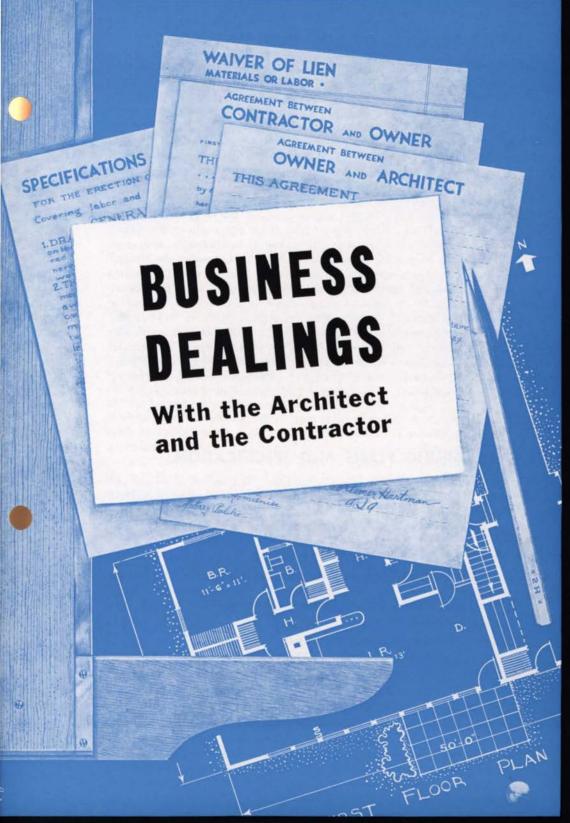
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### WHOSE SERVICES DO YOU NEED IN BUILDING?

Among persons who have built homes, some remember building as a pleasant experience. Others look back upon it with displeasure and disappointment because of unanticipated costs and, perhaps, lawsuits. The difference between pleasant and troublesome building is usually due to the amount of care exercised by the owner in business matters. Equally important are the ability and the integrity of the people engaged to plan and build the project.

Each step in building is an important transaction involving large sums of money. To build without professional advice and written agreements is foolbardy.

The business agreements and procedures in home building which concern the homeowner are described in this circular, as are the services offered by architects and contractors. While this circular refers primarily to the single-family house, the information is also applicable to multi-family and commercial construction. (See SHC–BRC Circular A1.3 — "Financing the Home," for procedures in arranging a loan.) By acquainting yourself with the services of the architect and the contractor (home builder) you — as a prospective homeowner — can make the most of the guidance of one or both, depending on the professional aid you choose. While the description of services and documents may seem complex, they take on a logical and uncomplicated order when the owner has the help of a capable architect and a reliable contractor.

Planning and building a house entails obtaining a workable set of plans and specifications; preparing and awarding of contracts; building operations; and satisfactory completion of the building and conclusion of contracts.

#### OBTAINING PLANS AND SPECIFICATIONS

A good set of plans and specifications is essential. Regardless of where you obtain these plans and specifications, you should first develop an intelligent listing of your needs — the number of rooms, size, type, location, arrangement — and fit these needs to your building budget.

#### Plans and specifications may be secured from:

- An architect. By engaging an architect, you can be assured that the drawings and specifications will be complete and accurate, and the house will be well-planned and designed for you individually. To select your architect, you should consider:
  - 1. Recommendations from satisfied clients of architects.
  - The architect's tastes and yours. The type of work which the architect does should agree with your tastes. Study houses which architects have done.
- A plan service agency. "Stock" house plans prepared by such agencies can be purchased from magazines or secured from material dealers. Many of these agencies employ architects, and their plans and specifications are satisfactory. Some stock plans are inferior in design and their specifications may be incomplete. The owner must judge whether the plan is well designed, and rely on his material dealer or contractor as to the adequacy of the plans and specifications.
  - An owner who selects a stock plan and makes modifications is likely to encounter trouble unless he has competent assistance to make the alterations. All revisions must be recorded and must be fully understood by the contractor before the revised plans and specifications are used as contract documents.
- Complete service builder. If the house is constructed by a builder who
  furnishes plans, specifications, and all building operations, the builder
  will provide the minimum plans and specifications required by code and
  lending agencies. The stock plans available through these organizations
  are subject to the limitations described above.



#### PREPARING THE CONTRACT DOCUMENTS

When the plans and specifications are completed, you, as owner, will become concerned with preparing and awarding the contracts for construction. (See page 7.) Plans and specifications must be approved by your loan agency before the contract is awarded. If you have an architect, he will supply the necessary technical information for the contracts to be drawn up by you and your attorney. The architect will assist in awarding the contract.

Without an architect, you must select and engage a contractor yourself, and with him prepare the necessary documents. When the contract is signed, the contractor becomes responsible for the building operations.

Written agreements are necessary to describe the obligations of the various parties concerned with planning and building operations so that nothing is taken for granted. Such agreements protect the interests of all parties. Each party to the agreement should have a signed copy.

### SELECTING A CONTRACTOR

When you have an architect, the usual method of selecting a contractor is through competitive bidding by equally competent and responsible contractors. The architect issues a set of plans and specifications to each contractor invited to submit a bid. Instructions must clearly state the basis on which the bid is to be awarded. The lowest bidder is usually selected. If the lowest bid is not low enough, you can either: 1) ask the lowest bidder to confer with you and your architect as to what changes can be made to cut costs; or 2) ask two or three of the lowest bidders to refigure from a list of deletions and substitutions to be made in the plans and specifications. Method 1) is usually more satisfactory. All changes should be made a part of the plans and specifications.

Another way to select a contractor is **on the basis of recommendations** of the architect, or of material dealers, lending agencies, or friends. If there is no architect, the recommendation method is preferred since most owners are not qualified to select a contractor by competitive bidding.

Sometimes an owner attempts to plan and build a house himself with the aid of subcontractors. Don't try this if you are inexperienced in building.

# Some Rules for Trouble-Free Building

- Have a good set of working drawings and specifications which describe all the work involved. Be sure that you know what work and materials are included.
- 2. Do not attempt to obtain bids from every contractor. Unqualified contractors should not be permitted to bid. Neither should a contractor be asked to bid merely for the benefit of having his estimate. Estimating takes time and costs money.
- 3. Prepare written agreements with your architect and the contractor. The agreements should list the responsibilities and duties of each party. The American Institute of Architects has standard contract documents which are acceptable to most architects and contractors. It is wise to consult an attorney in regard to these legal documents.
- 4. Since the construction contract is between the owner and the contractor, all questions which arise during construction should be directed to the contractor. If an architect is employed, all communications with the contractor should be channeled through the architect. Don't ask favors of, issue orders to, or complain to the workmen or subcontractors.
- 5. If you believe that something is wrong, get the matter settled. If your contractor is the kind he should be, he will correct his mistakes.
- **6.** Do not blame the contractor for delays beyond his power. Do expect him to finish his work promptly.





#### THE ARCHITECT AND THE SERVICES HE PERFORMS

The title of "architect" is a legal one, indicating that a person has demonstrated his professional competence by examination and is registered—or licensed—by the State to practice architecture. The drawings necessary for construction purposes are also prepared by designers and draftsmen. However, they are not licensed to practice architecture.

The usual duties of the architect are to:

- 1. Analyze the family's living needs and relate these to the building budget.
- **2.** Visit the site to determine the desirable location of structure and rooms. (The architect may even advise the owner in choosing a site.)
- 3. Draw preliminary sketches (general plan and appearance of the project).
- 4. Prepare preliminary estimates of costs.
- **5.** Prepare working drawings and details (exact dimension drawings showing floor plans, exteriors, structural details, mechanical installations).
- 6. Prepare specifications. (See page 7.)
- 7. Provide the necessary technical information for contracts relating to the work of the contractor and, in special cases, to the work of subcontractors.
- **8.** Advise on the selection of the contractor or contractors. In competitive bidding, the architect analyzes the bids for the owner.

If the owner wishes to give the responsibility for the entire construction operation to the contractor, the architect concludes his services at this point. However, the usual procedure is to have the architect carry on the administration of the construction contract to the completion of the project. If he does this, then his **further duties** are to:

- **9.** Observe construction to determine in general that the work is carried out according to the plans and specifications.
- 10. Examine requests from the contractor for changes or substitutions of materials; make written recommendations to the owner for the disposition of proposed changes; and to issue written "change orders" for approved changes.
- 11. Check requests from the contractor for payments, and issue certificates for payment.
- 12. Make a final inspection.
- 13. Prepare a certificate for final payment when the project is complete.

# Fees and Payments

Many people hesitate to ask an architect about his services because they fear their inquiry will place them under obligation; however, no obligation is incurred until a contract is signed with the architect.

The fee\* for an architect who performs the duties mentioned above varies from 6 to 15% of the total cost, depending on the size and complexity of the project. When the architect performs only partial services, the fee is reduced. Services may also be provided on an hourly or negotiated basis. Additional reimbursable expenses may be due the architect. Any such expenses will be explained in the agreement between the owner and the architect.

The schedule of payments to the architect as recommended by the American Institute of Architects is as follows: 1) retainer, 2) at completion of design phase, 3) at completion of construction documents phase, 4) at completion of bidding or negotiation phase, 5) monthly during the construction phase. This schedule is sometimes modified, depending on the size and complexity of the project.

If the owner decides not to build at any point during his dealings with the architect, this decision does not release him from paying the fees incurred up to that point.

<sup>\*</sup> FHA permits loan agencies to include the architect's fee in the evaluation of the project.

### THE OWNER-ARCHITECT AGREEMENT

The owner-architect agreement should:

- 1. Describe the services of the architect.
- 2. State the amount, the time, and the method of paying the architect's fees.
- 3. Set forth the owner's responsibilities. These are to:
  - Provide the architect with information regarding restrictions, easements, boundaries of the site, sewerage, and utilities.
  - Have a survey made of site showing contours, grades, adjoining properties, and streets.
  - Give prompt, careful consideration to all papers submitted by the architect.

An owner-architect agreement will clear up such misunderstandings as those relating to:

- The architect's function. The architect's function is not to "draw blue-prints," but to perform a service for the owner. All contract documents (drawings, blueprints, and specifications) furnished by the architect remain his property and are not to be used by the owner for other than the specific project for which they were made.
- The use of the word "architect." This term, when used in a contract, implies the architect himself or any person he designates to represent him.
- The architect's role as an arbitrator. If the owner and the contractor disagree, the architect (if he administers the construction contract) shall be the impartial interpreter of the requirements of the contract documents. The owner and the contractor must report their dissatisfactions to him. The owner should not think that all decisions will be in his favor because he pays the architect.
- The architect's role during construction. The architect does not provide constant observation of the project. His responsibility at the site is to make periodic visits to determine in general if the work is proceeding in accordance with the contract documents. On larger and more complicated projects, it may be desirable for the owner to have more extensive representation at the site. Such additional service would be an additional expense to the owner.

#### COMPREHENSIVE SERVICES

Some architects offer comprehensive services. In addition to the services described previously, such an architect may take on the duties commonly performed by a contractor. He superintends and coordinates the work of the separate trades. For these extra services, he is paid an additional fee.

The architect who offers this service has the contract documents for the individual trades written in such a form that each trade becomes a contractor. Each provides its own permits, pays any sales tax, carries necessary insurance and workmen's compensation, and complies with all laws, ordinances, and codes.

Bids are requested from several contractors for each trade. The architect assembles the several bids and then, with the owner, selects the contractors. The lowest bidders are usually selected unless the time element or quality of workmanship becomes a factor. The owner signs the contracts with the separate contractors — each of whom represents a different trade. The architect takes out the general building permit for the owner; the owner pays for it. The trades are notified by the architect when to begin work.

The architect visits the project each day to see that the work of the trades is coordinated and that contract documents are being followed.

As the owner's representative, the architect prepares certificates for payment when the trades are to be paid. He sends the certificates to the owner, who makes out checks payable to the contractors. The architect may distribute the checks and may collect waivers of lien. (See page 6.) When there is a construction loan, the loan agency usually distributes the checks and collects the waivers.





### THE CONTRACTOR AND THE SERVICES HE PERFORMS

The contractor assumes the responsibility of constructing the project. He is in charge of all building operations.

The contractor must be competent in his work, in his financial affairs, and in his business relationships. Rate all contractors whom you are considering according to:

Financial resources; credit.

Reputation in general (Integrity, cooperation, and fair dealings.)

Ability to get the job done on schedule.

Experience and competence. (Years in business, work done, type of structures built, knowledge of existing conditions.)

Relations with labor, subcontractors, and material men. (Subcontractors must like to work with the contractor.)

The contractor furnishes all the material and performs all the work for the project as shown on the drawings and described in the specifications. Specifically, he:

- 1. Carries out the provisions of the contract documents. (See page 7.)
- 2. Orders and pays for the materials.
- 3. Coordinates shipment of the materials to the site.
- 4. Awards subcontracts to the various trades and schedules the work of each.
- 5. Directs construction.

### Fees and Payments

The usual arrangements for payment:

Lump sum (most common). The contractor agrees to construct the project for a fixed sum, which includes all costs and the contractor's profit. The owner pays this sum, plus any "extras" due to changes or omissions.

Cost-plus. The contractor is paid the actual cost of materials and labor plus a fixed fee (or fixed percentage of costs—usually 10% to 15%—for his overhead and profit). This method does not place an upper limit on the cost of the project.

Maximum total. The maximum total cost of the project is agreed upon by the owner and the contractor. This includes the contractor's fees. Any saving in total cost is divided between the owner and the contractor.

The usual schedules for making payments are:

**Partial payment.** This plan is the most commonly used. Payments are made monthly, based on the amount of work completed and materials delivered to the site.

On completion. The contractor receives the entire amount upon completion of the project. Few contractors will accept this method on a project which extends over a period of several months.

In each of the above methods, a percentage (usually 10%) of the value of the work completed is retained by the owner. This retained amount is due upon the final acceptance of the project by the owner.

#### Liens and Waivers of Lien

A lien is a claim against a project under construction whereby the real estate (if a private project) or the fund appropriation (if a public project) is made security for material or labor. It gives the contractor, workmen, material dealers, and, in some states, architects, a claim against the owner for the materials and labor supplied for the project.

A waiver of lien (an affidavit waiving the right of lien) certifies that all bills for labor and material have been paid. The owner should insist that the contractor present evidence that subcontractors and material dealers have been paid each time the contractor asks for payment. In order to protect the owner against possible liens, a waiver of lien must be secured from each subcontractor and supplier, as well as from the contractor.



#### CONTRACT DOCUMENTS

All business arrangements relating to the actual construction are between the owner and the contractor, whether or not an architect is engaged to design the project and to follow it through to completion.

The contract between the owner and the contractor consists of the contract documents, which usually contain the following items.

- Agreement. This should state all points agreed upon by the owner and the contractor—i.e., scope of work; time of completion; and amount, method, and time of payment. Because it avoids misunderstanding, an agreement helps to create and maintain pleasant relationships between the owner and the contractor. Should misunderstandings arise in cases where no architect is involved, the services of an impartial arbitrator (i.e., a lawyer, an architect) should be obtained.
- General conditions of the contract (including supplementary or modifying conditions). This lists 1) the responsibilities and obligations of the contractor and the owner to each other (See page 8); and 2) the duties of the architect in relation to the contractor.
- Plans and specifications. The plans consist of all drawings in connection with the work; the specifications consist of a description of all materials, their quality, and installation or application.
- Changes, modifications, and interpretations. All changes or interpretations should be made in writing.

### What the Specifications Include

The contractor is responsible only for the materials and construction of the project as described in the specifications and drawings.

The specifications should include a description of all materials used, including brand names, quality markings, and model numbers where applicable. Check carefully. Items omitted become "extras" — the owner pays for them over and above the contract. In addition to materials, the specifications describe the work to be done by listing all the necessary building operations under major classifications, such as site work, concrete, masonry, metals, carpentry, finishes, furnishings, mechanical, and electrical.

Common practices in certain trades often give rise to misunderstandings when the homeowner is not familiar with these practices. For example, the electrical work usually includes the provision and installation of electrical wiring, devices, and any special items such as the kitchen fan, if specified. Lighting fixtures can be purchased separately, or a cash allowance is provided, whereby savings or costs in excess of the stipulated allowance would revert to, or be paid by, the owner.

Hardware specifications may include only rough hardware — i.e., garage and sliding door hardware, and all nails, bolts and screws. Finish hardware may be specified or covered by a cash allowance as described above.

# **Surety Bonds**

The owner may require the contractor to furnish bonds covering the faithful performance of the contract and the payment of all obligations arising from the contract. These are generally referred to as the Performance Bond and the Labor and Material Payment Bond. These bonds assure the owner that the contract will be fulfilled, including payment of all obligations, if for some reason the contractor is unable to complete the project. The purpose of bonds is similar to insurance against fire, damage, or accident. However, bonds differ significantly from insurance contracts. Since the laws governing surety bonds vary considerably from state to state in regard to the obligations of the parties concerned, the assistance of an attorney is advisable.



### General Conditions of the Contract

The general conditions are important because they define the rights and responsibilities of the owner and the contractor. Don't overlook them. Below is a digest of some of the provisions of the General Conditions of the Contract, September, 1967 Edition, published by the American Institute of Architects.

	CONTRACTOR	OWNER
Insurance	The decision as to whether the contractor or the owner will provide certain coverage is, in many cases, arbitrary. The important consideration is that all reasonable risks are insured.	
	Purchase and maintain liability insurance, to include workmen's compensation, bodily or personal injury, and property damage. Coverage shall include injury or damage by the contractor or anyone employed directly or indirectly by him. Certain exclusions, completed operations, and other modifications shall be covered if requested by the owner, and limits of liability should be approved by the owner.	Purchase and maintain property insurance, to include fire, extended coverage, vandalism, and malicious mischief to cover all property at the site (this will not include contractor's tools). Also, the owner should carry his own liability insurance. Consult with insurance counsel in regard to exact terms of coverage and limits of liability.
	Generally, it is not possible to insure against theft of materials at the construction site. In a lump-sum contract, such material is the property of the contractor and is his responsibility. In a cost-plus contract, such material is the property of the owner and is his responsibility.	
Permits	Responsible for securing and paying for all permits, fees, and licenses required for the work, and shall give all notices required for the work. These would include city building permits, utility connection fees, etc.	
Ordinances	Comply with all laws, ordinances, rules, and regulations of any public authority.	
Surveys		Furnish complete survey showing legal de- scription, easements, utilities, and physical description of site.
Taxes	Pay all sales, consumer, use, and other taxes.	
Other Responsibilities of the Contractor	Provide and pay for all labor, water, power, equipment, temporary heat, tools, and scaffolding necessary during construction.  Provide and maintain necessary sanitary facilities.  Pay royalties and license fees; defends all claims for infringement of patent rights.  Pay necessary expenses in connection with protecting his work from damage.  If requested: Furnish surety bond guaranteeing completion of contract.  Supervise the work continuously; is responsible for its correct execution.  Leave the house "broom clean" — ready for the owner to move into.  Guarantees all work; makes good all defects due to labor and materials for 1 year or more after acceptance; is responsible for damages caused by his negligence.	
Other Subjects Covered in the General Conditions	Definition of the contract documents and the intent and disposition of the documents.  Explanation of the architect's role and responsibilities to the owner and contractor during his administration of the construction contract.  Arbitration procedure.  Time required for the completion of the contract, including delays and extensions.  Method of payments to the contractor.  Changes in the work and correction of work which does not conform to the contract documents.  Termination of the contract.	

# **Changes and Change Orders**

Probably more trouble and misunderstandings during construction are caused by changing the original plans and specifications than by any other act.

If changes are to be made during construction by either the owner or the contractor, or if extras are to be added, the instructions should be put in writing before the change is made. Have a written agreement on the cost of the change, whether an addition or deduction. Be sure that changes can be paid for from your cash or included in the loan.

When an architect is employed, the instructions and authorization for the change are issued by the architect in the form of a change order.

# **Terminating the Contract**

Either the owner or the contractor may end a contract before the project is completed under circumstances varying according to state statutes and terms of the contract. Written notice must be given.

Generally, the owner can terminate a contract if the contractor neglects to do the work properly or fails to perform any provision of the contract. The owner must, however, pay the contractor for work done, less damages.

The contractor may end a contract if the owner fails to pay him within a certain time after a payment is due or if work is stopped for any length of time by any public authority, or the owner.