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I. Introduction

This handbook outlines some of the basic guidelines a congregation can follow as it seriously contemplates a building project.

A building project of any size gives a congregation the chance to clarify its purpose, evaluate its present ministry and plan future ministries, analyze existing problems, and build the church. God’s house should boldly and clearly witness the Christian faith. The building—in design, craftsmanship and construction—should be the best quality the congregation can afford. To achieve this goal, the design and construction must be carefully planned.

To be a worthy offering to God, a meaningful witness to the worshipers and an asset to the community, a church-related facility should be of honest and substantial construction, have pleasing proportions and refinement of detail, and should respect its context. These qualities are possible in the simplest building and at no more cost. The key is good planning.

The building design should be guided by theological considerations and liturgical use, as well as restraint, simplicity and honesty of materials, so the building, its art and furnishings truly reflect our Christian faith. The building should exist as a convincing symbol of our faith.

This handbook outlines proven principles and procedures that should remain valid for many years. The Architectural Advisory Committee presents this handbook with hope and confidence that many congregations will find it a valuable resource in their building projects.

The Architectural Advisory Committee

The Architectural Advisory Committee, a service of Lutheran Church Extension Fund (LCEF), was established to help Lutheran Church—Missouri Synod (LCMS) member congregations plan to build or remodel church buildings, schools or other church-related structures.

This committee was formed to:

> Encourage excellence in architecture and the allied ecclesiastical arts.
> Stimulate a greater understanding of good church architecture and sound planning.
> Encourage architects and artists to strive for a higher level of excellence.
> Encourage use of fine arts and foster the study of religious architecture.
> Stimulate sound economic approaches to the planning of worship and educational facilities.
> Encourage use of sound business principles and responsible Christian stewardship in building programs.

Services Available

Committee members are available to help LCMS congregations determine how to begin planning to meet their building needs. The consultant helps the congregation answer some initial questions:

> What is the congregation’s true mission?
> When and how should a building committee be organized?
> How should the planning process begin?
> How is the need for additional building space recognized and properly identified?
> What is the sequence of events needed for good planning that leads to a successful building program?

Who to Contact

If you have any questions or need help developing a building program for your congregation, contact LCEF at 1-800-843-5233 for the name of your District Vice President and an Architectural Advisor in your area.
Architecture for Worship

Today, many churches and schools are built in contemporary designs rather than in traditional ones. Before considering a contemporary design, the congregation should ask itself:

> “Why are the changes taking place?”
> “What are the underlying causes?”
> “Is there historical precedent?”
> “Are the changes valid?”

Many Christians spend time considering the wrong questions. Some members worry about casting aside traditional styles. Others, more ready to accept change, question whether the new structures erected as churches are really meant to be houses of God.

Many members are confused and look for direction and assurance in the answer to one question: “Is there an architectural style that is distinctly Lutheran (or Presbyterian, or Methodist, or any denomination)?” The answer to that question is “No,” there is no distinctly Lutheran architectural style.

Planning a church-related facility is not easy. Tradition or consensus of one particular committee’s likes and dislikes is not an adequate basis for design. It is only natural for some people to cling to tradition. However, it is just as natural for a new generation to press for change. Both positions are valid.

However, something much more fundamental is involved. God calls the church to be a meaningful witness for Christ to all people. Architecture is only one way to provide witness to His glory—but it is powerful. The quality and character of the building, whether good or bad, makes a clear and lasting statement of the value a Christian places on religion. This should be enough to make every congregation determine that opportunities offered through architecture should be used to make a bold statement for Jesus Christ and the significance of His church.

All this suggests that the congregation considering building should do some soul-searching. Often, a building project is easily justified. But as great as the temptation may be, no people of God should build for the wrong reasons. Some very practical and valid reasons (the need for more space, replacing a worn-out structure, or a delicate mixture of “for the glory of God” and “keeping up with the Joneses”) may convince people to give to a building fund. However, that will do little to deepen the way they give or the way they live.

The self-questioning period that must come beforehand provides a rare opportunity for the kind of theological study that can renew each member’s faith and life.

Planning and building a house of worship can be an exciting, joyful task. It gives us the chance to explore the beginning of Christian worship to see how early Christians expressed their adoration and joy in worship. It is essential that an examination be done.

The congregation should also examine its present worship and plan for worship tomorrow. When we understand more about the nature and purpose of the institutional church and of corporate worship, we can be assured we’re moving in the right direction.

The Bible does not prescribe any specific order of service. The order of service, like all the externals connected with it, is an “adiaphoron” (neither commanded nor forbidden). 1 Corinthians 14 is the only passage that instructs us about the order of service:

a. It should be of such a nature that it helps the congregation in its worship (edify, v. 12).

b. It should not confuse the stranger or visitor (v. 23).

c. It should be orderly (v. 26b).
Every order of service should be evaluated on these three criteria. That’s biblical. Beyond that, it’s flexible.

Our Lutheran Confessions agree: “We believe, teach . . . that the community of God in every locality and every age has authority to change such ceremonies according to circumstances as it may be most profitable and edifying to the community of God . . . that no church should condemn another because it has fewer or more external ceremonies not commanded by God as long as there is mutual agreement in doctrine and in all its articles as well as in the right use of the Sacraments” (Formula of Concord, Art. X, “Book of Concord,” p. 493. See also Apology; Art. VII).

St. Paul didn’t yield an inch in doctrine, but in externals, he declared, “I have become all things to all men that by all means I might save some” (1 Cor. 9:22b).

Worship requires some kind of form for expression by a group. Since that form has changed many times, it is safe to assume that it will continue to change.

**We Can Learn From the Past**

By examining history, we can analyze the underlying need that brought about each major change in worship. Many times these changes were adopted as a renewal of faith and life. However, simply changing the worship didn’t always meet the need.

We need to carefully examine the changes being made, study the needs in the church and then work toward future changes that seem to offer hope for the renewal of faith and life. This becomes evident when we apply history to present construction.

For almost 300 years after Christ’s resurrection, Christians worshiped in a variety of places—often in homes of wealthy members. When Christianity became the official state religion, its popularity increased and membership grew, forcing congregations to find larger buildings. Sometimes the wealthy member enlarged his home; other times, congregations moved into Roman basilicas. For many years, these two structures were the prototypes for church buildings.

The early Christian concept of worship as a group of laypeople was to “teach and admonish one another in psalms and hymns and spiritual songs, singing with grace in your hearts to the Lord” (Col. 3:16). This concept slowly gave way to an actor-audience type of worship. The priests and clerics said the liturgy and the laity merely observed—instead of both joining in during the liturgy.

At this point, Christianity degenerated into visits to the church building to hear the priests say mass.

This actor-audience (priest speaks, laity listens) concept of worship was inevitably expressed in medieval church architecture. A space was provided for the priests and clerics (chancel) and another for the laity (nave).

At times, the partition separating the two spaces became almost a solid wall. Now that the laity, for all practical purposes, were excluded from participation in their own liturgy, side altars, stations of the cross, shrines for saints and martyrs, and various liturgical practices were introduced to encourage the laypeople in private worship.

Corporate worship, with all that it involved of the basic theology of the church, declined. In its place, personal worship, even in the midst of the large assembly, was encouraged. The laity did win one concession: In the 17th century, pews were introduced into the church. The laity could “sit down on the job.”

**The Reformation**

The Reformation corrected a lot of the misconceptions about worship by stressing each Christian’s responsibility to have a personal relationship with God. Restoring preaching and emphasizing religious education trained the worshiper. During the Reformation, the liturgical and sacramental changes involved the worshiper. The worship service itself was made more relevant to daily life by using modern language and by distributing both bread and wine during the Lord’s Supper.

Luther revised the liturgical order that had been inherited from the Roman Catholic Church. In 1524 he produced the Formula Missa; in 1526, a non-liturgical order, his chorale or hymn service. In 1538, in his Visitation Articles, congregations were encouraged to use this non-liturgical order as a regular service.

Luther emphasized the value of music in worship. In his 1526 hymn service, the congregation was an active, singing participant. Many Lutherans followed Luther’s lead and use excellent choral music and fine music from the past during services. Luther understood and explained how the Holy Spirit uses the Word—whether it’s read, preached or sung—as a way to call, enlighten and build up Christians. The music in the service is certainly much more than decorative sound or merely there for enjoyment. It is a vital part of spiritual life.

For 100 years after the Reformation, many existing structures were remodeled. Many times new patterns (that we attribute to the result of contemporary understanding) were achieved through an antipapal or an iconoclastic conviction—like removing the rood screens and replacing altars with tables placed at the chancel entrance.
The 17th and 18th Centuries
The church-building boom of the 17th and 18th centuries was marked by a great deal of experimentation in church architecture, especially in Holland and the American colonies. Church buildings were affected by the upheaval in the church during the Age of the Enlightenment as well as the frontier conditions under which the church was transplanted to the New World. Revivalism in the late 18th century and the Gothic revival in the 19th century encouraged experimentation in architecture.

Current Planning Trends
Recent research about what people in the pew value in worship shows three trends that deserve attention:

1. People expect more variety in music and more musical instruments (in addition to the organ). Keep in mind the space required for small groups of instrumentalists and their placement in the room. The quality of musical performance or lack of it cannot be ignored by today’s worshiper.

2. A convenient place for members to join in fellowship before and after worship is important. This should not dominate or interfere with those who are gathered for worship and should be spacious enough to encourage interaction.

3. The desire for greater liturgical variety suggests flexibility with spaces used for leadership should have a high priority in the design.

Who Makes the Final Decision?
In worship and architecture, the congregation itself makes the final decisions.

The Office of the Keys, including the responsibility to conduct church services, is not given to the pastors, or even to the elders. It’s given to every Christian congregation (1 Peter 2:9-10; Matt. 18:18-20; Matt. 28:19-20).

Our Lutheran Confessions declare: “1 Cor. 3:4-8... teaches that the church is above the ministers” (Treatise, Par. 4).

Thus, the final decision on which hymnal, which order of service to use, to chant or not to chant, even what kind of vestments to use in the service belongs to the congregation.

Architecture for Education and Parish Activities
Ever since the parish church as we know it began about 200 years ago, education was one of the church’s essential tasks. At one time, the church and its subsidiaries were responsible for practically all education. Now as church-based education must “compete” for students, a congregation has more to consider.

In major cities, the church is changing significantly and is challenged to adapt to changing conditions. Its purpose is still the same: “For the equipping of saints, for the work of the ministry, for the building up of the body of Christ.”

While basic functions of churches and schools remain the same—preaching the Word, teaching the Word, administering the Word in the Sacraments and sharing the Word, other activities should be considered in response to the changing ministry needs of the surrounding community.

The institutional church has changed, is changing and will continue to change—not in purpose, but in how it performs that function. The congregation can remain a vital segment of Christ’s church if it is willing to look at itself objectively—especially before starting a building program.

Facilities for education and parish activities should be functional, flexible and suitable for the purpose (for multiple purposes if possible) and basically maintenance-free. Architecturally they should complement, not dominate, the building.

Summary
Studying the history of church architecture and worship is important to all congregations undertaking a building program. The quest for new ways to make the church building express the faith and worship of God’s people more clearly is one of the most hopeful signs of our day.

A study like this will relieve congregation members from one of the primary anxieties usually present as they plan a worship facility: There is not and never will be one correct architecture for the church.
II. Planning and Building Committees

Organization

Since the Reformation, most denominations form a committee to be in charge of a building project. This committee has a lot of responsibility, since its judgment, open-mindedness, business ethics and common sense will determine the success or failure of the project.

In many building projects, one group serves as both the planning and building committees. However, in large congregations and for buildings that will accommodate several aspects of church life, multiple committees allow more people—who have different talents—to be involved in the project. Therefore, the following comments outline the duties of each committee.

To ensure continuity and follow-through, several planning committee members should also be on the building committee. Subcommittees should be formed to study and advise the planning committee on particular phases of the project. Possible subcommittees and notes about their members and duties follow the outline of duties of the planning and building committee.

Members

The committee has a great responsibility to the Lord and to the congregation; it also has a responsibility to the community.

Each committee member must be a responsible person. Each member should approach the situation prayerfully, with an open mind and heart and . . . above all . . . with the determination to erect a building appropriate for the congregation's use.

Therefore, committee members should be clear-thinking people who have wide general knowledge and be congregation leaders who have a sense of vision for the future. They should represent a cross-section of the congregation; be able to objectively determine goals and needs; and judge the desires and abilities of the entire congregation.

The basic theory of using a building committee is a good one—if care is taken when members are selected. Most denominations prefer a broad representation of members on this committee, but frequently this results in too many people on the committee, including people overly concerned about one particular area. You must choose members who have broad viewpoints.

Normally it is a good idea to select a chairman with business experience who has contacts in the community, has a knowledge of finance, is ethical and is familiar with local governmental requirements and practices. The chairman's greatest asset should be the ability to mediate and work harmoniously with all involved, and conduct all proceedings in a level-headed, fair manner. The chairman must be able to lead the committee to reach decisions after reasonable discussion.

To help promote the program's aesthetic aspects, a person knowledgeable in fine arts is needed on the building committee.

General building contractors and people in construction trades—like carpenters, brick masons, electricians or plumbers—usually have a more restricted view of the entire picture and may not make satisfactory planning committee members. However, they could very contribute during the building committee phase of the work.

A civil, structural or mechanical engineer can be a good member, depending on whether the person's background is broad enough to represent a cross-section of the congregation. A banker, savings-and-loan official, or a member who works in the fiscal offices of an insurance company or business is an excellent prospect. Such a member can bring a wealth of knowledge essential to deliberations and subsequent recommendations to the overall congregation.

An educator at any level—elementary, secondary or college—would be a good committee member. Usually a person with an educational background can contribute to the educational function of the church and the ever-changing curriculum and space requirements needed for teaching.

A local business person or a farmer who has daily contact with people of a variety of trades can help in the committee's dealings and augment the business knowledge of the other members.

The pastor, of course, should be an advisory member. He is an important member for, although often not voting, he brings to bear his knowledge of the parishioners and of the congregation's needs, as well as his role in the church's public relations.

If it is a large congregation, other advisory members could include the assistant pastor, the director
of Christian education and the music director. Again, including them depends on their personal abilities to make a contribution.

A committee of five or seven with the proper qualifications is an ideal planning-building committee. Practically, members of a committee this size can coordinate their schedules more easily and meet more frequently. Members can develop a mutual respect for each other with an intimate exchange of ideas and viewpoints.

Larger committees are usually unmanageable. Invariably, the group compromises, leading to mediocre results in an effort to please everyone. Some church boards, councils, elders and voters assemblies have the wrong idea that more heads make more sense and consequently reach a better solution. Unfortunately, this is not true.

After appointment, the committee should be organized with either an appointed or elected chairperson and secretary. The secretary should keep minutes of all the proceedings, decisions made and financial commitments so an accurate record is kept for reference in order to prepare reports and recommendations to the church council, elders or voters assembly. Meetings should be conducted in a businesslike way.

Regular meeting nights should be established so committee members can attend regularly. A properly organized committee can perform its duties quickly and ensure a time-saving, smoothly developing program in normal stages.

**Specific Assignments**

It is a good idea for the appointing body to define and limit the duties of the committee in order to avoid overlapping responsibilities and to let the committee know exactly what is expected of it.

The normal duties of church planning and building committees, whether for a church sanctuary, educational building, school, parsonage or other construction program, are to:

1. Contact your LCEF District Vice President to get the name and address of the Architectural Advisory Committee member in your area. Call that member for help and to set meeting times.

2. Determine the needs to be considered, both for immediate construction and for a long-range program requiring a master plan. Closely study the congregation's intent. Why do these people gather in the facility? What do they need? What does the community need? The community? What are the congregation's responsibilities to meet these needs? Can members provide services or facilities not locally available? Will community growth patterns based on demographics and census data support long-range strategies? Usually these questions are answered by all the church's organizations, the pastor and subcommittees when developing a strategic ministry plan.

3. At the congregation's expense, obtain a site survey, including boundary lines, topography, location of trees, adjoining buildings, streets and curbs, building setback lines, easements and location of all utilities—like sewer, water, gas, electricity and stormwater.

4. Get copies of all zoning restrictions affecting the church property.

5. Secure copies of all deed restrictions to determine site areas available for development.

6. Make available all plans, drawings and surveys of existing buildings on the church property, particularly if the project is to be an alteration or an addition.

7. Select an architect. Examine the suggestions defined in the chapter "Selecting an Architect." Only registered professional architects should be employed.

8. Approve the architect's contract for the proper congregation official's signature.

9. Select one member of the committee, usually the chairperson, to convey all instructions to the architect. In turn, the architect will deliver reports, arrange meetings, inspections and other business through the chairperson.

10. When advised by the architect, obtain (at the congregation's expense) a geotechnical report, usually after the exact building location is determined. It is wise to get this information in the preliminary design stage so that if any unusual soil condition exists, it can quickly be determined if it will affect the design.

11. Work with the architect to develop the total building program. That includes the immediate and long-range plans or master plan, including an idea
of the church’s financial ability and an approximate budget the architect can work with to advise the committee if the budget is sufficient.

The needs developed under point no. 2 must be reviewed with the architect, clarified and amplified as necessary, so that everyone involved agrees on the goals.

12. Work with the architect to develop schematic plans and designs that determine the size, location, arrangement and appearance of a proposed structure that will satisfy the needs of the program and budget. Agree in the committee on a recommendation to the church’s governing body to accept the proposed plans.

13. Prepare all necessary progress reports and recommendations to the church’s decision-makers. A joint presentation by the architect and the committee to the congregation should be made in order to keep the congregation informed and to encourage support for the building program. This presentation can be most effective after decisions are made in the schematic and design development phases of the architect’s work. Obtain approval to authorize the architect to prepare detailed working drawings and specifications, including all structural, mechanical and electrical work.

14. Review all successive stages of development of the architect’s plans and specifications.

15. With the architect, determine the most appropriate way to secure qualified contractors, subcontractors, suppliers and labor for the construction work. If available in your area, fixed price contracts with a qualified general contractor selected on the basis of competitive bids is usually the best way. Other methods are negotiated contracts, cost plus a fixed fee with a guaranteed maximum, using a construction manager, or variations or combinations. Work with the architect to determine a list of qualified general contractors for the construction.

16. After obtaining approval from the congregation’s governing body, receive bids for construction. Select the contractor to do the work and obtain approval from the church’s governing body to award specific contracts.

17. Approve, after review by the architect, construction contracts for signature. If required, review labor and material payment bond, performance bond, and contractor’s insurance certificate.

18. Check construction progress with the architect and expedite architect’s certificates, based on contractor’s monthly estimates, for payment.

19. Prepare and submit to the church’s governing body regular construction reports of progress and, after all duties are discharged, submit a final report.

20. Review the completed work with the architect, approve acceptance, and pay outstanding obligations.

21. Provide legal counsel for all contracted or legal matters at the congregation’s expense. Review insurance matters in detail.

If the congregation decides that the committee work outlined above can best be performed by separate planning and building committees, it is suggested that duties outlined in Nos. 1 through 13 be assigned to the planning committee; duties 14 to 21 to the building committee. As previously mentioned, some shared committee members is advisable.

From this outline of duties, one can see it is critical for the committees have exact responsibilities and full authority. The committee should always operate in a businesslike, ethical way, and members consider all transactions as business transactions. They should avoid putting the church’s reputation in jeopardy by requesting concessions, discounts, cut rates or reduced fees, and by withholding or delaying payments due the architect or contractor. Too often good community relations, developed over many years, are ruined overnight by an inept building committee as it handles the church’s business.

Therefore, it is essential that committee members guard against such practice and operate with truthfulness and sincerity to conform to high Christian standards. Each member should adhere to contractual relationships and approach their problems with Christian principles. Only then can the work of the church—with its serious accompanying responsibilities—be accomplished efficiently and with Christian dignity. Consider using LCEF’s Laborers For Christ. Members of this ministry not only have the goal of completing a remodeling, updating or building project. Their goal is to be tools to accomplish God’s plan for us. The structures are merely byproducts to reaching more people with the Gospel. Contact your District Vice President for more information on having Laborers review your plans and make a presentation.
At least one planning committee member should serve as the liaison to each subcommittee, which in turn should serve in an advisory capacity to the Planning Committee. Subcommittees must consider the building’s flexibility and therefore the possibility of more than one use per space. Sharing space can present limitations and the possibility of conflict.

> Worship Subcommittee

Elders, members of the congregation’s committee on worship and music, the altar guild and the ushers may be appointed to this committee.

Members should realize that helping to plan a church building where God’s people can gather is a large responsibility and reason enough for their labors. In the years ahead, many hundreds of people—most of whom they do not know and will never know—will find deeper meaning in their worship of God.

Objectives

This committee’s duty is to write the program specifications for all areas of the building where there will be worship, primarily for the church itself. The committee should not try to design these areas—that is the architect’s job. But the committee must tell the architect what the congregation believes and exactly what happens during worship. Careful attention to carrying out the specific assignments listed below will provide the kind of data the architect needs.

To accomplish this task, the present worship practices must be evaluated. Evaluation results should be taken into account when the program decisions are outlined in the report. In many cases, an important byproduct of a building program is the best opportunity to encourage good worship habits.

Specific assignments

1. Study and answer questions like:
   a. What is Christian worship?
   b. What is corporate worship?
   c. What is liturgical worship?
   d. What is distinctive about Lutheran worship?
   e. Why do we need to think about these things?
2. Study the various Divine Services, including Matins and Vespers. As you study, remember your answers to the questions above. Involve the congregation in this study through sermons, Bible classes, newsletter articles, etc.
3. Research alternative resolutions by studying appropriate texts, periodicals and organized visits to other places of worship.
4. Write a statement of the kind of spaces and furnishings you believe would be most appropriate to Lutheran worship.
5. Survey and evaluate worship practices in the church and school. In light of the previous assignments, suggest improvements. Discuss issues such as the use of “worship centers” in school rooms, kneeling in pews, communion rails, location of choir, lighting, secular intrusions and miscellaneous items like flags, crosses that light up and other appropriate symbols.
6. Prepare a statement for the architect that explains the liturgical requirements for Communion, preaching, Holy Baptism and anything related to the use and arrangements for sacristies, organ, narthex, baptistery, bells, tower, choir robing and rehearsal rooms, etc.
7. Recommend a seating capacity for the church, both short and long term. For planning purposes, consider that about 80% of maximum seating capacity yields an acceptable level of comfort for the worshiper.

What the building says and means to the worshiper is up to this subcommittee. There must be a clear statement of what the congregation believes and how this is to be expressed in the building design. Guard against sentimental and purely personal thinking. Reasons able to stand the test of faith and doctrine must support everything that meets the eye in the finished building. The setting should serve every worship experience. To succeed, the committee must be able to tell the architect the theological and physical requirements of every activity the church is to serve.
> Parish Education Subcommittee

Members of this committee should be experienced, interested in and understand parish education. Members should be able to describe the space required for educational use.

The committee may include heads of schools, department superintendents or teachers in any of the schools (Sunday, vacation, weekday, leadership, etc.). Ideally, there should be a representative from each church auxiliary education committee.

Objectives

Perhaps the most important decision the committee will make is to recommend the general type of education facility. The character of the school and the size and cost of the building will depend more on this decision than any other.

Teachers, principals and other schools should be consulted to find out what works and what doesn’t. The things that work should be carefully considered and incorporated as a part of the master plan for an excellent educational facility.

To assist congregations in this process, LCEF’s Demographic Services offers in-depth analysis of your community including population trends, household types, expressed needs and the current supply and demand for educational programs. See Section IV for details.

Specific assignments

This committee’s assignments are so varied that it may be a good idea to divide the members into smaller groups for specific assignments. A preschool-age child lives in a different world from a 12-year-old.

The needs of the Christian day school and each age group in the church school should be evaluated: nursery, kindergarten, primary, junior, intermediate, junior high, senior high, youth and adult.

First, the committee should decide what it wants to accomplish in Christian education. It should describe how much space and equipment is needed for each group, then prioritize the list. Since financial limitations may not permit everything to be built in one phase, a phasing strategy should be developed.

The tendency is toward large areas for teaching, large self-contained departmental rooms and classrooms where all class activities are held. More open floor space is allowed for smaller children.

New teaching methods, more active participation by pupils and greater freedom in the classroom make larger, more adaptable rooms necessary. Children are influenced by their environment.

The educational library should be prominent, attractive and accessible. The library should be open—maybe even separated from the adjoining corridors by glass. Provide display areas for announcements and posters. Use pleasing colors in the library and include adequate artificial and natural light, ventilation and comfortable reading areas.

Plan to include areas to display current magazines, periodicals, recordings and artwork. Allow space for expansion and a place to store additional materials.

> Fellowship and Recreation Subcommittee

Some of the social ministry committee members should be appointed to this committee. Include one person from each youth and adult group in the church and school.

Objectives

The importance of regularly planned social and recreational activities as a logical extension of the formal education activities of the church and school is not always appreciated. Facilities should provide opportunities for social gatherings and church family nurturing. A thorough study of the educational and evangelical potential of such activities will reinforce the importance and need for this component of Christian life.

For most churches and schools, it is common to have regularly scheduled weekday activities. This schedule ought to be integrated with the major concerns of the church in order to be a strong witness to the Gospel. As the building program is written, this is a unique opportunity to build on such a schedule.

Something other than whimsy must decide such matters as the dimensions of the church kitchen, the size of the fellowship hall, whether or not there will be a stage, etc. The report should explore a church parlor; it is often the most used room in the building. Informal, with a fireplace, kitchenette, library corner and a few reading lamps, it becomes very useful for gatherings of 25 to 35 people any weekday, plus as a classroom on Sunday.

Specific assignments

1. Study the social, “character-building” and recreational life of the congregation.
2. Write a fellowship and recreational program for the congregation, integrating the best findings in this field with the work of Christian education, evangelism and service. Talk with church leaders for information and help to write such a program.
3. Consider a gymnasium, church hall, parlor, kitchen, stage, kitchenette and similar facilities for the present and future.
Note: Guard against over-estimating facilities. It is not realistic to size space for the largest congregational function of the year. In a growing situation, plan for minimum functional areas that can be easily expanded if the need develops.

4. Consider space to show movies and other visuals, sports, games, craft shops, hobby and social rooms for older people as well as youth, outdoor activities, drama, pageantry, choral groups, etc.

5. Study the narthex of the worship area very carefully as this is an important area for fellowship and projects an important impression to visitors. (See the "Organization Survey Form," page 20.)

> Administration and Other Facilities Subcommittee

Select members from among individuals in official positions in the congregation, church school and auxiliaries. This doesn’t need to be a large group because it is not a study committee in quite the same depth as the others.

Objectives

This committee is responsible for planning the administrative facilities: offices, conference rooms, pastor’s study, work/storage rooms, archives, etc. Planning the outdoor facilities, including parking and landscaping, is also this committee’s business.

Specific assignments

1. Meet with the committees on Fellowship and Recreation, and Parish Education.
2. Recommend adequate church office space, explain how it is to be used; also, recommend reception and conference rooms, pastor’s study and rooms for staff workers. Describe the use of these facilities.
3. Study and recommend parking facilities and any outdoor needs. Write a statement about landscaping, describing how this important element is going to be handled.
4. Consider the caretaker’s needs to provide storage for equipment and tools and to provide workspace.

> Fine Arts Subcommittee

Select people who are familiar with and concerned about the use of visual arts.

Objectives

This committee encourages and oversees the use of visual arts in the worship space and in all other areas. This is the best time to develop a long-range art program. Begin with at least one original, significant work to be in place in the sanctuary by dedication day. Plan for future additions in the sanctuary and other areas, including something inviting for the narthex, pictures for school rooms, a mural for the fellowship hall, etc. There might be carvings, mosaics, original prints and paintings.

Involving artists in the planning with the architect early, so artwork can be added over time in a purposeful, coherent manner.

Specific assignments

Studying the traditional role of art in the church and evaluating the congregation’s worship needs will help determine the place and nature of the visual arts in the building.

The use of images and symbolism by Christians goes back to the frescoes and carvings in the Roman catacombs. Since then, various art forms have played a vital role in symbolically conveying Christian truths. During the Middle Ages, architects, clerics and artists worked together so that sculpture, stained glass and other art forms made every church and cathedral into a rich textbook of dogma and Bible history. There was more than artistic merit in these works of art: their real value was in the truths they expressed.

The church denominations were divided on the use of art in the worship place. By and large, Protestantism overlooked the potential power of visual art in the service of faith.

However, interest in the visual arts and symbolism is significant and are effective ingredients for enhancing the worship experience.

The key questions when considering art for the church are whether it adequately reflects aspects of the Christian faith and whether it helps focus the attention of worshipers on the object of worship, the Triune God, and His works of creation, redemption and sanctification.

Art may highlight the liturgical action, the season of the church year or the worship theme for the day. In every case qualities of strength, beauty, honesty, harmony and dignity are more fitting than the merely sentimental, comfortable or decorative. What is important is not so much that the place “looks like a church” but that the atmosphere supports the people who are the church doing the Father’s business.
When forms, proportions, colors and textures of the architecture, furnishings, ritual objects and vestments are impeccably handled, there is no need for “decoration” (that is, meaningless ornamentation). Symbolism and imagery, judiciously used, enliven the setting and enhance worship whenever they have a clear liturgical purpose. The inherent symbolic meaning of things like the altar, chalice and vestments should be respected and proclaimed rather than obscured. Furthermore, the combination of all the various elements in the sanctuary must show a well-coordinated unity of purpose and design.

Consider the sanctuary as an instrument of outreach to the infrequent or first-time visitor as well as a familiar worship “home” for the committed members. Attitudes about this basic idea will influence the degree to which the symbolism must be readily perceived or whether it can be more complex, subtle and even perhaps abstract. Keep in mind that colors, forms and textures—either related to or independent of imagery—express feelings and ideas when used appropriately. In every age, art has spoken most convincingly when it found its own style, the unique voice of its own time. It is not necessary that everything be understood immediately on first viewing. There should be sufficient content to remain stimulating over long periods of time. Recognize that some need for education regarding art and symbols (traditional or not) will often be desirable long after they have been put into use.

Consider the relative merits of having major permanent art vs. temporary art. The latter offer freshness, timeliness and involvement of congregation members themselves. Quality examples of the former will surpass temporary art in terms of workmanship, beauty and depth of meaning in the long run.

Sources for the highest quality visual art and crafts for the church
1. Ideally, artists and craftsmen will be retained the same way as the architect. The artists are sensitive to aesthetics and to their materials, and will be able to combine beauty with depth of meaning. Artists bring their expertise to the congregation’s need for stained or faceted glass, woven paraments, processional crosses, banners, sculpture and the like. Unique, handmade objects express the individuality and God-given creative spirit in each person. The committee should become familiar with an artist’s previous work through site visits, slides or interviews. Artists must be able to work with the architect. In the first phase, the architect, artist and art committee discuss the design criteria, including site conditions, interior and exterior lighting, natural and artificial lighting, usage patterns, environment or overall mood desired, appropriate scale, integration of new and existing art, and thematic content.

In the second phase, the presentation and evaluation of several alternative approaches that reflect the criteria are considered. Scale drawings in color or three-dimensional models are reviewed.

In the third phase, the final recommendations and design selection are made.
2. Studios devoted to liturgical art and design should be evaluated in terms of their reliability and quality of work. A studio may specialize in one medium, like stained glass, or it may offer design in a variety of materials.
3. Church goods stores and catalogs offer mass-produced items. Although readily available, they are not inexpensive. The design quality is often not particularly distinguished, and they are never tailored to the individual situation.
4. There may be congregation members who are especially gifted, experienced artists. However, caution is advised, especially if the work is to be permanent. Since it is difficult to turn down mediocre work, it may help to have some unbiased evaluation from someone outside the congregation who has expertise in art and design.

> Music Subcommittee

Select knowledgeable people who understand the need for organ, choir, instrumental music, hymn singing and the place of music in the worship and life of the church.

Objectives
To enable music to contribute as much as possible to the worship and life of the church.

Specific assignments
1. Work with the worship subcommittee to determine the location and function of the choir, organ, piano and other musical instruments. In the early years, the choir was part of the laity. Its role was to lead the congregation and strengthen its vocal participation in the service. During the Middle Ages, the monastic subclergy gradually eliminated the lay choir. After the Reformation, worship was restored to the laity. In the Lutheran church, the choir helps support...
the singing of the congregation, alternates with the congregation in responsive singing of the Psalms and Canticles, or interprets parts of the liturgy to the congregation in musical form. Anthems and solos are an accepted and welcomed form of choir participation in the service.

The choir location is greatly influenced by its involvement in church activities. The usual location—in a balcony at the back of the nave—ensures that the choir is not prominent. This location works well when the choir responds to the liturgical aspects of the service. However, it has the disadvantage of being behind the congregation. Although people do not have to see to hear, usually people like to face the direction the sound comes from.

If the choir participates in a procession, it is awkward for choir members to appear for a short time and then exit the nave and reappear in the balcony. That's why the choir is sometimes located in the front part of the nave or in a transept. Although the choir can vary its position in the congregation according to the type of service, there are limits to such variations since the choir and organ should be near each other for the best coordination and sound. Sometimes a second musical instrument is needed. It is not appropriate to locate the choir in the chancel or to have the choir and organ visually dominate the chancel.

2. Determine the kind, size and specifications for the organ. If available funds require using an electronic organ, determine the space requirements for a future pipe-organ (pipes, console, blower, etc.) and make sure the structure will accommodate it. Consider a small basic unit pipe organ or a rebuilt instrument that may be available at a lower cost.

3. Study use of instrumental music in worship services and space required.
4. Determine space required for choir during worship services, and rehearsal, and for the storage of music, robes, etc.
5. Consider that the acoustic qualities of the worship area are fundamental to its success. These qualities can be helped by careful attention to the shape, size and materials used there.

Selecting an Appropriate Organ

Musical leadership of the congregation and an instrument to lead is important. Whether you choose a pipe organ or an electronic instrument, these guidelines will help:

1. Understand that the instrument itself defines much about the quality of musical leadership. Since excellent musical leadership is the key to active participation and since a good musician cherishes beautiful sound, it is no surprise that a well-prepared musical leader is drawn and kept by a fine instrument but is soon driven away by a mediocre or poor one.
2. Remember the main function of the organ is to lead singing. When choosing the tone palette of an instrument, be cautious about “present trends.” Instead, lean toward excellent “musical” tone and sounds that truly support and encourage singing. Go listen to actual instruments being used with a singing congregation.
3. Don’t value gadgets or new features too highly. Imagine what you will want from the organ at its installation and in 10 or 20 years. Put the investment there. Remember: Today’s “bells and whistles” will probably be tomorrow’s outmoded gadgets.
4. Have your own organ expert. Choose (hire if necessary) a trained person to help represent your interests when organ salespeople describe their products.

Finance Subcommittee

Members of the congregation’s finance and stewardship committees may be appointed to serve on this committee. The committee members should be acquainted with church finances and, above all, understand Christian stewardship and the kind of personal commitment that goes with it.

If this committee is to be responsible for the capital fund-raising activity, the number of members may have to be increased later. However, the work this committee must do in the initial phase of the building program is best done by fewer people than are on most committees. At one time or another, all members will be engaged in the building-fund campaign, but their principal work on this committee is research and planning.

Objectives

This committee should determine the maximum amount of money the congregation can spend on the project—from both contributions and borrowing—without inhibiting the church’s ability
to continue its service to members and support of mission and educational work of the Synod and district.

This group's first duty is to carefully examine the congregation's giving habits. Various ways to raise money for a building program should be investigated. Assistance is available through district and synodical Church Extension Fund offices to help you determine how much money a fund drive can raise as well as how much debt a congregation can normally amortize. These financial questions should be answered before beginning construction and signing contracts.

Lutheran Church Extension Fund's Capital Funding Services (CFS) offers on-site, capital stewardship services to help congregations expand their mission and ministry through the increased and sustained giving of their members. See Section IV for more information.

**Specific assignments**

1. Contact district and Synod staff with regard to the general planning of the congregation. Ask their advice and request general policy suggestions that might affect the congregation.

2. Make a statistical survey of the congregation's financial status. A five-year record is desirable. The survey should include:
   a. Tabulation of congregation's past financial performance (both budget and actual).
   c. Projection of anticipated financial performance (including needs, debt repayment and inflation).
   d. Tabulation of congregation's debt record.
   e. Appraisal of value of congregation's land and improvements.
   f. Title status of congregation's property.
   g. Congregation's past numerical growth.
   h. Congregation's projected numerical growth.

   Even more important than getting statistical information is adequately analyzing it. For advice, contact district or synodical staff as well as local financial people. Competent local legal guidance is essential during this phase of development.

3. Determine and recommend the congregation's realistic debt limit. If the building needs or projected program exceeds the congregation's financial ability, this committee must make that clear to the members. On the other hand, if the congregation can handle an even larger program, the committee should also make that clear.

   The committee must evaluate the congregation's ability to make payments on the anticipated debt while continuing its other programs.

   The ability to repay relates to the congregation's budget. We recommend that no more than 25% of the total annual income be allocated for debt retirement. A pledge drive for the building fund and projected growth should be considered if appropriate. This is a crucial step because many congregations can borrow more money than they can comfortably repay.

   Whenever a congregation has a major part of its income dedicated to debt retirement, it is difficult to consider any outside mission or other local programming.

   Cost, ability to borrow and ability to repay effectively establish a maximum that can be considered for a building program debt. This evaluation process should be done before construction plans as part of the overall approval process.

4. Responsible stewardship in the work of the church requires that amounts available through contributions and pledges from members should be determined before any commitment from outside sources. Current and continuing contributions from pledges as well as gifts and memorials will help reduce the final loan amount, thus lowering payments of both interest and principal.

   For a loan, consider Lutheran Church Extension Fund or your district extension fund. Contacting your district Church Extension Fund executive early in the planning process is critical. Information about interest rates, terms and conditions will help the congregation decide about loan and fund-raising options available. Be sure to ask for information on the amortization of the loan with principal and interest payments.

   Just as the church uses its collective strength—through the Synod—to provide mission dollars to carry on our church's worldwide mission program, so the collective resources of the church through the investments of its membership in Church Extension are involved. See the Total Project Cost budgeting tool on page 29.
> Memorials Subcommittee

Memorials given to the church during the planning and construction phases offer a unique and often successful fund-raising program that can supplement your other funding efforts. The most successful way to organize a memorial program is to create a small subcommittee to work with the architect to select appropriate memorials for the building. Early in the building program, the church council should make it clear that only cash gifts will be accepted for memorials. They must also reserve the right to have the specified memorials selected by designated individuals in consultation with the architect.

This should be a permanent subcommittee, perhaps becoming part of the property committee. In consultation with the architect, this committee should publish a list of possible memorials with the estimated value of each item. It is a way to help raise additional funds beyond those necessary to finance the basic building. These memorials should be recorded in a “memorial book,” but not by a plaque on the object itself.

> Furniture and Equipment Subcommittee

This committee doesn’t have to be organized until the other committees have completed their reports. Committee members may be representatives from each subcommittee or have some special knowledge in this field.

Objectives

The objective is to create a complete checklist of all furniture and equipment needed.

When determining the furniture and equipment needs, they must be guided by the written reports of the other subcommittees. The checklist should include existing furniture and equipment to be re-used, as well as new items.

Specific assignments

1. Study the furniture and equipment section of each subcommittee’s written report.
2. Examine all existing furniture and equipment. Recommend what items should be replaced for any reason.
3. Create a master list of furnishings and equipment with a view to integrate their use. Avoid as much duplication as possible.
4. Work with the architect to investigate sources of supply, prices, samples, etc., of all furniture and equipment.
Facilities Maintenance Reserve Fund

Congregations are faced with the maintenance of their facilities and the challenges of finding funds on short notice to complete the unexpected or more-costly work.

A good facilities planning tool is to establish a facilities maintenance reserve fund. The congregation establishes a budget line item that sets aside a monthly amount to be held in the fund, which over time accumulates. The fund cannot be used for anything but facility capital improvements/repairs. Examples include: replacing the roof, furnace, carpet, dishwasher, etc. The fund would not be used for new construction.

Fund contributions should be set by the Budget Study Committee. An amount of 2% of the annual budget paid monthly to the fund is suggested. The fund should be allowed to build up on a perpetual basis.

To start this fund, large gifts and memorials can be directed to the fund.

An indirect benefit of a maintenance fund is that the congregation will save considerable money over the years.

See the Building Maintenance checklist on page 44 for an ongoing maintenance program roadmap.

Preservation of Historic Churches

The older structures of the LCMS reflect our church’s rich history and tradition.

Many of our Lutheran church properties (sanctuaries, schools, support facilities) are or soon will qualify for historical designation at the local or state level. The National Register of Historic Places and most local and state designations require that a property be at least 50 years old to be eligible for listing. A property could be eligible to be placed on the list earlier if it is of unique architectural or historical significance, or designated by a master architect.

Our historic church properties are important and can usually be rehabilitated to meet new building codes, accessibility and other requirements. In the programming phase, a congregation should consider using existing structures during master planning. If a congregation wants to include historic structures in an expansion or rehabilitation, a sensitive approach to planning must be undertaken to preserve its integrity. Additions to original structures can be successfully planned to achieve new program needs, while preserving the original structure. An architect with historic preservation experience should be consulted when planning this type of expansion.

The National Register of Historic Places is a list of historic properties across the country and can be contacted through your State Historic Preservation Office. Local historic preservation organizations and the National Trust for Historic Preservation in Washington, D.C., can help you obtain information and recommend qualified architects. Also contact an LCEF Architectural Advisor for information regarding historic properties. (See page 3 for contact information.)
Organization Survey Form

After each organization completes this questionnaire, you will have a good idea of how much space is needed for fellowship and recreation, as well as space needed for storage and for various activities.

Organization name: ____________________________________________________________

How often do you meet? ........................................................................................................

On what day are meetings held? ..........................................................................................

What time are meetings held? ............................................................................................

Total number of members in group ......................................................................................

Average number of members attending .............................................................................

What was approximate total membership five years ago? ..................................................

What would you like your membership to be in five years? ....................................................

Do you have a devotion period? ............................................................................................

Do you have a business period? ............................................................................................

Does your group show movies? .........................................................................................

Does your group show PowerPoint Presentations? .........................................................

Does your group play games? .........................................................................................

Do you need facilities for refreshments? .............................................................................

Do you need a piano? ...........................................................................................................

Do you need storage space for group property? ..............................................................

Do you have outdoor services? ...........................................................................................

Give details of outdoor activities

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

Does your group ever meet with other groups?  ❑ Yes  ❑ No

If yes, please state approximate number attending .........................................................

Comments: .............................................................................................................................

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________
III. The Building Program

The Written Program

The written program conveys the goals and needs of the ministry in a way both the members and architect agree.

Programming, as related to a church building project, is the process of establishing the organization's needs for the structure. The program's ultimate purpose is to not only guide the architect for the actual planning, but also to guide the congregation for implementation and successful project completion.

Programming can have two direct benefits to the congregation. One has already been mentioned: a functional building. The second one is a renewed dedication to the purpose of the facility. As the program is developed, the congregation is compelled to take a good look at itself, define its purpose and evaluate its functions and ministries in relation to its purpose. The self-study aspect of programming is profitable even though no building is contemplated.

In the programming phase of a project, the congregation faces the question: “Do we really need this building to carry out our purpose?”

It is important that this question be asked, not that it will delay or stop a project—although this might be desirable in some instances—but rather that it can have a profound effect on the type of facility built.

A self-study, along with a study of worship and architecture, will provide the necessary material to write a comprehensive program for the building. Such a study will encompass not only the congregation but also the community and, in some cases, the entire metropolitan area.

Building a church or school requires a great deal of time, skill and resources. It is important that the building serve the functions for which it is intended, not only for the present, but also for many years to come. A carefully prepared comprehensive program can help achieve this goal.

In summary, the work of programming may be stated briefly in terms of the information the architect needs before a building is planned.

A mission statement

1. A mission statement setting forth the reason why the ministry organization exists.
2. The functions necessary to carry out its purpose.
3. The number and type of people participating in the various ministries and functions, and the frequency of meetings.
4. The equipment (tools) necessary for people to carry on their work.
5. Anticipated changes in activities, people and equipment in the years ahead.
6. How much money the congregation wants to invest in the project.

The written program should cover the following subjects:

Mission: Organization's mission statement, aims, goals.
Goals: What does the church want to achieve and why? How does the church see facilitating its mission?
Needs: What does the organization need to facilitate its goals and mission?
Facts: What are the existing conditions including physical, legal, climatic, aesthetic and financial?
Budget: What is the total project cost? Is fund-raising necessary? Is a loan necessary?
Worship: What are the philosophy, guiding principles, worship services of the organization?
Fellowship: What is the approach to fellowship and community outreach?
Education: What is the approach to education? Does it include church schools (day, night, Saturday, vacation) and adult education?
Day Care/Elderly Care: Are there opportunities in the community?
Administration: What are the philosophy and administrative area considerations?
Energy Conservation: Energy efficiency as it relates to your building.
Disability Requirements: What are the requirements for new buildings? Remodeling existing buildings?
Historic preservation: Does your building have historic significance?
Note: The program should be based on statistics, secured by surveys and questions.
Pre-Design and Programming Phase

Architects help congregations and ministries by leading them through a pre-design phase that includes developing a building program.

The success of the building program is directly related to how much care is taken in preparing the program. A congregation that is willing to spend the time, effort and perhaps money to prepare a comprehensive program can be assured of a building that suits its needs, needs related to the purpose and ministry of the church.

The Building Program Checklist identifies the categories as follows:

- Site
- Church Building
- Christian Education

The worship, fellowship, education, administration and other needs fit in these categories. The needs are assigned a specific size as if it were a room. This will be used as a basis for the design.

Early Planning Advice

Contact Lutheran Church Extension Fund to determine if members of the Architectural Advisory Committee and its regional advisors and consultants are available to review plans and help with initial questions about a building plan. Before selecting an architect, the planning committee should talk to a member of the Advisory Committee about plan review.

After an architect is selected, it should be agreed that the design may be submitted to the Architectural Advisory Committee at several stages of development for constructive criticism. Emphasize that submitting the drawings to this committee is not a reflection on the individual’s talents and does not detract from the church’s confidence in the architect. The most talented and capable architect will welcome consultation and constructive help.

The first phase of submission of the building program and the schematic design will allow any basic improvements to be made before the architect makes larger, more detailed, drafting expenditures to refine details. Such studies may include floor plans, conceptual elevations, interior sketch vignettes and possibly a building section.

Every congregation should already possess a phased master plan toward which it builds through the years. Such a plan is critical for a successful building program and should be reviewed to assure compliance with the master plan.

The second review, the Design Development phase, enables the congregation and Standing Committee members to see the refinement of all planning decisions at a scale and to study the elevations sections, etc., and to offer review and input before the architect enters the working drawings stage.

The Architectural Advisory Committee wants to help the architect in a way that will make that person’s special abilities more effective in the church’s interest.
Building Program Checklist

This checklist is a guide for programming a church or school building project. Many important aspects are included on this list, but your final list depends on your individual program. A statement of the ministry’s philosophy and its service to the community should also be included.

The planning committee should answer as many questions as possible before selecting an architect. However, members should realize that when this list is reviewed in detail with the architect, certain aspects may change as a result of his or her input.

The Site

1. Location (address and streets)
2. Plot size
3. Plot plan
   Streets, plot dimensions and compass points, existing structures to remain, utilities, easements and topography.
4. Deed restrictions
5. Zoning
   a. What is the zoning of the plot?
   b. Is copy of local zoning law available? Attached?
   c. Is copy of local zoning map available? Attached?
   d. Is off-street parking required? In what proportion?
   e. Can plot accommodate off-street parking?
   f. Is copy of local and state building code available?
   g. Is property located in a flood plain?
6. Service and utilities
   a. Is public sewer accessible? What is its depth? Size?
   b. Is public water supply available? Pressure?
   c. Is electric service available? Characteristics?
   d. Is gas service available? What pressure?
   e. Is the property served by a storm sewer to carry off surface water? Size?
   f. Is property served by a public fire department?
7. Subsurface influences
   a. Have subsurface borings been made?
   b. What is local geology?
   c. Are there any known adverse subsurface conditions, like high water table, soft bearing strata, old fill or slides?
8. Neighborhood influences
   a. What is the character of present neighborhood?
   b. Are there obnoxious land uses in immediate area?
      (1) Industrial or commercial
      (2) Excessive noise
9. Miscellaneous considerations
   a. Is plot large enough for expansion? Some day it may need to accommodate some of the following:
      (1) Enlarged church
      (2) Parish house
      (3) Christian day school
      (4) Recreation area
      (5) Parsonage
   b. Is local public transportation available?
   c. Are streets surrounding site reasonably easy to negotiate and direct?
   d. Is topographic map of site available?
   e. Does site have good surface drainage?
   f. Is there enough space for an adequate playground?
   g. Are streets around the site excessively hilly?
   h. Is site accessible to parish area without:
      (1) Crossing main traffic arteries?
      (2) Passing major railroad crossing?
      (3) Climbing steep hills?
   i. Are photographs of existing site and building available?

Church Building

1. Membership: 10 years ago, now and 10 years from now
   a. Baptized members
   b. Communicants
   c. Families
   d. Average age and age groupings
   e. Average attendance per service each Sunday
2. Chancel: Is it a separate space or part of nave?
   a. Altar: altar paraments, cross, Eucharistic lights, missal stand
   b. Communion rail: fixed, permanent or none at all
   c. Credence
   d. Candelabra
   e. Flower stands
   f. Clergy seats
   g. Flags
   h. Flexible or fixed furniture
   i. Focal point of church
   j. Good circulation to and from communion
   k. Symbolism of space, structure and appointments
1. Multimedia, visual aids

3. Nave
   a. Baptismal font
   b. Pulpit
   c. Lectern—is it necessary?
   d. Seating capacity
   e. Ease of entry and exit
   f. Overflow seating
   g. Processionals and recessionals
   h. Festival pageants
   i. Funerals/Weddings
   j. Acoustics
   k. Symbolism

4. Choir and organ. Where is choir to be located?
   a. Choir membership
   b. More than one choir
   c. Type of organ
   d. Console location
   e. Storage of choir robes
   f. Storage of choir music
   g. Choir rehearsal space
   h. Amplification system
   i. Communication between ushers, organist and pastor

5. Narthex
   a. Ease of entry and exit (minimum of steps or ramps)
   b. Spacious and hospitable (at least one fourth the size of worship area)
   c. Coat-hanging space
   d. Restrooms (convenient but not conspicuous)
      (1) Sound isolation
      (2) Lounge for women adjacent
   e. Ushers' storage cabinet
   f. Guest book
   g. Tract rack
   h. Bulletin board
   i. Acoustics
   j. Overflow seating
   k. Ushers' facilities

6. Sacristy
   a. Prayer desk
   b. Closet for clothing and vestments
   c. Lavatory and mirror
   d. Water closet
   e. Chairs
   f. Pastor's intercom station
   g. Relationship to chancel, nave, office

7. Working sacristy
   a. Cabinets to store altar paraments, communion vessels, flower containers, funeral pall, wine and wafers
   b. Sink connected to dry well for disposal of wine and baptismal water
   c. Sink with hot and cold water
   d. Work counter
   e. Ironing board and iron

8. Exterior
   a. Landscaping
   b. Gently sloping walks to entrances
   c. Accessibility
   d. Covered entrance
   e. Pickup and discharge of automobile passengers under covered area
   f. Parking and drop-off area
   g. Signs and symbolism

9. Church office
   a. Reception and secretarial in sight of entrance
   b. Storage of supplies
   c. Fireproof storage for valuable documents
   d. Money safe
   e. Workroom—duplicating, mailing, etc. (sink)
   f. Restroom
   g. Pastor's office and study
   h. Counseling room
   i. Meeting room
   j. Zoned heating and air conditioning
   k. Easy to locate in church complex

10. Miscellaneous considerations
    a. Heating, ventilation and air conditioning (multi-zone)
    b. Lighting
    c. Acoustics
    d. Television and radio broadcasting
    e. Considerations for energy-saving devices
    f. Provisions for the handicapped
    g. Trash disposal

**Christian Education**

Make a brief statement about what these areas require in regard to number, size, etc.

1. Education program
   a. Sunday school
   b. Bible classes
   c. Vacation Bible school
   d. Saturday school
   e. Confirmation classes
      (1) Children
      (2) Adults
   f. Christian early childhood development and elementary school
(1) Infant day care
(2) Preschool care
(3) Kindergarten
(4) Grades 1 through 6
(5) Grades 7 through 8 or departmentalized junior high

2. Sunday school and Bible class staff
   a. Number of teachers
   b. Sunday school superintendent
   c. Secretary
   d. Training program

3. Elementary school faculty
   a. Principal
   b. Number of teachers

4. Sunday school organization
   Departmentalized
   (1) How many departments?
   (2) Staff organized by departments?

5. Sunday school and Bible class facilities
   a. Space for each department
   b. Space for each class of each department
   c. Storage of teaching aids and supplies
   d. Receiving and distributing lesson materials
   e. Office for superintendent and secretary
   f. Coat-hanging space
   g. Furniture and furnishings
   h. Chalkboard and tackboard in each space
   i. Space to be allowed for each student
   j. Define extent of desirable multi-use of spaces
   k. Library
   l. Intercom system
   m. Visual-aids equipment and storage

6. Christian elementary school facilities
   a. Classrooms
      (1) Teachers’ closets
      (2) Storage of wraps
      (3) Storage of supplies
      (4) Sink, hot and cold water, drinking fountain
      (5) Chalkboard and tackboard
      (6) Map rails and hooks
      (7) Furniture (individual tables and stacking chairs provide more flexibility)
      (8) Darkening for use of visual aids
      (9) Natural and artificial lighting
      (10) Natural and artificial ventilation
      (11) Sun control
   (12) Acoustics and transmission of sound between rooms
   (13) Colors
   (14) Restrooms for lower grades in classrooms
   (15) Intercom station
   (16) Facilities for specialized areas like art, science and music

b. Administrative suite
   (1) Principal’s office
   (2) Reception room
   (3) Teachers’ lounge
   (4) Workroom (sink, storage of paper and supplies, duplication equipment)
   (5) Faculty rest rooms
   (6) Telephones
   (7) Intercom system master station
   (8) Mailboxes
   (9) Bulletin board
   (10) Furniture
   (11) Health room (lavatory scale, eye testing, cots, linen and linen storage, first aid)

c. Physical education
   (1) Gymnasium or multipurpose room
   (2) Basketball, volleyball, badminton and miscellaneous game courts
   (3) Seating
   (4) Lighting
   (5) Type of floor
   (6) Drinking fountain
   (7) Use as cafeteria and school playroom
   (8) Showers, lockers, rest rooms
   (9) Outdoor play areas

d. Miscellaneous considerations
   (1) Use as fallout and disaster shelter
   (2) Fire alarm system and class bells
   (3) Means of entry and exit
   (4) Lobby
   (5) Trophy case and bulletin boards
   (6) General storage
   (7) Janitor’s closets
   (8) Heating, ventilation and air-conditioning equipment
   (9) Electrical service equipment
   (10) Mechanical equipment space
   (11) Floor and wall finishes
   (12) Sound transmission between rooms
   (13) Lunchroom and kitchen
      (a) Seating
      (b) Surfacing-walls, floors and ceilings
      (c) Equipment
   (14) Off-street parking
The Architect

A cooperative, creative architect is essential for a successful building program. The architect needs to become familiar with the congregation’s liturgical, social, educational and administrative requirements. Together, the architect and building committee must be concerned that all questions and aspects of the design are considered fully.

Who is an architect?

The architect is a professional who must be registered in your state and licensed to practice architecture. Most architects are members of the American Institute of Architects (AIA), a professional organization. The Interfaith Forum on Religion, Art and Architecture (IFRAA) is a Professional Interest Area (P.I.A.) of the American Institute of Architects. IFRAA membership indicates a practitioner’s special interest in the design and construction of religious buildings.

An architect will guide and serve the building committee in various ways during the project. This person is essentially a problem solver, one who interprets and translates special requirements into physical reality. An architectural concept will be developed based on programmatic, economic and site constraints.

Selecting an architect

An architect should be selected based on training, ability, concern for the client, experience and reputation. Your architect will be closely associated with many members during the development of the congregation’s ideas and goals. The architect’s judgment and ability will determine the quality of the completed building—its functional and aesthetic appeal, its maintenance and operational costs. See “Architect Questionnaire” (page 26) and “Guide for Interviewing Architects” (page 27) for useful tools in the selection process. You may use the questionnaire as a template for initial inquiries to architects.

Building committees should contact architects—ideally no more than three or four—to see if they are interested in the project. If interested, the architect will submit credentials. The committee will select a few architects to interview. These interviews normally consist of a presentation by the architect and last no more than 60 minutes each.

The committee should visit projects the architect has designed, ask previous clients how well they were served, and investigate the professional’s reputation in the construction industry. While first impressions are important, it is necessary for the committee to be confident of the architect’s capacity for sound, creative planning based on experience and ability, and the desire to provide assistance and guidance during the project.

Avoid the temptation to select an architect based only on compensation. The professional compensation relates directly to the level of effort the architect and staff dedicate to the project. Minor fee variations may be quickly dissipated during the development process. The level of the professional’s commitment to diligently pursue the owner’s best interest will prove to be the most valuable and cost-saving consideration.

Preliminary design sketches without a thorough indoctrination into the congregation’s needs are of little value and can be misleading to the congregation.

The architect’s role

Programmer: Assistance in documenting special requirements based on the owner’s identified needs and financial ability is a major responsibility of the architect.

Counselor: Drawing upon experience and skill, the architect can advise the committee on site selection, building location, structure and interior design, construction materials, furnishings, probable development costs and establishing a realistic budget.

Designer: The architect plans how the site can be used and develops a three-dimensional conceptual design. The design is presented in preliminary sketches, perspective drawings or a model (optional) so it can be easily understood by all members.
The architect’s compensation

Buildings for religious use are more complicated than most other types of buildings. As a result, the architect must spend more time with the building committee and must deal with many more details; thus, higher compensation is appropriate.

There are three commonly used methods of compensating for professional design services: a percentage of the construction cost, an agreed-upon lump sum or an amount based on hourly rates of staff. The most commonly used compensation for churches traditionally has been the percentage method.

The size, budget and complexity of a particular religious facility affect the amount of compensation. In general, the larger the budget, the lower the percentage. In the case of alterations and additions to an existing structure, the construction already in place imposes difficulties on the architect that test ingenuity and creative abilities. For this reason, higher compensation is usually charged for remodeling existing structures than for designing new buildings.

There should be some protection for the church if construction bids are received that are significantly above the estimated cost. If redesigning is necessary due to excessively high bids, the architect should be responsible for redesigning at minimal or no cost to the church. This should be clearly stated in the contract.

It is strongly recommended that the following paragraph be included in the contract:

“The architect agrees to work within the budget specified by the church. If actual bids for construction of the building exceed this budget by 10% or more, the architect will make revisions in or redraw the plans to meet the budget without additional cost to the church.

“The maximum budget is $_______, which shall cover all costs including, but not limited to, the following: building (including mechanical trades), furnishings and equipment, site improvement, utilities and permits, and architect’s fees.”

The architect will supply current printed agreement forms produced by the American Institute of Architects, 1735 New York Ave., N.W., Washington, DC 20077-2460. This is the normal legal procedure. The services performed by the architect and the exact compensation should be customized to suit your situation.

Note: The material presented in this section has been excerpted from a publication produced by the Interfaith Forum on Religious Art & Architecture (IFRM) with its permission. A publication titled “You & Your Architect” can be obtained from The American Institute of Architects, 1735 New York Ave., NW, Washington, DC 20006-5292; 1-800-242-3837; www.aia.org.
Architect Questionnaire

The __________________________ congregation/ministry organization is contemplating the planning and erection of a(n) ___________________________________. The immediate schedule calls for the planning to be completed on or before _________________ and completion or construction by ______________________. If your firm is interested in providing architectural services, please fill out this form and return it to the sender on or before __________________, at which time various firms will be evaluated and a selected number will be chosen for a personal interview. All those replying to this questionnaire will be notified of the firms to be interviewed.

1. Firm name, address and phone number: _________________________________________________________________
   ________________________________________________________________________________________________

2. Type of organization: ☐ Individual  ☐ Partnership  ☐ Corporation

3. Name of principals, professional affiliations and college(s) the principal(s) graduated from:____________________
   ________________________________________________________________________________________________
   ________________________________________________________________________________________________
   ________________________________________________________________________________________________

4. Brief history of firm: _____________________________________________________________________________
   ________________________________________________________________________________________________
   ________________________________________________________________________________________________
   ________________________________________________________________________________________________
   ________________________________________________________________________________________________

5. Name of principal in charge of this project: ____________________________________________________________
   A brief statement of principal's architectural philosophy: __________________
   ________________________________________________________________________________________________
   ________________________________________________________________________________________________
   ________________________________________________________________________________________________
   ________________________________________________________________________________________________

6. List your firm's experience with similar projects: ______________________________________________________
   ________________________________________________________________________________________________
   ________________________________________________________________________________________________
   ________________________________________________________________________________________________
   ________________________________________________________________________________________________
   ________________________________________________________________________________________________

7. List current project(s) under construction. List other projects with current status. If you wish, you may submit a brochure with this form. ________________________________
   ________________________________________________________________________________________________
   ________________________________________________________________________________________________
   ________________________________________________________________________________________________
   ________________________________________________________________________________________________

8. If your firm is selected for interview, the project architect must attend the meeting.

9. Provide at least three client references of similar projects: _____________________________________________
   ________________________________________________________________________________________________
   ________________________________________________________________________________________________
   ________________________________________________________________________________________________
Plan to interview three or four architects. Each architect should have approximately 60 minutes to present the firm’s qualifications, philosophies of design and experience. In the interview:

1. Ask for a brief statement on his or her philosophy of the practice of architecture.
2. Does the architect’s work show imagination and design ability?
3. Does the architect’s work reflect a concern for quality construction and details?
4. Does he or she indicate a willingness to devote time to research and programming in order to completely understand your needs?
5. Does the architect offer to attend church services or ministry activities to get a better understanding of your organization’s needs?
6. What is the architect’s track record regarding estimates and construction budgets and the firm’s method for staying within the approved budget?
7. Do contractors find the construction documents clear, complete? How often does the architect visit the project site? Does he or she insist that plans and specifications be followed closely?
8. Ask for a detailed statement on contract administration procedure and services.
9. Do the architect’s references show a spirit of cooperativeness and willingness to have you talk to the people listed?
10. Do you have confidence in him or her and feel comfortable entering a business agreement with his or her firm?
11. Will the architect’s present workload permit him or her to complete your project on schedule?
12. Will the architect give your job personal attention from beginning to end or will an associate or employee be designated? If so, the committee should meet with the person who will be the project architect.
13. Ask what form of contract will be used. (The A.I.A. Standard Form is used most often.) How does he or she expect to be compensated for services?
14. Ask the architect about providing renderings and models; out-of-town travel, lodging, etc.; and how he or she expects to be compensated.

- Normally, the architect’s basic services include architectural, mechanical, electrical, and structural design. Other consultants—for landscape, liturgy or acoustics—should be additional services with additional compensation. If any of these services are needed, they should be discussed and agreed upon.

- Since they are an integral part of the space used for worship, it is highly recommended that the architect prepare plans and details of the chancel furnishings such as: altar, pulpit, lectern, baptismal font, communion rail, etc., perhaps with the advice of a liturgical consultant. The architect may be paid additional compensation for these services.

- After the final architect is interviewed, the committee should select one within about one week.

- After the selection, the committee should send a letter of thanks to all architects interviewed, and advise them of the decision.
Before beginning a detail plan of any facility, the congregation should have the architect prepare a master plan for the ultimate development of the site and surrounding area. The facility’s exact size and shape does not have to be decided now, but the master plan should illustrate in a general way how the site is to be developed.

The master plan should outline the entire site and illustrate building location and site development relationships. It should allow the building committee to see the functional relationships of the total facility and site use. It should allow sufficient freedom for future expansion based on changing needs.

**Major Considerations for a Master Plan:**

- Adequacy of site (initial use and future expansion)
- Site accessibility, traffic, transportation
- Neighboring environment(s)
- Parking on- and off-site
- Phasing strategies
- Building codes and municipal regulations
- Zoning regulations
- Accessibility for handicapped
- Utility services (water, sewer, gas, electric)
- Site soil conditions and topography
- Area for recreation
- Major landscape features
- Environmental assessment

The master plan should be updated before each major addition. The cost of the master plan is normally in addition to compensation for the architect’s basic services. The master plan provides for orderly growth as well as prevents costly long-range errors in development.

**Determining Total Project Costs**

The American Institute of Architects standard document anticipates the owner’s budget requirements and corresponding program information. Standard practice provides for review of preliminary estimates of construction costs based on the area, volume or other unit cost of the building at each phase of the architect’s services. The owner must assume responsibility for all construction cost information when working in partnership with Laborers For Christ.

See “Total Project Costs” worksheet on page 31.
This data will help the building committee and architect plan space needs for a proposed building project. The square footage (sf) for each function is listed as minimum, adequate and ideal. You can also use the data to review the schematic design of the proposed facilities. The numbers listed are guidelines only and do not take into account special needs that should be identified in the programming phase.

<table>
<thead>
<tr>
<th>Planned Function</th>
<th>Minimum</th>
<th>Adequate</th>
<th>Suggested</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sitework</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parking (sf/car with circulation)</td>
<td>300</td>
<td>370</td>
<td>425</td>
</tr>
<tr>
<td>Parking (pew spaces/car)</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Softball</td>
<td>260'x260'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basketball</td>
<td>50'x84' playing area; allow 60'x94' and 25' ceiling height.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volleyball</td>
<td>29.5'x59' playing area; allow 42'x72' and 23' ceiling height.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Soccer</td>
<td>60 yards x 100 yards (adult and under 14 field size).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Playground (sf/person)</td>
<td>75</td>
<td>85</td>
<td>100</td>
</tr>
<tr>
<td><strong>Worship Area</strong> (measurements in square feet per person)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seating Area, Chancel</td>
<td>0-300 people</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>301-500 people</td>
<td>11</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>501-1,000 people</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Narthex (sf/seat)</td>
<td>4</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Choir (sf/person)</td>
<td>8</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Sacristy/Pastor</td>
<td>120sf</td>
<td>140sf</td>
<td>180sf</td>
</tr>
<tr>
<td><strong>Fellowship Hall</strong> (measurements in square feet per person; seat minimum of 70% of sanctuary seating)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dining Area</td>
<td>12</td>
<td>15</td>
<td>18</td>
</tr>
<tr>
<td>Kitchen</td>
<td>3.5</td>
<td>4</td>
<td>4.5</td>
</tr>
<tr>
<td>Commercial Kitchen</td>
<td>6</td>
<td>7.5</td>
<td>10</td>
</tr>
<tr>
<td><strong>Family Life Center</strong> (measurements in square feet)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basketball</td>
<td>6,000</td>
<td>8,000</td>
<td>9,000</td>
</tr>
<tr>
<td>Locker Rooms</td>
<td>500</td>
<td>750</td>
<td>1,000</td>
</tr>
<tr>
<td>Craft Room</td>
<td>200</td>
<td>250</td>
<td>300</td>
</tr>
<tr>
<td>Table and Chair Storage</td>
<td>300</td>
<td>400</td>
<td>500</td>
</tr>
<tr>
<td><strong>Educational Space</strong> (measurements shown in square feet per person per classroom)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infants</td>
<td>35</td>
<td>38</td>
<td>40</td>
</tr>
<tr>
<td>Preschool</td>
<td>35</td>
<td>38</td>
<td>40</td>
</tr>
<tr>
<td>Kindergarten</td>
<td>30</td>
<td>38</td>
<td>40</td>
</tr>
<tr>
<td>Grades 1-4</td>
<td>25</td>
<td>30</td>
<td>35</td>
</tr>
<tr>
<td>Grades 5-7</td>
<td>20</td>
<td>25</td>
<td>30</td>
</tr>
<tr>
<td>High School Age</td>
<td>17</td>
<td>20</td>
<td>25</td>
</tr>
<tr>
<td>Adult</td>
<td>12</td>
<td>15</td>
<td>18</td>
</tr>
<tr>
<td>Day Care*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Administration</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waiting Area</td>
<td>120</td>
<td>160</td>
<td>200</td>
</tr>
<tr>
<td>Pastor (sf/with conference area)</td>
<td>250</td>
<td>300</td>
<td>350</td>
</tr>
<tr>
<td>Staff (sf/person)</td>
<td>100</td>
<td>150</td>
<td>200</td>
</tr>
<tr>
<td>Work Station or Desk Area (sf/person)</td>
<td>150</td>
<td>200</td>
<td>300</td>
</tr>
<tr>
<td>Work Room</td>
<td>280</td>
<td>350</td>
<td>400</td>
</tr>
</tbody>
</table>

*Churches contemplating day care programs should review local standards for facility size and special requirements. Often the infants, preschool and kindergarten rooms can be adapted for day care use easily with minor modification.
Minimum Number of Toilet Fixtures

The following chart is a guide for the number of toilet facilities needed in the church and educational spaces. It is important to refer to local building and plumbing codes and state requirements about the number of fixtures and handicapped accessibility.

<table>
<thead>
<tr>
<th>Building Capacity</th>
<th>Women WC</th>
<th>Women L</th>
<th>Men WC</th>
<th>Men U</th>
<th>Men L</th>
<th>Preschool WC</th>
<th>Preschool L</th>
<th>Diaper Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 100*</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td></td>
<td>*</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>101-200</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>201-300</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>301-400</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>401-650</td>
<td>5</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>651-900</td>
<td>6</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>901-1,200</td>
<td>7</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

*Increase to 125 if preschool toilets provided.

Key:
- WC.......... Water Closet
- L.......... Lavatory
- U.......... Urinal
When planning a new facility or remodeling or adding to an existing one, the building committee must consider all costs to complete the project. Contractors and architects often throw out square-foot costs for construction but fail to identify the total costs of the project or what is included in the square foot costs. As a rule of thumb, total project costs are 25% to 30% over hard construction costs.

This list outlines costs that are normally part of a typical project. The building committee should assign a budget to each of these items—even if that number is zero. Each item of the total project cost must be monitored during each phase of the project and updated as changes are made and more detailed information is available.

### Site Development Costs (These costs can vary a great deal from site to site.)

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site acquisition</td>
<td></td>
</tr>
<tr>
<td>Demolition (buildings, slabs, tanks, trees, asbestos, etc.)</td>
<td></td>
</tr>
<tr>
<td>Grading</td>
<td></td>
</tr>
<tr>
<td>Landscaping (including fencing/irrigation)</td>
<td></td>
</tr>
<tr>
<td>Parking (including handicapped spaces)</td>
<td></td>
</tr>
<tr>
<td>Sewer and utility hook-ups</td>
<td></td>
</tr>
<tr>
<td>Soil testing</td>
<td></td>
</tr>
<tr>
<td>Civil engineering and site survey</td>
<td></td>
</tr>
<tr>
<td>Street frontage improvements</td>
<td></td>
</tr>
<tr>
<td>Signs</td>
<td></td>
</tr>
<tr>
<td>Building permits and assessments</td>
<td></td>
</tr>
<tr>
<td>Fire sprinkler line</td>
<td></td>
</tr>
</tbody>
</table>

### Facility Costs

Construction costs (Verify if site-development costs are included in construction costs. The estimated construction costs are normally adjusted for inflation to the mid-point of the construction period)

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carpet and wall finishes (if not included in construction costs)</td>
<td></td>
</tr>
<tr>
<td>Millwork (if not included in construction costs)</td>
<td></td>
</tr>
<tr>
<td>Public address system</td>
<td></td>
</tr>
</tbody>
</table>

### Furnishings Costs

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pews</td>
<td></td>
</tr>
<tr>
<td>Chancel furnishings</td>
<td></td>
</tr>
<tr>
<td>Office furniture and equipment</td>
<td></td>
</tr>
<tr>
<td>Other furnishings (blinds, tables, chairs, TV, DVD player, etc.)</td>
<td></td>
</tr>
<tr>
<td>Musical instruments (piano, organ, bells, etc.)</td>
<td></td>
</tr>
<tr>
<td>Stained glass, liturgical art</td>
<td></td>
</tr>
</tbody>
</table>

### Soft Costs

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architect, engineers and other professional fees</td>
<td></td>
</tr>
<tr>
<td>Title insurance, legal and closing costs</td>
<td></td>
</tr>
<tr>
<td>Performance bond (if not in construction cost)</td>
<td></td>
</tr>
<tr>
<td>Construction loan interest</td>
<td></td>
</tr>
<tr>
<td>Contingency (at the beginning, a 10% to 15% contingency should be added; as the project progresses and more details known, the contingency may be reduced to 3% to 5% of the total costs)</td>
<td></td>
</tr>
</tbody>
</table>

### Estimated Total Project Cost*

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
</table>

*Each item of the total project cost should be monitored and verified as changes are made and as more detailed information is available.
Design

Schematic Design
After reviewing the building committee’s program and completing the master plan, the architect will prepare Schematic Design studies to explore the various practical design solutions to the project. This usually includes site plans, floor plans, sections and schematic cost estimates.

The Schematic Design phase represents approximately 15 percent of the architect’s total services and compensation. If the congregation wishes, renderings or models of the project can be prepared at additional cost.

Design Development
After the owner approves the Schematic Design, the architect will develop the plans, sections and elevations to include the technical systems; and will prepare outline specifications and an updated cost estimate for design to assure the project is on budget.

The Design Development phase represents approximately 20 percent of the architect’s total services and compensation.

Construction Documents
After the owner approves the design and cost estimate, the architect will prepare final construction documents (working drawings and specifications for the architectural, structural, mechanical and electrical equipment). This phase represents approximately 40 to 50 percent of the architect’s total services and compensation.

Bidding or Negotiation
In consultation with the owner, the Construction Documents are submitted to general contractor(s) for bidding. The architect also will help obtain approvals of the governing agencies with jurisdiction over the project. The building permit will be obtained before construction. The bidding or negotiation phase represents approximately 5 percent of the architect’s total services and compensation.
Construction Administration

The architect’s professional services include:

> Help the congregation award contracts after bidding is complete.
> Prepare supplementary drawings.
> Review the contractor’s schedule of values (a detailed cost breakdown of categories, materials and building trades); review fabricators’ and suppliers shop drawings, material samples and equipment, and other required submissions.
> General administration of the construction contract(s) including periodic site visits to review the progress and quality of work and to determine if work is proceeding according to the contract documents.
> Review the contractor’s applications for payment, determine amounts owed to the contractor and issue certificates for payment in such amounts.
> Prepare change orders covering authorized changes in the work.
> Determine the date of substantial completion and final completion; receive, review and forward to the owner the specified written guarantees assembled by the contractor, and issue the final certificate for payment.
> Help the owner in a detailed building walk-through of the facilities, 11 months after completion, before the normal one-year warranty period ends.

During construction, the architect, by onsite observations, endeavors to guard the owner against defects and deficiencies in the contractor’s work. However, the architect does not supervise construction. The contractor is responsible for construction means, methods, techniques, sequences and procedures for safety precautions and programs in connection with the work. Likewise, the architect is not responsible for the contractor’s failure to carry out the work in accordance with the contract.

However, the architect is responsible to notify the owner of any such failure or unsatisfactory performance that comes to his or her attention. The architect’s basic services are concluded when a final certificate for payment is issued to the owner. The Construction Administration phase represents approximately 15% of the architect’s total services and compensation. This final 15% is paid monthly in proportion to the completed value of construction.

Additional services provided by the architect include interior design, furniture design and the design or selection of furnishings. Everything visible or permanently a part of the building should be designed by, or selected in consultation with, the architect.

Some Do’s and Don’t’s for Building Committee Members During Construction

**Don’t**

1. Don’t give instructions to the contractor; communicate through your chairperson to your architect.
2. Don’t allow church members who are contractors to perform construction unless they competitively bid for the work, and are of a size and have the experience to perform quality work in conformance with the schedule. Consult with your architect.
3. Don’t make changes unless they are necessary.

**Do**

1. Do express your concerns to the architect.
2. Do ask the architect questions.
3. Do alert the architect if something appears to be wrong.
4. Do expedite payments to both contractor and architect.
5. Do advise the treasurer of the anticipated monthly billing 30 days in advance.
Early in the construction process, your ministry must decide which project delivery approach is best suited to its needs. A project delivery approach is a method or format within which the congregation’s needs are translated into a design; which is then transformed into bidding and construction documents; from which prices are established and the project is built.

We will briefly discuss three common approaches.

**Design/award/build (general contract) approach**

This is the most traditional approach to project delivery. In this approach, the congregation commissions an architect when the project begins. This architect, along with other consultants and the congregation, develops a design for the building and site, prepares the construction and bidding documents and helps the congregation in bidding to general contractors, which determines contractor selection and initial project cost.

During construction, the architect administers the construction contract on behalf of the congregation; observes the work of the various trade contractors; reviews contractor submittals, change orders and contractor’s applications for payment; and performs a final inspection and recommends final payment by the congregation to the contractor.

**Primary advantage:** The approach is simple and the congregation has the benefit of the architect’s counsel, protection and guidance throughout the project.

**Primary disadvantage:** Disputes between the architect and general contractor may arise that may result in project delays.

**Construction management—at-risk approach**

In this delivery approach, the congregation commissions both an architect and a construction manager (CM) at the very beginning of the project. During the design phases, the architect performs his traditional service to the congregations while the CM advises the architect and the congregation in matters of constructability, cost and budget.

When the bidding/construction documents are completed, the CM solicits, tabulates and compiles at least three bids from each trade. Based upon recommendations from both the architect and CM, the CM signs contracts with each of the trade contractors and has financial and contractual responsibility for each (just as in the design/award/build approach). During construction, both the architect and CM administer the contract for construction. The architect, in consultation with the owner and CM, maintains his traditional responsibilities of observing the work, reviewing contractors submittals, etc.

**Primary advantage:** Both the congregation and the architect have the advantage of having a construction professional as part of the design team at the very beginning of the project. This person may lend his or her expertise to the design process.

**Primary disadvantage:** With another agent of the owner (CM prior to bidding), there will be other and perhaps divergent values and priorities, management styles and personalities for the congregation to contend with.

**Design/build approach**

In this approach, the responsibility for both design and construction is given to a single entity. This entity, the design/build firm, is commissioned at the beginning of the project and is responsible to the congregation for all aspects of the project.

**Primary advantage:** The design/build entity has single-point responsibility to the congregation for all aspects of the project.

**Primary disadvantage:** Unless it commissions an administrative architect, the congregation has no agent at any time throughout the project. As such, there are no checks and balances to the players and no one looking out for the best interests of the congregation. Without an independent agent, the congregation relinquishes its safeguards associated with performance requirements, design evaluation, preparation of agreements, ensuring quality and quantity of construction, confirming costs, etc. The congregation must rely on the word of this design/build firm in all matters, even those which may result in a conflict of interest.

Before deciding, the congregation should discuss these and other options with its architects or a member of the Architectural Advisory Committee to be sure the approach selected is the one best suited for the particular project.
Pre-Engineered Buildings

Pre-engineered buildings originally were designed and constructed for manufacturing and warehouse purposes. Because the shell could be built quickly and cheaper than a building constructed by conventional means, schools began to use them as extra classrooms.

The appeal that a building could be constructed quickly at a lower cost attracts churches of many denominations. Churches have become a large market for companies that design and manufacture pre-engineered buildings. Sometimes, high pressure sales techniques are used to convince building committees that they can easily solve their building program for significantly less than conventional construction and receive equal value in the final product. In some cases, this sales approach confuses committee members and makes adequate evaluation of building needs and solutions difficult.

The following is a summary of advantages and objections to the use of pre-engineered buildings as an approach to meet the church's building needs.

Advantages
Cost: The primary attraction to pre-engineered buildings is the initial cost. The basic standard construction details and predetermined dimensions must not be changed to realize the greater price advantage.

Construction time: Because most of the framing and outside walls are prefabricated at the factory, construction time on the site is shortened.

Maintenance: Exterior maintenance is typically minimal.

Objections
Appearance and identification: This is probably the main objection. The building usually ends up looking more like an industrial or commercial building than a church. Attempts are made to disguise this cosmetically. To make a pleasing appearance, it is often necessary to spend more money—making the end cost equal to or greater than the cost of conventional construction.

Most of the time, churches erect prefabricated buildings and plan to make the outside walls match the other buildings later. Often, this is never done and the church has some brick buildings and other buildings of metal or concrete.

Many pre-engineered buildings don't allow for windows. They may be added, but it is not always possible to put them in the most desirable place. Adding windows or changing the location or size from the pre-engineered design adds to the cost.

Floor arrangement: A pre-engineered building confines a congregation to a rigid structural system that strongly influences the use and arrangement of the building. Different amounts of floor space are needed for different age groups. The rigid structure of a pre-engineered building often makes the most desirable use of the space impossible.

Program needs: This objection is related to the other two. The reason for considering a pre-engineered building in the first place is to save money. Therefore, program needs are considered only after the outside building dimensions and shapes are decided.

It is better to determine program needs first and let those needs determine the size and shape of the building. The building should never be allowed to determine the program.

Cost: This was listed as the main advantage. But when everything is considered, it can be one of the main objections. When calculating the cost, everything must be considered: sitework, windows, doors, insulation, folding partitions, floor coverings, sound system, lights, heating and cooling equipment. The type of materials used for exterior walls and roof (metal or concrete) require extra insulation. This results in higher utility bills that soon outweigh any construction savings.

Temporary: The two major considerations for securing a pre-engineered building—quick construction time and cost savings—carry the impression that the building is temporary. This is especially true if the initial plans call for future additions. In addition, buildings planned for a shorter life increase construction and maintenance costs for future generations.
Checklist for Project Progress

To keep track of the development and timing of your building program, use this checklist along with the advice of the district mission board, Standing Committee-Architecture and your architect. Date each item when it’s completed.

**Programming Phase**

1. The Planning-Building Committee appointed.
2. The committee elects a chairman then lists key people it will ask the church council to appoint to subcommittees.
3. Planning Committee conducts a congregation-wide survey to determine long-range plans and goals.
4. Congregation authorizes Planning Committee to proceed with program studies.
5. The Synod’s Committee on Architecture is invited to the church.
7. Fine Arts Committee report filed with Planning Committee.
8. Parish Education Committee report filed with Planning Committee.
10. Administrative and Other Facilities Committee report filed with Planning Committee.
11. Music Committee report filed with Planning Committee.
12. Furniture and Equipment Committee report filed with Planning Committee.
14. Committee begins publicizing reports, findings and other matters discussed by committee.
15. Written initial program and letters sent to architects.
16. Committee interviews and selects architect.
17. Architect helps write final building program.
18. Congregation meeting held to adopt the final written building program.

**Schematic Design Phase**

19. Architect starts preliminary design and master planning.
20. Architect develops a long-range master plan for site to be approved by congregation before detailed drawings are begun.
21. Church council and executive committee discuss the recommendations of the Committee on Finance about the best way to raise funds.
22. The church council calls a congregation meeting to present the fund-raising plan it chose for congregational approval. Fund raising proceeds.
23. The first architectural studies (schematic design and schematic design estimate), after approval by the committee, sent to the mission board or Committee on Architecture for review.
24. The schematic design is fully approved by all responsible parties. Congregation approves or disapproves and decides how much of it is to be done now. The congregation decides on the future of the project.
25. Fund raising continues.
27. Construction documents phase.
28. Submit for plan check and building permit.
29. Review contractors for bidders list (if bidding).

**Bidding/Negotiation Phase**

30. Select building contractor by competitive bidding or negotiation.
31. Fine Arts Committee continues work regarding items to be incorporated in construction.
32. Committee on Furniture and Equipment begins work with architect; selects items to be purchased; invites bids from manufacturers.
33. List of pre-planned memorials and suggested values are printed.
34. Church council and committee meet to recheck funds.
35. Committee checks with architect and selected builder for construction schedule.

Construction Phase
36. Groundbreaking service.
37. Further drive, if necessary, to complete fund-raising program.
38. Laying the cornerstone service.
39. Walls and roof in place.
40. Final inspection.
41. Acceptance of the work completed and submission of as-built drawings.
42. Notice of completion filed by owner.
43. Beginning date of contractor's one-year guarantee.
44. Final payment to contractor, subject to clearance that contractor has paid all bills.

Dedication
45. Committee on Promotion drafts a dedication booklet.
46. Clean-up of building and site.
47. Landscaping completed. (The architect should be included in planning landscape.)
48. Final payment to architect.
49. Copy of dedication booklet approved and sent to printer.
50. Dedication plans set.
51. Church council and pastor draft and publish a statement regarding the use of the new facilities.
52. Building dedication.
53. Appreciation to all those who worked and gave.
54. A week of “open house,” special services and thanksgiving.
Acoustics in the Worship Space

Because hearing and participation are vital parts of worship, the worship space must provide an acoustically balanced environment that fully supports both aspects. The challenge to achieve this is complicated by the fact that music and speaking depend on different acoustical environments.

The ideal setting for the spoken word is where reverberations are limited to less than a second. However, music and congregation singing is enhanced when the reverberation is two seconds or more. Pipe organ music’s optimum environment has reverberation time that lingers for three to five seconds.

Obviously, we cannot design worship space that achieves every ideal. Professional assistance should be used to determine the best acoustical environment. Current technology enables us to resolve the conflict between these environments. With affordable electronics, it is possible to design a sound reinforcement system that, in effect, adjusts a “live” space which emphasizes the music environment to be conducive to the spoken word.

Perhaps most of us can agree on the goal to provide a worship environment sufficiently “live” to enhance congregational singing, instrumental music, and personal participation while sufficiently supportive to the spoken Word: the proclamation of the Gospel of our Lord and Savior, Jesus Christ!
Sustainable Architecture in Our Church

God has bestowed upon us an amazing planet with awesome natural resources and ecosystems. But as the global population increases, we must continually manage these natural resources for God’s future generations. Good stewardship of our planet can preserve what God has granted us. As members of the church, we each should look at means of reducing our habits of consumption by adopting principles of conservation and sustainability.

The current trends have left many confused about the terms and concepts, and the mislabeling of products and services as “environmentally friendly” have begun to instill mistrust in some consumers. This is especially true when it comes to issues concerning the buildings in which we live and work. By maintaining a clear understanding of the principles of sustainability, we can move beyond these opportunistic trends and confidently incorporate these values into everyday life.

The benefits of “green” building are many and their effects on the environment include:

- Enhancing and protecting multiple ecosystems and their biodiversity;
- Improving air and water quality;
- Reducing the output of solid waste and carbon dioxide; and
- Conserving natural resources for the use of future generations.

Beyond these benefits to our natural world, green building has real economic benefits. Well-designed and maintained buildings result in lower operating costs, promote greater user productivity and satisfaction, and optimize economic performance over the life cycle of the building. Additionally, they enhance their occupants’ comfort and health, minimize the strain on local infrastructures and contribute to a greater overall quality of life.

The following are terms often used in the context of green architecture:

- Sustainable: a method of harvesting or using a resource so that the resource is not depleted or permanently damaged.
- Embodied energy: the energy used during the entire life cycle of a product including the energy used for manufacturing, transporting and disposing of the product.
- Carbon footprint: a representation of the effect human activities have on the environment in terms of the total amount of greenhouse gases produced (measured in units of carbon dioxide).
- Green architecture: the art or practice of designing and building structures which minimize harmful effects on human health and the natural environment by considering multiple factors, including site impact, water conservation, energy performance and materials selection.
- L.E.E.D. Building Rating System: (Leadership in Environmental and Energy Design) the U.S. Green Building Council’s third-party certification program for the design, construction and operation of high-performance green buildings and communities. LEED is a points system organized as a checklist with the following categories: Sustainable Sites; Water Efficiency; Energy & Atmosphere; Materials & Resources; Indoor Environmental Quality; Locations & Linkages; Awareness & Education; Innovation in Design; and Regional Priority. By achieving credits under each category, a project earns points towards a rating of Certified, Silver, Gold or Platinum.

Buildings are the single most significant source of energy consumption and waste output in the United States today. According to the U.S. Department of Energy, buildings use 39% of all energy and 74% of all electricity produced each year. They contribute to the consumption of 14% of all potable water and produce 38% of all carbon dioxide emissions.

The construction of our built environment accounts for 40% of all raw materials consumed annually. Also 30% of all solid waste produced in the United States can be attributed to the construction process; 136 million tons of construction and demolition waste are produced each year by the building industry. By recognizing the enormous
energy, water and waste demands that our built environment consumes, we can begin to implement strategies that will reduce our consumption of these resources.

I. Principles in Sustainable/Architecture

Sustainable Sites

Choosing a building site and managing that site during construction are important sustainable considerations. Undeveloped land proposed for a new church site needs to be studied carefully so as to minimize the building’s impact on ecosystems and waterways. Using regionally appropriate landscaping, controlling stormwater runoff and reducing erosion, minimizing the heat-island effect of large paved areas and reducing construction-related pollution are encouraged. Building houses of worship closer to utility and transportation services, and in denser neighborhoods minimizes travel distance, encourages walking, and affords more accessible public transportation.

Water Efficiency

Buildings and landscaping are major end-users of our potable water supply. The goal should be smarter uses of water, inside and out. Water reduction is typically achieved through more-efficient appliances inside and water-wise landscaping outside. Water harvesting of non-potable water for toilets and irrigation may be appropriate in some areas.

Materials and Resources

During both the construction and operation phases, buildings generate a lot of waste and use a lot of materials and resources. The goal should be the selection of regionally produced materials, thus reducing transportation cost and pollution. Locally sourced materials also allow a new construction project to support the local economy. Choosing materials that have future re-use or that can be recycled after they reach their useful life should be considered.

Energy and Atmosphere

The goal should be to use a wide variety of energy strategies including commissioning, energy use monitoring, efficient design and construction which may include efficient appliances, building systems and lighting. Using controlled natural daylight for the building lighting demands reduces the use of electrical lighting. The use of renewable and clean sources of energy generated on-site or off-site such as solar and wind should be considered. Again, a more-efficient building means fewer dollars spent on HVAC and more for ministry programs.

Indoor Environmental Quality

The U.S. Environmental Protection Agency estimates that Americans spend about 90% of their day indoors. The goal should be to promote strategies that can improve indoor air quality as well as providing access to natural daylight and views and improving acoustics.
II. Design Guidelines

Historic Preservation and Rehabilitation

Green architecture does not apply only to the design and construction of new buildings. Most historic structures (in this case, those built before 1940) have proven to be as energy efficient as those built after 1990. They are designed to be comfortable without air-conditioning. They take advantage of natural day lighting with large windows. They typically are constructed of long-lasting materials. And they are usually located in dense, walkable communities. With renovations, less energy is consumed to manufacture and transport building materials, resulting in a smaller carbon footprint over the life of building, less waste to the landfill and less energy consumed over building’s life cycle.

Unfortunately, the majority of U.S. building stock was constructed between 1950 and 1980. These buildings typically consume between 60% to 150% more electricity than historic or modern (post-1990) buildings. The introduction of air conditioning and large window systems significantly increased the energy load on the typical building. These innovations came without knowledge of high-performance building envelopes and the need for tight, well-insulated spaces.

Recent advances in energy modeling and building performance however have proven that these buildings can be efficiently and economically renovated. It is well-documented that the majority of a building's energy loss is through its roof system and not necessarily through its windows and doors. By installing additional insulation in a building’s roof assembly, the overall energy costs can be greatly reduced. Additionally, a building’s lighting and air conditioning can be converted to more efficient systems through routine maintenance programs. And by implementing sustainable strategies such as housekeeping programs that use green cleaning products and installing recycling centers throughout a facility, an existing building can be made sustainable by anyone’s definition.

Sustainable Guidelines for Building God’s House

Building houses of ministry that are sustainable does not mean expensive construction. Without employing sustainable practices, buildings likely are to be more expensive to operate and contribute to excessive resource consumption, waste generation and pollution.

The following are some simple guidelines and recommended practices to aid in developing environmentally responsive ministry structures.

Site and Building Form

Most of the location, orientation and massing decisions made in the early stages of church design have a measurable effect on the energy and environmental impacts of building. Early decisions in site planning establish the potential for daylighting and natural cooling as well as passive renewable energy.

- Solar-Responsive Design
  Careful orientation and massing can enhance solar energy entering the building. Building design that incorporates predominantly north-and-south facing windows (minimizing east and west facing windows) significantly reduces the building’s cooling loads. This translates into lower energy costs over the life of the building and less air pollution.

- Daylighting Design
  If carefully controlled, daylight enhances the visual quality of interior spaces and offers many psychological benefits that are difficult and expensive to replicate with electrical lighting. Natural light has unique spectral qualities that reveal and highlight colors and interiors.

- Natural Ventilation and Cooling
  Natural or passive ventilation and cooling uses wind and the buoyancy of warm air to provide comfortable conditions within buildings during hot periods. When carefully combined with daylighting and thermal mass, natural ventilation can greatly reduce the cooling load in worship facilities, and minimize or eliminate the need for mechanical cooling in many circumstances.

- Stormwater Management
  Stormwater runoff is a pressing and difficult environmental problem. It is important to limit the amount of impermeable surfaces on the site, since permeable surfaces both reduce peak stormwater runoff, and filter stormwater pollutants.
Landscape

Lawns, ornamental shrubs and trees, often poorly adapted to difficult urban conditions, have for many years dominated urban landscape design. To survive, these landscapes require high levels of maintenance, irrigation, fertilizers, herbicides and pesticides. These not only increase the cost of ownership, but pollute stormwater runoff and provide little to no habitat for local wildlife.

Ecologically based landscape considers a region’s water flows, climate, open spaces, native vegetation, wildlife and existing urban development. Understanding the ecology of the region helps when working with the needs of a specific church site design, its solar access, wind patterns, topography, rainfall and drainage patterns, and the preservation of existing vegetation and unique features of the site.

Air Quality and Wildlife Habitat

Ecologically based landscape design can improve local air quality by absorbing carbon dioxide, producing oxygen and filtering particulates. In addition, the use of native and other ecologically appropriate plants reduces water consumption, maintenance requirements, and the use of pesticides and herbicides and increases the area’s suitability for wildlife.

Envelope and Space Planning

- Daylighting design offers the twin advantages of creating a high-quality work environment while reducing energy use for lighting.
- The design of the interior must ensure that light and air reach the largest area possible, requiring careful design of interior spaces and partitioning. The color and shape of interior surfaces has a major impact on the distribution and quality of daylight.
- Thermal mass moderates indoor temperatures by dampening temperature swings.

Materials

Not all materials are equal. “Green materials” used in building the church or other ministry space should be carefully selected for low pollution in their production, delivery, use and disposal. Materials should have a long life, low maintenance and be suitable for salvage or recycling.

- Recycled-Content Products
- Construction products made with reprocessed waste materials.
- Healthy Products
- Healthier materials have minimal chemical emissions, off-gassing, and materials which use minimal cleaning or maintenance procedures requiring toxic chemicals.
- Local Economy
- Where possible, employ local building materials and services where they are available. Local materials—such as stone, tile, brick and timber—also give a building a quality of place, or belonging in the region.

Water Systems

Periods of drought have been seen throughout history. Continued economic and population growth will put additional pressure on finite water supplies. An inexpensive method to conserve water is to use state-of-the-art, water-conserving fixtures, fittings and appliances.

Electrical Systems

The most effective strategy to reduce ongoing cost for the church is to reduce the power demand and electrical consumption. A building’s electrical demand and consumption is greatly influenced by architectural and mechanical design decisions. Considerations to reduce electrical loads include:

- Integrating Daylighting with Electric Lighting
  During daylight hours, good lighting design looks first to natural lighting, and then to electric lighting as a supplement. Indirect, natural daylight can be easily incorporated into the everyday use areas of the church, i.e. administration and staff areas. The electrical lighting should be highly efficient with long bulb life.

- Photovoltaic Electricity Generation
  While the initial cost of photovoltaic electrical generation is currently high relative to purchase power, it can provide a visible commitment to renewable energy.

HVAC Systems

The primary function of HVAC systems is to provide healthy and comfortable interior conditions for occupants; well-designed, efficient systems do this with minimal non-renewable energy and air and water pollutant emissions.

- Indoor Air Quality
  Indoor air quality is a central concern for mechanical designers and contractors, requiring careful design, installation and site review for good results. This should be stressed to the church’s architect and design team.

- Energy-Efficient HVAC Equipment
  Climate-responsive building envelope design reduces heating and cooling loads, and thus reduces the size of HVAC systems and equipment. The cost of smaller equipment often more than offsets the cost of envelope and electrical upgrades.
Construction Management

Reducing the environmental impact of the construction process begins with managing necessary demolition responsibly. Many materials can be salvaged for reuse or collected for recycling, often by specialized waste receivers. These services can actually save money for the contractor or owner, because transportation costs and dumping fees are reduced and some items are worth cash. Protecting the site from undue damage to soils, vegetation and air quality and preventing stormwater contamination during excavation and construction is the second part of responsible construction. The third part is ensuring that construction waste is minimized, recyclables are recovered and toxic releases onsite are minimized. The final part is ensuring that building occupants are protected from construction-related health hazards during renovations, or during first occupancy after completion.

- Demolition
  The general contractor, owner or architect should

Handicap Access and Architectural Barriers

Church leaders and all congregation members need to be concerned about the needs of all people, including the physically handicapped, the chronically ill and the aging.

State and local building codes now include provisions that require buildings be constructed or modified to accommodate and be accessible to the physically handicapped. In 1990, the federal government enacted sweeping legislation, titled the Americans with Disabilities Act (ADA), designed to extend civil rights protection to individuals with disabilities.

The intent of ADA is to provide people with disabilities accommodations and access equal to, or similar to, what is available to the general public.

The extensive ADA regulations cover almost all public and private facilities, but it specifically excludes “entities controlled by religious organizations: including places of worship.” Religious entities are exempt from all Title III (Public Accommodations) requirements.

This exemption is extremely broad and remains intact even when the facility is available to the public as well as the congregation served by the religious entity.

Therefore, facilities like hospitals, universities, office buildings or restaurants are exempt from Title III if they are owned and operated by a religious organization.

If a private entity, which is not itself a religious entity, leases space from a religious entity, then it is covered by Title III. However, the religious entity remains completely exempt. If the religious entity provides space to a private entity without charging rent or other consideration, then the private entity is exempt from Title III.

It is worth noting that religious entities are not exempt from Title I (Employment Section) of the ADA, although they are permitted to give employment preference to members of their own congregation.

To further complicate matters, many state and local political subdivisions are in the process of adopting the ADA regulations as a part of their building codes and in some cases eliminating the religious entity exemption. Be sure your architect is familiar with the ADA and your local code before commencing any building or remodeling program.

Regardless of the prevailing codes and laws, the Architectural Advisory Committee encourages all congregations to evaluate your facilities from the standpoint of:

- a person in a wheelchair
- one who cannot see
- one who has difficulty in readily maneuvering
- one who does not read well.

Consider ways to encourage participation by all people in the planned activities and programs.
Building Maintenance Checklist

Properly maintained church property conveys “image” that we, as stewards, care. Usually, church building maintenance is the responsibility of a board of trustees or facilities committee. Members are typically appointed or elected for a relatively short time—while the life of the building is expected to be a long period of time. The missing link is an ongoing program that provides continuity to a maintenance program.

If a congregation does not have sufficient expertise to develop a maintenance program, a professional consultant (i.e. engineer/architect, maintenance company, etc.) should be hired. Such a program should include:
> Job description for maintenance personnel.
> Maintenance program.
> Follow-through with a time schedule.

Job description for maintenance personnel

Cleaning schedule
• carpet cleaning and vacuuming
• hard surface floors
• dusting
• glass washing

Restroom maintenance
• floors
• dispensers
• cleaning fixtures
• disposal receptor

Exterior maintenance
• shrubs, trees, lawns
• sprinkling
• snow removal

Set-up and take-down schedule
• banquets
• classrooms
• relocating furniture

Maintenance program
A maintenance program for a church facility depends on the type of construction, how complex the structure is and the region of the country. A comprehensive program should consider the following:

1. Record keeping
• consumption data, annually
  —utilities
  —maintenance material
  —preventive maintenance material
• maintenance records
  —date
  —scope of work
  — applicator or contractor
  —material manufacturers instructions
  —annual cost
• recommendations
  —short term
  —long term

2. Site checklist
• parking surfaces
  —sealing and striping asphalt
  —drainage
• grading
• landscaping
  —lawns
  —shrubbery
• sidewalks

3. Exterior checklist
• caulking
• windows
• doors, frames
• weather-stripping
• painting
• roofing system

4. Interior checklist
• painting
• finish hardware
• floor finishes
• wall finishes
• redecorating schedule
• fire extinguishers
• first aid kit
5. Vertical transportation
- elevator
- lift
- ramp

6. Mechanical systems checklist
- boiler maintenance
- air filters/HVAC
- plumbing valves and faucets
- operating manuals
- cleaning roof drains
- lubricate equipment
- humidity control

7. Electrical systems checklist
- clean motors
- clean light fixtures
- inspect fire alarm
- smoke/heat detectors/carbon monoxide detectors

8. Graphics
- site plan
- floor plans
- roof plan
- photos
- evacuation plan

9. Emergency plan
- fire
- loss of electricity
- heat loss
- accidents or health emergency by public (heart, falls, etc.)
- emergency evacuation signs

10. Equipment
- maintenance tools, ladders
- janitorial equipment
- exterior maintenance equipment and tools

> Time schedule
- Develop a time schedule to serve as a guide for the maintenance personnel.
- Prepare a time schedule to maintain/replace equipment in accordance with the manufacturer’s recommendations.
- Inspect exterior building envelope at least twice a year.
Everyone has an idea. Everyone has an expectation. And the community has so many needs. And “We’ve always done things this way.”

Sometimes, doing ministry is like looking through a kaleidoscope. Everything looks fragmented; a piece here and piece there; colors colliding and images emerging and quickly fading.

LCEF’s VisionPath will help turn the fragments of ministry into a clear picture, bringing into focus God’s vision for your ministry and community.

The Experience

A one-time, half-day VisionPath event at your site will be guided by a trained LCEF facilitator. Your members will focus on questions such as

“What is the greatest point of connection between us and our community?”

“What is the greatest opportunity facing your ministry today?”

“If your ministry did not exist, should it be started?”

Through questions like these and facilitated discussion will lead your ministry’s VisionPath team to:

• refine and communicate a clear direction.
• develop strategies and approaches consistent with a clear direction.
• conduct an optional Covenant Event, inviting all members to join, commit and celebrate the renewed vision.

If your ministry needs clarity, contact your District vice President.
Laborers For Christ was developed as a resource for member churches that want to build. By organizing themselves as general contractors, member congregations save up to one-third the cost of construction while strengthening their ties in fellowship. Laborers For Christ works because some members of the Synod make themselves available as active Laborers whom congregations hire at minimum wage to work side-by-side with members to build their facilities.

Among the Laborers are experienced project managers who serve as construction superintendents to help the congregation secure favorable subcontracts from local tradesmen, as well as to organize the volunteer members and Laborers into work crews. Under the project manager’s guidance, four to eight active Laborers work during the week; three to 30 member volunteers join them on Saturdays for devotions and then major work efforts. Other volunteers join the Laborers, who live on the construction site in travel trailers for three to five months. On Sundays, Laborers and members worship together since Laborers become honorary members of the congregation.

Laborers For Christ developed a set of construction criteria regarding the design of the facility to be constructed. These criteria generally include maximum clear span for roof trusses, roof slope or pitch, side wall height, overall size of building, construction methods. These criteria must be given to a registered architect to use when developing the required design drawings, construction documents and specifications to obtain a building permit. The architect should remain involved on the team during construction to help the congregation and Laborers interpret plans, answer questions and assure quality work by subcontractors.

For more information, contact your District Vice President.
Now faith is the assurance of things hoped for, the conviction of things not seen” (Heb. 11:1).

In Hebrews 11, the writer goes on to list for his readers many examples of faith Christians can look to for inspiration. Their real-life experiences are proof of their conviction that God, in Christ, would keep His promise. God did keep His promise. And by grace, through faith, God makes His vision for each Christian a reality.

Building this same foundation, LCEF’s Capital Funding Services brings your LCMS congregation, school association or agency a professional, Scripture-based, fund-raising service that raises up Christian stewards to be examples of faith. By grace, faith creates the vision. By grace, faith sees the vision realized. By grace, faith builds!

Since 1992, CFS has helped LCMS congregations and organizations raise funds for building renovation, new construction, debt retirement, program expansion, mission starts or relocation—the things they hoped for.

The professional CFS staff provides onsite, consultant-led services that help your members identify funding sources and test the potential of the project. A campaign designed to bring out the joy of giving is then custom designed and implemented. Together, we’ll capture the enthusiasm of your mission.

CFS consultants are your partners in the Gospel. Each is committed to serving you in the best possible way, so your ministry can flourish and more people can know Jesus Christ and the difference He makes.

**Feasibility Study**
A Feasibility Study helps assess ownership and support levels for your facility and funding goals. CFS will help you craft your case statement, then, through thorough research and analysis, will help you plot a roadmap for success.

**Capital Campaigns**
A capital campaign with your unique vision and purpose that:
- Is shaped by your vision, focused on Christ, built on faith, enabled by Word and Sacrament, achieving results.
- Brings and builds cooperative links with other LCMS services in support of your vision.

**Increased Giving to Annual Budget**
Capital Funding Services can help members grow to new levels in their regular giving by leading them through a stewardship emphasis focused on annual giving.
- Connecting them to what God’s Word says about His purpose and plan for their time, talent and treasure.
- Annual stewardship programs can be blended into your capital stewardship emphasis.

Contact your District Vice President for more details and the name of a consultant.
Demographic Services

Helping Ministries Reach Communities
Do you know your mission field? LCEF’s Demographic Services offers your congregation or organization up-to-date population data and resources to help you understand and reach the households in your surrounding community.

Community Data for Defining Your Mission
Demographic reports are offered through MissionInsight, LCEF’s partner. The reports combine updated U.S. Census data, marketing research data and religious information to give you a comprehensive snapshot. They offer:

- **Analysis Tools.** Choose from preset geographies such as ZIP codes, U.S. Census tracts, cities or counties, or from your own custom geographies for reports.

- **Reports.** The user-friendly, four-page QuickInsight Report provides just enough information for a first look at your area. A FullInsight report provides 18 pages of community demographic information integrating data, graphs and text analysis. The ExecutiveInsight Report provides a strategic analysis of your area around 12 “insites” that are essential for ministry planning.

  All data provided by MissionInsite contains current-year updates for population, households, and families in the study area, as well as age, income, ethnicity, phase of life (generational) and MOSAIC segmentation (lifestyle) information. Many variables are integrated into five-year projections.

- **ViewPoint.** “Insite” into the beliefs, values and lifestyle preferences of the community selected. ViewPoint provides 120 current variables for religious practices, lifestyle preferences, personal preferences, life concerns and well being, social values and charitable contributions.

- **Optional Congregant Plotting.** Plot your current church members/visitors on a custom map you create.

  This information will assist you in creating a targeted mailing list. For more information about a demographic report for your community, contact your District Vice President.
<table>
<thead>
<tr>
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