TAYLOR & BURNS

architects

Lunenburg Municipal Buildings Design

Lunenburg, MA

New Town Hall, Ritter Memorial Building, and Meeting House

24 February 2025

Prepared by Taylor & Burns Architects

TAYLOR & BURNS INCORPORATED 58 WINTER STREET BOSTON MA 02108
617 357 5335 www.taylorburns.com

Lunenburg Municipal Building Design Committee

Michael-Ray Jeffreys, Chair

David Blatt, Vice Chair, Member at Large

Brian Lehtinen, Clerk, School Committee Member

Tom Gray, Finance Committee Member

Greg Roy, Member at Large

Matthew Allison, Planning Board Member

Kristina Masaitis, Member at Large

Anthony Sculimbrene, APDC Representative

Design Team

Architecture: Taylor & Burns Architects

Structural: Simson Gumpertz & Heger

MEP/FP: BLW Engineers

Cost Estimate: PM&C

Table of Contents

Executive Summary

The Town of Lunenburg retained Taylor & Burns Architects in November 2024 in response to the Request for Proposals of October 7, 2024 for Municipal Architectural Design Services. The Lunenburg Municipal Building Design Committee (LMBDC) directed that a 2020 space needs assessment prepared by Tappe Associates should be used to inform renovation of the existing Ritter Memorial Building and the existing Town Hall, and the design of a new Town Hall adjacent to the Ritter Memorial. The design proposal, presented in this report, was developed through biweekly meetings with the LMBDC. The design recommends that the existing Town Hall, a building of 6,500 square feet area over two floors, be renovated for continued Town business use for hearings, meetings, conferences, and offices, and renamed Meeting House. The design proposes that Ritter Memorial, 5,700 square feet area across three floors, be renovated for continued business use as School Department administration and ACE program. The design also proposes a new Town Hall, with 14,700 square feet over three floors, to accommodate Town offices for the Assessor, Treasurer, Clerk, Parks & Recreation, Building Department, Planning Department, Board of Health, and Town Manager, among others. The new Town Hall is designed as an addition to the Ritter, architecturally separate but linked with ramps to connect the non-aligned floors of the two buildings.

The Town also owns a parcel of land at 30 School Street that is to be redeveloped to provide a new parking lot within walking distance of Lunenburg's Village Center District. These spaces will be utilized by Town Hall and Lunenburg Public School staff and administration, visitors of the Town Hall and School Department, as well as the general public. The parking lot will be covered by a photovoltaic array and equipped with electric vehicle chargers if alternate additions to the cost estimate are selected (see Appendices C and D).

The construction cost of the proposed work has been independently estimated at $18.3 million. Alternates that could be added to this total include a photovoltaic canopy over proposed parking on School Street, a concrete slab for the basement of existing Town Hall, and electric vehicle charges. These alternates together would add over $2.1 million to the project. Costs are detailed in Appendix D.

The total project cost, which includes design fee, owner's project manager fee, furniture and equipment, moving costs, police details and an owner's contingency for what might be discovered during renovation, is estimated at $22 million, excluding alternates.

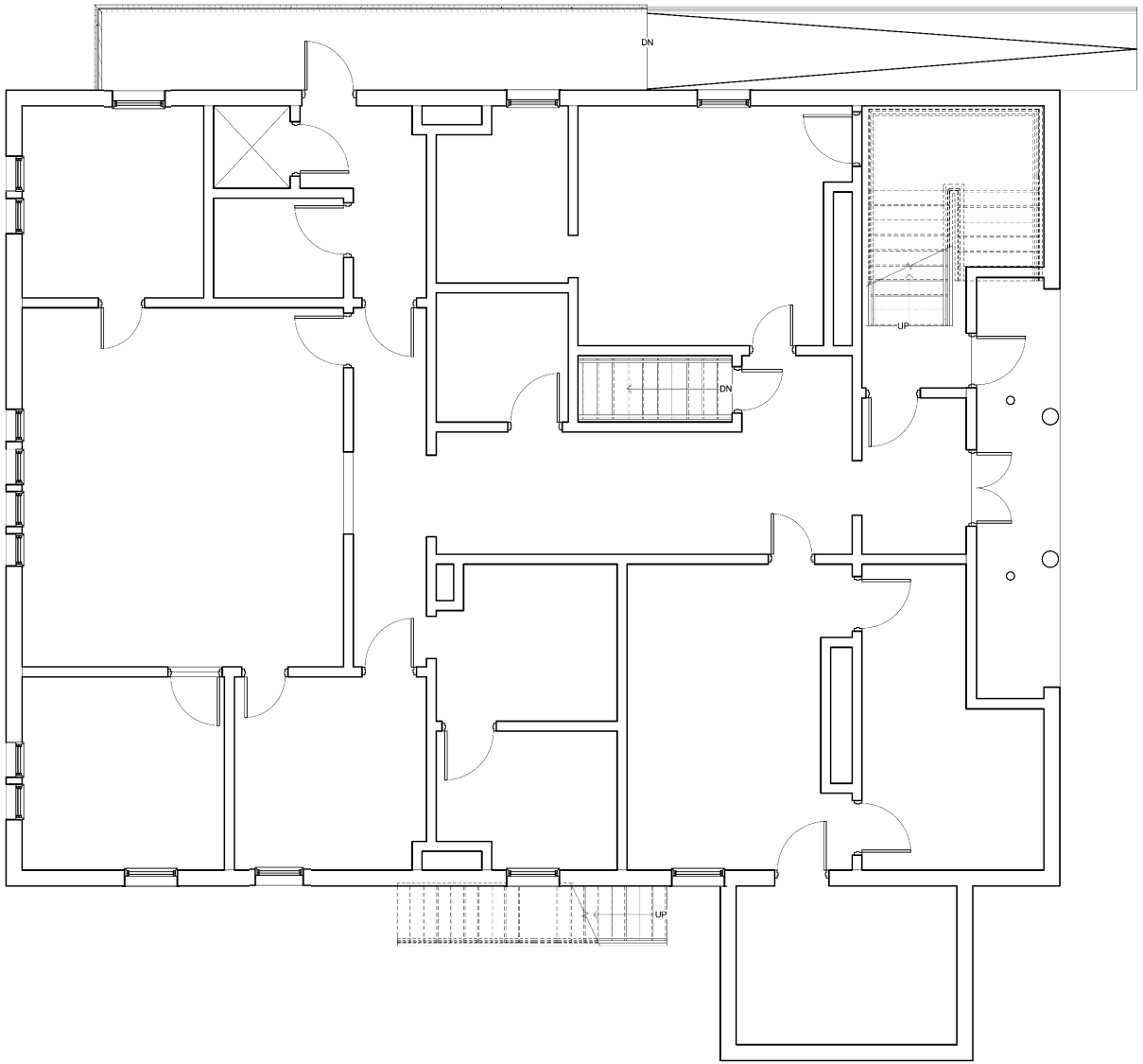
Existing Conditions

Meeting House

The Meeting House, presently known as the Town House, located at 17 Main Street in the Lunenburg Village Center District, is a heavy timber post and beam structure with wood framing and siding, originally constructed in 1820 in the Federal Style as a Unitarian Church. In 1876 it was moved 200 feet to its present location to serve as Town Hall and raised 12 feet to accommodate offices on the ground floor. The building is a protected historic structure listed by the Massachusetts Historic Commission, and is a contributing structure in the Lunenburg Historic District, a National Historic Registry District. With an area of approximately 6,500 square feet, the two-story building has a distinctive bell and clock tower. The ground floor presently houses Town Hall offices and the second floor has space dedicated to a public hearing room with cable access offices and additional municipal offices. These two floors are connected by a staircase and limited use lift. The basement is accessed by a separate stair, is unfinished, and has a dirt floor covered by plastic and prone to moisture intrusion. The attic, accessed by a stair from the second floor, showcases the heavy timber frame of dowelled mortised joinery, and provides stair access to the bell and clock tower with antique clockworks.

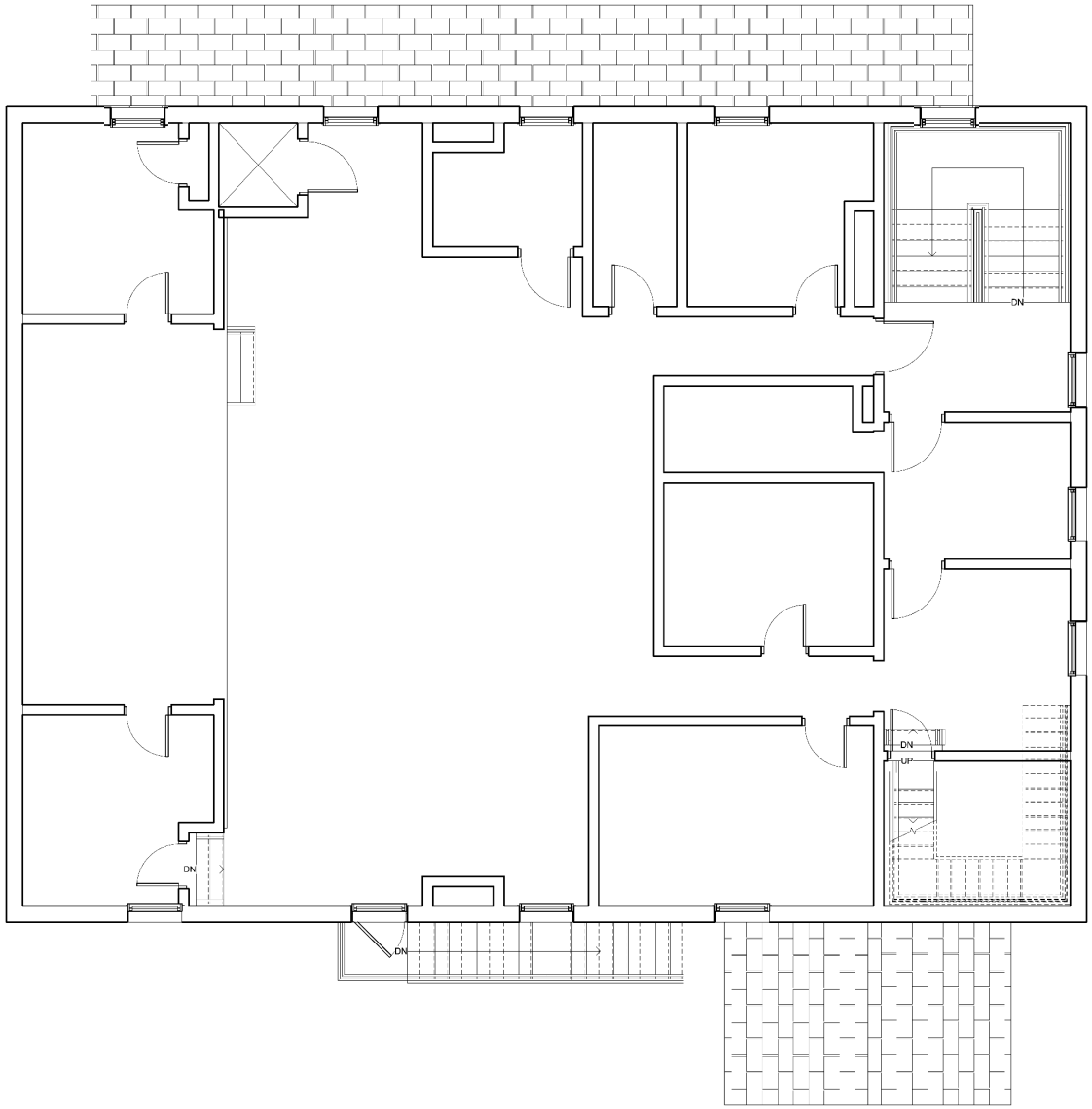
The main entrance on Main Street does not meet ADA requirements due to its position above the level of the sidewalk. An exterior ramp on the north side of the building provides an accessible door adjacent to the chair lift, a secondary entry. Due to the age of the building and the storage of physical records, the ground floor deflects excessively, causing uneven and squeaky floors throughout. The exterior wood cladding, recently painted, appears to be in good condition. The windows, including 17 large double-hung, single-glazed windows, are drafty and need to be replaced in-kind with thermally efficient and historically correct windows.

The report of 2018 by Vertex identifies existing conditions as of seven years ago. Existing structural conditions are noted in the SGH narrative, included here as Appendix A. Existing conditions of mechanical, plumbing, and electrical systems are identified in narratives by BLW, attached here as Appendix B.



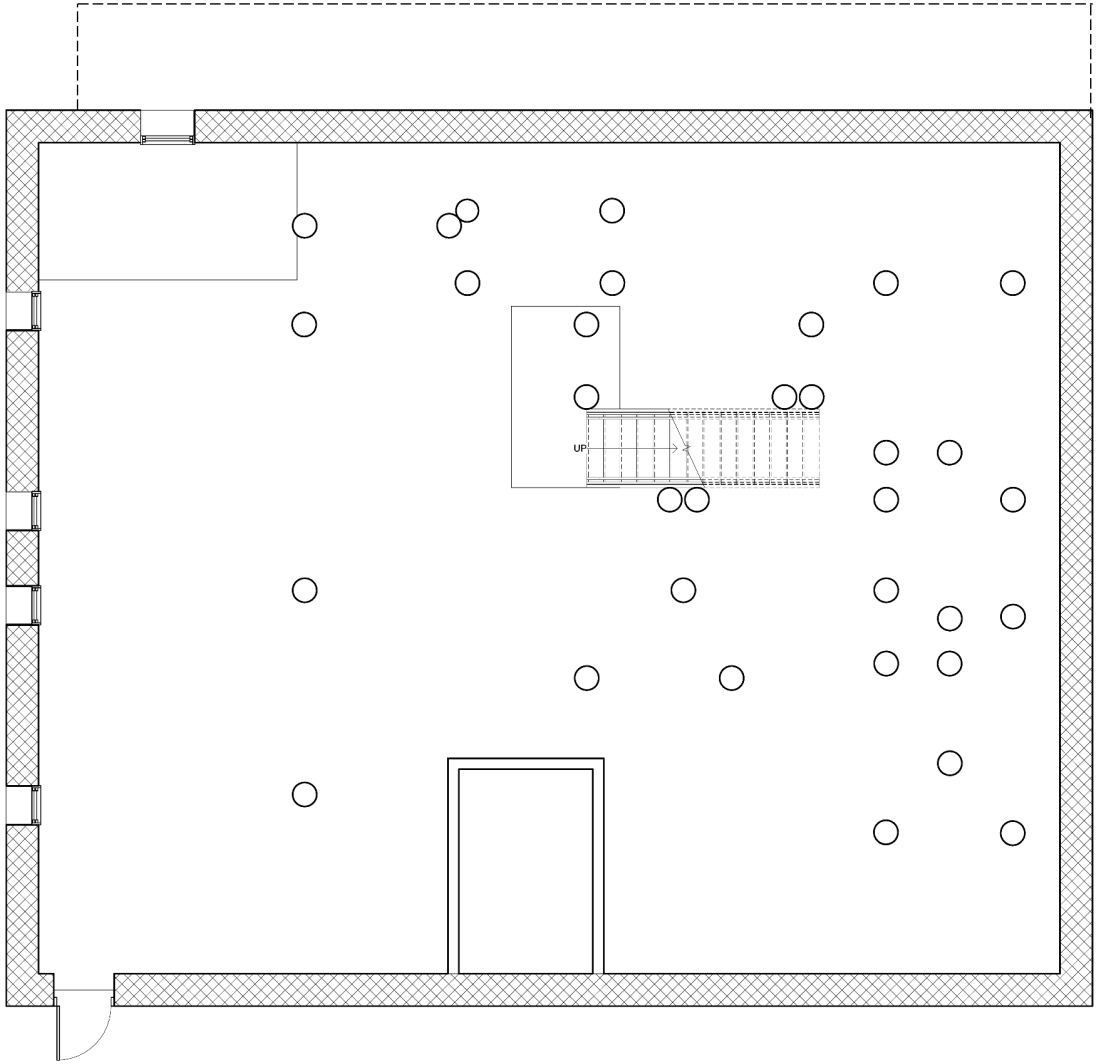
Meeting House, Existing Conditions
Ground Floor

0’ 4’ 8’ N



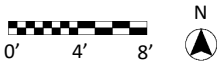
Meeting House, Existing Conditions
Second Floor

0’ 4’ 8’ N



Meeting House, Existing Conditions

Basement Floor

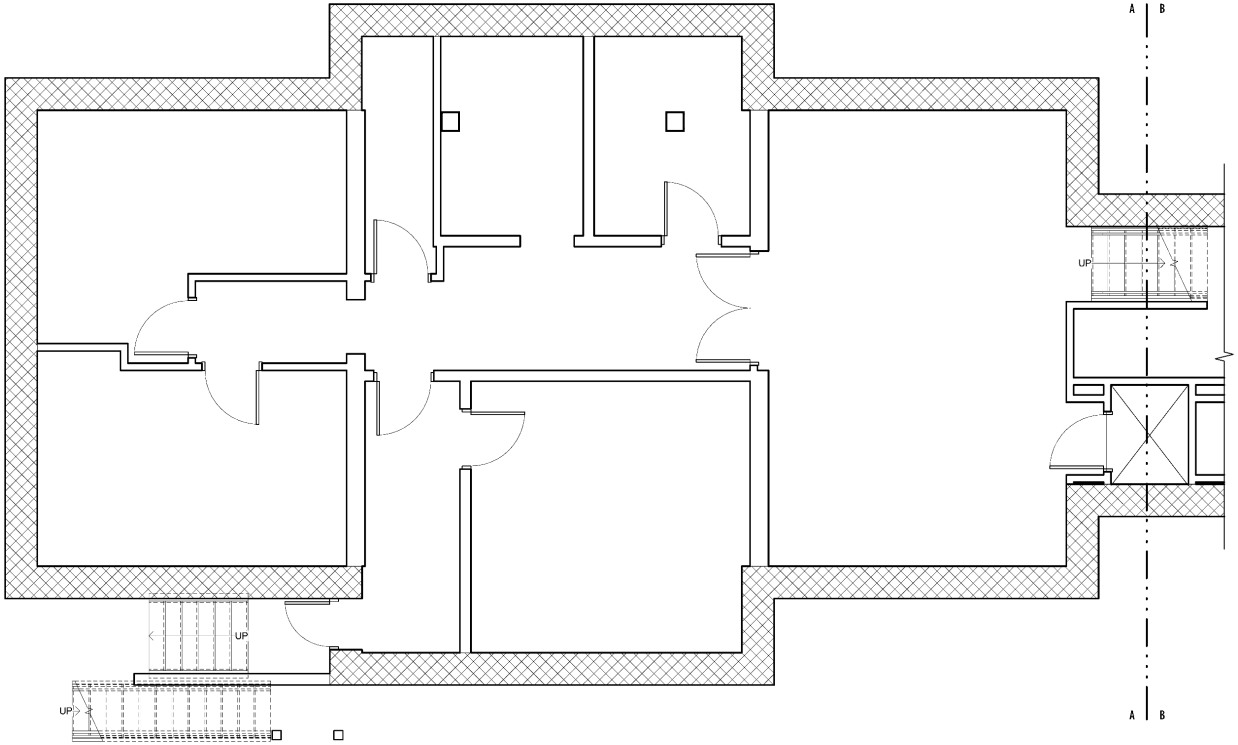


Ritter Memorial Building

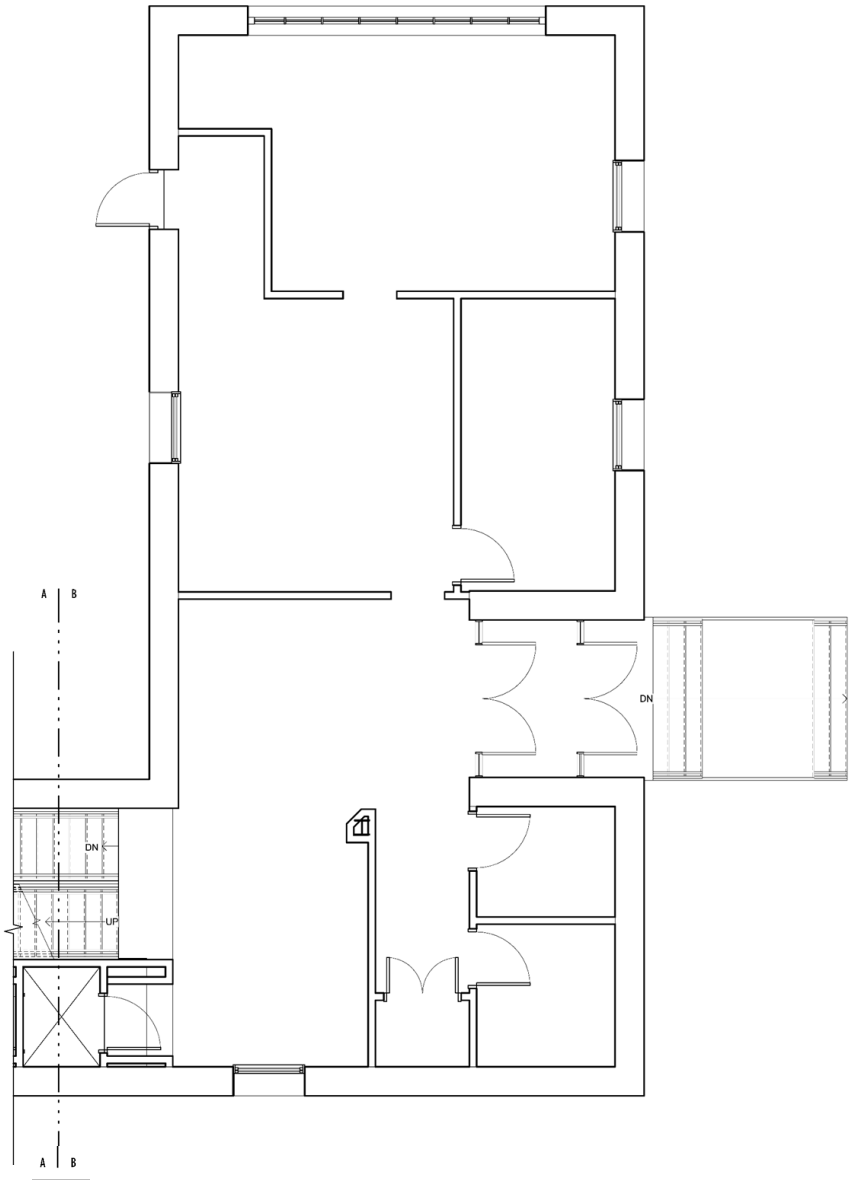
The Ritter Memorial located at 960 Massachusetts Avenue is a wood structure with exterior masonry bearing walls originally built in 1909 as the Lunenburg Public Library, with the addition of an east wing in 1963. The building is a protected historic structure, listed by the Massachusetts Historic Commission, and a contributing structure in the Lunenburg Historic District, a National Historic Registry District. The original 1909 structure is two stories of 1,550 square feet each, the lower of which is partially below grade and the upper is roughly 5 ½ feet above grade. The 1963 addition of 2,600 square feet was built between these two levels, creating a three-floor split-level building connected by a staircase and chair lift. The primary entrance of the building is located several feet above grade on the east side of the 1963 addition. An accessible entry located on the west face of the addition requires those who need to enter this door to travel several hundred feet from parking as well as to give advance notice to have the door unlocked. The Ritter Memorial currently contains office space for municipal functions that do not fit within the existing Town Hall. These offices are contained by walls that do not meet the ceiling, creating acoustic and privacy challenges.

The exterior masonry is in fair condition, in need of localized repointing. The shingled roof and metal gutters are scheduled for repair in spring 2025. Wood windows need to be replaced throughout. The steel windows of the 1963 addition, single-pane and drafty, require replacement. Wood trims need repair and repainting and replacement in places.

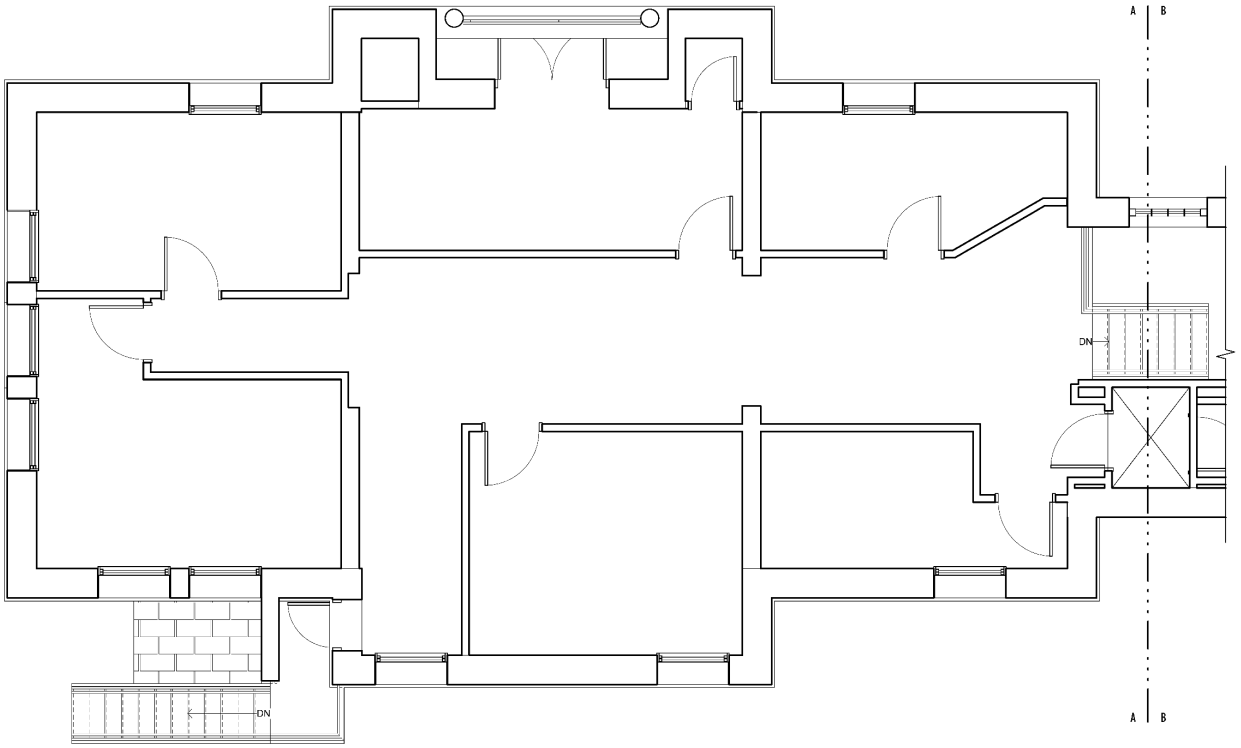
Existing conditions of the building as of 2018 are itemized in the Vertex report of that date. Existing structural conditions are noted in the SGH narrative, attached as Appendix A. Existing conditions of mechanical, electrical, and plumbing systems are addressed in the narrative by BLW, attached as Appendix B.



Ritter Memorial, Existing Conditions
Lower Floor



Ritter Memorial, Existing Conditions
Ground Floor



Ritter Memorial, Existing Conditions
Upper Floor

Schematic Design

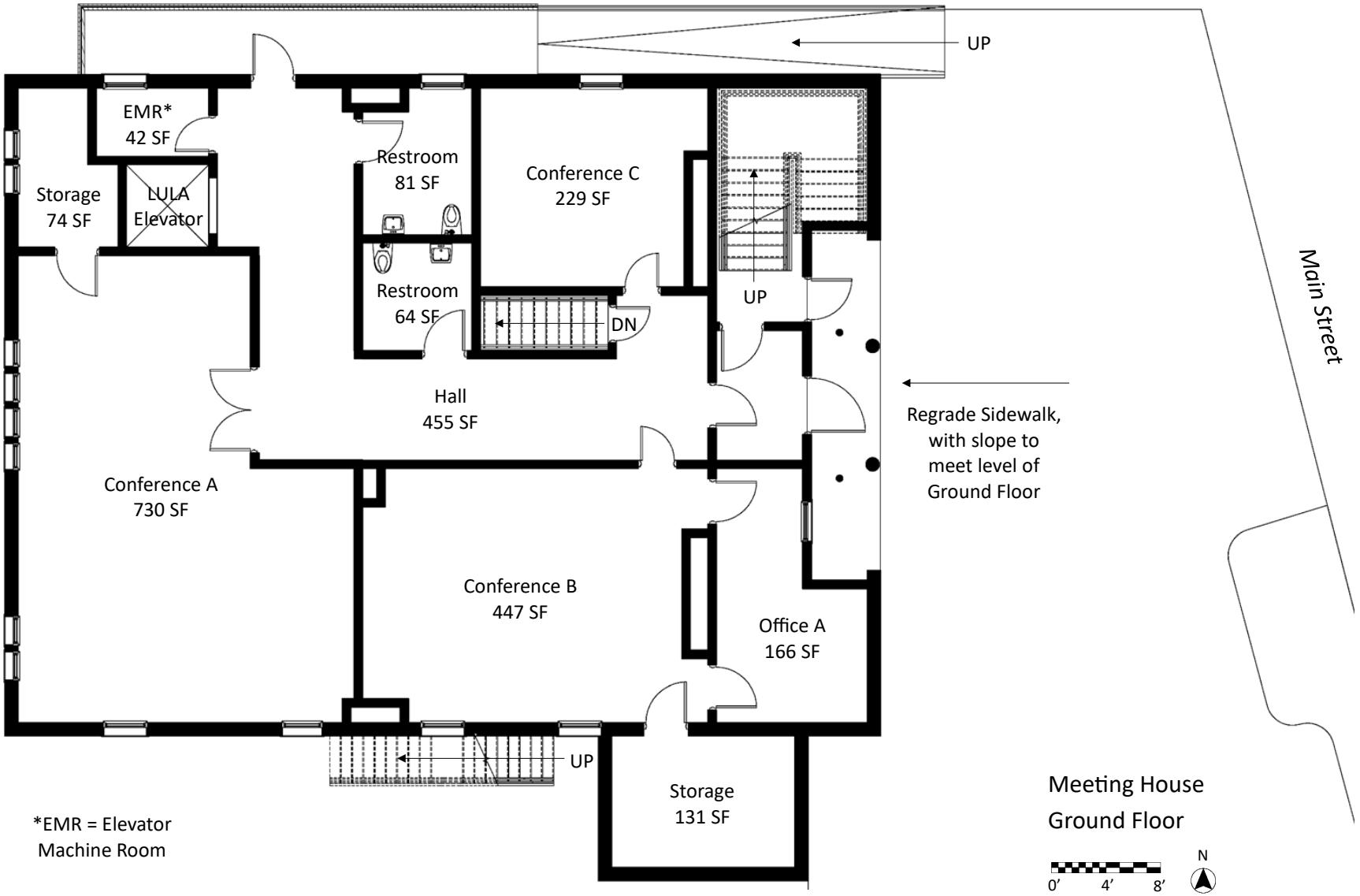
Meeting House

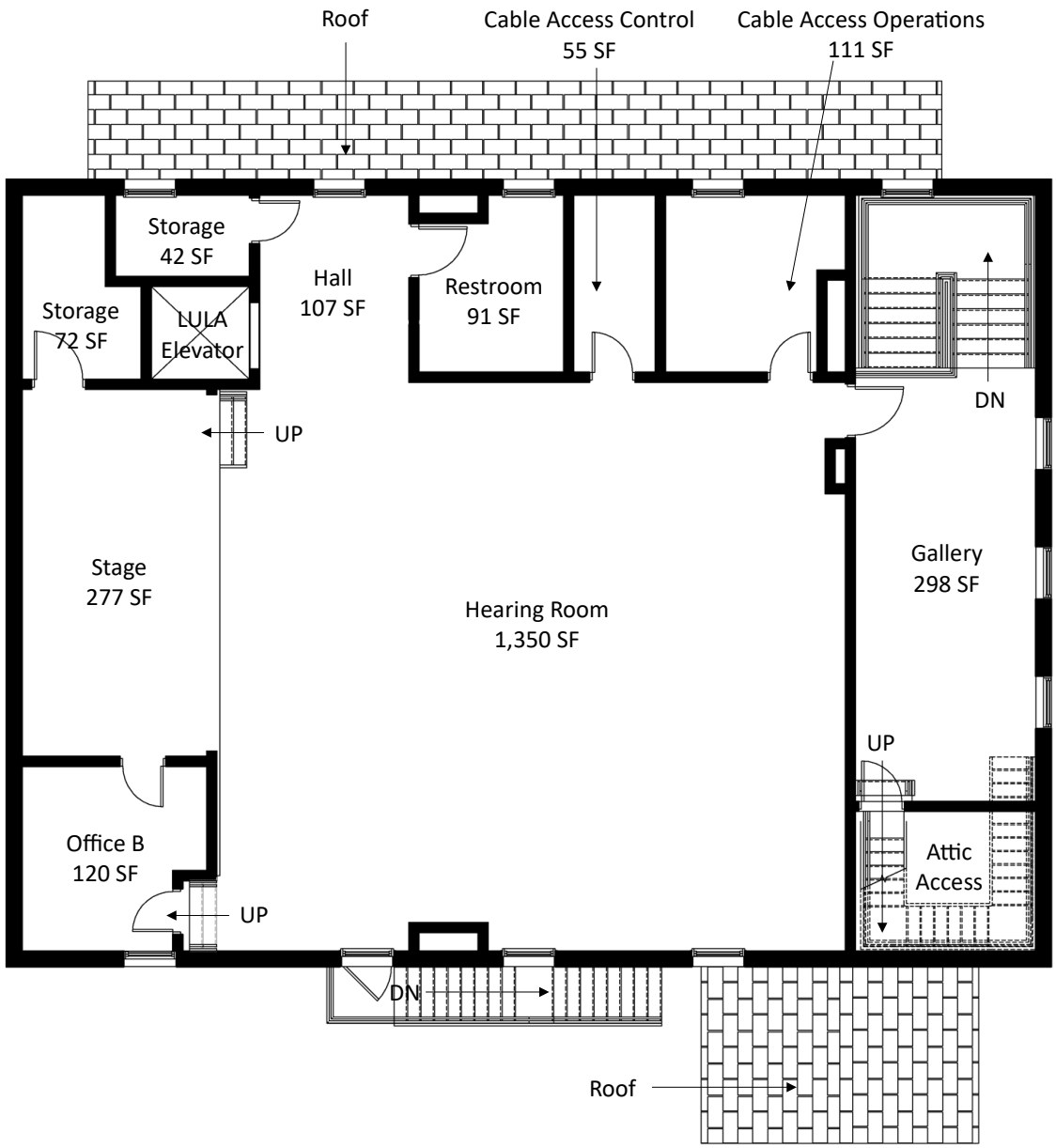
The Municipal Building Design Committee decided that the Town Hall should be renovated to serve as a Meeting House. Proposed renovations will continue the building's use for town business functions, with the second floor continuing as an assembly space; change of occupancy is not in the project scope. On the ground floor the reconfiguration of non-structural walls will create three new conference rooms of varied size to accommodate a range of meetings. Storage and offices will also be provided in anticipation of staffing growth. Two accessible single-user restrooms are proposed – one new and one existing, with new fixtures and finishes. A new limited use/limited application (LULA) elevator is proposed to replace the existing lift, for access between floors. A full-size elevator is not recommended because of the costly structural changes required to accommodate the regulation hoistway and pit.

Proposed renovation of the second floor will enlarge the Hearing Room from 1,000 square feet currently to 1,350 square feet. The existing stage will remain as-is, and the tin ceiling will be restored. Public Access Cable control rooms will continue servicing the Hearing Room. A new gallery space at the top of the main stair will allow gathering and discussion outside the Hearing Room without disturbing proceedings within. Similar to the floor below, storage, office space, and a renovated restroom are included in the redesign of the second floor.

Proposed interior gypsum walls with acoustic insulation will be finished with wood wainscoting, chair rail, and wall base. New carpet tile flooring and painted plaster ceilings will be installed throughout over floors that will be leveled and repaired so they no longer squeak; the old floorboards will be refastened to the supporting joists.

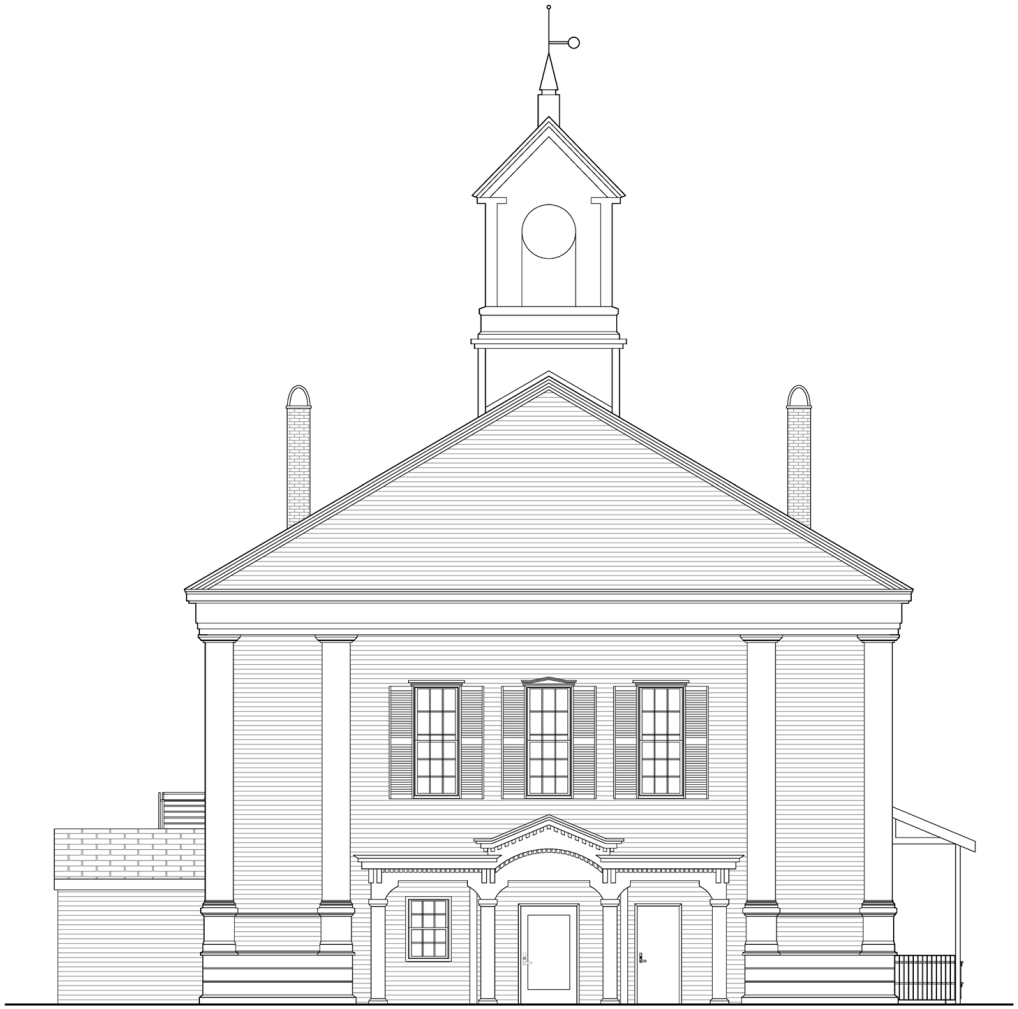
To address inaccessibility at the primary entrance, proposed renovations will raise the front porch to be level with the ground floor, and the sidewalk will be regraded to meet the porch with a gentle slope of less than five percent to avoid handrails, maintaining the character of the historic façade. Proposed exterior improvements include replacing all windows with historically correct insulating windows of matching style, replacing the front door, repairing the clock tower, and reinstalling the weathervane and replicated finial.


UP
EMR*
42 SF
Storage
74 SF
LULA
Elevator
Restroom
81 SF
Conference C
229 SF
Restroom
64 SF
DN
UP
Hall
455 SF
Regrade Sidewalk,
with slope to
meet level of
Ground Floor
Main Street
Conference A
730 SF
Conference B
447 SF
Office A
166 SF
UP
Storage
131 SF
*EMR = Elevator
Machine Room
Meeting House
Ground Floor
0'
4'
8'
N



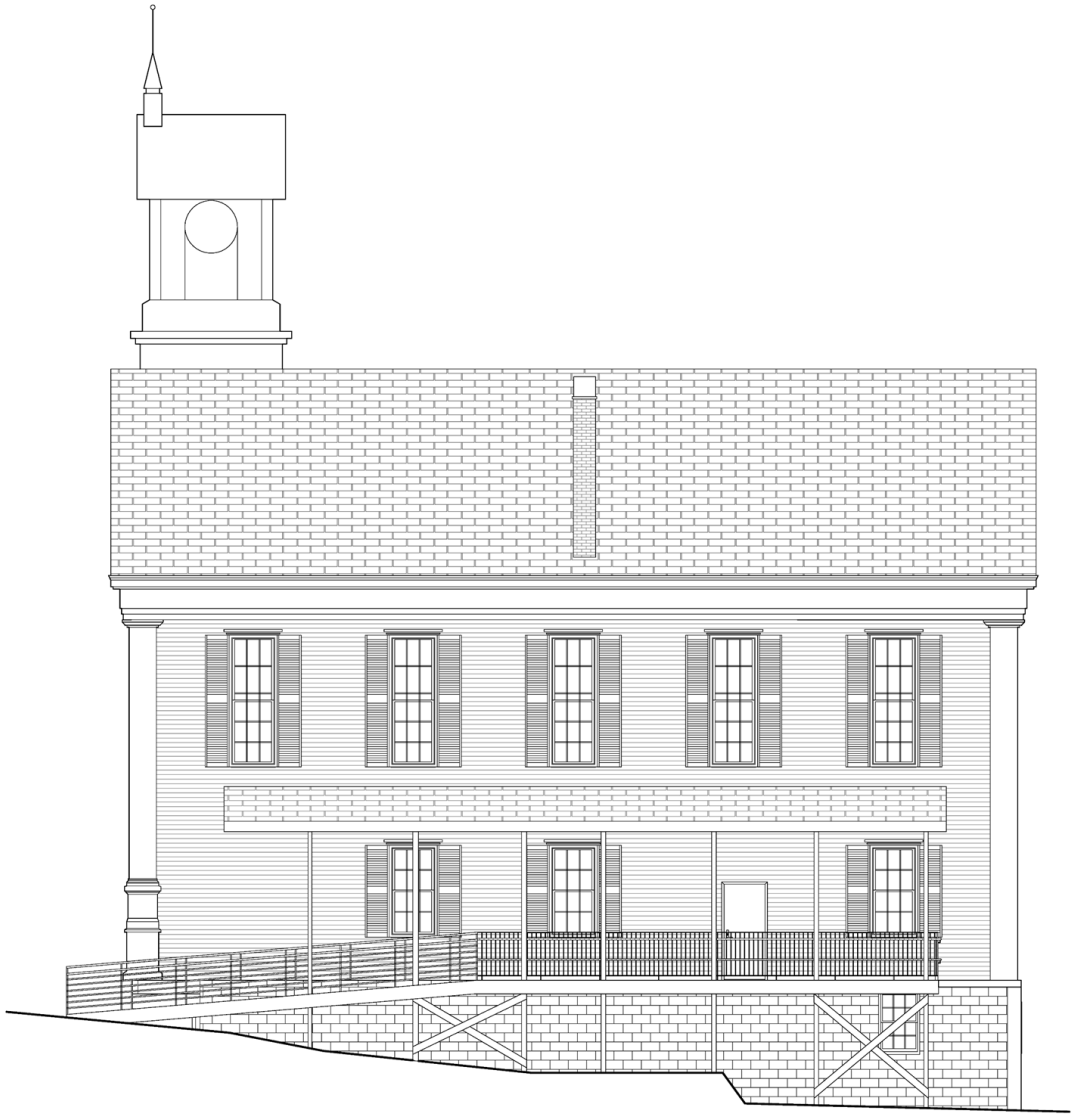
Meeting House
Second Floor

0’ 4’ 8’ N



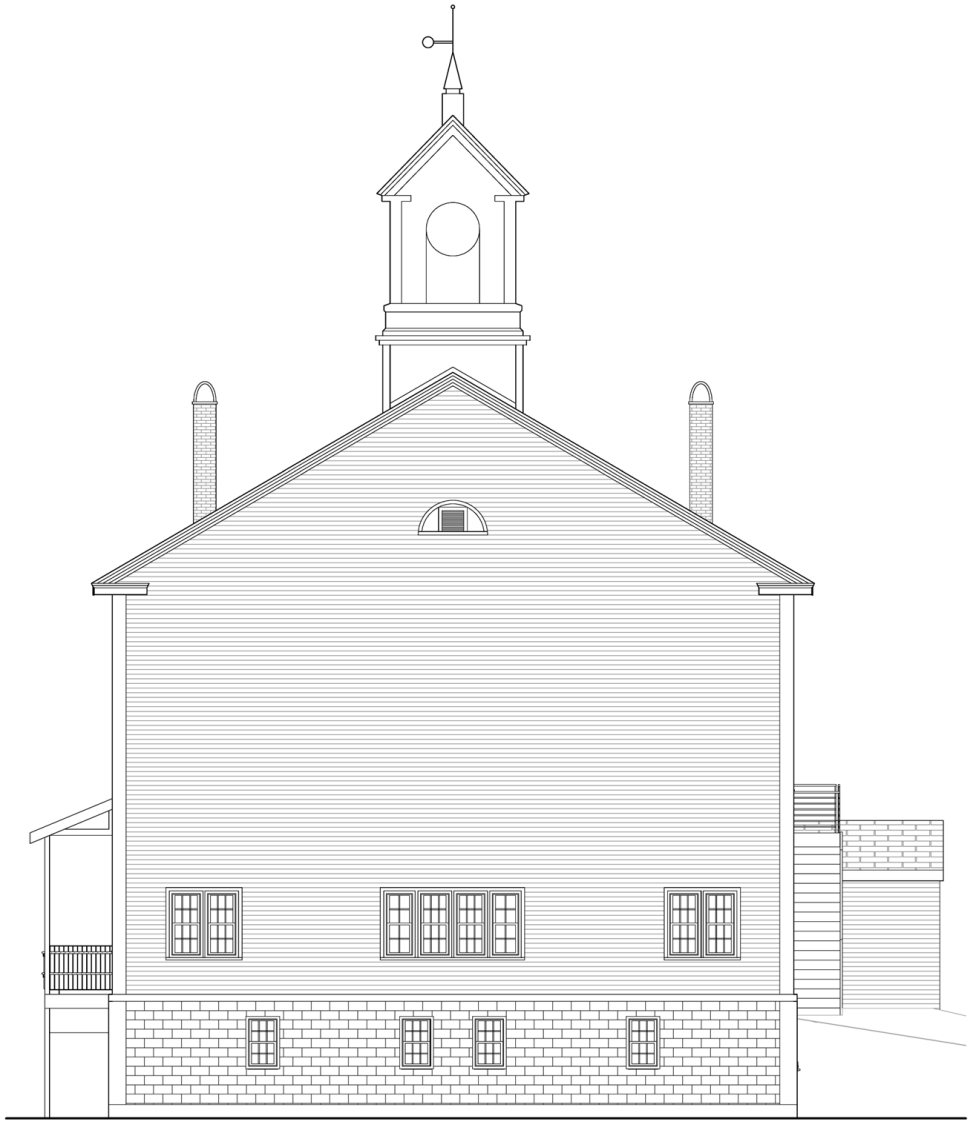
Meeting House
East Elevation

0’ 4’ 8’



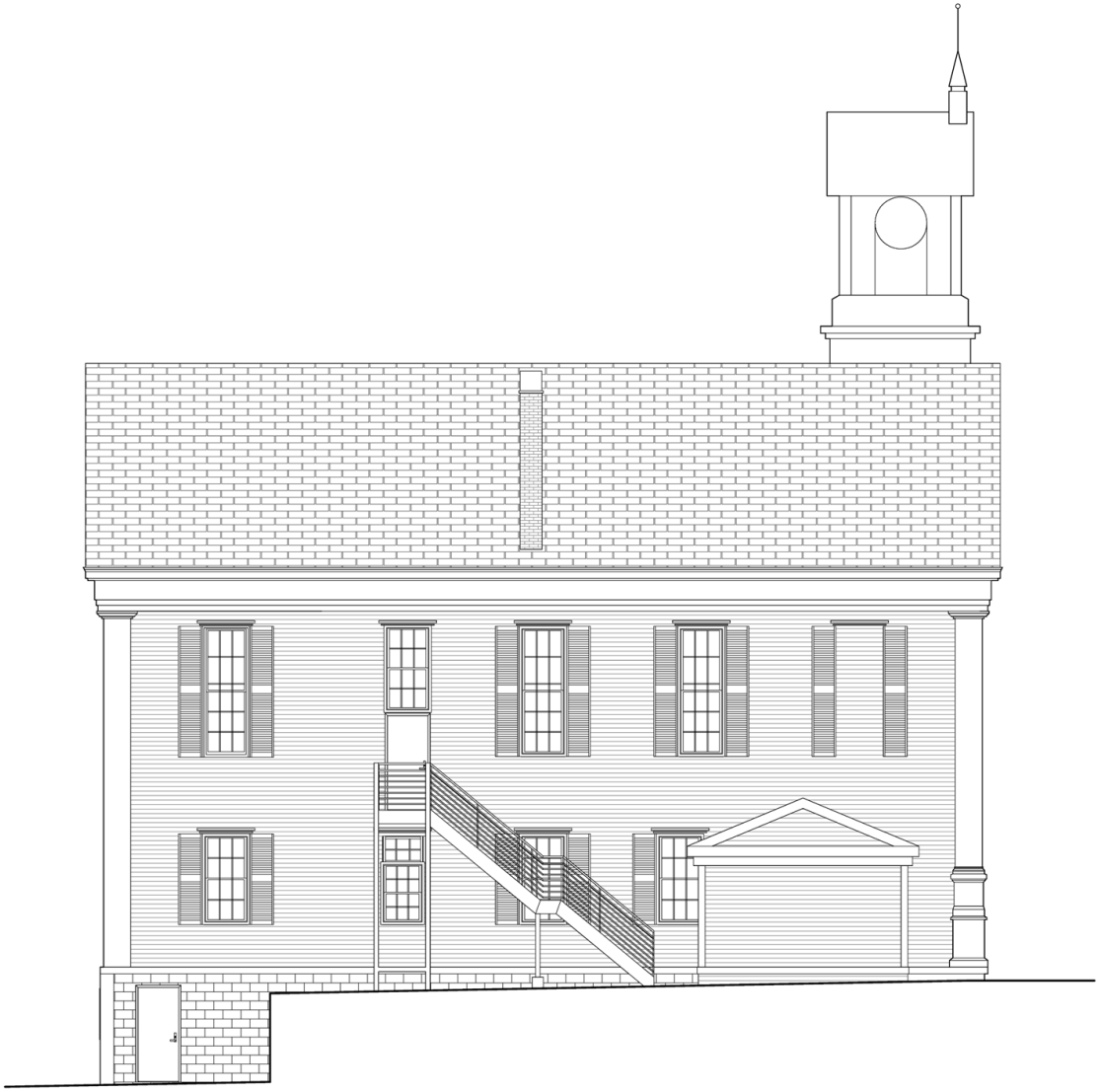
Meeting House
North Elevation

0’ 4’ 8’



Meeting House
West Elevation

0’ 4’ 8’



Meeting House
South Elevation

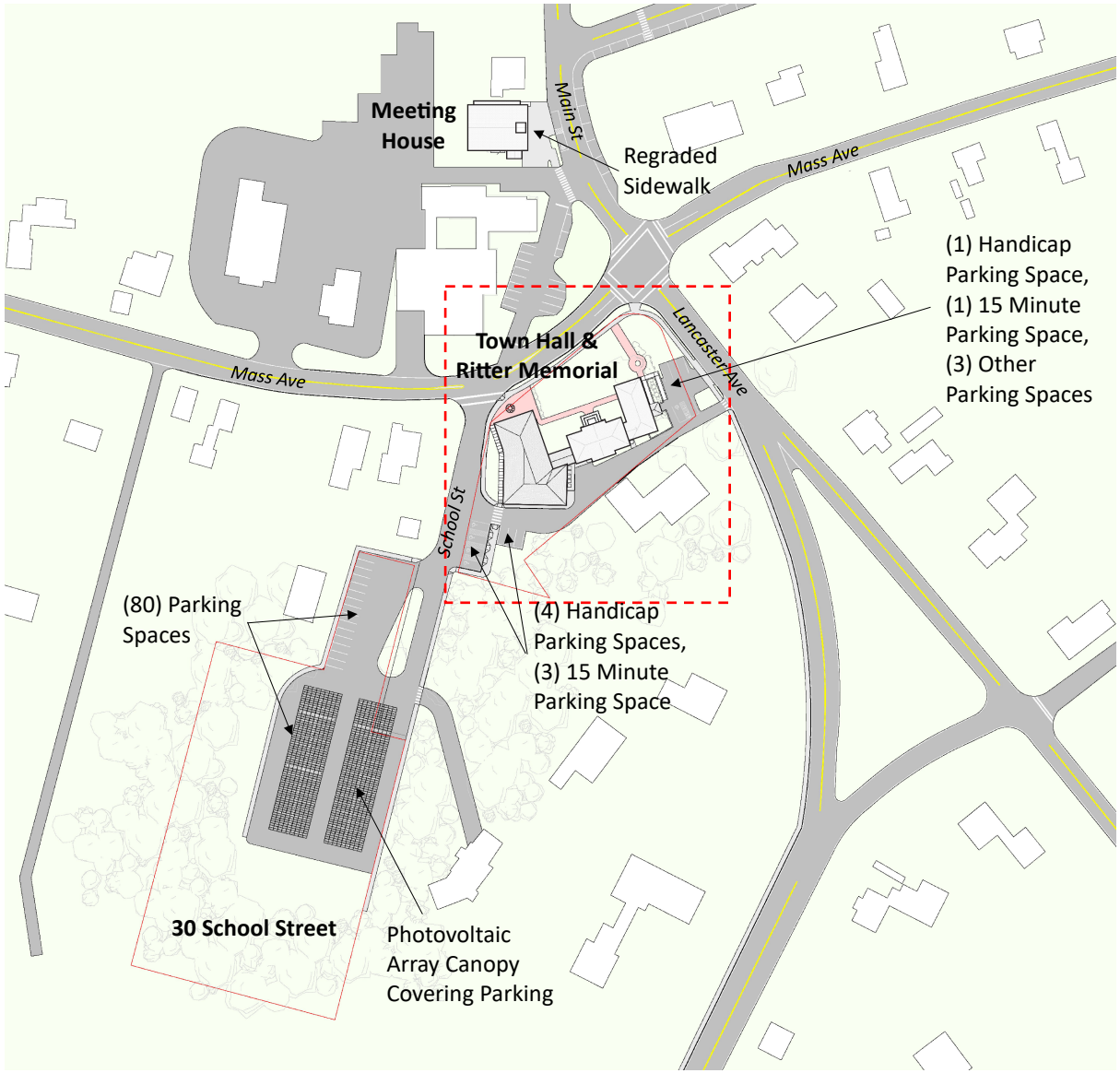
0’ 4’ 8’

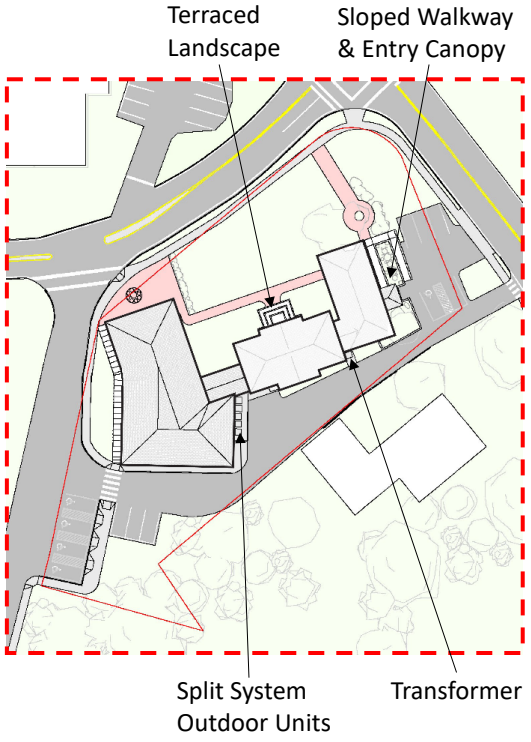
Ritter Memorial Building and New Town Hall

The Municipal Building Design Committee determined that the new Town Hall should be located next to the Ritter Memorial, and ideally, to connect to it to address accessibility problems in the split-level Ritter. Taylor & Burns Architects performed massing and program studies to find the most appropriate location and orientation of the Town Hall addition. These studies show that the west side of the site – rather than the east side – is the optimal location for the new Town Hall, for several reasons. First, the area alongside Lancaster Avenue is too limited for the proposed Town Hall footprint as a two-story accommodation of the proposed program – it would crowd the site and Ritter, its forward position and height overwhelming the smaller, set back Ritter Memorial. Second, a new Town Hall on the east side, at the corner of Massachusetts Avenue and School Street, would be most convenient for those parking in the proposed new parking lot at 30 School Street. By contrast, a new Town Hall on the east side, along Lancaster Avenue, would be twice the distance from the proposed School Street parking lot and would require removal of accessible parking currently located east of Ritter. Third, locating the new Town Hall on the east side of Ritter would also require the demolition of the 1963 addition, which represents more than 2,600 square feet of well-built space with a replacement value of more than one million dollars. Finally, the inaccessible floor levels of Ritter are difficult to align with a new accessible Town Hall addition on the east, requiring a five-stop roll-through elevator tower at their junction. On the following pages proposed and alternate site plans illustrate these issues.

The proposed Town Hall west of Ritter will create a U-shaped courtyard facing Massachusetts Avenue. The courtyard will have terraced seating in the place of the missing stairs original to the Ritter Memorial, providing a focal gathering space and landscape figure that repairs, not replaces, the lost architectural feature. A new pathway of pavers will connect the Town Hall entrance on the west of Ritter to the 1963 addition on the east.

On the School Street side of the proposed Town Hall and the Lancaster Avenue side of Ritter Memorial five handicap parking spaces, four short term parking spaces, and three other parking spaces are provided. An additional eighty parking spaces are proposed southwest of Town Hall on a town-owned property at 30 School Street. This parking lot will be covered by a structured photovoltaic array and will have new sidewalks for safe pedestrian access to Town Hall and Lunenburg Village Center District.

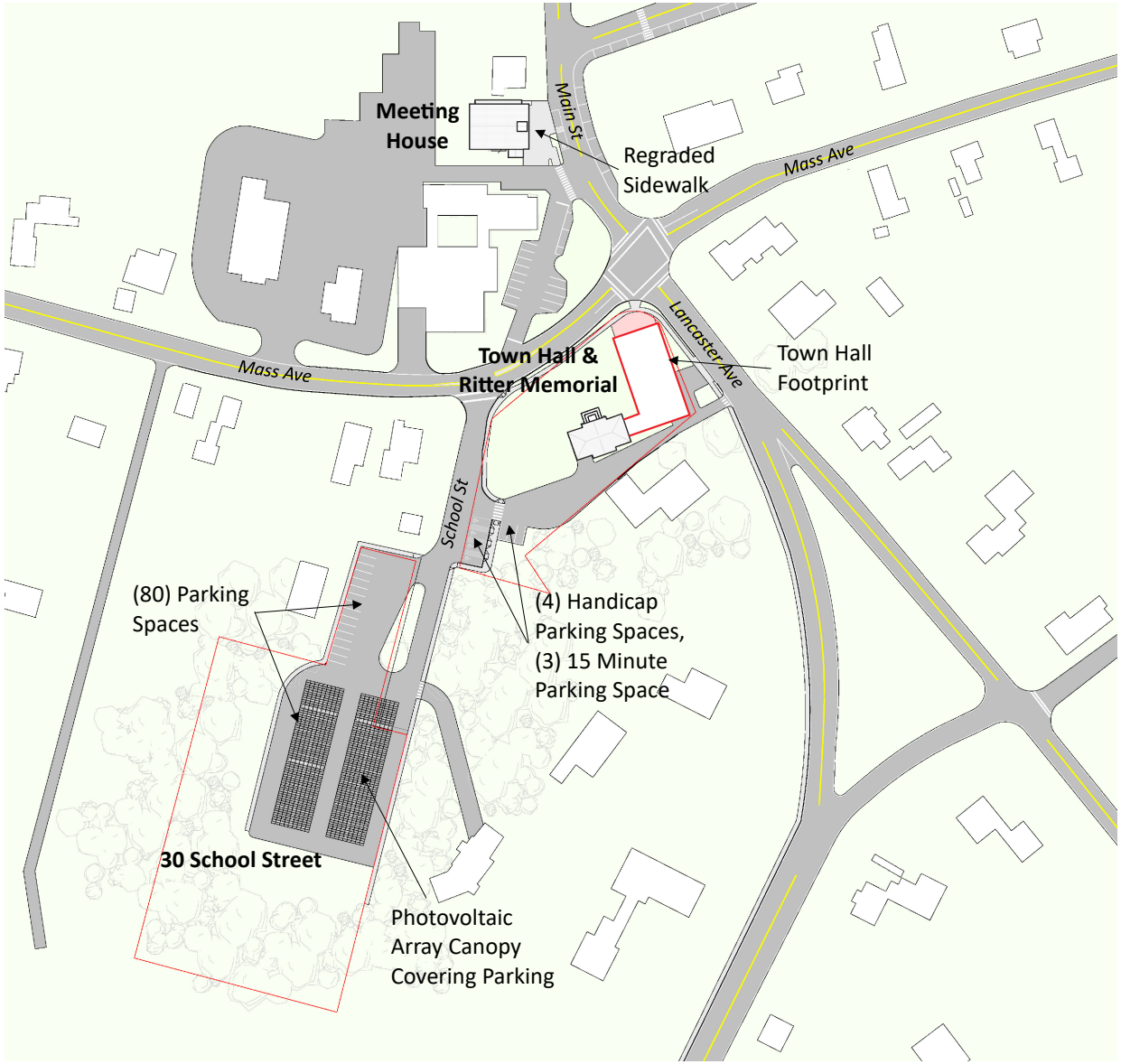




Not to Scale

Proposed Site Plan

0' 70' 140' N



Alternate Site Plan Study

0' 70' 140' N

The proposed Town Hall will have two public entrances: a side entry on School Street to serve those traveling from the proposed parking lot, and a main entry with a new paved area on Massachusetts Avenue. A colonnade enhances these two street-facing sides of the building. Facing School Street, the colonnade supports a glazed roof to shelter people approaching the building with a daylit porch. The side facing Massachusetts Avenue has two-story pilasters signaling the building's civic presence in Lunenburg village center, woven together with the smaller-scaled columns for the School Street colonnade. To complement the existing Ritter Memorial, the exterior will be finished with white clapboard siding, a white brick wall base, and an asphalt shingle roof, familiar vernacular architectural materials of New England.

In the proposed design, a staircase inside the main entry will access all three floors, in addition to a centrally located elevator and second stairwell. The ground floor of the new Town Hall, 5,300 square feet in area, will primarily be occupied by town departments such as the Assessor, Accounting, Treasurer, Town Clerk, Registrar, and Parks & Recreation. At the request of the Assessor's Office and the shared Accounting & Treasurer, these spaces will have transaction counters to meet the public. Other program accommodated will include the Facilities Manager, Information Technology, Veterans' Affairs, and Copy Room. Two new accessible restrooms and a custodial closet are located next to the elevator. Because the proposed Town Hall will be fully accessible with a first floor entrance roughly at-grade, and the existing floor levels of Ritter do not align with grade, a ramp between the new Town Hall addition and the renovated Ritter Memorial allows easy navigation between the offset floor levels.

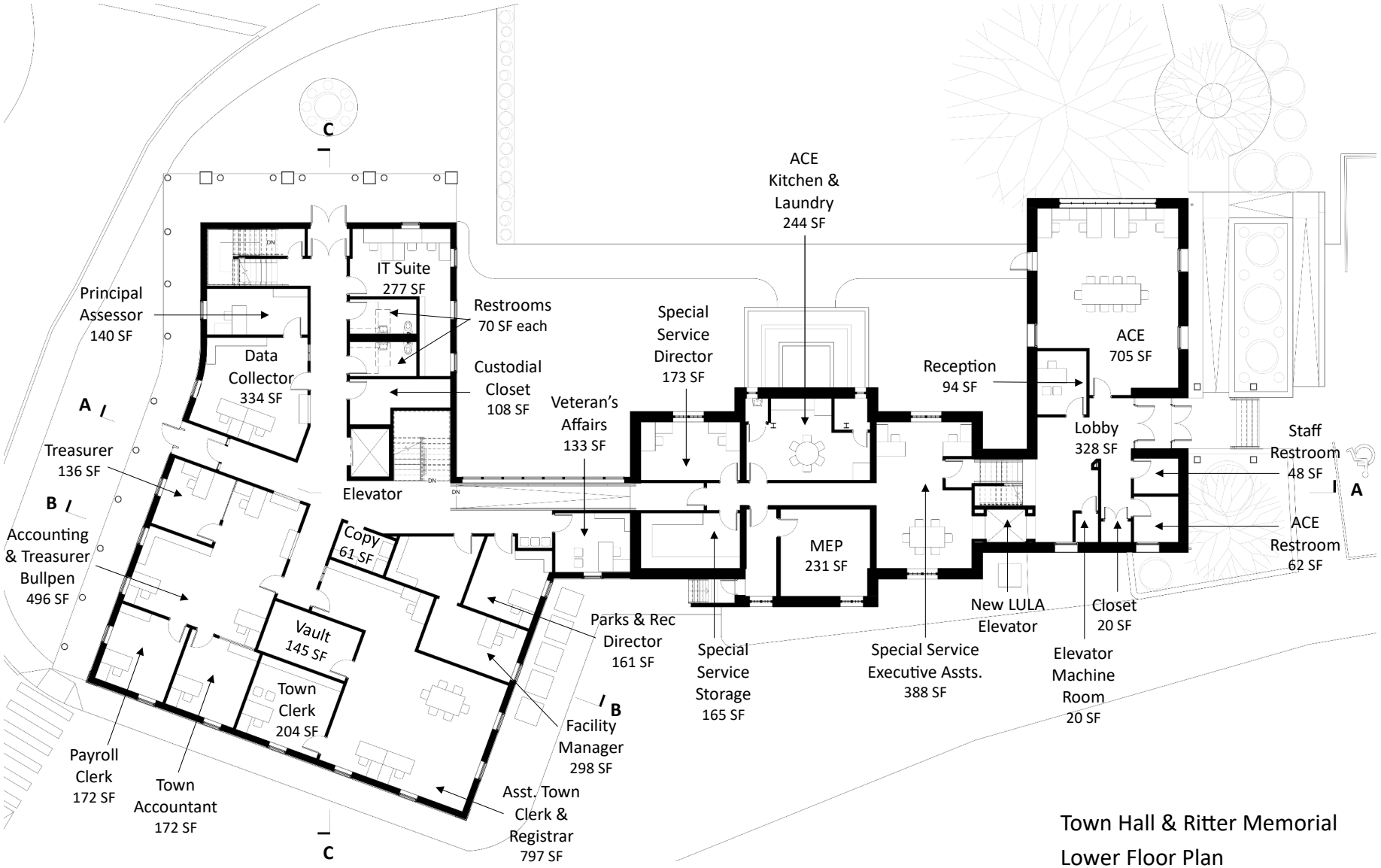
The proposed upper floor plan of the new Town Hall, 5,300 square feet in area, contains offices and waiting areas for the Building Commissioner, Planning and Conservation, Town Manager, Communications Specialist, and Board of Health. The Building Department and shared Planning Department and Conservation Bullpen have dedicated waiting rooms. A larger waiting room overlooking Massachusetts Avenue and Lunenburg village center is available for all at the top of the stairwell. With ongoing digitization efforts, record storage spaces are designed to be adaptable and allow for staff growth. Two multi-user restrooms and a custodial closet are located on this floor, as well as a kitchen and copy room between the Town Hall and Ritter Memorial to serve Town Hall and School Department staff.

Town Hall interiors will be finished with gypsum ceilings and resilient tile floors in corridors. Offices and meeting rooms will have carpet tile flooring and acoustic ceiling tiles. Painted gypsum walls with acoustic insulation will have wood wainscoting, chair rail, and base. Transaction counters will be wood trimmed with solid hardwood transaction counters. Generous interior windows and "borrow-light" transoms will share daylight throughout the interior, symbolic of transparency in town affairs.

The proposed basement of Town Hall, 4,000 square feet in area and accessed by two stairs and elevator, will house the Public Access Cable (PAC) studio with tall ceilings and ample space for equipment. PAC's program includes reception, studio, control room, editing, storage, and offices. Mechanical, electrical, and plumbing rooms are also provided (see attached MEP/FP narrative). To protect Ritter's foundations, the Town Hall footprint adjacent will be unexcavated, supported by shallow foundations beneath the frost line.

Proposed renovations to Ritter Memorial to accommodate the School Department will reconfigure all three levels and the east entrance of the 1963 addition. That entrance will lead to the ACE program on the right, and a reception room for parents and school administration to meet privately. At the top of the stairwell, an open office with a half-door transaction counter greets visitors. A new staircase and LULA elevator will provide access to the upper and lower levels of the 1909 building. On the upper level will be offices for School District Superintendent, Director of Teaching & Learning, and Human Resources on the. On the lower level will be Special Service Directors, Executive Assistants, storage and a kitchen and laundry room for the ACE program. Other spaces include refinished restrooms, storage closet, and an elevator machine room. Interior finishes include painted gypsum wall assemblies with acoustic insulation, new carpet tile flooring and new resilient tile flooring and hardwood base, and repaired acoustic tile ceilings.

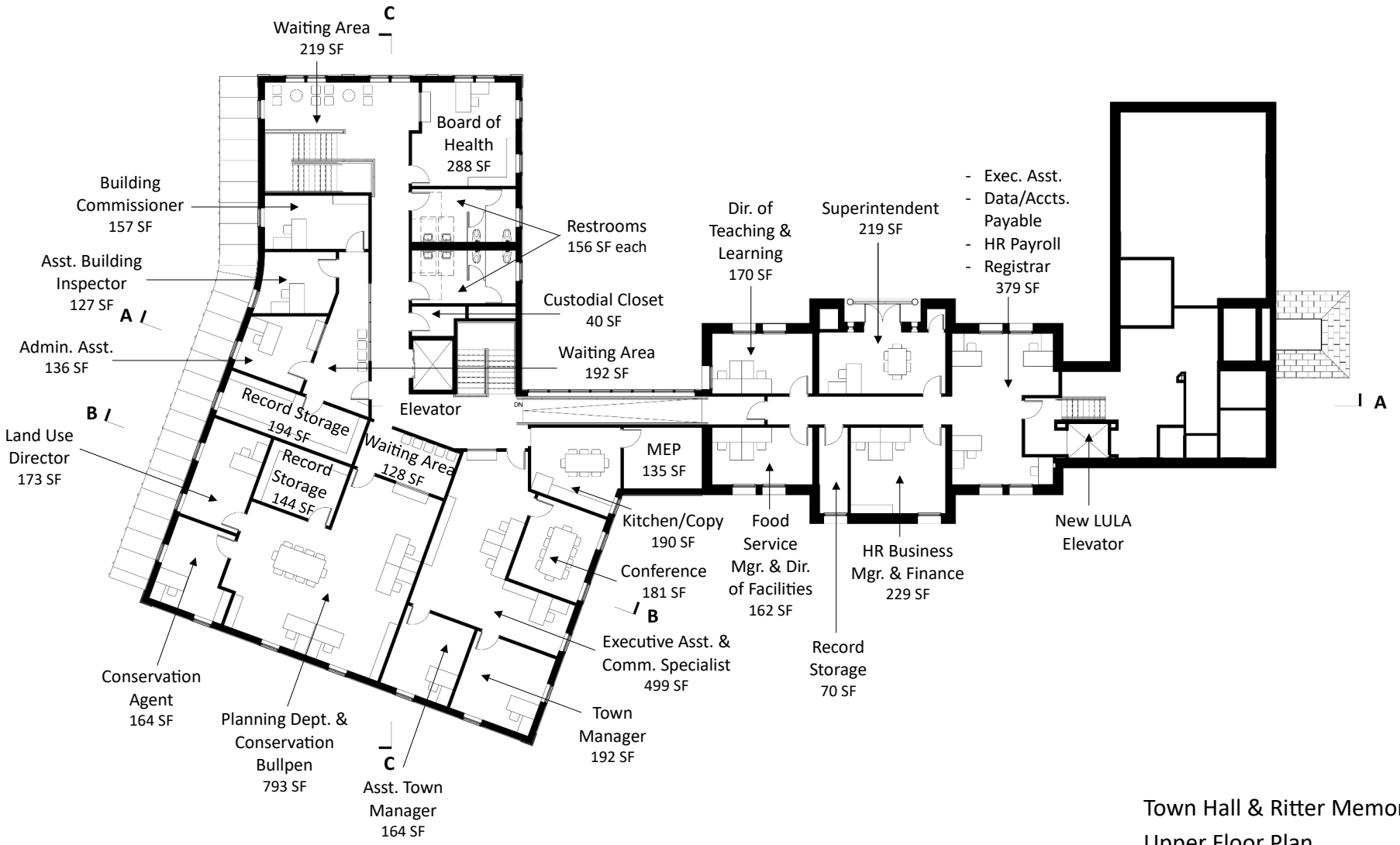
Proposed improvements to the exterior of the Ritter Memorial include replacing windows with historically correct insulating windows of matching style. The entrance on the east will be made accessible by sloped walkway around a new garden with fieldstone walls salvaged from existing walls on site. A new stair and canopy combined with the sloped walkway will welcome building occupants and visitors of all abilities to enter at the same location. A new set of double doors with sidelights and transom will provide space within the vestibule to meet accessibility requirements. Repairs will also be made to deteriorating fascia, soffit, and ornamental details.



Town Hall & Ritter Memorial
Lower Floor Plan

0' 8' 16'

N



Town Hall & Ritter Memorial
Upper Floor Plan

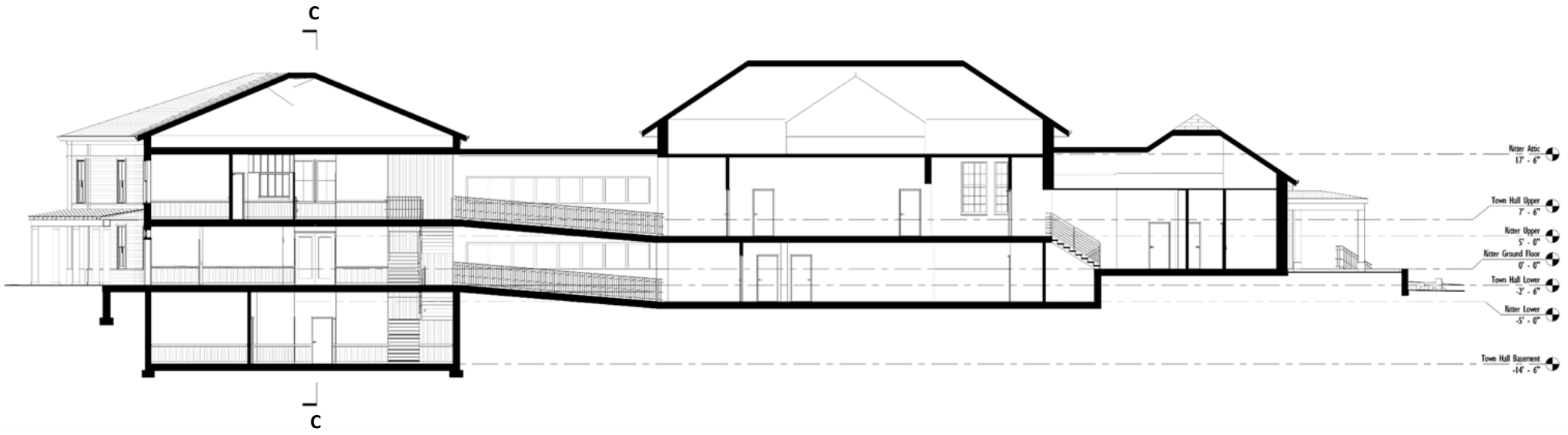
0’ 8’ 16’

N

Town Hall & Ritter Memorial
Basement Floor Plan

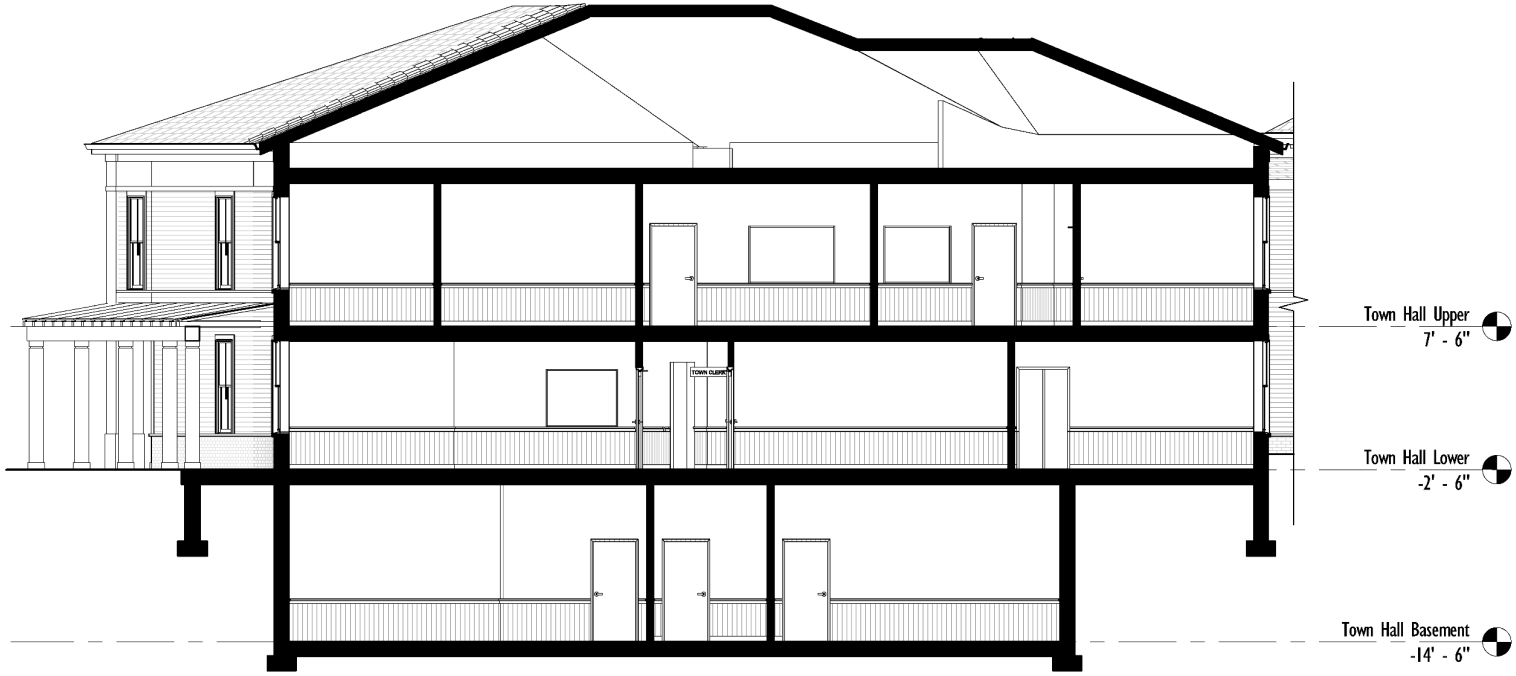
N

0’ 8’ 16’



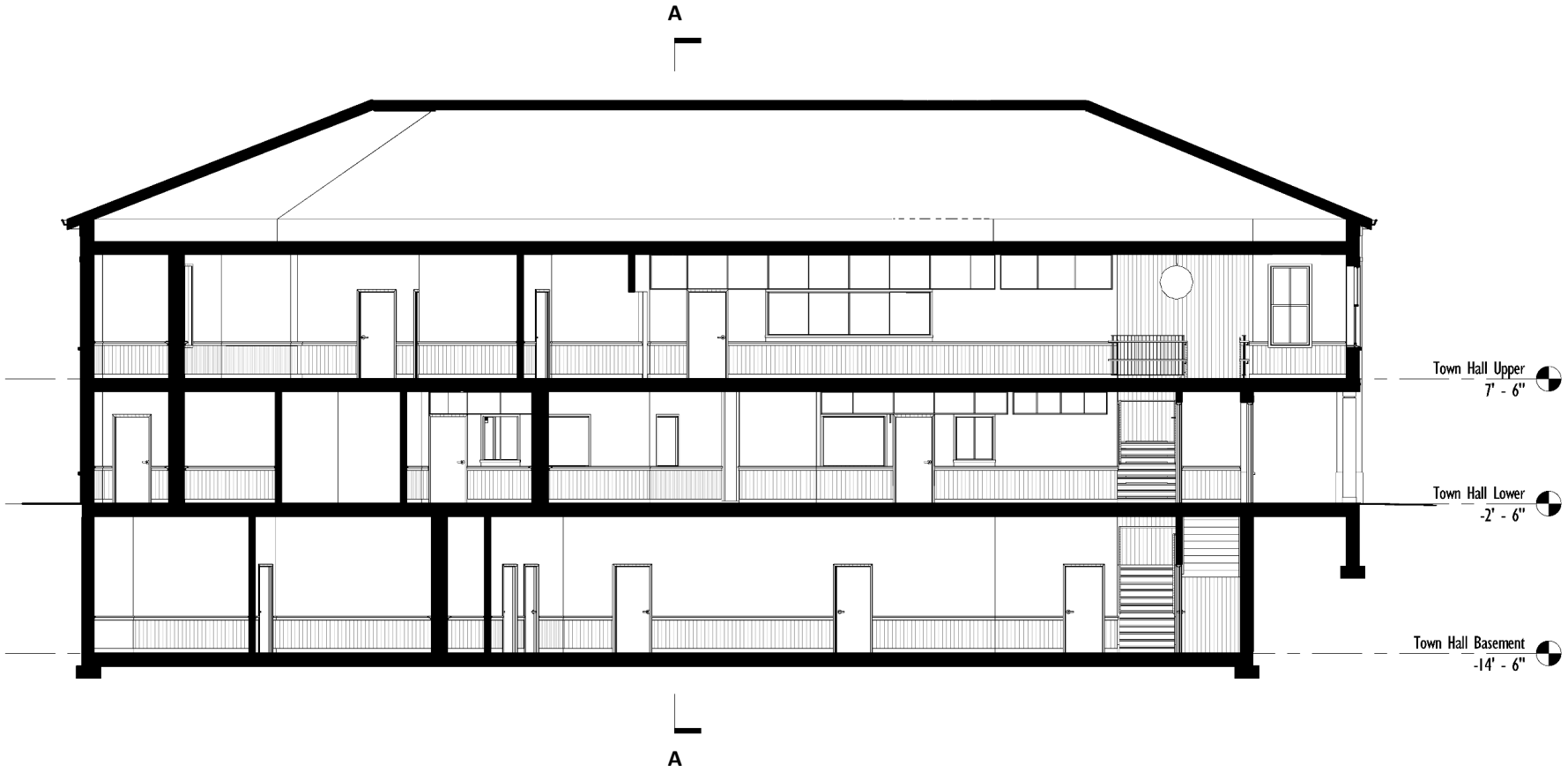
Town Hall & Ritter Memorial W-E
Section A

0’ 8’ 16’



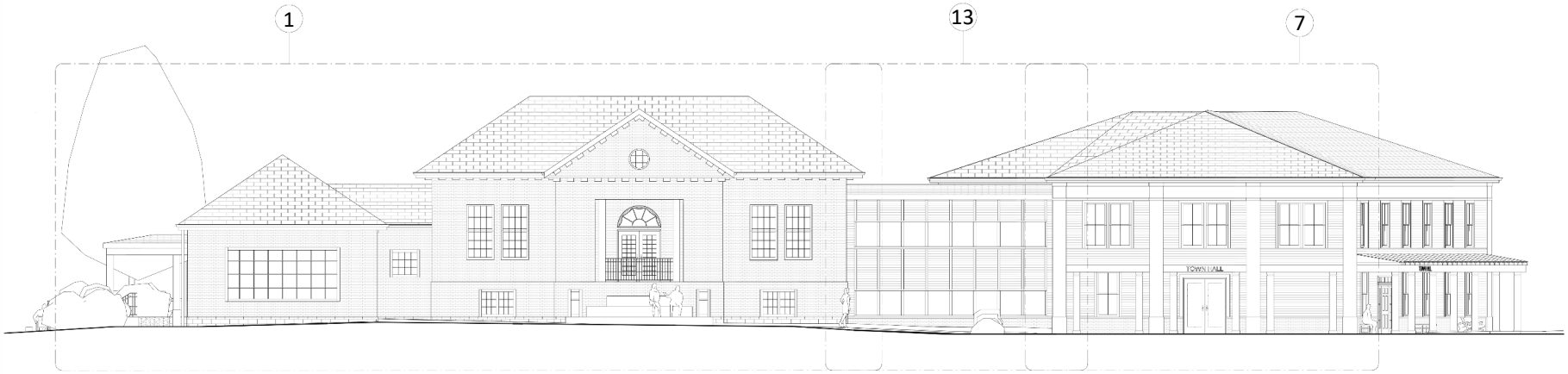
Town Hall W-E
Section B

0' 8' 16'



Town Hall N-S
Section C

0' 8' 16'

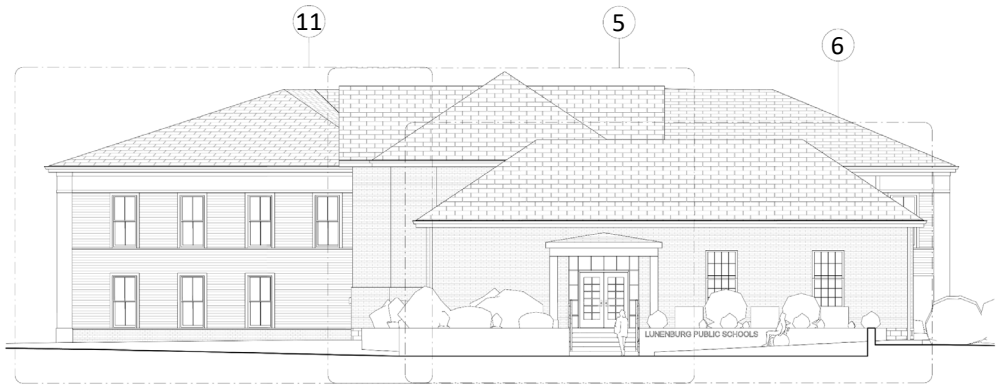


Town Hall & Ritter Memorial
Overall North Elevation

0’ 8’ 16’

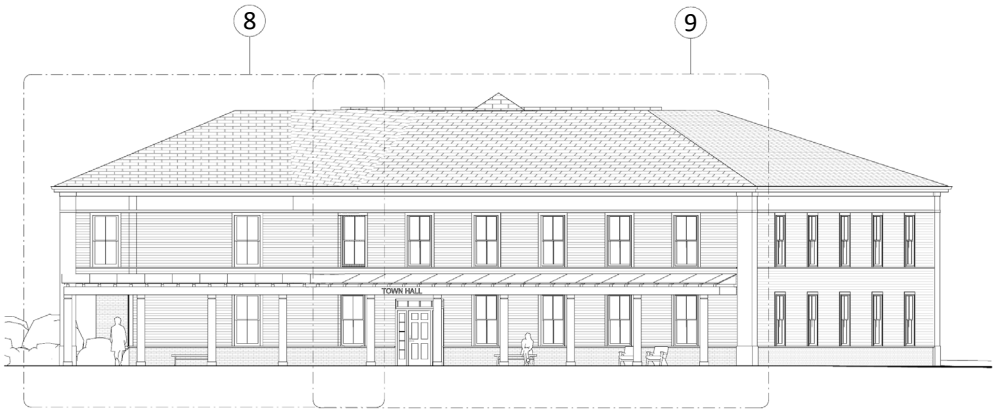
Town Hall & Ritter Memorial
Overall South Elevation

0’ 8’ 16’



Town Hall & Ritter Memorial
Overall East Elevation

0′ 8′ 16′

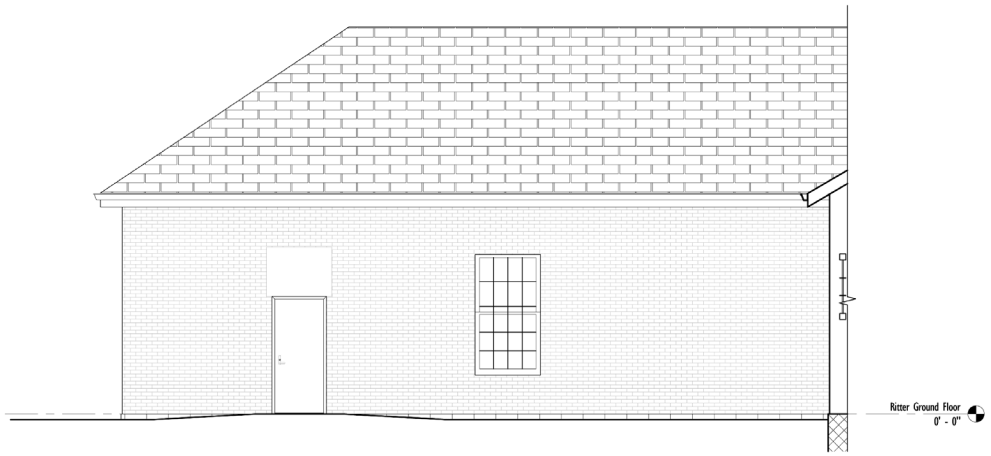


Town Hall & Ritter Memorial
Overall West Elevation

0′ 8′ 16′

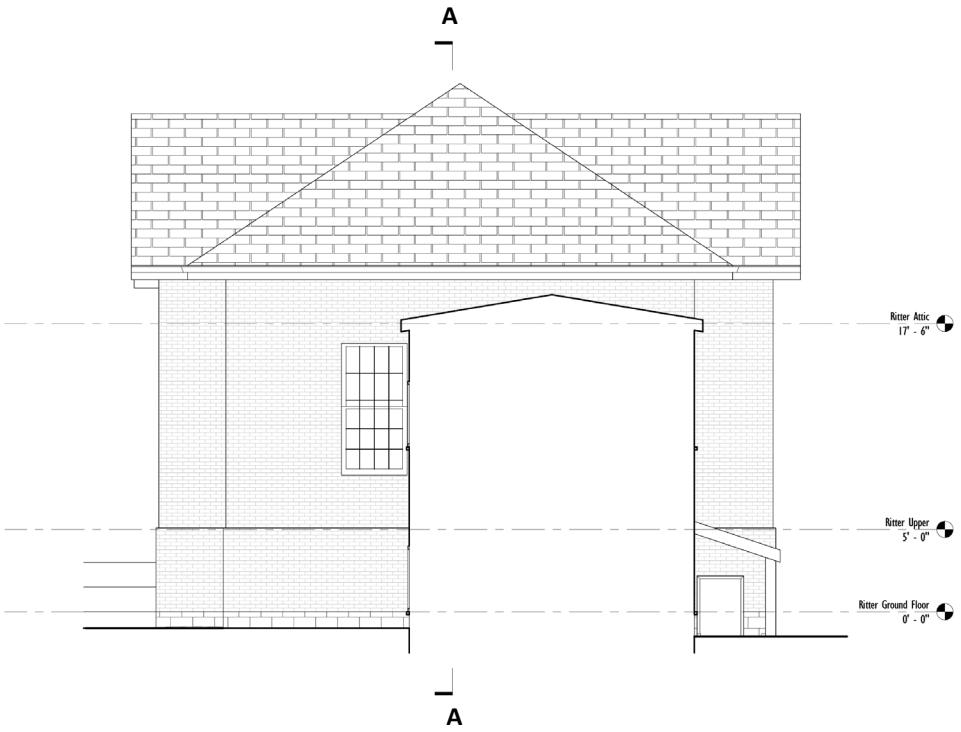
Ritter Memorial
North Elevation (1)

0' 4' 8'



Ritter Memorial, 1963 Addition
West Elevation (2)

0’ 4’ 8’

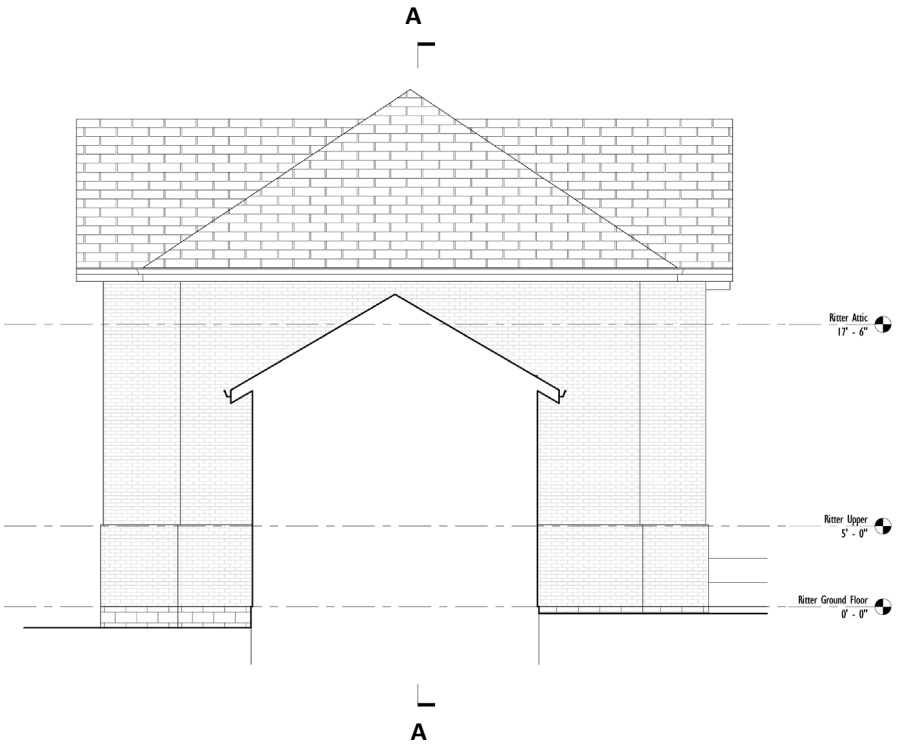


Ritter Memorial
West Elevation (3)

0’ 4’ 8’

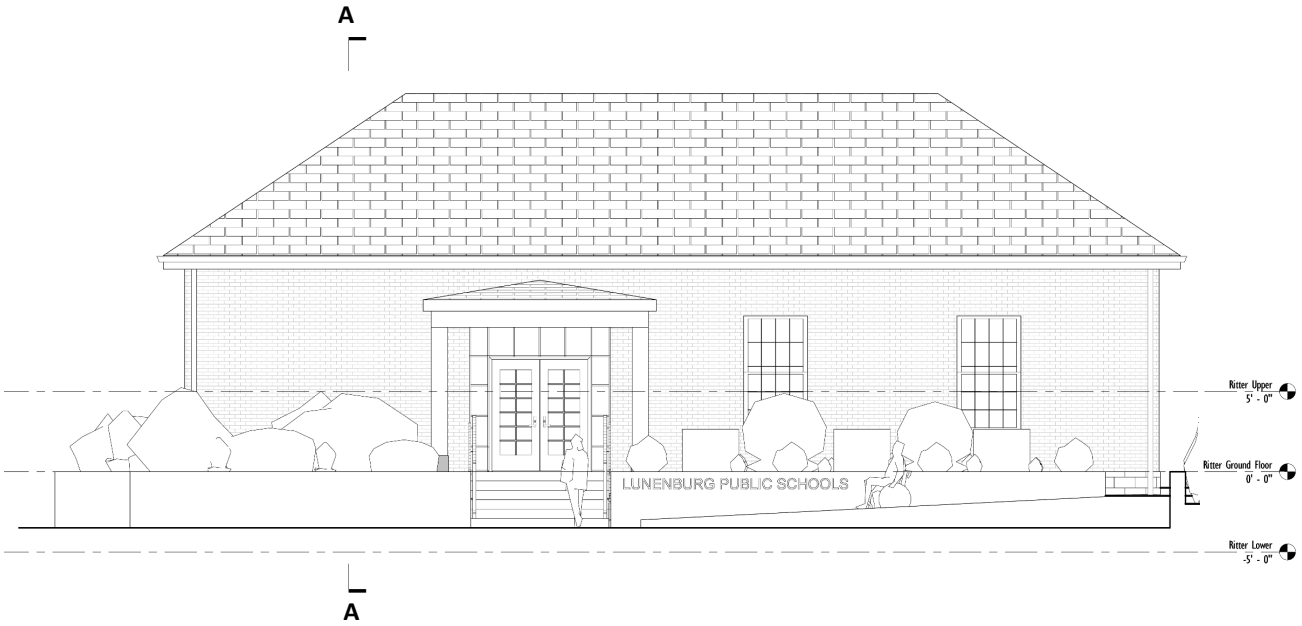
Ritter Memorial
South Elevation (4)

0' 4' 8'



Ritter Memorial
East Elevation (5)

0’ 4’ 8’



Ritter Memorial, 1963 Addition
East Elevation (6)

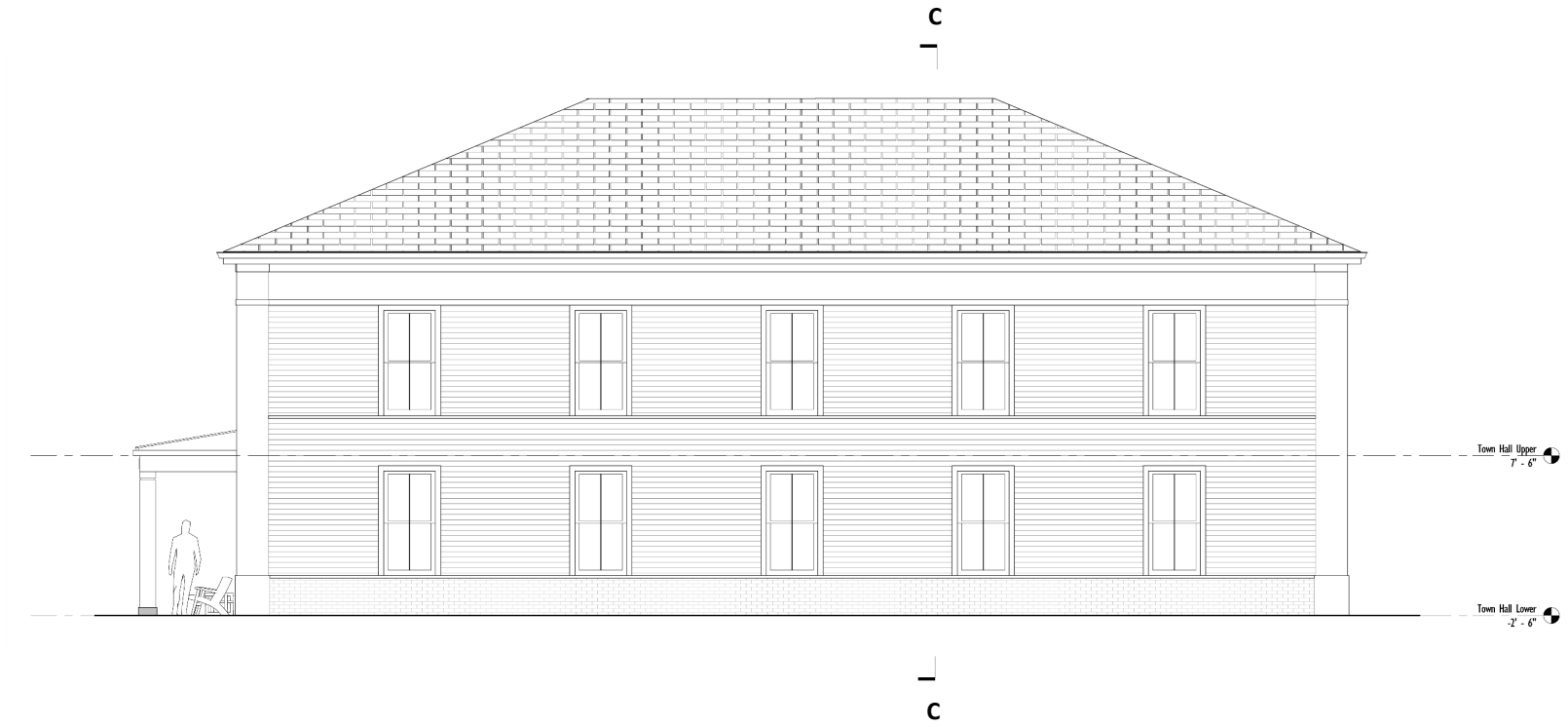
0’ 4’ 8’

Town Hall
North Elevation (7)

0’ 4’ 8’

Town Hall
West Elevations (8&9)

0’ 4’ 8’



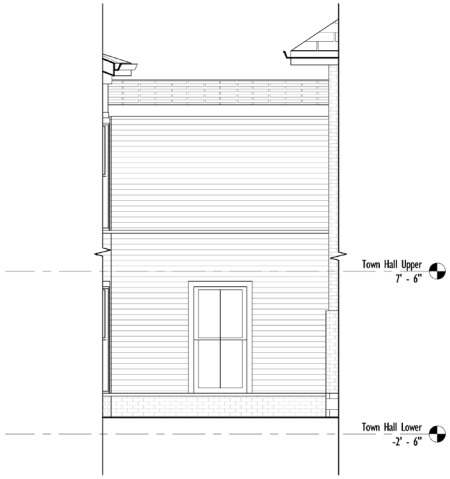
Town Hall
South Elevation (10)

0’ 4’ 8’

Town Hall

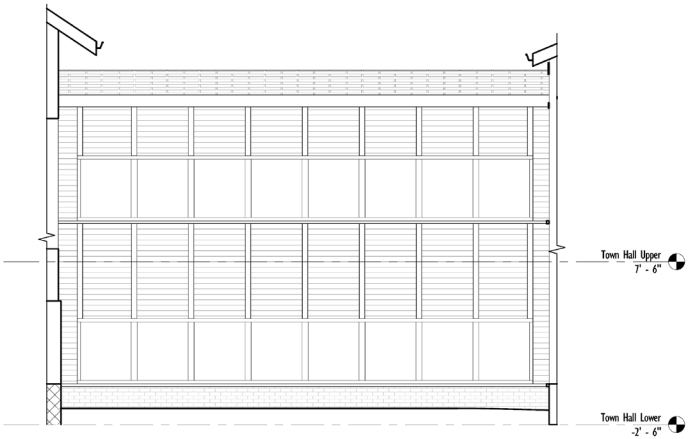
East Elevations (11)

0’ 4’ 8’



Town Hall, Connector
South Elevation (12)

0’ 4’ 8’



Town Hall, Connector
North Elevation (13)

0’ 4’ 8’

Town Hall (right) and Ritter Memorial (left)
Exterior Perspective from Mass Ave

Town Hall (right) and Ritter Memorial (left), 4th of July
Exterior Perspective from Mass Ave

Town Hall
Exterior Perspective from School Street

Town Hall (foreground) & Ritter Memorial (background)
Exterior Perspective from Colonnade

Town Hall Lower Floor
Interior Perspective from Main Entry

Town Hall Upper Floor
Interior Perspective from Elevator on Right, Looking Toward Waiting Room

Ritter Memorial Accessible Entry
Exterior Perspective from Parking Lot

Ritter Memorial			Total Program Area (SF)	Program + Grossing (SF)
			3707	5560.5
Program Name	Occupants	Existing Area (SF)	Requested Area (SF)	Proposed Area (SF)
School District Offices				
Special Service Director at THES	1	302	150	173
Special Service Executive Assistants	2	465	200	388
Special Services Storage (students)	n/a	750	200	165
Reception				94
Superintendent Office	1	275	150	219
Executive Assistant w/ transaction counter	1	225	135	379
Data Base Manager	1	225	100	
HR Payroll	1	n/a	100	
Registrar	1	n/a	100	
HR Business Manager	1	272	120	229
Title 1 Director	1	n/a	100	0
Director Teaching & Learning	1	n/a	120	170
Director of Facilities	1	140	100	162
Food Service Manager	1	154	100	
Record Storage	n/a	650	200	70
ACE		1955	1000	705
ACE Kitchen & Laundry				244
		5413	2875	2998

Other				
Lobby	n/a			328
Restrooms	n/a	110		110
Storage	n/a	20		20
MEP	n/a	231		231
Elevator Machine Room	n/a	n/a		20
		361		709

New Town Hall			Total Program Area (SF)	Program + Grossing (SF)
			11255	16882.5
Program Name	Occupants	Existing Area (SF)	Requested Area (SF)	Proposed Area (SF)
Treasurer/Collector & Accounting				
Treasurer/Tax Collector	1	130	175	135
Town Accountant	1	150	175	172
Payroll Clerk/Benefits	1	143	175	172
Accountant/Assistant Treasurer w/ transaction counter	1	109	135	495
Accounting Clerk	1	109	100	
Treasurer/Collector Record Storage	n/a	0	175	
Accounts Payable Clerk	1	108	100	
Accounting Record Storage	n/a	108	100	
		857	1135	974
Town Clerk				
Town Clerk	1	274	175	204
Assistant Town Clerk	1	185	100	797
Registrar of Voters	1	n/a	400	
Record Storage	n/a	n/a	100	
Vault	n/a	129	165	145
		588	940	1146
Information Technology				
IT Director	1	121	200	277
IT Staff	1	130	200	
Equipment Storage	n/a	100	100	
		351	500	277

Assessor's Office				
Principal Assessor	1	346	120	140
Admin Assistant, Data Collector w/ transaction counter	2		315	334
Record Storage	n/a	29	180	
		375	615	474

Other Offices				
Facility Manager Office	1	176	120	160
Facility Manager Storage	n/a	n/a	120	138
Parks Recreation Director	1	n/a	120	161
Veteran's Affairs Office	1	162	170	133
Veteran's Affairs Waiting Area	n/a	n/a	n/a	16
State Rep Office	1	175	175	0
		338	705	608

Building Department				
Building Commissioner	1	188	160	157
Admin Assistant w/ transaction counter	1	170	175	136
Assistant Building Inspector	1	119	140	127
Waiting Room				192
Record Storage	n/a	107	195	194
		584	670	806

Board of Health				
Director & Health Agent w/ transaction counter	1	170	285	288
Record Storage	n/a		100	
		170	385	288

Planning Department & Conservation				
Zoning Board of Appeals	n/a	n/a	175	793
Admin Assistant w/ transaction counter	1	313	135	
Space for Plan Review Meetings	n/a	305	280	
Conservation Administrator w/ transaction counter	2	205	275	
Conservation Agent	1			164
Waiting Room	n/a			128
Land Use Director	1	141	175	173
Planning Department Record Storage	n/a	n/a	135	144
Conservation Record Storage	n/a		100	
		964	1275	1402

Historical Commission				
Historical Commission Office w/ transaction counter	0	0	140	0
			140	0

Town Manager				
Town Manager	1	180	190	192
Assistant Town Manager / HR Director	1	120	160	164
Conference Room	1	120	180	181
Executive Assistant (w/ transaction counter)	1	100	175	499
Communications Specialist	1	n/a	n/a	
Record Storage	n/a	108	140	
		628	845	1036

PAC				
Studio		1048	625	793
Control		242	200	236
Edit Suite		225	200	236
Office A		83	100	175
Office B		101	100	176
Equipment Storage		200	200	348
Reception				166
		1899	1425	2130

Other				
Shared Waiting Area	n/a			203
Kitchen	n/a			160
Copy	n/a			91
Restrooms	n/a			452
Custodial Closet	n/a			148
Storage	n/a			115
MEP	n/a			837
Elevator Machine Room (EMR)	n/a			108
				2114

Meeting House			Total Program Area (SF)	Program + Grossing (SF)
			4942	7413
Program Name	Occupants	Existing Area (SF)	Requested Area (SF)	Proposed Area (SF)
Information Technology				
Cable Access Control	1	55	145	55
Cable Access Operations	1	111	175	111
IT Techs	2	n/a	180	0
		166	500	166
Meeting Space				
Hearing Room	100	936	1200	1350
Stage		277	n/a	277
Conference A	30	n/a	900	730
Conference B	15	n/a	450	447
Conference C	n/a	n/a	n/a	229
		1213	2550	3033
Other				
Office A	n/a	n/a	n/a	166
Office B	n/a	n/a	n/a	120
Gallery	n/a	n/a	n/a	298
Circulation	n/a			562
Storage	n/a	n/a	n/a	319
Restrooms	n/a		171	236
Elevator Machine Room	n/a	n/a	n/a	42
			171	1743

Appendix A
Structural Narrative

17 January 2025
(Revised 13 February 2025)

Mr. Robert Taylor
Taylor & Burns Architects
58 Winter Street, Suite 3
Boston, MA 02108

Project 241764 – Lunenburg Municipal Buildings Renovations, Lunenburg, MA

Dear Mr. Taylor:

At your request, we are pleased to provide this structural narrative describing the scope of work at the Lunenburg Municipal Buildings for you to use in developing your conceptual design, your cost subconsultant to use to develop construction costs, and for the Town of Lunenburg (Town) to use for planning purposes. We identify project structural scope items based on conversations with you and your staff, one site visit conducted by Dominic Kelly in December 2024, one site visit conducted by Len Morse-Fortier and Paul Rosenstrauch in January 2025, and the Lunenburg Municipal Buildings Cost Estimate drawing set provided by you. The project structural scope items are provided for three areas: the Town Meeting House (formerly Town Hall), the Ritter Memorial Building, and the Town Hall (new addition to the Ritter Memorial Building).

I. Town Meeting House
   a. Construct new slab-on-grade in the basement.
   b. Jack up each of the timber posts in the basement and remove the post. Shore all girders framing into each post prior to jacking. Seal the end of the post, seal along the sides of the post within the cap, and seal 8 in. along the post from the top of the cap. Seal around the cap against moisture infiltration. Then reinstall the post or column.
   c. Locate all bearing walls and columns in the structure.
      i. At all walls scheduled for demolition, remove the nonstructural finish to locate embedded posts.

ii. Install exploratory openings in the Level 1 ceiling on either side of the wall to verify the bearing condition for the Level 2 floor framing above. Assume six openings will be required in the Level 1 ceiling.
iii. Notify the engineer of record (EOR) and schedule a site visit for review before proceeding with demolition work.
iv. All walls are assumed to be bearing walls until confirmed otherwise.

d. Level the first floor by jacking the structure, assume four locations requiring shoring beams to pickup multiple members and two jacks for each location. Some local shoring may be required during the jacking process.
i. Remove all non-permanent fixtures prior to jacking; replace after jacking is complete.
ii. Identify all bearing walls and bearing elements at all levels prior to jacking.
iii. Remove all nonstructural partition walls in the bays undergoing jacking operations at Level 1 and Level 2 or confirm that the partitions are not placed tight to the framing above.
iv. Jack the columns or floors to the appropriate elevation and shim.
v. Monitor the structure to prevent imposing damages to Level 1 elements adjacent to the bay undergoing jacking. Monitor the structure to prevent imposing damages to Level 2 via undesirable transmission of jacking forces through Level 1 elements into Level 2.
vi. Carry scope to repair finishes in the bays undergoing jacking. Assume that at each bay two walls will require repairs; assume 10 lineal feet (LF) of each wall will require repair on both sides of the wall (40 LF times the height of the story). Assume a 15 ft-0 in. wall height, to be verified in the field. Therefore, carry 600 sq ft of finish repair.

e. Add new entry slab at ground level and strengthen existing floor joists and girders below.
f. Strengthen the floor with sistering at all locations where document storage and storage areas are planned.
g. Strengthen the floor in the conference room and meeting hall to carry 100 psf assembly live load.
h. Reframe floors for the new LULA lift at Level 1 and 2.
i. At the existing accessible exterior ramp, repair existing damaged post.
j. Install new girders for the meeting room at the Level 2 floor elevation to span over the conference room below, where existing walls are scheduled for demolition. Install columns to support the modifications down to the foundation level.
k. Install plates at existing attic truss vertical member intersection with the bottom chords.
i. Assume two locations at each truss, ten locations total.
l. Inspect and strength the connection between the exterior fire escape stairs and the existing structure, if required.
i. Assume two horizontal hold-downs attached to the underside of the upper landing, rods from these hold-

downs through the exterior wall, two
hold-downs attached to the interior framing, two rows of blocking between joists attached to the subflooring, and joists with Simpson Strong-Tie angle (eight angles times six blocks).

m. Replace the missing truss diagonal near the attic entry pathway.
    i. Assume steel plates and through bolts are used for the connections at the ends of the diagonal.
n. Repair the damaged purlin in the attic level.
    i. Assume replacement of the damaged purlin in kind. Temporarily support the existing roof beams from the supplemental purlin, remove the damaged purlin, and replace the purlin.
o. Provide structural anchorage for the new weathervane and finial.
p. Remove and replace the existing deteriorated post and beam in the northeast corner of the attic.
q. Replace 50% of the bell tower timber sheathing, and 50% of the bell tower timber framing.
r. At the first and second floors, remove the existing finished floor to expose the subfloor, and screw all existing subfloor elements to the supporting joists at 12 in.
o.c. to remove the squeaking. Replace the finished floor.
s. At the first, second, and attic floors, include tieback anchors at 4 ft-0 in. o.c. between the exterior wall and the floors around the perimeter.

II. Ritter Memorial Building
a. Locate all bearing walls and columns in the existing structure at all levels.
    i. At all walls scheduled for demolition, remove the nonstructural finish to locate embedded posts.
    ii. Install exploratory openings in the ceiling on either side of the wall to verify the bearing condition for the structure above at Levels 1 and 2.
    iii. Notify the engineer of record (EOR) and schedule a site visit for review before proceeding with demolition work.
    iv. All walls are assumed to be bearing walls until confirmed otherwise.
b. Install new posts to support the existing header beam at previously demolished stairs in the basement.
c. Construct a new steel-framed portico at the east entrance.
    i. Assume steel columns land on isolated concrete piers extending to footings that bear on soil a minimum of 4 ft-0 in. below the lowest adjacent finished grade.
    ii. Assume steel moment frame connections for the portico framing.

d. Provide structural concrete retaining walls at the landscape terraces.
    i. Assume retaining walls will have French drains and tie-ins to main storm sewer lines.
e. At four locations in the attic, add knee braces to support existing timber girders where they bear upon timber posts. Assume two knee braces will be installed at each location, attach the knee braces to the girder and post with screws. Add a tie rod across the girder joints over the tops of the columns and anchor with Simpson hold-downs.
f. Apply Boracare at all locations where existing timber rafters and attic framing has water staining. Probe 100% of the existing rafters with an awl and if the awl penetrates more than 1/2 in. into the member, sister the rafter with a 2x8 sister. Assume 25% of the existing rafters will require sisters.

III. New Town Hall
a. Assume that for concrete footing and foundation wall, the bottom of the footing bears at 4 ft–0 in. below the lowest finished grade elevation.
b. Assume steel-frame construction with concrete composite deck for elevated floors.
c. At the roof, assume untopped steel deck, bar joists at 6 ft o.c. supporting the deck, and steel beams at the perimeter and along column lines.
d. Assume the lateral system will be steel-braced frames.
e. Assume a masonry elevator shaft and concrete elevator pit.
f. Assume steel pan stairs will be delegated design.
g. Assume connections will be delegated design.
h. Underpin the existing Ritter Building if the existing foundations bear at a higher elevation than the proposed new Town Hall (assume a length of 30 ft of foundation wall will have to be underpinned on the south wall and 20 ft of varying-depth pit underpinning will be required along the east and west walls, 70 ft total).
i. Assume that the roadway will require temporary support of excavation during foundation construction.
j. Provide supplemental structural support at the vault room and storage rooms.

IV. Photovoltaic Array Over Parking Lot
a. For structural support of the photovoltaic array, assume wide-flange columns and beams in a “T” arrangement weighing 25 psf.
b. Assume columns will be located in every third parking spot and at each end.

c. Assume 18 in. diameter concrete piers extending to 4 ft-0 in. minimum below grade.
d. Assume 8 ft x 8 ft x 24 in. thick concrete footings.

Sincerely yours,

Dominic J. Kelly, P.E.
Senior Principal
MA License No. 43169

Paul L. Rosenstrauch, P.E.
Senior Consulting Engineer
MA License No. 53780

I:\BOS\Projects\2024\241764.00-TOWN\WP\001rDJKelly-L-241764.00.nec.docx

Appendix B
Mechanical, Electrical, Plumbing, and Fire Protection Narrative

BLW ENGINEERS

Town of Lunenburg New Town Hall and Ritter Memorial Building and Town Meeting House (Old Town Hall)
17 Main St

Mechanical, Electrical, Plumbing and Fire Protection
SYSTEMS NARRATIVE

TABLE OF CONTENTS

Prepared For:
Robert Taylor
Taylor & Burns Architects
58 Winter St
Boston, MA 02108

January 13, 2025

BLW Engineers, Inc., 311 Great Road, P.O. Box 1551, Littleton, MA 01460
Tel: 978.486.4301 Fax: 978.486.9384
www.blwengineers.com

PROJECT DESCRIPTION

This narrative is intended to convey the general scope as guide to the system performance, actual sizes and capacities within this narrative may vary as the design progresses. All work will be provided in accordance with the latest accepted editions of all applicable codes and standards.

1. 780 CMR THE MASSACHUSETTS STATE BUILDING CODE, 10th edition
2. 780 CMR EXISTING BUILDING CODE, 2021 edition
3. 780 CMR CHAPTER 9, "FIRE PROTECTION SYSTEMS", 10th edition
4. NFPA 13 "STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS" 2019 edition
5. NFPA 25 "STANDARD FOR THE INSPECTION, TESTING, AND MAINTENANCE OF WATER-BASED FIRE PROTECTION SYSTEMS", 2020 edition
6. M.G.L. 148 MASSACHUSETTS GENERAL LAW CHAPTER 148 "FIRE PREVENTION" (as applicable)
7. 527 CMR FIRE PREVENTION REGULATIONS, 2021 edition (as applicable)
8. NFPA 24 "STANDARD FOR PRIVATE SERVICE MAINS", 2019 edition
9. All applicable sections and regulations of OSHA and ADA.
10. NFPA 70 NATIONAL ELECTRIC CODE, 2023 edition
11. NFPA 72 NATIONAL FIRE ALARM CODE, 2023 edition
12. Town of Lunenburg – Fire Department Rules and Regulations for Fire Alarm and Sprinkler Systems.
13. All applicable regulations and criteria of the local fire department and the owner's insurance authority.

OLD TOWN HALL

The existing Town Hall building is a two-story building with a basement and a full-sized attic. The building is currently used as town offices for the ground floor and the second floor. The basement and attic areas are currently used for mechanical and electrical services. The building is wood frame construction with pitched roofs and a bell tower.

RITTER MEMORIAL BUILDING

The existing Ritter Memorial building is a three-story building of offset levels and with a full-sized attic. The building is currently used as town offices for the basement level, the ground floor and the second floor. The existing attic areas are currently used for miscellaneous storage. The building is wood frame construction with pitched roofs.

SECTION 21 00 00 – FIRE PROTECTION

OLD TOWN HALL BUILDING (PROPOSED MEETING HOUSE)

The existing Town Hall building is currently without fire sprinkler systems. The client has expressed a desire to provide automatic fire sprinkler systems throughout the proposed Meeting House.

The existing water service serves only the plumbing fixtures and lawn irrigation system and is insufficient to supply automatic fire sprinkler systems. New fire sprinkler systems will be installed throughout the existing building. The fire protection systems will be entirely new and dedicated for this building. A new 6" underground fire service main will be brought into the building and to inside the basement mechanical room by the site contractor, however, the sprinkler contractor will be responsible for the supervision of all work associated with the installation, flushing and testing of the new underground fire service mains and will ensure that all work is performed in strict accordance with NFPA-24. The sprinkler contractor will obtain testing and flushing reports from the site contractor that are compliant with NFPA-24 and will submit these reports to the local fire department authority. All design, installation, testing and flushing work will be in accordance with NFPA-13, NFPA-24 and the Massachusetts State Building Code 10th Edition. A double check valve backflow preventer will be located at the fire service entrance into the basement of the Town Hall building. The sprinkler systems for the building will be automatic wet pipe for all heated and occupied spaces and automatic dry pipe for all unheated areas and unheated attics. A single wet sprinkler system riser with alarm valve and trim will be provided to supply the wet pipe sprinkler systems. A single dry sprinkler system riser with alarm valve and trim will be provided to supply the dry pipe sprinkler systems. A master water flow switch will be provided on each sprinkler riser in the basement water room. The fire sprinkler systems will provide coverage for 100% of the occupied interior spaces and attic spaces. All concealed spaces and spaces above ceilings that are composed of exposed combustible construction will be provided with sprinkler coverage in accordance with NFPA-13.

A fire department connection will be provided outside of the building and in an area readily accessible to fire department vehicles such as the driveway adjacent to the south side of the building, not the primary east façade on Main Street. The exact type and location of the fire department connection will be coordinated with the Lunenburg Fire Department by the sprinkler contractor. An audible sprinkler system electric alarm bell will be located on the outside wall adjacent to each fire department connection. The fire department connections will be arranged in such a way that the single point of connection will have the ability to charge all of the sprinkler systems in the Town Hall from this single point of connection by the fire department.

All sprinkler heads, piping, fittings, devices, valves and all materials associated with the fire sprinkler systems will be UL listed and / or FM approved for fire protection systems and will be rated at 175 psi working pressure. Sprinkler heads throughout the building will be listed quick response type. Temperature ratings for all sprinkler heads will be in accordance with NFPA-13. Sprinkler heads in finished ceiling spaces will be concealed pendent type. Sprinkler heads in unfinished ceiling areas and on exposed piping will be upright type. All sprinkler heads in occupied spaces will be listed quick response type. Sprinkler heads in concealed spaces less than 36" deep will be listed concealed space type. A lockable

key box or “knox box” will be provided at the entrance to the building. This box will be approved by the Fire Department prior to installation by the contractor.

All fire sprinkler systems will be designed, installed and tested by a fire protection contractor licensed and experienced in the state for fire protection systems design and installation. All fire sprinkler systems will be hydraulically calculated per NFPA-13. A complete set of working sprinkler drawings and hydraulic calculations detailing all aspects of the fire protection systems will be produced and submitted to the Fire Department for approval prior to the commencement of any fire protection work. These working drawings and hydraulic calculations will be stamped and signed by the fire protection contractors registered engineer and submitted to the Fire Department for final approval. No fire protection work will commence until the Fire Department has approved the fire protection contractors stamped drawings and hydraulic calculations.

Pipe materials will be schedule 10 black steel pipe with roll-groove ends and Victaulic fittings for all pipe sizes 2-1/2” and larger. Pipe materials will be schedule 40 black steel pipe with threaded ends and screw-type fittings for pipe sizes 2” and smaller. Sprinkler piping routing will seek to be concealed above ceilings and within soffits wherever possible. Sprinkler piping in attic areas and unoccupied areas will be exposed.

Hydrant flow data was not available for the project at the time of this narrative. This narrative assumes that the municipal water supply is sufficient to supply the fire sprinkler systems without the need for a fire pump. A hydrant flow test will need to be performed at the site to obtain the water pressure and flow available for each building. Should the Town water supply be found to be insufficient then a fire pump system will be required for each building. Fire pump systems will be provided in accordance with NFPA-20.

RITTER MEMORIAL BUILDING and NEW TOWN HALL ADDITION

The existing Ritter Building is currently without fire sprinkler systems. The client has expressed a desire to provide automatic fire sprinkler systems throughout the existing Ritter building and the new proposed addition.

The existing building is currently without fire sprinkler systems. The existing water service serves only the plumbing fixtures and is insufficient to supply automatic fire sprinkler systems. New fire sprinkler systems will be installed throughout the existing Ritter building and the proposed addition. The fire protection systems for the building will be entirely new and dedicated for this building. A new 6” underground fire service main will be brought into the building and to inside a new sprinkler room by the site contractor, however, the sprinkler contractor will be responsible for the supervision of all work associated with the installation, flushing and testing of the new underground fire service mains and will ensure that all work is performed in strict accordance with NFPA-24. The sprinkler contractor will obtain testing and flushing reports from the site contractor that are compliant with NFPA-24 and will submit these reports to the local fire department authority. All design, installation, testing and flushing work will be in accordance with NFPA-13, NFPA-24 and the Massachusetts State Building Code 10th Edition. A double check valve backflow preventer will be located at the fire service entrance into the new sprinkler room within the Ritter building. The sprinkler systems

for the building will be automatic wet pipe for all heated and occupied spaces and automatic dry pipe for all unheated areas and unheated attics. A single wet sprinkler system riser with alarm valve and trim will be provided to supply the wet pipe sprinkler systems. A single dry sprinkler system riser with alarm valve and trim will be provided to supply the dry pipe sprinkler systems. A master water flow switch will be provided on each sprinkler riser in the new sprinkler room. The building will be provided with new automatic wet pipe and dry pipe fire sprinkler systems as required in accordance with NFPA-13 and as applicable. The fire sprinkler systems will provide coverage for 100% of the occupied interior spaces and attic spaces. All concealed spaces and spaces above ceilings that are composed of exposed combustible construction will be provided with sprinkler coverage in accordance with NFPA-13.

A fire department connection will be provided outside of the building and in an area readily accessible to Fire Department vehicles such as along the drive on the south side of the building, not on the primary façade facing Mass Ave. The exact type and location of the fire department connection will be coordinated with the local fire department authority by the sprinkler contractor. An audible sprinkler system electric alarm bell will be located on the outside wall adjacent to each fire department connection. The fire department connections will be arranged in such a way that the single point of connection will have the ability to charge all of the sprinkler systems in the Ritter Building and the addition from this single point of connection by the Fire Department.

All sprinkler heads, piping, fittings, devices, valves and all materials associated with the fire sprinkler systems will be UL listed and / or FM approved for fire protection systems and will be rated at 175 psi working pressure. Sprinkler heads throughout the building will be listed quick response type. Temperature ratings for all sprinkler heads will be in accordance with NFPA-13. Sprinkler heads in finished ceiling spaces will be concealed pendent type. Sprinkler heads in unfinished ceiling areas and on exposed piping will be upright type. All sprinkler heads in occupied spaces will be listed quick response type. Sprinkler heads in concealed spaces less than 36” deep will be listed concealed space type. A lockable key box or “knox box” will be provided at the entrance to the building. This box will be approved by the Fire Department prior to installation by the contractor.

All fire sprinkler systems will be designed, installed and tested by a fire protection contractor licensed and experienced in the state for fire protection systems design and installation. All fire sprinkler systems will be hydraulically calculated per NFPA-13. A complete set of working sprinkler drawings and hydraulic calculations detailing all aspects of the fire protection systems will be produced and submitted to the Fire department for approval prior to the commencement of any fire protection work. These working drawings and hydraulic calculations will be stamped and signed by the fire protection contractors registered engineer and submitted to the Fire Department for final approval. No fire protection work will commence until the Fire Department has approved the fire protection contractors stamped drawings and hydraulic calculations.

Pipe materials will be schedule 10 black steel pipe with roll-groove ends and Victaulic fittings for all pipe sizes 2-1/2” and larger. Pipe materials will be schedule 40 black steel pipe with threaded ends and screw-type fittings for pipe sizes 2” and smaller. Sprinkler piping routing will seek to be concealed above ceilings and within soffits wherever possible. Sprinkler piping in attic areas and unoccupied areas will be exposed.

Hydrant flow data was not available for the project at the time of this narrative. This narrative assumes that the municipal water supply is sufficient to supply the fire sprinkler systems without the need for a fire pump. A hydrant flow test will need to be performed at the site to obtain the water pressure and flow available for each building. Should the Town water supply be found to be insufficient then a fire pump system will be required for each building. Fire pump systems will be provided in accordance with NFPA-20.

SECTION 22 00 00 – PLUMBING

OLD TOWN HALL BUILDING (PROPOSED MEETING HOUSE)

The existing Town Hall plumbing will be gutted for renovation. All existing plumbing piping, systems, fixtures and equipment will be completely removed in their entirety and back to their service entry points into the building. The existing sanitary and domestic water service to the building will be saved for reuse and will be connected to inside the building. This report assumes that the new proposed plumbing fixtures and equipment will not adversely impact the size of the existing sanitary and domestic water services. All plumbing systems described here will be entirely new and dedicated for this building.

RITTER MEMORIAL BUILDING and NEW TOWN HALL ADDITION

The existing Ritter building will be gutted for renovation. All existing plumbing piping, systems, fixtures and equipment will be completely removed in their entirety and back to their service entry points into the building. The existing sanitary and domestic water services to the building will be saved for reuse and will be connected to within the building. This report assumes that the new proposed plumbing fixtures and equipment will not adversely impact the size of the existing sanitary and domestic services. All plumbing systems described here will be entirely new and dedicated for this building.

For the proposed new Town Hall addition building the existing water service in the Ritter building will be extended through the Ritter building and into the new addition to serve the water demand of the new addition. A new 4" underground sanitary service will be provided to serve the plumbing fixtures and drains of the new addition. This new sanitary service will be taken, underground, outside the new addition and will be terminated at a point 10'-0" outside of the new foundation wall. The plumbing contractors work will end at this point. A site contractor will be responsible for connecting to this new sanitary main and for taking it to the site sanitary sewer system.

General to the Ritter Memorial, new Town Hall Addition and Meeting House

Plumbing Fixtures

Water closets will be floor mounted fixtures with 1.28 gallons per flush, flush tank operation. Lavatories will be mounted fixtures with overflow. Faucets for all lavatories will be provided with 0.5 gpm flow restricting aerators for water conservation. Urinals will be wall mounted with concealed carrier supports and will utilize flush valve operation. The urinals and flush valves will operate at 0.5 gallons per flush. Kitchen sinks

will be stainless steel, self rimming, single bowl style. Dishwashers, if provided, will be provided by others and installed by the plumbing contractor. Faucets for the kitchen sinks will be single handle with pull out spray and will be provided with 1.5 gpm flow restricting aerators for water conservation. Showers, if provided, will utilize shower valves that will be pressure balance type for anti-scald protection and will be provided with integral service stops for ease of maintenance. Shower heads will be provided with 1.5 gpm rated flow restrictors for water conservation. ADA accessible plumbing fixtures will be located throughout the buildings as required by the architectural drawings. Floor mounted mop sinks will be provided in the janitors closet with a wall mounted service sink faucet. Floor drains will be provided in bathrooms containing more than one water closet and one lavatory or ADA compliant roll-in showers. Bathrooms with floor drains will be provided with a hose bibb with vacuum breaker hose end. Bathrooms not containing more than one toilet and one lavatory or an ADA compliant roll-in shower will not be provided with floor drains. Floor drains will be provided with trap priming devices. Non-freeze wall hydrants will be provided on the outside perimeter of each building.

Water closets and Urinals will be vitreous china in white. Lavatories will be vitreous china in white. Kitchen sinks will be stainless steel. Showers will be multi-piece fiberglass units or may be shower pans with walls built by the General Contractor. All lavatory and kitchen sink faucets will be satin chrome finish. Shower valves and tub fillers will be satin chrome finish.

Sanitary and Vent

The building will be provided with new interior sanitary and vent piping systems. The sanitary and vent piping systems will service all of the plumbing fixtures and drains in this building. The sanitary drains will be collected together as much as possible above the ceilings and below the floors of each floor level and will be run down through the floor levels of the building to the basement ceiling. In the old Town Hall building (proposed meeting house) and in the Ritter building the new sanitary piping will be taken across the basement ceiling and connected to the existing underground building sanitary that is at the foundation wall and below the basement floor. The new sanitary main will be connected to the existing building sanitary main at this point of exit out of the building. In the new Town Hall addition, the new sanitary piping systems will be collected together and will be taken outside as a new underground building sanitary main where it will be terminated at a point 10’-0” beyond the new foundation wall. The site contractor will be responsible for connecting to this new building sanitary main and for taking this to the site sewer system. The vent piping systems will be collected together as much as possible above the ceilings and will be taken up through the floor levels of the building and to outside through the roof areas. The number of roof penetrations will be kept to a minimum but multiple vent roof penetrations will most likely be required.

Pipe materials for the sanitary and vent piping systems will be copper for pipe sizes 2” and smaller and cast iron for pipe sizes 2-1/2” and larger. Copper piping systems will utilize copper DWV fittings with solder connections. Cast iron pipe above ground will utilize hubless connections with stainless steel clamps with resilient gaskets. Cast iron pipe underground will utilize hub & spigot joints. PVC piping will not be allowed for use on this project.

Storm

The building storm drain systems are currently exterior gutters and downspouts and will not be part of the plumbing contractor's scope of work.

Cold Water

The building will be provided with new interior domestic cold water piping systems. These systems will be connected to the existing domestic water service within the basement of the building.

A new master water meter will be provided on the existing domestic water service within the basement of the building and for the local water utility use. If the local water authority requires central backflow protection, then a reduced pressure backflow preventer will be provided on the discharge side of the water meter. Water distribution will be supplied via a domestic water main run through the building basement and corridor areas. Runouts will be used to supply the cold water to bathrooms, distribution risers and other plumbing fixtures. Each cold water supply to bathrooms and plumbing fixtures will be provided with full-port ball valve shut offs for the isolation of bathroom groups and for individual plumbing fixtures outside of the bathrooms. Cold water will be provided to the new water heater. Cold water will be provided to all hose bibbs within the building and for non-freeze wall hydrants around the exterior perimeter of the building. If make-up water is required for HVAC equipment, then a cold water supply with a reduced pressure backflow preventer will be provided as required at the HVAC equipment. All hose bibbs and non-freeze wall hydrants will have integral anti-siphon backflow preventers.

Where lawn irrigation systems are required, a dedicated irrigation water meter and reduced pressure backflow protector will be provided on a dedicated lawn irrigation water supply. This supply will be taken off of the discharge side of the building water meter and will be provided to the lawn irrigation contractor for their use.

Pipe material for all cold water piping systems will be copper type "L" pipe with silver soldered fittings for domestic water service or "press" type fittings. All water piping systems including fittings and valves will be insulated and labeled to identify service. CPVC and PEX piping will not be allowed for use on this project.

Hot Water

The building will be provided with new interior hot water supply piping systems. Hot water return piping systems will be provided if required. Hot water will be provided to all plumbing fixtures requiring such. Hot water will be provided via a central electric storage type water heater. Hot water distribution will be supplied via a hot water supply main run through the building basement and corridor areas. Runouts will be used to supply the hot water to bathrooms, distribution risers and other plumbing fixtures. Each hot water supply to bathroom groups and plumbing fixtures outside of the bathrooms will be provided with full-port ball valve shut offs. This will allow for the isolation of bathroom groups and for individual plumbing fixtures outside of the bathrooms. Hot water supply piping will be run from the water heater to the various plumbing fixtures throughout the building. Where the run of piping from the water heater to the farthest plumbing fixture exceeds 75 feet in length, a hot

water return piping loop will be provided. This hot water return loop will be provided with a circulation pump and controls that will be located on the hot water return piping at the water heater.

In occurrences where remote bathrooms containing only a toilet and a lavatory are located that would require lengthy runs of hot water supply and return piping, a point of use electric water heater may be used under the bathroom lavatory. This approach would reduce the amount of hot water supply and return piping between the remote bathroom and the water heater.

Pipe material for all hot water supply and return piping systems will be copper type “L” pipe with silver soldered fittings for domestic water service or “press” type fittings. All water piping systems including fittings and valves will be insulated and labeled to identify service. CPVC and PEX piping will not be allowed for use on this project.

Natural Gas

Natural gas is currently provided for the existing old Town Hall and Ritter buildings. The client has expressed a desire not to use natural gas moving forward. Natural gas systems will not be used for this project. The existing natural gas services and gas meters will be removed and made safe by the gas company.

SECTION 23 00 00 – HEATING, VENTILATING AND AIR CONDITIONING

HVAC systems will comply with the 2021 International Mechanical Code and 2021 International Energy Conservation Code.

Unless called out otherwise, each description will apply to both buildings.

For the renovations of the Old Town Hall Building into a meeting house and the Ritter Memorial Building and the new Town Hall addition, BLW recommends incorporating all new VRF (Variable Refrigerant Flow) Heat Recovery Type Air Source Heat Pump Systems. Air source heat pumps will be located on grade on 2 ft tall equipment stands and piped vertically to branch selector boxes via interconnected insulated refrigerant piping systems. The branch selector boxes will be located at the interior of each building in the attic, above ceilings and within maintenance and/or storage closets. The branch selectors will be interconnected with up to (12) fan coils located within each space via insulated refrigerant piping. Fan coils types will be a combination of either vertical/horizontal ducted fan coils or wall mounted/ceiling recessed ductless fan coils. Vertical ducted fan coils will be installed within a fan coil closet complete with access of sufficient size to allow regular maintenance and potential complete removal of fan coil unit without incidental demolition of any architecture. Horizontal ducted fan coils will be installed above ceilings with access of sufficient size to allow regular maintenance and potential complete removal of fan coil unit without incidental demolition of any architecture. The ducted fan coils will heat and cool associated spaces via new horizontal interconnected insulated ductwork systems terminating at ceiling mounted and/or wall mounted supply air grilles. Each fan coil will have an interconnected insulated condensate drainage system terminating at open ended drain receptors in plumbing rain leaders or at grade. Each fan coil will have a programmable wall mounted thermostat. Each VRF heat pump system will be capable of simultaneous heating and cooling between each associated fan coil.

In accordance with IMC 2021, BLW recommends the required mechanical ventilation be supplied to each space by an energy recovery unit with dedicated DX (Direct Expansion) coil located in the attic and a dedicated air source heat pump located on grade and piped vertically. The ductwork would be run down through the building, within all new rated shafts, and distribute the required fresh air and exhaust air to each space via horizontal interconnected insulated supply and exhaust air ductwork terminating at ceiling and/or wall mounted supply air and exhaust air grilles. All new rated shafts and risers will be provided with combination fire/smoke dampers interlocked with the Fire Alarm Control Panel at each exhaust and outdoor air duct rated shaft wall penetration. Each combination fire/smoke damper will require a minimum of 18” linear clearance from the inside of the shaft wall and out for proper installation. Each damper will have the required access for regular maintenance and testing. Each horizontal duct branch from the new risers will have volume dampers to allow for balancing of airflows.

<u>Sprinkler/Electrical Rooms</u>

BLW recommends that the sprinkler service rooms, electrical service rooms and ancillary utility rooms have dedicated electric unit heaters and

ceiling mounted exhaust fans ducted to the exterior and discharging outdoors when transformers or data racks are present. The heaters and fans will be controlled by space thermostat(s) to maintain a minimum temperature of 45° F and a maximum temperature of 95° F.

Elevator Machine Room

All elevator machine rooms will have a dedicated mini-split system consisting of a ductless air conditioning unit, remote heat pump, interconnecting refrigerant piping and applicable controls to maintain space conditions between 50° F and 90° F.

Stair Wells

All enclosed stairwells will have electric resistance heat cabinet unit heaters or wall heaters. Entries and Vestibules

Entries and vestibules will be heated by electric cabinet unit heaters. Entries and vestibules heaters will be designed to maintain a minimum temperature of 68° F with a minimum of 6 air changes per hour for a single door and a minimum of 12 air changes per hour for a double door when the outdoor air temperature is 0° F during the winter months.

Janitors Closets

Exhaust for the janitors closets will be interconnected with the building's ventilation system and designed for a minimum of 50 CFM exhaust per closet.

Automatic Temperature Controls

The new HVAC systems and equipment will be controlled by a direct digital control system, integrating all equipment into a single, open protocol platform that can be easily monitored and adjusted by the appropriate staff.

Old Town Hall Building

Hearing Room Ventilation

Specialty ventilation for the second-floor hearing room will be supplied by a dedicated energy recovery unit and VRF system capable of demand-control ventilation. When CO_2 detectors in the return air ductwork or mounted in the space detect an increased concentration of CO_2, the energy recovery unit would ramp up air flow to provide more fresh air ventilation as needed.

SECTION 26 00 00 – ELECTRICAL

Electrical systems will comply with the 527 CMR (Massachusetts Amendments to the 2023 National Electrical Code) and 2021 International Energy Conservation Code.

Unless called out otherwise, each description will apply to both buildings.

Electrical Service

Old Town Hall Building:

The proposed electrical service will consist of a new overhead feed for utility. The proposed service will be 400Amp, 120/208Volt, 3-Phase. Service will enter a meter/circuit breaker disconnect combination mounted to exterior of building. Remaining electrical equipment will be located in the basement of the Town Hall. New system will consist of (1) 400Amp, 120/208Volt 3-Phase, 4-Wire panelboard, (1) 150Amp, 120/208Volt, 3-Phase, 4-Wire panelboard and (1) 250Amp, 120/208Volt, 3-Phase, 4-Wire panelboard to feed loads on upper floors.

Ritter Building and New Town Hall Addition:

The proposed electrical service will consist of a new underground service; primary conduits (2-5”) will be encased in concrete and extend underground (approximately 150’) from an existing utility pole to a proposed utility pad-mounted transformer to be located on the south side of the building. The proposed service will be 1000Amp, 120/208Volt, 3-Phase with secondary conduit and conductors extending underground (approximately 75’) from the utility pad-mounted transformer into the building; secondary feeder will consist of 3 sets of [4#600kCMIL-Aluminum] in 4” conduit. Electrical service will enter building and connect to disconnect/CT cabinet located in main electric room in the basement, sequencing will be coordinated with utility company. Remaining electrical equipment will be located in the electric room in basement of the Ritter Building. New system will consist of (1) 1000Amp, 120/208Volt 3-Phase, 4-Wire switchboard and (1) 400Amp, 120/208Volt, 3-Phase, 4-Wire panelboard located in main electric room in basement. Additionally, (4) 100Amp, 120/208Volt, 3-Phase, 4-Wire panelboard will be provided throughout floors to feed loads on upper floors and

(2) 200Amp 120/208Volt, 3-Phase, 4-Wire panelboards will be provided in attic to feed additional mechanical equipment.

General Power

General purpose power receptacles will be provided in all common areas. Receptacles will be provided in corridors every fifty-feet maximum for general maintenance use and within twenty-five feet of all HVAC equipment per NEC 210.63. Provide all power connections for power-assist automatic door openers, HVAC equipment and elevator(s) including disconnects and circuit breakers.

Photovoltaic System

Provisions for future solar array will be provided including conduit path from main electric room to roof, circuit breaker within house/common area main switchboard, bussing within switchboard and associated disconnects to accommodate the system as required. Circuit breaker size and bussing will be coordinated with solar design as the design progresses.

Electrical Vehicle Charging

Determination will need to be made by the owner as to the number of electric Vehicle charging stations that will be required for the site and the type of charging desired. The current load calculations account for charging stations required by code. If additional stations are requested, it may have an impact on the service size, voltage and distribution.

Old Town Hall: 2

Ritter Building and New Town Hall Addition: 19

Total: 21, to be provided in proposed new parking lot under proposed PV array.

Fire Alarm

A complete addressable fire alarm system with voice evacuation will be provided in accordance with NFPA 72 National Fire Alarm Code, Massachusetts State Building Code, Fire Protection and Life Safety Systems, ADA and all local codes and bylaws for Life Safety and Fire Alarm.

The system will consist of an addressable fire alarm control panel with general evacuation, notification to the Fire Department, manual pull stations within five-feet of all exit doors, on each floor and will not exceed a travel distance of two-hundred feet on the same floor, system smoke detectors will be provided for the common areas: locate thirty-feet on center in lobby areas and corridors, provide detectors in all electrical/tele/data rooms, elevator machine room and at all control panels, annunciators or fire alarm terminal boxes; provide heat detectors in all mechanical rooms, duct-smoke detectors with remote test stations for all HVAC air systems rated 2,000 CFM or more. Smoke detectors will be provided at all elevator lobbies and connected for elevator recall. Tamper, flow and pressure switches are being provided to accommodate the new sprinkler systems. The tamper and flow switches will be connected to the Fire Alarm Control Panel via addressable modules. Provide audible/visual notification (horn/strobe) device coverage throughout the facility, that meet the requirements of NFPA and ADA. Utilize strobe only devices in public bathrooms and other small rooms where ample audible notification is present. System batteries will provide for twenty-four hours of operation followed by a fifteen-minute ring down. Battery calculations will be submitted by the Electrical Contractor with the cut sheets and drawings to the fire department for review and approval. Knox Box key boxes will be provided at the building's main entrance Fire Command Center location.

Bi-Directional Amplifier

Two (2) in-building emergency responder radio communications systems will be provided as required to improve radio signal strength for both the fire and police departments. A two-hour rated room and enclosed shaft will be required to house the amplifier and for antenna cabling. Contingent upon the frequency used by each department and approval by the local Authority Having Jurisdiction, a single system may be installed in lieu of separate systems.

Lighting

Lighting will consist of LED energy-efficient fixtures with electronic drivers. Electrical, mechanical and utility areas will be provided with strip fixtures with wire cages. Hallways will be provided with recessed downlights. Lobby and assembly areas may be provided with decorative pendant fixtures, surface, ceiling and wall decorative fixtures. Offices will be provided with recessed direct/indirect fixtures. The lighting design will meet the requirement of 2021 IECC.

Lighting control will be by means of occupancy sensors in offices, storage rooms, community areas, etc. with local switching in corridors, electric and mechanical rooms. A percentage of corridor lighting, typical one-third, will remain on at all times with the remainder of lighting controlled by occupancy sensors. Stairwell lighting will include light fixtures with step-dimming and integral sensors for additional energy savings.

Exterior Lighting

Exterior Lighting will be installed to provide lighting levels as recommended by the Illuminating Engineering Society (I.E.S.). Pole mounted fixtures, will contain LED modules and be decorative in nature with interior directional shields. All luminaires will have a total cutoff of all light at less than ninety degrees from vertical (fully shielded). Reflectors of proper

I.E.S. distribution will be selected for maximum efficiency, and will provide total cutoff of all light at the property lines. Pole heights will not exceed twenty-feet in height. Light poles utilized for walkway lighting will not exceed twelve-feet in height. All exterior lights will have a maximum initial horizontal foot-candle level of eight foot-candles, as measured directly below the luminaires at grade.

Exterior fixtures will be controlled by a combination of timeclock and photocells. Photocells will turn fixtures on, and a programmable timeclock will be provided to turn off, at a designated time.

Exit and Emergency Lighting

Emergency lighting will be provided to meet Life Safety Code NFPA 101 and MSBC 780 CMR Articles 1006 and 1011. Exit signs will be LED edge-lit types, red in color, at all exits and as required to direct all occupants out of the building. Emergency lighting will be provided by wall/ceiling mounted emergency battery units to achieve a minimum of one (1) foot-candle along all exit egresses and their continuation out of the building.

Telephone and Cable Television

A complete telephone system will be provided, including two (2) four-inch conduits into the building from telephone and CATV manholes or utility poles, ¾" thick plywood backboard for mounting telephone and CATV company-equipment, dedicated quadplex receptacles, provide two (2) four-inch riser conduits with telephone and CATV junction boxes at each floor. Building will include telephone/data outlets and wiring for all offices and work stations. Cable will be category-6 cabling for all telephone/data outlets and RG-6 cable for CATV outlets.

A complete communications system will be provided for the building. All common area outlets will be installed with terminations, device boxes, conduit as required and wiring back to patch panels located on the corresponding floors.

Appendix C
Total Project Cost Estimate

TOTAL PROJECT COST

Total Estimated Construction Cost	**$ 18,306,332**	(see Detail Estimate Appendix D)
20% Soft Costs		
10.0% Design Team Fee (to be negotiated)	1,830,633	
5.0% Owner's Project Manager Fee (to be negotiated)	915,316	
2.5% Furnishings, Equipment & Technology (estimate)	457,658	
1.0% Environmental Testing & Abatement (risk estimate)	183,063	
0.5% Utility Company Fees (to be negotiated)	91,532	
0.5% Testing Services (to be negotiated)	91,532	
0.5% Miscellaneous Moving, Bidding, Police, etc.	91,532	
Total of Soft Costs	**$ 3,661,266**	
Total Project Cost	**$ 21,967,598**	
Alternates (Not Included Above)		
Alt 1 – PV Canopy	$1,821,600	
Alt 2 – Meeting House Basement Slab	$100,182	
Alt 3 – EV Chargers (21 units)	$289,800	

Appendix D
Cost Estimate

Schematic Design Estimate

Lunenburg Municipal Buildings
Renovations

Lunenburg, MA

PM&C LLC
20 Downer Ave, Suite 5
Hingham, MA 02043
(T) 781-740-8007
(F) 781-740-1012

Prepared for:

Taylor & Burns

February 21, 2025

PM&C

Lunenburg Municipal Buildings
Renovations
Lunenburg, MA

21-Feb-25

Schematic Design

BASIS OF ESTIMATE

This Schematic Design cost estimate was produced from drawings and specifications prepared by Taylor & Burns and their design team dated January 15, 2025. Design and engineering changes occurring subsequent to the issue of these documents have not been incorporated in this estimate.

This estimate includes all direct construction costs, general contractors overhead and profit and design contingency. Cost escalation assumes start dates indicated.

Bidding conditions are expected to be under:

Chapter 149 of the Massachusetts General Laws to pre-qualified general contractors, and pre-qualified sub-contractors, open specifications for materials and manufacturers.
If a CM at risk CH149a procurement is used costs will increase from the costs presented in this report.

The estimate is based on **prevailing wage** rates for construction in this market and represents a reasonable opinion of cost. It is not a prediction of the successful bid from a contractor as bids will vary due to fluctuating market conditions, errors and omissions, proprietary specifications, lack or surplus of bidders, perception of risk, etc. Consequently the estimate is expected to fall within the range of bids from a number of competitive contractors or subcontractors, however we do not warrant that bids or negotiated prices will not vary from the final construction cost estimate.

ITEMS NOT CONSIDERED IN THIS ESTIMATE

Items not included in this estimate are:

All professional fees and insurance
Site or existing conditions surveys investigations costs, including to determine subsoil conditions
Items identified in the design as Not In Contract (NIC)
Items identified in the design as by others
Owner supplied and/or installed items (e.g. technology, furniture and equipment, etc.)
Rock excavation; special foundations (unless indicated by design engineers)

Lunenburg Municipal Buildings 21-Feb-25
Renovations
Lunenburg, MA

Schematic Design

Utility company back charges, including work required off-site
Work to City streets and sidewalks, (except as noted in this estimate)
Core & shell building costs
Hazardous material studies and any associated abatement.
Painting to existing building exteriors
Replacing existing building roofing

ESTIMATE UNITS & ABBREVIATIONS LEGEND

ALW	ALLOWANCE	LS	LUMP SUM
ALT	ALTERNATE	LV(S)	DOOR LEAF/LEAVES
BF	BOARD FOOT	LVL	LAMINATED VENEER LUMBER
DY(S)	DAY	MTH(S)	MONTH
EA	EACH	NIC	NOT IN CONTRACT
FLT(S)	FLIGHT (OF STAIRS)	OPT	OPTION
GFA	GROSS FOOTAGE AREA	QTY	QUANTITY
GSF	GROSS SQUARE FOOTAGE	SF	SQUARE FOOTAGE
HR(S)	HOUR	STOP	ELEVATOR STOP
HSS	HOLLOW STRUCTURAL SECTION	SY	SQUARE YARD
LBS	POUNDS	TN(S)	TONS (STEEL TONNAGE)
LF	LINEAR FOOTAGE	WK(S)	WEEK
LOC	LOCATION	YD(S)	YARD

Lunenburg Municipal Buildings
Renovations
Lunenburg, MA

21-Feb-25

Schematic Design

MAIN CONSTRUCTION COST SUMMARY

	Construction Start	Gross Floor Area	$/sf	Estimated Construction Cost
TRADE COSTS				
Town Meeting House Renovation		9,750	$269.21	$2,624,842
Ritter Memorial Renovation		5,700	$362.86	$2,068,279
Town Hall Addition		14,700	$471.94	$6,937,445
HazMat removals at existing building				Excluded
Sitework - Trade Costs				$1,657,520
SUBTOTAL TRADE COSTS		30,150	$440.73	$13,288,086
Design and Estimating Contingency	15.0%			$1,993,213
Escalation Allowance 12 mths	3.0%			$398,643
SUBTOTAL INCLUDING CONTINGENCIES				$15,679,942
Subcontractor Bonds				In rates
General Conditions	8.0%			$1,254,395
General Requirements	2.0%			$313,599
Insurances - GLI/Builders Risk	1.75%			$274,399
Bond	1.00%			$156,799
Building Permit				Waived
Overhead & Profit	4.0%			$627,198
TOTAL ESTIMATED CONSTRUCTION COST		**30,150**	**$607**	**$ 18,306,332**

Alternates (Marked up) :

ALT1	PV Canopy	ADD	$	**1,821,600**
ALT2	Replace Town Meeting House Slab on Grade	ADD	$	**100,182**
ALT3	EV chargers (21 Locations); Rough-in in base	ADD	$	**289,800**

PM&C

Lunenburg Municipal Buildings Renovations
Lunenburg, MA

Schematic Design

21-Feb-25

	9,750	5,700	14,700	GFA 30,150

CONSTRUCTION COST SUMMARY

	Town Meeting House		*Ritter Memorial Building*		*Town Hall Addition*		*Site Detail*		*Total*	
BUILDING SYSTEM	*SUB-TOTAL*	*TOTAL*	*SUB-TOTAL*	*TOTAL*	*SUB-TOTAL*	*TOTAL*	*SUB-TOTAL*	*TOTAL*	*SUB-TOTAL*	*TOTAL*
SUMMARY ALL BUILDINGS										
A10 FOUNDATIONS		**$8,872**		**$7,328**		**$366,088**				**$382,288**
A1010 Standard Foundations	$8,872		$7,328		$142,185		$0		$158,385	
A1020 Special Foundations	$0		$0		$71,111		$0		$71,111	
A1030 Lowest Floor Construction	$0		$0		$152,792		$0		$152,792	
A20 BASEMENT CONSTRUCTION		**$0**		**$0**		**$853,041**				**$853,041**
A2010 Basement Excavation	$0		$0		$527,436		$0		$527,436	
A2020 Basement Walls	$0		$0		$325,605		$0		$325,605	
B10 SUPERSTRUCTURE		**$375,650**		**$94,100**		**$921,537**				**$1,391,287**
B1010 Upper Floor Construction	$355,650		$61,100		$565,816		$0		$982,566	
B1020 Roof Construction	$20,000		$33,000		$355,721		$0		$408,721	
B20 EXTERIOR CLOSURE		**$197,988**		**$335,716**		**$769,899**				**$1,303,603**
B2010 Exterior Walls	$0		$72,610		$579,551		$0		$652,161	
B2020 Windows	$175,318		$224,486		$146,942		$0		$546,746	
B2030 Exterior Doors	$22,670		$38,620		$43,406		$0		$104,696	
B30 ROOFING		**$35,280**		**$14,975**		**$340,935**				**$391,190**
B3010 Roof Coverings	$35,280		$14,975		$337,035		$0		$387,290	
B3020 Roof Openings	$0		$0		$3,900		$0		$3,900	
C10 INTERIOR CONSTRUCTION		**$211,230**		**$185,314**		**$928,803**				**$1,325,347**
C1010 Partitions	$46,725		$87,156		$589,455		$0		$723,336	
C1020 Interior Doors	$35,670		$61,928		$126,743		$0		$224,341	
C1030 Specialties/Millwork	$128,835		$36,230		$212,605		$0		$377,670	
C20 STAIRCASES		**$18,000**		**$47,000**		**$257,600**				**$322,600**
C2010 Stair Construction	$0		$38,000		$228,600		$0		$266,600	
C2020 Stair Finishes	$18,000		$9,000		$29,000		$0		$56,000	
C30 INTERIOR FINISHES		**$197,535**		**$187,131**		**$373,490**				**$758,156**
C3010 Wall Finishes	$53,380		$20,060		$70,748		$0		$144,188	
C3020 Floor Finishes	$25,575		$71,666		$139,448		$0		$236,689	
C3030 Ceiling Finishes	$118,580		$95,405		$163,294		$0		$377,279	
D10 CONVEYING SYSTEMS		**$100,000**		**$100,000**		**$242,150**				**$442,150**
D1010 Elevator	$100,000		$100,000		$242,150		$0		$442,150	
D20 PLUMBING		**$164,143**		**$107,715**		**$221,165**				**$493,023**
D2000 Plumbing	$164,143		$107,715		$221,165		$0		$493,023	
D30 HVAC		**$646,042**		**$387,625**		**$895,261**				**$1,928,928**
D3000 HVAC	$646,042		$387,625		$895,261		$0		$1,928,928	
D40 FIRE PROTECTION		**$123,580**		**$85,199**		**$115,705**				**$324,484**
D4000 Fire Protection	$123,580		$85,199		$115,705		$0		$324,484	

PM&C

Lunenburg Municipal Buildings Renovations
Lunenburg, MA

Schematic Design

21-Feb-25

	9,750	5,700	14,700	GFA 30,150

CONSTRUCTION COST SUMMARY

	Town Meeting House		*Ritter Memorial Building*		*Town Hall Addition*		*Site Detail*		*Total*	
BUILDING SYSTEM	*SUB-TOTAL*	*TOTAL*	*SUB-TOTAL*	*TOTAL*	*SUB-TOTAL*	*TOTAL*	*SUB-TOTAL*	*TOTAL*	*SUB-TOTAL*	*TOTAL*
SUMMARY ALL BUILDINGS										
D50 ELECTRICAL		**$452,851**		**$394,325**		**$540,250**				**$1,387,426**
D5010 Service & Distribution	$114,475		$207,475		$79,400		$0		$401,350	
D5020 Lighting & Power	$176,688		$98,325		$253,575		$0		$528,588	
D5030 Communication & Security Systems	$139,188		$75,525		$194,775		$0		$409,488	
D5040 Other Electrical Systems	$22,500		$13,000		$12,500		$0		$48,000	
E10 EQUIPMENT		**$0**		**$9,900**		**$0**				**$9,900**
E1000 Equipment	$0		$9,900		$0		$0		$9,900	
E20 FURNISHINGS		**$8,056**		**$11,496**		**$55,171**				**$74,723**
E2010 Fixed Furnishings	$8,056		$11,496		$55,171		$0		$74,723	
E2020 Movable Furnishings	$0		$0		$0		$0			
F10 SPECIAL CONSTRUCTION		**$0**		**$0**		**$56,350**				**$56,350**
F1000 Special Construction	$0		$0		$56,350		$0		$56,350	
F20 DEMOLITION & HAZMAT REMOVALS		**$85,615**		**$100,455**		**$0**				**$186,070**
F2010 Building Elements Demolition	$85,615		$100,455		$0		$0		$186,070	
F2020 Hazardous Components Abatement	$0		$0		$0		$0		$0	
G10 SITE PREPARATION		**$0**		**$0**		**$0**		**$152,275**		**$152,275**
G1010 Site Clearing	$0		$0		$0		$69,000		$69,000	
G1020 Site Demolition & Relocations	$0		$0		$0		$6,740		$6,740	
G1030 Site Earthwork	$0		$0		$0		$76,535		$76,535	
G1040 Hazardous Waste Remediation	$0		$0		$0		$0		$0	
G20 SITE IMPROVEMENTS		**$0**		**$0**		**$0**		**$935,945**		**$935,945**
G2010 Roadways	$0		$0		$0		$295,670		$295,670	
G2020 Parking Lots	$0		$0		$0		$0		$0	
G2030 Pedestrian Paving	$0		$0		$0		$570,275		$570,275	
G2040 Site Development	$0		$0		$0		$20,000		$20,000	
G2050 Landscaping	$0		$0		$0		$50,000		$50,000	
G30 SITE MECHANICAL UTILITIES		**$0**		**$0**		**$0**		**$443,800**		**$443,800**
G3010 Water Supply	$0		$0		$0		$70,000		$70,000	
G3020 Sanitary Sewer	$0		$0		$0		$39,800		$39,800	
G3030 Storm Sewer	$0		$0		$0		$334,000		$334,000	
G3040 Heating Distribution	$0		$0		$0		$0		$0	
G3050 Cooling Distribution	$0		$0		$0		$0		$0	
G3060 Fuel Distribution	$0		$0		$0		$0		$0	
G3090 Cooling Distribution	$0		$0		$0		$0		$0	
G40 SITE ELECTRICAL UTILITIES		**$0**		**$0**		**$0**		**$125,500**		**$125,500**
G4010 Electrical Distribution	$0		$0		$0		$0		$0	
G4020 Site Lighting	$0		$0		$0		$40,000		$40,000	
G4030 Site Communication	$0		$0		$0		$22,500		$22,500	
G4040 Other Site Electrical Utilities	$0		$0		$0		$63,000		$63,000	
TOTAL DIRECT COST (Trade Costs)		**$2,624,842**		**$2,068,279**		**$6,937,445**		**$1,657,520**		**$13,288,086**

PM&C

Lunenburg Municipal Buildings Renovations
Lunenburg, MA

21-Feb-25

Schematic Design

GFA 9,750

CODE	DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
	Town Meeting House						
	GROSS FLOOR AREA CALCULATION						
001	Basement Level	3,250	sf				
002	Ground Floor	3,250	sf				
003	2nd Floor	3,250	sf				
004							
005	***TOTAL GROSS FLOOR AREA (GFA)***				**9,750** ***sf***		
006							
007							
008	***A10 FOUNDATIONS***						
009							
010	**A1010 STANDARD FOUNDATIONS**						
011							
012	*033000 CONCRETE*				-		
013	Concrete Summary						
014	*FW* Foundation Walls						
015	*WF* Wall Footings						
016	*CF* Spread Footings	*4*					
017	*P* Piers						
018	*CW* Concrete Wall & Footing						
019	*SOG* Slab on Grade						
020	Total Concrete	4	cy				
021							
022							
023	Foundation spread footing, allow 4'x4'x1'-6" for new transfer columns	*4*	*ea*		-		
024	Formwork	**96**	sf	22.00	2,112		
025	Re-bar	**600**	lbs.	2.00	1,200		
026	CF Concrete material; 4,500 psi	**4**	cy	165.00	660		
027	Placing concrete	**4**	cy	300.00	1,200		
028	Set anchor bolts grout plates	**4**	ea	150.00	600		
029							
030	*312000 EARTHWORK*						
031	Spread footings						
032	Excavation	**20**	cy	100.00	2,000		
033	Store on site for reuse	**20**	cy	30.00	600		

	CODE		DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
	Town Meeting House								
034			Backfill with existing fill	**20**	cy	25.00	500		
035	A1010		SUBTOTAL					$ 8,872	
036									
037		**A1020**	**SPECIAL FOUNDATIONS**						
038	A1020		SUBTOTAL					$ -	
039									
040		**A1030**	**LOWEST FLOOR CONSTRUCTION**						
041		*033000*	*CONCRETE*						
042			Slab on grade, 4"D	*3,250*	*sf*		-		
043		ALT2	Vapor barrier, heavy duty, 15 mil	**3,250**	sf	1.50	ALT2		
044		ALT2	WWF reinforcement	**3,738**	sf	1.90	ALT2		
045		ALT2	Concrete - 4" thick	**42**	cy	165.00	ALT2		
046		ALT2	Placing concrete; premium for access	**42**	cy	250.00	ALT2		
047		ALT2	Finishing and curing concrete	**3,250**	sf	5.00	ALT2		
048									
049		*070001*	*WATERPROOFING, DAMPPROOFING AND CAULKING*						
050			No Work in this section		ls				
051									
052		*072100*	*THERMAL INSULATION*						
053		ALT2	New rigid insulation	**3,250**	sf	3.50	ALT2		
054									
055		*312000*	*EARTHWORK*						
056			Slab on grade						
057		ALT2	Compacted granular fill, 6"	**60**	cy	40.00	ALT2		
058		ALT2	Geo textile fabric	**3,250**	sf	0.75	ALT2		
059		ALT2	Compact sub-grade	**3,250**	sf	0.55	ALT2		
060		ALT2	Underslab drainage , lower level	**3,250**	sf	2.00	ALT2		
061		ALT2	E & B for underslab plumbing	**3,250**	sf	0.75	ALT2		
062	A1030		SUBTOTAL					$ -	
063									
064			***TOTAL - FOUNDATIONS***						**$8,872**
065									
066									

CODE	DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
	Town Meeting House						
	A20 BASEMENT CONSTRUCTION						
	A2010 BASEMENT EXCAVATION						
	No Work in this section		cy				
A2010	SUBTOTAL					$ -	
	A2020 BASEMENT WALLS						
	No Work in this section		cy				
A2020	SUBTOTAL					$ -	
	TOTAL - BASEMENT CONSTRUCTION						
	B10 SUPERSTRUCTURE						
	B1010 FLOOR CONSTRUCTION						
	051200 STRUCTURAL STEEL FRAMING						
	No Work in this section						
	061850 WOOD STRUCTURE REPAIRS						
	Jack-up existing structure at wood columns; remove columns + shore structure; seal end caps and reinstall	**44**	loc	1,500.00	66,000		
	Exploratory openings to identify bearing walls	**6**	loc	500.00	3,000		
	Shore + level existing 1sr floor structure	**3,250**	sf	20.00	65,000		
	Strengthen structure below new entry slab	**135**	sf	50.00	6,750		
	Strengthen floor structure for document storage	**1**	ls	20,000.00	20,000		
	Strengthen floor structure in conference + meeting hall for 100 psf live load	**2,860**	sf	40.00	114,400		
	Reframing for LULA	**1**	ls	15,000.00	15,000		
	Replace damaged post	**1**	ea	900.00	900		
	New columns	**4**	ea	1,500.00	6,000		
	New LVL transfer girders for 2nd floor meeting room; 2 loc	**78**	lf	250.00	19,500		

	CODE		DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
			Town Meeting House						
098			Structural repairs for connections to exterior fire escape stairs	**1**	ls	11,600.00	11,600		
099			Repair exterior ramp	**1**	ls	15,000.00	15,000		
100			Structural monitoring	**1**	ls	10,000.00	10,000		
101									
102		*078400*	*FIREPROOFING/FIRESTOPPING*						
103			Allowance for firestopping	**1**	ls	2,500.00	2,500		
104	B1010		SUBTOTAL					$ 355,650	
105									
106		**B1020**	**ROOF CONSTRUCTION**						
107									
108		*061850*	*WOOD STRUCTURE REPAIRS*						
109			Replace existing diagonal truss	**1**	loc	1,500.00	1,500		
110			Replace damaged purlin; includes shoring	**1**	ls	3,000.00	3,000		
111			Replace damaged post + beam in attic	**1**	ls	3,000.00	3,000		
112			New support for weathervane + finial	**1**	ls	5,000.00	5,000		
113			New reinforcing plates at attic trusses	**10**	loc	750.00	7,500		
114									
115		*078400*	*FIREPROOFING/FIRESTOPPING*						
116			No Work in this section						
117	B1020		SUBTOTAL					$ 20,000	
118									
119			***TOTAL - SUPERSTRUCTURE***						**$375,650**
120									
121									
122		***B20***	***EXTERIOR CLOSURE***						
123									
124		**B2010**	**EXTERIOR WALLS**						
125									
126		*040001*	*MASONRY*						
127			*No work assumed*				No Work Assumed		
128									
129		*074210*	*WALL PANELS*						
130			No work assumed at existing siding				No Work Assumed		
131			Staging				included		

CODE		DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
		Town Meeting House						
	070001	*WATERPROOFING, DAMPPROOFING AND CAULKING*						
		AVB membrane; fluid applied				No Work Assumed		
		Sealants @ exterior/dissimilar				No Work Assumed		
		Expansion joints new/existing				No Work Assumed		
		Control joints at masonry				No Work Assumed		
	072100	*THERMAL INSULATION*						
		Insulation; 2 layers of 3"				No Work Assumed		
	092900	*GYPSUM BOARD ASSEMBLIES*						
		Cold formed metal framing backup 6"				No Work Assumed		
		Sheathing				No Work Assumed		
		Interior GWB to exterior face				No Work Assumed		
B2010		SUBTOTAL					$	-
	B2020	**WINDOWS**	*632*	*sf*				
	061000	*ROUGH CARPENTRY*						
		Wood blocking at openings	**611**	lf	6.00	3,666		
	070001	*WATERPROOFING, DAMPPROOFING AND CAULKING*						
		Backer rod & double sealant	**611**	lf	12.00	7,332		
	080001	*WINDOWS; Historic Profiles*						
		Remove existing windows; includes protection	**632**	sf	20.00	12,640		
		New DW windows to match existing	**632**	sf	240.00	151,680		
	089000	*LOUVERS*						
		Louver				No Work Assumed		
B2020		SUBTOTAL					$	175,318

CODE	DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
	Town Meeting House						
	B2030 EXTERIOR DOORS						
	061000 ROUGH CARPENTRY						
	Wood blocking at openings	**20**	lf	14.00	280		
	079200 JOINT SEALANTS						
	Backer rod & double sealant	**20**	lf	12.00	240		
	084110 ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS						
	Remove existing narrow dbl door	**1**	pr	900.00	900		
	New glazed entrance door; 36" x 84" including new threshold + hardware	**1**	pr	10,000.00	10,000		
	New sidelights	**9**	sf	250.00	2,250		
	087100 DOOR HARDWARE						
	ADA automatic door opener with optical actuators	**1**	set	9,000.00	9,000		
B2030	SUBTOTAL					$ 22,670	
	TOTAL - EXTERIOR CLOSURE						**$197,988**
	B30 ROOFING						
	B3010 ROOF COVERINGS						
	061000 ROUGH CARPENTRY						
	Rough blocking at roofing				No Work Assumed		
	070001 WATERPROOFING, DAMPPROOFING AND CAULKING						
	AVB at roof perimeter				No Work Assumed		
	070002 ROOFING AND FLASHING						
	Asphalt roofing; assumed existing to remain				No Work Assumed		
	Replace finial + weathervane	**1**	lc	12,000.00	12,000		

	CODE		DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
			Town Meeting House						
198			Remove + replace bell tower timber sheathing and framing; 50%	**138**	sf	60.00	8,280		
199			Misc. repairs	**1**	ls	5,000.00	5,000		
200			Staging	**1**	ls	10,000.00	10,000		
201	B3010		SUBTOTAL					$ 35,280	
202									
203		**B3020**	**ROOF OPENINGS**						
204	B3020		SUBTOTAL					$ -	
205									
206			***TOTAL - ROOFING***						**$35,280**
207									
208		***C10***	***INTERIOR CONSTRUCTION***						
209									
210		**C1010**	**PARTITIONS**						
211		*061000*	*ROUGH CARPENTRY*						
212			Wood blocking and misc. rough carpentry as req'd in partitions	**848**	sf	1.00	848		
213									
214		*070001*	*WATERPROOFING, DAMPPROOFING AND CAULKING*						
215			Miscellaneous sealants at partitions	**848**	sf	0.35	297		
216									
217		*080002*	*GLASS AND GLAZING*						
218			No Work in this section		sf	80.00			
219									
220		*102226*	*OPERABLE GLASS PARTITIONS*						
221			No Work in this section		sf	190.00			
222									
223		*081110*	*HOLLOW METAL DOOR FRAMES*						
224			No Work in this section		sf	35.00			
225									
226		*092900*	*GYPSUM BOARD ASSEMBLIES*	*848*	*sf*				
227			Infill door openings	**4**	loc	1,500.00	6,000		
228			Infill window openings	**1**	loc	900.00	900		
229			Patch walls at removed partitions	**24**	loc	250.00	6,000		
230			Patch walls at jacking locations	**600**	sf	25.00	15,000		

	CODE		DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
			Town Meeting House						
231			Wall - 3.5" MF, NR GWB 1L-ES w/ 3" sound att., up to ceiling	**784**	sf	15.00	11,760		
232			Plumbing Wall	**64**	sf	19.00	1,216		
233			Premium for veneer plaster	**784**	sf	6.00	4,704		
234									
235		*102200*	*OPERABLE PARTITIONS*						
236			No Work in this section						
237	C1010		SUBTOTAL					$ 46,725	
238									
239		**C1020**	**INTERIOR DOORS**						
240			Interior Door Summary						
241			Single Leaf, 3'-4"W x 7'H	*8*					
242			Double Leaf, 6'W x 7'H	*1*					
243			Irregular Leaf, 5'W x 7'H						
244									
245		*061000*	*ROUGH CARPENTRY*						
246			Wood blocking at openings	**156**	lf	4.00	624		
247									
248		*070001*	*WATERPROOFING, DAMPPROOFING AND CAULKING*						
249			Backer rod & double sealant	**156**	lf	3.50	546		
250									
251		*080002*	*GLASS AND GLAZING*						
252			Frames, Transom & Sidelite Glazing; allowance	**200**	sf	50.00	10,000		
253									
254		*081113*	*HOLLOW METAL DOOR FRAMES*						
255			Hollow metal frame, single leaf	**8**	ea	350.00	2,800		
256			Hollow metal frame, dble leaf	**1**	ea	700.00	700		
257									
258		*081400*	*WOOD DOORS*						
259			Wood door, single leaf	**8**	lv	600.00	4,800		
260			Wood door, dbl leaf	**2**	lv	600.00	1,200		
261									
262		*083110*	*ACCESS DOORS AND FRAMES*						
263			Access doors	**1**	ls	2,000.00	2,000		
264									

CODE		DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
Town Meeting House								
	083300	*OVERHEAD DOOR*						
		No Work in this section						
	087100	*DOOR HARDWARE*						
		New hardware set	**10**	set	1,100.00	11,000		
	090007	*PAINTING*						
		Paint to new doors	**10**	ea	200.00	2,000		
C1020		SUBTOTAL					$ 35,670	
	C1030	**SPECIALTIES / MILLWORK**						
	055000	*MISCELLANEOUS METALS*						
		Misc. metals allowance	**9750**	gsf	0.50	4,875		
	061000	*ROUGH CARPENTRY*						
		No Work in this section	**9750**	gsf	0.50	4,875		
	064020	*INTERIOR ARCHITECTURAL WOODWORK*						
		New wainscot + chair-rail; 3ft H; pine with clear sealer	**2385**	sf	35.00	83,475		
		New door casings; pine with clear sealer	**391**	lf	15.00	5,865		
	070001	*WATERPROOFING, DAMPPROOFING AND CAULKING*						
		Miscellaneous sealants	**9750**	gsf	1.50	14,625		
	101100	*VISUAL DISPLAY SURFACES*						
		Allowance	**1**	ls	1,000.00	1,000		
	101400	*SIGNAGE*						
		Code signage	**9750**	gsf	1.00	9,750		
	102800	*TOILET ACCESSORIES*						
		Toilet Room Summary						
		Single Toilet, 1 ADA	*2*	*rms*				
		Gang Toilet, 1 ADA / 3 STD / 3 LAV / 1 URI		*rms*				

CODE	DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
	Town Meeting House						
	TA - Hand dryer	**2**	ea	600.00	1,200		
	TA - Mirror, framed	**2**	ea	200.00	400		
	TA - Paper towel dispenser	**2**	ea	200.00	400		
	TA - Soap dispenser	**2**	ea	60.00	120		
	TA - Toilet paper holder	**2**	ea	100.00	200		
	TA - Waste bin	**2**	ea	200.00	400		
	Janitor storage, accessories	**2**	rms	300.00	600		
104400	*FIRE PROTECTION SPECIALTIES*						
	Fire extinguisher cabinets	**3**	ea	350.00	1,050		
105113	*LOCKERS*						
	No Work in this section						
C1030	SUBTOTAL					$ 128,835	
	TOTAL - INTERIOR CONSTRUCTION						**$211,230**
C20	***STAIRCASES***						
C2010	**STAIR CONSTRUCTION**						
033000	*CONCRETE*						
	No Work in this section				ETR		
055000	*MISCELLANEOUS METALS*						
	No Work in this section				ETR		
C2010	SUBTOTAL					$ -	
C2020	**STAIR FINISHES**						
090005	*RESILIENT FLOORS*						
	Allowance for new stair finishes	**2**	flt	3,000.00	6,000		

CODE	DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
	Town Meeting House						
	090007 *PAINTING*						
	Paint/refinish stairs	**2**	flt	6,000.00	12,000		
C2020	SUBTOTAL					$ 18,000	
	TOTAL - STAIRCASES						**$18,000**
	C30 INTERIOR FINISHES						
	C3010 WALL FINISHES						
	090002 *TILE*						
	No Work in this section						
	090007 *PAINTING*						
	Clear sealer to wainscot	**391**	sf	2.00	782		
	Paint to GWB; new	**848**	sf	1.00	848		
	Painting generally	**9,750**	gsf	3.00	29,250		
	098400 *ACOUSTIC ROOM COMPONENTS*						
	Allowance	**500**	sf	45.00	22,500		
C3010	SUBTOTAL					$ 53,380	
	C3020 FLOOR FINISHES						
	033000 *CONCRETE*						
	No Work in this section		sf	2.00			
	090002 *TILE*						
	No Work in this section		sf	23.00			
	090005 *RESILIENT FLOORS*						
	Floor prep	**154**	sf	3.00	462		
	Resilient flooring	**154**	sf	9.00	1,386		

CODE		DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
Town Meeting House								
		Rubber base	**72**	sf	5.00	360		
	096430	*WOOD FLOORING*						
		Wood base	**502**	lf	9.00	4,518		
	096800	*CARPETING*						
		Floor prep	**2202**	sf	3.00	6,606		
		New carpeting	**2202**	sf	5.56	12,243		
C3020		SUBTOTAL					$ 25,575	
	C3030	**CEILING FINISHES**						
	064020	*INTERIOR ARCHITECTURAL WOODWORK*						
		No Work in this section		sf				
	090003	*ACOUSTICAL TILE*						
		No Work in this section		sf	7.00			
	092900	*GYPSUM BOARD ASSEMBLIES*						
		New GWB ceilings	**154**	sf	20.00	3,080		
		Patch ceilings at exploratory openings to identify bearing walls	**6**	loc	3,000.00	18,000		
	090007	*PAINTING*						
		Paint and patch existing plaster ceilings for sprinkler other work	**6,500**	sf	15.00	97,500		
C3030		SUBTOTAL					$ 118,580	
		TOTAL - INTERIOR FINISHES						**$197,535**
	D10	***CONVEYING SYSTEMS***						
	D1010	**ELEVATOR**						

	CODE	DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
		Town Meeting House						
402		New LULA	**1**	ea	100,000.00	100,000		
403	D1010	SUBTOTAL					$ 100,000	
404								
405		***TOTAL - CONVEYING SYSTEMS***						**$100,000**
406								
407								
408		***D20 PLUMBING***						
409								
410	**D2000**	**PLUMBING, GENERALLY**						
411		2" backflow preventer & water meter assembly	**1**	ls	4,800.00	4,800		
412		Electric domestic water heater	**1**	ea	8,100.00	8,100		
413		Expansion tank	**1**	ea	450.00	450		
414		Recirculation pump	**1**	ea	1,200.00	1,200		
415		Irrigation equipment	**1**	ea	1,000.00	1,000		
416		Fixtures & Specialties				-		
417		Water closet	**4**	ea	1,950.00	7,800		
418		Lavatory	**4**	ea	1,910.00	7,640		
419		Kitchenette sink	**2**	ea	1,785.00	3,570		
420		Mop basin	**1**	ea	1,660.00	1,660		
421		Drinking fountain	**1**	ea	3,825.00	3,825		
422		Floor drains	**2**	ea	1,530.00	3,060		
423		Hose bibbs	**2**	ea	450.00	900		
424		Exterior wall hydrants	**2**	ea	550.00	1,100		
425		Piping/Insulation				-		
426		Domestic water piping	**9,750**	gsf	5.50	53,625		
427		Sanitary waste & vent piping	**9,750**	gsf	3.85	37,538		
428		Storm drainage (gutters & downspouts)	**9,750**	gsf	2.55	NR		
429		Pipe insulation	**9,750**	gsf	1.50	14,625		
430		Miscellaneous						
431		Supervision, Coordination & BIM	**1**	ls	8,500.00	8,500		
432		Coring, sleeves & firestopping	**1**	ls	1,500.00	1,500		
433		Shop drawings	**1**	ls	1,250.00	1,250		
434		Inspections & commissioning	**1**	ls	2,000.00	2,000		
435		Fees & permits				Assumes waived		

CODE	DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
Town Meeting House							
D2000	SUBTOTAL					$ 164,143	
	TOTAL - PLUMBING						**$164,143**
D30	***HVAC***						
D3000	**HVAC, GENERALLY**						
	Equipment						
	VRF Air Cooled Condensing Unit(s)	**16**	tons	2,250.00	36,000		
	Branch controller	**2**	ea	4,700.00	9,400		
	Split systems; 1.5 ton, elevator machine room	**1**	ea	8,500.00	8,500		
	EUH, Electric Units heaters, cab heaters	**12**	ea	1,850.00	22,200		
	CP-, Condensate Pumps	**12**	ea	500.00	6,000		
	Misc. Mechanical Equipment	**9,750**	gsf	0.50	4,875		
	Air Distribution						
	ERU-1, DX , energy recovery	**1,500**	cfm	26.00	39,000		
	ERU-2, Dedicated Auditorium , energy recovery unit	**600**	cfm	25.00	15,000		
	VRF Fan coil units	**12**	ea	2,750.00	33,000		
	Sheet metal & Accessories						
	Galvanized ductwork	**6,825**	lbs.	17.50	119,438		
	Aluminum duct	**1,000**	lbs.	18.00	18,000		
	Duct insulation	**4,511**	sf	6.00	27,066		
	Exterior louvers	**1**	ls	2,500.00	2,500		
	Registers, grilles & diffusers	**39**	ea	250.00	9,750		
	Miscellaneous duct accessories incl. Sound Attenuators.	**9,750**	sf	2.00	19,500		
	Utility & General exhaust	**1**	ls	8,500.00	8,500		
	HVAC Piping						
	Refrigerant piping with valves, fittings & hangers - VRF System	**1,800**	lf	45.00	81,000		
	Refrigerant piping with valves, fittings & hangers - Split System	**200**	lf	40.00	8,000		
	Condensate piping with valves, fittings & hangers	**500**	lf	30.00	15,000		
	Pipe Insulation	**2,500**	lf	10.00	25,000		
	Controls						
	BMS system, CO2 & NO2 detectors	**9,750**	gsf	7.00	68,250		
	Balancing						

	CODE	DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
		Town Meeting House						
470		System testing & balancing	**9,750**	gsf	0.75	7,313		
471		Miscellaneous						
472		Supervision, Coordination & BIM	**1**	ls	25,000.00	25,000		
473		Condenser stands and misc. equipment supports	**1**	ls	3,500.00	3,500		
474		Commissioning support, trade labor	**1**	ls	4,000.00	4,000		
475		Coring, sleeves & fire stopping	**1**	ls	3,000.00	3,000		
476		Equipment startup	**1**	ls	5,000.00	5,000		
477		Spare filters, attic stock	**1**	ls	1,250.00	1,250		
478		Vibration isolation & seismic restraints	**1**	ls	4,000.00	4,000		
479		Rigging & equipment rental	**1**	ls	17,000.00	17,000		
480		Fees & Permits				Assumes waived		
481	D3000	SUBTOTAL					$ 646,042	
482								
483		***TOTAL - HVAC***						**$646,042**
484								
485								
486		***D40 FIRE PROTECTION***						
487								
488		**D4000 FIRE PROTECTION, GENERALLY**						
489		Equipment						
490		Fire Pump Assumed not Required				NIC		
491		Sprinkler Service, Double check valve, 6"	**1**	ea	7,250.00	7,250		
492		Wet alarm valve assembly	**1**	ea	3,000.00	3,000		
493		Dry alarm valve assembly & compressor	**1**	ea	4,700.00	4,700		
494		Alarm bell	**1**	ea	450.00	450		
495		Fire Department Connection	**1**	ea	1,500.00	1,500		
496		Zone control assembly	**2**	ea	1,600.00	3,200		
497		Misc. Fire Department Equipment	**9,750**	sf	0.20	1,950		
498		Distribution						
499		Sprinkler heads, pendant, uprights	**101**	ea	100.00	10,100		

CODE	DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
	Town Meeting House						
	Dry attic heads, upright	**33**	ea	105.00	3,465		
	Main sprinkler piping and standpipes	**253**	lf	47.00	11,891		
	Distribution piping with fittings & hangers	**1,273**	lf	38.00	48,374		
	Miscellaneous						
	Coordination & BIM	**1**	ls	20,000.00	20,000		
	Hydraulic calculations	**1**	ls	3,000.00	3,000		
	Coring, sleeves & firestopping	**1**	ls	2,000.00	2,000		
	Shop drawings	**1**	ls	1,500.00	1,500		
	Inspections & commissioning	**1**	ls	1,200.00	1,200		
	Fees & permits				Assumes waived		
D4000	SUBTOTAL					$ 123,580	
	TOTAL - FIRE PROTECTION						**$123,580**
	D50 ELECTRICAL						
	D5010 SERVICE & DISTRIBUTION						
	Gear & Distribution						
	Meter provision	**1**	ea	500.00	500		
	400A riser to weather head (Overhead service)	**1**	ls	4,500.00	4,500		
	400A 120/208V panelboard	**1**	ea	12,500.00	12,500		
	250A 120/208V panelboard	**1**	ea	8,500.00	8,500		
	150A 120/208V panelboard	**1**	ea	3,000.00	3,000		
	250A feed (allow)	**50**	lf	90.00	4,500		
	150A feed (allow)	**50**	lf	48.00	2,400		
	Grounding	**1**	ls	4,000.00	4,000		
	PV infrastructure with empty conduit and backboxes	**1**	ls	4,000.00	4,000		
	Equipment Wiring						

	CODE		DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
	Town Meeting House								
528			Misc. Equipment Wiring	**9,750**	gsf	2.50	24,375		
529			VRF/ACCU feed and connection	**1**	ea	5,500.00	5,500		
530			VRF/FCU feed and connection	**12**	ea	850.00	10,200		
531			BC feed and connection	**2**	ea	500.00	1,000		
532			ERU feed and connection	**2**	ea	3,000.00	6,000		
533			Split unit feed and connection	**1**	ea	2,100.00	2,100		
534			EUH feed and connection	**12**	ea	850.00	10,200		
535			Cond. Pump feed an connection	**12**	ea	850.00	10,200		
536			WH feed an connection	**1**	ea	1,000.00	1,000		
537	D5010		SUBTOTAL					$ 114,475	
538									
539		**D5020**	**LIGHTING & POWER**						
540			Lighting & Power						
541			Light fixtures and installation	**9,750**	gsf	8.50	82,875		
542			Restore light fixtures - Main Assemble Room	**1**	ls	8,500.00	8,500		
543			Lighting controls	**9,750**	gsf	2.50	24,375		
544			Branch Power				-		
545			Branch devices	**9,750**	gsf	0.75	7,313		
546			Lighting and branch circuitry						
547			Lighting and branch circuitry	**9,750**	gsf	5.50	53,625		
548	D5020		SUBTOTAL					$ 176,688	
549									
550		**D5030**	**COMMUNICATION & SECURITY SYSTEMS**						
551			Fire Alarm						
552			FA system	**9,750**	gsf	3.00	29,250		
553			BDA						
554			BDA system	**1**	ls	10,000.00	10,000		
555			Telecommunications						
556			Network switches, routers, firewalls, servers, etc.				by others		
557			Rough-in devices & cable	**9,750**	gsf	4.00	39,000		
558			Audio-Video System						

	CODE		DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
			Town Meeting House						
559			Speakers, projectors, etc.				by others		
560			Rough-in devices & cable	**9,750**	gsf	1.25	12,188		
561			Security System						
562			Security System Rough -in only	**9,750**	gsf	5.00	48,750		
563	D5030		SUBTOTAL					$ 139,188	
564									
565		**D5040**	**OTHER ELECTRICAL SYSTEMS**						
566			Demolition work	**1**	ls	7,500.00	7,500		
567			Temporary power	**1**	ls	10,000.00	10,000		
568			Coordination study	**1**	ls	5,000.00	5,000		
569			Permit and fees				Assumes waived		
570	D5040		SUBTOTAL					$ 22,500	
571									
572			***TOTAL - ELECTRICAL***						**$452,851**
573									
574									
575		***E10***	***EQUIPMENT***						
576									
577		**E1000**	**EQUIPMENT, GENERALLY**						
578									
579		*110000*	*EQUIPMENT*						
580			No Work in this section		ea				
581									
582		*114000*	*FOODSERVICE EQUIPMENT*						
583			No Work in this section		ls				
584									
585		*115213*	*PROJECTION SCREENS*						
586			No Work in this section		ls				
587									
588		*116100*	*THEATRICAL EQUIPMENT*						
589			No Work in this section		ls				
590	E1000		SUBTOTAL					$ -	
591									
592			***TOTAL - EQUIPMENT***						

CODE	DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
	Town Meeting House						
	E20 FURNISHINGS						
	E2010 FIXED FURNISHINGS						
	122100 WINDOW TREATMENT						
122113	No Work in this section	**632**	sf	8.00	5,056		
	123000 CASEWORK						
	No casework included						
	124810 ENTRANCE FLOOR MAT AND FRAMES						
124813	Allowance for walk-off mats	**200**	sf	15.00	3,000		
E2010	SUBTOTAL					$ 8,056	
	E2020 MOVABLE FURNISHINGS						
	All movable furnishings to be provided and installed by owner				NIC		
E2020	SUBTOTAL					$ -	
	TOTAL - FURNISHINGS						**$8,056**
	F10 SPECIAL CONSTRUCTION						
	F1000 SPECIAL CONSTRUCTION						
	No items in this section						
F1000	SUBTOTAL					$ -	
	TOTAL - SPECIAL CONSTRUCTION						
	F20 SELECTIVE BUILDING DEMOLITION						
	F2010 BUILDING ELEMENTS DEMOLITION						
	Remove existing interior partitions	**3,848**	sf	5.00	19,240		

CODE	DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
	Town Meeting House						
	Remove existing interior doors	**17**	lvs	250.00	4,250		
	Remove existing lift	**1**	loc	15,000.00	15,000		
	Remove existing floor finishes; ground floor	**3,250**	sf	2.00	6,500		
	Remove existing floor finishes; 2nd floor	**3,250**	sf	2.00	6,500		
	Remove existing MEP; cut + cap in trades	**9,750**	sf	1.50	14,625		
	Misc. demo and protection	**9,750**	sf	2.00	19,500		
F2010	SUBTOTAL					$ 85,615	
	F2020 HAZARDOUS COMPONENTS ABATEMENT						
	No items in this section						
F2020	SUBTOTAL					$ -	
	TOTAL - SELECTIVE BUILDING DEMOLITION						**$85,615**
	G10						
	F1000 SPECIAL CONSTRUCTION						
	No items in this section						
F1000	SUBTOTAL					$ -	
	TOTAL - SPECIAL CONSTRUCTION						

CODE	DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST

Ritter Memorial Building

GROSS FLOOR AREA CALCULATION

001		Lower Floor	1,550	sf				
002		Ground Floor	2,600	sf				
003		2nd Floor	1,550	sf				
004								
005		***TOTAL GROSS FLOOR AREA (GFA)***				**5,700**	***sf***	
006								
007								
008	***A10***	***FOUNDATIONS***						
009								
010	**A1010**	**STANDARD FOUNDATIONS**						
011								
012	*033000*	*CONCRETE*				-		
013		Concrete Summary						
014	*FW*	Foundation Walls						
015	*WF*	Wall Footings						
016	*CF*	Spread Footings	*2*					
017	*P*	Piers						
018	*CW*	Concrete Wall & Footing						
019	*SOG*	Slab on Grade						
020		Total Concrete	2	cy				
021								
022								
023		Foundation spread footing, allow 3'x3'x1'-6" at porch	*4*	*ea*		-		
024		Formwork	**72**	sf	22.00	1,584		
025		Re-bar	**600**	lbs.	2.00	1,200		
026	CF	Concrete material; 5,000 psi	**2**	cy	172.00	344		
027		Placing concrete	**2**	cy	300.00	600		
028		Set anchor bolts grout plates	**4**	ea	150.00	600		
029		E+B for footings	**1**	ls	3,000.00	3,000		
030								
031	A1010	SUBTOTAL					$	7,328
032								
033	**A1020**	**SPECIAL FOUNDATIONS**						

	CODE	DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
		Ritter Memorial Building						
034	A1020	SUBTOTAL					$ -	
035								
036		**A1030 LOWEST FLOOR CONSTRUCTION**						
037	A1030	SUBTOTAL					$ -	
038								
039		***TOTAL - FOUNDATIONS***						**$7,328**
040								
041								
042		***A20 BASEMENT CONSTRUCTION***						
043								
044		**A2010 BASEMENT EXCAVATION**						
045		No Work in this section						
046	A2010	SUBTOTAL					$ -	
047								
048		**A2020 BASEMENT WALLS**						
049		No Work in this section						
050	A2020	SUBTOTAL					$ -	
051								
052		***TOTAL - BASEMENT CONSTRUCTION***						
053								
054								
055		***B10 SUPERSTRUCTURE***						
056								
057		**B1010 FLOOR CONSTRUCTION**						
058								
059		*051200 STRUCTURAL STEEL FRAMING*						
060		New columns at porch	**4**	ea	1,200.00	4,800		
061		Porch roof framing; steel + galvanized deck	**285**	sf	80.00	22,800		
062								
063		*061850 WOOD STRUCTURE + REPAIRS*						
064		Exploratory openings to identify bearing walls	**6**	loc	500.00	3,000		
065		Reframing for LULA	**1**	ls	15,000.00	15,000		
066		New posts	**2**	ea	1,500.00	3,000		
067		Structural monitoring	**1**	ls	10,000.00	10,000		

	CODE		DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
			Ritter Memorial Building						
068									
069		*078400*	*FIREPROOFING/FIRESTOPPING*						
070			Allowance for firestopping	**1**	ls	2,500.00	2,500		
071	B1010		SUBTOTAL					$ 61,100	
072									
073		**B1020**	**ROOF CONSTRUCTION**						
074									
075		*061850*	*WOOD STRUCTURE REPAIRS*						
076			Add knee braces (2 per location) and associated connections	**4**	loc	4,500.00	18,000		
077			Apply Boracare at areas that have water staining	**1**	ls	2,000.00	2,000		
078			Sister 25% of existing rafters	**650**	sf	20.00	13,000		
079									
080		*078400*	*FIREPROOFING/FIRESTOPPING*						
081			No Work in this section						
082	B1020		SUBTOTAL					$ 33,000	
083									
084			***TOTAL - SUPERSTRUCTURE***						**$94,100**
085									
086									
087		***B20***	***EXTERIOR CLOSURE***						
088									
089		**B2010**	**EXTERIOR WALLS**						
090									
091		*040001*	*MASONRY*						
092			Rework/repoint at new connection to west side	**1**	ls	10,000.00	10,000		
093									
094		*074210*	*WALL PANELS*						
095			No work assumed at existing siding				No Work Assumed		
096			Trim to porch columns	**4**	loc	1,620.00	6,480		
097			Wood soffit to porch	**285**	sf	50.00	14,250		
098			Paint and repair existing roof fascia, trim + dentils	**336**	lf	80.00	26,880		
099			Staging	**1**	ls	15,000.00	15,000		
100									
101		*070001*	*WATERPROOFING, DAMPPROOFING AND CAULKING*						

CODE		DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
		Ritter Memorial Building						
		AVB membrane; fluid applied				No Work Assumed		
		Sealants @ exterior/dissimilar				No Work Assumed		
		Expansion joints new/existing				No Work Assumed		
		Control joints at masonry				No Work Assumed		
	072100	*THERMAL INSULATION*						
		Insulation; 2 layers of 3"				No Work Assumed		
	092900	*GYPSUM BOARD ASSEMBLIES*						
		Cold formed metal framing backup 6"				No Work Assumed		
		Sheathing				No Work Assumed		
		Interior GWB to exterior face				No Work Assumed		
B2010		SUBTOTAL					$	72,610
	B2020	**WINDOWS**	*687*	*sf*				
	061000	*ROUGH CARPENTRY*						
		Wood blocking at openings	**627**	lf	6.00	3,762		
	070001	*WATERPROOFING, DAMPPROOFING AND CAULKING*						
		Backer rod & double sealant	**627**	lf	12.00	7,524		
	080001	*WINDOWS; Historic Profiles*						
		Remove existing windows; includes protection	**687**	sf	20.00	13,740		
		New DW windows to match existing	**687**	sf	240.00	164,880		
		Replace existing large steel window with curtainwall	**133**	sf	260.00	34,580		
	089000	*LOUVERS*						
		Louver				No Work Assumed		
B2020		SUBTOTAL					$	224,486
	B2030	**EXTERIOR DOORS**						

	CODE		DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
			Ritter Memorial Building						
136		*061000*	*ROUGH CARPENTRY*						
137			Wood blocking at openings	**20**	lf	14.00	280		
138									
139		*079200*	*JOINT SEALANTS*						
140			Backer rod & double sealant	**20**	lf	12.00	240		
141									
142		*084110*	*ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS*						
143			Remove existing dbl door	**1**	pr	900.00	900		
144			New glazed porch doors; 72" x 84" including new threshold + hardware	**2**	pr	15,000.00	30,000		
145			New sidelights	**45**	sf	160.00	7,200		
146									
147		*087100*	*DOOR HARDWARE*						
148			ADA automatic door opener with optical actuators	**1**	set	9,000.00	NR		
149	B2030		SUBTOTAL					$ 38,620	
150									
151			***TOTAL - EXTERIOR CLOSURE***						**$335,716**
152									
153									
154		***B30***	***ROOFING***						
155									
156		**B3010**	**ROOF COVERINGS**						
157									
158		*061000*	*ROUGH CARPENTRY*						
159			Rough blocking at roofing				No Work Assumed		
160									
161		*070001*	*WATERPROOFING, DAMPPROOFING AND CAULKING*						
162			AVB at roof perimeter				No Work Assumed		
163									
164		*070002*	*ROOFING AND FLASHING*						
165			Asphalt roofing; assumed existing to remain				No Work Assumed		
166			Low slope asphalt roof at porch	**285**	sf	35.00	9,975		
167			Trim to porch roof	**1**	ls	5,000.00	5,000		
168	B3010		SUBTOTAL					$ 14,975	

CODE	DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST

Ritter Memorial Building

B3020 ROOF OPENINGS

B3020 SUBTOTAL $ -

TOTAL - ROOFING **$14,975**

C10 INTERIOR CONSTRUCTION

C1010 PARTITIONS

061000	*ROUGH CARPENTRY*					
	Wood blocking and misc. rough carpentry as req'd in partitions	**2,960**	sf	1.00	2,960	
070001	*WATERPROOFING, DAMPPROOFING AND CAULKING*					
	Miscellaneous sealants at partitions	**2,960**	sf	0.35	1,036	
080002	*GLASS AND GLAZING*					
	No Work in this section		sf	80.00		
102226	*OPERABLE GLASS PARTITIONS*					
	No Work in this section		sf	190.00		
081110	*HOLLOW METAL DOOR FRAMES*					
	No Work in this section		sf	35.00		
092900	*GYPSUM BOARD ASSEMBLIES*	*2,960*	*sf*			
	Patch walls at removed partitions	**24**	loc	250.00	6,000	
	Patch walls at jacking locations	**600**	sf	25.00	15,000	
	Wall - 3.5" MF, NR GWB 1L-ES w/ 3" sound att., up to ceiling	**2,960**	sf	15.00	44,400	
	Premium for veneer plaster	**2,960**	sf	6.00	17,760	
102200	*OPERABLE PARTITIONS*					
	No Work in this section					

CODE	DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
	Ritter Memorial Building						
C1010	SUBTOTAL					$ 87,156	
C1020	**INTERIOR DOORS**						
	Interior Door Summary						
	Single Leaf, 3'-4"W x 7'H	21					
	Double Leaf, 6'W x 7'H						
	Irregular Leaf, 5'W x 7'H						
061000	*ROUGH CARPENTRY*						
	Wood blocking at openings	**357**	lf	4.00	1,428		
070001	*WATERPROOFING, DAMPPROOFING AND CAULKING*						
	Backer rod & double sealant	**357**	lf	3.50	1,250		
080002	*GLASS AND GLAZING*						
	Frames, Transom & Sidelite Glazing; allowance	**200**	sf	50.00	10,000		
081113	*HOLLOW METAL DOOR FRAMES*						
	Hollow metal frame, single leaf	**21**	ea	350.00	7,350		
	Hollow metal frame, dble leaf		ea	700.00			
081400	*WOOD DOORS*						
	Wood door, single leaf	**21**	lv	600.00	12,600		
	Wood door, dbl leaf		lv	600.00			
083110	*ACCESS DOORS AND FRAMES*						
	Access doors	**1**	ls	2,000.00	2,000		
083300	*OVERHEAD DOOR*						
	No Work in this section						
087100	*DOOR HARDWARE*						
	New hardware set	**21**	set	1,100.00	23,100		

	CODE		DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
			Ritter Memorial Building						
236		*090007*	*PAINTING*						
237			Paint to new doors	**21**	ea	200.00	4,200		
238	C1020		SUBTOTAL					$ 61,928	
239									
240		**C1030**	**SPECIALTIES / MILLWORK**						
241									
242		*055000*	*MISCELLANEOUS METALS*						
243			Misc. metals allowance	**5,700**	gsf	0.50	2,850		
244									
245		*061000*	*ROUGH CARPENTRY*						
246			No Work in this section	**5,700**	gsf	0.50	2,850		
247									
248		*064020*	*INTERIOR ARCHITECTURAL WOODWORK*						
249			Allowance for reception counter + millwork	**1**	ls	10,000.00	10,000		
250			New wainscot + chair-rail; 3ft H; pine with clear sealer				NR		
251			New door casings; pine with clear sealer				NR		
252									
253		*070001*	*WATERPROOFING, DAMPPROOFING AND CAULKING*						
254			Miscellaneous sealants	**5,700**	gsf	1.50	8,550		
255									
256		*101100*	*VISUAL DISPLAY SURFACES*						
257			Allowance	**1**	ls	1,000.00	1,000		
258									
259		*101400*	*SIGNAGE*						
260			Code signage	**5,700**	gsf	1.00	5,700		
261									
262		*102800*	*TOILET ACCESSORIES*						
263			*Toilet Room Summary*						
264			*Single Toilet, 1 ADA*	*3*	*rms*				
265			*Gang Toilet, 1 ADA / 3 STD / 3 LAV / 1 URI*		*rms*				
266									
267			TA - Hand dryer	**3**	ea	600.00	1,800		
268			TA - Mirror, framed	**3**	ea	200.00	600		
269			TA - Paper towel dispenser	**3**	ea	200.00	600		

CODE		DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
		Ritter Memorial Building						
		TA - Soap dispenser	**3**	ea	60.00	180		
		TA - Toilet paper holder	**2**	ea	100.00	200		
		TA - Waste bin	**3**	ea	200.00	600		
		Janitor storage, accessories	**2**	rms	300.00	600		
	104400	*FIRE PROTECTION SPECIALTIES*						
		Fire extinguisher cabinets	**2**	ea	350.00	700		
	105113	*LOCKERS*						
		No Work in this section						
C1030		SUBTOTAL					$ 36,230	
		TOTAL - INTERIOR CONSTRUCTION						**$185,314**
	C20	***STAIRCASES***						
	C2010	**STAIR CONSTRUCTION**						
	033000	*CONCRETE*						
		Concrete to metal pan	**1**	flt	3,000.00	3,000		
	055000	*MISCELLANEOUS METALS*						
		New metal pan staircase; complete	**1**	flt	35,000.00	35,000		
C2010		SUBTOTAL					$ 38,000	
	C2020	**STAIR FINISHES**						
	090005	*RESILIENT FLOORS*						
		Allowance for new stair finishes	**1**	flt	3,000.00	3,000		
	090007	*PAINTING*						
		Paint/refinish stairs	**1**	flt	6,000.00	6,000		
C2020		SUBTOTAL					$ 9,000	
		TOTAL - STAIRCASES						**$47,000**

CODE	DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
	Ritter Memorial Building						
	C30 INTERIOR FINISHES						
	C3010 WALL FINISHES						
	090002 TILE						
	No Work in this section						
	090007 PAINTING						
	Clear sealer to wainscot		sf	2.00	NR		
	Paint to GWB; new	**2,960**	sf	1.00	2,960		
	Painting generally	**5,700**	gsf	3.00	17,100		
	098400 ACOUSTIC ROOM COMPONENTS						
	Allowance	**500**	sf	45.00	NR		
C3010	SUBTOTAL					$ 20,060	
	C3020 FLOOR FINISHES						
	033000 CONCRETE						
	No Work in this section		sf	2.00			
	090002 TILE						
	No Work in this section		sf	23.00			
	090005 RESILIENT FLOORS						
	Floor prep	**2979**	sf	3.00	8,937		
	Resilient flooring	**2979**	sf	9.00	26,811		
	Rubber base	**944**	lf	5.00	4,720		
	096430 WOOD FLOORING						
	Wood base	**771**	lf	9.00	6,939		

	CODE		DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
			Ritter Memorial Building						
340		*096800*	*CARPETING*						
341			Floor prep	**2834**	sf	3.00	8,502		
342			New carpeting	**2834**	sf	5.56	15,757		
343	C3020		SUBTOTAL					$ 71,666	
344									
345		**C3030**	**CEILING FINISHES**						
346									
347		*064020*	*INTERIOR ARCHITECTURAL WOODWORK*						
348			No Work in this section		sf				
349									
350		*090003*	*ACOUSTICAL TILE*						
351			Rework existing acoustical ceilings	**2979**	sf	5.00	14,895		
352									
353		*092900*	*GYPSUM BOARD ASSEMBLIES*						
354			New GWB ceilings	**1,000**	sf	20.00	20,000		
355			Patch ceilings at exploratory openings to identify bearing walls	**6**	loc	3,000.00	18,000		
356									
357		*090007*	*PAINTING*						
358			Paint and patch existing plaster ceilings	**2,834**	sf	15.00	42,510		
359									
360	C3030		SUBTOTAL					$ 95,405	
361									
362			***TOTAL - INTERIOR FINISHES***						**$187,131**
363									
364									
365		***D10***	***CONVEYING SYSTEMS***						
366									
367		**D1010**	**ELEVATOR**						
368			New LULA	1	ea	100,000.00	100,000		
369	D1010		SUBTOTAL					$ 100,000	
370									
371			***TOTAL - CONVEYING SYSTEMS***						**$100,000**
372									

CODE	DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
	Ritter Memorial Building						
	D20 PLUMBING						
	D2000 PLUMBING, GENERALLY						
	Equipment				-		
	2" backflow preventer & water meter assembly	**1**	ls	4,800.00	4,800		
	Electric domestic water heater	**1**	ea	8,100.00	8,100		
	Expansion tank	**1**	ea	450.00	450		
	Recirculation pump	**1**	ea	1,200.00	1,200		
	Irrigation equipment	**1**	ea	1,000.00	1,000		
	Fixtures & Specialties				-		
	Water closet	**2**	ea	1,950.00	3,900		
	Lavatory	**2**	ea	1,910.00	3,820		
	Kitchenette sink	**1**	ea	1,785.00	1,785		
	Mop basin	**1**	ea	1,660.00	1,660		
	Drinking fountain	**1**	ea	3,825.00	3,825		
	Floor drains	**1**	ea	1,530.00	1,530		
	Hose bibbs	**2**	ea	450.00	900		
	Exterior wall hydrants	**2**	ea	550.00	1,100		
	Piping/Insulation				-		
	Domestic water piping	**5,700**	gsf	5.50	31,350		
	Sanitary waste & vent piping	**5,700**	gsf	3.85	21,945		
	Storm drainage (gutters & downspouts)	**5,700**	gsf	2.55	NR		
	Pipe insulation	**5,700**	gsf	1.50	8,550		
	Miscellaneous				-		
	Miscellaneous						
	Supervision, Coordination & BIM	**1**	ls	6,500.00	6,500		
	Coring, sleeves & firestopping	**1**	ls	2,000.00	2,000		
	Shop drawings	**1**	ls	1,300.00	1,300		
	Inspections & commissioning	**1**	ls	2,000.00	2,000		
	Fees & permits				Assumes waived		
D2000	SUBTOTAL					$ 107,715	
	TOTAL - PLUMBING						**$107,715**

CODE	DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
	Ritter Memorial Building						
	D30 HVAC						
D3000	**HVAC, GENERALLY**						
	Equipment						
	VRF Air Cooled Condensing Unit	**10**	tons	2,250.00	22,500		
	Branch controller	**2**	ea	4,700.00	9,400		
	Split systems; 1.5 ton, elevator, tel/data	**2**	ea	8,500.00	17,000		
	EUH, Electric Units heaters, cab heaters	**8**	ea	1,850.00	14,800		
	CP-, Condensate Pumps	**7**	ea	500.00	3,500		
	Misc. Mechanical Equipment	**5,700**	sf	0.50	2,850		
	Air Distribution						
	ERU-1, DX , energy recovery	**800**	cfm	26.00	20,800		
	VRF Fan coil units	**7**	ea	2,750.00	19,250		
	Sheet metal & Accessories						
	Galvanized ductwork	**3,990**	lbs.	17.50	69,825		
	Duct insulation	**2,669**	sf	6.00	16,014		
	Exterior louvers	**1**	ls	2,500.00	2,500		
	Registers, grilles & diffusers	**25**	ea	250.00	6,250		
	Miscellaneous duct accessories incl. Sound Attenuators.	**5,700**	sf	2.00	11,400		
	HVAC Piping						
	Refrigerant piping with valves, fittings & hangers - VRF System	**1,050**	lf	45.00	47,250		
	Refrigerant piping with valves, fittings & hangers - Split System	**300**	lf	40.00	12,000		
	Condensate piping with valves, fittings & hangers	**300**	lf	30.00	9,000		
	Pipe Insulation	**1,650**	lf	10.00	16,500		
	Controls						
	BMS system, CO2 & NO2 detectors	**5,700**	sf	7.00	39,900		
	Balancing						
	System testing & balancing	**5,700**	sf	0.75	4,275		
	Miscellaneous						
	Supervision, Coordination & BIM	**1**	ls	17,250.70	17,251		
	Condenser stands and misc. equipment supports	**1**	ls	2,000.00	2,000		
	Commissioning support, trade labor	**1**	ls	3,680.00	3,680		
	Coring, sleeves & fire stopping	**1**	ls	2,500.00	2,500		

CODE	DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
	Ritter Memorial Building						
	Equipment startup	**1**	ls	3,680.00	3,680		
	Spare filters, attic stock	**1**	ls	1,500.00	1,500		
	Vibration isolation & seismic restraints	**1**	ls	3,500.00	3,500		
	Rigging & equipment rental	**1**	ls	8,500.00	8,500		
	Fees & Permits				Assumes waived		
D3000	SUBTOTAL					$ 387,625	
	TOTAL - HVAC						**$387,625**
D40	***FIRE PROTECTION***						
D4000	**FIRE PROTECTION, GENERALLY**						
	Fire Pump Assumed not Required				NIC		
	Sprinkler Service, Double check valve, 6"	**1**	ea	7,250.00	7,250		
	Wet alarm valve assembly	**1**	ea	3,000.00	3,000		
	Dry alarm valve assembly & compressor	**1**	ea	4,700.00	4,700		
	Alarm bell	**1**	ea	450.00	450		
	Fire Department Connection	**1**	ea	1,500.00	1,500		
	Zone control assembly	**2**	ea	1,600.00	3,200		
	Misc. Fire Department Equipment	**5,700**	sf	0.20	1,140		
	Distribution						
	Sprinkler heads, pendant, uprights	**54**	ea	100.00	5,400		
	Dry attic heads, upright	**20**	ea	105.00	2,100		
	Main sprinkler piping and standpipes	**185**	lf	47.00	8,695		
	Distribution piping with fittings & hangers	**703**	lf	38.00	26,714		
	Miscellaneous						
	Coordination & BIM	**1**	ls	15,000.00	15,000		

	CODE	DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
		Ritter Memorial Building						
469		Hydraulic calculations	**1**	ls	2,100.00	2,100		
470		Coring, sleeves & firestopping	**1**	ls	1,700.00	1,700		
471		Shop drawings	**1**	ls	1,250.00	1,250		
472		Inspections & commissioning	**1**	ls	1,000.00	1,000		
473		Fees & permits				Assumes waived		
474	D4000	SUBTOTAL					$ 85,199	
475								
476		***TOTAL - FIRE PROTECTION***						**$85,199**
477								
478		***D50 ELECTRICAL***						
479								
480		**D5010 SERVICE & DISTRIBUTION**						
481		Primary ductbank 2-5" conduits (concrete encased)	**150**	lf	125.00	18,750		
482		1000A feed from existing padmount transformer, concrete encased (allow)	**75**	lf	525.00	39,375		
483		Meter provision	**1**	ea	500.00	500		
484		100A disconnect switch with CT compartment	**1**	ea	15,000.00	15,000		
485		1000A 120/208V distribution panelboard	**1**	ea	15,000.00	15,000		
486		400A 120/208V panelboard	**1**	ea	12,500.00	12,500		
487		200A 120/208V panelboard	**2**	ea	8,500.00	17,000		
488		100A 120/208V panelboard	**4**	ea	2,800.00	11,200		
489		400A feed (allow)	**50**	lf	88.00	4,400		
490		200A feed (allow)	**150**	lf	63.00	9,450		
491		100A feed (allow)	**400**	lf	34.00	13,600		
492		Grounding	**1**	ls	4,000.00	4,000		
493		PV infrastructure with empty conduit and backboxes	**1**	ls	4,000.00	4,000		
494		Equipment Wiring						
495		Misc. Equipment Wiring	**5,700**	gsf	2.00	11,400		
496		VRF/ACCU feed and connection	**1**	ea	5,500.00	5,500		

	CODE		DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
			Ritter Memorial Building						
497			VRF/FCU feed and connection	**7**	ea	850.00	5,950		
498			BC feed and connection	**2**	ea	500.00	1,000		
499			ERU feed and connection	**1**	ea	3,000.00	3,000		
500			Split unit feed and connection	**1**	ea	2,100.00	2,100		
501			EUH feed and connection	**8**	ea	850.00	6,800		
502			Cond. Pump feed an connection	**7**	ea	850.00	5,950		
503			WH feed an connection	**1**	ea	1,000.00	1,000		
504	D5010		SUBTOTAL					$ 207,475	
505									
506		**D5020**	**LIGHTING & POWER**						
507			Lighting & Power						
508			Light fixtures and installation	**5,700**	gsf	8.50	48,450		
509			Lighting controls	**5,700**	gsf	2.50	14,250		
510			Branch Power						
511			Branch devices	**5,700**	gsf	0.75	4,275		
512			Lighting and branch circuitry						
513			Lighting and branch circuitry	**5,700**	gsf	5.50	31,350		
514	D5020		SUBTOTAL					$ 98,325	
515									
516		**D5030**	**COMMUNICATION & SECURITY SYSTEMS**						
517			Fire Alarm						
518			FA system	**5,700**	gsf	3.00	17,100		
519			Telecommunications						
520			Network switches, routers, firewalls, servers, etc.				by others		
521			Rough-in devices & cable	**5,700**	gsf	4.00	22,800		
522			Audio-Video System						
523			Speakers, projectors, etc.				by others		
524			Rough-in devices & cable	**5,700**	gsf	1.25	7,125		
525			Security System						
526			Security System	**5,700**	gsf	5.00	28,500		
527	D5030		SUBTOTAL					$ 75,525	

CODE	DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
	Ritter Memorial Building						
	D5040 OTHER ELECTRICAL SYSTEMS						
	Demolition work	**1**	ls	500.00	500		
	Temporary power	**1**	ls	5,000.00	5,000		
	Coordination study	**1**	ls	7,500.00	7,500		
	Permit and fees				Assumes waived		
D5040	SUBTOTAL					$ 13,000	
	TOTAL - ELECTRICAL						**$394,325**
	E10 EQUIPMENT						
	E1000 EQUIPMENT, GENERALLY						
110000	*EQUIPMENT*						
	New washer/dryer for ACE program	**1**	ea	4,000.00	4,000		
114000	*FOODSERVICE EQUIPMENT*						
	Kitchen appliances; stove, microwave, refrigerator	**1**	ls	5,900.00	5,900		
115213	*PROJECTION SCREENS*						
	No Work in this section		ls				
116100	*THEATRICAL EQUIPMENT*						
	No Work in this section		ls				
E1000	SUBTOTAL					$ 9,900	
	TOTAL - EQUIPMENT						**$9,900**
	E20 FURNISHINGS						
	E2010 FIXED FURNISHINGS						

	CODE		DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
			Ritter Memorial Building						
563		*122100*	*WINDOW TREATMENT*						
564	122113		No Work in this section	**687**	sf	8.00	5,496		
565									
566		*123000*	*CASEWORK*						
			Kitchen cabinets + counter	**6**	lf	750.00	4,500		
568									
569		*124810*	*ENTRANCE FLOOR MAT AND FRAMES*						
570	124813		Allowance for walk-off mats	**100**	sf	15.00	1,500		
571	E2010		SUBTOTAL					$ 11,496	
572									
573		**E2020**	**MOVABLE FURNISHINGS**						
574			All movable furnishings to be provided and installed by owner				NIC		
575	E2020		SUBTOTAL					$ -	
576									
577			***TOTAL - FURNISHINGS***						**$11,496**
578									
579									
580		***F10***	***SPECIAL CONSTRUCTION***						
581									
582		**F1000**	**SPECIAL CONSTRUCTION**						
583			No items in this section						
584	F1000		SUBTOTAL					$ -	
585									
586			***TOTAL - SPECIAL CONSTRUCTION***						
587									
588									
589		***F20***	***SELECTIVE BUILDING DEMOLITION***						
590									
591		**F2010**	**BUILDING ELEMENTS DEMOLITION**						
592			Remove existing interior partitions	**4,361**	sf	5.00	21,805		
593			Remove existing interior doors	**12**	lvs	250.00	3,000		
594			Remove existing vestibule doors	**2**	lvs	900.00	1,800		
595			Remove existing lift	**1**	loc	15,000.00	15,000		
596			Remove stairs	**1**	loc	10,000.00	10,000		
597			Remove exterior steps	**1**	loc	7,500.00	7,500		

	CODE	DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
		Ritter Memorial Building						
598		Connections to new addition	**1**	ls	10,000.00	10,000		
599		Remove existing floor finishes; lower floor	**1,550**	sf	2.00	3,100		
600		Remove existing floor finishes; ground floor	**2,600**	sf	2.00	5,200		
601		Remove existing floor finishes; upper floor	**1,550**	sf	2.00	3,100		
602		Remove existing MEP; cut + cap in trades	**5,700**	sf	1.50	8,550		
603		Misc. demo and protection	**5,700**	sf	2.00	11,400		
604	F2010	SUBTOTAL					$ 100,455	
605								
606		**F2020 HAZARDOUS COMPONENTS ABATEMENT**						
607		No items in this section						
608	F2020	SUBTOTAL					$ -	
609								
610		***TOTAL - SELECTIVE BUILDING DEMOLITION***						**$100,455**
611								
612		***G10***						
613								
614		**F1000 SPECIAL CONSTRUCTION**						
615		No items in this section						
616	F1000	SUBTOTAL					$ -	
617								
618		***TOTAL - SPECIAL CONSTRUCTION***						
619								

CODE	DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST

Town Hall Addition

GROSS FLOOR AREA CALCULATION

001		Basement Level	4,000	sf			
002		1st Floor	5,350	sf			
003		2nd Floor	5,350	sf			
004							
005		***TOTAL GROSS FLOOR AREA (GFA)***				**14,700** ***sf***	
006							
007							
008	***A10***	***FOUNDATIONS***					
009							
010	**A1010**	**STANDARD FOUNDATIONS**					
011							
012	*033000*	*CONCRETE*				-	
013		Concrete Summary					
014	*FW*	Foundation Walls	*15*				
015	*WF*	Wall Footings	*23*				
016	*CF*	Spread Footings	*49*				
017	*P*	Piers	*9*				
018	*CW*	Concrete Wall & Footing					
019	*SOG*	Slab on Grade	*172*				
020		Total Concrete	268	cy			
021							
022		Perimeter wall footing, 4 x 1	*140*	*lf*		-	
023		Formwork	**280**	sf	18.00	5,040	
024		Re-bar	**2,100**	lbs	2.00	4,200	
025	WF	Concrete material; 4,500 psi	**23**	cy	175.00	4,025	
026		Placing concrete	**23**	cy	120.00	2,760	
027							
028		Foundation wall, 4ft H 8"T	*140*	*lf*		-	
029		Formwork	**1,120**	sf	20.00	22,400	
030		Re-bar	**2,800**	lbs	2.00	5,600	
031	FW	Concrete material; 4,500 psi	**15**	cy	175.00	2,625	
032		Placing concrete	**15**	cy	120.00	1,800	
033							
034		Foundation spread footing, allow 4'x4'x1'-6"	*14*	*ea*		-	
035		Formwork	**336**	sf	16.00	5,376	

	CODE		DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
	Town Hall Addition								
036			Re-bar	**2,100**	lbs.	2.00	4,200		
037		CF	Concrete material; 4,500 psi	**13**	cy	175.00	2,275		
038			Placing concrete	**13**	cy	100.00	1,300		
039			Set anchor bolts grout plates	**14**	ea	150.00	2,100		
040									
041			Foundation spread footing, allow 6'x6'x1'-6"	*15*	*ea*		-		
042			Formwork	**540**	sf	16.00	8,640		
043			Re-bar	**2,250**	lbs.	2.00	4,500		
044		CF	Concrete material; 4,500 psi	**32**	cy	175.00	5,600		
045			Placing concrete	**32**	cy	100.00	3,200		
046			Set anchor bolts grout plates	**15**	ea	150.00	2,250		
047									
048			Colonnade spread footing, allow 2'x2'x1'-6"	*16*	*ea*		-		
049			Formwork	**192**	sf	16.00	3,072		
050			Re-bar	**2,400**	lbs.	2.00	4,800		
051		CF	Concrete material; 4,500 psi	**4**	cy	175.00	700		
052			Placing concrete	**4**	cy	100.00	400		
053			Set anchor bolts grout plates	**16**	ea	150.00	2,400		
054									
055			Piers, allow 2'x2'x2'	*29*	*ea*		-		
056			Formwork	**464**	sf	22.00	10,208		
057			Re-bar	**2,900**	lbs.	2.00	5,800		
058		P	Concrete material; 4,500 psi	**9**	cy	175.00	1,575		
059			Placing concrete	**9**	cy	100.00	900		
060									
061		*070001*	*WATERPROOFING, DAMPPROOFING AND CAULKING*						
062			Damproofing	**560**	sf	4.00	2,240		
063									
064		*072100*	*THERMAL INSULATION*						
065			Rigid insulation	**560**	sf	3.00	1,680		
066									
067									
068		*312000*	*EARTHWORK*						
069			Strip footings						
070			Excavation	**196**	cy	20.00	3,920		

	CODE		DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
	Town Hall Addition								
071			Backfill with existing fill	**33**	cy	25.00	825		
072			Gravel fill beneath footings, 6"	**16**	cy	40.00	640		
073			Remove off-site	**75**	cy	26.00	1,950		
074			Spread footings						
075			Excavation	**294**	cy	20.00	5,880		
076			Store on site for reuse	**294**	cy	12.00	3,528		
077			Backfill with existing fill	**236**	cy	16.00	3,776		
078	A1010		SUBTOTAL					$ 142,185	
079									
080		**A1020**	**SPECIAL FOUNDATIONS**						
081			Underpinning allowance	**30**	lf	2,370.37	71,111		
082	A1020		SUBTOTAL					$ 71,111	
083									
084		**A1030**	**LOWEST FLOOR CONSTRUCTION**						
085		*033000*	*CONCRETE*						
086			Slab on grade, 5"D	*5,350*	*sf*		-		
087			Vapor barrier, heavy duty, 15 mil	**5,350**	sf	1.25	6,688		
088			WWF reinforcement	**6,153**	sf	2.00	12,306		
089		SOG	Concrete - 5" thick	**86**	cy	175.00	15,050		
090			Placing concrete	**86**	cy	120.00	10,320		
091			Finishing and curing concrete	**5,350**	sf	4.00	21,400		
092			Moisture vapor reduction admixture; barrier one	**86**	cy	60.00	NR		
093									
094			Elevator pit complete	**1**	ls	35,000.00	35,000		
095									
096		*070001*	*WATERPROOFING, DAMPPROOFING AND CAULKING*						
097			Waterproofing to elevator pit	**1**	ls	5,000.00	5,000		
098									
099		*072100*	*THERMAL INSULATION*						
100			Underslab insulation	**5,350**	sf	3.00	16,050		
101									
102		*312000*	*EARTHWORK*						
103			Slab on grade						
104			Compacted granular fill, 6"	**99**	cy	40.00	3,960		

	CODE		DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
			Town Hall Addition						
105			Geo textile fabric	**5,350**	sf	1.00	5,350		
106			Compact sub-grade	**5,350**	sf	0.55	2,943		
107			Underslab drainage , lower level	**5,350**	sf	2.00	10,700		
108			E & B for underslab plumbing	**5,350**	sf	1.50	8,025		
109	A1030		SUBTOTAL					$ 152,792	
110									
111			***TOTAL - FOUNDATIONS***						**$366,088**
112									
113									
114		***A20***	***BASEMENT CONSTRUCTION***						
115									
116		**A2010**	**BASEMENT EXCAVATION**						
117			Excavation	**1,926**	cy	20.00	38,520		
118			Remove off-site	**1,926**	cy	26.00	50,076		
119			Ledge allowance; 25%	**482**	cy	120.00	57,840		
120			Dewatering	**1**	ls	30,000.00	30,000		
121			SOE	**3,900**	sf	90.00	351,000		
122	A2010		SUBTOTAL					$ 527,436	
123									
124		**A2020**	**BASEMENT WALLS**						
125			Basement wall, 13ft H 12"T	*300*	*lf*		-		
126			Formwork	**7,800**	sf	22.00	171,600		
127			Re-bar	**16,500**	lbs	2.00	33,000		
128		FW	Concrete material; 4,500 psi	**159**	cy	175.00	27,825		
129			Placing concrete	**159**	cy	120.00	19,080		
130									
131		*070001*	*WATERPROOFING, DAMPPROOFING AND CAULKING*						
132			Waterproofing	**3,900**	sf	16.00	62,400		
133									
134		*072100*	*THERMAL INSULATION*						
135			Rigid insulation	**3,900**	sf	3.00	11,700		
136	A2020		SUBTOTAL					$ 325,605	
137									
138			***TOTAL - BASEMENT CONSTRUCTION***						**$853,041**
139									

CODE	DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST

Town Hall Addition

		B10	***SUPERSTRUCTURE***					
		B1010	**FLOOR CONSTRUCTION**					
	033000		*CONCRETE*					
			Concrete on Metal Deck	*9,350*	*sf*			
			WWF reinforcement	**10,753**	sf	2.00	21,506	
			Concrete fill to metal deck; light weight, 6-1/4" thick	**180**	cy	200.00	36,000	
			Place and finish concrete	**9,350**	sf	5.00	46,750	
			Rebar to decks	**2,805**	lbs	2.00	5,610	
	051200		*STRUCTURAL STEEL FRAMING*					
			Steel framed beams, columns + connections; allow 15 lbs per SF	**70**	tns	5,500.00	385,000	
			Premium for steel at vault	**1**	tns	5,500.00	5,500	
			Metal deck 3" thick	**9,350**	sf	7.00	65,450	
	078400		*FIREPROOFING/FIRESTOPPING*					
			Assumed no FP required					
B1010			SUBTOTAL				$ 565,816	
		B1020	**ROOF CONSTRUCTION**					
	033000		*CONCRETE*					
			No Work in this section					
	051200		*STRUCTURAL STEEL FRAMING*					
			Allowance for 2 x 4 AL tube purlins at colonnade	**610**	sf	25.00	15,250	
			Steel framed beams, columns + connections; allow 16 lbs per SF; premium for sloped	**43**	tns	6,000.00	258,000	
			Metal roof deck 3" thick	**6,153**	slope	7.00	43,071	
	061850		*WOOD STRUCTURE*					
			PSL columns at colonnade	**16**	loc	900.00	14,400	
			LVL framing	**250**	lf	100.00	25,000	

CODE	DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST

Town Hall Addition

		078400	*FIREPROOFING/FIRESTOPPING*					
			Assumed no FP required					
B1020			SUBTOTAL				$ 355,721	
			TOTAL - SUPERSTRUCTURE					**$921,537**
	B20	***EXTERIOR CLOSURE***						
	B2010	**EXTERIOR WALLS**						
		040001	*MASONRY*					
			Granite base to porch columns	**48**	sf	200.00	9,600	
			Granite base to colonnade columns; 14" SQ x 4" H	**16**	loc	450.00	7,200	
			Exterior face brick to watertable; modular	**707**	sf	44.00	31,108	
			Watertable trim	**316**	lf	50.00	15,800	
		074210	*WALL PANELS*					
			PVC 12" Dia colonnade columns	**16**	loc	1,500.00	24,000	
			PVC cladding to porch columns	**320**	sf	50.00	16,000	
			PVC soffit at porch ceiling; includes framing	**370**	sf	60.00	22,200	
			PVC trim at colonnade	**200**	lf	35.00	7,000	
			PVC trim, fascia, corners etc.	**1,162**	sf	35.00	40,670	
			Composite clapboard siding; 4" exposure; prefinished with strapping	**4,052**	sf	45.00	182,340	
		070001	*WATERPROOFING, DAMPPROOFING AND CAULKING*					
			AVB membrane				Not Required - Zip Wall	
			Sealants @ exterior/dissimilar	**5,921**	sf	1.00	5,921	
		072100	*THERMAL INSULATION*					

	CODE		DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
	Town Hall Addition								
205			Insulation; 2" rockwool	**5,921**	sf	5.00	29,605		
206			Insulation; 6" in cavity	**5,921**	sf	5.00	29,605		
207									
208		*092900*	*GYPSUM BOARD ASSEMBLIES*						
209			Cold formed metal framing backup 6"	**5,921**	sf	11.00	65,131		
210			Sheathing; zipwall with sealed joints	**5,921**	sf	6.00	35,526		
211			Interior GWB to exterior face	**5,921**	sf	4.50	26,645		
212			Interior GWB to basement walls on furring	**3,900**	sf	8.00	31,200		
213	B2010		SUBTOTAL					$ 579,551	
214									
215									
216		**B2020**	**WINDOWS**	*1,153*	*sf*				
217									
218		*061000*	*ROUGH CARPENTRY*						
219			Wood blocking at openings	**1,017**	lf	5.00	5,085		
220									
221		*070001*	*WATERPROOFING, DAMPPROOFING AND CAULKING*						
222			Backer rod & double sealant	**1,017**	lf	11.00	11,187		
223									
224		*080001*	*WINDOWS + CURTAINWALL*						
225			Windows; Pella reserve traditional; fixed; with vent panels	**256**	sf	125.00	32,000		
226			Windows; Pella reserve traditional; DH	**897**	sf	110.00	98,670		
227	B2020		SUBTOTAL					$ 146,942	
228									
229		**B2030**	**EXTERIOR DOORS**						
230									
231		*061000*	*ROUGH CARPENTRY*						
232			Wood blocking at openings	**74**	lf	8.00	592		
233									
234		*079200*	*JOINT SEALANTS*						
235			Backer rod & double sealant	**74**	lf	11.00	814		
236									
237		*084110*	*ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS*						
238			Storefront door, frame & hardware; double	**2**	pr	14,000.00	28,000		

	CODE		DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
			Town Hall Addition						
239			Storefront door, frame & hardware; single	**2**	ea	7,000.00	14,000		
240									
241		*087100*	*DOOR HARDWARE*						
242			Included in door pricing						
243	B2030		SUBTOTAL					$ 43,406	
244									
245			***TOTAL - EXTERIOR CLOSURE***						**$769,899**
246									
247									
248		***B30***	***ROOFING***						
249									
250		**B3010**	**ROOF COVERINGS**						
251									
252		*061000*	*ROUGH CARPENTRY*						
253			Rough blocking at roofing	**321**	lf	6.00	1,926		
254									
255		*070001*	*WATERPROOFING, DAMPPROOFING AND CAULKING*						
256			AVB at roof perimeter	**321**	lf	8.00	2,568		
257									
258		*070002*	*ROOFING AND FLASHING*						
259			Asphalt roofing system; includes ice + water, VB, nailable roof sheathing and shingles	**5,653**	sf	36.00	203,508		
260			PVC flat roof	**500**	sf	32.00	16,000		
261			Copper flashing at colonnade roof	**200**	lf	40.00	8,000		
262			Laminated safety glass with frit biophilia pattern to colonnade	**610**	sf	120.00	73,200		
263			Copper flashing + gutter	**321**	sf	80.00	25,680		
264			Miscellaneous flashings	**6,153**	sf	1.00	6,153		
265	B3010		SUBTOTAL					$ 337,035	
266									
267		**B3020**	**ROOF OPENINGS**						
268			Roof hatches, allow	**1**	ea	3,900.00	3,900		
269	B3020		SUBTOTAL					$ 3,900	
270									

CODE	DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST

Town Hall Addition

	TOTAL - ROOFING						**$340,935**
	C10 INTERIOR CONSTRUCTION						
	C1010 PARTITIONS						
	061000 ROUGH CARPENTRY						
	Wood blocking and misc. rough carpentry as req'd in partitions	**21,002**	sf	1.00	21,002		
	070001 WATERPROOFING, DAMPPROOFING AND CAULKING						
	Miscellaneous sealants at partitions	**21,002**	sf	0.35	7,351		
	080002 GLASS AND GLAZING						
	Allowance	**500**	sf	100.00	50,000		
	102226 OPERABLE GLASS PARTITIONS						
	No Work in this section						
	092900 GYPSUM BOARD ASSEMBLIES	*21,002*	*sf*				
	Wall - 6" MF, NR GWB 1L-ES w/ 3" sound att.	**20,666**	sf	17.00	351,322		
	Plumbing Wall	**336**	sf	19.00	6,384		
	Miscellaneous GWB	**14,700**	sf	2.00	29,400		
	Premium for veneer plaster	**20,666**	sf	6.00	123,996		
	102200 OPERABLE PARTITIONS						
	No Work in this section						
C1010	SUBTOTAL					$ 589,455	
	C1020 INTERIOR DOORS						
	Interior Door Summary						
	Single Leaf, 3'-4"W x 7'H	47					
	Double Leaf, 6'W x 7'H						
	Irregular Leaf, 5'W x 7'H						

	CODE		DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
	Town Hall Addition								
304		*061000*	*ROUGH CARPENTRY*						
305			Wood blocking at openings	**799**	lf	4.00	3,196		
306									
307		*070001*	*WATERPROOFING, DAMPPROOFING AND CAULKING*						
308			Backer rod & double sealant	**799**	lf	3.50	2,797		
309									
310		*080002*	*GLASS AND GLAZING*						
311			Frames, Transom & Sidelite Glazing; allowance	**200**	sf	50.00	10,000		
312									
313		*081113*	*HOLLOW METAL DOOR FRAMES*						
314			Hollow metal frame, single leaf	**47**	ea	350.00	16,450		
315			Hollow metal frame, dble leaf		ea	700.00			
316									
317		*081400*	*WOOD DOORS*						
318			Wood door, single leaf	**47**	lv	600.00	28,200		
319			Wood door, dbl leaf		lv	600.00			
320									
321		*083110*	*ACCESS DOORS AND FRAMES*						
322			Access doors	**1**	ls	5,000.00	5,000		
323									
324		*083300*	*OVERHEAD DOOR*						
325			No Work in this section						
326									
327		*087100*	*DOOR HARDWARE*						
328			New hardware set	**47**	set	1,100.00	51,700		
329									
330		*090007*	*PAINTING*						
331			Paint to new doors	**47**	ea	200.00	9,400		
332	C1020		SUBTOTAL					$ 126,743	
333									
334		**C1030**	**SPECIALTIES / MILLWORK**						
335									
336		*055000*	*MISCELLANEOUS METALS*						
337			Misc. metals allowance	**14,700**	gsf	2.00	29,400		

CODE	DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
Town Hall Addition							
061000	*ROUGH CARPENTRY*						
	No Work in this section	**14,700**	gsf	1.00	14,700		
064020	*INTERIOR ARCHITECTURAL WOODWORK*						
	New wainscot + chair-rail; 3ft H; beadboard with clear sealer	**2,886**	sf	30.00	86,580		
	New door casings; pine with clear sealer	**799**	lf	15.00	11,985		
	Transaction counter + window	**8**	loc	1,800.00	14,400		
070001	*WATERPROOFING, DAMPPROOFING AND CAULKING*						
	Miscellaneous sealants	**14,700**	gsf	1.50	22,050		
101100	*VISUAL DISPLAY SURFACES*						
	Allowance	**1**	ls	1,000.00	1,000		
101400	*SIGNAGE*						
	Exterior building signage	**1**	ls	10,000.00	10,000		
	Code signage	**14,700**	gsf	1.00	14,700		
102800	*TOILET ACCESSORIES*						
	Toilet Room Summary						
	Single Toilet, 1 ADA	*4*	*rms*				
	Gang Toilet, 1 ADA / 3 STD / 3 LAV / 1 URI		*rms*				
	TA - Hand dryer	**4**	ea	700.00	2,800		
	TA - Mirror, framed	**4**	ea	200.00	800		
	TA - Paper towel dispenser	**4**	ea	200.00	800		
	TA - Soap dispenser	**4**	ea	60.00	240		
	TA - Toilet paper holder	**4**	ea	100.00	400		
	TA - Waste bin	**4**	ea	200.00	800		
	Janitor storage, accessories	**3**	rms	300.00	900		
104400	*FIRE PROTECTION SPECIALTIES*						

	CODE		DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
			Town Hall Addition						
371			Fire extinguisher cabinets	**3**	ea	350.00	1,050		
372									
373		*105113*	*LOCKERS*						
374			No Work in this section						
375	C1030		SUBTOTAL					$ 212,605	
376									
377			***TOTAL - INTERIOR CONSTRUCTION***						**$928,803**
378									
379									
380		***C20***	***STAIRCASES***						
381									
382		**C2010**	**STAIR CONSTRUCTION**						
383									
384		*033000*	*CONCRETE*						
385			Concrete ramp	**310**	sf	60.00	18,600		
386			Concrete fill to metal pan stair	**4**	flt	4,000.00	16,000		
387									
388		*055000*	*MISCELLANEOUS METALS*						
389			Guardrails; SS	**120**	lf	450.00	54,000		
390			New metal pan staircase	**4**	flt	35,000.00	140,000		
391	C2010		SUBTOTAL					$ 228,600	
392									
393		**C2020**	**STAIR FINISHES**						
394									
395		*090005*	*RESILIENT FLOORS*						
396			Floor finishes	**4**	flt	6,750.00	27,000		
397									
398		*090007*	*PAINTING*						
399			Painting to staircase	**4**	flt	500.00	2,000		
400	C2020		SUBTOTAL					$ 29,000	
401									
402			***TOTAL - STAIRCASES***						**$257,600**
403									
404									
405		***C30***	***INTERIOR FINISHES***						
406									

CODE	DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
	Town Hall Addition						
	C3010 WALL FINISHES						
	090002 TILE						
	CT wainscot; 36" H	**426**	sf	35.00	14,910		
	090007 PAINTING						
	Clear sealer to wainscot	**2,886**	sf	2.00	5,772		
	Paint to GWB; new	**20,666**	sf	1.00	20,666		
	Painting generally	**14,700**	gsf	2.00	29,400		
C3010	SUBTOTAL					$ 70,748	
	C3020 FLOOR FINISHES						
	033000 CONCRETE						
	Sealer	**500**	sf	2.00	1,000		
	090002 TILE						
	CT to restrooms	**284**	sf	40.00	11,360		
	CT base	**142**	lf	22.00	3,124		
	090005 RESILIENT FLOORS						
	Floor prep	**7,192**	sf	1.00	7,192		
	Resilient flooring	**7,192**	sf	7.00	50,344		
	Rubber base	**2,462**	lf	5.00	12,310		
	096430 WOOD FLOORING						
	Wood base	**962**	lf	9.00	8,658		
	096800 CARPETING						
	Floor prep	**5,927**	sf	1.00	5,927		
	New carpeting; tile	**5,927**	sf	6.67	39,533		
C3020	SUBTOTAL					$ 139,448	

CODE	DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
	Town Hall Addition						
	C3030 CEILING FINISHES						
	064020 INTERIOR ARCHITECTURAL WOODWORK						
	No Work in this section		sf				
	090003 ACOUSTICAL TILE						
	ACT ceiling 1 x 5	**5,927**	sf	8.00	47,416		
	092900 GYPSUM BOARD ASSEMBLIES						
	GWB Ceilings	**7,476**	sf	14.00	104,664		
	090007 PAINTING						
	Paint to GWB ceilings	**7,476**	sf	1.50	11,214		
	095700 SPECIAL FUNCTION CEILING						
	No Work in this section						
	098400 ACOUSTIC ROOM COMPONENTS						
	No Work in this section						
C3030	SUBTOTAL					$ 163,294	
	TOTAL - INTERIOR FINISHES						**$373,490**
	D10 CONVEYING SYSTEMS						
	D1010 ELEVATOR						
	Passenger elevator, 3 stop, 1 opening; 2500 lbs; electric machine room-less	**1**	ea	240,000.00	240,000		
	6 x 4 x 3/8 angle to elevator pit	**30**	lf	25.00	750		
	Pit ladders	**1**	ea	650.00	650		
	Sill angles	**30**	lf	25.00	750		
D1010	SUBTOTAL					$ 242,150	

CODE	DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST

Town Hall Addition

473		***TOTAL - CONVEYING SYSTEMS***					**$242,150**
474							
475							
476		***D20 PLUMBING***					
477							
478	**D2000**	**PLUMBING, GENERALLY**					
479		Equipment				-	
480		2" backflow preventer & water meter assembly	**1**	ls	4,800.00	4,800	
481		Electric domestic water heater	**1**	ea	8,100.00	8,100	
482		Expansion tank	**1**	ea	450.00	450	
483		Recirculation pump	**1**	ea	1,200.00	1,200	
484		Irrigation equipment	**1**	ea	1,000.00	1,000	
485		Fixtures & Specialties				-	
486		Water closet	**4**	ea	1,950.00	7,800	
487		Lavatory	**4**	ea	1,910.00	7,640	
488		Kitchenette sink	**2**	ea	1,785.00	3,570	
489		Mop basin	**2**	ea	1,660.00	3,320	
490		Drinking fountain	**1**	ea	1,530.00	1,530	
491		Floor drains	**2**	ea	1,530.00	3,060	
492		Hose bibbs	**2**	ea	450.00	900	
493		Exterior wall hydrants	**2**	ea	550.00	1,100	
494		Piping/Insulation				-	
495		Domestic water piping	**14,700**	gsf	5.50	80,850	
496		Sanitary waste & vent piping	**14,700**	gsf	3.85	56,595	
497		Storm drainage (gutters & downspouts)	**14,700**	gsf	2.55	NR	
498		Pipe insulation	**14,700**	gsf	1.50	22,050	
499		Miscellaneous				-	
500		Miscellaneous					
501		Supervision, Coordination & BIM	**1**	ls	10,500.00	10,500	
502		Coring, sleeves & firestopping	**1**	ls	3,000.00	3,000	
503		Shop drawings	**1**	ls	1,700.00	1,700	
504		Inspections & commissioning	**1**	ls	2,000.00	2,000	
505		Fees & permits				Assumes waived	
506	D2000	SUBTOTAL					$ 221,165

CODE	DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST

Town Hall Addition

	TOTAL - PLUMBING						**$221,165**
	D30 HVAC						
D3000	**HVAC, GENERALLY**						
	Equipment						
	VRF Air Cooled Condensing Unit	**25**	tons	2,250.00	56,250		
	Branch controller	**3**	ea	4,700.00	14,100		
	Split systems; 1.5 ton, elevator, tel/data	**2**	ea	8,500.00	17,000		
	EUH, Electric Units heaters, cab heaters	**15**	ea	1,850.00	27,750		
	CP-, Condensate Pumps	**16**	ea	500.00	8,000		
	Misc. Mechanical Equipment	**14,700**	sf	0.50	7,350		
	Air Distribution						
	ERU-1, DX , energy recovery	**2,000**	cfm	26.00	52,000		
	VRF Fan coil units	**16**	ea	2,750.00	44,000		
	Sheet metal & Accessories						
	Galvanized ductwork	**10,290**	lbs.	17.50	180,075		
	Aluminum duct	**1,000**	lbs.	18.00	18,000		
	Duct insulation	**6,764**	sf	6.00	40,584		
	Exterior louvers	**1**	ls	2,500.00	2,500		
	Registers, grilles & diffusers	**60**	ea	250.00	15,000		
	Miscellaneous duct accessories incl. Sound Attenuators.	**14,700**	sf	2.00	29,400		
	HVAC Piping						
	Refrigerant piping with valves, fittings & hangers - VRF System	**2,640**	lf	45.00	118,800		
	Refrigerant piping with valves, fittings & hangers - Split System	**300**	lf	40.00	12,000		
	Condensate piping with valves, fittings & hangers	**600**	lf	30.00	18,000		
	Pipe Insulation	**3,540**	lf	10.00	35,400		
	Controls						
	BMS system, CO2 & NO2 detectors	**14,700**	sf	7.00	102,900		
	Balancing						
	System testing & balancing	**14,700**	sf	0.75	11,025		
	Miscellaneous						
	Supervision, Coordination & BIM	**1**	ls	40,506.70	40,507		

	CODE	DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
		Town Hall Addition						
541		Condenser stands and misc. equipment supports	**1**	ls	4,500.00	4,500		
542		Commissioning support, trade labor	**1**	ls	4,600.00	4,600		
543		Coring, sleeves & fire stopping	**1**	ls	3,500.00	3,500		
544		Equipment startup	**1**	ls	5,520.00	5,520		
545		Spare filters, attic stock	**1**	ls	1,500.00	1,500		
546		Vibration isolation & seismic restraints	**1**	ls	5,000.00	5,000		
547		Rigging & equipment rental	**1**	ls	20,000.00	20,000		
548		Fees & Permits				Assumes waived		
549	D3000	SUBTOTAL					$ 895,261	
550								
551		***TOTAL - HVAC***						**$895,261**
552								
553								
554		***D40 FIRE PROTECTION***						
555								
556		**D4000 FIRE PROTECTION, GENERALLY**						
557		Equipment						
558		Service Equipment and alarm valves in Ritter						
559		Zone control assembly	**2**	ea	1,600.00	3,200		
560		Misc. Fire Department Equipment	**14,700**	sf	0.20	2,940		
561		Distribution						
562		Sprinkler heads, pendant, uprights	**140**	ea	100.00	14,000		
563		Dry attic heads, upright	**40**	ea	105.00	4,200		
564		Main sprinkler piping and standpipes	**350**	lf	47.00	16,450		
565		Distribution piping with fittings & hangers	**1,330**	lf	38.00	50,540		
566		Miscellaneous						
567		Coordination & BIM	**1**	ls	3,000.00	3,000		
568		Hydraulic calculations	**1**	ls	2,100.00	2,100		
569		Coring, sleeves & firestopping	**1**	ls	17,000.00	17,000		

	CODE	DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
		Town Hall Addition						
570		Shop drawings	**1**	ls	1,275.00	1,275		
571		Inspections & commissioning	**1**	ls	1,000.00	1,000		
572		Fees & permits				Assumes waived		
573	D4000	SUBTOTAL					$ 115,705	
574								
575		***TOTAL - FIRE PROTECTION***						**$115,705**
576								
577		***D50 ELECTRICAL***						
578								
579		**D5010 SERVICE & DISTRIBUTION**						
580		Modify and make connections at new panelboards	**1**	ls	10,000.00	10,000		
581		Equipment Wiring						
582		Misc. Equipment Wiring	**5,700**	gsf	2.50	14,250		
583		VRF/ACCU feed and connection	**1**	ea	5,500.00	5,500		
584		VRF/FCU feed and connection	**16**	ea	850.00	13,600		
585		BC feed and connection	**3**	ea	500.00	1,500		
586		ERU feed and connection	**1**	ea	3,000.00	3,000		
587		Split unit feed and connection	**2**	ea	2,100.00	4,200		
588		EUH feed and connection	**15**	ea	850.00	12,750		
589		Cond. Pump feed an connection	**16**	ea	850.00	13,600		
590		WH feed an connection	**1**	ea	1,000.00	1,000		
591	D5010	SUBTOTAL					$ 79,400	
592								
593		**D5020 LIGHTING & POWER**						
594		Lighting & Power						
595		Light fixtures and installation	**14,700**	gsf	8.50	124,950		
596		Lighting controls	**14,700**	gsf	2.50	36,750		
597		Branch Power				-		
598		Branch devices	**14,700**	gsf	0.75	11,025		
599		Lighting and branch circuitry						

	CODE		DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
	Town Hall Addition								
600			Lighting and branch circuitry	**14,700**	gsf	5.50	80,850		
601	D5020		SUBTOTAL					$ 253,575	
602									
603		**D5030**	**COMMUNICATION & SECURITY SYSTEMS**						
604			Fire Alarm						
605			FA system	**14,700**	gsf	3.00	44,100		
606			Telecommunications						
607			Network switches, routers, firewalls, servers, etc.				by others		
608			Rough-in devices & cable	**14,700**	gsf	4.00	58,800		
609			Audio-Video System						
610			Speakers, projectors, etc.				by others		
611			Rough-in devices & cable	**14,700**	gsf	1.25	18,375		
612			Security System						
613			Security System Rough -in only	**14,700**	gsf	5.00	73,500		
614	D5030		SUBTOTAL					$ 194,775	
615									
616		**D5040**	**OTHER ELECTRICAL SYSTEMS**						
617			Temporary power	**1**	ls	5,000.00	5,000		
618			Coordination study	**1**	ls	7,500.00	7,500		
619			Permit and fees				Assumes waived		
620	D5040		SUBTOTAL					$ 12,500	
621									
622			***TOTAL - ELECTRICAL***						**$540,250**
623									
624									
625		***E10***	***EQUIPMENT***						
626									
627		**E1000**	**EQUIPMENT, GENERALLY**						
628									
629		*110000*	*EQUIPMENT*						
630			No Work in this section						
631									
632		*114000*	*FOODSERVICE EQUIPMENT*						

	CODE		DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
			Town Hall Addition						
633			No Work in this section						
634									
635		*115213*	*PROJECTION SCREENS*						
636			No Work in this section						
637	E1000		SUBTOTAL					$ -	
638									
639			***TOTAL - EQUIPMENT***						
640									
641									
642		***E20***	***FURNISHINGS***						
643									
644		**E2010**	**FIXED FURNISHINGS**						
645									
646		*122100*	*WINDOW TREATMENT*						
647	122113		Manual shades	**1,153**	sf	7.00	8,071		
648									
649		*123000*	*CASEWORK*						
650	123200		Allowance for misc. casework	**14,700**	gsf	3.00	44,100		
651									
652		*124810*	*ENTRANCE FLOOR MAT AND FRAMES*						
653	124813		Walkoff mats	**200**	sf	15.00	3,000		
654	E2010		SUBTOTAL					$ 55,171	
655									
656		**E2020**	**MOVABLE FURNISHINGS**						
657			All movable furnishings to be provided and installed by owner				NIC		
658	E2020		SUBTOTAL					$ -	
659									
660			***TOTAL - FURNISHINGS***						**$55,171**
661									
662									
663		***F10***	***SPECIAL CONSTRUCTION***						
664									
665		**F1000**	**SPECIAL CONSTRUCTION**						
666			Fire rated records storage vault	**161**	sf	350.00	56,350		
667	F1000		SUBTOTAL					$ 56,350	
668									

	CODE	DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
		Town Hall Addition						
669		***TOTAL - SPECIAL CONSTRUCTION***						**$56,350**
670								
671								
672		***F20 SELECTIVE BUILDING DEMOLITION***						
673								
674		**F2010 BUILDING ELEMENTS DEMOLITION**						
675		No items in this section						
676	F2010	SUBTOTAL					$ -	
677								
678		**F2020 HAZARDOUS COMPONENTS ABATEMENT**						
679		No items in this section						
680	F2020	SUBTOTAL					$ -	
681								
682		***TOTAL - SELECTIVE BUILDING DEMOLITION***						
683								
684								

Site Detail

	CODE	DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
001		***G10 SITE PREPARATION***						
002								
003		**G1010 SITE CLEARING**						
004		Construction fence	**2,000**	lf	22.00	44,000		
005		Construction entrance	**1**	ls	10,000.00	10,000		
006		Site clearing/demolition allowance	**1**	ls	15,000.00	15,000		
007	G1010	SUBTOTAL					69,000	
008								
009		**G1020 SITE DEMOLITION & RELOCATIONS**						
010		Remove existing sidewalk at TM House	**1,570**	sf	2.00	3,140		
011		Remove existing sidewalk at Ritter	**1,300**	sf	2.00	2,600		
012		Remove/rework granite steps at Ritter	**1**	ls	1,000.00	1,000		
013	G1020	SUBTOTAL					6,740	
014								
015		**G1030 SITE EARTHWORK**						
016		Regrade for new paving	**38,925**	sf	1.00	38,925		
017		Regrade for new slopes at TM House	**1,570**	sf	3.00	4,710		
018		Regrade for new slopes at Ritter	**1,300**	sf	3.00	3,900		
019		Silt fence	**2,000**	lf	12.00	24,000		
020		Erosion control monitoring	**1**	ls	5,000.00	5,000		
021	G1030	SUBTOTAL					76,535	
022								
023		**G1040 HAZARDOUS WASTE REMEDIATION**						
024		No work in this section						
025	G1040	SUBTOTAL					-	
026								
027		***TOTAL - SITE PREPARATION***						**$152,275**
028								
029								
030		***G20 SITE IMPROVEMENTS***						
031								
032		**G2010 ROADWAYS/PARKING LOTS**						
033		Asphalt Paving; parking lots and roadway	*33,400*	*sf*				
034		gravel base; 18" thick	**1,856**	cy	50.00	92,800		

	CODE		DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
	Site Detail								
035			asphalt top; 1.5" thick	**319**	tns	200.00	63,800		
036			asphalt binder; 2" thick	**427**	tns	190.00	81,130		
037		*320000*	*CURBING*						
038			Granite curb	**680**	lf	48.00	32,640		
039			ADA Curb cuts	**2**	ea	1,250.00	2,500		
040		*320000*	*ROAD MARKINGS AND SIGNS*						
041			Parking spot	**80**	ea	85.00	6,800		
042			Parking spot ADA sign w/ bollard	**4**	ea	1,500.00	6,000		
043			Sign allowance	**1**	ls	5,000.00	5,000		
044			Crosswalk hatching/ misc. - allowance	**1**	ls	5,000.00	5,000		
045	G2010		SUBTOTAL					295,670	
046									
047		**G2030**	**PEDESTRIAN PAVING**						
048			**New Sidewalks**						
049			Gravel base to new sidewalk; 8" thick	**87**	cy	50.00	4,350		
050			New concrete sidewalk; 4" thick; broom finish	**3,525**	sf	14.00	49,350		
051			**New Brick paving**						
052			Gravel base to new sidewalk; 8" thick	**69**	cy	50.00	3,450		
053			New concrete base; 4" thick	**2,800**	sf	10.00	28,000		
054			Brick pavers	**2,800**	sf	25.00	70,000		
055			**Regrade Sidewalks**						
056			Demolish existing sidewalk	**7,400**	sf	2.00	14,800		
057			Gravel base to new sidewalk; 8" thick	**184**	cy	50.00	9,200		
058			New concrete sidewalk; 4" thick; broom finish	**7,400**	sf	14.00	103,600		
059			**Town Meeting House**						
060			Gravel base to new sidewalk; 8" thick	**39**	cy	50.00	1,950		
061			New concrete sidewalk; 4" thick; broom finish	**1,570**	sf	14.00	21,980		
062			New concrete toping slab to raise level at entrance stoop; 4" thick VIF	**135**	sf	12.00	1,620		
063			Reset existing granite curbs	**1**	ls	1,500.00	1,500		
064			**Ritter Memorial Building**						
065			Gravel base to new walkway/landings; 8" thick	**12**	cy	50.00	600		
066			New concrete walkway; 4" thick; broom finish	**500**	sf	14.00	7,000		

	CODE		DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
	Site Detail								
067			Footings and walls for walkway/planter	**175**	lf	500.00	87,500		
068			Steps	**50**	lfr	240.00	12,000		
069			Field stone walls	**525**	sf	75.00	39,375		
070			Guardrails; SS	**105**	lf	450.00	47,250		
071			E+B	**1**	ls	10,000.00	10,000		
072			Landscape Terrace						
073			Footings and walls for terrace	**85**	lf	500.00	42,500		
074			Paving	**285**	sf	50.00	14,250		
075	G2030		SUBTOTAL					570,275	
076									
077		**G2040**	**SITE DEVELOPMENT**						
078			Allowance for benches, trash receptacles etc.	**1**	ls	20,000.00	20,000		
079	G2040		SUBTOTAL					20,000	
080									
081		**G2050**	**LANDSCAPING**						
082			Allowance for landscaping	**1**	ls	50,000.00	50,000		
083	G2050		SUBTOTAL					50,000	
084									
085			***TOTAL - SITE IMPROVEMENTS***						**$935,945**
086									
087		***G30***	***SITE MECHANICALS***						
088									
089		**G3010**	**WATER SUPPLY**						
090		*331000*	*WATER UTILITIES*						
091			New 2" domestic water service	**50**	lf	45.00	2,250		
092			New 6" fire service	**350**	lf	75.00	26,250		
093			Fire department connection	**1**	ea	2,500.00	2,500		
094			Gate valve	**1**	ls	2,000.00	2,000		
095			Fire hydrant	**1**	ea	4,000.00	4,000		
096			Connect to existing water line	**1**	ea	15,000.00	15,000		
097		*312000*	*EXCAVATION & BACKFILL*						
098			DI piping excavation/backfill (inside site)	**400**	lf	40.00	16,000		
099			Pressure test & chlorinate	**400**	lf	5.00	2,000		

	CODE		DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
	Site Detail								
100	G3010		SUBTOTAL					70,000	
101									
102		**G3020**	**SANITARY SEWER**						
103			Sewer line	**220**	lf	90.00	19,800		
104			SMH	**2**	ea	5,000.00	10,000		
105			Connect to existing sewer	**1**	ea	10,000.00	10,000		
106			Assumed no grease trap required						
107	G3020		SUBTOTAL					39,800	
108									
109		**G3030**	**STORM SEWER**						
110	334000		Stormwater drainage system - allowance	**33,400**	sf	10.00	334,000		
111	G3030		SUBTOTAL					334,000	
112									
113			***TOTAL - SITE MECHCANICAL UTILITIES***						**$443,800**
114									
115		***G40***	***SITE ELECTRICAL UTILITY***						
116									
117		**G4010**	**ELECTRICAL DISTRIBUTION**						
118			No work in this section						
119	G4010		SUBTOTAL					-	
120									
121		**G4020**	**SITE LIGHTING**						
123			Site lighting and circuitry (Town Hall)	**1**	ls	20,000.00	20,000		
124							-		
125			Site lighting and circuitry (Ritter)	**1**	ls	20,000.00	20,000		
125									
126	G4020		SUBTOTAL					40,000	
127									
128		**G4030**	**SITE COMMUNICATION & SECURITY**						
130			Telcom ductbank 2-4" concrete encased (Town Hall)				ETR		
131							-		
132			Telcom ductbank 2-4" concrete encased (Ritter)	**225**	lf	100.00	22,500		
132									
133	G4030		SUBTOTAL					22,500	
134									

CODE	DESCRIPTION	QTY	UNIT	UNIT COST	COST	SUBTOTAL COST	TOTAL COST
Site Detail							
135 **G4040**	**OTHER SITE ELECTRICAL UTILITIES**						
136	Allowance for PV canopy	**16,500**	sf	80.00	ALT1		
138	EV Stations; rough in only	**21**	ea	3,000.00	63,000		
139	EV Stations; Poles and charger	**21**	ea	10,000.00	ALT3		
139 G4040	SUBTOTAL					63,000	
140							
141							
142	***TOTAL - SITE ELECTRICAL UTILTIES***						**$125,500**