

# **Unitarian Universalist Fellowship of Briarcliff, Croton, and Ossining**

**Facility Study  
April 26, 2002**

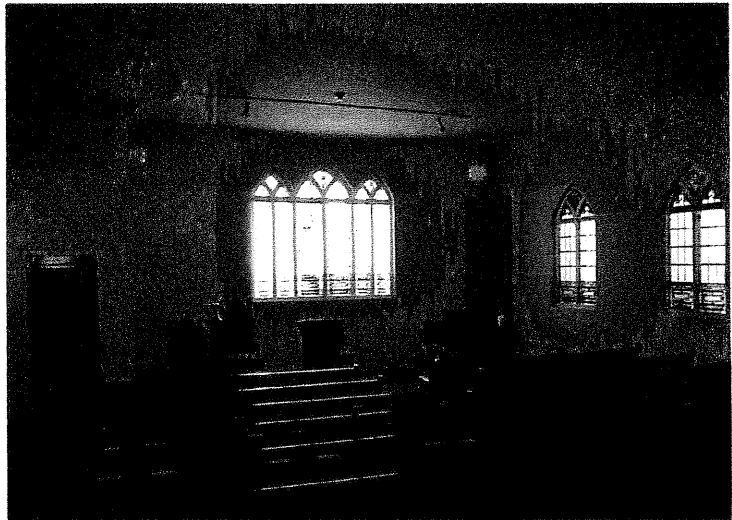


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*The existing Chapel*

## Acknowledgements

We would like to thank the very active members of the Unitarian Universalist Fellowship who assisted us greatly in assembling this study. Their stewardship has given the Fellowship the most productive use of the facility. The experience of some of the members has allowed us to focus in on the issues more effectively. They include among others John Mingle, Kerry Hocutt, Rick Turner, and Carl Grimm.

We are happy to be of service to you and respectfully submit this report. If you have any questions, please feel free to ask.

Michael Molinelli, AIA NCARB

## Summary Conclusion

- The existing site presents many problems to development mostly due to limitations of the parcel. The legal buildable area behind the church consists of inaccessible rocky terrain making construction extremely difficult and expensive. The site is also inadequate to handle the required all off street parking necessary for the current or future functions.
- The buildings are not compliant with today's codes mostly due to the nature of the emergency exits and fire proofing of construction. The building is upgradeable to serve much of its current capacity, but expansion is very limited.
- It might be possible to rebuild portions of the building in place to optimize usable space while changing the site very little.

## Purpose

The intent of this study is to examine the site and facilities of the Unitarian Universalist Fellowship in Cortlandt to determine its current condition and establish parameters for rehabilitation and/or expansion. Through site observations and interviews, our office has collected and analyzed data. This study is designed as a tool to assist the UUF in making the necessary decisions which will determine the path of the Fellowship at this location for the next generation.



## Assumptions

- We have examined the site according to the information available from the 5/28/64 survey and verbal information from Ted Haines of Tectonic who is currently conducting a full survey. There is substantial question regarding property lines and title of different lots. Once Tectonic completes the survey, we will re-evaluate our conclusions
- We have reviewed the existing building conditions in light of the current Uniform Fire Prevention and Building Code and the proposed unmodified International Building Code.

## Existing Conditions

### THE SITE

The UUF occupies a site which has fluctuated in size and configuration over the years. Since it is adjacent to route 9, it has been affected by state highway authorities seizing lands or enforcing rights of way across the site. For this reason a current survey is being prepared with the most recent boundaries and topography for further analysis. This report is written with the current best information and may be amended once the new survey is completed.

According to a survey, revised on May 28, 1964, the core of the site is a boomerang shaped .773 acre parcel with potential attachments on the south of .060 acres and the northwestern portion of the right of way of about .067. For purpose of this study we will assume the first three parcels are part of the base site totaling of .900 acres.

There is a strip of land adjacent to Old Albany Post Road on the south of .144 acres which the Fellowship uses for parking and may acquire. We will examine if the addition of this parcel might make a material difference to the conditions.

Most significant is the substantial right of way which cuts across the eastern portion of the site, straddling the boundary and coming within 12 feet of the church building.

Physically, the lot goes up hill from the Old Albany Post Road with the building sited on a flatter section. To the south of the building is former road bed which gentle enough grading for parking. There is a playground for the day school on the flat rise just west of the chapel building. Behind the chapel and social space the ground rises with dramatic rocky slopes.

These lots are in the Town of Cortlandt and generally in the HC/9A zone (as of 5/11/99) designated Highway Commercial and Multi-family. The northern portions could straddle the boundary into the R-40 zone. Churches and religious instruction are permitted by right. (Table 307-14, 307-15). A HC/9A zone must have a minimum lot of 20,000 sf; frontage width of 100 feet; front setback of 30'; maximum 25% site coverage with 25% minimum landscaped. For commercial use (non-residential) the side and rear yards need to be 25 feet.

The existing lot conforms with all the requirements except the following:

- the southeast corner comes within 20' of the rear property line. (Table 307-17)
- bell tower on the west comes within the 30' front yard setback
- the site is a "flag" site behind the grass parking area which means there is not sufficient frontage.



## THE BUILDING

The current building has two main sections that total about 3,604 sf which is about 9.2% of the site. A Certificate of Occupancy was obtained for the new moveable walls in the social space, but no other areas of the building have such a document.

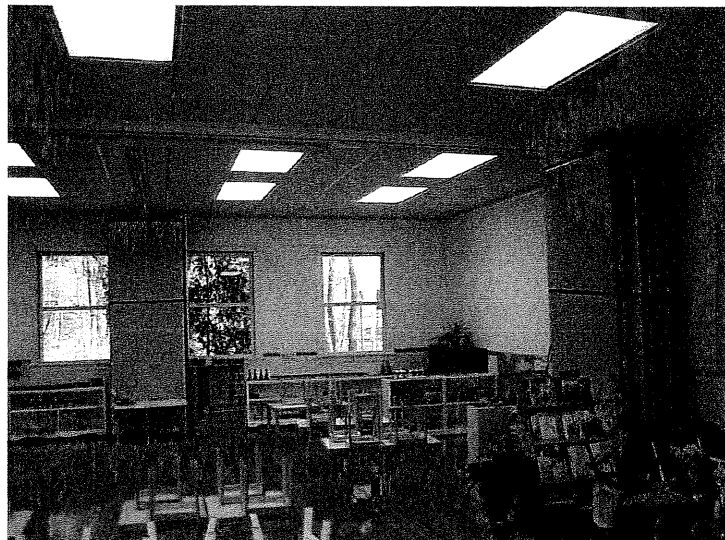
### The Chapel

The Chapel building was probably built in 1920s. It is about 1,200 sf (30x40) with an entrance bell tower on the southeast corner. There are bats in the belfry. The terracotta has many foam patches in an effort to bat proof the structure. The quality of the terracotta wall structure is suspect at certain locations, but the church has held up for many years and no sign of major stress is indicated in the finishes. The plaster ceiling has some minor cracks at the curved areas around the perimeter which is common and not an indication of structural deficiencies. The exterior has some damaged stucco but is in generally good shape. The wood of the eaves and window frames needs to be scraped and painted. The stained glass could use more modern storms. The roof is also in good shape with a ridge vent indicating good ventilation.

There is a storage area beneath the church which was probably excavated after the church was built. This excavation exposed and undermined some footings which may subject them to heaving during the freeze thaw cycles.

### The Social Space

The addition to the church probably occurred in the '20s. It is about 2,204 sf (58x38). It has a full basement and a main floor with a kitchen addition that followed sometime afterwards. The basement level does not have a ceiling that meets the code requirement of 8'-0" for an occupied space. There is some ground water damage on the lower level.



*The existing social space*

### Entrances and Exits

The bell tower entrance steps are cracked and has railings that do not meet current safety standards. It is not accessible to the handicapped. The entrance doors occur at a step which is a safety violation. The most used entrance to the facility is via the social space addition at grade level. A person must ascend steps to get to the chapel level and then descend once in the room. The same stairs continue up to reach the social space. The social space is handicapped accessible through a separate side entrance with a ramp that appears to exceed 1/12 slope at points.

The railing for this ramps also does not comply with current standards. Railings above 18" need to have no opening greater than 4". Accessibility ramps need to have a curb to prevent wheels from going off the edge.

The chapel does not have any means of egress that comply. The doors on the exterior of the bell tower occur at a step and at 2' each leaf does not comply. The one at the rear swings in the wrong direction into an unrated stair shaft.

For the large social space there is an exit door directly to the exterior which complies. The doors at the other exit are 2' wide leafs at the top of the stairs in an unrated shaft and does not comply. An exit through the kitchen is not permissible.

The lower level does not currently have a means of egress that complies. The main doors are two leaf doors with each leaf being 24". There is no second means of egress (compliant or not) from this floor which has an assembly occupancy.

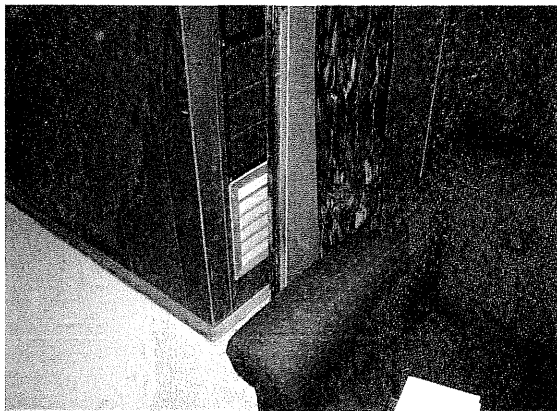
Major Code Citations:

Minimum door width 32" (on one leaf for two leaf doors) *IBC 1003.3.1.1*

Minimum door width 36" (30" when 2 doors are in same frame) *NYS Table V-765*

Two means of egress required when over 50 people *IBC Table 1004.2.1*

Two means of egress required when more 50 people or more *NYS Table IX-765*



An exposed wood column, thin wood paneling and an open grille in a fire wall demonstrate the lack of fire protection

Construction and Fire Areas

The chapel portion is ordinary construction (masonry walls, wood framed floors and roof) and the social space is conventional wood frame. The buildings are co-joined in such a manner that the lesser means of construction should govern the code review. The ceilings in the basement are often open joists or finished with homosote or plywood. There are unprotected columns in the basement. For this reason, we are classifying the building as unprotected wood frame construction used for an assembly occupation.

*NYS Table VII-705* permits C5 occupancy (assembly) in 5b construction (unprotected wood frame) up to 6,000 sf on the first floor. It cannot be a two story building. It can be argued that the basement under the Social Space is a basement and not a floor which would permit its use. Even if the quality of construction was upgraded to 5a a second story would not be permitted.

The unmodified *IBC Table 503* permits A-3 occupancy (assembly) in Type Vb construction (unprotected wood frame inclusive) up to 6,000 sf on the first floor. It

cannot be a two story building. It can be argued that the basement under the Social Space is a basement and not a floor which would permit its use. If the quality of construction was upgraded to Va a second story would be permitted and the total floor area increased to 11,500 sf.

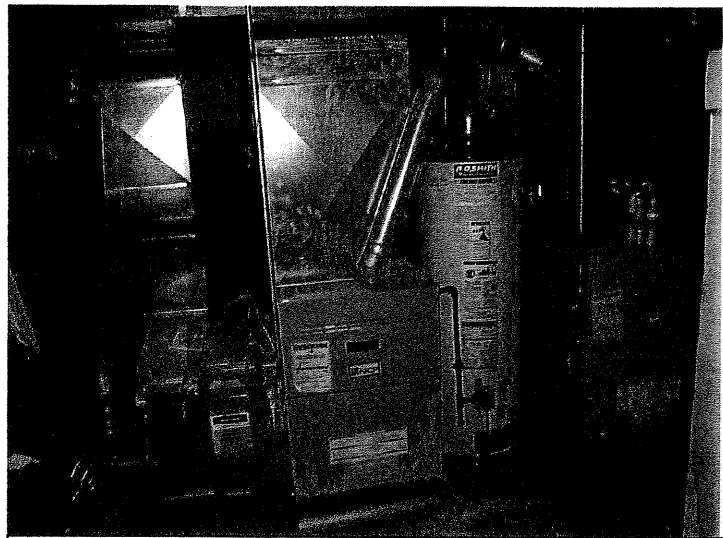
The current first floor footprint (this includes the chapel and social space levels as a single floor) is 3,600 sf which complies.

Certain deficiencies in construction classification need to be corrected. The kitchen should be separated from the social space by a two hour enclosure. The central entrance stair should be in an enclosed shaft. The unprotected columns and framing should be protected. The wall paneling needs to be replaced. The furnace room has attempted a rate door, but uses through wall grilles which violate any fire protection. Adding sprinklers to the building would increase the safety and compensate for other code irregularities but is not a requirement.

#### Mechanical and Electrical Systems

The building is served by a gas line from Albany Post Road which comes into the building under the Chapel space. It is high-pressure type with a regulator to reduce pressure. There is a single suspended class 500 diaphragm utility meter. The gas is distributed to heating equipment, domestic hot water and the kitchen in uninsulated steel pipe with threaded fittings. The system appears to be in very good condition and probably was installed when the hvac equipment has been upgraded. The capacity appears to be sufficient to feed any building expansion.

The building heat is provided by two NCP forced hot air furnaces located in a mechanical room in the lower level. One unit has an output of 150 MBH and the other 125 MBH. Each has a Honeywell electrostatic filter. Combustion gases go into the building chimney. Uninsulated galvanized steel ducts distribute the hot air throughout the building which goes into the rooms via floor or wall grilles. This equipment is in excellent condition and appears to have been well maintained and service. It appears to be adequate to the existing building configuration, but would not have enough capacity for any substantial expansion.



*The existing heating system was recently added.*

There is no air conditioning for the building. If this service was to be added to the current or an expanded building, it would be necessary to provide adequate space



for the mechanical equipment. New HVAC equipment might use the gas service which would be more energy efficient than electrical equipment but might have a higher initial cost.

Domestic hot water is provided by a gas-fired A. O. Smith unit with a 40 gallon glass lined storage tank. Hot and cold water is distributed throughout the building through uninsulated copper pipes with brass, bronze and copper fittings with soldered and brazed joints. The system services two toilet rooms and a drinking fountain on the lower level and a kitchen and toilet room on the upper level. There is no sink in the toilet off the sink and only one sink in the kitchen. This is a Health Code violation. None of the toilet rooms are handicapped accessible or easily adapted to be so. The system also services two hose bibs on the exterior of the building. The system is in very good condition. Insulating the hot water pipers would reduce operating costs.

Sanitary drainage is provided by a cast-iron pipe network. The system seems to be in good condition. Toilets in the basement appear to have been raised to provide proper pitch. We are informed that the system discharges into a cesspool on the grounds. This cesspool is grand-fathered by the health department. Any expansion or alteration may justify the Health Department requiring a proper waste system which should mean hooking up to street sewer system.

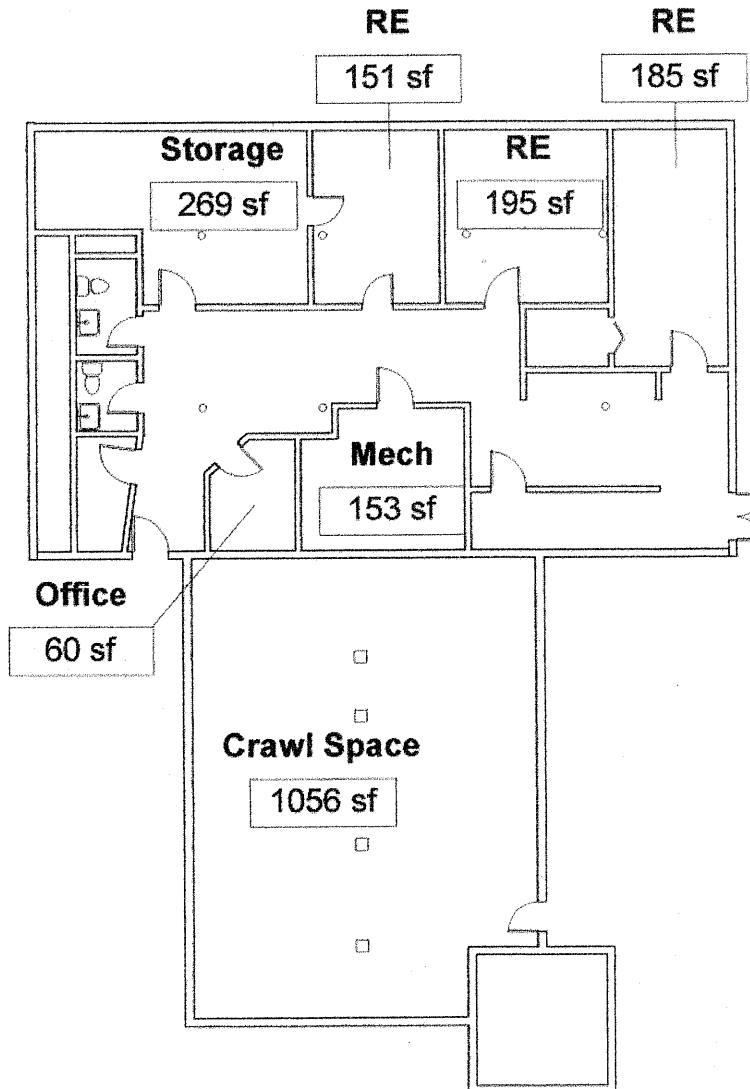
The condition of the underground oil tank needs to be reviewed and probably removed. It may be able to be decommissioned in place if no leakage has occurred.

There is electrical service via overhead wires to a meter on the exterior of the building. The interior panel has a capacity of 100 amp at 120/240 volt. The panel includes a 100 amp, 240 volt main breaker and 29 single phase circuit breakers with just one spare. Lighting is a mix use of fluorescent and incandescent fixtures with emergency lights (with battery pack), exit lights throughout the building. There is a complete fire alarm system including pull boxes, detectors, and audio/visual alarms. The electrical system is also in very good shape with adequate capacity for the current load. Any expansion would require additional service and panels.

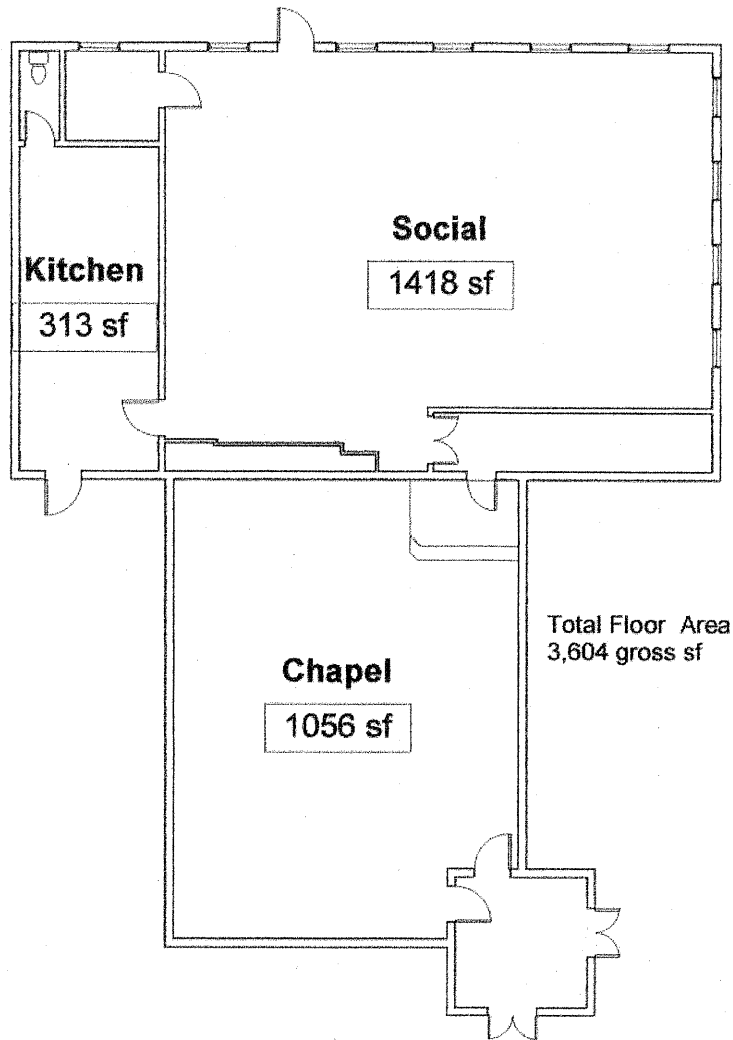


*The existing chapel on the left and the social space on the right. Parking on site is in the foreground.*

### EXISTING FLOOR PLAN – LOWER LEVEL



**EXISTING FLOOR PLAN – UPPER LEVEL**



## Improvements and Expansion

### IMPROVEMENTS

There are enough serious code violations for the UUF to consider making improvements regardless of any grand-fathered conditions. If any substantial changes are made then many of the changes will become mandated. We believe that the correction of the code violations should drive any repair or maintenance program.

#### The Main Level of the Chapel and Social Space

The chapel and social space exits and other situations could be upgraded (without expansion) for \$220,000. This includes changing the doors, enclosing the stair, etc. in the existing 3600 sf of the upper level. A breakdown of potential projects for code compliance follow: (All prices assume a general contractor and scope with associated work: i.e. new triple sink in kitchen will require some cabinet work)

Improvements	Cost in \$	Code	Repair	Performance
CHAPEL: Replace bell tower steps	18,000	yes		
CHAPEL: Add HC entrance ramp to bell tower	14,000	opt		
CHAPEL: Replace bell tower doors, rear door	9,000	yes		
CHAPEL: Repair exterior stucco, paint	11,000		yes	
CHAPEL: Bell tower repairs	8,000		yes	
CHAPEL: Replace stained glass plexi-storms	8,000			yes
CHAPEL: Underpin and backfill crawl space	10,000	yes		
SOCIAL: Rebuild 2hr rated stair shaft, doors	35,000	yes		
SOCIAL: Add hand, triple sink to kitchen	3,000	yes		
SOCIAL: Convert storage & toilet to HC toilet	14,000	yes		
SOCIAL: Fire rate kitchen door & walls	12,000	yes		
SOCIAL: Rebuild ramp for HC to social space	14,000	yes		
ALL: Insulate piping, general caulking, etc.	4,000			yes
ALL: Repaint & refinish interiors all areas	12,000		yes	
ALL: Miscellaneous	6,000			
Subtotal	178,000			
+Expanded Scope -5%	186,900			
+Unforeseen Job Conditions -10%	205,590			
+Assume 2003 start -6%	217,925			
<b>USE TOTAL</b>	<b>220,000</b>			

*Opt means optional, Churches are exempt from handicapped requirements.*

#### The Basement RE Rooms

Because of the current ceiling limitation, the RE rooms in the basement need the floor excavated and other work to be brought to current code. This means rebuilding the entire floor in place. This would probably cost about \$200/sf for 2,200 sf and cost \$440,000 and net about 1800 sf. This is probably not money well spent.

The Site

The site work might add other required costs to any improvements.

Improvements	Cost in \$	Code	Repair	Performance
Remove or decommission oil tank	15,000	Yes		
Connect to street sewer	25,000	Yes		
Grading & paving (includes .144 acres)	31,000		Yes	
Curbs sidewalks, etc.	12,000		Yes	
Subtotal	83,000			
+Expanded Scope -5%	87,150			
+Unforeseen Job Conditions -10%	95,865			
+Assume 2003 start -6%	101,616			
<b>USE TOTAL</b>	<b>100,000</b>			

*Connection to sewer will be a code issue when any substantial changes are made*

**EXPANSION**

No formal program for expansion has been adopted or revised within the last year. Some objectives listed in previous documents and re-iterated by the UUF members have become the basis of the next part of the study. Overall this might mean adding about 3,000 to 4,000 sf to the existing facility. These objectives include:

- Expansion of chapel to hold 200 people
- Social space to sit 100 people for dinner
- Kitchen (the existing one is fine)
- 7 RE rooms holding about 12 people
- Ancillary rooms such as a minister's office, music rooms, etc.
- Handicapped Accessibility

Expansion, at least laterally, is very unlikely on this site. The building footprint is constrained by property lines, easements, steeped rocky slopes and an irregular shaped site. Any expansion would provoke upgrading the building to code, the sanitary system to code and upgrade the off-street parking requirements.

An Addition Behind

An addition on the northeast corner would move into the rocky plateau. Construction is not impossible but would be more expensive. It would also be at a level about 8' above the current upper level. Handicapped access issues become a factor. It will be difficult to get heavy equipment behind the current building to construct an addition. Unless access through an adjacent lot is possible the construction site is choked off. A lot of rock would need to be removed. To add about 2,200 sf at \$200/sf would cost about \$440,000, with site preparation running about \$40/sf. Total cost \$528,000.

Develop Space Below Chapel

Because of the current ceiling limitation, the storage rooms below the chapel need the floor excavated and other work to be brought to current code. This would probably cost about \$220,000 and net about 1000 sf. This is not money well spent.

### Changing the Site

There are other solutions to expansion. They include expansion to the south on the right of way and within the property line or to the west into the front setback. These would require variances and sometimes obtaining permission from the holders of the rights of way. Variances and permission will extend the period of time the UUF would spend before the governing boards but increases the options. Variances might also require that compensating measures (i.e. more planting) be taken. Acquisition of any of the adjacent properties opens up the potential solutions and would warrant further study.

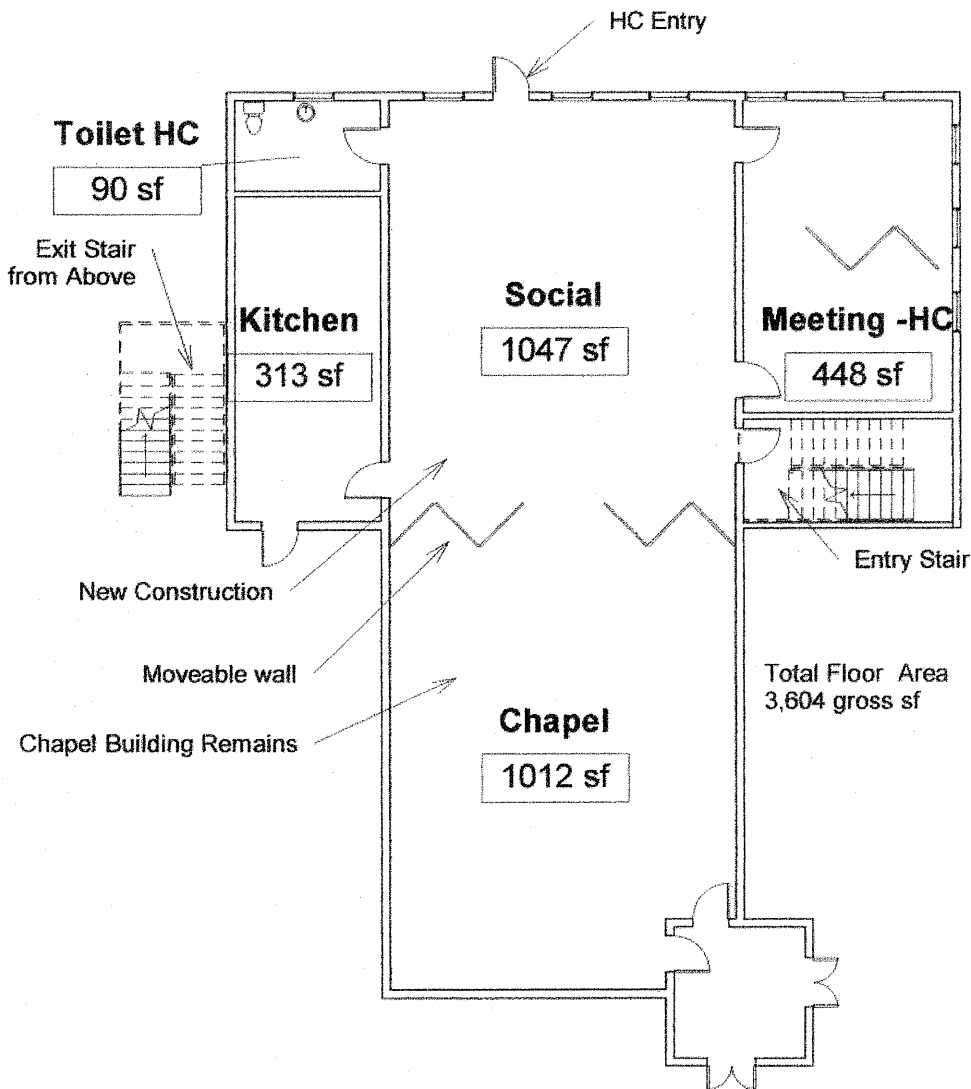


*The suggested changes on site would keep essentially the same relationship between building and parking.*

### AN IDEA

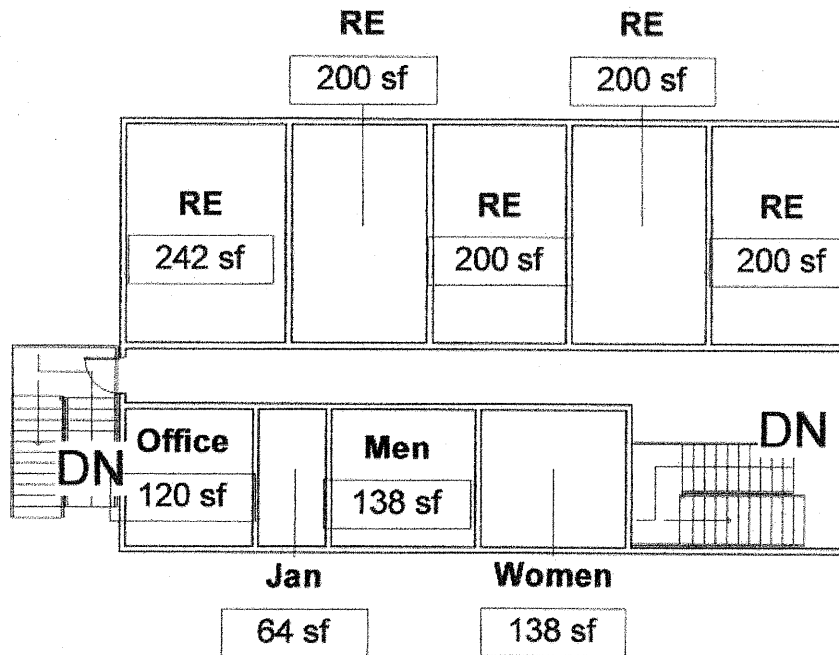
One way to expand the buildings would be to create second level above the social space. To upgrade the current building to accommodate the second level would mean completely rebuilding it. It might be cheaper to demolish the current social space and build new. The existing chapel would remain. The new social space would be built at the same level of the current chapel. They could each expand into each other when necessary. (The current basement would be a 4'+/- crawl space for mechanical systems and storage.) A second level with two exit stairs would be built above the social space for RE rooms etc. Demolition, two new levels at 2200 sf each at \$130/sf and other construction might cost about \$680,000.

The additional space added to the buildings might increase the total required parking spaces to about 60 cars. This exacerbates the parking issue.



**UPPER LEVEL ABOUT 14' ABOVE EXISTING CHAPEL FLOOR LEVEL**

On the first floor there would be about the same usable square footage as currently exists on the split level. If a single room was built that was divisible, it could ordinarily function as two rooms: a chapel and a social space. But for specific occasions they could be combined into a single space for large social or religious events. In essence this would double the current capacity for both the chapel and the social space but not simultaneously. A dedicated meeting room could also be the accessible classroom. The kitchen could be in approximately the same location, with a handicapped toilet beside it.



**LOWER LEVEL AT THE EXISTING CHAPEL FLOOR LEVEL**

A 2200 sf second floor could hold about six rooms of 200 sf, an office and toilets. Each RE room could accommodate about 10-12 people. There would need to be two legal stairs to from the upper level. The northern most one could be an exterior stair.

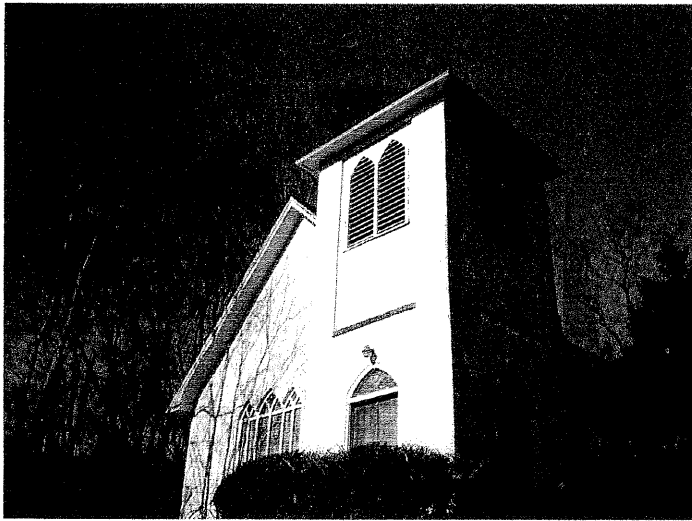
As a concept this idea needs more development. At this point, it introduces a effective way to increase program space without increasing the site coverage.



## SUMMARY

This document summarizes some of the options. Among the choices are:

1. Remain as is -\$0
2. Upgrade upper level and site and at current capacity -\$320,000.
3. Upgrade upper level and site and also improve the lower levels -\$980,000.
4. Upgrade upper level and site and expand into the back hill -\$848,000.
5. Upgrade chapel and site; demolish social space and rebuild -\$836,000.
6. Sell the land and relocate elsewhere. The value of the land with the potential costs of renovation might be enough to find a suitable building or site to build upon.



*In all cases, changes made on site should preserve the integrity of the existing chapel.*

## NEXT STEPS

The UUF faces many important options to consider. Decisions to expand were delayed until a study found if expansion was possible. Our conclusion is that some expansion is possible depending on how much space might be needed. It is a circular argument. To move the project forward into a master plan, we suggest the following steps.

1. Consider the mission of the UUF and re-examine how that will manifest itself into a facility program. It is helpful to think of the ideal program without regard to the current spaces or limitations. Many organizations, do this by having all their current committees daydream about their goals. Such a program might read as follows:

- Worship space for 200
- Weekly social space after worship for 50 with attached kitchen
- Monthly Fellowship dinner for 100
- RE rooms – 16 sessions total to be held on Sunday through Wednesday, etc
- Office for social outreach – storage for food/clothing drives
- Space for concerts Friday evenings once a month.
- Art gallery, Art garden with changing display
- Etc.

A series of a master committee meetings with a facilitator (architect) might help focus the goals. From the goals would emerge the program needs of a facility to provide those needs.

2. Complete the survey and topography. Determine the lands currently owned and possibly purchased by the UUF. This could include adjacent lots or completely new lots of acceptable size in an acceptable area. A list of new site criteria would be drawn up. This is necessary to see what the costs of relocating elsewhere might be.

3. Conduct a survey (with professional consultant) to determine the ability of the community to raise funds for a capital program.

4. With this information, the Fellowship would be able to formulate a master plan that would state the objectives, state the preferred scheme to build them and how the Fellowship expects to pay for the facility.

5. Present this master plan to the UUF, town-meeting style, to fully inform the people of the investigations made and why the decisions were reached. Listen for ideas and comments.

6. Develop a schematic design and estimate which achieves the objectives (possibly in phases.) Present this to the UUF and if the design is acceptable to the Town of Cortlandt for Planning and/or Zoning Approval.

7. Develop the design, and resubmit to the UUF and if necessary to the Town of Cortlandt.

8. Prepare construction documents, bid project.

9. Build and enjoy!

**END OF STUDY**