panel, 400 amp panel on roof, 225 amp second floor panel, 125 amp lower mezzanine, first & third floor panels (one per floor), 225 amp HVAC panel (ground floor) and 2-section 225 amp ground floor panel. Three additional panels with 125 amps of capacity shall be provided for plug-in performance based loads in the auditorium, Annex and Flexible performance area.

A 30kW, 208Y120 volt generator shall be provided for the standby power emergency circuits. The generator shall be natural gas powered. All transfer equipment and emergency panels shall be located in 2-hour rated rooms (dedicated). The boiler room will house the emergency equipment with a new emergency closet notched out in a corner. The generator shall be located exterior to the building. Power for jacket heater, battery charger, etc. shall be included in this project. Standby loads shall consist of select house lights/outlets, fire alarm panel and any refrigeration equipment. Include a Level II weatherproof, sound attenuated enclosure and

generator annunciator. Generator pad, transfer switches, start-up/testing/commissioning, rigging and other associated components shall be included in the bid price.

Lighting Systems: Generally, lighting performance and criteria shall be based upon energy conservation, visual comfort, controlled brightness and functional use of the given space. LED lighting systems with electronic ballasts shall be utilized throughout this facility unless noted otherwise. Indirect lighting will be used except in the corridors and other spaces where direct lighting is more conducive to the space application. Light fixtures will include (but not be limited to): troffers (direct and indirect), recessed can lights, wall sconces, linear pendants, task lighting, low-wall LED lights. Theatrical lighting and controls shall be included in the package. Theatrical lighting controls shall be tied to the fire alarm system to turn “on” house lights upon alarm.

Emergency and exit lighting shall be provided in all corridors and areas considered as means of egress. Emergency lights shall be served by the generator panel (life safety) and include a bypass relay for each switching zone to run “on” the lights regardless of switch/sensor status. Exit lights shall be LED type with battery back-up.

The walk in coolers associated with the Market Kitchen will be on emergency power. For areas outside the auditorium: smaller rooms shall have localized lighting controls - vacancy sensors and switches shall be ultrasonic type. Ceiling mounted sensors with manual wall momentary switch over-ride shall be installed in all areas over 600 square feet. Wall mounted switch-type sensors shall be installed in offices, storage, meeting rooms and vestibules. Manual switches (with no corresponding occupancy sensor) are to be installed in Electrical and Mechanical rooms only. The farmer’s market lighting shall be controlled via a simple, 24-zone lighting control panel that shall also be incorporated into the design to control the site/exterior lighting.

Wiring systems shall be in accordance with the National Electrical Code. All wiring shall be in an approved raceway. All wiring and raceway shall be concealed except in mechanical/electrical rooms. Minimum wire size shall be #12. Wiring shall be color coded per the National Electric Code. All wiring and other electrical work shall be done in a neat workmanlike manner and the Contractor shall keep their portion of work clean and orderly. Conductors unless noted otherwise shall be rated at 600 volts, based upon an ambient temperature of 86 degrees Fahrenheit and generally as follows:

Material: Copper only.

Type: Single or Multi-Conductor THHN.

Branch circuits shall have dedicated neutral and ground conductors.

Commercial grade wiring shall be used with the type of wire/raceway to match the application. MC cable is acceptable for interior branch circuits (20 amps) only.

All interior devices shall be commercial grade and rated for 20 amps. All equipment requiring power shall be powered from the nearest panel as designated by area served (except where select larger loads are fed directly from the main distribution switchboard). Work shall coordinate with that of other trades to minimize conflicts and eliminate interferences. Equipment installed outdoors shall be Nema-3R rated and devices shall be equipped with weather-proof covers listed for exterior use. All electrically powered equipment shall be equipped with local disconnects (provided by the Electrical Contractor).

Power as required for specific equipment shall be included with the appropriate disconnect/plug include kitchen equipment, concession area equipment, hand-dryers and vending equipment.

All theatrical equipment including motorized equipment and lighting shall be fully powered and controlled. Refer to the theatrical package for details on equipment. Motorized items include powered hoists for lighting and theatrical rigging (pipe battens), house curtains, projection screen and telescoping seating riser. Other items to be powered include: projectors, plug-in performance disconnects, audio-visual (sound, video and communications) equipment, cable-reels, pig-tail and other outlets, theatrical lighting and controls and raceway with pull-strings for all low-voltage wiring.

Grounding shall be per Article 250 of the National Electrical Code 2017 and shall include the electrical systems ground, equipment grounding and all auxiliary systems grounding such that all systems and components maintain low potential differences.

Fire Alarm

The fire alarm system shall be a voice evacuation, addressable, electrically supervised, intelligent, annunciated fire alarm and detection system located in conditioned space adjacent to the telecommunications hub. Devices (notification and initiating) shall be located per the IBC and NFPA 72. Carbon monoxide detectors shall be installed on each floor and be wired to the fire alarm control panel (each detector shall be individually homerun).

Sequence of Operation: When a fire alarm condition is detected and reported by one of the system initiating devices, the following functions will immediately occur:

a. Cause system notification appliances to operate.

b. Cause elevator to go into “Recall” mode of operation

c. Indicate device in alarm at control pane LCD display.

d. Indicate device in alarm on remote annunciator LCD display

e. Initiate off-site alarm notification system.

f. Shut-off all sound equipment and any HVAC units that operate over 2000 CFM

g. Initiate the smoke control system

Power for all low voltage systems shall be included. Low voltage systems scope shall include:

1. Data/Telephone/CATV System: A system of terminal backboards, cabinets, outlets, conduits, etc. shall be provided with:

   a. Backboards & Cabinets installed by the Contractor

   b. Conduits to accessible ceiling space, Cable tray/J-hooks, Outlets & Device Plates installed by Contractor.

   c. Wiring System furnished & installed by the contractor.

   d. Equipment furnished and installed by others.

2. Sound system:

   a. Conduits from point-to-point installed by Contractor per sound system drawings.

   b. Wiring System and equipment furnished & installed by the others.

3. Security system: A system of terminal backboards, cabinets, outlets, conduits, etc. shall be provided with:

   a. Backboards & Cabinets installed by the Contractor

   b. Conduits to accessible ceiling space, Cable tray/J-hooks, Outlets & Device Plates installed by Contractor.

   c. Wiring System furnished & installed by the contractor.

   d. Equipment furnished and installed by others.

Civil Design

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November 2, 2018

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Re: Memorial Auditorium- Preliminary Civil Review EV # 18562

Dear Steve:

At your request, a preliminary civil review of the Memorial Auditorium in downtown Burlington has been completed. This review is to assist you and the City in developing preliminary budgeting for rehabilitation and expansion of the facility for public use.

This review is based on the following:

- bh+a preliminary drawings (11/1/18) showing renovation and addition concepts.
- Several site visits over the last few years.
- Available original drawings from 1926 of the site and foundation.
- Existing conditions mapping from past evaluations of the surrounding block.

This review includes evaluation of the following:

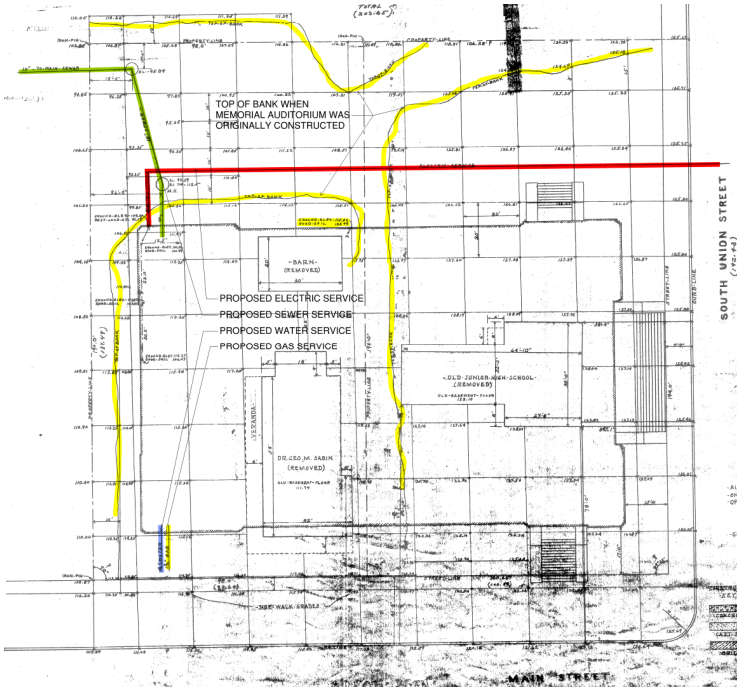
1. Utility infrastructure upgrades (if any)
2. Hard and soft- scape improvements
3. ADA parking, drop off and accessible route.
4. Modifications/ replacement of exterior staircases and ramps.
5. Summary of likely land use permits required for building renovation and addition.

Existing conditions survey with Memorial Auditorium parcel highlighted

OBSERVATIONS & COMMENTS

1. **Utility Infrastructure:** The existing building is served by the typical utilities as noted below. Capacity and condition of the utilities is generally assumed to be adequate for the renovation and expansion of the building, with the following exceptions and considerations.

Water: The original 1926 site plan shows a proposed 4" waterline (highlighted blue below) to the building from Main Street at the west end of the south wall. The recent existing conditions mapping of the building does not show a water service line. The existing service line size and location should be confirmed from within the building. The condition of the waterline should be reviewed. If the original 1926 line is still in service, replacement should be considered. The existing pressure and flows to the building should be tested and the renovated and expanded building fire sprinkler requirements should be evaluated and compacted to existing capacity. If the capacity is not adequate, a new, larger water service line should be considered. **Assume 50lf of 6" ductile iron waterline from the building to Main Street for budget purposes.**



Original 1926 site plan with pre-existing buildings, grades and proposed utilities shown.

Civil Design

Sewer: The original 1926 site plan shows a proposed 10" sewer service, presumed to be clay tile (highlighted in green above) leaving the building on the west side of the north wall, discharging to (2) sewer manholes and then presumably to the City of Burlington "ravine sewerline". The recent existing conditions mapping of the building does not show a sewer service line, however past work on the College Street Congregational Church to the north did find that a sewer line discharges towards the general location shown on the 1926 plan. The existing service line size and location should be confirmed from within the building and the sewer manholes (presumed to be paved over) should be located. The condition of the sewer line should be reviewed but means of visual and video inspection. Depending on the condition of the line, replacement should be considered. **Assume 100lf of 10" PVC from the building to the ravine sewer line and (2) 4ft diameter sewer manholes (15ft bury depth assumed) for budget purposes.**

Stormwater: There is minimal stormwater management (treatment or attenuation) on the site. The discharge location and condition of any roof drains should be reviewed. The likely location of discharge is to the sewer service line and the combined city sewer and storm system. Renovation and expansion of the building and site should consider stormwater management options. Preferred options considered should include rain water reuse (toilet flushing etc) or infiltration (in chambers below pavement if soils allow). Alternative options should include attenuation of rain water in chambers before release to the combined system. **Separation of rainwater discharge and routing through buried structures budgetting could be assumed at this time for around $100,000.**

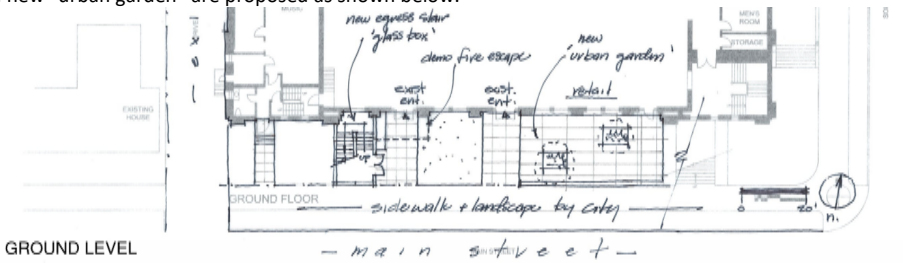
Gas: The original 1926 siteplan shows a proposed 1-1/2" gas line service (hilghlighted in yellow) entering the building from Main Street. The recent existing conditions mapping of the building also shows a gas line at that location. It is assumed that the existing gas line was more recently installed by VT Gas during upgrades to the natural gas distribution system. The gas line condition and capacity should be reviewed with VT Gas.

Electric: The original 1926 siteplan shows a proposed electric line service (highlighted in red) entering the building at the west end of the north wall and running about 20lf from the north wall from Union Street. The recent existing conditions mapping of the building shows an electric line about 40lf from the north wall of the building running from Union Street to a transformer located behind the library. A service line is shown running from the transformer to the middle of the west wall of the building. The condition and capacity of the existing electric service should be reviewed with the Burlington Electric Department.

Communications: There is no apparent communications service shown on existing mapping. The existing communications service condition should be reviewed with existing and potential service providers.

2. **Hard and soft- scape improvements**: More development of these proposed improvements is required, however the following considerations should be accounted for.

Main Street: The Main Street streetscape slopes from the east down to the west and drops almost one story from the front of the building to the rear. There is potential to provide some enhanced landscaping at the SE and SW corners of the parcel. The middle portion of this streetscape consists of a retaining wall that transitions between the higher sloping sidewalk and the lower level area south of the building. The existing one way exit drive from the rear parking and loading area exits to Main Street at the west edge of the parcel. Revised egress doors and a new "urban garden" are proposed as shown below.



Concept site plan

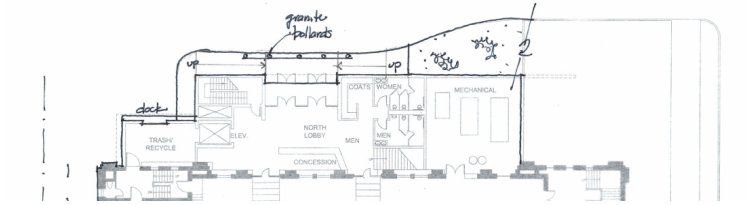

View from corner of Main and Union Streets looking NW

Union Street: The majority of this streetscape consists of the existing grand entry stairs and recently construction ADA accessible entry ramp. There is a steep drive to the lower/rear existing parking and loading area along the north parcel line. The Union St. municipal sidewalk is in decent condition but will likely need to be replaced due to construction activated. There is potential to provide some enhanced landscaping at the SE and NE corners of the parcel. The proposed renovation plan includes replacing the entry steps with an elevated entry patio and new stair at the south end and existing ADA ramp at the north end. North of the ADA ramp is a proposed truck and loading (turning / staging for 53ft trailer plus sleeper cab to be evaluated).

View from Union Street looking SW

Concept site plan

North area: The existing north area of the parcel consists of paved parking, access and loading. There is a full story retaining wall just west of the existing stairs entry. The grade above the wall is roughly the elevation of Union Street and the grade below the wall is roughly the elevation of the ground floor of the building. The proposed addition is on the north side of the building as shown below with new building entry and loading area for trash/recycling.

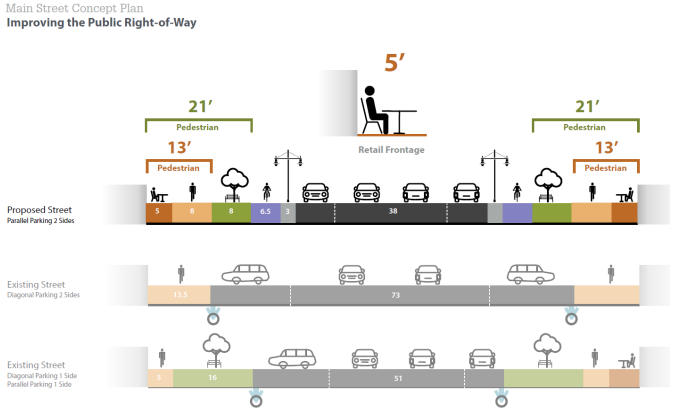


Concept site plan

West Drive: The existing west drive is a one way, narrow drive from the library and rear parking and loading area for the building that exits onto Main Street. There are several building exits and stairs along the west side of the building and there are some buried utilities beneath this drive. Further review of any proposed revisions to this drive is required.

View from Main Streets looking NE

Main Street Great Streets Plans: The City of Burlington is currently implementing Great Streets improvements for Main Street which includes a revised and improved public right of way as shown below. Planned renovations and improvements to the Memorial Auditorium should incorporate, or at least anticipate the Main Street Great Street improvements.



Burlington Great Streets proposed streetscape

Civil Design, cont.

3. **ADA parking, drop off and accessible route**: The main entry to the building, during large events, will remain on Union Street. There is currently no parking or pull off on Union Street for ADA parking or drop off. It may be possible to provide an ADA drop off in conjunction with the truck loading and staging area at the north end of the parcel adjacent to Union Street. There is ADA parking available in the adjacent municipal library parking area and an accessible route to the proposed addition.

4. **Modifications/ replacement of exterior staircases and ramps**. The proposed modifications to the Union Street stairs results in additional cueing area at the building doors. Several other exterior door staircases and ramps are proposed to be modified and/or replaced. Review of each of these will be required in the context of a more detailed site improvement plan.

5. **Summary of likely land use permits** required for building renovation and addition.

ANR Operational Stormwater Permit: This permit is required for projects that result in more than 1ac (43,560sf) of impervious area that discharge to waters of the state. The parcel is only about 38,000sf and it discharges to a combined storm/sewer system that is treated at the Burlington Main Wastewater Treatment Plant. Therefore, this permit will not be required.

ANR Construction General Permit: This permit is required for project that disturb more than 1ac of soil. Given the size of the lot and that the existing building will remain, this permit will not be required.

ANR Water and Waste-water Permit: This permit is required for any additional water and sewer flows generated by expanded use of the building or replacement of water or sewer lines outside of the building. This permit will likely be required due to the addition and potential replacement of water and sewer lines.

ANR Water System Construction Permit: This permit is required for waterline extensions of 500lf or more (not anticipated for this project) and for the installation of new hydrants which is not anticipated for this project.

Structural Design

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November 2, 2018

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Re: Memorial Auditorium- Preliminary Structural Review EV # 18562

Dear Steve:

At your request, a preliminary structural review of the Memorial Auditorium in downtown Burlington has been completed. This review is to assist you and the City in developing preliminary budgeting for rehabilitation of the facility for public use.

This review is based on the following:

- Your preliminary drawings showing renovation and addition concepts.
- Several site visits over the last few years.
- Available original drawings from 1926 of the roof, balcony, and foundation.
- Reports of previous investigative and repair work including:
  - Facility Condition Assessment by EMG- October 2014
  - Masonry Wall Deterioration Report by Stantec- October 2015
  - Facilities Assessment Report by Stantec- April 2009
  - Masonry Restoration Report by Liszt- January 2008

OBSERVATIONS & COMMENTS

Roof Framing:

- The roof framing consists of exposed steel trusses bearing on steel columns embedded in the masonry walls and wood purlins and wood decking.
- The original design drawings show forces in the trusses that appear to be consistent with current load requirements for new construction. The trusses appear to be in good

condition and are performing adequately. A detailed review of capacity was not completed.

- The roof beams and decking appear to be sized reasonably for current codes for snow. However, several beams are cracked and split. Engineering Ventures provided a design for repair of these in December of 2015. This upgrade work has not been implemented.

Walls:

- The brick walls are load bearing at the east and west ends and are non-load bearing in the main hall where there are steel columns embedded in the masonry that support roof and floor beams.
- As observed, and as noted in several reports, moisture has entered the walls through roof and parapet leaks, condensation, and infiltration. This moisture has created a condition where columns, window lintels, and tie beams have rusted. The brick pilasters surrounding the steel columns have begun to crack due the expansion of the steel during the corrosion process exerting pressure on the brick causing cracks that are visible on most pilasters. An area at the west end of the north face was repaired in 2008.
- Based on the photos and report from 2008 partial renovation, the columns do not appear to be structurally compromised yet. This should be confirmed by additional brick removal and observation of the steel conditions.
- The window lintels above the balcony and the tie beams buried in the brick between columns appear to be compromised. All conditions should be observed and deteriorated conditions repaired or replaced.
- The cast stone detail near the top of the wall is in poor condition and much of this should be replaced.
- Based on reports, photos of remedial work, and site visits, the steel framing should be exposed and treated by cleaning and coating with a waterproofing system or paint. Previous studies indicate the cost of this work could exceed $1 million. The order of magnitude seems appropriate and a contingency should be held to address unforeseen conditions. Since this work has a potentially significant impact on the construction budget, I suggest a detailed evaluation that would consist of further testing. This would include removing bricks at different locations to observe the condition of embedded steel. This can help quantify the amount of work needed and inform the next phase of remedial construction.
- It is possible that a renovation will include the addition of insulation to the inside of the building. This can lead to changes in the moisture and temperature within the brick walls. I recommend an analysis by a building scientist experienced with Hygrothermal modeling (WUFI analysis) to determine save levels and configuration of insulation. It is possible that limiting the amount of insulation or eliminating it entirely will be necessary to avoid moisture and freeze-thaw issues within the brick.

Main Floor Framing:

- The existing and proposed use as an auditorium/assembly space both require a 100 PSF live load.
- The drawings do not show any information about the main floor, so I measured the framing. The main floor framing steel beams have over 125 PSF live load capacity and the wood joists are at about 100 PSF live load and have some issues of cracking and splitting. Some with issues have been reinforced with additional wood joists. For budgeting purposes, I would plan to reinforce about 2/3 of the timbers.
- The concrete sections over the boiler room and east corridor appear to have adequate capacity for 100 PSF live load. This should be confirmed with additional field measuring and review.

Balcony:

- The balcony supports fixed seating and requires a 60 PSF live load at the seating areas and 100 psf at the aisles.
- Based on a review of the framing sizes indicated on the original design drawings, there is capacity to meet this requirement.

Foundation:

- The foundation generally appears in good condition. Details shown on the design drawings indicate a robust foundation for this time period.
- The west end of the building was constructed close to the Burlington Ravine- notorious for poor fill and settling buildings. The foundation does not show signs of significant settlement or cracking that would indicate problems often encountered with the Ravine. It was noted that a portion of the concrete floor slab slopes toward the north-west. This is possibly due to settling or could have been constructed to slope to the trench drain located along the north wall. If there is movement, it does not appear to be recent.
- It is understood that the south exterior concrete stair is in poor condition- although this was not confirmed. If the stair is removed, it will allow for waterproofing the

foundation at the south face. Replacement will depend on needs of the tenant and on historic considerations

- Portions of the concrete wall at the west end of the building have spalled and cracked. These areas are not in danger of collapse, but repairs should be made to contain and arrest the deterioration.
- Sections of wall at the east and south-east corner at the lower level appear to have water infiltration and brick damage. Waterproofing from the exterior is recommended where access can be gained.

Wind/Seismic Loading:

- The building frame is structural steel with unreinforced masonry infill acting as shear walls. This system is not permitted by the current building code for new construction, but is permitted to remain as a "grandfathered" building. There is not change of use that would trigger a seismic upgrade.
- Any new construction should be isolated from the existing building to avoid overloading the existing system. Renovations should limit removal of existing shear walls (mostly the brick exterior walls). When the building's shear wall load is increased by 10% or more, an upgrade is required.
- In the event of a seismic event, the building's weight is supported by the structural steel columns. While the more brittle brick would likely fail during seismic movement, the likelihood of a structural collapse is much less than the brick bearing wall buildings commonly seen in Vermont downtowns.

Conclusions/Recommendations:

Roof Framing:

- The roof purlin reinforcing design provided in the fall of 2016 should be implemented.
- New loads should not be supported by the roof. Any future mechanical equipment should be placed on the ground or on a newly constructed addition.

Walls:

- Before developing a final project budget, a thorough review of existing conditions should be made to determine with more certainty the level of steel deterioration and the amount of brick replacement required. This would include construction personnel to provide lift operation and brick removal/replacement and engineering staff to document existing conditions.
- In the interim, the budget of about $1 million presented by Stantec in the 2015 appears appropriate for evaluating the project.
- A Building Science analysis by a building scientist experienced with Hygrothermal modeling should be employed to determine safe levels and configuration of insulation and other moisture mitigation work.

Main Floor Framing:

- Floor joists that have not been previously reinforced should be reinforced with new 3x12 each side. At this point I would plan to reinforce about 2/3 of the timbers.
- The concrete sections over the boiler room and at the east end should be measured and confirmed for 100 PSF capacity. This will require some non-destructive testing to determine the configuration of the reinforcing steel.

Renovation and Additions Limitations:

- Additions should be seismically isolated from the existing building.
- Renovations should limit removal of existing walls to less than 10% of any one section of wall.

Foundation:

- The south exterior stair should be documented further and likely removed.
- Spalled concrete at the west end should be repaired.

Based on this limited review, it appears that the most significant and unknown work to stabilize the building is the exterior columns and brick work. The roof and floor structures can reasonably be reinforced to stabilize them and meet the requirements for public assembly loading.

Theatre Design

Item #	Description	FFE	Unit	Unit Cost	Auditorium & Stage		Auditorium Loose Equipment		Small Performance Space		Auditorium Base AV Package		Auditorium Enhanced AV Package Add		Total		Notes
					Qty	Total	Qty	Total	Qty	Total	Qty	Total	Qty	Total	Qty	Total	
Theatre Consultants Collaborative Specified Equipment																	
1	Stage Draperies IFR - Main Curtain		Each	20,000	1	20,000		-		-		-		-	1	20,000	Larger than average
2	Stage Draperies IFR - Grand Valance		Each	10,000	1	10,000		-		-		-		-	1	10,000	Custom, Sim to existing (fringe & logo)
3	Stage Draperies IFR - Borders		Each	3,350	3	10,050		-		-		-		-	3	10,050	
4	Stage Draperies IFR - Legs		Pair	2,350	2	4,700		-		-		-		-	2	4,700	
5	Stage Draperies IFR - Tabs		Pair	2,350	3	7,050		-		-		-		-	3	7,050	
6	Stage Draperies IFR - Black Flat Panels		Each	3,500		-		-	12	42,000		-		-	12	42,000	
7	Stage Draperies IFR - Traveler Panels		Pair	7,000	2	14,000		-		-		-		-	2	14,000	
8	Stage Draperies - Cyclorama		Each	4,500	1	4,500		-		-		-		-	1	4,500	White/Natural
9	Acoustic Drapery		Each	1,600	26	41,600		-		-		-		-	26	41,600	Window Covering
	11062 / 11 61 43 Subtotal					**111,900**		-		**42,000**		-		-	-	153,900	
Performance Curtain Tracks - 11063 / 11 61 44															-	-	
10	Stage Drapery Traveler Track And Pull Rigging		LF	55	300	16,500		-	120	6,600		-		-	420	23,100	
11	Curved Drapery Traveler Track And Pull Rigging - Economical - Drapes < 15' high		LF	75	320	24,000		-		-		-		-	320	24,000	Place Holder - For Acoustical Draperies, manual
	11063 / 11 61 44 Subtotal					**40,500**		-		**6,600**		-		-	-	47,100	
Performance Powered Rigging - 11065 / 11 61 35															-	-	
12	Power Batten Lines - Fixed Speed		Set	19,000	6	114,000		-		-		-		-	6	114,000	(4) Electrics, (2) Utility
13	Line Shaft Hoist - Single Speed		Set	20,000	1	20,000		-		-		-		-	1	20,000	Front of House
14	Controller - Medium		Each	10,000	1	10,000		-		-		-		-	1	10,000	
15	Truss - 20.5" Box	*	LF	150	70	10,500		-		-		-		-	70	10,500	Including Accessories
16	Rigging Supplies - Allowance		Per	1,000	1	1,000		-		-		-		-	1	1,000	Misc. Hardware/Supplies
	11065 / 11 61 35 Subtotal					**155,500**		-		-		-		-	-	155,500	
Performance Platforms - 11068 / 11 61 23															-	-	
17	Stage Platform (Rectangle)		Each	1,500		-	16	24,000		-		-		-	16	24,000	
18	Stairs Units		Each	1,200		-	2	2,400		-		-		-	2	2,400	
19	Platform Carts	*	Each	1,250		-	2	2,500		-		-		-	2	2,500	Budget one cart per 6 platforms
	11068 / 11 61 23 Subtotal					-		**28,900**		-		-		-	-	28,900	
Performance Architectural Elements - 11069 / 11 61 13															-	-	
20	Pipe Grid - 6' x 6'		SF	11		-		-	1,150	12,650		-		-	1,150	12,650	Place holder for lighting support - Track Lighting may be better approach; sim to Altman Gallery or ETC Arch Track , DMX controlled.
	11069 / 11 61 13 Subtotal					-		-		**12,650**		-		-	-	12,650	
Performance Power And Controls - 11961 / 11 61 61															-	-	
21	Panel Board with 30 DMX driven motorized Breakers		Each	9,500		-		-	1	9,500		-		-	1	9,500	work / house lights
22	Panel Board with 42 DMX driven motorized Breakers		Each	12,000	2	24,000		-		-		-		-	2	24,000	production circuits & house / work light circuits.
23	Panel Board Surge Supression		Each	1,000	2	2,000		-	1	1,000		-		-	3	3,000	
24	House & Work Light Circuits		Cir		18	-		-	6	-		-		-	24	-	By EE
25	Emergency Transfer Switch DMX Universe		Each	1,500	2	3,000		-	1	1,500		-		-	3	4,500	
26	BC ELTS 1 @ 20A Discrete Fed, with 0-10v switching		Each	500		-		-	1	500		-		-	1	500	

Item #	Description	FFE	Unit	Unit Cost	Auditorium & Stage Qty	Auditorium & Stage Total	Auditorium Loose Equipment Qty	Auditorium Loose Equipment Total	Small Performance Space Qty	Small Performance Space Total	Auditorium Base AV Package Qty	Auditorium Base AV Package Total	Auditorium Enhanced AV Package Add Qty	Auditorium Enhanced AV Package Add Total	Total Qty	Total Total	Notes
27	ELTS 6 @ 20A Circuit Phase and Voltage Configuration As Required Emergency Power With Branch Protection Branch Protection		Each	8,000	1	8,000		-		-		-		-	1	8,000	
28	Receptacle Only (multi)		Cir	160	48	7,680		-		-		-		-	48	7,680	
29	Receptacle Only (Pigtail)		Cir	82	24	1,968	-	-	24	1,968	-	-	-	-	48	3,936	
30	Receptacle Only (Conn Strip)		Cir	100	24	2,400		-		-		-		-	24	2,400	
31	200A Company Switch		Each	6,000	1	6,000		-		-		-		-	1	6,000	
32	400A Company Switch		Each	7,500	1	7,500		-		-		-		-	1	7,500	
33	Busduct - 5' 100A Stand Alone		Each	1,000	1	1,000		-		-		-		-	1	1,000	Follow Spot power
34	100A Multipole Switch		Each	450	1	450		-		-		-		-	1	450	
35	Cable Reel: (6) 20A		Each	7,500	2	15,000		-		-		-		-	2	15,000	Replace with pantograph? FOH cable management
36	Cable Reel: Cat 6		Each	3,000	1	3,000		-		-		-		-	1	3,000	
37	Architectural Control Only - Master		Each	3,500	1	3,500		-	1	3,500		-		-	2	7,000	
38	Work/Aud. Light Control - Station		Each	325	10	3,250		-	4	1,300		-		-	14	4,550	
39	Motion / Daylight Detection		Each	150	6	900		-	2	300		-		-	8	1,200	
40	House & Work Master Panel		Each	4,300	1	4,300		-	1	4,300		-		-	2	8,600	
41	Performance Lighting Console		Each	17,000	1	17,000		-		-		-		-	1	17,000	
42	Performance Lighting Console- Small		Each	10,000		-		-	1	10,000		-		-	1	10,000	
43	DMX Distr Equipment (1 universe/w 6 outs)		Each	2,200	2	4,400		-	1	2,200		-		-	3	6,600	
44	Control Faceplate		Each	300	16	4,800		-	8	2,400		-		-	24	7,200	
45	Base Processing Package/Rack/Network/Patch/ Switch		System	7,600	1	7,600		-	1	7,600		-		-	2	15,200	
46	2 Port DMX Node		Each	1,200	7	8,400		-	2	2,400		-		-	9	10,800	For DMX Output at lighting positions
47	Allowance For Architectural Lighting Control integration of LED or other non-conventional fixtures		Each	5,000	1	5,000		-	1	5,000		-		-	2	10,000	If house lighting is to be replaced with LED.
48	Stage edge illumination		Foot	45	60	2,700		-		-		-		-	60	2,700	LED Channel Embedded in the stage edge.
	11961 / 11 61 61 Subtotal					**143,848**		**-**		**53,468**		**-**		**-**	-	197,316	**See Note 2**
Performance Lighting Instruments And Accessories - 119															-	-	
49	Stage Lighting Instruments - LED Ellipsoidal Moderate or short throw, high CRI	*	Each	2,000		-	36	72,000		-		-		-	36	72,000	
50	Stage Lighting Instruments - LED Ellipsoidal Moderate or short throw, Moderate CRI	*	Each	1,350		-		-	6	8,100		-		-	6	8,100	
51	Stage Lighting Instruments - LED Wash - High CRI	*	Each	1,350		-	60	81,000		-		-		-	60	81,000	
52	Stage Lighting Instruments - LED Wash - Moderate CRI	*	Each	700		-		-	18	12,600		-		-	18	12,600	
53	Cyc Lighting Instruments 1 Cell - LED	*	Each	2,500		-	16	40,000	6	15,000		-		-	22	55,000	
54	Automated Light - Moderate	*	Each	7,500		-	12	90,000		-		-		-	12	90,000	
55	LED Work Light (switched)	*	Each	850		-	8	6,800		-		-		-	8	6,800	
56	Follow Spots - Long Throw	*	Each	16,500		-	2	33,000		-		-		-	2	33,000	

Item #	Description	FFE	Unit	Unit Cost	Auditorium & Stage Qty	Auditorium & Stage Total	Auditorium Loose Equipment Qty	Auditorium Loose Equipment Total	Small Performance Space Qty	Small Performance Space Total	Auditorium Base AV Package Qty	Auditorium Base AV Package Total	Auditorium Enhanced AV Package Add Qty	Auditorium Enhanced AV Package Add Total	Total Qty	Total Total	Notes
57	Lighting Accessories	*	Each	125	-	-	134	16,750	30	3,750	-	-	-	-	164	20,500	
58	Control Cable	*	Each	55		-	112	6,160	32	1,760	-	-	-	-	144	7,920	portable data cables for fixtures
59	Loose Elect. Distribution - Multi	*	Each	110		-	12	1,320	-	-	-	-	-	-	12	1,320	
60	Loose Electrical Distribution - Std	*	Each	55	-	-	278	15,290	60	3,300	-	-	-	-	338	18,590	portable power cables for fixtures
61	Ghost Light	*	Each	450		-	1	450		-		-		-	1	450	
	11964 / 11 61 64 Subtotal					-		**362,770**		**44,510**		-		-	-	407,280	
Performance Sound, Video, And Communications - 1196															-	-	
62	Compact Line Array		Cabinet	6,000		-		-		-	8	48,000	16	96,000	24	144,000	Varia
63	Concert Subwoofers		Each	10,000		-		-		-		-	6	60,000	6	60,000	
64	Compact Subwoofers		Each	7,500		-		-	1	7,500	3	22,500		-	4	30,000	
65	Monitor Speakers		Each	5,500		-		-		-	4	22,000	4	22,000	8	44,000	
66	Under balcony Delay Speakers		Each	2,200		-		-		-	18	39,600		-	18	39,600	
67	Front Fill Speakers		Each	2,200		-		-		-	7	15,400		-	7	15,400	UP-4xp
68	Surround Speakers		Each	2,200		-		-	7	15,400		-		-	7	15,400	
69	Medium Digital Mixer w/ Digital Snake		Each	60,000		-		-		-	1	60,000	1	60,000	2	120,000	1 main mixer, 1 monitor mixer
70	Small Digital Mixer w/ Digital Snake		Each	40,000		-		-	1	40,000		-		-	1	40,000	Yamaha
71	Sound Effects Workstation		Each	15,000		-		-	1	15,000		-		-	1	15,000	Qlab
72	Digital Signal Processing		Each	20,000		-		-	1	20,000	1	20,000		-	2	40,000	
73	Wired Microphones and Accessories	*	Allowanc	1,000		-		-	1	1,000	5	5,000	10	10,000	16	16,000	
74	Wireless Microphones		Each	6,000		-		-		-	4	24,000	8	48,000	12	72,000	With antenna distro
75	CD/DVD/MP3 Player		Each	850		-		-	1	850	1	850		-	2	1,700	Include case and cables
76	Digital recorder - Stereo		Each	1,500		-		-	1	1,500	1	1,500		-	2	3,000	
77	Stage Manager Master Stations		Station	3,500		-		-	1	3,500	2	7,000		-	3	10,500	
78	Page / Show Relay - Per Channel		Each	8,640		-		-	2	17,280	3	25,920		-	5	43,200	
79	Page / Show Relay - Per Speaker Stn		Each	400		-		-	12	4,800	20	8,000		-	32	12,800	
80	Page / Show Relay - Per Page Stn		Each	3,800		-		-	1	3,800	1	3,800		-	2	7,600	
81	Tech Intercom - Digital 4 Channel Main Stn		Each	5,400		-		-	1	5,400	1	5,400		-	2	10,800	
82	Tech Intercom - Belt Pack or Wall Station		Each	1,350		-		-	6	8,100	12	16,200		-	18	24,300	
83	Tech Intercom Wireless System: Base Station & 4 wireless headsets		System	8,400		-		-		-		-	1	8,400	1	8,400	
84	Streaming WIFI B.Y.O.D. system		Each	2,000		-		-	1	2,000	2	4,000		-	3	6,000	
85	WiFiALS Receivers		Each	250		-		-		-	100	25,000		-	100	25,000	4% capacity, 3/4 HS, 1/4 Loop
86	Camera - High Definition Pan/Tilt Zoom		Total	6,500		-		-		-	1	6,500	4	26,000	5	32,500	
87	DVD/Blu Ray Player		Total	600		-		-	1	600	1	600		-	2	1,200	
88	Video Controller - Imag / Documentary		Total	18,000		-		-		-		-	1	18,000	1	18,000	
89	Presentation Control System		Total	25,000		-		-		-	1	25,000		-	1	25,000	
90	Video Playback Master		Each	6,000		-		-		-		-	1	6,000	1	6,000	Dataton Watchout with PC
91	Video Playback Slave - 2 screens		Each	3,800		-		-		-		-	1	3,800	1	3,800	Dataton Watchpax
92	High Def Transport over UTP (price per termination		Each	2,000		-		-	2	4,000	2	4,000	2	4,000	6	12,000	Transmit or receive

Theatre Design, cont.

Item #	Description	FFE	Unit	Unit Cost	Auditorium & Stage Qty	Auditorium & Stage Total	Auditorium Loose Equipment Qty	Auditorium Loose Equipment Total	Small Performance Space Qty	Small Performance Space Total	Auditorium Base AV Package Qty	Auditorium Base AV Package Total	Auditorium Enhanced AV Package Add Qty	Auditorium Enhanced AV Package Add Total	Total Qty	Total Total	Notes
93	Low Intensity Video Projector		Total	6,000		-		-	1	6,000		-		-	1	6,000	
94	Medium Intensity Video projector		Total	35,000		-		-		-	1	35,000	1	35,000	2	70,000	8k lumens, 1 chip DLP
95	High Intensity Video Projector		Total	75,000		-		-		-		-	1	75,000	1	75,000	
96	Medium screen motorized projection screen (<28' wide x 16' high)		Total	25,000		-		-		-	1	25,000		-	1	25,000	
97	Small screen motorized projection screen		Total	9,000		-		-	1	9,000		-	2	18,000	3	27,000	
98	Sequencing Panel Board		Each	12,000		-		-	1	12,000	1	12,000		-	2	24,000	
99	Panel Board Surge Supression		Each	1,000		-		-	1	1,000	1	1,000		-	2	2,000	
100	200A IG Company Switch		Each	6,000		-		-		-	1	6,000		-	1	6,000	Sound
101	Sound & Communications - Faceplate and Wiring		Each	700		-		-	30	21,000	60	42,000		-	90	63,000	
	11969 / 11 61 70 Subtotal					-		-		**199,730**		**511,270**		**490,200**	-	1,201,200	**See Note 3**
	Performance Seating Portable - 12705 / 12 62 00														-	-	
102	Chairs (portable Folding)		Each	300	800	240,000		-		-		-		-	800	240,000	Placehold for Balcony
103	Chairs (stacking)		Each	300		-	900	270,000		-		-		-	900	270,000	
	12705 / 12 62 19 Subtotal					**240,000**		**270,000**		**-**		**-**		**-**	-	510,000	
	Telescoping Seating - 12760 / 12 66 23														-	-	
104	Telescoping Chair Platforms With Theatre Style Seats		Seat	1,300	266	345,800		-		-		-		-	266	345,800	
	12760 / 12 66 23 Subtotal					**345,800**		**-**		-		**-**		**-**	-	345,800	
	Subtotal - Consultant Specified Equipment - NoHide / 00 00 00					**1,037,548**		**661,670**		**358,958**		**511,270**		**490,200**		3,059,646	
															-	-	
	Equipment Specified By Others														-	-	
	Audio/Electrics Shop Equipment - 11510 / 11 53 00														-	-	
105	Audio Shop Tools/equipment	*	Total	6,000		-	1	6,000		-		-		-	1	6,000	
106	Electrics Shop Tools/equipment	*	Total	6,000		-	1	6,000		-		-		-	1	6,000	
	11510 / 11 53 00 Subtotal					-		**12,000**		**-**		**-**		**-**	-	12,000	
	Performance Musician Equipment - 12704 / 12 62 99														-	-	
107	Chairs: Musician	*	Each	215		-	80	17,200		-		-		-	80	17,200	Wenger Musician
108	Chair: Storage Cart	*	Each	335		-	8	2,680		-		-		-	8	2,680	
	12704 / 12 62 99 Subtotal					**-**		**19,880**		**-**		**-**		**-**	-	19,880	
	Stage Equipment - 14830 / 11 61 90														-	-	
109	Misc. Ladders, etc	*	Each	2,000		-	1	2,000		-		-		-	1	2,000	
110	Telescoping Work Platforms	*	Each	10,000		-	1	10,000		-		-		-	1	10,000	
	14830 / 00 00 00 Subtotal					-		**12,000**		**-**		**-**		**-**	-	12,000	
	Subtotal - Equipment Specified By Others					-		**43,880**		-		-		-		**43,880**	
	Subtotal - All Equipment					**1,037,548**		**705,550**		**358,958**		**511,270**		**490,200**		**3,103,526**	
	Design Contingency			5%		51,877		35,277		17,947		25,563		24,510		155,174	
	Total - All Equipment					**1,089,425**		**740,827**		**376,905**		**536,833**		**514,710**		**3,258,700**	
	Subtotal - Fittings, Furnishings and Equipment (FFE) "*"	*				11,025		429,607		47,785		5,250		10,500		504,168	Items marked with an "*" in the FFE column may be purchased outside of construction contract directly by owner.
	Subtotal - Base Bid					**1,078,400**		311,220		329,120		531,583		504,210		**2,754,532**	These items are installed as part of construction work.
	Figures are in US Dollars																

Item #	Description	FFE	Unit	Unit Cost	Auditorium & Stage		Auditorium Loose Equipment		Small Performance Space		Auditorium Base AV Package		Auditorium Enhanced AV Package Add		Total		Notes
					Qty	Total	Qty	Total	Qty	Total	Qty	Total	Qty	Total	Qty	Total	
					Estimated costs represent anticipated bid prices as received from specialty subcontractor if bid as of the date of this document. Estimated costs do not include: architectural, structural, mechanical or electrical systems. Escalation is not included. Taxes are not included. Overhead, profit and contingency applied by downstream contractor(s) are also not included. (ie: We haven't included the General Contractor's O & P.) Theatre Consultants Collaborative has no control over the cost of labor, materials or equipment, the contractor's methods of determining the bid prices, or over competitive bidding, market or negotiating conditions. Accordingly, TCC cannot and does not warrant or represent that bids or negotiated prices will not vary from any estimate of the Construction cost or evaluation prepared or agreed to by TCC.										Notes regarding items: 1) Requires CB panel with branch protection for each relay by others. 2) All items in this section installed by EC and are priced without installation (price exclusive of conduit and back box) unless otherwise noted. 3) All items in this section utilize conduit, backboxes and power distribution installed by EC and are priced without installation (price exclusive of conduit and back box) unless otherwise noted.

End of Section

SECTION 4

DRAWINGS


3
Studio
2
Balcony
1
Auditorium
G
Annex

The design studies contain herein are an evaluation of the performance characteristics and modifications necessary for the Auditorium and lower level Annex to function as performance or as gathering spaces serving Community functions.

The spaces are considered multi-purpose- serving a variety of functions and activities. Taking input from the community workshops conducted by CEDO over the Summer and Fall of 2018, the programmatic preferences for the building were identified and studied for accommodation.

The intentions for the use of the auditorium are the same as originally used- as a performance venue. Primarily considered for musical performance, the historic gymnasium functions are now accommodated elsewhere in the City. In addition, convention space, dinners and dances are studied as part of the multi-purpose program. Both standing and sitting audiences are reviewed to evaluate the room and its support spaces. The balcony is studied with little modification except for equivalency under ADAAG (Americans with Disability Act Accessiblity Guidelines).

Located directly below the auditorium, the Annex has served numerous functions for the Community from arts provision to small business spaces. The Annex, is studied as a performance space for smaller functions either in complement to Auditorium events or independently. In addition, the Annex is studied for accommodation of market space such as the winter Farmer's Market, arts and crafts shows and job fairs.

A small rental (retail) space is located on the Annex level as a revenue stream and as an activator for the streetscape along Main Street.

The original Club 242 is reactivated as a youth- oriented performance space that can accommodate various typpes of performance such as poetry slams, music, dance and lecture.

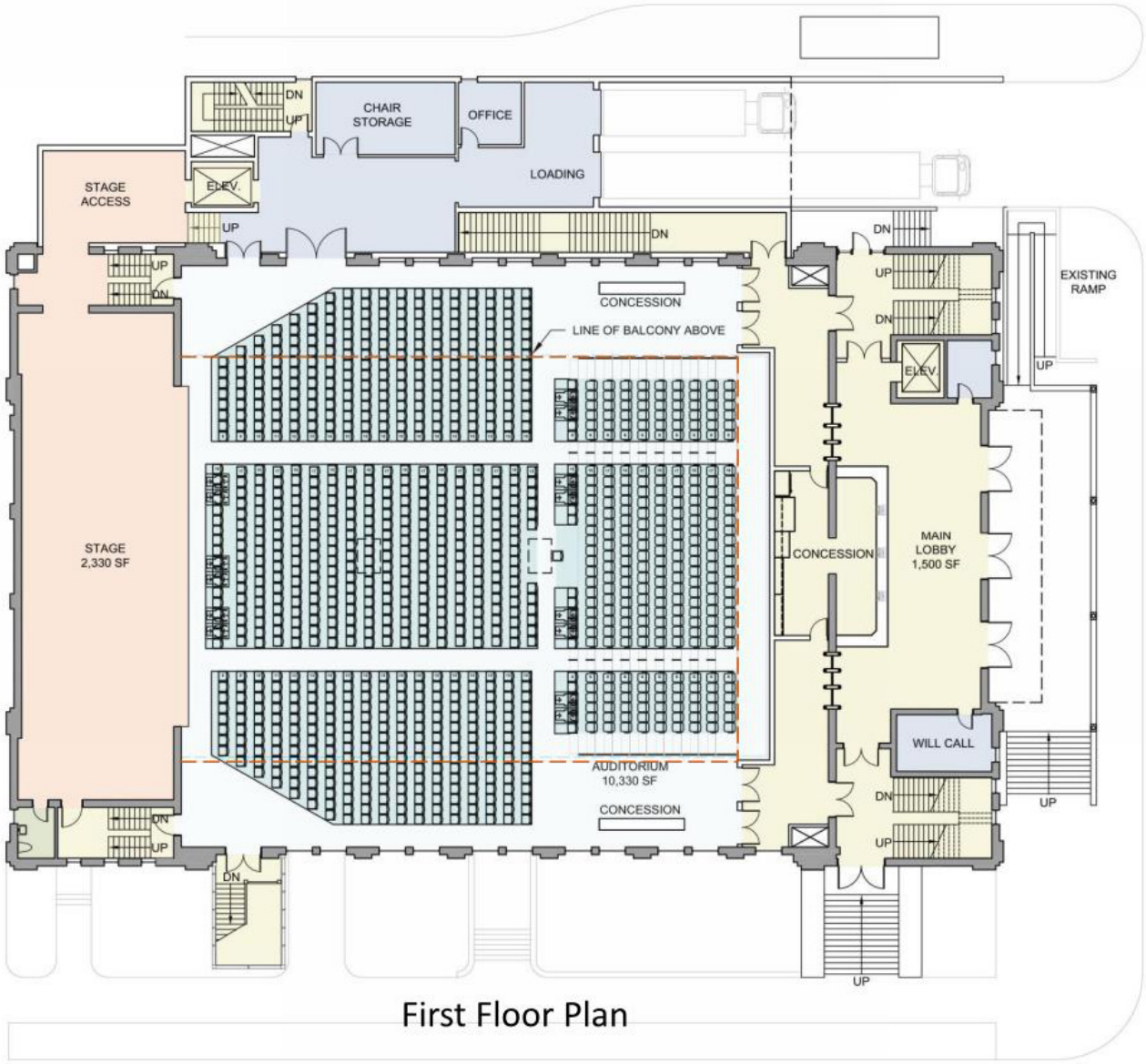
The north addition to Memorial Auditorium is designed to provide support spaces and infrastructure that cannot be otherwise accommodated with the original building. Loading and unloading of shows is considered a prime concern for the venue as the stage is approximately 20 feet above the current loading level. The addition also houses a new heating and cooling plant for the entire building. The top level of the addition, if included, contains additional community meeting spaces that can complement auditorium events or used independently and an administrative suite.

The plan studies also identify new accommodation for required restroom facilities, concessions and food support space. A new passenger elevator is designed to provide access to all levels. The third level studio space is also considered for meetings, small events and is considered a location for a Memorial Museum.

Programmatic functions are highlighted in red for each of the studies with each sub-area bordered in yellow.

Concerts
Cabaret
Private Events
Banquets
Conferences
Civic Events

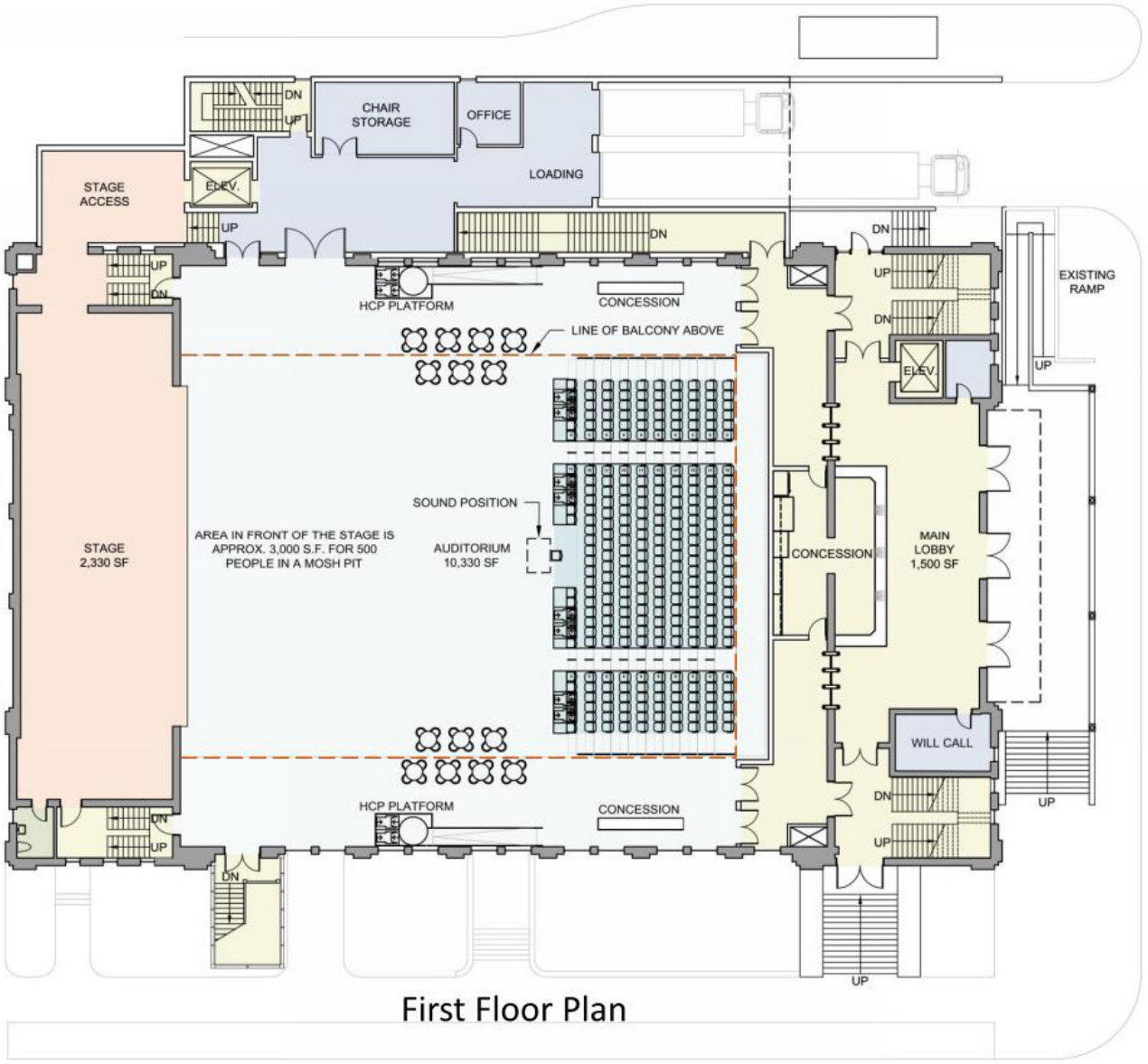
Auditorium Floor:
10,330 square feet
Up to 1,300 seats



First Floor Plan

Concerts
Cabaret
Private Events
Banquets
Conferences
Civic Events

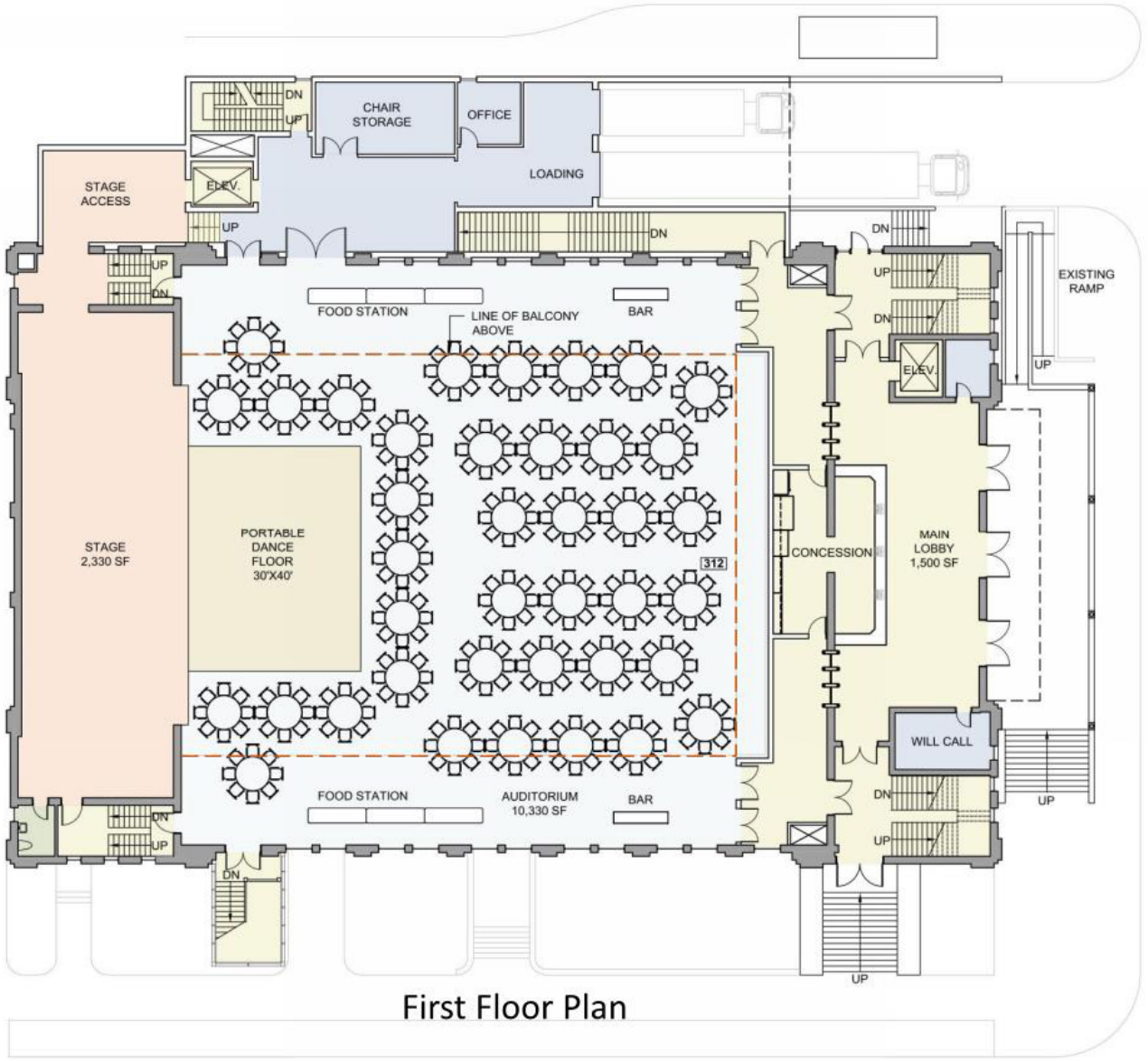
Auditorium Floor:
500-1,000 standing
(2) HCP platforms



First Floor Plan

Concerts
Cabaret
Private Events
Banquets
Conferences
Civic Events

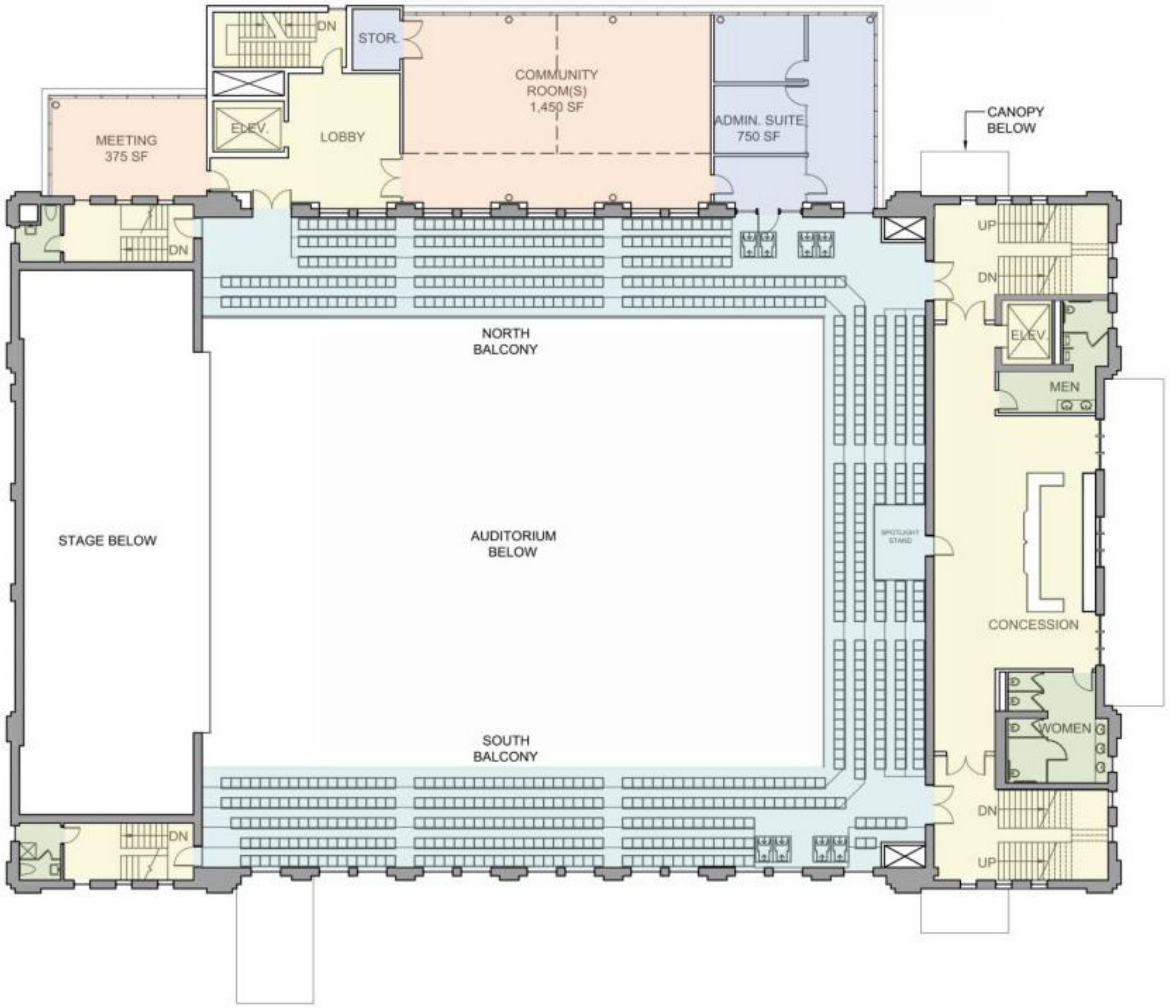
Auditorium Floor:
312 Seats
(2) HCP platforms



First Floor Plan

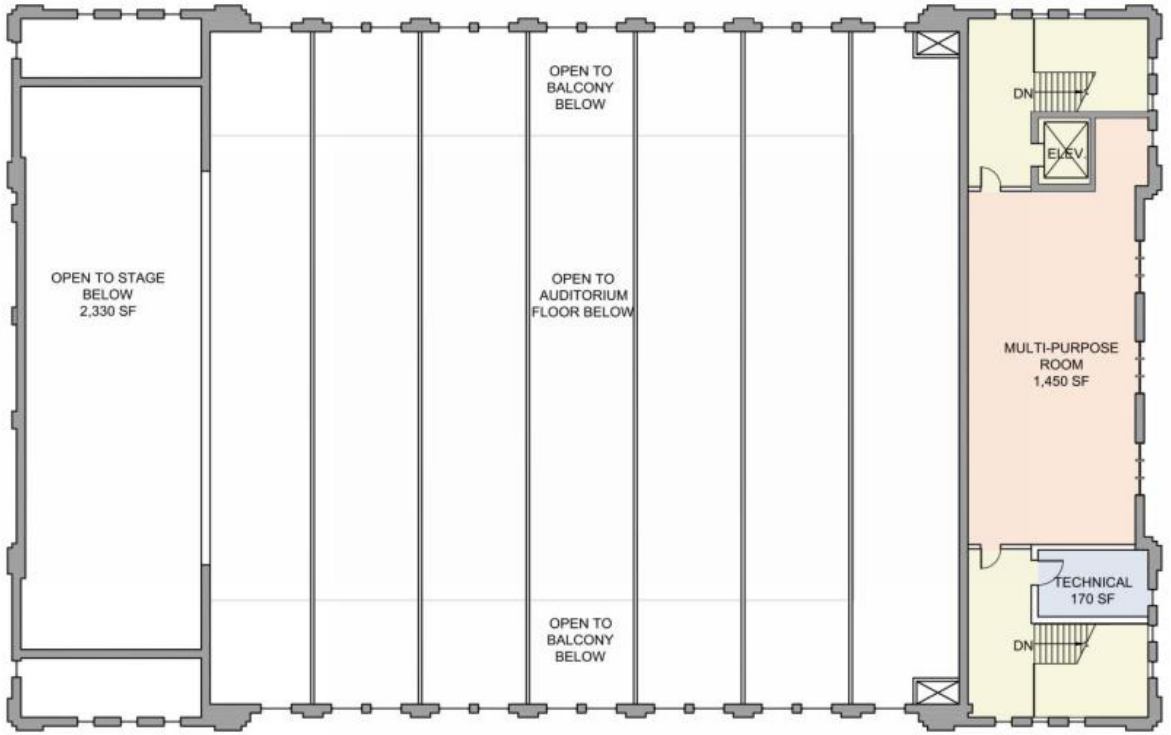
Concerts
Cabaret
Private Events
Banquets
Conferences
Civic Events

Balcony:
4,700 square feet
570-700 seats



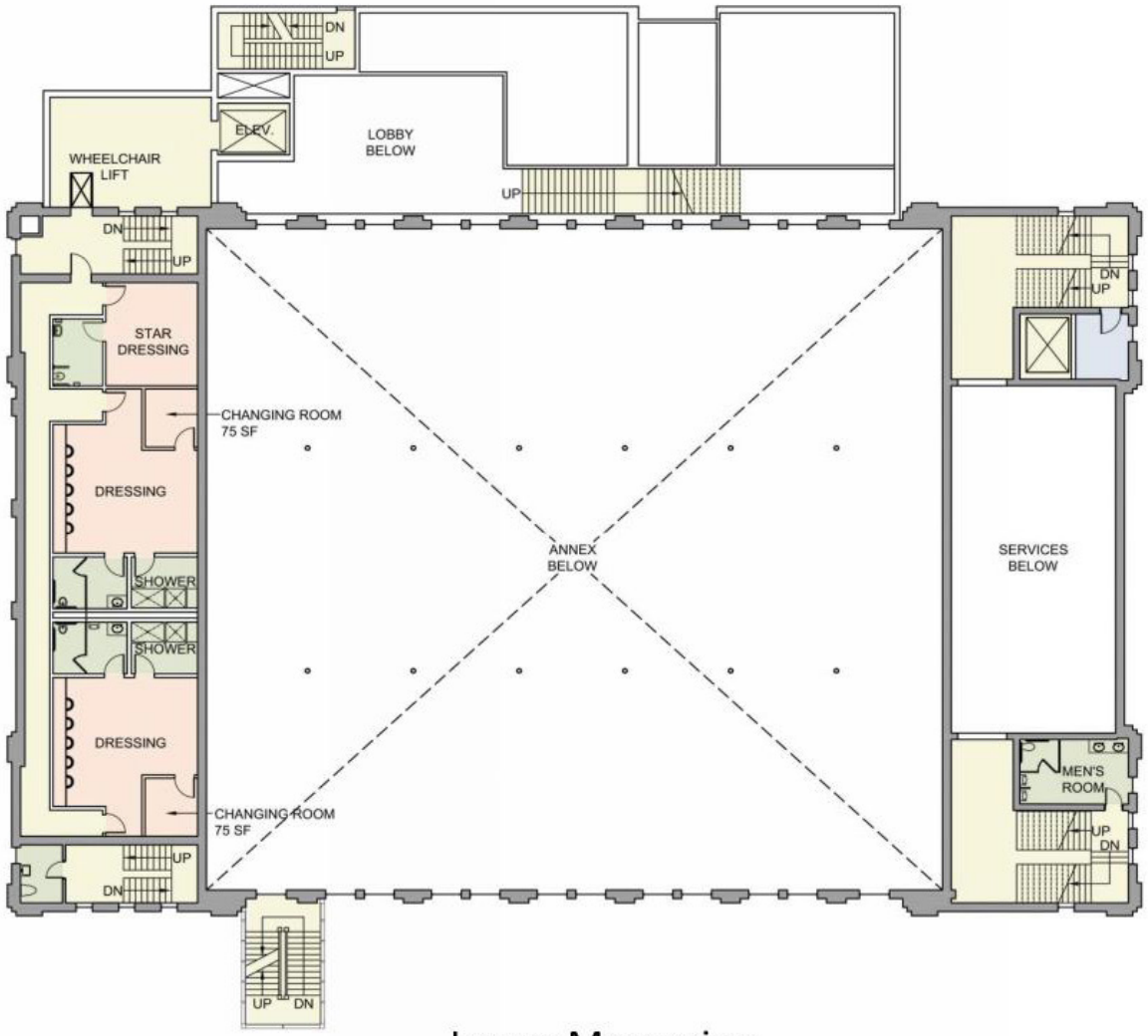
Second Floor Plan

Memorial Museum



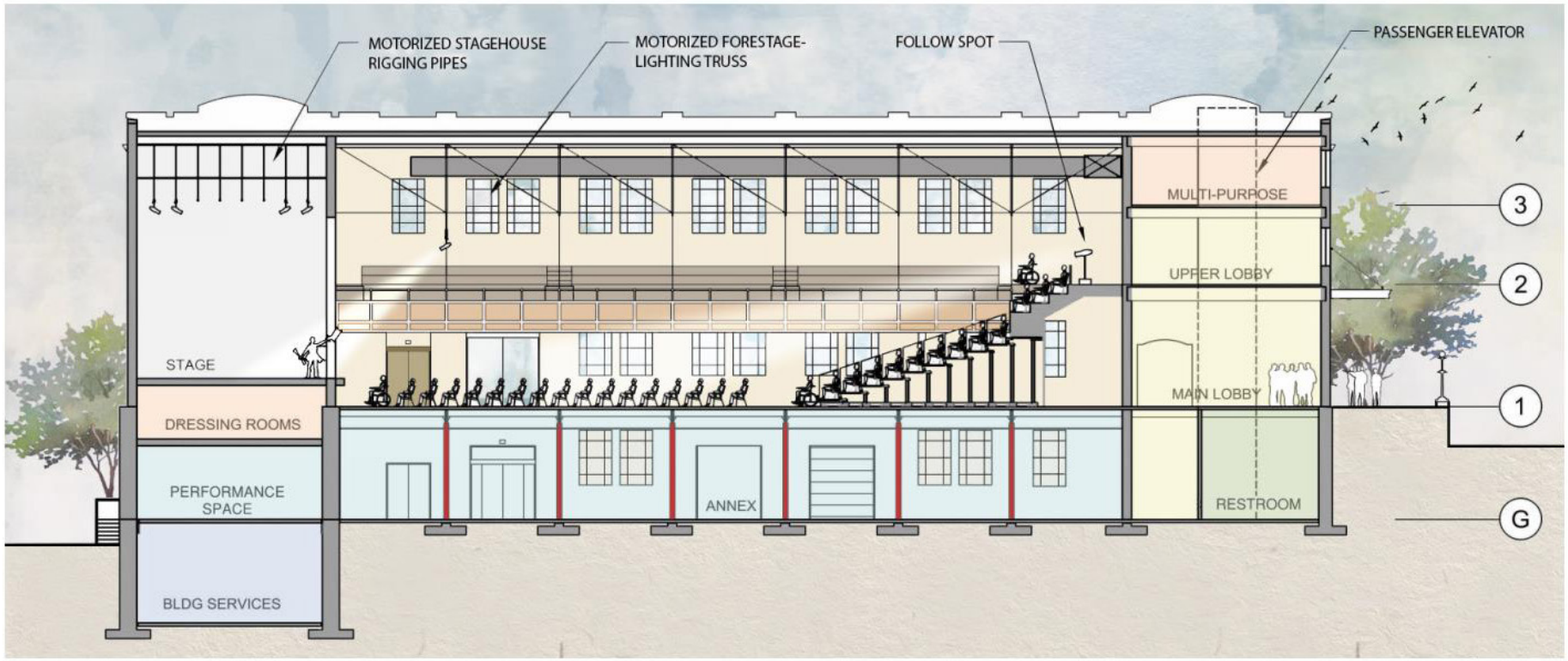
Third Floor Plan

Star Dressing
Gendered or Gender
Neutral Dressing Rooms



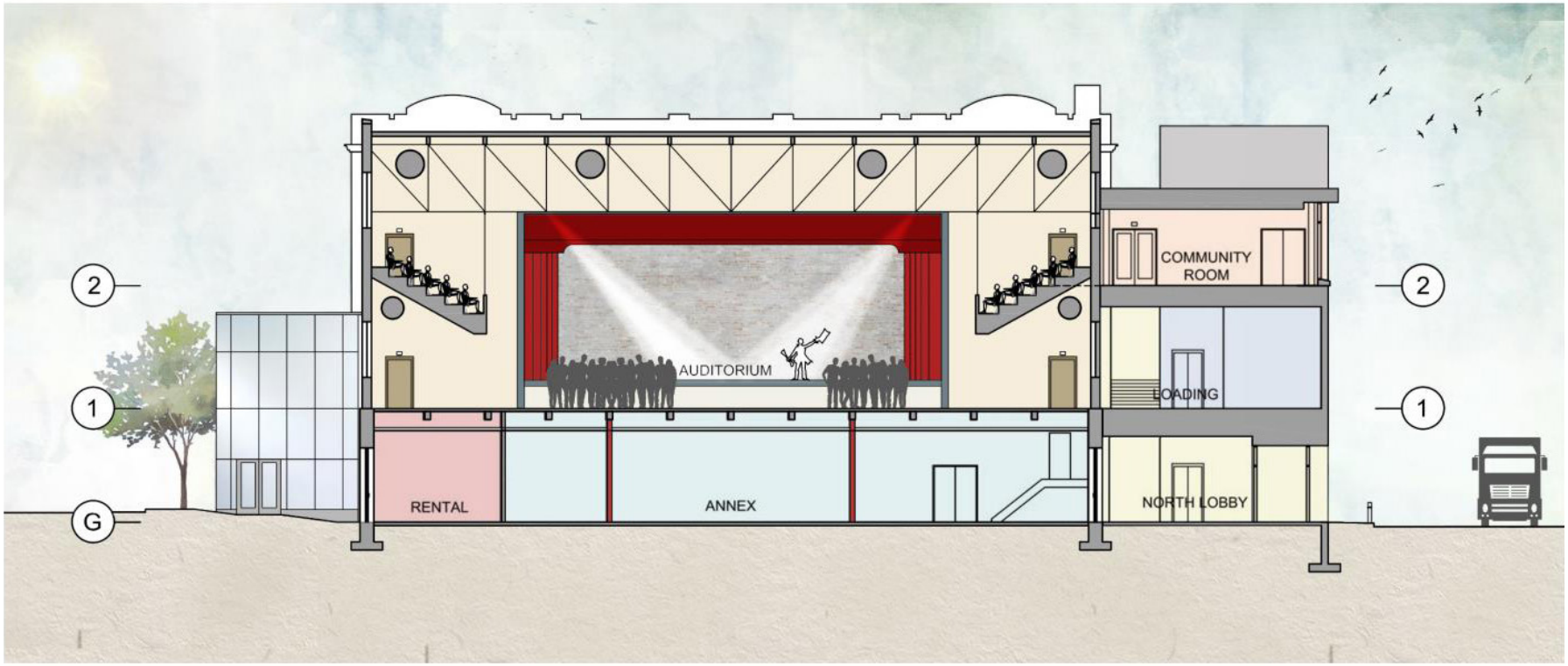
Lower Mezzanine
Floor Plan

Auditorium



Section- Looking North

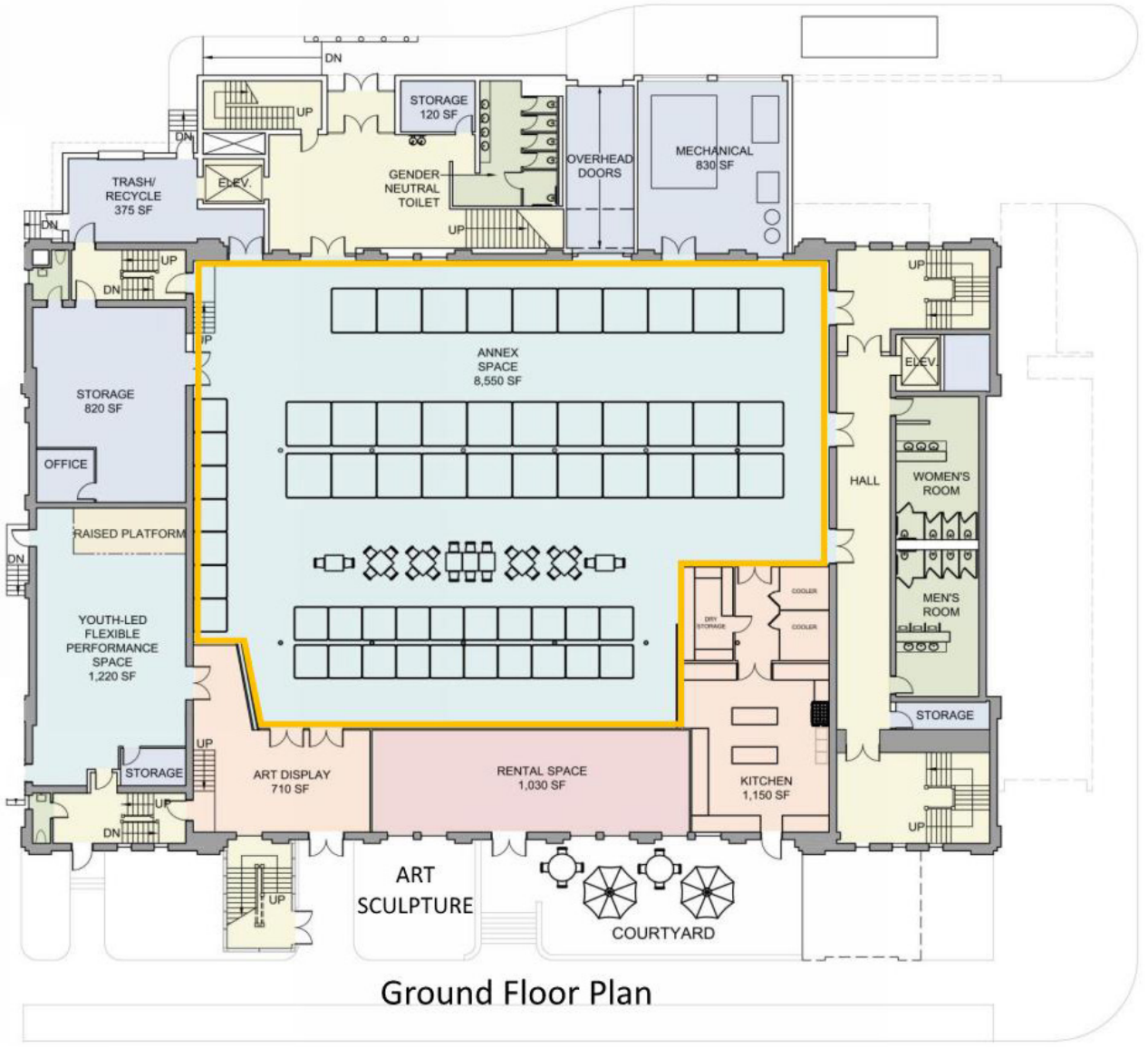
Auditorium



Section- Looking West

Farmer's Market
Arts and Crafts Fair
Trade Shows/ Exposition
Community Dinners
Cultural Events
Civic and Community Meetings
Recreational Activities

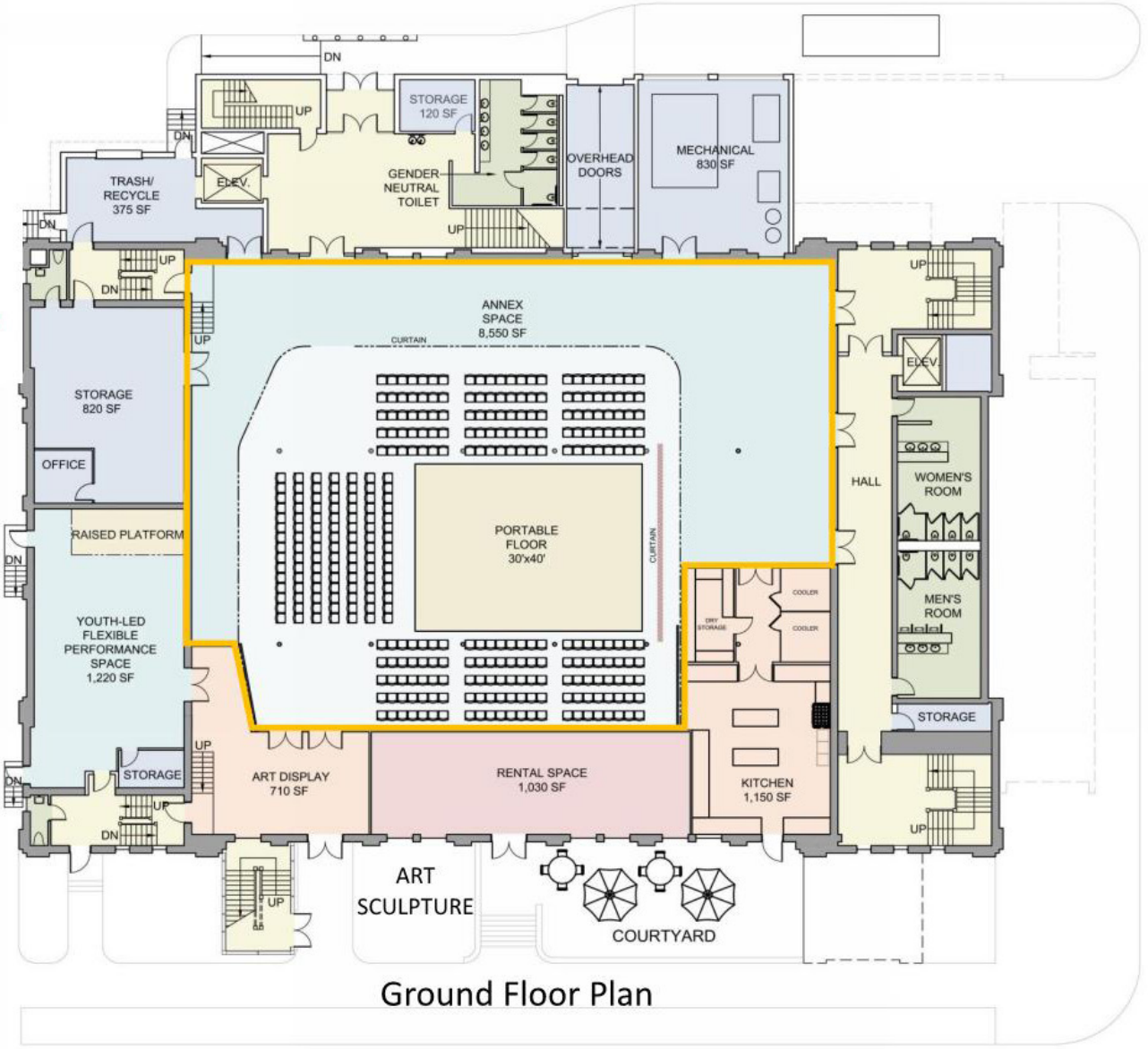
32- 8x8 market stalls
27- 6x6 market stalls
59 total shown



Ground Floor Plan

Farmer's Market
Arts and Crafts Fair
Trade Shows/ Exposition
Community Dinners
Cultural Events- Dance
Civic and Community Meetings
Recreational Activities

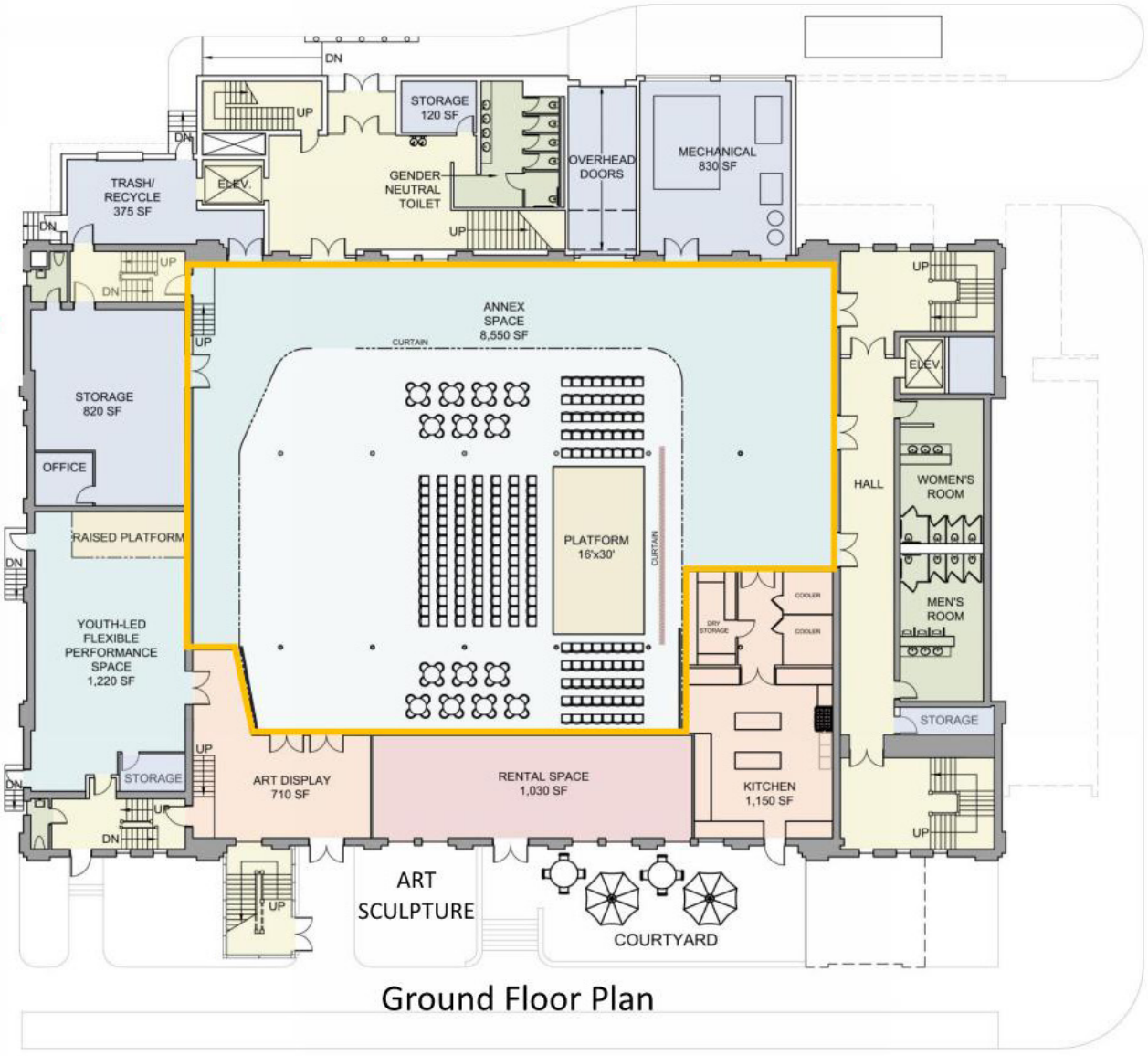
325 Seats



Ground Floor Plan

Farmer's Market
Arts and Crafts Fair
Trade Shows/ Exposition
Community Dinners
Cultural Events- Music
Civic and Community Meetings
Recreational Activities

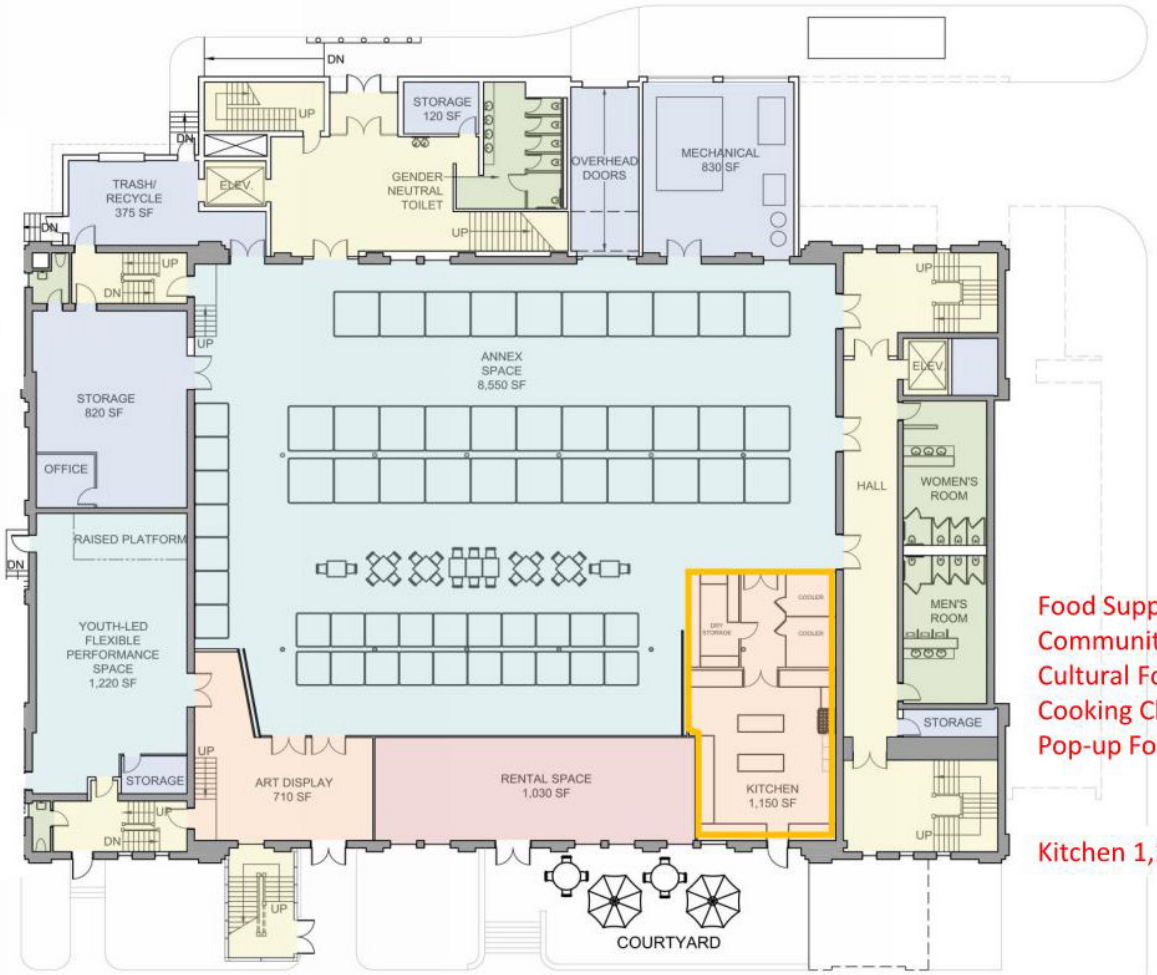
185 Seats +
56 on Café Tables



Ground Floor Plan

Farmer's Market
Arts and Crafts Fair
Trade Shows/ Exposition
Community Dinners
Cultural Events
Civic and Community Meetings
Recreational Activities

Youth Led Performance
Youth Programs
Music Rehearsal
Comedy
Highlight Event
Slam Poetry
Open Mic night
Battle of the Bands



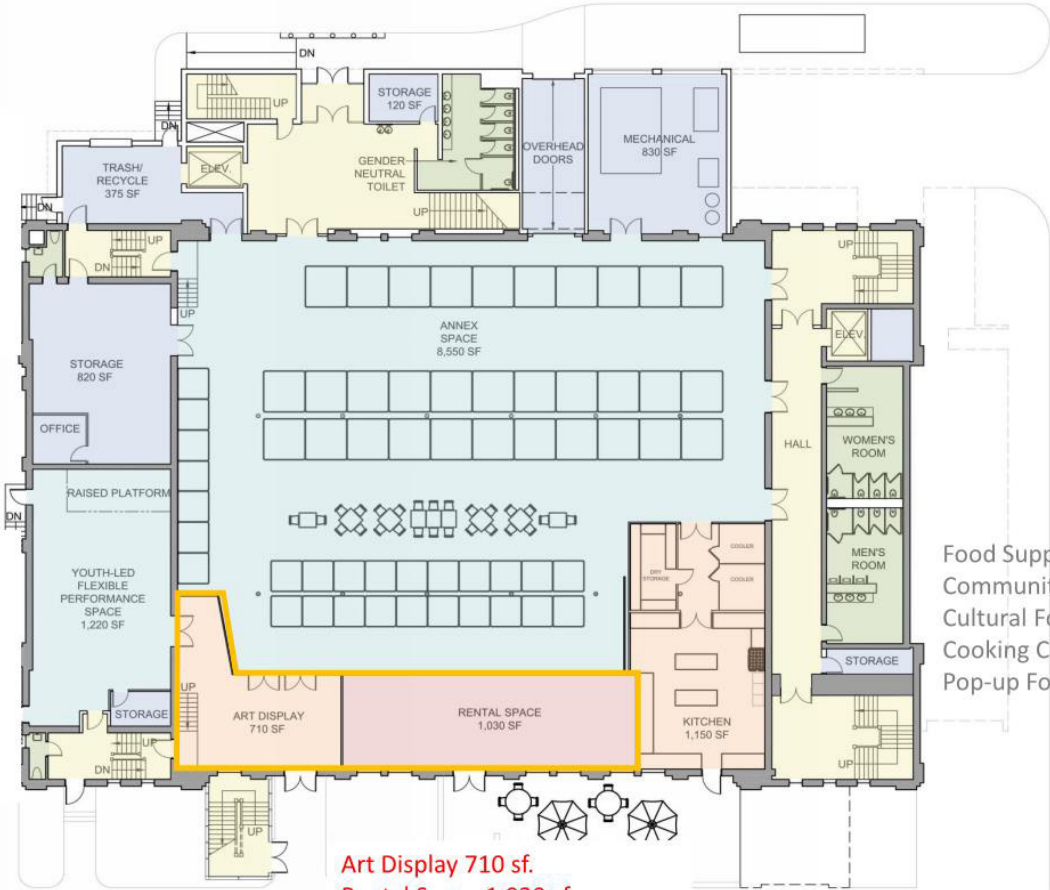
Ground Floor Plan

Food Support of Memorial Events
Community Dinners
Cultural Food Events
Cooking Classes
Pop-up Food

Kitchen 1,150 Square Feet

Farmer's Market
Arts and Crafts Fair
Trade Shows/ Exposition
Community Dinners
Cultural Events
Civic and Community Meetings
Recreational Activities

Youth Led Performance
Youth Programs
Music Rehearsal
Comedy
Highlight Event
Slam Poetry
Open Mic night
Battle of the Bands



Food Support of Memorial Events
Community Dinners
Cultural Food Events
Cooking Classes
Pop-up Food

Non-text page