SHOREHAM UNIVERSALIST CHURCH ADAPTIVE REUSE

HP 204 DEVELOPMENT ECONOMICS

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INTRODUCTION

Executive Summary

Shoreham Universalist Church lies in the Village Residential District of the town of Shoreham.[1] Built in 1885 by local architect, Clinton Smith, the building is a Queen Anne-style, brick veneer and timber-framed church that is 52 feet long and 32 ½ feet wide.[2] The structure contains a tapered hipped-roof steeple clad in slate shingles and sits on a coursed ashlar, Panton stone block foundation.[3]

Used as a masonic lodge and a music conservatory after no longer useful as a church, the building has been kept in good condition. The owner of the music conservatory updated the building with an ADA ramp on the exterior entrance and installed some acoustic sound panels in the basement for concerts. The building is now owned by the Town of Shoreham, through donation in 2013, and has remained vacant except for occasional use by the elementary school next door for plays other activities. The town has made a few updates to the building, such as installing a chimney liner and adding an interior chandelier to the main floor to improve lighting.[4] The building still contains original architectural features, such as wooden doors, stained glass windows, wood paneling, and ornate doorknobs and light fixtures.

The church was once considered a possibility for the new site of municipal offices but the town eventually placed the offices on the expanded Shoreham Commons.[5] The structure is now being considered a possible venue for public and private events by the town but, it's clear that more extensive upgrades will need to be performed to accommodate "a more intensive public use".[6] An ADA restroom and lift will need to be installed as well as a new ramp to make the building accessible to guests with special needs. Although this idea is a possibility, the future of the building is unknown and may ultimately be up for demolition.[7]

The Shoreham Town Plan reveals that a community pre-school is highly desirable in the area with the only comparables being a private pre-school and another pre-school more than 6 miles outside of Shoreham.[8] The town puts emphasis on education and wants to produce educational

[1] "Town of Shoreham- Town Plan, Final Draft, June 22, 2016," 20.
[2] "Church Burned at Shoreham," *Middlebury Register*, January 02, 1885, accessed November 19, 2018, https://vsara.newspapers.com/image/403752960/?terms=universalist church shoreham middlebury register Friday; "Conditions Assessment by Thomas F. Keefe," Thomas F. Keefe to Karen Shackett, October 31, 2018, Shoreham, Vermont;"New Churches," *Middlebury Register*, July 31, 1885, accessed November 16, 2018, https://vsara.newspapers.com/image/403758056/?terms=Universalist church shoreham.
[3]Thomas F. Keefe
[4] John Flowers, "Shoreham Looks to Revive Historic Village Ediface," *Addison County Independent*(Middlebury), March 05, 2015, accessed September 26, 2018, http://www.addisonindependent.com/201503shoreham-reviving-masonic-hall.
[5] Ibid.
[6] Ibid.
[7] Ibid.
[8] Town of Shoreham, 10.

facilities as well as economically feasible community spaces for gatherings.[9] One of the main goals of the town is to "maximize the use of historic town structures through a variety of methods, including private and public financial and technical assistance, and ensure their continued maintenance is not overlooked."[10]
This adaptive reuse proposal summarizes the potential rehabilitation of this historic structure into a profitable pre-school and multiuse venue for public and private events under ownership of the Town of Shoreham. With this notion, we are suggesting that the building be returned partially back into a gathering space for the community as it was originally used.

Our vision contains 2 options for floor plans:

- First option is to have the pre-school on the main level of the building while utilizing the basement as a rentable community space with a kitchen.
- The second option is to have the rentable community space on the main level while utilizing the basement as a pre-school with a kitchenette and teacher's office in the same enclosed area.

Both options will:

- Keep the main level as it is now with no interior additions.
- Keep a kitchen in the basement for pre-school and community events.
- Utilize the top floor as storage space.

Exterior additions include:

- Demolishing the current ADA ramp in front of the main entrance and improving the façade of the building by constructing a new ramp along the north elevation.
- Adding an addition to the west (rear) elevation to accommodate an ADA restroom and a lula that will be accessible through openings on the west elevation from the interior of the main floor and basement.

A conditions assessment by Thomas F. Keefe concludes that, other than the ADA additions discussed above, the building requires these adjustments:

High Priority

- Re-point chimney; replace base flashing, remove tar
- Woodwork repairs
- Structural engineering review of West wall masonry

[9] Ibid, 32, 41.
[10] Ibid, 41.

Medium Priority

- Re-point foundation, water table, select brick locations
- Sash Conservation (5); repair 9 storms, 1 door
- Paint repairs
- Site work; new gravel splashes at the north and south eaves drip lines[11]

Summary of Funding Sources:

- Title I funding for VT Act 166 (Universal PreK)
- VT Community Loan Fund
    - Early Care & Learning Loan Program
    - Building Bright Spaces for Bright Futures Facilities Fund
    - Community Facilities Loan Program
- Henderson Fund Grant
- Vermont Community Development Block Grant
- Walter Cerf Community Fund

We aim to satisfy the Town's need for an educational facility and public space while using a vacant historic town structure to its full potential.

Historic Background

Figure 1. Image courtesy of Shoreham Historical Society.

[11] Thomas F. Keefe

Figure 2. Image courtesy of Shoreham Historical Society.

The Universalist Church in Shoreham, Vermont was designed by a Mr. Allen and prominent architect, Clinton Smith, both of Middlebury, in 1885 after the original burned down in 1884.[12] Clinton Smith was known throughout Vermont, New Hampshire, and New York for his public buildings and churches.[13] The new church was said to be built on the same site as the original and was promised to be attractive and "an ornament to the village".[14] A newspaper article claimed that the structure was to be built "52 feet long by 32 1-2 feet wide" and would be able to seat about 300 people.[15] The building was advertised to be built of wood with brick veneering just like the court house in Addison County.[16]

After the Queen Anne-style church was no longer in use, the building was made into the Simonds Masonic Lodge until it was purchased in 2005 by the Vermont Conservatory of Music.[17] Basic improvements were made by the conservatory in order to host concerts, but when the building no longer met the organization's needs, the owner offered it to the town of Shoreham as a donation in 2013.[18] The town has made some small improvements to the building, but it has remained vacant ever

[12] "Church Burned at Shoreham," *Middlebury Register*, January 02, 1885, accessed November 19, 2018, https://vsara.newspapers.com/image/403752960/?terms=universalist church shoreham middlebury register Friday; "New Churches," *Middlebury Register*, July 31, 1885, accessed November 19, 2018, https://vsara.newspapers.com/image/403758056/?terms=shoreham church middlebury register.
[13] "Prominent Architect," *Middlebury Register*, August 11, 1905, accessed November 19, 2018, https://vsara.newspapers.com/image/403798066/?terms=Middlebury register prominent architect.
[14] "New Churches," *Middlebury Register*, July 31, 1885, accessed November 16, 2018, https://vsara.newspapers.com/image/403758056/?terms=Universalist church shoreham.
[15] Ibid.
[16] Ibid.
[17] John Flowers, "Shoreham Looks to Revive Historic Village Edifice," *Addison County Independent*(Middlebury), March 05, 2015, accessed September 26, 2018, http://www.addisonindependent.com/201503shoreham-reviving-masonic-hall.
[18] Ibid.

since the conservatory departed from the premises, except for occasional use by the elementary school next door.[19]

[19] Ibid.

MARKET ANALYSIS

For the past several decades, the state of Vermont and the rural communities within the state have struggled to attract and retain young professionals, families, and students. One way to encourage growth in these locations is to provide resources that are attractive to that demographic, including access to public affordable educational opportunities.

Downtown Plans and Needs

Part of the Town Plan's major objectives are:

- "To manage change in such a way that the ability of the Town to provide educational and other services to its residents will not be compromised, and that allows the Town to finance and meet the expense of new infrastructural needs.
- To develop an environment for new job opportunities, such as agriculturally-related businesses or cottage industries, that 1) are compatible with the goals of this Plan, and 2) diversify and stabilize our tax base, and provide employment close to home for Shoreham's residents.
- To provide quality education to Shoreham children—including pre-school.
- Encourage efforts that enhance the appearance of the community reflecting appreciation of a rural, small town environment and our New England heritage"[20]

Demographics

- "Population: **1265** (2010)
- Increase in population growth: **3%** (2010)
- Housing units: **625** (2010)
- Average household size: **2.48** persons (2010)

Increases in residential housing put increased demand on Town services and facilities."[21]

Available Educational Facilities in Shoreham

Currently, Shoreham children attend grades K-6 at Shoreham Elementary School, and students in grades 7-12 are bused to Middlebury to attend the middle and high schools. Enrollment in these schools for the **2013/2014** year was **eighty-five.**"[22]
No public preschools are currently available in Shoreham.

Transportation Systems and Parking Accommodations

[20] "Town of Shoreham- Town Plan, Final Draft, June 22, 2016," 10.
[21] "Town of Shoreham- Town Plan, Final Draft, June 22, 2016," 28.
[22] "Town of Shoreham- Town Plan, Final Draft, June 22, 2016," 31.

There is no parking currently on site, however a shared parking lot is a few yards away, within a short walking distance to the entrance of the building. There is also a paved lane directly in front of the building to provide easy and safe access to the entrance.

Comparables and Competition

According to the Vermont Department for Children and Families Child Development Division Bright Futures Child Care Information System, there are currently nine facilities that offer a Public Prequalified Pre- K Program in the area surrounding Shoreham. Of these facilities, the nearest is located in Pittsford and is approximately 19 miles away from the Shoreham Town Center.[23]

The Lothrop Pre-K Program, located in Pittsford, Vermont is the nearest licensed public Pre-K program available to families in Shoreham. As of October 2018, the program currently operates with a capacity of 15 students and only one vacancy. They maintain an operating schedule that runs Monday, Wednesday and Friday, from 7:45am to 2:45pm.[24]

The next option available to Shoreham families is just over 20 miles from the town center. The Fair Haven Grade School Preschool Program is a licensed public Pre-K program operating with a capacity of 21 students and an available vacancy of 7, however they are only officially licensed to serve 15 students. Their operating hours are Monday through Friday from 8:00am to 3:00pm.[25]

Although both of these options are available to Shoreham families, transportation may not be guaranteed, making the addition of a public, licensed Preschool located in Shoreham, so close to the town center, a great opportunity to serve the community.

[23] "Bright Futures Child Care Information System", *Vermont Department for Children and Families Child Development Division*, http://www.brightfutures.dcf.state.vt.us.
[24] "Bright Futures Child Care Information System", *Vermont Department for Children and Families Child Development Division*, http://www.brightfutures.dcf.state.vt.us.
[25] [25] "Bright Futures Child Care Information System", *Vermont Department for Children and Families Child Development Division*, http://www.brightfutures.dcf.state.vt.us.

ARCHITECTURAL DESCRIPTION AND BASIC CONDITIONS

Figure 3: View of the south wall of the 1885 Shoreham Universalist Church. Danielle Allen, 2018.

Built in 1885, the former Shoreham Universalist Church is a 1½ story, veneer brick and timber-frame building that appears to be in good overall condition (Figure 1). The simple asymmetrical design is enhanced by several modest Queen Anne-style features. The roof and tower are covered in gray slate and includes a decorative chimney made of corbelled bricks. The building is visually attractive from the street and features several colorful stained-glass windows in the towers and throughout the body of the building. The large semi-circular window in the front bay of the church is especially striking. The asymmetrical tower and steeple lend the building a sense of monumentality, while the simple stone lintels and sills, along with the brick string course help the building stretch with the surrounding landscape. The church is surrounded on all sides by a sloping lawn.

Figure 4: Interior view of the large semi-circular stained-glass window. Danielle Allen, 2018.

The foundation of the building rests approximately 5’ below grade and is made of large cut stone blocks (Figure 3). The foundation shows some evidence of dirt and splash back, but these effects could be mitigated through regular cleaning. The stones and the mortar between them appear to be in good condition. The windows housed within the foundation are in fair condition and appear to only need minor repairs to correct deteriorated paint. The area surrounding the foundation is appropriately cleared of vegetation and properly sloped to mitigate the effects of storm water drainage.

Figure 5: View of the southeastern corner of Shoreham Universalist Church demonstrating the current conditions of the foundation. Danielle Allen, 2018.

The basement is a semi-submerged space with windows lighting the north and south walls (Figure 4). The space is lit by four sliding windows, housed within the building's foundation. This space has a tile floor, wood-paneled wainscoting and a wood paneled ceiling. The basement is supported internally by regularly place structural columns but is otherwise an open space. In addition to the open space, the basement also currently features a small bathroom, kitchenette, and the furnace. These utilities are separated from the open space in a semi-enclosed area on the eastern portion of the basement. This area can be accessed internally through a wooden stair connected to the entrance hall and also externally, through a modern exit on the north wall. Proposed alterations for the adaptive reuse project will enlarge this space, make it more accessible and add bathrooms.

Figure 6: View of the current conditions and orientation of the features in the basement of the church. Danielle Allen, 2018.

Figure 7: Kitchenette with access to the utility areas for the furnace and the bathroom currently in the basement of the church. Danielle Allen, 2018.

The first floor of the building is elevated approximately 3’ above grade and is made up of and entrance hall and a large sanctuary space (Figure 6). The entrance hall is lit by a series of colorful stained-glass windows and holds many character defining features including the windows, custom woodwork, original hardware and original light fixtures Figure 7 – 8). The main sanctuary space is a large vaulted space, regularly lit by a series of stained-glass windows and a prominent central chandelier. The space has been well maintained and remains in good condition. The floors are made from wooden planks that appear to be in good condition. The ceiling is accentuated by decorative brackets and the wall features a wood paneled wainscoting. The sanctuary still retains an elevated stage area along the western wall. Proposed alterations will make this space more accessible and add bathrooms as well as a LULA.

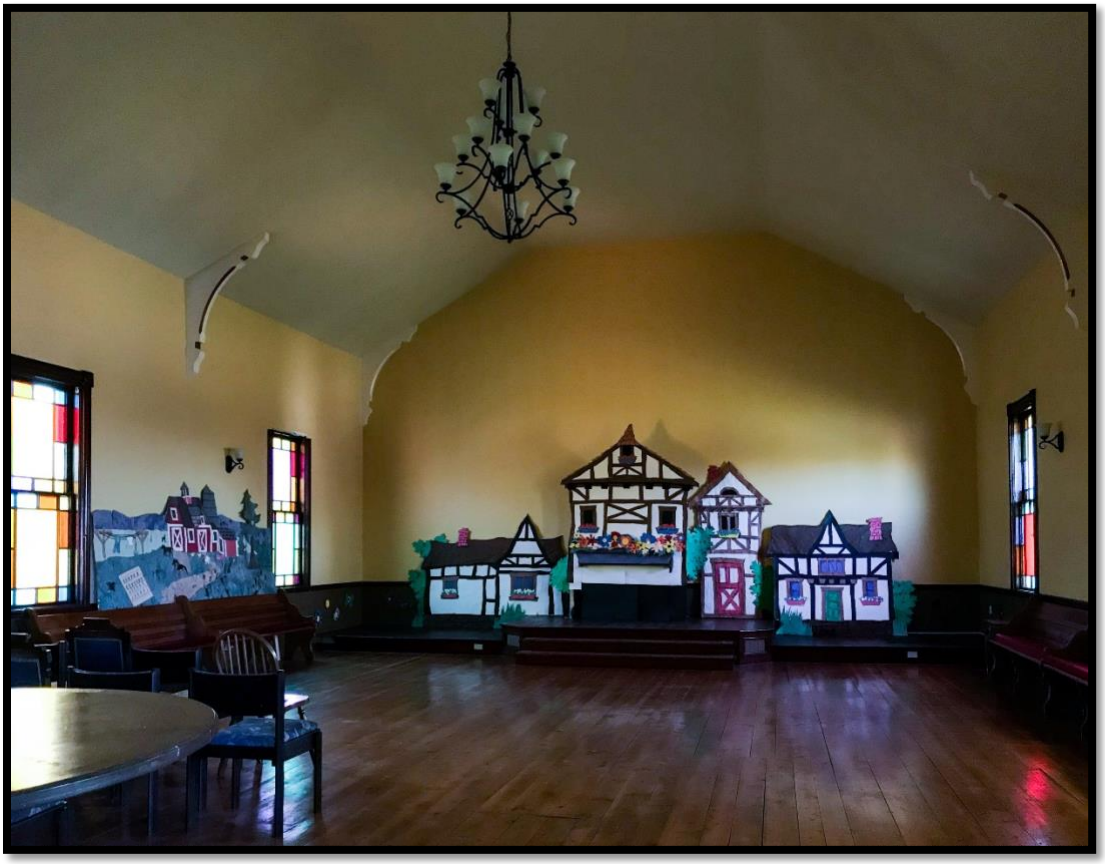


Figure 8: Sanctuary space on the first floor of the church. Danielle Allen, 2018.

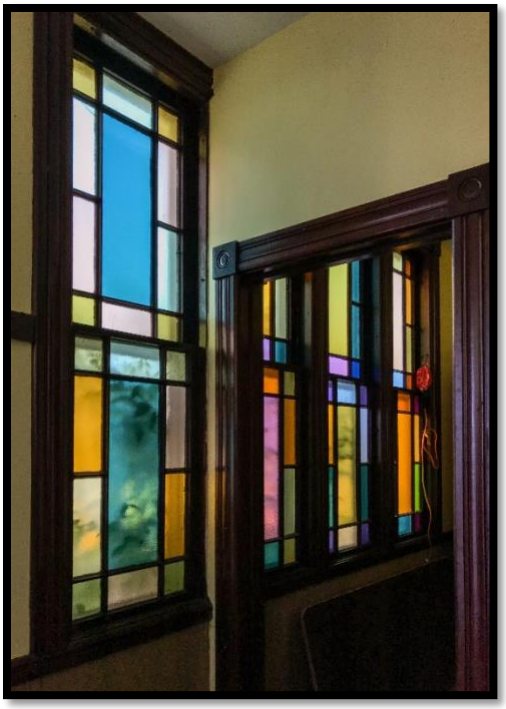


Figure 9: Stained-glass windows and custom woodwork in the entrance hall. Danielle Allen, 2018.

Figure 10: Original light fixture located in the entrance hall. Danielle Allen, 2018.

The second floor or attic space is very limited but is clean and appears to be in good condition. The space consists of a landing space enclosed by a wooden handrail. This space is accessible by a curved internal staircase that begins in the entrance hall. It is lit by the large semi-circular stained-glass window featured prominently on the eastern wall of the church. leads to the access area for the bell tower.

The general priorities for treatment considerations are as follows:

1. Re-point the chimney and replace the base flashing.
2. Woodwork repairs, including re-orienting the ADA accessible entrance ramp.
3. Conducting a structural review of the masonry on the western wall to prepare for addition (Figure 9).

Figure 11: View of exterior western wall, the site of proposed alterations for adaptive reuse of the building. Danielle Allen, 2018.

ZONING AND REDEVELOPMENT CONSIDERATIONS

The town of Shoreham, Vermont was incorporated in 1761 and is located in the southeastern portion of Addison County, within the Champlain Valley. The area's flat, fertile land has historically nurtured an economy based around agriculture.

The 1885 Shoreham Universalist Church, located on School Road, falls within the Village Residential Zoning District.

The Village Residential District is defined as the area just west of Route 22A including the historic village center which houses most community facilities (Town Clerk's Office, Elementary School, Congregational Church, Firehouse, Town Shed, Library and Post Office), Also in this district are several businesses (Shoreham Inn, Shoreham Upholstery, and a number of historic buildings such as the Shoreham Inn, Platt Library, and the Conservatory. [26]

Districts

The town of Shoreham is divided into five districts:

- Village Commercial (VC)
- Village Residential (VR)
- Medium Density Residential (MDR)
- Low Density Residential (LDR)
- Agricultural District (AR)

[26] "Town of Shoreham- Town Plan, Final Draft, June 22, 2016," 20.

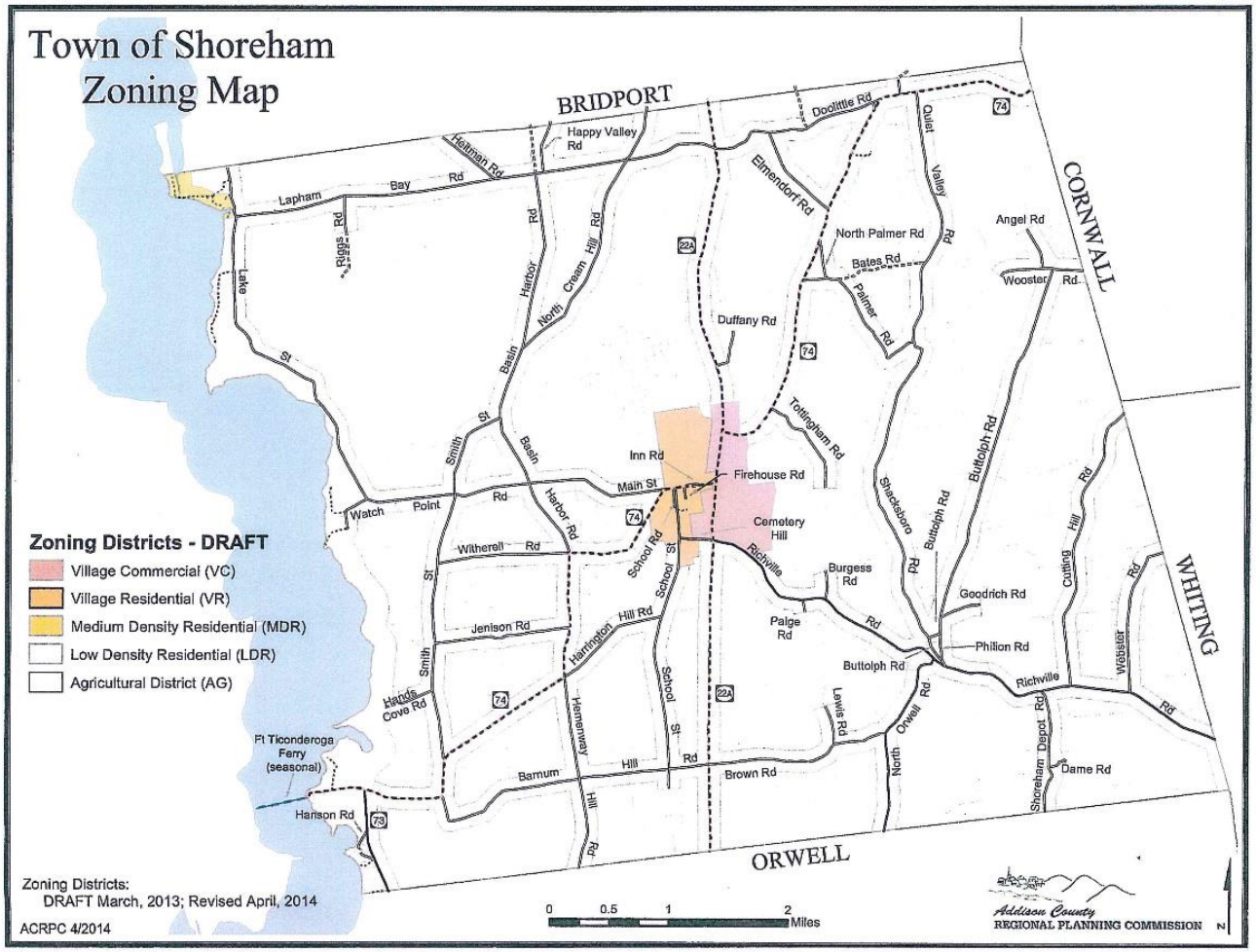


Figure 12: Town of Shoreham Zoning Districts and surrounding areas, 2014.

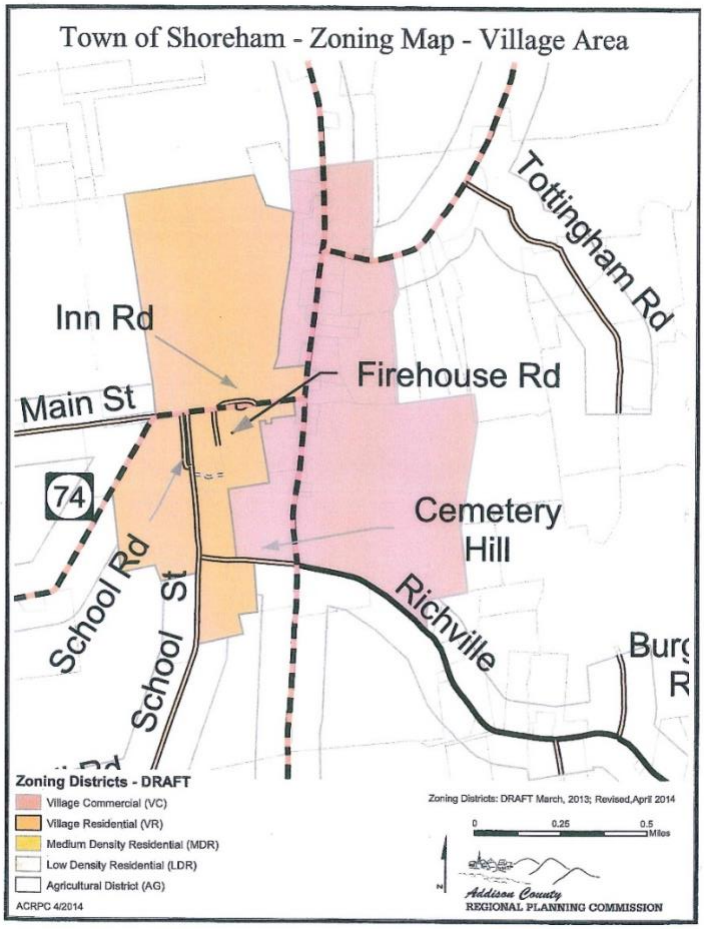


Figure 13: Shoreham Zoning Districts, 2014.

Site Use and Description

Built in 1885, the Queen Anne Style Church is constructed of brick and has two-and-a-half stories for potential use. Situated across from the town green, the church is centrally located and ideal for use by the residents of Shoreham and the surrounding communities of Bridport, Cornwall, Whiting and Orwell.

The city has recognized the importance, practicality, and the financial and environmental benefits of historic buildings, and our proposal fits those requirements. Other than a few structural and functional exterior renovations, the historic and character-defining qualities of the church will be preserved.

COST ASSESSMENT

The cost of this project poses an undeniable challenge to the small community of Shoreham. However, the results will benefit the community by providing services for people of all ages as well as bringing in revenue as a wedding and event venue. The projected total expenses are $536,649.24.

The costs for this project were estimated using a variety of sources. Most of the material costs were derived from the 2014 RS Means Assemblies Cost Data guide, supplemented by estimates from Thomas F. Keefe's October 2018 conditions assessment and various online sources.

As there is no acquisition cost for our project, thus the expenses can be broken down into direct and indirect costs. Direct costs comprise 81.2% of the total project cost, thus the remaining 18.8% includes the indirect costs.

Some of the largest sources of expenses are related to ADA and code compliance. Though the building is structurally sound and in good condition, it must be updated in order to be functional for the entire community. The construction of the addition required to house the LULA and ADA bathrooms will cost approximately $180,000 and the equipment and furnishings required total almost $38,000. Furthermore, replacing the ADA ramp at the entrance of the building will cost $26,000. MEP work to bring the building up to code will cost about $70,000. The building will also be fitted with an HVAC system.

When considered from another perspective, the project appears less intimidating. The cost per square foot, based on the total project cost and the square footage including the addition (3,930 ft^2), is approximately $137.

Although some aspects of this project may seem expensive for a building that is in good condition, they are valuable investments that will enable the community of Shoreham to make better use of this wonderful building and site. By updating the structure to make it ADA accessible as well as improving the plumbing and electrical systems, the town will be able to generate income from it by renting it out as a preschool in the basement and a multipurpose community and event space on the first floor. Furthermore, some parts of the project can be phased, such as the roof work, in order to make it more manageable. In short, with careful planning and community support, this project is not only feasible but will be extremely rewarding.

SOURCES OF FUNDING

A variety of funding sources will be necessary to make this rehabilitation feasible. Due to the nature of our project, we should be able to procure a diverse stream of capital, which includes grants, a loan, and fundraising. These comprise, respectively, 77.1%, 21.9%, 1.0% of the funding to rehabilitate the Shoreham Universalist Church.

Various **grants** are available specifically for early childhood development. Numerous grants offered by the state of Vermont and private organizations allow us to utilize grant funding for a significant portion of the project's costs by not relying too much on any one source. Furthermore, different grants are directed to different aspects of the project, such as the planning, implementation, and accessibility modification grants offered through the Vermont Community Development Block program. Moreover, the funds chosen for this project are tailored to those like ours whose focus is early childhood education and community development.

The Vermont Community Loan Fund's Early Care & Learning Program offers a **loan** specifically for creating and improving early childhood care and education centers such as ours. The money can be used for regulatory and ADA requirements, facility renovations, and the purchase of equipment or materials. The term, rate, and repayment schedule are based on the applicant's project focus, potential for social impact, and strength of application.

Our **fundraising** goal is $6,649.24. This cautious estimate takes into account the size of Shoreham and potential use by residents. We acknowledge that while the site is intended to be used as community space, the preschool that is also a driving factor will not be utilized by everyone. Any fundraising that exceeds this goal will reduce the loan from the Vermont Community Loan Fund.

Listed below are the ranges and applicable uses of each funding source:

- *Building Bright Spaces for Bright Futures Facilities Fund ($15,000):* Facility renovation and licensing requirements for early child care and use programs. Can be used in collaboration with public schools.
- *VT Community Development Program Accessibility Modification Grant ($5,000-$75,000):* Bring municipally-owned buildings into compliance with state and federal accessibility requirements. This would go towards ADA upgrades to the church, including a lift, bathrooms, and a new entrance ramp.
- *VT Community Development Program Implementation Grant ($50,000-$1,000,000):* Create or assist childcare centers.
- *Henderson Fund ($20,000):* High quality early care and education for children ages 0-8.
- *VT Community Development Program Planning Grant ($3,000-$60,000):* Conduct feasibility studies, produce architectural and engineering plans, etc.
- *Walter Cerf Foundation ($500-$5,000):* Priority in arts, education, historic preservation, and social services, as well as projects that encourage cooperation, collaboration, and community building.

- *VT Community Loan Fund's Early Care & Learning Loan Program (up to $350,000):* Loans and technical assistance for improvements to meet state and ADA requirements, facility renovations, purchase of equipment and materials. Interest rates as low as 5%.
- *Fundraising ($6,649.24 or more):* A mixture of private and community fundraising to cover the remaining expenses. The amount of money raised will determine the size of the loan taken from the VT Community Loan Fund.

DEVELOPMENT PRO FORMA
Overview

APPLICATION OF FUNDS:			
Acquisition	*$0.00*		
Direct Costs (Total: $435,847.64)		*81.2%*	
Construction	$363,206.37		
Contingency (20%)	$72,641.27		
Indirect Costs (Total: $100,801.60)		*18.8%*	
Architectural & Engineering (10%)	$36,320.64		
Legal & Permits (5%)	$18,160.32		
Development & Financing (10%)	$36,320.64		
Abatement	$10,000.00		
Total Cost	**$536,649.24**		

FUNDING:		
Grants (Total: $401,000.00)		*77.1%*
Building Bright Spaces for Bright Futures Facilities Fund	$15,000.00	
VT Community Development Planning Block Grant	$36,000.00	
VT Community Development Accessibility Modification Grant	$75,000.00	
VT Community Development Implementation Grant	$250,000.00	
Henderson Fund	$20,000.00	
Walter Cerf Foundation	$5,000.00	
VT Community Loan Fund		*21.9%*
Early Care & Learning Loan Program	$129,000.00	
Fundraising	$6,649.24	*1.0%*
Total Funding	**$536,649.24**	

DIRECT COSTS	**Total: $363,962.92**
Addition	$180,000.00
Includes excavation, foundation, construction, etc.	
Structural	$2,243.45
Structural engineering review of west façade	
Exterior	$39,500.00
Repoint foundation, water table, and select brickwork	
ADA ramp	
Woodwork repairs	
Sash conservation (5), repair 9 storm windows, 1 door	
*PHASE: Reconstruction of front steps (masonry)	
Roof	$6,000.00
Chimney: repoint, replace base flashing, remove tar	
Interior	$14,097.71
Paint walls, ceilings, trim	
Bathroom flooring	
Walls	
Conveyance (LULA)	$30,000.00
Mechanical	$10,950.00
Plumbing	$39,716.71
2 ADA bathrooms	
Kitchen sink basement	
Electric water heater	
Wet pipe sprinkler	
Electrical	$20,205.60
Landscaping	$4,000.00
Furnishings	$16,492.90
Bathroom fittings	
Kitchenette fittings	
Preschool furnishings	

INDIRECT COSTS	**Total: $100,801.60**
Architectural & Engineering	
Legal & Permits	
General Development	
Financing	
Abatement (move lead abatement here?)	
Liability Insurance	

OPERATING PRO FORMA

Operating Revenue

While the rehabilitation of this building will lend it to a variety of uses, the assumptions used for this project heavily affect its funding stream. Because the town owns the structure, there are a lot of possibilities for its future use, but we have determined that a preschool on one level and versatile rentable space on the other would be most beneficial to the community. This multiuse space could also be rented out as a wedding/event venue. Based on its picturesque location right on the town green and the nearby pavilion, it is well-suited to host both indoor and outdoor events.

Preschool
The preschool will be operated as an extension of the public school next door. Thus, the operating expenses will be covered by a portion of the town budget. State funding should also cover a modest rental fee. If the town were to rent the space out to a privately licensed preschool, they could expect a yearly income of $27,000 (based on $3,000/month). However, a privately licensed preschool would not be prudent for the small community. Thus, we have based our projections on a more modest projection of $18,000/year ($2,000/month) in state funding.

Community Meeting Space
The floor not used for the preschool will be available to rent as a meeting space when school is not in session. This includes weeknights, weekends, and school vacations. Based on its size, a fee of $50/hour will be charged to groups wanting to meet there on a regular basis or for small, short-term events such as concerts performing arts. We can expect a yearly income of $18,200 based on an average use of 7 hours/week.

Wedding & Event Venue
Fort the first year, the site will be available to rent during the popular wedding season of May-September. If successful, the venue will be available year-round to rent for weddings and extended events. A fee of $4,000 will cover rental for the entire weekend, beginning at 4pm on Friday. The rental will include access to the building and tables and chairs. For the first year, we have cautiously projected seven events between May and September, which would yield $28,000.

Based on the above projections, the annual income will be $64,200.00.

Operating Expenses

Because of this site's projected use, the operating expenses will be the cost of maintaining the building, including weekly cleaning, and hiring an events coordinator to handle the logistics and marketing of renting the space for community gatherings and extended events. Consequently, the revenue generated from rental space will go towards these expenses and paying off the loan. This Vermont Community Learning Loan Program's Early Care & Learning Loan will be $129,000 at a 5% interest rate. The amortization over 10 years will be $1,368.25/month, which constitutes an Annual Debt Service (ADS) of $16,419. Listed below are the annual operating expenses:

- *Electricity & Gas:* $6,360
- *Miscellaneous Expenses (2% income):* $1,164
- *Janitorial Labor (3 hrs/week at $20/hr):* $3,120
- *Events Coordinator (15 hrs/week May-Sept., 10 hrs/week Oct.-Apr. at $20/hr):* $12,400

After all expenses, the Net Operating Income will be $33,048.00.

Return on Investment

$$\text{ROI} = \frac{\text{Net Profit}}{\text{Investment}} = \frac{24{,}737}{129{,}000} = \mathbf{19.2}\%$$

Debt Coverage Ratio

$$\text{DCR} = \frac{\text{Net Operating Income (including interest on loan)}}{\text{Annual Debt Service}} = \frac{37{,}313}{16{,}419} = \mathbf{1.9}$$

OPERATING PRO FORMA

ANNUAL EXPENSES:	
Electricity & Gas	$6,360.00
Miscellaneous Expenses	$1,164.00
Janitorial Labor	$3,120.00
Events Coordinator	$12,400.00
Annual Debt Service	$16,419.00
Total Expenses	**$39,463.00**
ANNUAL INCOME:	
Preschool Space	$18,000.00
Community Rental Space	$18,200.00
Wedding/Event Venue	$28,000.00
Total Income	**$64,200.00**
Net Operating Income	**$24,737.00**

PROPOSED CONSTRUCTION SCHEDULE

Shoreham Universalist Church Adaptive Re-Use Project Schedule

WBS	TASK	START	END	DAYS	% DONE	WORK DAYS
1	**Planning/Execution**		-			-
1.1	Architectural/Engineering	Wed 1/02/19	Sun 1/20/19	19	0%	13
1.1.1	Architect		-			-
1.1.2	Engineer		-			-
1.2	Legal/Permits	Wed 1/02/19	Sun 1/20/19	19	0%	13
1.2.1	Zoning		-			-
1.2.2	Construction Permits		-			-
1.3	General Development	Wed 1/02/19	Sun 1/20/19	19	0%	13
1.4	Financing	Wed 1/02/19	Sun 1/20/19	19	0%	13
1.4.1	Town of Shoreham		-			-
1.4.2	Preservation Trust of VT		-			-
1.5	Insurance	Mon 1/14/19	Fri 1/18/19	5	0%	5
1.5.1	commercial general liability insurance		-			-
2	**Interior**		-			-
2.1	Demolition	Mon 1/21/19	Tue 1/22/19	2	0%	-
2.1.1	basement partition walls		-			-
2.2	Electrical	Mon 1/21/19	Sun 2/03/19	14	0%	10
2.2.1	install 120/208 volt service		-			-
2.2.2	install GFCI outlets		-			-
2.2.3	telecom (CAT 5)		-			-
2.3	Mechanical	Mon 4/01/19	Sun 4/14/19	14	0%	10
2.3.1	heating		-			-
2.3.2	dehumidification and air exchange		-			-
2.3.3	hot water heater		-			-
2.4	Plumbing	Mon 1/21/19	Sun 1/27/19	7	0%	5
2.4.1	three bathrooms		-			-
2.4.2	basement kitchentte		-			-
2.5	Finishes	Mon 2/18/19	Sun 3/03/19	14	0%	10
2.5.1	flooring		-			-

2.5.2	plastering and drywall		-			-
2.5.3	trim		-			-
2.5.4	painting		-			-
2.6	Furnishings	Mon 3/04/19	Sun 3/10/19	7	0%	5
2.6.1	pre-school		-			-
2.6.2	kitchenette		-			-
2.6.3	bathroom fixtures		-			-
3	**Exterior**		-			-
3.1	Masonry	Mon 4/29/19	Sun 5/26/19	28	0%	20
3.1.1	pointing		-			-
3.1.2	reconstruction of front steps		-			-
3.1.3	chimney inspection and repairs		-			-
3.2	Roof	Mon 4/01/19	Sun 4/07/19	7	0%	5
3.2.1	flasing repair		-			-
3.2.2	inspect slate		-			-
3.3	ADA Compliance	Wed 2/14/18	Tue 2/20/18	7	0%	5
3.3.1	entrance ramp north elevation		-			-
3.3.2	adapt front entrance		-			-
3.4	Windows	Sat 2/17/18	Thu 2/22/18	6	0%	4
3.4.1	replace missing storm windows		-			-
4	**Structure**		-			-
4.1	west elevation repair	Mon 1/29/18	Mon 1/29/18	1	0%	1
4.2	lally columns	Mon 1/21/19	Wed 1/23/19	3	0%	3
5	**West Addition**		-			-
5.1	Excavation	Mon 2/04/19	Sun 2/10/19	7	0%	5
5.2	Foundation	Mon 2/11/19	Sun 2/17/19	7	0%	5
5.3	Construction	Mon 2/18/19	Sun 3/31/19	42	0%	30
6	**Conveyance**		-			-
6.1	LULA in west addition		-			-
7	**Site**		-			-
7.1	Landscaping	Mon 4/29/19	Sun 5/26/19	28	0%	20
7.1.1	plantings		-			-
7.1.2	grass		-			-
7.1.3	grade gravel parking lot		-			-

CONCLUSION

The Universalist Church has been an element of Shoreham's village center since 1885. It is adjacent to the 1846 Greek Revival style First Congregational Church. The substantial contrast between these two edifices adds to Shoreham's character. Their proximity to Shoreham's Clerk's Office, public, library, and tavern is also significant. Adapting the Church to economically productive use will not only save the building. It will also strengthen a community that is struggling with rural flight.

Designed by Middlebury's Clinton Smith and built with locally-sourced materials, the Universalist Church speaks to a prosperous and optimistic period in Shoreham. Though it was intended to be a house of worship, the building has been used for secular endeavors for the balance of its life. The Church has always been a visually-appealing meeting space. Shoreham is proud of the Universalist Church and restoring the building to active use will express that sentiment to a broad audience.

Shoreham is fortunate to be the owner of this historic church but the responsibility is substantial. While the building is in good condition now, deferred maintenance will continue to accumulate. The result of this will be more costly repairs and, at worst, total loss. Shoreham does not want this to happen and is "moth-balling" the Church to the best of its ability. The exterior is weather-tight and the interior conditions are regulated with heat and portable dehumidifiers. However, this is a investment for which Shoreham is receiving no return.

The Town of Shoreham and its tax-base need a preschool to retain and attract young families. Presently, families with preschool-age children look to communities like Orwell or Middlebury for this essential service. If Shoreham makes the requisite investment to adapt the Church for use as a preschool, there will be a broad, long-term return. Additionally, Shoreham can rent the Church for events ranging from weddings to funerals. Any opportunity for supplemental revenue should be pursued.

Shoreham's Universalist Church is an asset to the town. If Shoreham is bold enough to invest in the building the reward will be great. The Church's appearance will be improved, its fate secured, and the community strengthened.

APPENDIX

Proposed Exterior Renovations

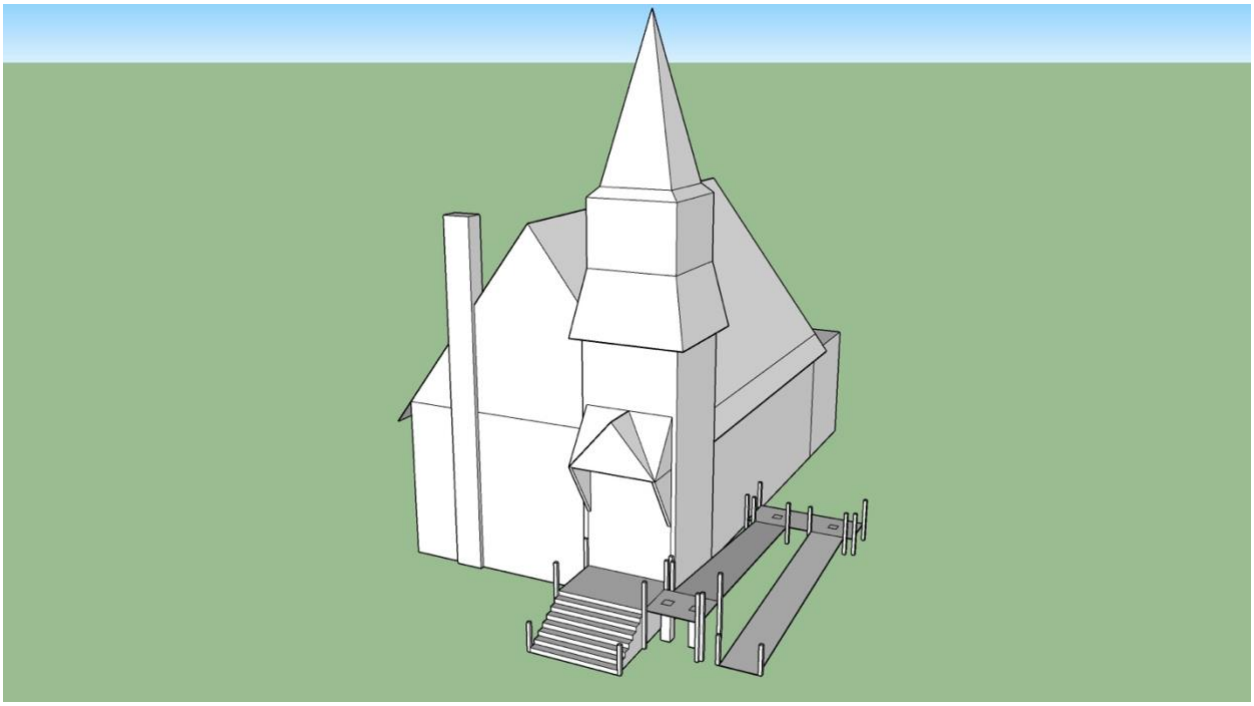


Figure 14: View of exterior renovations from the northeast.

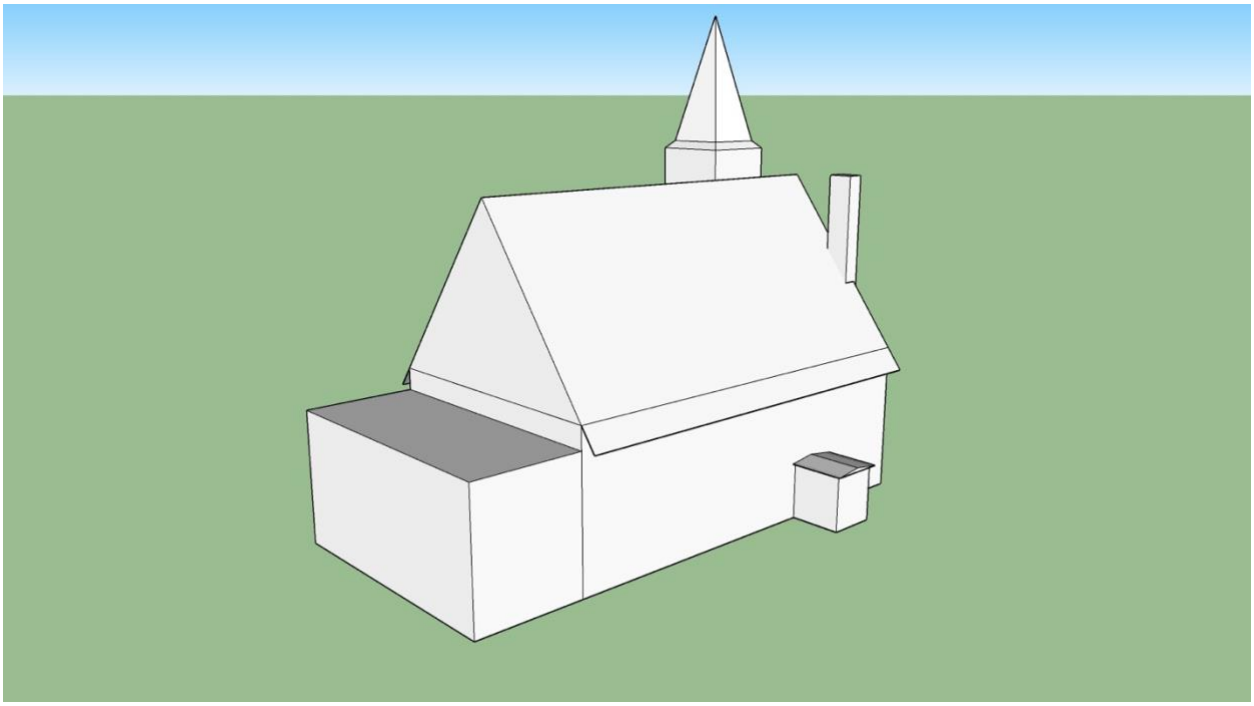
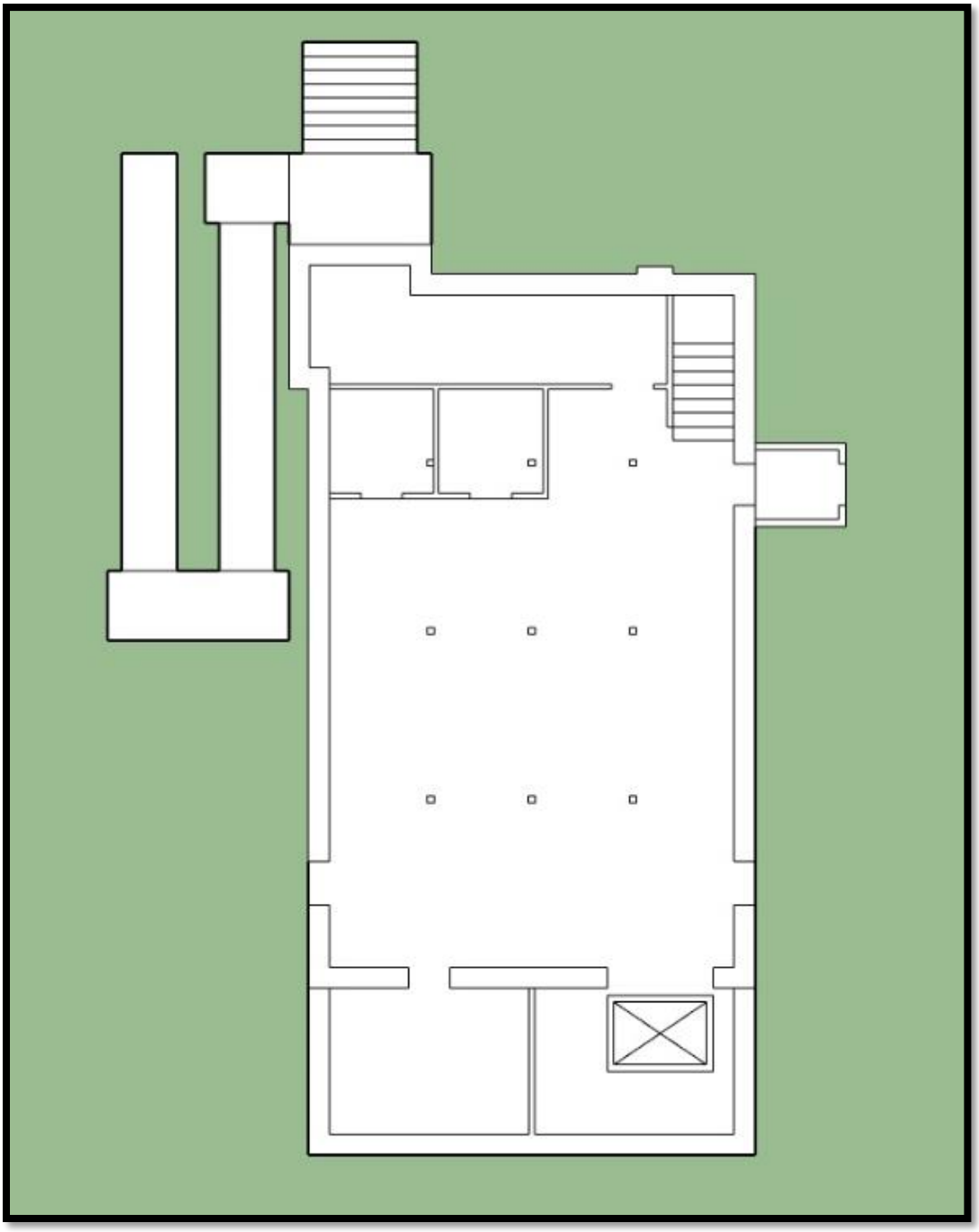


Figure 15: View of proposed exterior renovations from the southwest.

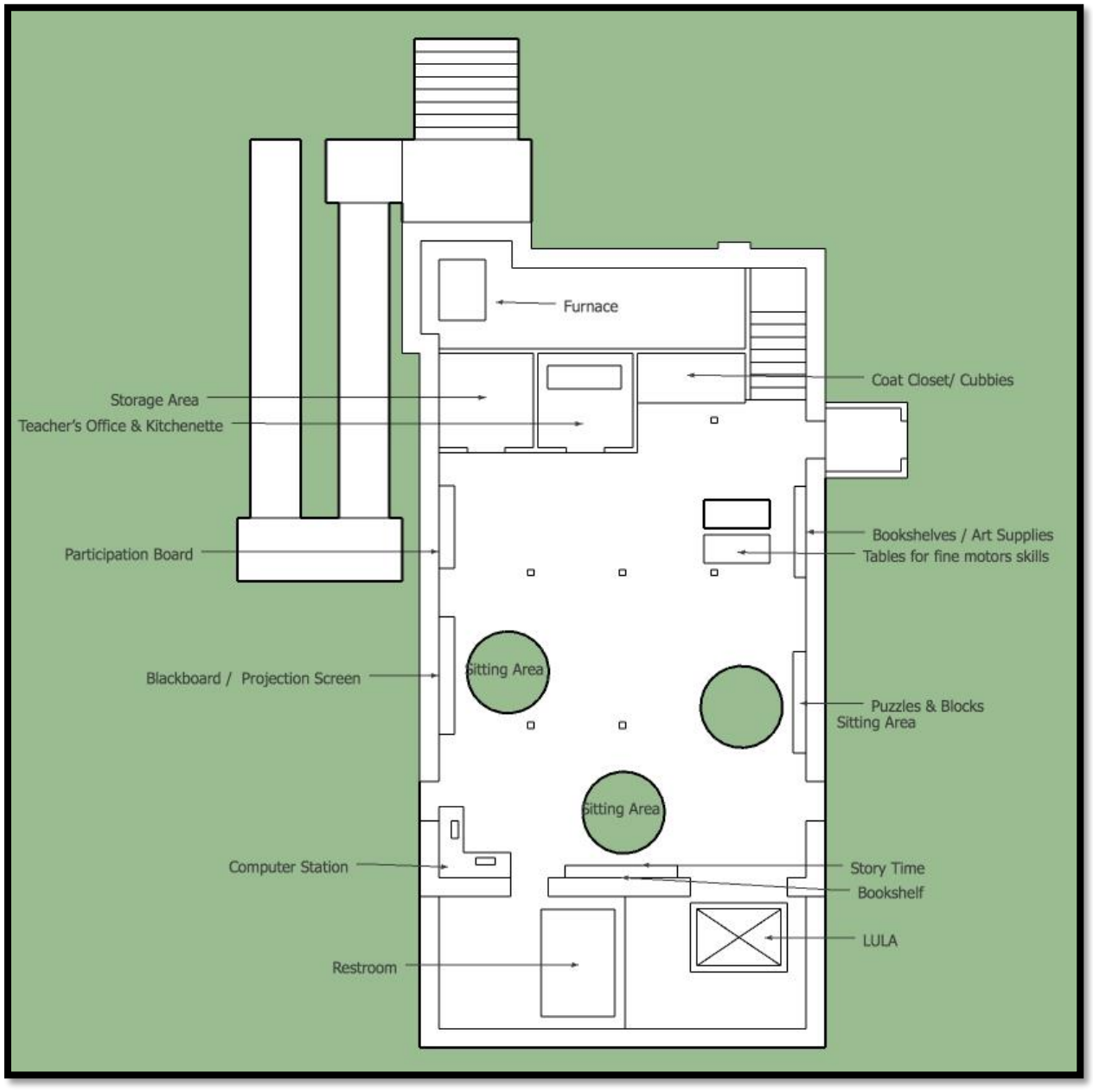
Floorplans

Basement

Option 1 – Gathering Space

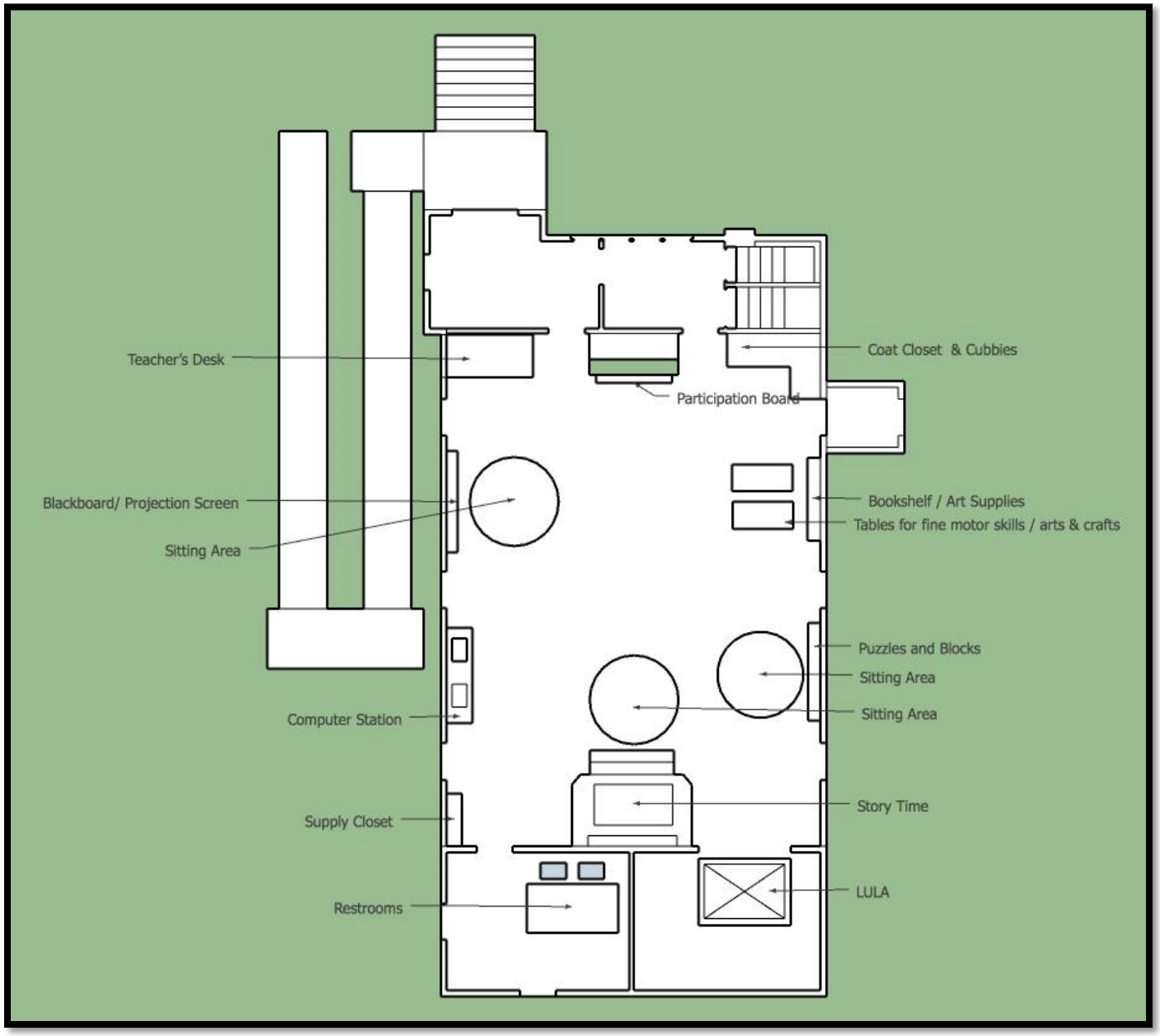


Option 2 - Preschool

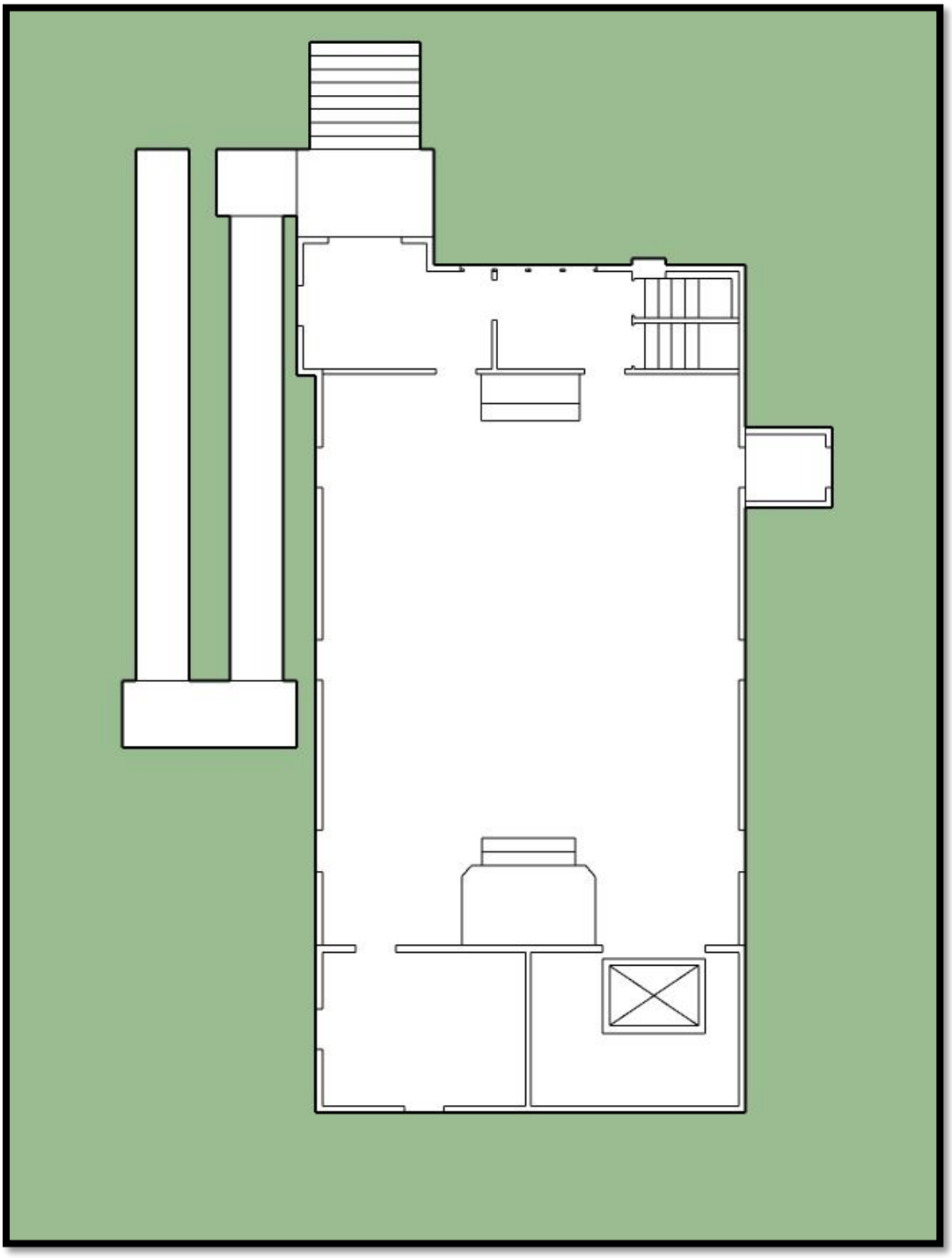


First Floor

Option 1 – Preschool



Option 2 – Gathering Space



Conditions Assessment by Thomas F. Keefe

This is a preliminary diagnostic report on conditions available to visual inspection at the time of our site visit; it is not a specification, and should not be used as a basis for contractor bids. Bid Documents contain substantially more information on quantities, standards, schedules, details and conditions of the work, which guide and protect both the Owner and the Contractor.

This assessment was partially funded by a grant from the Preservation Trust of Vermont and by the author.

October 31, 2018

Town of Shoreham,
c/o Karen Shackett
297 Main Street
Shoreham, VT 05770
e: kmshackett@gmail.com

Dear Karen:

As requested we visited the Shoreham Universalist Church on 10/8/18 to examine and document existing conditions of the building, and to prepare this diagnostic report. Our findings are summarized below; conditions reported are those available to visual inspection at the time of our visit. Please note that while this report contains recommendations for repairs, it is not a specification for bidding; specifications contain substantially more information on quantity, quality and materials that both assist and protect you and potential bidders in carrying out repairs to your historic building.

EXTERIOR

Roofs

The steeple has a 4-sided tapered hipped roof covered in grey slate nailed to the roof deck and flashed with lead-coated copper; the tapered spire is interrupted by the open belfry, with the roof flaring to cover the square bell stage and continuing below it in the same tapered plane as the spire. All slates and flashing on the steeple appear sound and well-maintained. There is no visible cricket but the up-side junction with the main roof appears well-flashed.

The Main Roof is similarly covered in grey slate with a lead-coated copper ridge cap and flashings; the roof planes are flat, roofing appears well-maintained with several new repair slates neatly installed. There is substantial lichen growth on the north roof slope; this can be cleaned off with a natural bristle brush and a mild phosphate-free TSP solution, and prevented by installing zinc strips at or near the ridge to 'flavor' rainwater and discourage re-growth. The top half of both gable ends are covered in slate as is the small pedimented entry roof; slate and flashings here are also well-maintained and in good condition. The small south entry to the basement has a small gabled roof covered with aluminum flashing; it is a utilitarian solution, but appears to be sound.

Access to work on any exterior items above the eaves of the main roof will be a significant part of the cost, and such work should be grouped where possible to take advantage of the

expensive access (lift truck; staging; etc.). Use of the highest quality materials with the lowest maintenance requirements is an economical plan for these locations.

Chimney

The 26" x 38" paneled and corbelled brick chimney on the SE has a belt course and corbels at the top; it has a new flue liner and an aluminum spark arrester on top. There is no visible cricket. The top half of the chimney has been re-pointed; small areas of the upper half and a larger proportion the bottom half need re-pointing. It will be critically important to test the original mortar and match its hardness, color and appearance with the repair mortar. The chimney has what appears to be galvanized step flashing at the base; the west side (rear) has been heavily tarred – not a good solution, as bituminous sealers will degrade in sunlight. The tar and affected flashing should be replaced with carefully-fitted flashing, either lead or lead-coated copper.

Woodwork

This predominantly masonry building has a wooden crown molded cornice on the steeple, where flat trim is decorated with a pattern of bored holes; a low wood railing, also decorated with a pattern of bored holes surrounds the bell deck. Pairs of simply-cased arches on each of the four sides of the belfry are trimmed with a band featuring the same detail. A triangular panel on the east slate-covered upper section of the main gable features decorative sawn circular 'fish scale' siding. On the main roof trim at the cornices is limited to a small crown molding on the facia; this detail also appears on the tower roof cornices. The front entry roof is supported on shaped brackets and has a painted beaded-board ceiling. The south entry has clapboard siding and flat trim, fairly worn and in need of paint and probably some repairs/replacement in the splash-affected areas on each side. Wood trim and beaded-board panels decorate the large arched front window; a row of painted wood brackets run along the bottom edge of the triangular slate-covered tympanum at both east and west gables.

Much of the woodwork visible from the ground appears well-maintained, recently painted and in sound condition; some paint failure and possible mild wood deterioration is apparent on the tower top cornice and woodwork around the railing and bell deck, as well as on the raking main cornice on the west, and on the NE entry ceiling of the small roof structure here. Paint failure on the west main roof raking cornice is noticeable, and there are sections of deterioration and missing material particularly on the south half. It appears that repairs and re-painting have been carried out in most other locations except these somewhat hard-to-reach locations. A closer inspection with ladders or a lift will likely reveal some additional work not readily visible from the ground.

Masonry

This is a veneer brick and timber-frame building, as indicated by the lack of header bricks that would tie a load-bearing brick masonry wall together. The 2" x 7 ¾" x 3 5/8" hand-made bricks are laid in a running bond with lime-rich gaged soft mortar joints ranging from 1/8" to ¾". A small amount of iron oxide (rust-colored stain) remains on the top courses on the south, and even fainter traces on the top of the north wall. Two corbelled belt courses with turned bricks circle the building, and the masonry cornices have punctuated/discontinuous corbels which return up the raking cornices and run under the slate-covered tympanums on the gable ends. There are traces of white paint on some mortar joints, a not uncommon detail of 19th c. brick masonry construction in Vermont. A cut marble water table with a sand finish runs around the base of the wall just above the cut Panton stone foundation, which is laid in a coursed ashlar pattern with

original soft mortar and later re-pointing using ordinary Portland cement. The water table and select areas of the foundation need re-pointing. Window and door sills and lintels are also made of white marble with a sand finish.
The west (rear) brick wall has a significant bulge from the water table up to the upper corbelled belt course; it is most evident at the center, but affects about 2/3 of the 32' width of the wall. At the center of the west wall a 7' section of the water table is replaced by a piece of limestone that is slightly taller than the 8" water table; it could be an old threshold, except that there is no sign of an opening above it. Brick settlement cracks, water table and foundation have all been re-pointed with ordinary Portland cement mortar on the west wall. There is no obvious interior indication of a cause for the bulge. This should be looked at by a structural engineer conversant with historic masonry, who will likely recommend installing some crack monitors to determine if there is active movement in the wall. We did not see signs of such movement in this very brief inspection.

Re-pointing of brick is also needed above the south entry roof in the splash zone, and in small areas on the east and north walls where ~ 15 bricks need replacement.

A note on hard Portland cement: mortars incorporating this material develop strength (and rigidity) many times greater than soft lime mortars typically used in 18th and 19th C. masonry construction in North America. It may adhere tenaciously to porous masonry, but is also known to shrink away while curing, leaving gaps that admit water; in some cases it detaches and works free of the wall. Masonry buildings are designed to relieve normal stresses through the softer, sacrificial mortar joints; while initially self-healing as the excess lime dissolves, these mortar joints eventually erode and need re-pointing to maintain weather-resistance and structural adhesion and support. When hard Portland mortar is introduced, the stresses are re-directed to the relatively-soft masonry units (brick; marble) which are ground down and broken, leading to expensive repairs and loss of historic material.

Doors and Windows
On the south, (3) 13/13 wood double-hung windows are covered with wooden storms that have cloudy acrylic glazing, making assessment of the primary sash impossible without removing the storm sash. The top half of the storm sash on the western-most window on the north side is missing, allowing a view of the primary sash, which needs sash conservation. IF this is typical of the other 9 double-hung wood windows, there will be significant conservation work needed; for the purposes of planning, we will assume that half of the windows (5 total) need sash conservation, and will include this cost in the estimate below.
A 2-light/2-panel wood door needs maintenance repairs; a new vinyl slider in the basement appears sound.

On the east, the large window is composed of (4) wood double hung 13/13 wood windows with acrylic storms (included in the 10 described above) and a 4-window top section that has (2) 21-light wood sash and (2) 13-light wood sash, both glazed with colored glass and covered with acrylic-glazed wood storms. The (4) upper storms need sash conservation, and the upper primary sash appear to need some conservation repairs – the storm glazing is more transparent here than elsewhere. A pair of 1/1 wood double-hung windows in the tower with no storms appear sound; a pair of 4-panel wood doors also appear to be in sound condition.

On the north, (4) 13/13 wood double hung windows covered with acrylic-glazed storms (included in the 10 described above) need repairs to the storms. A new vinyl sliding window in the basement and a pair of 1/1 wood double hung windows in the tower appear sound, other than paint failure on the tower sash.

Our observations made from the ground with binoculars and without removing storm sash, may not detect deterioration that is visible from a close inspection with ladders or a lift; some additional repair should be anticipated.
Sash conservation typically consists of removal of sash to a shop for complete disassembly and repair/re-glazing/re-painting, and prep/re-painting of the sill, jambs and casings before the sash is re-installed. It also includes provision of a secure security panel in the opening while the window is being repaired. Maintenance repairs can typically be done in place and involve less-extensive repairs to glazing, woodwork and finishes.

Paint
Paint has failed on the steeple woodwork, particularly on the cornices and bell-stage railings; there has been some stabilization painting which may cover additional deterioration, but much of the woodwork at cornices and window/door surrounds appears to be in sound condition. The east entry bracketed roof shows paint failure on the ceiling, and on the cornice where new paint appears to cover deteriorated wood. There is some alligatoring of paint on door and window trim as well as on tower woodwork; this condition indicates a build-up in layers of paint beyond the point where new paint will adhere properly, and requires removal of old paint down to sound layers or bare wood. Paint has failed on the ramp, which needs a general prep and re-paint. Paint failure is also evident on basement window surrounds, on many of the storm windows and on substantial portions of the siding on the south entry in the splash zone.

Paint maintenance, often deferred on historic buildings, is an important first line of defense against incessant weather and climate-related deterioration; staying ahead of paint repairs not only protects the historic fabric of the building, but is almost always less expensive than waiting until deterioration to the painted substrates requires more invasive repair work.

Getting painters who are capable of the kind of careful and thorough preparation necessary to ensure good paint performance is difficult; *Preservation Brief #10: Exterior Paint Problems on Historic Woodwork* should be used as a guideline, and painters pre-qualified by their familiarity with these guidelines and a willingness to follow them.

Paint failure, especially with newer paints lacking the VOCs that older paints had, is a common problem, underscoring the need for careful preparation and use of the best possible materials, including caulks, primers and finish coats. The stages, causes and responses to paint failure are well-described in *Preservation Brief #10: Exterior Paint Problems on Historic Woodwork*, which should be used as a guideline in addressing paint repairs.

Prep work is 90% of the success of a paint job, and is skilled work that should not be left to amateurs. Although good-quality paint may appear expensive, most of the cost of painting is in labor, so that extending the cycle quickly becomes a substantial net gain. New lead-paint regulations will need to be followed; they should not increase the cost significantly.

Foundation

The foundation is constructed of cut Panton stone blocks laid in a coursed ashlar pattern with a soft lime mortar; the foundation has been heavily re-pointed with ordinary Portland cement mortar. The north side needs substantial re-pointing, and there are spot re-pointing repairs needed on the rest of the foundation. Discoloration abetted by splash from roof drainage can be cleaned off using a natural bristle brush and a phosphate-free mild detergent (not pressure washing, which can damage the stone and mortar), and prevented or reduced by installing a gravel splash.

Site

The building has lawn on all four sides; on the east it slopes east towards the road and is partially covered by the ramp, leaving some difficult-to-maintain lawn and plantings under the ramp or between it and the building. Grade on the north slopes slightly down to the north; on the west grade slopes west and north away from the building. On the south grade is nearly flat with a slight slope to the east; a bark-mulched playground is located ~ 20' out from the building. Bushes growing against the building on the east between the ramp and the building need to be removed; plantings other than grass should maintain a 3' clearance from the foundation and walls to allow the building to breathe. A 2' wide concrete apron next to the foundation on the east portion of the south side should be removed; a gravel splash pitched away from the building should be installed at both north and south eaves drip-lines to catch and direct rainwater falling from the roof away from the foundation.

INTERIOR

Interior repairs are generally of a lower priority than exterior ones, since they have less impact on the building's condition and are not as vulnerable to weather-related accelerated deterioration. We note conditions here for the record, and urge the owners to prepare a comprehensive preservation and maintenance plan that will address ongoing cyclical maintenance of all interior and exterior elements.

BASEMENT
The basement level, approximately 5' below grade, consists of a community room, small kitchen, small bathroom and mechanical room with a short corridor on the south connecting to the stairs in the SE corner. The floor throughout is painted concrete; the community room has vertical beaded-board wainscoting with plaster walls above, and a low (7'-1") ceiling covered with beaded board. Flared openings at the basement windows are also finished with beaded board. Several steel pipe columns support a center carrying beam cased with beaded board. The kitchen has a large old sink, and otherwise typical finishes matching the community room. A small bathroom has vinyl flooring and gypsum walls; it is not currently operational. The enclosed mechanical room has fire-taped gypsum walls and ceiling showing some mold spots; a hot-air furnace and two 275-gal. oil tanks with no containment (one new and operational, the other old and apparently abandoned) occupy most of the space, and the room currently has no door. The corridor on the south has typical finishes; a door here provides access to the south entry, which has a concrete floor with exposed stone and concrete foundation below, concrete steps up to the exterior door and utility plywood on the walls. The old beaded board ceiling is in poor shape, and plywood covers the interior face of the door to the south yard. Winder wooden stairs are located in the SE corner and have beaded board wainscot and plaster upper walls and ceiling.

FIRST FLOOR
The entry at the NE corner has carpet over a painted floor, beaded board wainscoting with plaster upper walls and ceiling, 5 and 6-panel wood doors with varnished casings and bulls-eye corner blocks. An adjacent anteroom at the top of the cellar stairs has similar finishes. The main hall has a stained wood floor, vertical beaded-board wainscoting with plaster walls above and a plaster ceiling that angles up from the walls following the roof pitch to a 10' wide flat section in the center. Three pairs of wooden brackets at the wall/ceiling juncture are aligned with the concealed principal timber roof trusses above. Varnished trim with bulls-eye corner blocks are typical at all doors and windows. There is a small raised platform on the west, a smaller one on

the east, and large hot-air grilles cut into the wood floor. All finishes appear sound and well-maintained.
Narrow steep winder stairs lead from the anteroom up to a small front attic; the stairwell has utilitarian finishes.

ATTIC
A small front attic lit by the upper half of the large east window has a rough wood floor and taped gypsum walls and ceiling; a site-built wood door leads to the small unfinished tower attic, where a home-made wood ladder leads part way up into the tower attic, where makeshift and somewhat random boards nailed to framing suggest a route to the bell stage floor hatch. We did not consider it worth the risk to proceed further up into the steeple, but could observe part of the unfinished main attic, which has (3) 8x8 principal timber trusses with 8x8 cross-bracing supporting 6x6 purlins into which the 2x6 rafters are framed. A timber ridge beam is carried by the trusses. Visible attic framing appeared sound and dry.

PRESERVATION STRATEGIES AND COSTS

Repairs are ranked below in order of priority. It is also strongly recommended that you carry at least a 20% contingency for conditions that cannot be seen in a non-destructive investigation such as this one. Use of contractors skilled and experienced in preservation work will help to manage discovered conditions and insure that proper consideration is given to materials, practices and preservation concerns; this is usually the most cost-effective approach and protects the integrity of the building, including its eligibility for funding. Stabilization measures will likely be identified in the next phase of planning, to curtail on-going deterioration while fundraising and planning are carried out.

This opinion of probable cost addresses historic preservation issues; it is not based on full research, specifications or details, and should be considered advisory only. Our estimates are explicitly "Order of Magnitude" preliminary opinions of probable cost, exclusive of any Div.1 (General Conditions) costs, any specific costs associated with choice of materials and methods, any scale of work issues (small projects are more expensive per unit than larger ones), any project-specific conditions, any discovered conditions or additional information that a bidding contractor may well uncover, and that a specification can address but this brief report does not.

Costs are based on hired labor and new materials, both at market rates in a growing economy, taking into account special contractor expertise as required.

High Priority

Re-point chimney; replace base flashing, remove tar	Allow	$5,000 – 7,000.
Woodwork repairs	"	4,500 – 6,000.
Structural engineering review of W wall masonry	"	2,000.
Subtotal:		11,500 – 15,000.

Medium Priority

Re-point foundation, water table, select brick locations	Allow	4,000 – 5,000.
Sash Conservation (5); repair 9 storms, 1 door	"	9,000 – 11,000.
Paint repairs	"	7,000 – 9,000.
Site work; new gravel splashes @ N&S eaves drip lines	Allow	3,500 – 4,500.
Subtotal:		23,500 – 29,500.

Total: **$35,000 – 44,500**.

CONCLUSION

Repairs now will return a number of deferred maintenance details to a condition requiring only routine maintenance; conversely, these problems will accelerate if not addressed. Employment of tradesmen with demonstrated expertise in historic building repairs - even though they appear more expensive than others - will avoid most maintenance problems created by unskilled repairs. Some repairs benefit greatly from using specifications for bidding (e.g. masonry; window restoration; painting) to guide the contractor and ensure that unqualified contractors are not selected based solely on a lower price; there is nothing more expensive than poorly-done work that has to be re-done.

A comprehensive plan for the use and periodic maintenance of the building should be developed to organize records, avoid costly repairs, anticipate cyclical replacement of materials, and utilize the best methods and materials from a growing body of research and experience with historic building maintenance, which often differs significantly from maintenance of newer buildings.

We are pleased to have had this opportunity to assist you in the on-going stewardship of this significant historic resource. Please don't hesitate to call if you have questions on any of the above, or need additional information or assistance in continuing restoration work on the building.

Sincerely,

Thomas F. Keefe, Architect
TFK/hos

Cost Estimates

Overview

DIRECT COSTS:	
Acquisition	$0.00
Addition	$180,000.00
Structural	$2,243.45
Exterior	$39,500.00
Roofing	$6,000.00
Interior	$14,097.71
Conveyance	$30,000.00
Mechanical	$10,950.00
Plumbing	$39,716.71
Electrical	$20,205.60
Landscaping	$4,000.00
Furnishings	$16,492.90
Total	**$363,206.37**

Expanded

	RSMeans code	Cost	Unit	Total
Addition				**$180,000.00**
Includes excavation, foundation, construction, etc.		$250	SF	$180,000.00
Structural				**$2,243.45**
Structural engineering review of west façade*				$2,000.00
Lally columns in basement (x9)	B1010 208 1040	$27.05	EA	$243.45
Exterior				**$39,500.00**
Repoint foundation, water table, and select brickwork*				$4,500.00
ADA ramp (104 L.F.)		$250	LF	$26,000.00
Woodwork repairs*				$5,000.00
Sash conservation (5); repair 9 storm windows, 1 door*				$4,000.00
PHASE Front steps (masonry, 165 ft^2)		*$250.*	*SF*	*$41,250.00*
Roof				**$6,000.00**
Chimney: repoint, replace base flashing, remove tar*				$6,000.00
Interior				**$14,097.71**
Paint walls	C3010 230 0080	1.18	SF	$8,496.00
Paint ceilings	C3010 230 0120	0.63	SF	$2,961.00
Bathroom flooring	C3020 410 9200	3.19	SF	$934.67
Wall partitions	C1010 124 1450	6.77	SF	$1,706.04
Conveyance				**$30,000.00**
LULA			EA	$30,000.00
Mechanical				**$10,950.00**
Install HVAC	D3030 214 1300	10,950	EA	$10,950.00
Plumbing				**$39,716.71**
ADA bathroom	D2010 922 2220	3,475	EA	$6,950.00
Kitchen sink basement	D2010 410 1720	1,61	EA	$1,615.00
Electric water heater	D2020 240 1820	6,575	EA	$6,575.00
Wet pipe sprinkler	D4010 410 0580	8.51	SF	$15,088.23
Sprinkler for additional floors	D4010 410 0700	3.48	SF	$6,963.48
Electrical				**$20,205.60**
Panelboard	D5010 250 1020	3,600	EA	$3,600.00
Lighting & branch wiring	D5020 110 0480	3.15	SF	$11,888.10
Wall switches	D5020 130 0360	1.25	SF	$4,717.50
Landscaping				**$4,000.00**
Sitework around entrances				$4,000.00

Furnishings				**$16,492.90**
Bathroom fittings				
Towel dispenser (x2)	C1030 710 0120	84.50	EA	$169.00
36” Grab bar (x2)	C1030 710 0150	65.50	EA	$131.00
Toilet tissue dispenser (x2)	C1030 710 0180	38.45	EA	$76.90
Mirror (x2)	C1030 710 0160	233.50	EA	$467.00
Kitchenette fittings				
Cabinets/counters: 12” wide	C1030 830 0110	324.50	LF	$649.00
Preschool furnishings				$15,000.00

**refers to costs taken from Thomas F. Keefe’s assessment*

SELECTED BIBLIOGRAPHY

"Church Burned at Shoreham." *Middlebury Register*, January 2, 1885. Accessed November 19, 2018. https://vsara.newspapers.com/image/403752960/?terms=universalist church shoreham middlebury register Friday.

Flowers, John. "Shoreham Looks to Revive Historic Village Ediface." *Addison County Independent*, March 5, 2015. Accessed September 26, 2018. http://www.addisonindependent.com/201503shoreham-reviving-masonic-hall.

Keefe, Thomas F. Conditions Assessment for Shoreham Universalist Church. October 31, 2018, Shoreham, VT.

"New Churches." *Middlebury Register*, July 31, 1885. Accessed November 16, 2018, https://vsara.newspapers.com/image/403758056/?terms=Universalist church shoreham.

"Prominent Architect." *Middlebury Register*, August 11, 1905. Accessed November 19, 2018, https://vsara.newspapers.com/image/403798066/?terms=Middlebury register prominent architect.

"Rates & Availability." Kingston Place - Vermont Weddings, Events, Bed & Breakfast, Farm to Table and Agritourism. 2018. Accessed December 2018. https://www.kingstonplace.com/rates-availability/.

Town of Shoreham- Town Plan, Final Draft, June 22, 2016.

Vermont State Board of Education Manual of Rules and Practices, Series 2600 – Prekindergarten Education (CVR 22-000-035, 2008).

TABLE OF FIGURES