



# **RULES OF THUMB**

## SPACE AND DIMENSION RECOMMENDATIONS

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This document is based on requirements and recommendations for Southern Baptist Churches in America in general and may or may not apply in any given situation. To discuss your particular needs, please contact Church Architecture at (615) 251-2466.

Rules of Thumb is intended to provide general guidelines for estimation of property, building space, and other needs prerequisite to actual planning. It is not a substitute for actual planning and design.

A rule of thumb is useful only in making approximations and should not be used dogmatically. Understanding the variables affecting their values is essential in their application to specific situations.

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## SITE PLANNING

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Facilities for worship, education, fellowship, administration, parking:

- 1 acre per 100-125 in attendance on site at one time.
- Outdoor recreation: 2 to 4 additional acres.

*Note: These requirements are based on usable acres. Zoning regulations, storm water retention requirements, utility easements, irregular property shape, steep slopes, and low-lying areas may reduce usable acreage.*

## Parking

- One space for every 2.0 to 2.5 people in attendance on site at one time.

- Parking Ground Coverage: 100-110 spaces per acre used for parking only. (Assumes efficient layout with parking on both sides of driving lanes and allowing for some landscaping and general access.)

*Note: 90-degree parking on both sides of two-way driving lanes is generally the most efficient layout for parking.*

### Parking Space Dimensions:

- Standard: 9 feet by 18 feet
- Handicapped: 8 feet by 18 feet, with 5-foot access aisle
- Van accessible: 8 feet by 18 feet, with 8-foot access aisle (Access aisle can be shared by two parking spaces.)

*Handicapped parking requirements vary. Check local requirements.*

The following *requirements* from the Americans with Disabilities Act (ADA) may be used as guidelines.

<b>Total Parking</b>	<b>Required Minimum Number of Accessible Spaces</b>
• 1 to 25	1
• 26 to 50	2
• 51 to 75	3
• 76 to 100	4
• 101 to 150	5
• 151 to 200	6
• 201 to 300	7
• 301 to 400	8
• 401 to 500	9
• 501 to 1000	2 percent of total
• 1001+	20 plus 1 for each 100 over 1000

*Note: One in every eight accessible spaces, but not less than one must be van accessible.*

## Worship Center Design

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### General Building Size

- Up to 300 capacity: 15 to 17 square feet per person
- Above 300 capacity 12 to 20 square feet per person

*Note: Rectangular buildings with straight row seating require less space per person than buildings with radial seating. In some instances, ten square feet per person is adequate in straight-row seating for buildings with capacity over 500.*

### Vestibule/Lobby

- Serving worship center only:  
1-1/2 to 2-1/2 square feet per seat in worship center
- Fellowship lobby serving worship center and education space:  
15 to 25 percent of the worship center area

### Balcony

Capacity: Less than 50 percent of main floor seating

- Riser depth: 3 feet 6 inches for first row 3 feet 2 inches for the back row 3 feet for other rows
- Cross aisles: 4 feet minimum
- Other aisles: Same as aisle width on main floor
- Stairwells: Two to outside exits minimum. (One may be sufficient for less than 50-seat capacity). Additional stairs may be desired based on design.
- Balcony locations: 45 feet minimum distance from platform to balcony; 35 feet minimum between side balconies.

### Congregational Seating

Local building codes and the National Life Safety Code adopted by the locality should be consulted for minimum requirements.

Row spacing:

- 34 inches minimum, 36 inches or more recommended
- Row lengths and seating:  
Average space per person, 20 inches width; 13 or 14 persons maximum on each row

*Note: Most building codes are based on 18 inches per person.*

Handicapped seating: Requirements vary by locality. The following requirements from the Americans with Disabilities Act (ADA) may be used as guidelines for worship centers with fixed seating:

Capacity of Seating in Assembly Areas	Number of required Wheelchair locations
4 to 25	1
26 to 50	2
51 to 300	4
301 to 500	6
Over 500	6, plus 1 additional space for each total seating capacity increase of 100

## Worship Centers, continued

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*Note: Provide clear sight line from rear balcony rows to main floor Lord's Supper table and decision areas*

### Steeple Height

Equal to distance between roof ridge and ground level

Aisle widths (check local codes):

- Center or main aisle, 4 feet minimum; 5 feet or more recommended
- Side aisles, 2 feet, 6 inches minimum; Some codes require 3 feet, 8 inches

*Note: A center aisle less than 6 feet wide is tight for weddings and funerals*

### Baptistry

- Inside pool dimensions:  
3 feet by 6 feet minimum, plus internal steps; larger sizes are recommended
- Water depth:  
Between 3 feet 3 inches and 3 feet 6 inches
- Baptistry floor (above last choir row):  
6 inches minimum, 18 inches to 36 inches is desirable.

## Education Facilities

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### General Building Size:

(Education, fellowship, administration, and media library, with some multipurpose space)

- First Unit Building: 30 to 40 square feet per person
- Small Churches: 40 to 50 square feet per person
- Large churches with extensive programs: 45 to 55 square feet per person

### Preschool

- Space per child: 35 square feet recommended
- Room size: 200 square feet minimum; no wall less than 12 feet
- Windowsills: 18 to 24 inches from floor

### Preschool Room capacities:

Ages	Capacity
B,1	7 to 10
2	9 to 12
3,4,5	12 to 16

**Children**

- Space per child: 25 square feet recommended
- Room Proportions: 2 units wide by 3 units long
- Windowsills: 18 to 30 inches from the floor
- Room capacity: 24 maximum

**Adults**

Space per person:

- Classroom: 12 square feet recommended
- Department rooms: 10 square feet recommended
- Multi-use classroom/department room: 18 to 22 square feet recommended

**Weekday Child Care:**

- Space per child: 35 square feet or by local codes
- Play yard: 75 square feet per child minimum, or as required by codes
- Rooms usually require grade level location, often with direct access to exits. Check codes.

*(Check state and local codes for detailed requirements.)*

**Youth**

Space per person:

- Classrooms: 12 square feet recommended
- Department rooms: 10 square feet recommended
- Open room department: 18 to 22 square feet recommended

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## CHURCH RECREATION BUILDING

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**Overall Building Size**

**Gymnasium:**

- With Junior high school basketball court, restrooms, central desk and storage only: Building: 50 feet x 96 feet, (4,800 square feet) minimum, 64 feet x 110 feet, (7,404 square feet) preferred.
- With High school basketball court, restrooms, central desk, and storage only: Building: 58 feet x 106 feet, (6,148 square feet) minimum, 72 feet x 120 feet, (8,640 square feet) preferred.
- With activities rooms, lounges, multi-purpose rooms, crafts rooms, restrooms, dressing rooms, central desk, exercise rooms, storage, etc.: 10,000 to 20,000 square feet.

**General Requirements**

**Basketball Court:**

- Clear ceiling height, 20 feet minimum, 25 feet desirable
- Side and end lanes, 3 feet minimum, 10 feet preferred

**High School Court:**

- 50 feet by 84 feet
- Room size: 70 feet by 104 feet preferred, (7,280 square feet) plus 3 feet for each additional row of spectator seating

**Junior High Court:**

- 42 feet by 74 feet (For most churches, a junior high-size court is not recommended.)
- Room size: 62 feet by 94 feet preferred, (5,828 square feet) plus 3 feet for each additional row of spectator seating

## **CHURCH RECREATION BUILDING –Continued**

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*Note: The recreation building can be reduced in square footage and in height and still accommodate a broad recreational program for all age groups if space is not provided for basketball and volleyball.*

**Handball/Racquetball Court:** 20 feet by 40 feet, 20 feet ceiling height

**Game Rooms:** 24 feet by 30 feet, to 40 feet by 60 feet or more

**Group Meeting Rooms:** 15 square feet per person

**Storage:** Direct access from the gymnasium, with double-wide doors for roll-in table/chair carts. Separate storage spaces for recreational equipment, crafts supplies, kitchen pantry, and janitorial supplies and equipment

Provide restrooms for gymnasium area in addition to minimum number in preceding chart  
Showers, if desired, with dressing space and lockers

## **ADDITIONAL FACILITIES**

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### **Administrative**

- Pastor's Study: 250 to 325 square feet recommended; 140 square feet minimum
  - Staff Offices: 150 to 200 square feet recommended; 120 square feet minimum
  - Other office space, based on church needs: Offices for support staff, workroom(s), reception area, storage, restrooms, lounge, kitchenette.

### **Media Library**

- Size: 2 square feet per person based on capacity of educational building is recommended; minimum of 1 square foot per person

### **Fellowship Hall**

- Dining capacity: 1/3 to 1/2 educational building capacity recommended. Some rural and newer churches may require greater capacity.
- Space required for table seating: 12 square feet per person recommended, 10 square feet per person minimum, 15 square feet for round tables
- Stage requires additional space
- Institutional Kitchen: 1/4 to 1/3 size of dining area

**Music**

- Rehearsal Room: 15 to 20 square feet per person. Capacity at least 10 percent more than worship center choir area.
- Robing Rooms: 4 to 6 square feet per person
- Music Library: 1 to 2 square feet per choir member
- Orchestral Rehearsal Room: 25 square feet per person
- Handbell Rehearsal Room: 20 feet by 30 feet desirable (allows for a five-octave set of handbells with twelve ringers, 32 feet of tables).
- Individual Practice Rooms: 10 to 15 persons at 10 square feet per person
- Voice and Piano Practice Rooms: 8 feet by 10 feet minimum

**Restrooms**

Minimum number of fixtures must comply with local codes. The following chart contains recommended guidelines:

Building Capacity	Women		Men		
	WC	L	WC	U	L
Up to 50	2	1	1	1	1
51-100	3	1	2	1	1
101-200	4	2	2	2	2
201-400	5	2	3	2	2
401-650	7	3	4	3	3
651-900	10	4	5	5	4
901-1200	12	5	6	6	5

**OTHER BUILDING ISSUES**

**Mechanical Equipment Rooms**

- Space requirements vary with region and equipment type
- Consider equipment and air flow noise in the worship center
- Zone equipment so various program areas can be heated and cooled independently

**Provisions for Disabled Persons**

- Requirements vary by state and locale. Many codes are based on standards developed by the American National Standards Institute (ANSI), the North Carolina Building Code, or the Americans with Disabilities Act (ADA).

Considerations include:

- Extra wide parking spaces (see Parking)
- Building entry: No steps (Provide ramp if steps are needed)

**Custodial Closets**

- Provide one closet for each approximate 15,000 square feet of building
- No building area should be farther than 200 feet from a closet with a sink
- Provide a minimum of one closet for each major building area and each building level
- Preferred locations: between restrooms, near heavy traffic areas, near elevators
- Do not combine custodial closets with utility rooms housing telephone switch gear, elevator equipment, electric panels, HVAC equipment, etc.

**Clearances for Disabled Accessibility:**

- 36 inches minimum door width
- 5 feet minimum hallway width for two wheelchairs
- 5 feet, 6 inches minimum hallway width to allow for two persons on crutches
- Restroom dimensions to allow minimum 5 foot turning radius for wheelchair
- Slope of walks: Not more than 1 foot in 20 feet
- Slope of ramps: Not more than 1 inch in 12 inches
- Handrails at ramps; grab bars in toilet stalls
- Wheelchair spaces in the worship center
- Elevator may be required

**Finances**

**Maximum Debt:**

(Total building debt excluding parsonage)

- 2 to 2 1/2 times annual income of previous year
- Recommend no more than 25 to 30 percent of annual income go to debt retirement

*Note: Construction costs will usually be only 70 to 80 percent of total building project budget*

<b>Building Project Budget:</b>	<b>% of Construction Cost</b>
• Architect and other fees:	6 to 12 %
• Furnishings:	8 to 15 %
• Landscaping:	5 to 7 %
• Contingency:	5 to 10 %
• Construction loan financing	varies
• Financing closing costs	varies

**Capital Fund Raising:**

(Results depend on commitment to project, the quality of the church's fellowship, the church's giving potential, and the need for the project.)

Average fund raising results for building program and/or debt retirement:

- **Pledged:** One to three times (on occasions more) previous year's budget income, paid over a three-year period.
- **Receipts:** 90 to 100 percent of amount pledged.