design criteria, the manufacturer either selects a "pre-engineered" frame from a catalog of standard products or custom designs it. While the industry started out with the former approach (hence the buildings were called "pre-engineered"), presently the latter is the norm. Computers have revolutionized design of metal building systems by erasing the line between "standard" and "custom" choices; today, a vast majority of metal building systems are custom designed for a specific project.

Many larger manufacturers have developed extensive CAD libraries of details and connections which can help quickly assemble a computerized framing design. While each company tends to develop its own software with slightly different features, all the programs perform similar functions. Typically, computers help generate anchor bolt plans and details, frame elevations, structural computations for each member, and cost data. The newest graphic software can generate impressive-looking documents useful for presentations to owners and permitting agencies. Large metal building manufacturers view their advanced software capabilities as both technical and marketing tools differentiating them from less equipped competitors whose staff might not even include registered engineers.

9.4 THE BUILDER'S ROLE

Usually, the manufacturer does not contract with the owner directly. The entity that does is a local franchised builder. Builders can act either as general contractors for the project with complete responsibility for it, or only as suppliers of the pre-engineered building. In either case, they may subcontract building erection to another firm.

Major manufacturers are quite selective in the kind of people they allow to become their builders, seeking contractors who are financially stable, experienced, and dedicated to quality workmanship. A prospective builder is often required to complete a course sponsored by the manufacturer and receive a renewable certificate.

The builder does not simply take a set of the owner's contract documents and send it to the manufacturer; many manufacturers would not want to struggle through a thick set of plans and specifications to make a proposal. Instead, the builder interprets the documents and distills them into the so-called order documents, a standard proposal form accompanied by sketches on graph paper, and other supporting data (Fig. 9.3).

The architect's contract documents are referenced only in an agreement between the builder and the owner; a contract between the builder and the manufacturer is based solely on the order documents. Given the fact that builders generally do not have any in-house engineering expertise, a potential for misinterpretation of some complex design requirements is quite real. Indeed, the task of condensing hundreds of pages of information into a simple form could stymie even the specifiers themselves. It is easy to see how some fine points of the design might be lost in translation and never make it to the manufacturer. A close examination of the manufacturer's design certification letters (Sec. 9.5) and shop drawings becomes extremely important in assuring the owner that the building will be constructed as conceived.

Some major manufacturers have created departments of "national accounts," reflecting a desire to allow for personalized service and a better communication with large interstate repeat customers who would otherwise have to deal with a variety of local builders.

9.5 BIDDING AND SELECTION

Excepting the cases of "captive" relationships, the project will in all probability be competitively bid or negotiated. Several manufacturers will be submitting their proposals via their dealers. Which one to select?

The lowest-priced proposal may of course deserve the best chance of being accepted, *if* it is in line with the others in all respects. It is not easy to make this determination. Sometimes a builder will not even mention which manufacturer will supply the building or whether roof and wall metal panels will be shop- or field-formed.

PROPOSAL — CONTRACT

Submitted To: _____ [Owner(s) Name(s)]

Project: _____

Billing Address: _____

Project Location: _____ [Street Address]

City & State _____ Telephone No.: _____

This Contract made this ____ day of _____, 19___ by _____ (Contractor) _____ to _____ [Owner(s)]. Upon acceptance, the Contractor agrees to furnish all necesssary labor and materials to make improvements at the named project and Owner(s) agree(s) to pay in accordance with all terms and conditions set forth.

DESCRIPTION OF WORK TO BE PERFORMED:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____.

1. The parties agree that the Contract price is (Words and Figures) _____ ($_____); the terms of payment are as follows: _____.
2. Contractor does not include in this proposal any Work or items not specifically mentioned above.
3. Estimated completion time is _____ days from date Contractor is authorized and able to proceed with the Work to be performed.
4. All terms and conditions printed on the back hereof are, by agreement of the parties, incorporated within this Contract as fully as if printed and written on the front, and the parties acknowledge that they have read the foregoing provisions of this Contract, both front and back.

Owner(s) hereby accept this proposal.

_____ [Owner(s) Name(s)]

By: _____

Title: _____

By: _____ (Spouse if applicable)

Title: _____

Date: _____

_____ (Contractor Name)

By: _____

Title: _____

IF OWNER(S) IS/ARE A CORPORATION:

_____ PRESIDENT

_____ SECRETARY

Issued by the Systems Builders Association

FIGURE 9.3 Sample proposal-contract. (*Metal Building Contractors & Erectors Association, formerly System Builders Association.*)