

MASTER PLAN SUMMARY

ST. MICHAEL AND ALL ANGELS EPISCOPAL CHURCH

1704 NE 43RD AVENUE
PORTLAND, OREGON 97213



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PROJECT TEAM

CENTENNIAL BUILDING COMMITTEE

Jane Peters (Chair), Ken Moholt-Siebert, Bob Spiers, Bob Ullman, Chad Southwell, Julie Grandfield, Rosemary McGrath, Carolyn Litzenberger, Christine Lentz, Joan Yetter, John Scannell (absent) and the Sr. Warden Michael Sagun

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INTRODUCTION

The Master Plan is the result of just over five years of work by a committee of St. Michael's members appointed by the Vestry in fall 2002. The committee began work January 19th 2003 and concluded with submission of the Master Plan in May 2008.

The mission of the committee as defined by the Vestry was:

To bring the facilities systems such as the heating, cooling and lighting in the building up to standard, keeping in mind energy use and maintenance

To maximize our space with emphasis on storage, meeting and office areas

To examine the current workshop space and altar area to create a scenario for the future

To understand how St. Michael's will be affected by the master plan for the Hollywood District and how we connect with the neighborhood at large

The initial work was completed within the first two years after a thorough needs assessment of the worship space, the church facilities and the neighborhood. The translation of the needs assessment into a program and master plan occurred during the following three years, more time than we had anticipated, but has resulted in a very exciting program for rehabilitating and restoring our existing facilities to meet the needs of our growing congregation and bring the existing facilities up to standard.

This master plan phase prepares the community and the Vestry to commit to activities and projects that will maintain and develop the facilities to meet our needs. The ideas for the worship space follow on and refine the approach proposed in the Master Plan of 1985. This 2008 Master Plan defines eight projects for the existing facilities and one project to expand our facilities sometime 10-15 years in the future. The eight projects are prioritized to meet immediate as well as medium term priorities of the community.

This is a time for the community to review this booklet and reflect on this opportunity. Members of the committee will be available and welcome your questions and comments.

Respectfully,

The Centennial Building Committee: Jane Peters, Chair; Ken Moholt-Siebert, Bob Spiers, Bob Ullman, Chad Southwell, Julie Grandfield, and Christine Lentz

Original Space Committee: Michael Sagun and Mary Tongue, Co-Chairs, Barb Miller, Bob Hoffman, Bob Spiers, Chad Southwell, Christine Lentz, Chuck Mason, Jane Peters, J Quanbeck, John Scannell, Ken Moholt-Siebert, Maureen Davison, Mitch Oglesgy, Rick Grimshaw, Peter Sergienko, Tim Sackett, Tammy DeRidder

PART 1 - MASTER PLAN PHASE

Forward

While intended to be comprehensive in scope, the Master Plan for St. Michael & All Angels Episcopal Church cannot anticipate every possible scenario that may occur over the next ten years. The intent is to record a rational and systematic plan that can adapt to the changing conditions of the parish and the neighborhood and, most importantly, set a course for the benefit of future congregation members. This Master Plan report is the summation of this intent.

The Design and Building Process:

Due to the expense and complexity in the design and construction of a building or remodel, the Work is broken down into steps or Phases. Each phase, when complete, is approved by the Church before proceeding to the next phase. This step-by-step process insures strong communication and an understanding of the elements in the design. Each Phase also provides a chance for a “reality check” to compare the design with initial expectations, goals and budget. The Phases below are listed chronologically:

- A. Master Plan Phase:** Includes an assessment of Needs and Goals along with an analysis of the existing Site and Building conditions. A program of spatial needs is developed and a budget goal is established. The Master Plan will show the overall site development and its long range planning strategy.
- B. Schematic Design Phase:** Driven by the direction established by the Master Plan, this phase further develops the ideas into a preliminary building design. It includes initial building sketches, study models, plans to scale, as required to illustrate the Church's Needs and Goals transformed into a building design.
- C. Design Development Phase:** This phase includes further refinement of the plans, sections, elevations, materials research and outline specifications. It includes the start of Mechanical, Electrical, Acoustical and Structural systems design.
- D. Construction Documents Phase:** This phase includes final dimensioned and noted plans, sections, elevations, details and specifications for Bidding, Permitting and Construction. These documents are reviewed and stamped by the Architect and his Engineers. They then become part of the Construction Contract between the Church and the Builder.
- E. Construction Phase:** During construction, the Architect represents the Owner to insure that the Construction Documents are being adhered to. This involves periodic site visits to observe and report on the Builder's progress, submittal approvals, substitution requests, and review of the Builder's payment requests. Near project completion, the Architect reviews the work and coordinates a “punch list” of incomplete items. When everything is complete to the Architect and Owner's satisfaction, the Architect prepares Substantial Completion documents and authorizes final payment to the Contractor.

Master Planning Objectives

- A. Serve the Church Community by acting as their eyes and ears**
- B. Identify existing problems and issues**
- C. Establish Church's Needs and Goals**
- D. Prioritize short term goals**
- E. Identify mid range goals**
- F. Plan for long range goals**
- G. Consider the future of the Church**
- H. Develop a strategy for dealing with Jurisdictional requirements**

PART 2 - EXISTING CONDITIONS

Building Data

- Site Address: 1704 NE 43RD AVE, PORTLAND, OR 97213
- Property ID: R216683
- County: MULTNOMAH
- State ID: 1N2E30CC 4500
- Alt Account #: R560000390
- Map Number: 2835 OLD
- Tax Roll: MENEFEER ADD; LOT 10-12 BLOCK 5
- Use: CHURCH
- Year Built: 1922
- Lot: 10-12, Block 5
- Site: 0.3400 acres, 14,902 Sq. ft.
- Building Areas:

Lower Level	5,605 SF
Main Level	10,163 SF
Upper Floor (unfinished)	1,350 SF
Total Area	17,118 SF
- Building Construction: OSSC Type V-B (non-sprinklered)

Zoning Standards

- Development Standards CS- Storefront Commercial zone.
Design (d) overlay zone – Design Review process required
- 33.130.205 Maximum Floor Area Ratio: 3 to 1
- 33.130.210 Maximum Height: 45 ft.
- Min. Building Setbacks: 0
- Max. Building Setbacks Street Lot Line Transit Street or Pedestrian District: 10 ft.
- Building Coverage Min. of 50% of site area
- Min. Landscaped Area: none
- Landscaping Abutting an R Zoned Lot: 5 ft. @ L3 or none
- Ground Floor Window Stds. Apply: Yes
The windows must be at least 50 percent of the length and 25 percent of the ground level wall area. Ground level wall areas include all exterior wall areas up to 9 feet above the finished grade.
- Pedestrian Requirements: Yes
Must meet 33.130.240 Pedestrian Standards
- Required parking: none

Demographics of Hollywood Neighborhood, Portland Oregon (Census 2000)

- Population: 1,061
- Area: 115 acres

- Population Density: 9 persons per acre
- Male Population: 497 (47%)
- Female Population: 564 (53%)
- Households: 758 (96% occupied)
- Home Owners: 15% (115)
- Renters: 85% (643)
- Household Size: 1.40 avg
- Race Distribution
 - White: 80.7%
 - Black: 7.5%
 - Asian: 3.5%
 - Hispanic: 1.5%
 - Native American: 0.5%
- Age Distribution
 - under 5: 2.1%
 - 5 to 17: 4.1%
 - 18 to 21: 3.0%
 - 22 to 39: 28.3%
 - 40 to 64: 35.6%
 - 65 and Older: 27%
- Median household income (2005):
 - Hollywood: \$46,763
 - Oregon: \$42,944

Fire, Life and Safety Summary

A. Description: St. Michael & All Angels Episcopal Church is a two-story, unsprinklered church structure; presumably of unrated Type V construction. It is located in a CSd [Storefront Commercial, Design Review required] zone in the Hollywood Plan District.

B. Allowable Area Type VB

1. Frontage Increase: $I_f = [F/P - 0.25] \times W/30$
 $[335\text{ft}/573\text{ft} - 0.25] = 0.334 = 33\% \text{ Frontage Increase}$

OCCUPANT A3	TABLE 503	INCREASE FRONTAGE	AUTO SPRKLR	2 STORIES	AREA SEP	11513 ACTUAL
Const. Type VB	6000	1980 7980	N/A	X 2 = 15960	N/A	ALLOWABLE 15960 OK

2. Since the basement need not be considered when calculating the area of a building [506.1.1], the structure is within the Allowable Area for an unsprinklered, Type VB, A3 Occupancy building.
3. The building has a 'gross unused Allowable Area' of 4447 sf [subject to alterations in the Frontage Increase, based on design]. Any additions to the building that are larger than this amount will require the installation of automatic sprinklers per NFPA 13 or the construction of a Two-hour Fire-Resistance Rated Fire Wall between the new addition and the existing building.

C. Construction Type VB

1. The existing building is designated as being of Type VB construction. Per Table [601] no Fire-Resistance Rated assemblies are required.
2. Per Table [602], any new walls constructed within 10 ft. of the interior Property Lines will need to be of One-hour Fire-Resistance Rated construction.
3. If exterior wall coverings are removed from walls located within 10 ft. of the interior Property Lines, they will need to be covered with Gypsum Sheathing, prior to installing siding material.
4. Per Table [602], any new walls constructed more than 10 ft. from the interior Property Lines may be of unrated construction.
5. Per Table [704.8], unprotected windows are not permitted within 5 ft. of the interior Property Lines.
6. Unprotected openings, in the proportions stated in Table [704.8] are permitted if they are located more than 5 ft. from the interior Property Lines.
7. Per the provided exterior elevations, the roof slope appears to be approximately 54°. Per Section [1402] roof slopes greater than 60° by definition create "Exterior Walls"; and are subject to the limitations of Table [704.8]. Skylights added to the roof of Nave would still be considered roof openings, and not subject to Table [704.8], since an unrated roof system is permitted.

D. Incidental Uses

1. If the existing furnace has an input of greater than 400,000 Btuh; or if there is a boiler with a piece of equipment greater than 15psi or 10 horsepower, it would be considered as an Incidental Use, and needs to be protected by One-hour Fire-Resistance Rated construction.
2. There appear to be no other potential Incidental Uses in the building.

E. Separated Uses

1. The building does not have Separated Uses. The entire building is being considered as an A3 (assembly) Occupancy.

F. Means of Egress

1. Spaces with one Means of Egress-Lower Level
 - a. All of the individual spaces in the Lower Level have Occupant Loads less than 49; consequently, they are all permitted a single Means of Egress [Table 1015.1].
 - b. The Common Path of Egress Travel [the distance one is permitted to travel, having direct access to only one Means of Egress], in an unsprinklered A3 Occupancy is 75ft [1014.3]. The distance between the two Exit doors at the Lower Level is approximately 130 ft; half of which is 65 ft. Consequently, the design complies with this section of the OSSC. Exit signage needs to be maintained at Vestibule [004, 020] doors.
 - c. The total Occupant Load for the Lower Level is 138. Section [1017.1] requires Corridors to be of One-hour Fire Resistance Rated construction, in an unsprinklered building when the Occupant Load exceeds 30. The Common Areas [005 & 018] 'appear' to resemble Corridors; however, they do not function as Corridors in that they are used as Occupied Space during church services.

1017.5 Corridor continuity. Fire-resistance-rated corridors shall be continuous from the point of entry to an exit, and shall not be interrupted by intervening rooms.
 - d. The use of the Corridor as a children's gathering space will constitute the creation of an Intervening Room.
2. The City of Portland generally views Corridor construction 'visually' — if it looks like a Corridor, and it serves more than 30 people, it needs to be of One-hour construction [Table 1017.1]. The IBC Code Model does not specify when Corridor construction is required, and it permits travel through Intervening Rooms as long as:

...adjoining rooms or areas are accessory to the area served, are not a high-hazard occupancy and provide a discernible path of egress travel to an exit [1014.2_1].
3. The combined Occupant Loads of Classrooms [006-013] is 63, therefore requiring two Means of Egress [Table 1015.1], without adding an Occupant Load for the Common Space [005]. My guess is that the City of Portland will want the Common Areas to be considered as Corridors; requiring One-hour construction, and prohibiting Occupied Space within the Corridors.

4. The building is not undergoing a Change of Occupancy; and therefore is not required to comply with the Code as for a new building unless the layout of the Lower Level changes considerably. I believe that expanding the Choir Room so that it includes the hallway leading to the adjacent door and stairway to grade [adjacent to Dressing [014]] can be permitted; however, it may trigger an evaluation of the Lower Level building layout.
5. The Second Floor office spaces have a combined Occupant Load of less than 49; consequently a single Means of Egress is permitted. However, its access is less than ideal, see below [5c1].

G. Spaces with one Means of Egress-Main Level

1. The Nave [131], Chapel [101], and Parish Hall [113] all have at least two Means of Egress, so they aren't an issue. The other Main Level spaces are small enough that they are permitted a single Means of Egress by Code.
2. City of Portland may want the entire Gallery space to be of One-hour Fire-Resistance Rated construction. Again, the building is not undergoing a Change of Occupancy; and therefore is not required to comply with the Code as for a new building unless the layout of the Main Level changes considerably.
3. One could make an argument, that all of the Assembly spaces on the Main Floor have direct Exits to the exterior, and might be considered exempt from the Corridor construction requirements. The 1997[?] UBC Code Model permitted one unrated Means of Egress, when two Means of Egress were required, as long as the other Means of Egress complied with Code as an Exit or a Corridor leading to an Exit.

H. Spaces with one Means of Egress-Second Level

1. While the Second Floor is permitted one Means of Egress, access to the Second Floor by means of the Reception Room would not be considered Code-compliant. The Reception Room would probably not be considered as complying with the Code provisions regarding Intervening Rooms:
2. Adjoining rooms or areas are accessory to the area served, are not a high-hazard occupancy and provide a discernible path of egress travel to an exit [1014.2.1].
3. The building is not undergoing a Change of Occupancy; and therefore is not required to comply with the Code as for a new building unless the layout of the Second Level changes considerably.

I. Vertical Exit Enclosures

1. Neither of the stairways serving the Lower Level are fully-enclosed.
 - a. 1020.1 Enclosures required. Interior exit stairways and interior exit ramps shall be enclosed with fire barriers constructed in accordance with Section 706: Exit enclosures shall have a fire-resistance rating of not less than 1 hour where connecting less than four stories.
 - b. Exceptions: No. 8. In other than Group H and I occupancies, a maximum of 50 percent of egress stairways serving one adjacent floor are not required to be enclosed, provided at least two means of egress are provided from both floors served by the unenclosed stairways. Any two such interconnected floors shall not be open to other floors. Unenclosed exit stairways shall be remotely located as required in Section 1015.2.
2. Enclosing the stairway at Entry [100] appears to be easier than enclosing the stairway adjacent to the Gallery and Nave. Doors can be on magnetic hold-opens connected to the building's smoke detection system.
3. At a minimum, the stairway to the Second Floor needs to have 60-minute rated doors [Table 715.4]; the drywall should be upgraded, if necessary, and if feasible. However, it should also have a clear Means of Egress to the exterior of the building, which currently does not exist.

J. Accessibility

1. The Code permits/requires 25% of the budget to be allocated to Accessibility improvements.
2. The existing Accessible Lift serves the Lower Level.
3. The existing rest rooms at this level should be upgraded to comply with Accessibility requirements.
4. An Accessible Route to the Chancel and/or Chapel [129] will be required and can be accomplished with a new ramp.

Existing Electrical System

A. Summary:

The Church is currently served by a 400 amp single phase 120/240 Volt feed from a utility transformer on a pole on NE 43rd in front of the Church. Capacity of this service is limited by the transformer on the pole and the single 3-inch raceway coming into the building. Main electrical service disconnects are located in the basement mechanical/boiler room and consist of five branches as follows:

- Panel A, 300 Amp main breaker/panel, new in 1987
- Panel B, 125 Amp fused switch, existing older building panel
- Panel C, 200 Amp main breaker/panel, new in 1987
- Panel D, 150 Amp fused switch, existing older building panel
- Panel E, 30 Amp fused switch, existing building exit and egress lighting circuits.

A. Capacity:

All of the electrical panels observed, appeared to be at or near their circuit capacity (i.e. no spares or capacity for additional circuits). A proposed service upgrade is for a 600-amp or 800-amp, three-phase service, to be located at the south side of the property. The pole drop would lead to an underground conduit along the east property line directly to the mechanical room. The Long-Range Plan calls for expansion to the east, but would not impact this underground conduit. A 600-amp service upgrade would allow for as much air conditioning as desired. An 800-amp service could accommodate the expanded facility at the proposed North Expansion.

B. Lighting:

Lighting in the building is a various mix of incandescent and fluorescent sources, most of which are not the energy efficient type. Opportunities exist for lighting upgrades and retrofits, some of which could be funded by Utility and Energy Trust programs.

1. Exit and Egress lighting are not backed up by an emergency power source. It is recommended that future alterations of the lighting system include a battery backed Exit and Egress lighting.

C. Fire Alarms or Detection:

No Fire Detection and Alarm System. A proposed Chancel/Sanctuary remodel - may require at least the addition of a manual evacuation alarm (complete with horns & strobes to meet ADA requirements). A proposed Chancel/Sanctuary remodel should include electrical budget for: new lighting & lighting controls, a new branch electrical panel, and power for improved HVAC system.

Existing HVAC System

A. Summary:

The primary heating source for the complex is an oil-fired firebox type steam boiler located in the Mechanical Room under the Parish Hall section. Steam from the boiler is distributed to three heating and ventilating units; one serving the Nave (Sanctuary) and its associated spaces (located in a mechanical room under the choir/chancel area), one serving the Parish Hall and East lower level Classroom areas (located in the boiler room), and the third serving the Nativity Chapel and West lower level Classroom areas (located in the attic above the kitchen/hallway). In a few spaces, such as the Small Chapel and the classrooms for the younger children, electric resistance heat has been installed to satisfy situations which were not handled well by the main heating and ventilating units; either due to inadequate capacity or inefficient occupancy schedules.

1. The controls were partially updated/reworked in the 1987/88 renovation and provide the basic functions of temperature control, outside air/economizer control, and energy management. The systems appear to be serviced regularly, filters were clean, bearing grease fittings had fresh grease on them.

B. Boiler:

1. The oil-fired boiler is very old (approx. 52 years old), and has been converted to diesel oil and appears to have been maintained well. In spite of the maintenance, the boiler has served its useful life and is showing the need to consider replacement; water is leaking from the bottom of the boiler shell, suggesting the boiler shell is 'rotting'/'corroding' out.
2. The steam piping appears to be in good condition, with few if any visible signs of leaks. It is recommended to cut out a sample of the steam piping and condensate return piping to determine the piping condition.
3. The steam traps at each heating coil and drip-traps in the steam supply line apparently were serviced in 2000, and some repairs were made. It is recommended that the Church check the traps at least every other year, if not each year, as they are such a crucial element to the efficiency of a low-pressure steam system. A service log of ALL the traps should be kept; even one trap letting steam by can cost hundreds of dollars in operational costs.
4. The combustion air for the boiler room (louver in the basement window) is currently inadequate for its load.

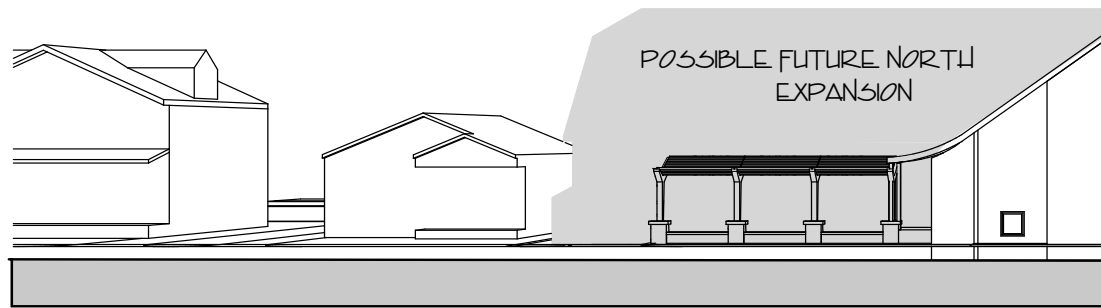
C. Fan-coils:

1. Fan-coil system #2 that serves the Parish Hall and East lower level classrooms is very old but appears to be operating well. It is located in the boiler room. The outside air/economizer dampers and motor are all functional. There are sub-zone motorized dampers for the basement classrooms and Parish Hall. Controls are addressed later.
2. Fan-coil system #3 that serves the Nativity Area and West lower level classrooms appears to be in good condition and is located up in the attic. Service access is poor, both filters and motor/belt/bearings. The outside air/economizer dampers and motor are all functional. Controls are addressed later.

D. Controls:

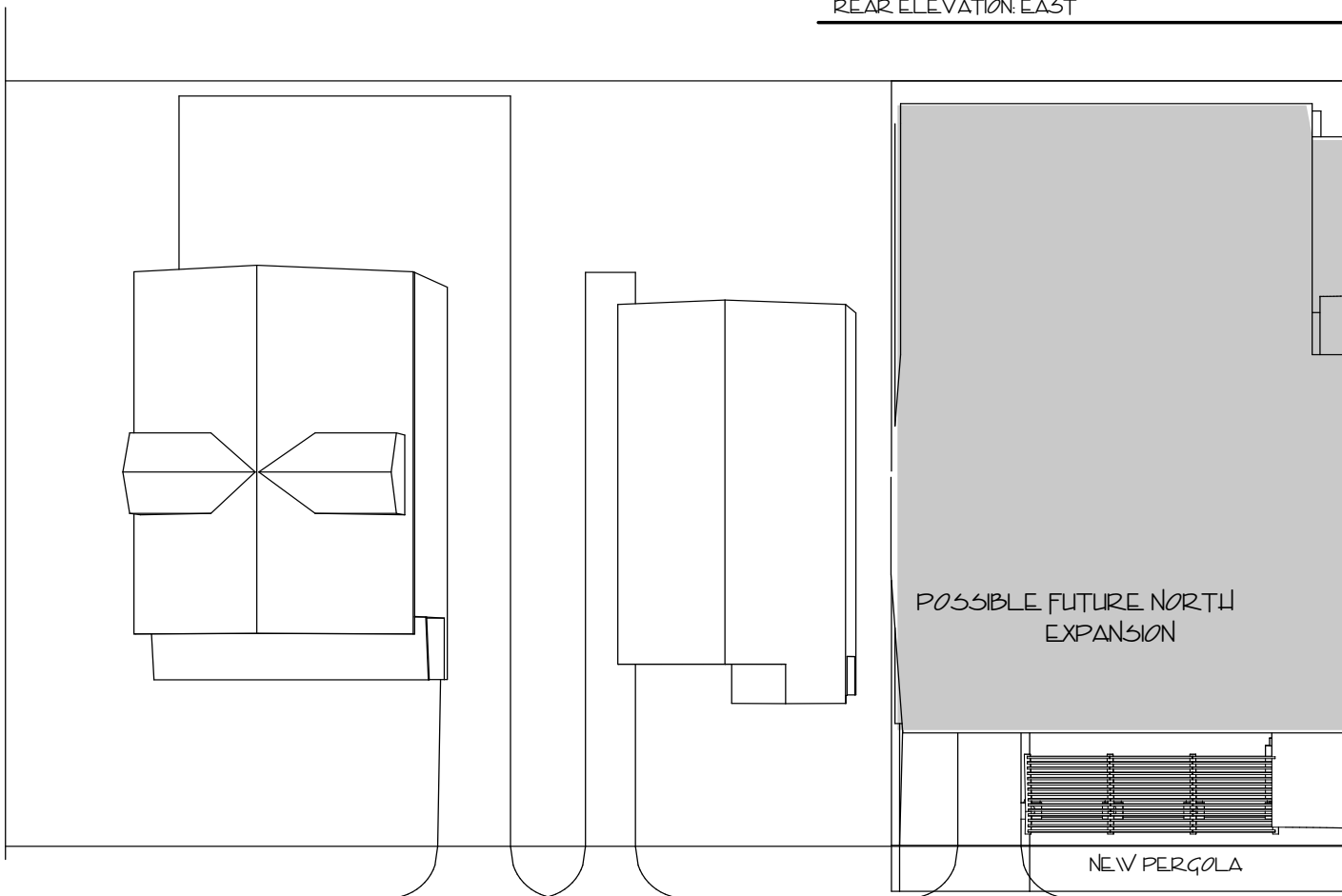
1. A large portion of the HVAC controls were updated in the 1987/88 renovation with new time clocks and Barber-Colman controls. Overall, they are a mixture of old and newer controls.
2. The controls are not labeled at all (some have small typed messages in them), and are not adequate for the many users of the space or even the building facilities people (those in charge of setting the controls). Many of the controls are simply turned all the way down.
3. The time clocks for the Fan-Coils and Barber-Colman controls located in the boiler room are poorly installed, especially the Barber-Colman controller. This is very difficult to service and troubleshoot, and currently we are unclear if it is all working correctly. It needs to be replaced with current control technology and labeled well for easy servicing.
4. Fan-Coil #2 that serves the Parish Hall and East lower classrooms has a 4-position controller in the boiler room, very poorly labeled and installed. This control appears to be for the sub-zone dampers for the different areas on the Fan-Coil, currently in position #4 which puts all the zone dampers wide open and the Parish Hall room thermostat controlling the system. This is not 'user friendly', not accessible to accommodate different building usage (in boiler room), and needs to be re-done. I'm not sure how many people actually know about it.
5. The outside air/economizer controls are functional but should be checked out more thoroughly and calibrated, as they are a crucial element to the energy efficiency of the system.
6. The electric heaters in the lower level classrooms (baseboard and wall type) appear to be controlled only by circuit breakers in the west end by the drinking fountain. There is a typed note inside the circuit breaker panel about the heaters, but otherwise you would not even know how to turn the heaters on or off. There does not appear to be a time clock for the heaters, and I'm sure they have been left on a time or two without automatic control.

MP.1 – Proposed Site Plan

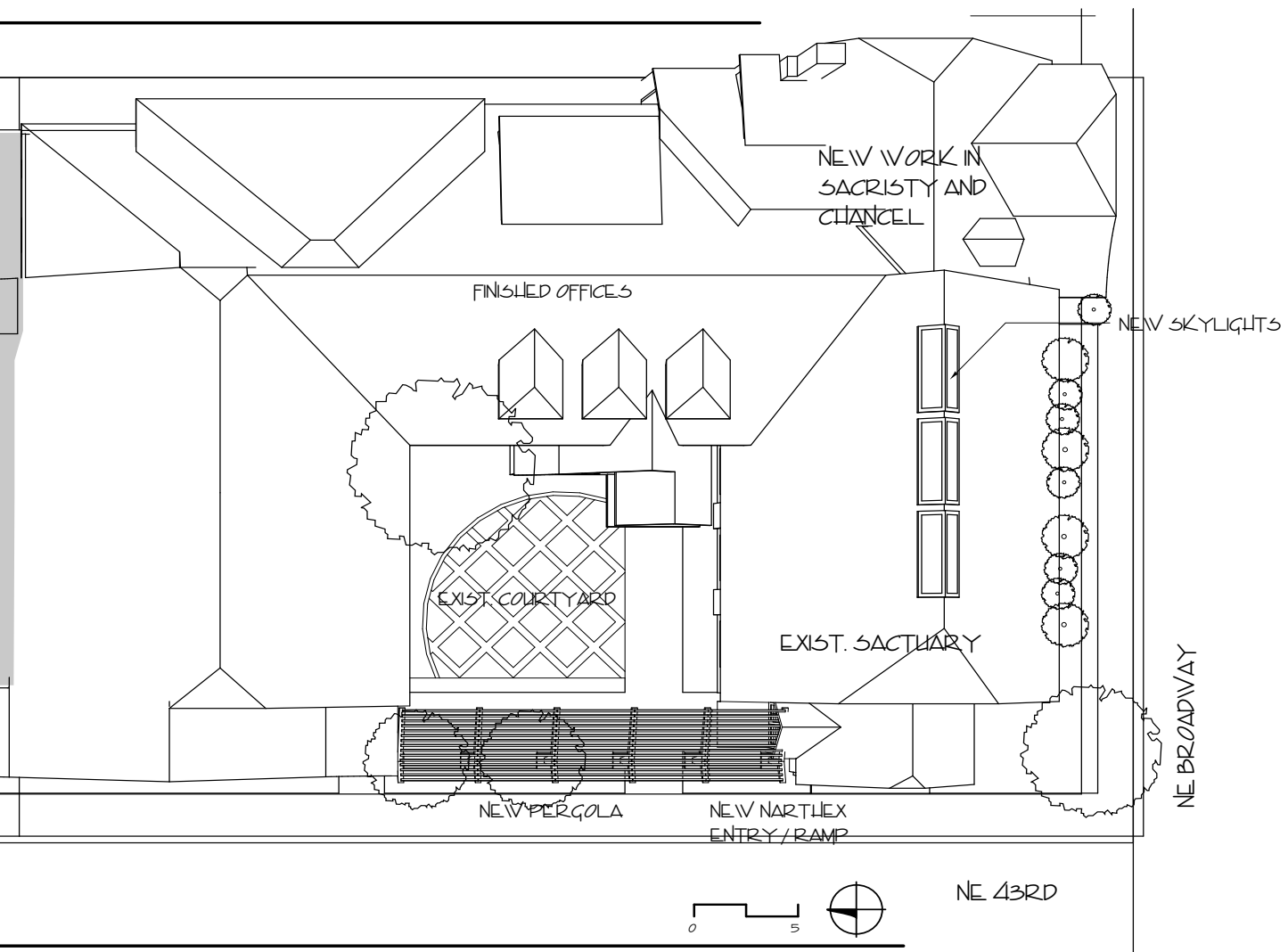


FRONT ELEVATION: WEST (43 RD)

REAR ELEVATION: EAST



MASTER PLAN: SITE PLAN
NOT TO SCALE



PART 3 - 2008 MASTER PLAN

Worship Space Goals:

"WE VALUE A WELCOMING SPACE, A PLACE WHERE ONE IS COMFORTABLE AND HAS A FEELING OF PEACE."

A. The Vestry has given us the task to:

- "Bring things up to standard"
- "Maximize the space and provide flexibility"
- "Create a scenario for the future"
- "Support our worship community and Liturgy"

B. Enhance Existing Worship and Ministry Experience

- Improvements to existing Nave
- Improvements to existing Chancel
- Improvements to existing Chapel
- Improvements to existing Sacristy
- Improvements to existing Restrooms
- Improvements to existing Choir Practice and robing areas

C. Spiritual Improvements

- Connect Chancel and Chapel
- Improve lighting in Nave and Chancel
- Create special path for Choir to Chancel
- Consider Future Worship and Ministry Goals
- Create additional Meeting Rooms and more usable offices

Design Needs

A. Lighting:

1. The lighting in general needs to be redone. The Nave is dim, the chancel shadowy and Narthex dim as well.

B. Chancel - Back wall:

1. The back wall and Celtic cross are reasonably lit at this time with some PARs hidden in the eastern most arches.

C. Chancel - Choir:

1. The choir particularly suffers due to no overhead lighting. There are some PARs hidden in the eastern most arches but they leave many areas in shadow. The choir director stands in large dim area just in front of the organ console.
2. Wall sconces at the top of the six pilasters would be useful to illuminate the barrel vault and throw some light around.

D. Chancel - Altar and Ambo:

1. Floodlights illuminate the Altar and Ambo. Currently, there are a number of PAR-30s on the first beam and in a recessed light well in the peak of the barrel vault just behind the proscenium arch. These consume vast quantities of power.

E. Nave:

1. The chandeliers provide very little down illumination and are the only general illumination light source. There are many dim spots among the pews making reading difficult. The best light to read by is next to the windows on the south side. There are other down lights that provide specific lit areas for baptisms, reading of prayers, and for the font.
2. The chandeliers could be modified with down light capability. Maybe fabricate two more. Dimming lights required.
3. Add low voltage lights to under hang through double doors at west end of Nave.
4. (Need for) Natural light
5. Consider stained glass windows
6. All the units need restoration. They do open, but due to storm windows, no ventilation is possible.
7. Consider a ridge sky light in the Nave.

F. Narthex:

1. Lighting consists of one small dim chandelier. Not adequate.
2. Activities: Sunday worship, funeral services, Weddings, musical concerts, dramatic events, lectures, healing prayers.

G. Controls:

1. Nearly every area requires dimming controls. Use of solid state dimming 100% to 1% ballasts would be desired. Use of CF or LEDs to help take heat load off the HVAC system is another requirement.

H. HVAC:

1. The existing system to be revised as per the existing plan. Basically the flow will be reversed. The two large grills on the proscenium to be removed. The main return will be moved to the top of the proscenium arch.

I. Finishes:

1. The painting scheme in the Nave is plain. There is a strong desire for more colors: greens, blues...
2. The carpet is worn out and the color is boring.
3. It has been suggested that the west wall have color, art, tile mosaic with some symbol or saying about going into the world to do the work God has given us to do.

J. Seating:

1. We have discussed using chairs instead of pews, replacing some pews with chairs, angle the pews slightly toward each other. The pews are considered comfortable and more welcoming than chairs. The main desire is to minimize loss of seats.

K. Acoustics:

1. The Nave really swallows up the sound. When singing from the back of the chancel one gets very little feedback from the Nave. The sound is much better when performing out on the steps below the proscenium arch.
2. The acoustics will likely improve when the front and side arches are opened up, as the sound will have another outlet into the Nave.
3. The sound re-enforcement system is just adequate.

L. Accessibility:

1. Disabilities access is through the north side of the Nave.
2. The Chapel is completely inaccessible to those with disabilities. Access requires assistance.

M. Organ Pipes:

1. The Great section may move to the east chancel wall when chapel floor is lowered.

N. Chancel – Choir:

1. Two risers to be installed improve singer and director sightlines. Working from the east chancel wall: back row up 10", next row up 5", next row at existing grade, front row lowered to chancel level.
2. The Organ console and piano will swap places.

O. Chancel – Altar:

1. There is still a need to move the Altar further out towards the congregation. When the side arches are opened up one would be looking at the ends of the Altar. What we are sensitive to how we move during the liturgy and celebrate around the Altar. Movement is a good thing as we assemble about the Altar.

P. Chapel:

1. Here we're looking to address accessibility and flexibility. First, lower the Chapel floor to that of the Chancel. This requires that the wind chests for the Great organ section be moved into the mechanical room under the Chancel. This move allows greatly improved access.
2. Second, move the Great organ section to the east Chancel wall. Now the walled off arches can be opened up between the Chancel and Chapel. This will allow natural light to enter the Chancel as well as flexibility in overflow seating for special events. In this configuration there will be a need to use the Chapel for prayer and meeting space. A way to provide some privacy during these activities is required.

Q. Narthex:

1. Open the north side to courtyard with a porch similar to the main entrance.
2. There would then be a pergola connecting to the Nativity Chapel on the opposite side of the Narthex. What we are trying to do here is allow another disability access point, connect to the courtyard, and allow more natural light into the Narthex.

R. Building Conservation Items:

1. Windows
2. Chandeliers
3. Main Doors

Master Plan Improvement Summary

A. Sanctuary: Includes Sanctuary, Chancel, Narthex and Chapel

1. Open up arches and modify chancel floor levels as shown on Drawings. Remodel Columbarium and Narthex as shown and noted on Drawings. Mechanical system upgrade as shown on Drawings and as described in HVAC Options below.
2. Electrical system and lighting upgrade as shown on Drawings and as described in Electrical Upgrade below.

B. Sacristy:

1. Remodel as shown on Drawings to add storage space, work counter and sink. Cabinets and finishes to match existing. Access to mechanical room to be relocated to exterior door at southeast corner of building.

C. Upper Level:

1. Add new dormer to east side. Verify that beam is already in place. New windows to match existing. Remove door at intermediate stair landing. Verify completeness of insulation and vapor barrier. Re-route ducts as shown on Drawings and as per HVAC Options below. Enclose chimney and duct riser. Install sheet rock on walls and ceiling. Complete electrical work, including outlets and lighting, as shown and noted on Drawings. Install computer and phone wiring. Wood doors and trim to match existing. Carpet to match existing. Install casework on north wall as shown.
2. Provide storage and conceal re-routed ducts.

D. Main Level:

1. Convert offices adjacent Nativity Hall to meeting rooms, add doors and re-lites as shown on drawings. Enclose storage room and add casework to Library as shown on Drawings. Upgrade lighting in Nativity Hall. Replace doors and hardware between Nativity Hall and Gallery with doors and hardware similar to Parish Hall Remodel Reception area as shown on Drawings.
2. Construct covered walkway/ pergola to connect Nativity Wing to Narthex as shown and noted on Drawings. Exposed structure and slate paving to match front entry. Provide allowance for benches, fountain and landscaping.

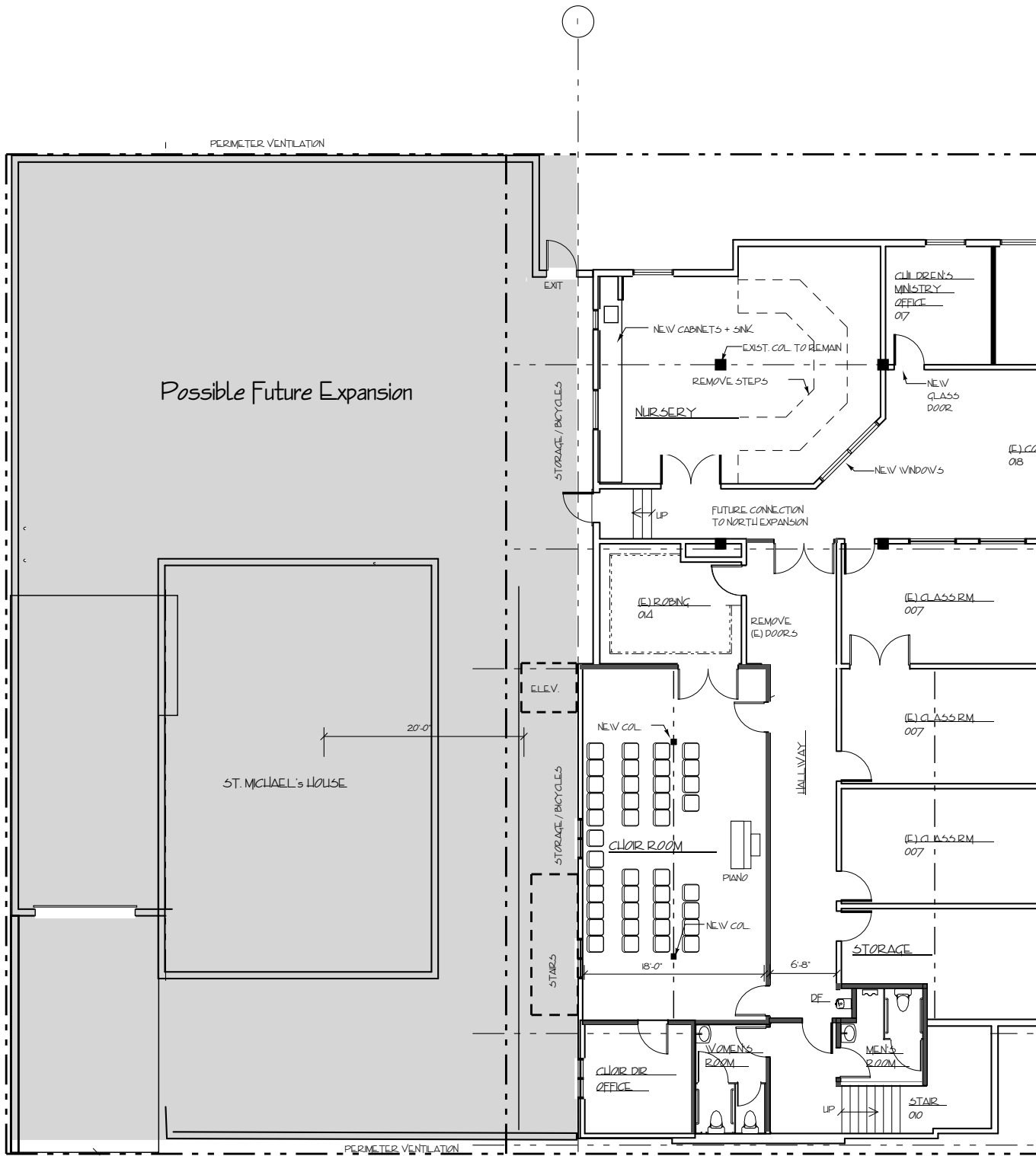
E. Lower Level:

1. Re-locate uses as shown. Remove fire doors where indicated. Replace remaining panic hardware.
2. Add re-lites as shown on Drawings. Construct storage closets as shown. Remove column and install beam as shown and install new sink and base cabinet in Choir and Meeting Room.
3. LL OPTION1: Enlarge Boy's Bathroom as shown and noted on Drawings. Work to include new plumbing fixtures, toilet partitions, accessories, finishes and lighting. (Remodel adjacent office as required.)
4. LL Option 2: Upgrade Girl's Bathroom as shown and noted on Drawings. Work to include new plumbing fixtures, toilet partitions, accessories, finishes and lighting.

Master Plan Summary Matrix

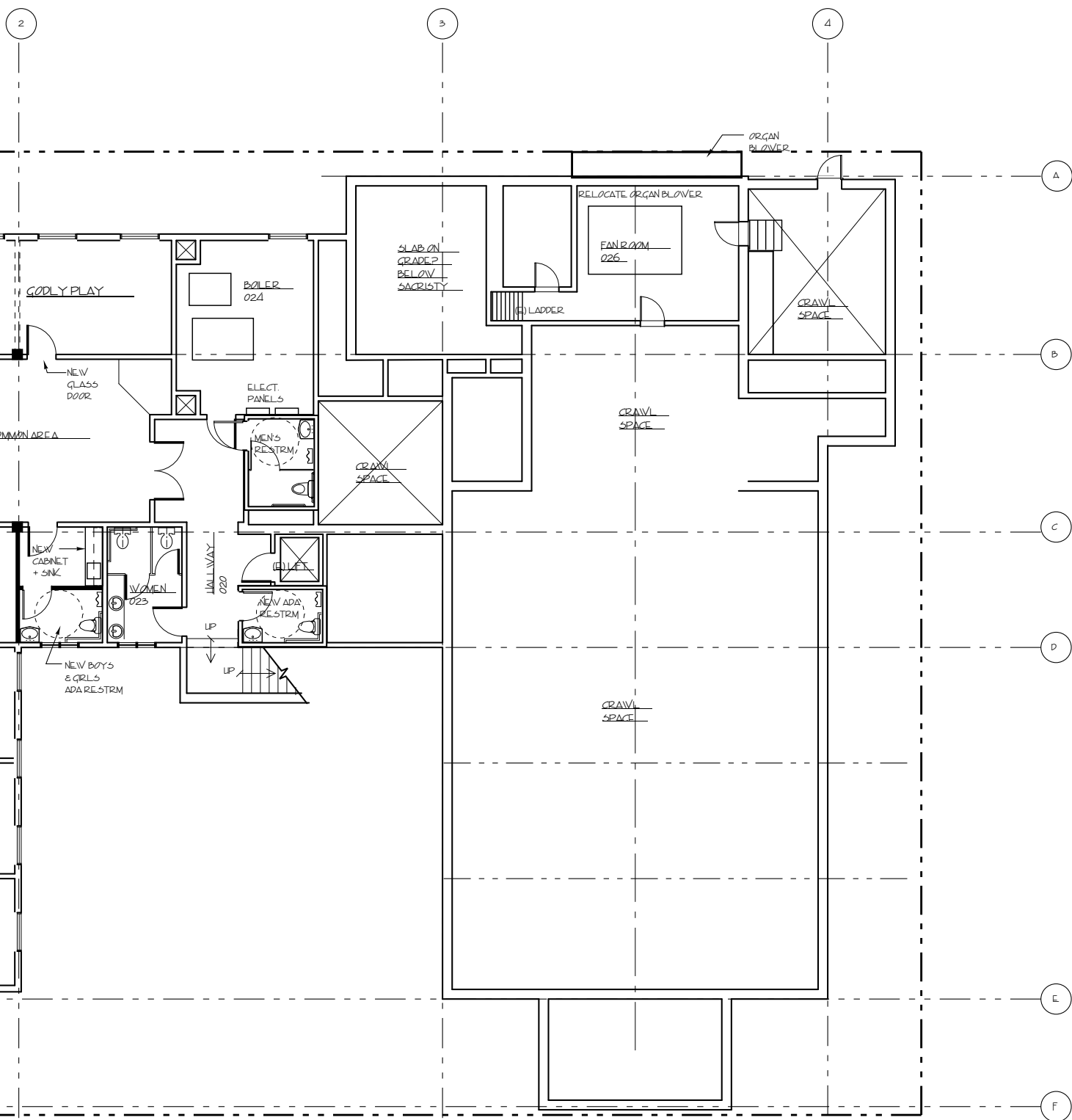
PROBLEM/NEED	GOAL	MASTER PLAN SOLUTION
Old Two-Room Sanctuary – From original Antiphonal Layout	Connect the Nave and the Chancel	<ul style="list-style-type: none"> • Create new arched opening in proscenium wall and new opening in Chancel sidewalls.
Chancel is visually busy. Altar is not the main focus in the Chancel	Add emphasis to Altar, Simplify other Chancel elements	<ul style="list-style-type: none"> • Provide focused lights on Altar. • New paint colors in Chancel to enhance hierarchy. • Update Chancel furniture.
Narthex and Nave disconnected	Allow visibility from Narthex to Nave	<ul style="list-style-type: none"> • Replace windows in back Nave wall with clear glass for visibility and natural lighting.
Poorly lit Nave	Provide additional Lighting to read hymnals and reduce the glare from the Chandeliers	<ul style="list-style-type: none"> • Provide supplemental soft indirect lighting on light wood ceiling. Chandeliers to be dimmed down for decorative lighting only. • Make existing chandeliers decorative with lights on dimmer switches. • Add new skylights along ridge.
Existing Chapel is underutilized and inaccessible.	Connect Chancel and Chapel for access and overflow space.	<ul style="list-style-type: none"> • Lower Chapel floor to level of Chancel. • Provide arched opening between Chancel and Chapel for overflow. • Provide moveable glass partitions to close Chapel for private uses.
Chancel Choir space is cramped, improperly lit and has poor Acoustics.	More flexible space with occasional overflow to Chapel space. Improve Acoustics and Lighting.	<ul style="list-style-type: none"> • Relocate Organ Pipes to East wall. • Open Choir space to Chapel for occasional overflow. • Reposition Organ and Piano to suit occasional Band. • Coffering on ceiling for acoustic sound diffusion and improved Lighting.
Chancel and Chapel not accessible to persons with disabilities.	Make Chancel level and Chapel fully accessible.	<ul style="list-style-type: none"> • Provide new ADA ramp and handrails from Nave to Chancel level.
Narthex not accessible to persons with disabilities.	Make Narthex ADA accessible so everyone can enter and exit the Church from the Narthex.	<ul style="list-style-type: none"> • Provide new accessible Entry and ADA ramp and Entry to North End of Narthex.
Choir practice room inefficient and inconvenient – column in center of room.	Provide better space to practice and connect Choir functions.	<ul style="list-style-type: none"> • Relocate Choir to better functioning space – Connect Choir robing with Practice room and Director's office.

MP.2 – Proposed Lower Level

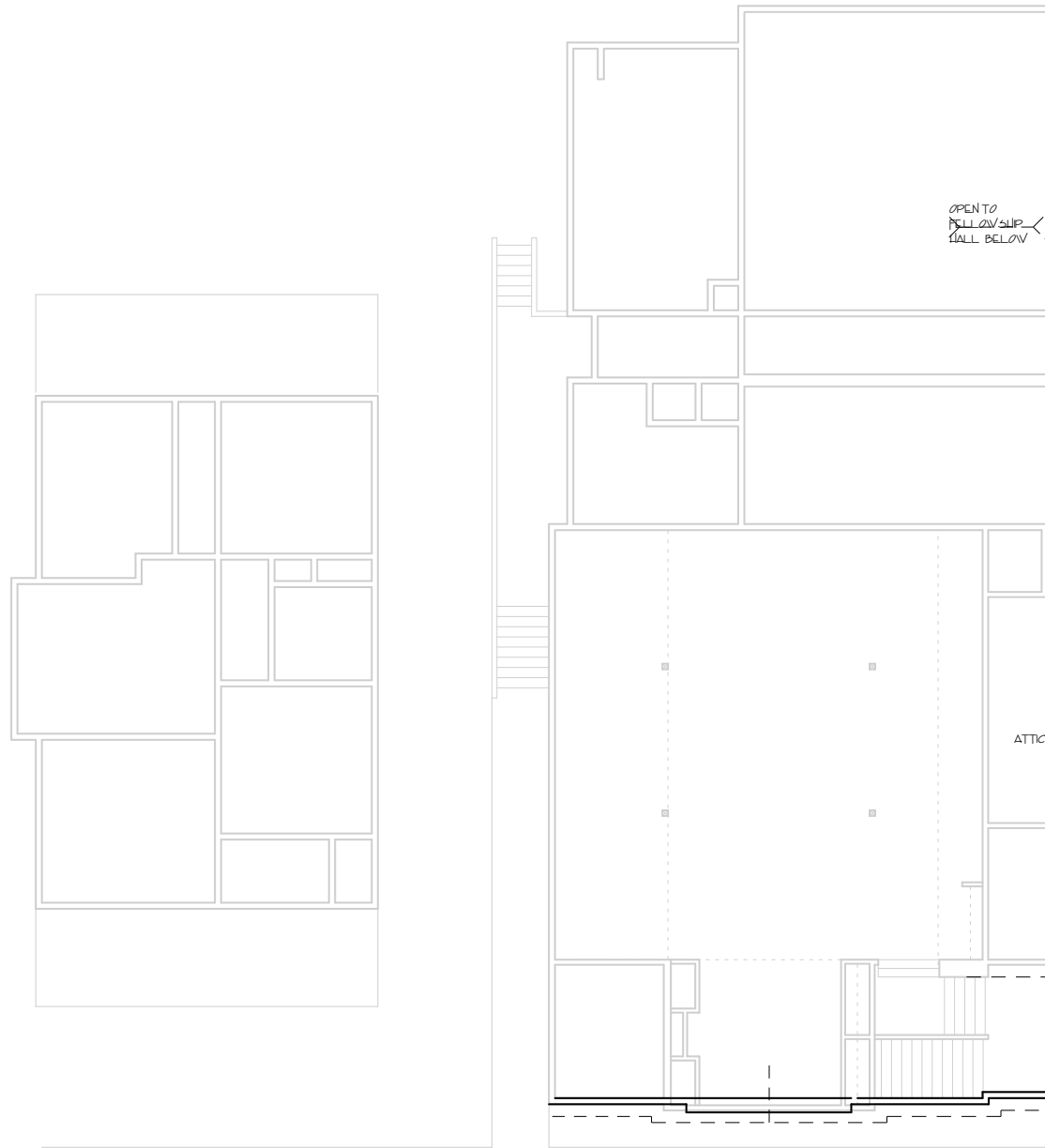


PROPOSED LOWER LEVEL PLAN

SCALE: 1/8" = 1'-0"

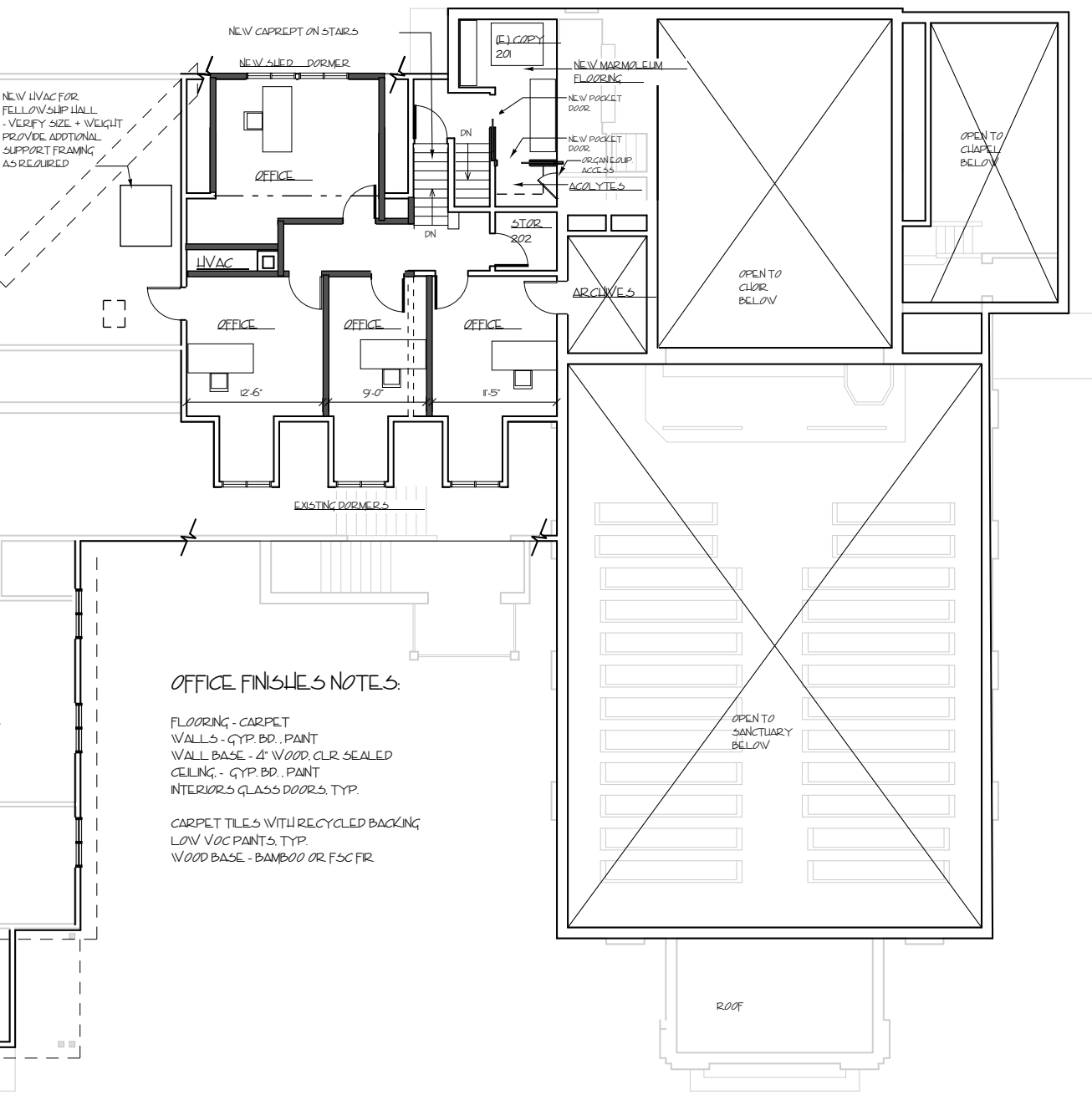


MP.3 – Proposed Upper Level



PROPOSED UPPER LEVEL PLAN

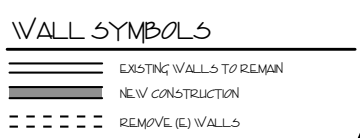
SCALE: 1/8" = 1'-0"



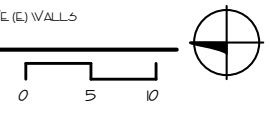
OFFICE FINISHES NOTES:

FLOORING - CARPET
 WALLS - GYP. BD. PAINT
 WALL BASE - 4" WOOD CLR SEALED
 CEILING - GYP. BD. PAINT
 INTERIORS GLASS DOORS. TYP.

CARPET TILES WITH RECYCLED BACKING
 LOW VOC PAINTS. TYP.
 WOOD BASE - BAMBOO OR FSC FIR



APPROX. 100 SF



Master Plan Summary Matrix – continued

PROBLEM/NEED	GOAL	MASTER PLAN SOLUTION
Choir processes to Nave through Courtyard – Uncovered and un-defined.	Provide covered, lit and defined walkway from North wind to Narthex.	
Sacristy is cramped, congested poor circulation, Lack of counters and storage.	Reorganize functions, Relocate Acolytes vesting area, Provide more counters and storage	<ul style="list-style-type: none"> • Relocate Vesting functions near one another. • Reduce space required for Steps, new counters ,sinks and storage.
Attic space is unfinished - HVAC ducts and Electrical conduits are in the middle of the space.	Finish remodel to create Offices and storage. Relocate HVAC and Electrical conduits.	<ul style="list-style-type: none"> • Add shed dormer and complete Electrical, HVAC and Interior finishes for new offices. • Provide new split system HVAC for Fellowship Hall to relocate ducts and relocate Electrical conduits as budget allows.
St. Michaels' House property is under utilized.	Provide new multi-purpose development to maximize the site's potential.	<ul style="list-style-type: none"> • Plan for new 12,000 SF addition that blends in with the existing building's style. • Large Main floor Fellowship Hall. • Upper floor Meeting rooms. • Elevator and lower level Parking Structure.
Need more Bathrooms – Lower level North wing bathrooms are cramped and inaccessible.	Enlarge existing Bathrooms and add new fixtures if possible.	<ul style="list-style-type: none"> • Remodel and enlarge North wing Bathrooms for adult facility. • Provide new ADA Bathroom below Entry stairs. • Provide separate Childrens Bathroom(s).

HEATING, VENTILATION & AIR CONDITIONING (HVAC) OPTIONS

A. Sanctuary:

1. Remove existing supply grilles in wall. Modify ductwork to change existing floor grilles from return grilles to supply grilles. Install new return grille as shown on drawings. Upgrade existing economizer dampers and controls to allow for "flushing" sanctuary with cool air at night to pre-cool the space. No change to existing 3 ton A/C unit supplying cooling to Chancel.
2. Add A/C system for Sanctuary and Chapel. Size system for Sanctuary based upon existing duct sizes. Size system for Chapel based on heat load calculations. Install cooling coils in existing ducts. (Note energy code compliance issue; installing cooling may require improvements, such as additional insulation, to building envelope.)

B. Upper Level:

1. Relocate the existing exposed ductwork as shown on the drawings. This ductwork runs from the existing fan coil unit in the mechanical room to supply grilles that serve the Parish Hall. Existing Parish Hall supply grille to remain. Existing oil furnace chimney and existing electrical conduit rim to remain in place.
2. Install new heat pump unit in attic space above parish hall to supply heating and cooling to upstairs office spaces. Supply and return ducts and grilles as shown on the drawings.
3. Install new A/C system for Parish Hall. Locate fan unit in attic. Locate condenser to east of parish hall, ground mounted. Locate new supply grilles in ceiling of parish hall.

C. Lower Level:

1. Update controls on existing forced air system. Install new wall mounted electric heaters with fans in choir room and office. Remove electric baseboard heaters from nursery and children's classrooms and replace with wall-mounted units.
2. Install new ductless split system A/C unit in choir room. Locate condenser on north side of nativity wing.

D. All Spaces:

1. Replace existing oil-fired steam boiler with new gas-fired hot water boiler. Relocate chimney by moving approx. 5 feet north and 2 feet east, to north wall of main level office. Install new fan coil units with cooling coils as described below. Locate condenser units on east side of building, ground mounted.

2. Sanctuary - work as described above. New fan coil unit to be located in existing mechanical room under chancel. Provide new ductwork for chapel.
3. Mechanical Room - new fan coil unit to replace existing unit to supply east side of lower level, utilizing existing ductwork and supply grilles.
4. Parish Hall - new unit located in attic to supply parish hall, upstairs office and main level office. Remove existing ducts that run from basement up through main level office space and through upper level office. Install new supply grilles in ceiling of parish hall.
5. Nativity Hall - new fan coil unit to replace existing unit above kitchen. All existing ductwork to remain.

SUSTAINABILITY IN THE MASTER PLAN

A. Summary:

We acknowledge the importance and functionality of using energy efficient and sustainable methods and products in the course of design and construction. For the Master Plan of St. Michael, the following guidelines for the Design, Material Selections and Construction Methods and Means shall be adhered to as budget allows:

B. Sitework and Demolition:

- Use local sources of construction materials whenever possible.
- Provide Tree Protection Erosion control.
- Salvage existing materials for re-use/recycle.
- Reuse or relocate excavated materials on site.
- Use permeable site materials to allow rainwater to permeate and reduce stormwater flow.
- Use reusable formwork or formwork from recycled sources or Insulated Concrete Forms (ICF's).
- Use Fly Ash in concrete mixes to offset the high-embodied energy of concrete.
- Use reclaimed crushed concrete for aggregate.
- Specify bio-based, low/No VOC admixtures.
- Use 100% recycled reinforcing bars and mesh.
- Use recycled-content asphalt paving and wheel stops in parking and exterior areas.
- Use native and adapted plantings that do not require irrigation once established.

C. Steel Work:

- Use steel products with highest recycled content available.
- Specify factory finishes rather than field coatings.
- Use metal framing studs with highest recycled content available.

D. Fasteners:

- Use 100% recycled fasteners, nails, etc.
- Use water based solvents and low/no VOC adhesives and sealers

E. Wood:

- Use water born preservatives that are considered the least toxic. No arsenic or chromium.
- Use Advanced Framing Techniques and Salvaged/Reclaimed wood where possible.
- Studs at 24" centers where possible.
- Specify sustainably harvested wood certified by the Forest Stewardship Council (FSC).
- Wood decking: certified decay resistant Ipe or 100% recycled plastic/composite wood decking.
- Use prefabricated structural wood where possible in lieu of solid wood such as trusses and glued laminated or engineered beams
- Specify low VOC Phenol formaldehyde glues in laminated materials.

F. Thermal and Moisture Protection

- Specify low VOC damproofing
- Specify R-values above code requirements where possible
- Specify insulation with recycled content, cellulose or cotton insulation
- Use Metal Roofing for durability, efficiency and high-recycled content

G. Doors and Windows

- Use doors and windows with salvaged/reclaimed wood content and use non-toxic finishes.
- Specify U-values lower than code. Use EPA Energy Star standards.
- Use clad windows or fiberglass – no vinyl windows.
- Reuse salvaged Doors and Windows where possible.

H. Finishes

- Specify Gypsum Board with highest recycled content available or synthetic gypsum.
- Specify Low/No VOC finishing products for walls and ceilings.
- Use Ceramic Tiles with recycled content or recycled glass tiles where possible.
- Use Certified or salvaged wood flooring or use bamboo flooring where possible.
- Use Linoleum flooring where possible with no VOC adhesive.
- Specify Very Low/No VOC paint, stain and sealer.

I. Equipment/Cabinets

- Specify Energy Star rated kitchen equipment.
- Preferable to use gas appliances.
- Use formaldehyde free MDF, wheatboard, or exterior grade plywood cabinet bases.
- Use doors from certified wood products or bamboo. Use all metal hardware fasteners and drawer slides.

J. Plumbing

- Specify HDPE (high density polyethylene) PEX (cross linked polyethylene) products for water distribution, waste and irrigation.
- Specify low flow fixtures and faucets.

K. HVAC

- Use passive solar design and a well-insulated envelope.
- Use heating zones with digital programmable controls.
- Consider an air-side economizer to maximize use of outside air.
- Consider in floor radiant heating or use HEPA filtered Forced Air system.
- Consider building shading devices.
- Use Energy Star® copiers, fax machines, printers, and other office equipment.

L. Electrical and Lighting

- Use daylighting to supplement need for artificial light.
- Use Fluorescent lighting where possible.
- Use dimmer controls or occupancy sensors.

PART 4 - MASTER PLAN BUDGET

Nave Improvements: Master Plan Budget = \$449,770

- A. New arched openings at proscenium wall.
- B. Additional indirect Lighting
- C. New insulation and lighter wood decking on ceiling
- D. New Skylights along ridge of roof
- E. Replace windows between Narthex and Nave with clear glass
- F. New Flooring and paint finishes
- G. HVAC: reroute air supply and return air
- H. Provide Air conditioning

Chancel / Chapel Improvements: Master Plan Budget = \$377,948

- A. **Summary: Chancel Remodel**
 - 1. Arched Openings (to Chapel)
 - 2. Organ Pipe Relocation to East Wall
 - 3. New Ceiling Coffers and recessed lighting
 - 4. New Sound System for Sanctuary
 - 5. Misc. Finishes and Paint
- B. **Summary: Chapel Remodel**
 - 1. Lower floor to match Chancel level
 - 2. Moveable Glass Partitions
 - 3. Lowered ceiling with vaulted dormer at existing windows
 - 4. Misc. Finishes and Paint

Sacristy Improvements: Master Plan Budget = \$89,560

- A. **Summary:**
 - 1. Relocate Stairs and Sacristy door
 - 2. Relocate door to Basement Mechanical Room.
 - 3. New Cabinets, Closets, Counters, Sinks
 - 4. New Flooring and paint finishes
 - 5. Acolytes to vest in upper level dedicated space (see 4.04)

Upper Floor Offices / Nativity Hall Meeting Rooms: Master Plan Budget = \$204,223

- A. **Finish Upper Floor Offices:**
 - 1. New HVAC and Air conditioning
 - 2. Sheetrock, paint and new carpeting
 - 3. Relocate existing conduits/wires that are in the way, new branch electrical panel
 - 4. New lighting and controls, telephone/data outlets.
 - 5. New independent HVAC for Fellowship Hall
 - 6. Add Shed Dormer at east side
 - 7. Create closet for Acolytes in existing Copy Room
- B. **Convert Man Level Offices to Meeting Rooms:**
 - 1. New doors to Meeting Rooms from Nativity Hall
 - 2. Paint and refurbish existing finishes

Lower Level Choir Room / Nursery & Child Care: Master Plan Budget = \$274,296

A. Summary:

1. Relocate Choir Practice Room to larger space
2. Remodel existing Bathrooms
3. Add new Bathroom for Child Care
4. Relocate Godly Play and Office
5. Relocate Nursery
 - a. add more windows to hallway
 - b. new cabinets and sink
 - c. improve lighting

Entry Courtyard Improvements Master Plan Budget = \$176,062

A. Summary:

1. New covered Courtyard Trellis across west side
2. New Narthex Porch Extension with ADA entry ramp
3. New Lighting and Landscaping

Building Maintenance / Electrical Upgrade Master Plan Budget = \$201,247

A. Summary:

1. New 800 Amp, 3 – phase Electrical Service to building
2. Misc. Conservation, Repairs, upgrades, etc.

Thermal Envelope Improvements Master Plan Budget = \$44,774

A. Summary:

1. Ceiling insulation in the Parish Hall
2. HVAC Maintenance, Controls and trouble shooting
3. Storm windows for the parish hall, gallery, rector's office.
4. Storm windows for the existing windows at upstairs offices
5. Replace leaded glass windows in the Nativity wing.

Total Centennial Master Plan Budget \$1,817,880



**St. Michael and All Angels Episcopal Church
Centennial Master Plan
Conceptual Construction Budget (2008 USD)
5/19/08**

Item Description	Item Costs	Totals	Comments
Nave Improvements			
Arched Openings	\$ 29,700		Demolition/Carpentry/Plastering
Electrical / Lighting	\$ 107,400		Electrical
Insulation & Wood Decking @ Ceiling/Sanctuary Painting	\$ 46,000		Carpentry/Painting
Skylights	\$ 56,000		Carpentry/Skylights/Roofing/Flashing
Narthex Windows	\$ 1,700		Carpentry/Glass/Painting
HVAC	\$ 19,200		Modify ductwork and grilles; upgrade economizer dampers & controls
Air Conditioning	\$ 35,400		Install a 10 ton air conditioning unit to serve the Sanctuary
Misc. Finishes and Paint	\$ 15,000		Additional Finishes to blend remodeled areas with existing
Subtotal	\$ 310,400		
Contingency	\$ 46,560		Estimating contingency for unknowns
Total Budget	\$ 356,960		
Soft Costs			
Architectural & Engineering Fees	9%	\$ 32,126	
Permits + System Development Charges	Estimated	\$ 24,987	
FFE / misc.	Estimated	\$ 17,848	
Contingency	Estimated	\$ 17,848	
		\$ 92,810	
NAVE IMPROVEMENTS:		\$ 449,770	TOTAL MASTER PLAN BUDGET

Item Description	Item Costs	Totals	Comments
Chancel/Chapel Improvements			
Lighting for Choir and Chapel	\$ 24,000		Includes a \$3000 allowance for lighting
East Window and Cross Relocation	\$ 4,884		Includes framed opening and \$2000 allowance for a new window
Chapel Remodel (including lowering of floor)	\$ 56,700		Demolition/Carpentry/Drywall/Flooring/Painting/HVAC/Electrical
Moveable Glass Partitions	\$ 10,000		\$400.00 per foot allowance per Modernfold
Arched Chancel Openings (to Chapel)	\$ 11,250		Demolition/Carpentry/Plastering
Organ Pipe Chamber Extension	\$ 21,000		Carpentry/Plaster/Stucco/Painting
Organ Pipe Relocation	\$ 75,000		Allowance
New Sound System for Sanctuary	\$ 50,000		Allowance
Misc. Finishes and Paint	\$ 8,000		Additional Finishes to blend remodeled areas with existing
Subtotal	\$ 260,834		
Contingency	\$ 39,125	\$ 299,959	Estimating contingency for unknowns
Total Budget			
Soft Costs			
Architectural & Engineering Fees	9%	\$ 26,996	
Permits + System Development Charges	Estimated	\$ 20,997	
FFE / misc.	Estimated	\$ 14,998	
Contingency	Estimated	\$ 14,998	
		\$ 77,989	
CHANCEL / CHAPEL IMPROVEMENTS: \$ 377,948 TOTAL MASTER PLAN BUDGET			

Item Description	Item Costs	Totals	Comments
Sacristy Improvements			
Relocate Stairs and Entry Door + Stair to Mechanical	\$ 21,900		Demolition/Carpentry
New Cabinets, Closets, Counters, Sinks	\$ 23,208		Casework/Refinishing/Plumbing
Painting/Floor Covering	\$ 6,000		
Lighting/Switching/Receptacles	\$ 10,700		Includes cut and patch for lighting
Subtotal	\$ 61,808		
Contingency	\$ 9,271	\$ 71,079	Estimating Contingency for unknowns
Total Budget			
Soft Costs			
Architectural & Engineering Fees	9%	\$ 6,397	
Permits + System Development Charges	Estimated	\$ 4,976	
FFE / misc.	Estimated	\$ 3,554	
Contingency	Estimated	\$ 3,554	
		\$ 18,481	
SACRISTY IMPROVEMENTS: \$ 89,560 TOTAL MASTER PLAN BUDGET			

Item Description	Item Costs	Totals	Comments
Chancel/Chapel Improvements			
Lighting for Choir and Chapel	\$ 24,000		Includes a \$3000 allowance for lighting Includes framed opening and \$2000 allowance for a new window Demolition/Carpentry/Drywall/Flooring/Painting/HVAC/Electrical \$400.00 per foot allowance per Modernfold Demolition/Carpentry/Plastering Carpentry/Plaster/Stucco/Painting Allowance Allowance Additional Finishes to blend remodeled areas with existing Estimating contingency for unknowns
East Window and Cross Relocation	\$ 4,884		
Chapel Remodel (including lowering of floor)	\$ 56,700		
Moveable Glass Partitions	\$ 10,000		
Arched Chancel Openings (to Chapel)	\$ 11,250		
Organ Pipe Chamber Extension	\$ 21,000		
Organ Pipe Relocation	\$ 75,000		
New Sound System for Sanctuary	\$ 50,000		
Misc. Finishes and Paint	\$ 8,000		
Subtotal	\$ 260,834		
Contingency	\$ 39,125	\$ 299,959	
Total Budget		\$ 299,959	
Soft Costs			
Architectural & Engineering Fees	9%	\$ 26,996	
Permits + System Development Charges	Estimated	\$ 20,997	
FFE / misc.	Estimated	\$ 14,998	
Contingency	Estimated	\$ 14,998	
		\$ 77,989	
CHANCEL / CHAPEL IMPROVEMENTS: \$ 377,948 TOTAL MASTER PLAN BUDGET			

Item Description	Item Costs	Totals	Comments	
Sacristy Improvements				
Relocate Stairs and Entry Door + Stair to Mechanical	\$ 21,900		Demolition/Carpentry Casework/Refinishing/Plumbing Includes cut and patch for lighting Estimating Contingency for unknowns	
New Cabinets, Closets, Counters, Sinks	\$ 23,208			
Painting/Floor Covering	\$ 6,000			
Lighting/Switching/Receptacles	\$ 10,700			
Subtotal	\$ 61,808			
Contingency	\$ 9,271	\$ 71,079		
Total Budget		\$ 71,079		
Soft Costs				
Architectural & Engineering Fees	9%	\$ 6,397		
Permits + System Development Charges	Estimated	\$ 4,976		
FFE / misc.	Estimated	\$ 3,554		
Contingency	Estimated	\$ 3,554		
		\$ 18,481		
SACRISTY IMPROVEMENTS: \$ 89,560 TOTAL MASTER PLAN BUDGET				

Item Description	Item Costs	Totals	Comments
Lower Level Choir Room / Nursery & Child Care			
Relocate Choir Practice Room	\$ 66,200		Demolition/Carpentry/Cabinetry/Windows/Plumbing/Heating Controls
Remodel Bathrooms	\$ 76,600		Demolition/Patching/Plumbing/Fixtures/Toilet Compartments
Painting of Lower Level	\$ 22,000		
Nursery windows, cabinets, sink	\$ 12,500		
Misc. Floor Finishes	\$ 12,000		Allowance
Subtotal	\$ 189,300		
Contingency	\$ 28,395	\$ 217,695	Estimating Contingency for unknowns
Total Budget			
Soft Costs			
Architectural & Engineering Fees	9%	\$ 19,593	
Permits + System Development Charges	Estimated	\$ 15,239	
FFE / misc.	Estimated	\$ 10,885	
Contingency	Estimated	\$ 10,885	
		\$ 56,601	
LOWER LEVEL CHOIR ROOM / NURSERY & CHILD CARE: \$ 274,296 TOTAL MASTER PLAN BUDGET			

Item Description	Item Costs	Totals	Comments
Entry Courtyard Improvements			
Courtyard Trellis	\$ 76,500		Concrete Piers/Steel Trellis/Walkway/Painting/Lighting
Narhex Porch w/ADA Entry	\$ 41,900		Structure/Dormer/Doors & Windows/Lighting
Subtotal	\$ 118,400		
Contingency	\$ 17,760	\$ 136,160	Estimating Contingency for unknowns
Total Budget			
Soft Costs			
Architectural & Engineering Fees	9%	\$ 12,254	
Design Review Submittal + Fee		\$ 4,500	
Permits + System Development Charges	Estimated	\$ 9,531	
FFE / misc.	Estimated	\$ 6,808	
Contingency	Estimated	\$ 6,808	
		\$ 39,902	
ENTRY COURTYARD IMPROVEMENTS: \$ 176,062 TOTAL MASTER PLAN BUDGET			

Item Description	Item Costs	Totals	Comments
Building Maintenance / Electrical upgrade			
Electrical Power	\$ 55,000		Utility Co fees, new switchgear, wire and labor
Misc. Building Conservation, repairs, upgrades	\$ 85,000		17000 SF x \$5.00 allowance
Subtotal	\$ 140,000		
General Conditions	\$ 14,000		Supervision/Temp Facilities/Liab Ins/Cleanup
Subtotal - Building Costs	\$ 154,000		
Contractor's Fee	\$ 15,400		
Subtotal - Building Costs	\$ 169,400		
Contingency	\$ 16,940		Estimating contingency for unknowns
Total Budget		\$ 186,340	
Soft Costs			
Architectural & Engineering Fees	3%	\$ 5,590	
Permits + System Development Charges	Estimated	\$ 9,317	
		\$ 14,907	
BUILDING MAINTENANCE / ELECTRICAL UPGRADE: \$ 201,247 TOTAL MASTER PLAN BUDGET			

Item Description	Item Costs	Totals	Comments
Thermal Envelope Improvements			
Ceiling insulation in the Parish Hall	\$ 1,800.00		Allowance
HVAC Maintenance, Controls and trouble shooting	\$ 15,000.00		Allowance
Storm windows for the parish hall, gallery, rector's office.	\$ 10,000.00		Allowance
Storm windows for the exist. windows at upstairs offices	\$ 3,500.00		Allowance
Replace leaded glass windows in the Nativity wing.	\$ 7,500.00		Allowance
Subtotal	\$ 37,800		
Contingency	\$ 5,670		Estimating Contingency for unknowns
Total Budget		\$ 43,470	
Soft Costs			
Architectural & Engineering Fees	3%	\$ 1,304	
THERMAL ENVELOPE IMPROVEMENTS: \$ 44,774 TOTAL MASTER PLAN BUDGET			

