Evaluation of ADA Accessibility Options, Life Safety Improvements and Renovations at the Fairfield Common School Building

October 25, 2019

William Gallup Architecture and Planning LLC

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October 25, 2019

Attn: Melanie Riddle and Amanda Forbes
Town of Fairfield
P.O. Box 5
Fairfield, VT 05455

Re: Preliminary Evaluation of ADA accessibility options, life safety improvements and renovations to the Fairfield Common School Building.

This building condition assessment was partially funded by a grant from the Preservation Trust of Vermont.

Dear Melanie and Amanda:

Per your organization's request, I visited the Fairfield Common School Building and evaluated how all floor levels of the building could be made accessible and how accessible toilets could be added to the building. To facilitate this evaluation I took a sufficient number of measurements and photographs of the existing building to create reasonably accurate drawings of the existing building's floor plans and exterior elevations. I have included those base drawings in this report.

Based on that preliminary building configuration assessment, I developed what I consider to be the most viable design solutions to 1) modify the building to allow for ADA compliant access to all floor levels via a new accessible pubic entrance; 2) create an additional code compliant exit stair from all floor levels, and 3) evaluate the feasibility of creating an adequate number of accessible toilets to serve the occupant load of the building.

Below are two design options for your consideration.

Design Option 1 - New 4 stop LULA Elevator, Exit Stair and Accessible Toilets at Rear of Building with a New East Facing Accessible Public Entrance with adjacent Accessible Parking Spaces

After evaluating the existing floor plan layout it became apparent that there is not a location within the existing building where a vertical lift, LULA elevator or commercial elevator could comfortably be situated. But it does seem clear that a vertical lift or LULA elevator could be situated in a new addition at the rear of the building and that a very visible new public entrance could be situated on the East side of the building, where the majority of traffic approaches the building.

After some study I concluded that a commercial elevator would not be an option that I would recommend for the building as that option would require a bigger addition and would cost $65,000 to $75,000 more than installing a LULA (Limited Use, Limited Application) elevator and $90,000 to $100,000 more than installing a vertical lift.

Design Option 1, which I think would be the most appropriate solution for accomplishing your accessibility goals shows how a LULA elevator could be configured to serve all floors of the building and to provide access to two new Gender Neutral Toilets.

The benefits of installing a LULA elevator in lieu of a vertical lift are:

1. A LULA elevator operates like a standard commercial elevator with call buttons and car operational buttons that are user friendly. Anyone who has operated a commercial elevator will know how to operate a LULA elevator.
2. A LULA elevator has sliding doors that open automatically when the elevator is called.
3. The interior cab of a LULA elevator is very similar to a standard commercial elevator cab interior.
4. A 4 stop LULA elevator would be $65,000 to $75,000 less to install than a 4 stop commercial elevator in this building.

An estimate of what it would cost to construct the building improvements included in Design Option 1 is attached to this report. The cost to implement Design Option 1 is estimated to be approximately $555,000.

The budgets provided are preliminary and are only intended to give you some sense of the probable cost to proceed with either design option. Before you pursue any specific project I recommend that you have a local builder do an independent estimate of the cost of the project, or scope, you are most interested in.

Design Option 2 - New 4 stop Savaria Pro Lift, Exit Stair and Accessible Toilets at Rear of Building with a New East Facing Accessible Public Entrance with adjacent Accessible Parking Spaces

The design differences between Option 2 and Option 1 is the use of a Savaria Pro Lift in lieu of a LULA elevator to provide accessibility to all floors of the building.

The benefits of installing Savaria Pro Lift in lieu of a LULA elevator are:

1. A Savaria Pro Lift would cost approximately $26,000 less than a LULA elevator

The less than beneficial aspects of installing a Savaria Pro Lift in lieu of a LULA elevator are:

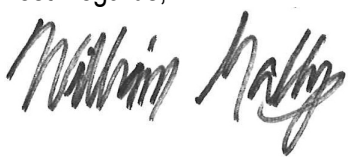
1. A Savaria Pro Lift cannot be installed without first securing a variance from the VT Access Board as the travel distance from the lower to upper floor at the Fairfield Common School is 20'-4 1/2" and Vermont allows lifts to travel no more than 14' vertically except where a variance is given. The Vermont Access Board has granted variances to allow the use of lifts for travel distances between 14 and 22 feet, so it may be possible to secure a variance if this Option was selected; but it is not guaranteed.
2. A Savaria Pro Lift, like all vertical lifts, operates significantly different than an elevator. To activate the lift to travel up or down the operator has to push "and hold" the appropriate interior car button (Up or Down) for the duration of the travel distance between floors. A first time vertical lift user may not anticipate this and will therefore need instruction on how to operate the lift.
3. A Savaria Pro Lift uses swing doors to access the cab interior in lieu of sliding doors. The swing doors automatically open after pushing a call button but the operation is slower and less intuitive than the more standard sliding elevator door system used on the LULA elevators

An estimate of what it would cost to construct the building improvements included in Design Option 2 is attached to this report. The cost to implement Design Option 2 is estimated to be approximately $529,000, or $26,000 less than the cost of Design Option 1.

The above and attached information concludes this preliminary evaluation of ADA accessibility options, life safety improvements and renovations to the Fairfield Common School Building. Please don't hesitate to contact me with any questions you have related to this preliminary evaluation.

You have a significant, historic building that you have preserved and maintained. I hope these design options facilitate the discussions you are having on how to make your facility more accessible, safe and usable in the future.

Best Regards,



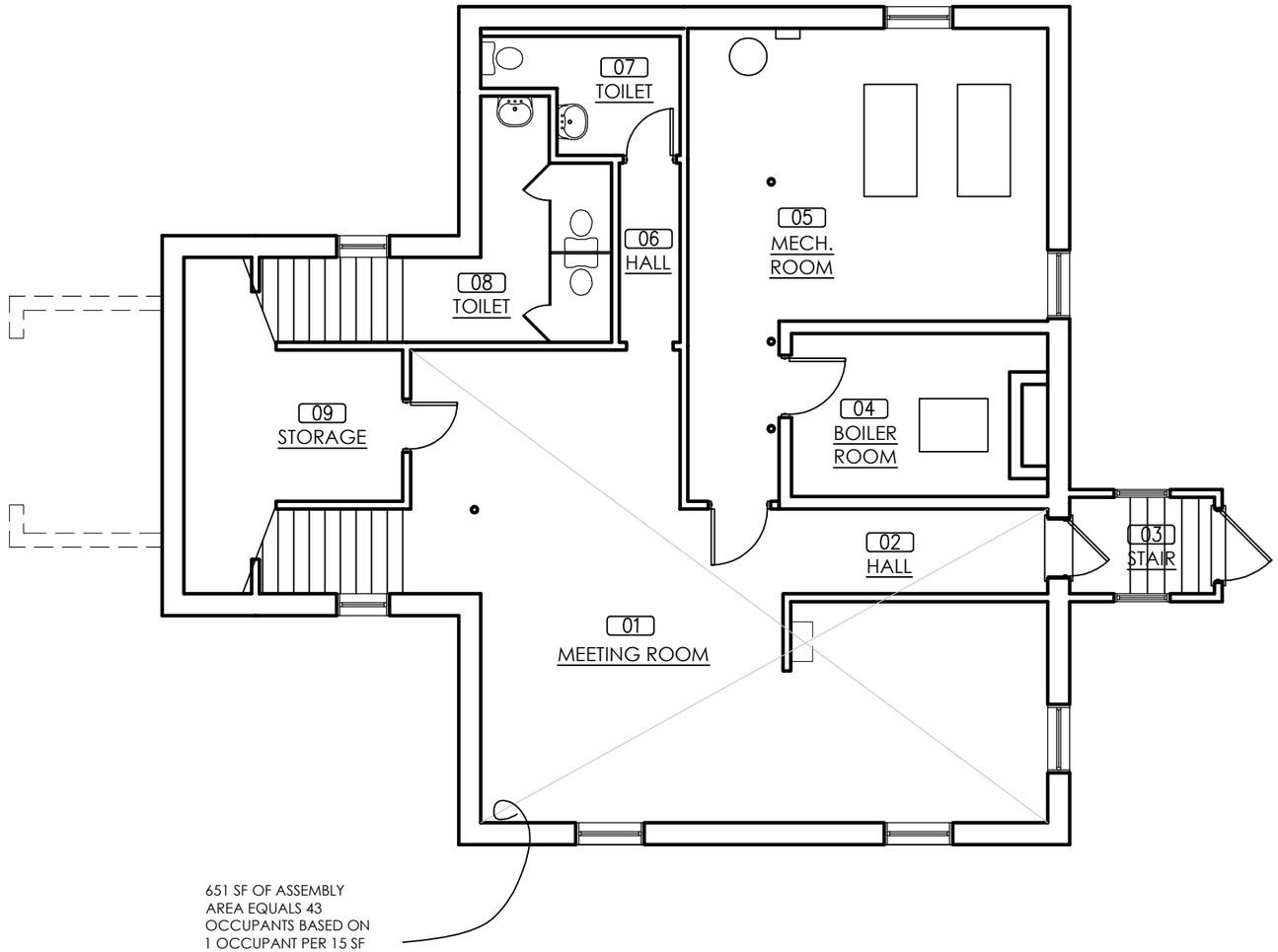
William Gallup

cc: Preservation Trust of Vermont

Fairfield Common School

Fairfield, VT

DRAWINGS OF EXISTING AND PROPOSED RENOVATIONS



0 2' 4' 8' 16'

Fairfield Common School , Fairfield, VT

1/8" = 1'-0"

Existing Lower Floor Plan 09/20/19

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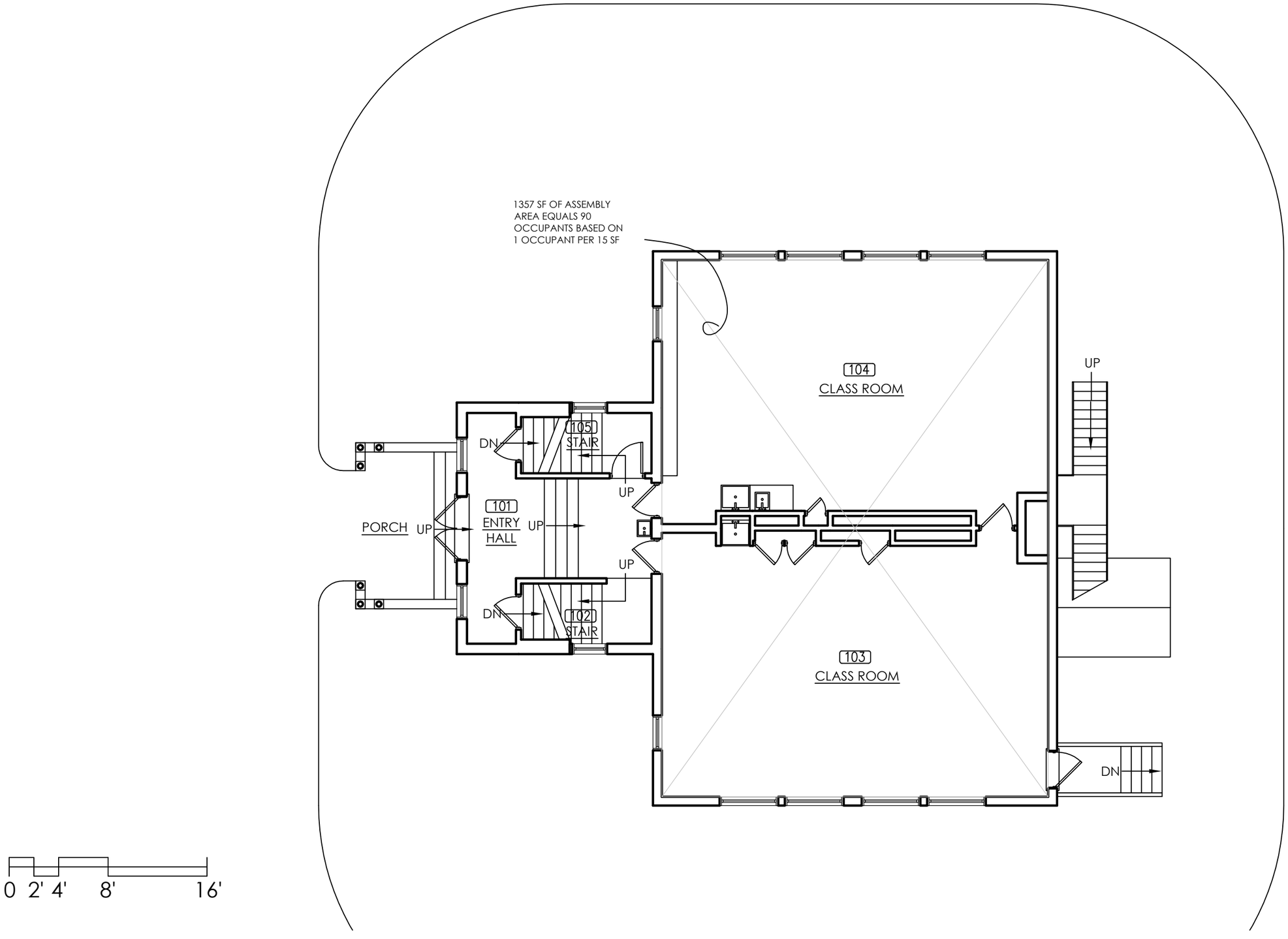
X1.0



Fairfield Common School , Fairfield, VT

1/8" = 1'-0"

Existing Main Floor Plan 09/20/19

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X1.1

TOTAL BUILDING OCCUPANCY EQUALS 223

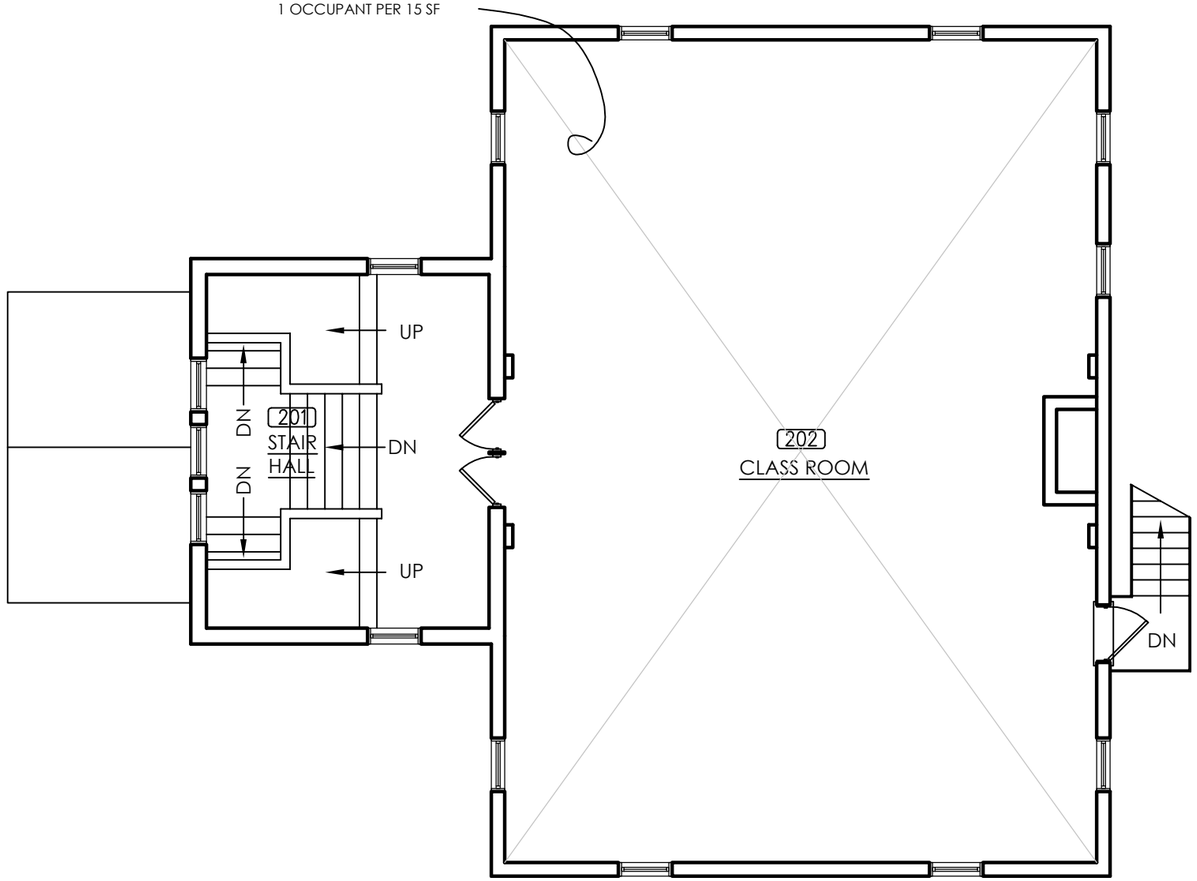
PLUMBING CODE REQUIRES FIXTURES FOR 112 MEN AND 112 WOMEN

ACCESS TO 2 WATER CLOSETS AND 2 LAVATORIES REQUIRED FOR 112 MEN

ACCESS TO 2 WATER CLOSETS AND 2 LAVATORIES REQUIRED FOR 112 WOMEN

1 DRINKING FOUNTAIN IS REQUIRED FOR 223 OCCUPANTS

1357 SF OF ASSEMBLY AREA EQUALS 90 OCCUPANTS BASED ON 1 OCCUPANT PER 15 SF



0 2' 4' 8' 16'

Fairfield Common School , Fairfield, VT

1/8" = 1'-0"

Existing Upper Floor Plan 09/20/19

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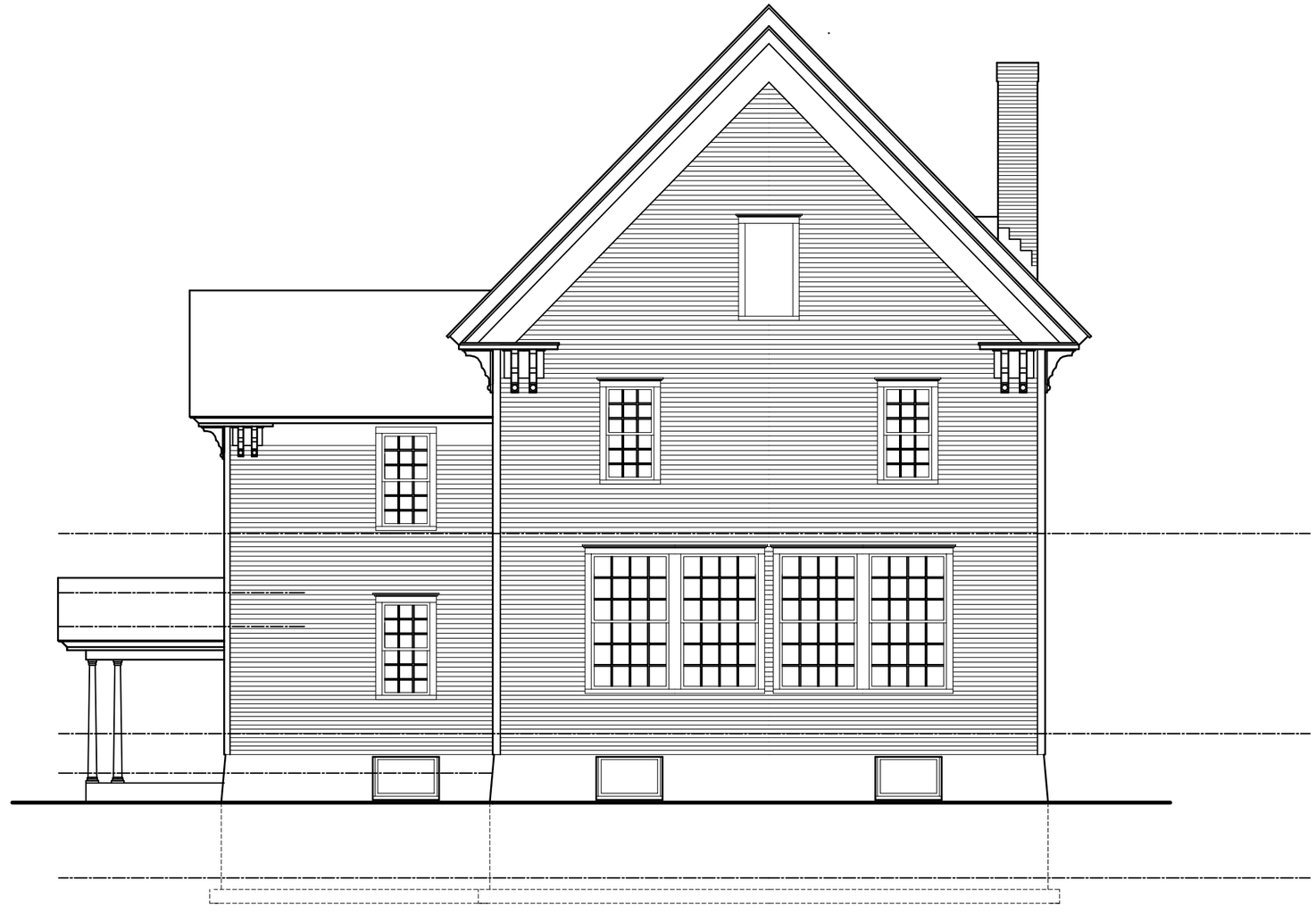
X1.2



0 2' 4' 8' 16'

Fairfield Common School , Fairfield, VT

1/8" = 1'-0"

Existing West Building Elevation 09/20/2019

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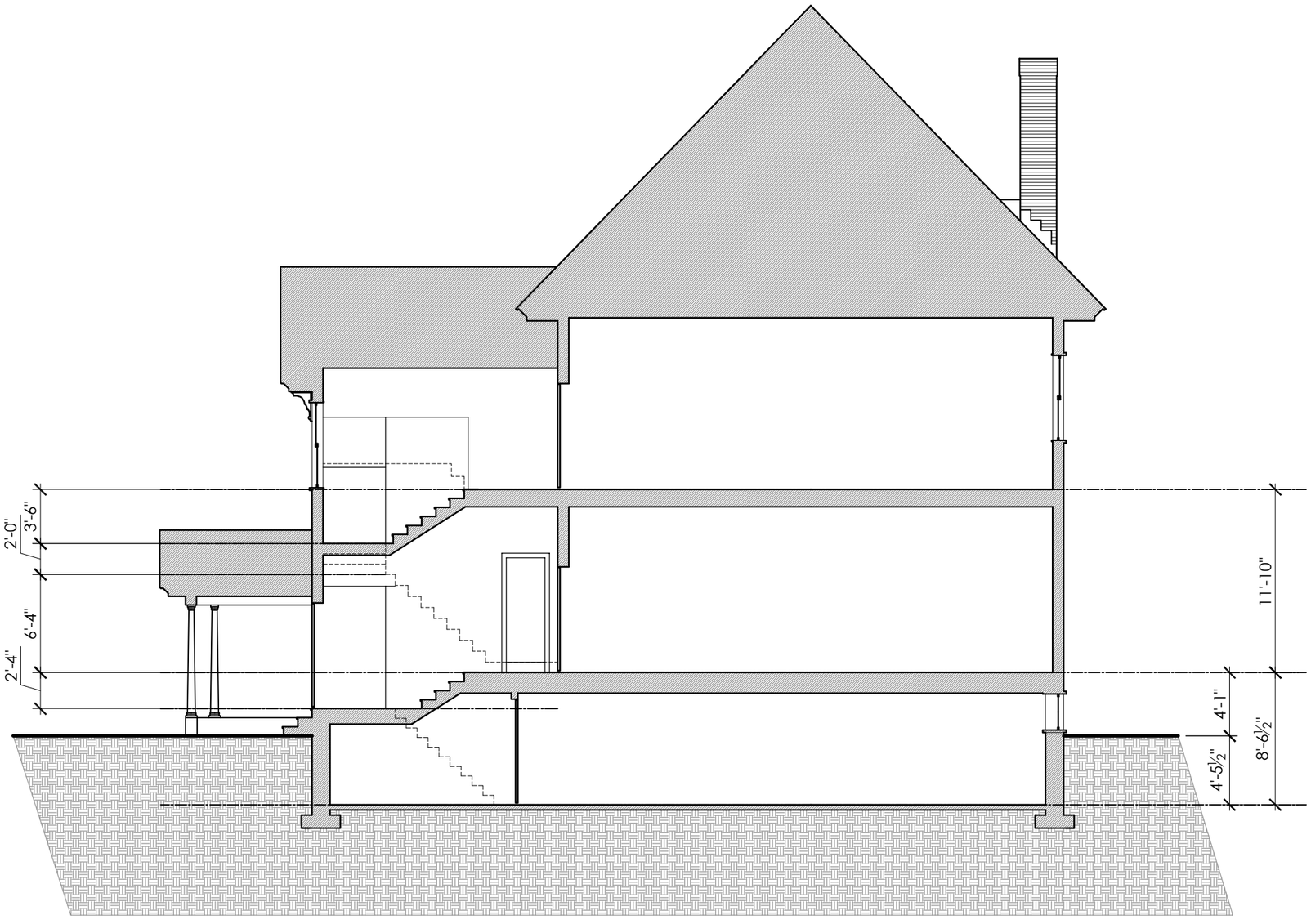
X2.1



0 2' 4' 8' 16'

Fairfield Common School , Fairfield, VT

1/8" = 1'-0"

Section Through Existing Building 09/20/2019

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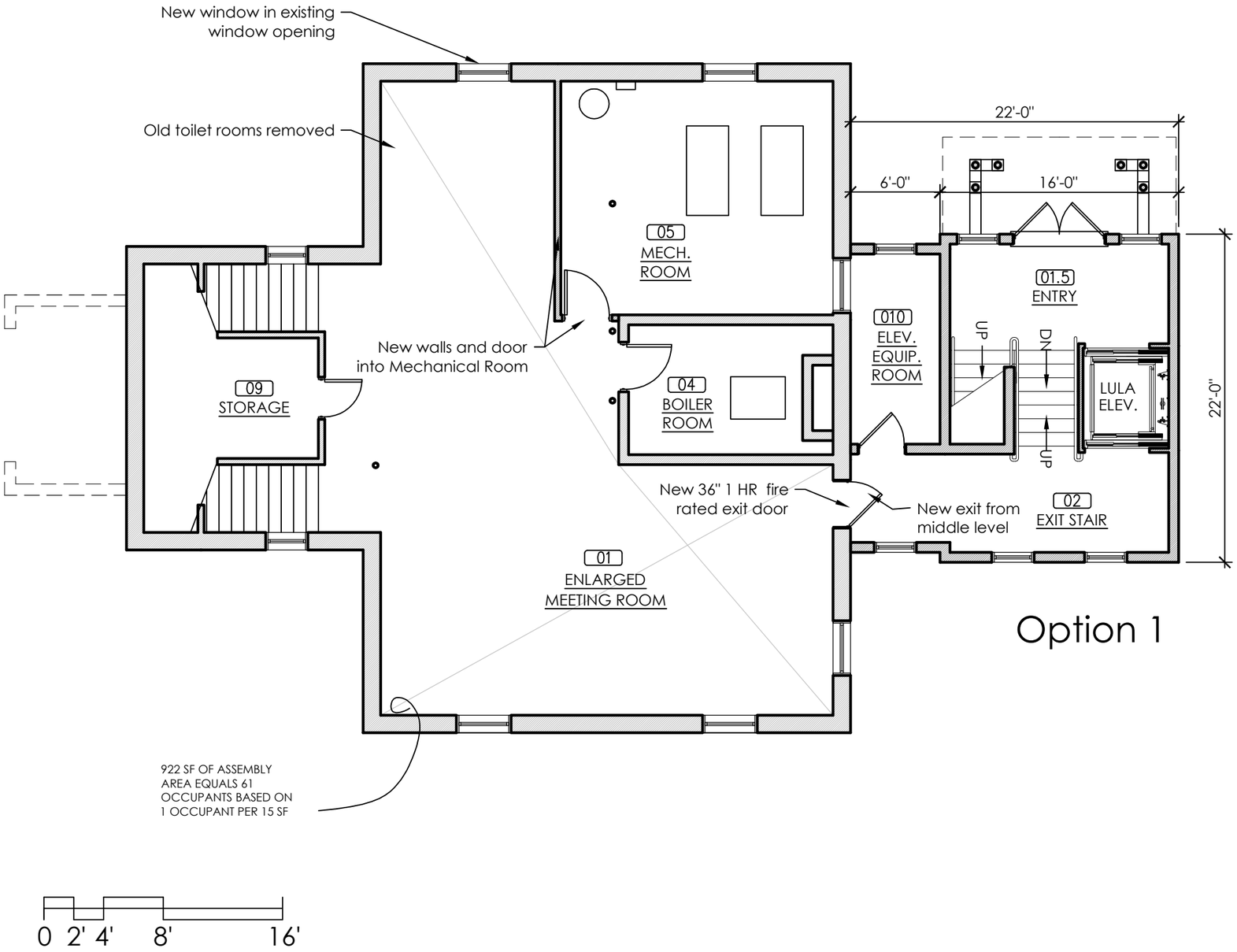
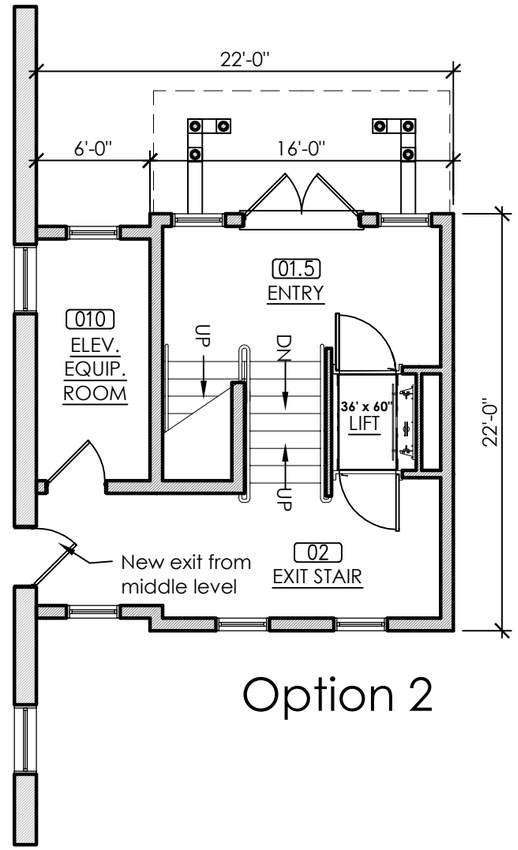
X3.1



Option 1



Option 2

Fairfield Common School , Fairfield, VT

1/8" = 1'-0"

Lower Floor Plan of Addition and Existing Spaces

10/21/19

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A1.0

11' X 22' HC VAN PARKING SPACE

9' X 22' HC CAR PARKING SPACE

1357 SF OF ASSEMBLY AREA EQUALS 90 OCCUPANTS BASED ON 1 OCCUPANT PER 15 SF

104 CLASS ROOM

105 STAIR

DN

UP

101 ENTRY HALL

PORCH UP

UP

UP

DN

102 STAIR

103 CLASS ROOM

107 TOILET

01.5 ENTRY

UP DN

DN UP

LULA ELEV.

106 EXIT STAIR

New Limited Use, Limited Access, (LULA) Elevator with 48" X 54" cab interi

New 36" 1 HR fire rated exit door

New exit from middle level

New window to match existing to replace existing exit door

Option 1

107 TOILET

01.5 ENTRY

UP DN

DN UP

36' x 60" LIFT

Savaria Prolift SC Vertical Lift

106 EXIT STAIR

New exit from middle level

Option 2

0 2' 4' 8' 16'

Fairfield Common School , Fairfield, VT

1/8" = 1'-0"

Main Floor Plan of Addition and Existing Spaces

10/21/19

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A1.1

TOTAL BUILDING OCCUPANCY EQUALS 241

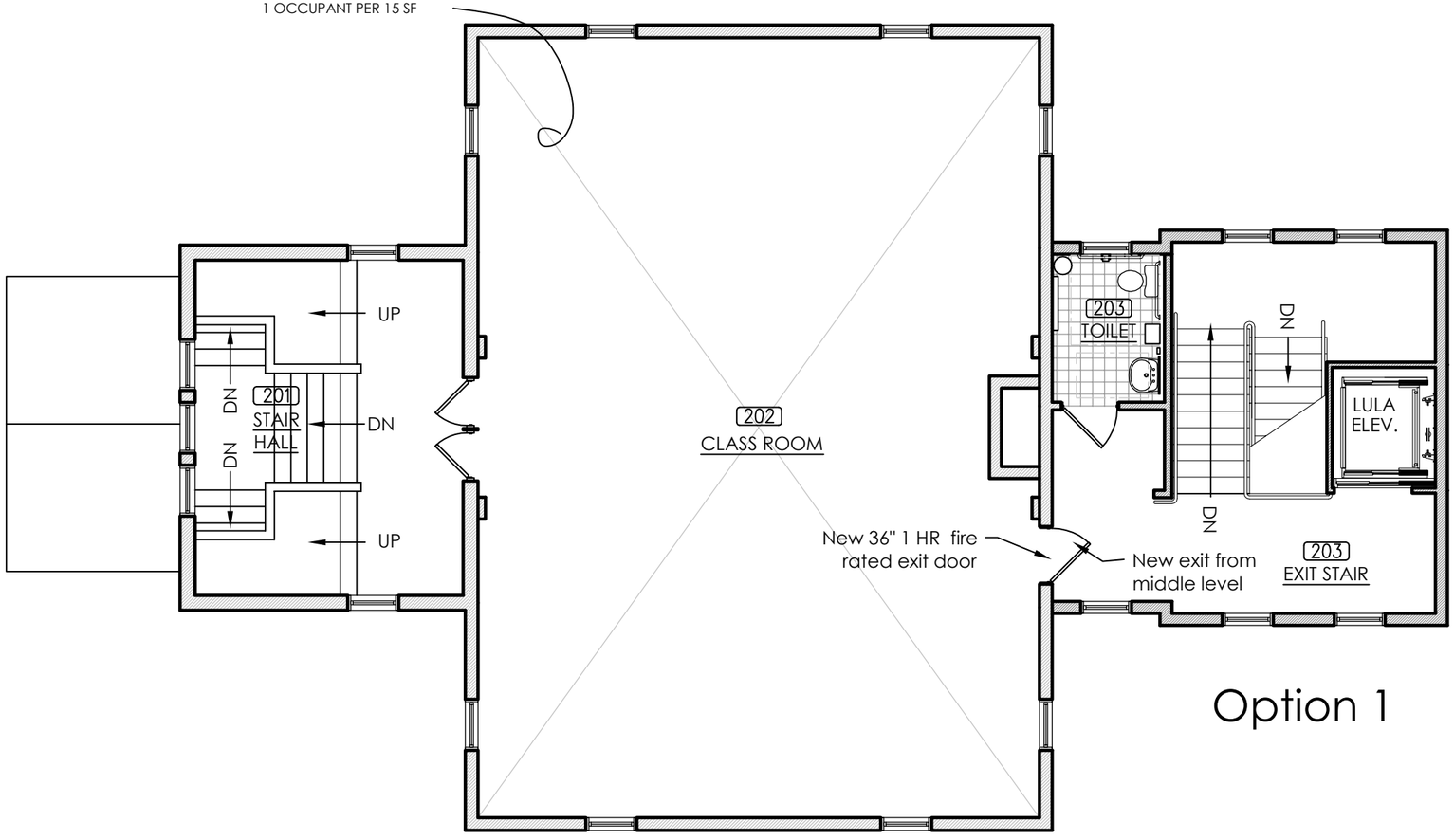
PLUMBING CODE REQUIRES FIXTURES FOR 121 MEN AND 121 WOMEN

ACCESS TO 2 WATER CLOSETS AND 2 LAVATORIES REQUIRED FOR 121 MEN

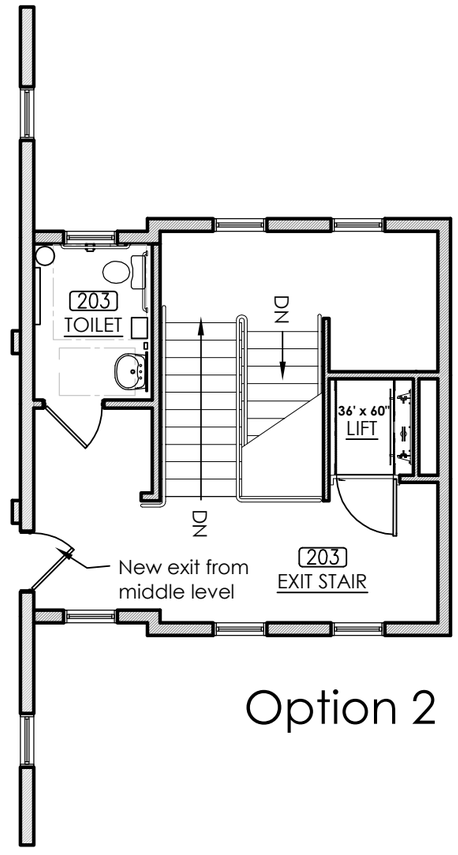
ACCESS TO 2 WATER CLOSETS AND 2 LAVATORIES REQUIRED FOR 121 WOMEN

1 DRINKING FOUNTAIN IS REQUIRED FOR 241 OCCUPANTS

1357 SF OF ASSEMBLY AREA EQUALS 90 OCCUPANTS BASED ON 1 OCCUPANT PER 15 SF



Option 1



Option 2

0 2' 4' 8' 16'

Fairfield Common School , Fairfield, VT

Upper Floor Plan of Addition and Existing Spaces

10/21/19

1/8" = 1'-0"

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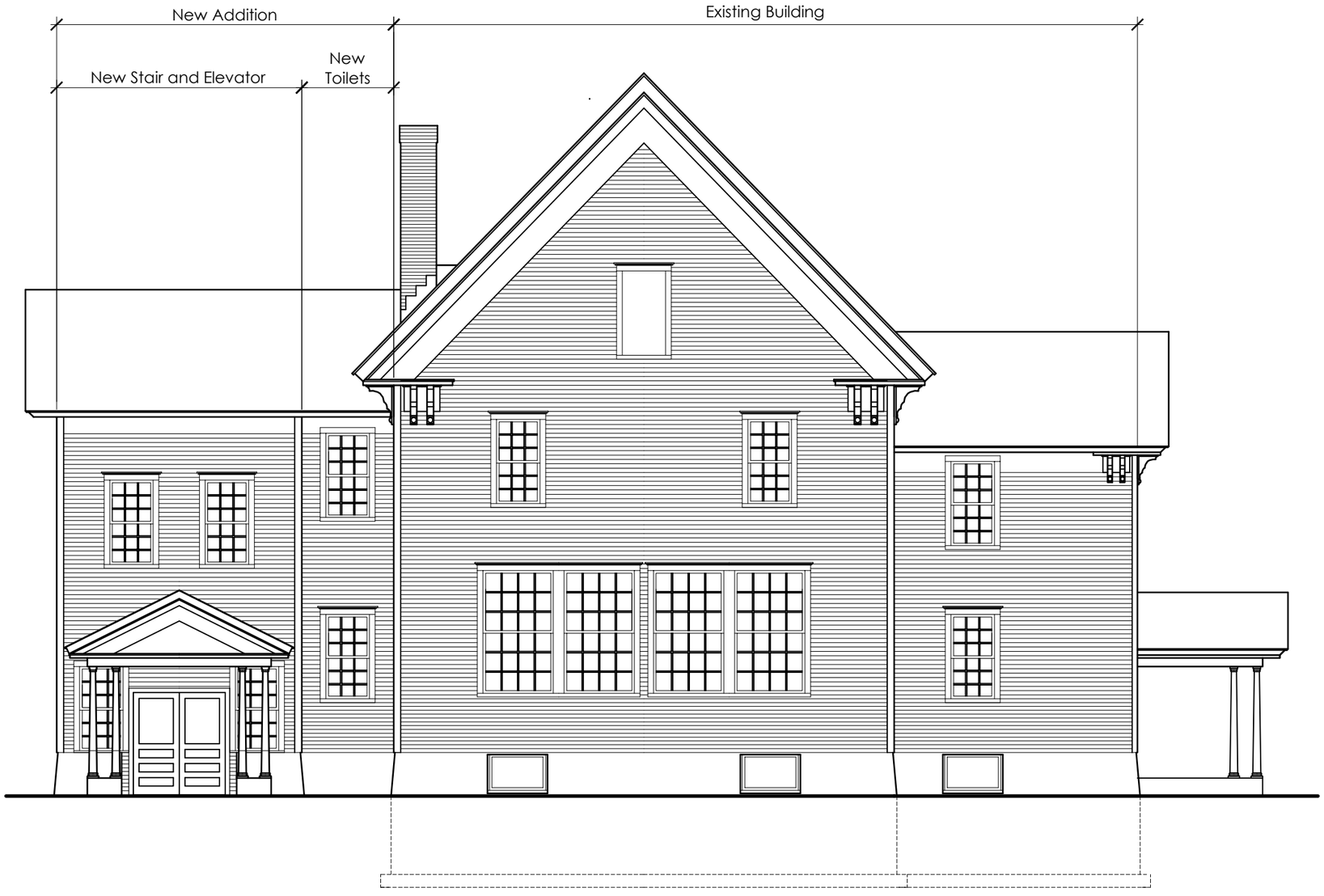
A1.2



0 2' 4' 8' 16'

Fairfield Common School , Fairfield, VT

East Building Elevation of Addition and Existing Building 10/21/2019

1/8" = 1'-0"

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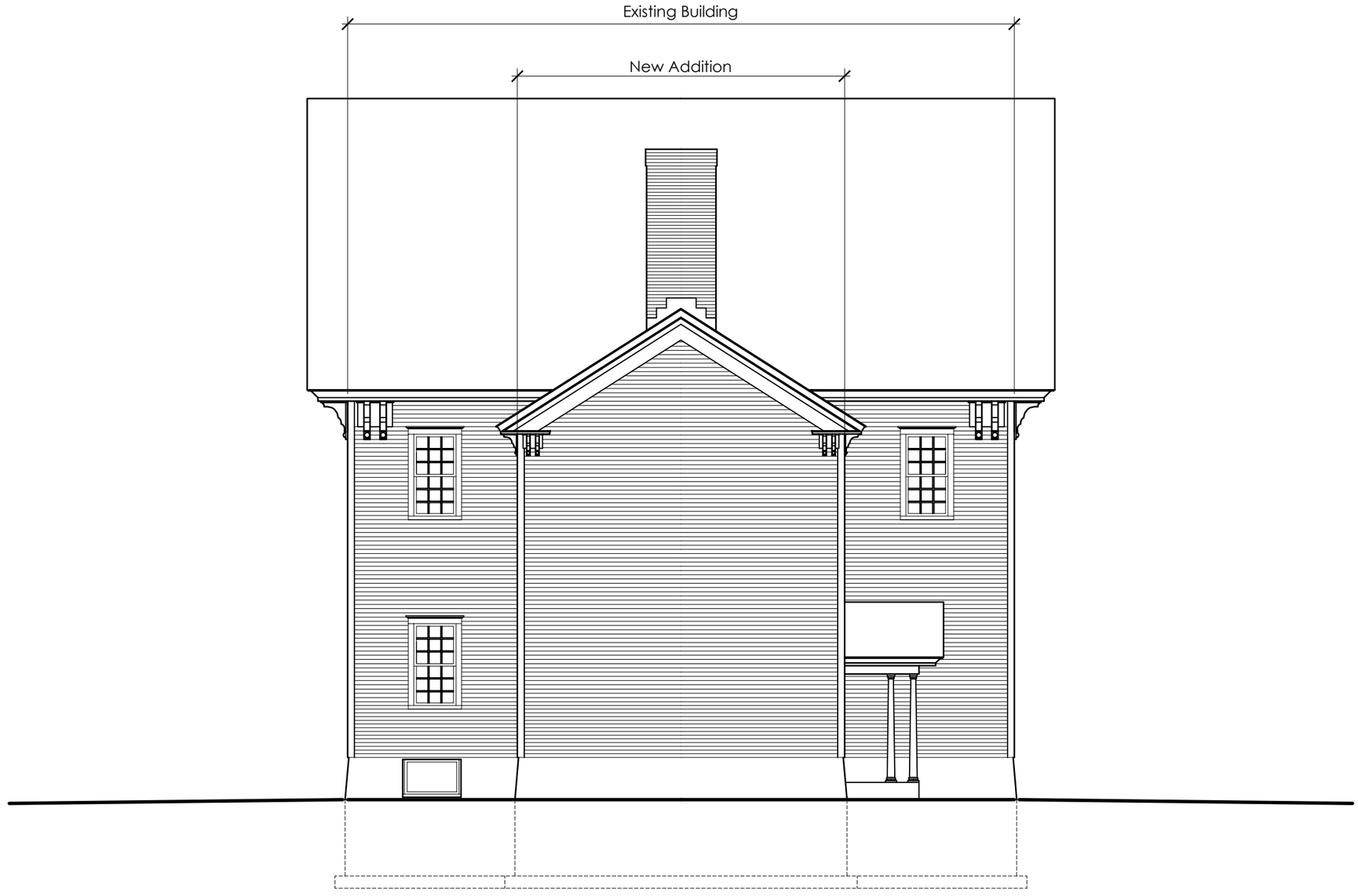
A2.1



0 2' 4' 8' 16'

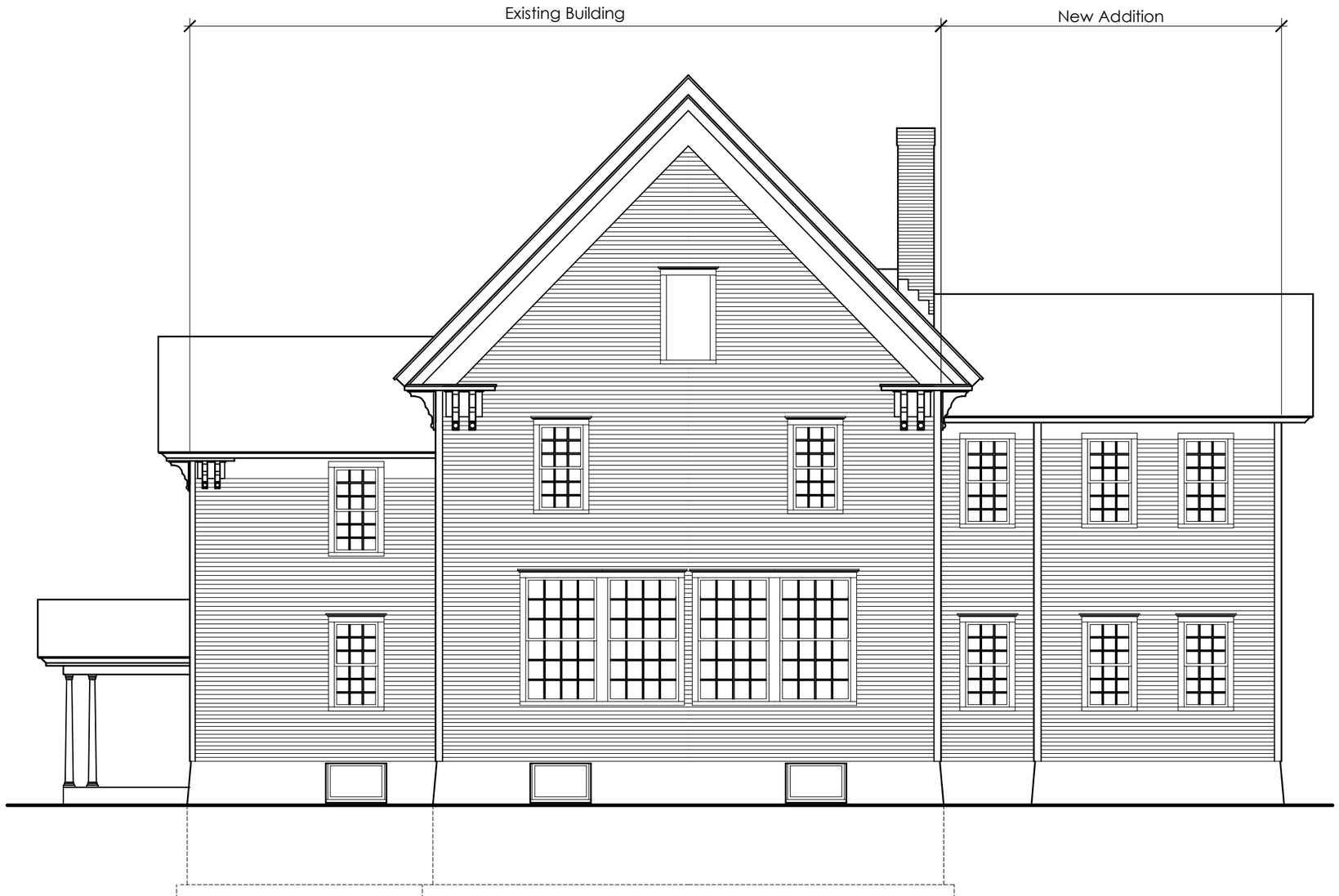
Fairfield Common School , Fairfield, VT

South Building Elevation of Addition and Existing Building 10/21/2019

1/8" = 1'-0"

William Gallup Architecture and Planning LLC

A2.2



0 2' 4' 8' 16'

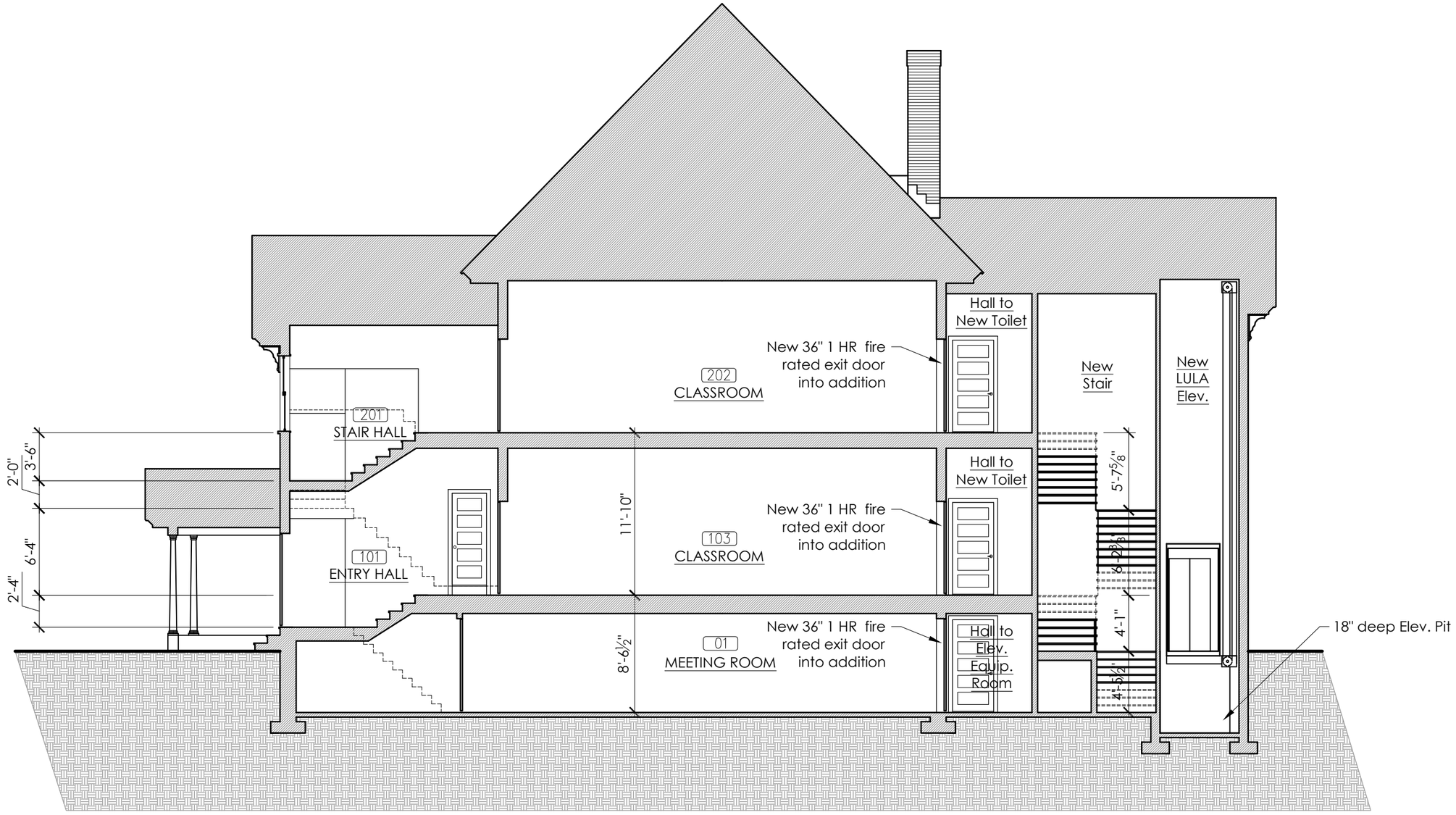
Fairfield Common School , Fairfield, VT

West Building Elevation of Addition and Existing Building 10/21/2019

1/8" = 1'-0"

William Gallup Architecture and Planning LLC

A2.3



0 2' 4' 8' 16'

Fairfield Common School , Fairfield, VT

1/8" = 1'-0"

Section Through Addition and Existing Building 10/21/2019

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A3.1

PHOTOS OF A RECENT LULA ELEVATOR INSTALLATION

Fairfield Common School - Cost Estimates to Implement Options for Accessibility
and Provide a Code Compliant Fire Stair from all Floors

Option 1 - New 4 stop LULA Elevator, New Toilets and New Exit Stair at Rear of Building shown on Drawings A1.0, A1.1 and A1.2, dated 10/21/19		
Site improvements		
1 Regrade and add handicapped parking and side walk to new entry at back of building	$	18,000
Subtotal of site work	**$**	**18,000**
Building demolition, renovation and additions		
1 Remove existing rear exit stairs from lower, middle and upper floor levels	$	3,500
2 Demolish existing basement toilet rooms, hall to bathroom and north wall of mech. room	$	1,750
3 Construct new 1428 SF three level addition	$	321,300
4 Purchase and install LULA elevator	$	63,000
5 Construct covered entry porch at new east entry	$	12,000
6 Install new fire rated doors between new addition and all three floor levels	$	4,800
7 Install two new windows in existing building, lower and middle level	$	3,000
7 Provide new finishes, lighting and power in disturbed basement area	$	15,760
Subtotal of demolition, renovations and additions	**$**	**425,110**
15% estimating contingency on items above	**$**	**66,467**
Construction cost estimate for Option 1	**$**	**509,577**
Budget Estimate of A/E and Permitting cost for Option 1	**$**	**45,862**
Total Budget Estimate to Implement Option 1 - LULA Elevator (4 stops)	$	555,438

Notes: 1) A LULA elevator operates like a standard commercial elevator with call buttons and operational buttons that are user friendly. Anyone who has operated a commercial elevator will know how to operate a LULA elevator.

Option 2 - New 4 stop Savaria Pro Lift , New Toilets and New Exit Stair at Rear of Building shown on Drawings A1.0, A1.1 and A1.2, dated 10/21/19		
Site improvements		
1 Regrade and add handicapped parking and side walk to new entry at back of building	$	18,000
Subtotal of site work	**$**	**18,000**
Building demolition, renovation and additions		
1 Remove existing rear exit stairs from lower, middle and upper floor levels	$	3,500
2 Demolish existing basement toilet rooms, hall to bathroom and north wall of mech. room	$	1,750
3 Construct new 1428 SF three level addition	$	321,300
4 Purchase and install Savaria Pro Lift	$	42,000
5 Construct covered entry porch at new east entry	$	12,000
6 Install new fire rated doors between new addition and all three floor levels	$	4,800
7 Install two new windows in existing building, lower and middle level	$	3,000
7 Provide new finishes, lighting and power in disturbed basement area	$	15,760
Subtotal of demolition, renovations and additions	**$**	**404,110**
15% estimating contingency on items above	**$**	**63,317**
Construction cost estimate for Option 1	**$**	**485,427**
Budget Estimate of A/E and Permitting cost for Option 1	**$**	**43,688**
Total Budget Estimate to Implement Option 1 - LULA Elevator (4 stops)	$	529,115

Notes: 1) A Savaria Pro Lift would cost approximately $25,000 less to incorporate into the building than a LULA Elevator; but will require a variance from the Vermont Access Board as the travel distance from the lower to upper floor at the Fairfield Common School is 20'-4 1/2" and Vermont allows lifts to travel no more than 14' vertically except where a variance is given. The Vermont Access Board has granted variances to allow the use of lifts for travel distances between 14 and 22 feet, so it may be possible to secure a variance if this Option was selected.

2) A Savaria Pro Lift, like all vertical lifts, operates significantly different than an elevator. To activate the lift to travel up or down the operator has to push **"and hold"** the appropriate interior car button (Up or Down) for the duration of the travel distance between floors. A first time vertical lift user may not anticipate this and will therefore need instruction on how to operate the lift.