

# THE CONTRACTOR-SUBCONTRACTOR RELATIONSHIP: THE SUBCONTRACTOR'S VIEW

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**ABSTRACT:** In the construction of most projects, a significant role is played by specialty contractors, also commonly referred to as subcontractors. Despite the importance of subcontractors, little is publicized about the actual process by which subcontracts are initiated, how award arrangements are made, or how subcontracts are managed. An exploratory study was conducted that focused on this subject. Information was obtained on bidding practices, subcontracting arrangements, administrative practices, payment procedures, and project closeout. The results provide information on various methods used by general contractors to place subcontractors at risk. Bid shopping appears to be a continuing practice in the construction industry, with little recourse for subcontractors. Subcontractors are often contractually required to assume risks that they would not otherwise assume. They are often required to assume all the obligations as stipulated in the contract between the owner and the general contractor, but are not afforded the opportunity to examine it. Payment problems continue for subcontractors, with the practice essentially accepted by subcontractors as being a part of doing business. Suggestions are offered for improving the relationship between subcontractors and general contractors.

## INTRODUCTION

Subcontractors play a vital role in the construction industry. Subcontractors are specialty contractors who are hired to perform specific tasks on a project. On many projects, particularly building projects, it is common for 80–90% of the work to be performed by subcontractors. Although subcontractors play a vital role in the construction process, little is known about the actual terms of the working relationship that exists between subcontractors and general contractors. To gain some insight in the subcontracting process, a study was conducted in which subcontractors were asked to describe some of the major aspects of their relationships with general contractors.

## RESEARCH METHODOLOGY

The purpose of this study was to obtain general information about the working relationships between subcontractors and general contractors. The establishment of this relationship begins during the estimating and bidding process. The project relationship typically ends when the final payment is made to the subcontractor, which frequently occurs some time after project closeout. While it may be common for 20 or 30 subcontractors to be employed on a single project, these subcontractors may never have worked together on previous projects. Thus, the composition of the subcontractors selected for a project will invariably be altered from previous projects. This is a result of the fact that the relationship of a subcontractor with a general

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contractor is project specific. To learn more about the general contractor/subcontractor relationship, a study was conducted in which various aspects of this relationship were examined. It was decided that each phase of the subcontracting process should be examined. This information was specifically sought from the point of view of subcontractors.

Since little information is published on this topic, this research was conducted as an exploratory study. The study was conducted in the Puget Sound Area. Information was obtained through personal interviews, which would permit detailed information to be obtained. In addition, it was desirable to have several different specialty crafts included in the study. The types (and numbers) of subcontractors identified for inclusion in this study were the following: drywall-plaster (3), painting (5), mechanical (5), electrical (5), masonry (2), utility (2), flooring (3), and elevator (3).

A total of 28 subcontracting firms representing eight specialty areas were included in the study. These specialty areas were specifically chosen as they have differing needs for coordination on the project. For example, the mechanical and electrical subcontractors will often have an ongoing presence on a project. The services of masonry subcontractors are generally required during the earlier stages of construction, a time when few other subcontractors are on the site. The coordination of such subcontractors is simplified when only a few subcontractors are present on the job. Other subcontractors, such as flooring subcontractors are required on site when many other subcontractors are also needed on site. Still other subcontractors, such as utility contractors, will interface very little with any other subcontractors on the project. With these differing complexities on the site, the coordination needs of some subcontractors will obviously vary.

When conducting the study, personal interviews were held with each of the selected subcontractors. Consistency between the interviews was assured by using a prepared list of questions that addressed such topics as background information about the subcontracting firm, practices related to bidding on subcontracted work, practices related to entering into subcontract agreements, practices related to the general contractors' administration of subcontracts, and typical practices related to project completion and close-out. Questions were generally open-ended in order to permit the interviewees to elaborate on their answers. Once all the interviews were conducted, the data were analyzed. Since this was an exploratory study, no attempt was made to test hypotheses or to establish the significance of any particular findings.

## RESULTS

The subcontractors who participated in this study can be categorized as representing a diverse group. While the participants were from selected specialty areas, there was considerable difference among them. The firms were as young as one year and as seasoned as over one hundred years old. The annual volume (measured in gross revenues) of the participants ranged from a low of \$500,000 to a high of over \$80,000,000, with the number of employees ranging from one to 500. Additionally, the number of subcontracts undertaken in a year by the participant firms varied from as few as 12 to over 900, with the average being 188 subcontracts. Most of these subcontracts are awarded through some form of competitive bidding. Only a few firms negotiated most of their subcontracts. These characteristics are summarized in Table 1.

The bidding and subcontract award procedures were of considerable in-

**TABLE 1. General Information about Subcontractor Respondents**

Description of subcontractor respondents (1)	Mean (2)	Median (3)	Minimum (4)	Maximum (5)
Age of the firm (years)	37	26	1	135
Annual dollar volume	12,000,000	4,000,000	500,000	80,000,000
Number of employees	103	44	1	500
Number of subcontracts per year	188	136	12	900
Percent of subcontracts awarded through competitive bidding	76	88	5	100
Number of general contractors awarding the subcontracts	28	20	6	105

terest in this study. It is during the bidding and award periods that the working relationship between the subcontractor and the contractor begins to take shape. While subcontractors have traditionally submitted their bids to the general contractors via telephone calls, there is an increasing trend for bids to be submitted through fax machines. Although not true in all cases, these bids tend to be submitted just minutes prior to the time that the general contractor must submit the bid for the general contract.

When subcontractor bidding is mentioned it is common for the topic of bid shopping to arise. Bid shopping can be either pre- or postbid. Of course, the prebid bid shopping, or bid peddling, is typically initiated by a subcontractor. Essentially, this occurs when a subcontractor obtains specific information about the lowest amount that has been bid by the competing subcontractors. A subcontractor who initiates bid shopping will typically seek the cooperation of one of the general contractors that is intending to submit a bid on a project. Each general contractor will typically receive bids from many of the subcontractors that are interested in a particular project. Thus, each general contractor is potentially in a position of knowing the bids of most of the subcontractors.

The subcontractor wishing to pursue bid shopping must then identify a general contractor who is willing to disclose the bids of other subcontractors or at least give some indication of the relative standing of the inquiring subcontractor's bid. If the subcontractor's bid is not the lowest bid, the subcontractor must then assess the merits of submitting a reduced bid. Although this practice is widely regarded as being unethical, prebid bid shopping does appear to occur with some frequency or, at the very least, subcontractors tend to be very guarded about their bids and try to submit them at a time after which bid shopping opportunities will be minimized.

The manner in which the term "bid shopping" is being used refers to the practice in which the amounts being quoted in the bids of other subcontractors are used as "insider information" (by subcontractors) or as leverage (by general contractors). It should not be automatically assumed that any prebid negotiations between a general contractor and a subcontractor are synonymous with bid shopping. A general contractor may make an independent estimate of the cost of a particular item of work and then compare this estimate with the amount being bid by a particular subcontractor. If a discrepancy is noted, the general contractor may ask the subcontractor to reconsider the bid amount that was quoted and possibly suggest an acceptable ballpark figure. Such a circumstance may arise when a general contractor wishes to work with one particular subcontractor. This might result

in a "tying up" arrangement between a general contractor and a subcontractor whereby a prebid conditional award of subcontract is made at an agreed price. If the general contractor is awarded a contract, the subcontractor is assured of a subcontract award. Bids from other subcontractors are not solicited on this type of work and are not taken into consideration during the negotiations. This type of negotiation is generally considered acceptable and ethical, provided that no subcontractors are treated unfairly in the process.

About one-third of the subcontractors stated that they occasionally make adjustments to their bids after they have been submitted to the general contractors. These adjustments are generally stated as being made as a result of a revised bid from a sub-subcontractor or to correct a mistake. None of the participants admitted that they ever engaged in bid-shopping, but this was not specifically asked as this is a particularly sensitive issue.

Another form of bid shopping is postbid bid shopping, also known as "bid chopping" or bid chiseling. This is bid shopping that is initiated by the general contractor. This takes place after the bids have been opened and the apparent low bidder has been identified. The general contractor who is expected to be awarded the contract or who already has entered into a formal agreement may be tempted to approach one of the subcontractors with a proposal in which the subcontractor is asked to reduce the bid that was submitted to the general contractor. This is also an unethical practice, but one in which some contractors engage, primarily as a means of increasing the profits on a project or to cover an error made in the bid.

Not all postbid price negotiations between the general contractor and a subcontractor are necessarily bid shopping. Such negotiations may be warranted if it is discovered during the preaward discussions between the general contractor and a subcontractor that an item of work was included in the bids of two different subcontractors. For example, a mechanical subcontractor and a roofing subcontractor may each have included louvers in their bids. Logically, this item should then be deleted from one of the subcontracts. This would generally result in a reduction in the price of one of the subcontracts. This is not considered to be the same as postbid bid shopping.

Whenever postbid bid shopping occurs, one subcontractor is often awarded the subcontract that would otherwise have been awarded to another subcontractor, or the low bidding subcontractor is pressured into accepting a subcontract for a reduced amount. When subcontractors submit their bids, they may have little knowledge of the probability of bid shopping occurring in association with their bids. To avoid prebid bid shopping, subcontractors tend to give their bids to the general contractors as late as possible prior to the official bid submittal time. Is there a similar effective mechanism by which subcontractors can avoid or minimize the practice of postbid bid shopping? Subcontractors were asked if they had any mechanism by which their bids were protected. Over half felt that their bids could not be protected. A fourth of the subcontractors stated that they refuse to submit any price to those general contractors who have a reputation of shopping bids. One respondent stated that an inflated price was given to the contractors who are known to shop bids. Most of the subcontractors stated that their subcontracts were always written for the same amounts as included in their original bids. Those who stated that the subcontract might be for a different amount indicated that adjustments were occasionally attributed to scope changes, value engineering, or to assist the general contractor.

While owners seldom try to curtail the practice of postbid bid shopping,

an effective mechanism that can be used is that of subcontractor listing. This is essentially a requirement imposed on bidders that they list all major subcontractors. Subcontractor listing is employed by some public agencies, but is rarely encountered in the private sector. The following provision is typical of the type of wording that might require subcontractor listing:

The Contractor shall list on the form provided in the Bid Form, the name and location of the place of business of each subcontractor who will perform work or labor or render service to the Contractor for the construction of the Work, in an amount in excess of one-half of one percent of the total amount of the Contractor's bid.

With subcontractor listing being restricted to the larger subcontractors on a project, postbid bid shopping is not entirely eliminated; however, the financial benefits for a contractor to shop the smaller subcontracted items are often not sufficient to encourage the practice. In effect, the preceding provision will drastically curtail postbid bid shopping.

While it is obvious that some form of bid shopping may potentially occur on all projects bid upon by subcontractors, it is difficult to assess the actual extent of this practice. Three-fourths of the subcontractors stated that they had submitted bids that they knew were low but did not receive the subcontract. The practices and experiences of subcontractors related to bidding and subcontract awards are summarized in Table 2.

After a subcontractor has been notified of being the low bidder on a subcontracted item, the next major step is for the general contractor and the subcontractor to enter into a formal agreement. While the bid submitted by the subcontractor may very well obligate (under the principle of promissory estoppel) the subcontractor to perform the work for the general contractor, the specific terms of their agreement may still involve some negotiation. For example, it must be established between both contracting parties what specific items of work have been included in the subcontractor's bid. This will have to be established through some form of communication between the general contractor and the subcontractor. If there is no meeting of the minds, there is no basis for a binding subcontract agreement. For example, an electrical subcontractor may have indicated in its bid that all items of work described in Division 16 of the technical specifications are included in the bid. Another electrical subcontractor may have indicated that all electrical items in Division 16 have been included as well as the electrical thermostats and controllers itemized as part of the mechanical specifications in Division 15. Obviously, the subcontractors' bids cannot be evaluated solely on the basis of the bid amounts. If the cost of the work called for in Division 15 is relatively small, the general contractor may be tempted to have the electrical work (including electrical work not specified in Division 16) performed at the low bidder's price.

In most cases, the general contractor and the subcontractor simply have to establish that the intentions of one party are consistent with the expectations of the other. Any differences must be resolved prior to entering a formal agreement if work is to progress smoothly. According to the subcontractors participating in this study, the preaward negotiations generally take place in face-to-face meetings. It was interesting to note that eight subcontractors (28%) had no type of communication with the general contractor prior to signing the subcontract agreement. Various practices associated with entering subcontracts are summarized in Table 3.

**TABLE 2. Bidding Practices of Subcontractors**

Bidding practices of subcontractor respondents (1)	Number of responses (2)
How most bids are submitted?	
Fax	12
Telephone	7
Fax, telephone, or mail	8
Bid service	1
Are bids sent in ahead of time?	
Yes	7
Sometimes	7
No	14
Are different bid prices given to different general contractors?	
Yes	19
No	9
Are bid prices adjusted after they have been sent?	
Sometimes	10
No	18
Why might prices be adjusted?	
Modify scope of work	2
Adjusted sub-sub price	4
Correct mistake	3
Other	1
How is the bid price protected?	
It cannot be protected	15
Submit bid very close to bid time	3
Refuse to submit bids to shoppers	7
Submit inflated bids to shoppers	1
Submit bids to trusted contractors	1
Bid late or do not bid	1
Are subcontracts written for the same amounts as stated in the initial bids?	
Always the same	13
The same except for scope changes	9
The same except for value engineering	2
The same except to help contractor	1
Other	3
Has your firm ever submitted the low bid and not been awarded the contract?	
Yes	21
No	4
Do not know	3

When subcontract agreements are entered it is common for the contractors to use the Associated General Contractors of America (AGC) Document No. 600 entitled Subcontract for Building Construction. While the 1987 edition is the most recent version, several subcontractors indicated that some general contractors still favor and use earlier versions of the AGC agreement. Several contractors prefer to use their own subcontract agreements, but a cursory examination of some of these documents reveals that many are merely modified AGC documents. A few contractors utilize the subcontract form developed by the American Institute of Architects (AIA) referred to as AIA Document A401. Some subcontractors, such as the

**TABLE 3. Practices for Entering Subcontract Agreements**

Practices related to entering subcontract agreements (1)	Number of responses (2)
What type of communication takes place with the contractor before signing the subcontract agreement?	
Meeting in person	13
Fax communications	1
Telephone communications	3
Mail communications	3
None	8
What type of subcontract is used?	
AGC	11
AIA	7
Contractor's	5
Subcontractor's	4
Other	1
How does the subcontract relate to the prime contract?	
Bound by the same terms	26
Do not know	2
Does the subcontractor see the prime contract?	
Yes	8
Sometimes	7
No	13
Does your firm sign hold harmless agreements?	
Yes	13
Yes, after we modify it	13
Does the subcontractor provide bonds?	
Frequently	4
Infrequently	19
No	5
Are subcontractors required to sign away their lien rights?	
No	11
Only after payment has been received	10
Subrogate to lender	2

elevator subcontractors, have some success in using their own subcontract agreements.

Regardless of the form of subcontract agreement used, provisions are generally included by which the subcontractor is also bound by the terms of the general contract. This is essentially promulgated by the fact that the subcontractors are not regarded as being separate or distinct from the general contractor. To make sure that subcontractors realize that they are to be bound by the terms of the general contractor's contract with the owner, a specific subcontract provision is often included. A typical provision would state the requirement in the following fashion.

The Subcontractor herewith agrees to be bound by the terms of the said Main Contract with the Owner (including every part of and all the general and special conditions, drawings, specifications, and ad-

denda), in any way applicable to this Subcontract. Subcontractor certifies that the Main Contract has been read.

Another similar provision stated the following:

The Subcontractor agrees to assume toward the Contractor, so far as the Subcontract work is concerned, all the obligations and responsibilities which the Contractor assumed toward the Owner by the Main Contract which includes the general and special conditions thereof, and the plans and specifications and addenda, and all modifications thereof incorporated in the documents before their execution.

Surprisingly, 13 subcontractors (46%) indicated that they were typically bound by the terms of the "main" contract but were generally not afforded the opportunity of examining it.

In light of the litigation proliferation during the past decade, subcontractors were asked if they were asked to sign hold harmless agreements or if such provisions were included in the subcontract agreements. Invariably, subcontract agreements include hold harmless provisions. Half of the subcontractors indicated that they were successful in making modifications to such provisions. It was also noted by some subcontractors that contractors have warned them that future modifications would not be permitted.

Since subcontractors are typically viewed as employees of the contractor from the perspective of the owner, contractors are often cautious when entering subcontract agreements. Despite this, only four subcontractors (14%) indicated that they were often asked to provide payment and performance bonds. In rare cases, subcontractors are asked to give up their lien rights as a condition of entering a subcontract. They may be asked to waive their lien rights after they have been paid or they may subrogate their lien rights to a lender. A few subcontractors indicated that they had been asked to waive their lien rights but this was quite rare and in some cases resulted in their refusal to enter into a binding agreement.

Various policies and practices were examined that related to subcontract administration during the construction phase. For example, in the area of safety most subcontractors are required to have their own safety policies. The requirements addressed in the safety policies tend to be general in nature with only a few exceptions in which the policies are project specific. In most cases, the subcontractors are included in the safety programs of the general contractors. Practices related to subcontract administration are summarized in Table 4.

Subcontractors often rely heavily on the general contractor for guidance and coordination. Of the subcontractors, 24 (86%) indicated that they were either often or occasionally included in the planning and scheduling of project activities. Four subcontractors (14%) stated that they were rarely active participants in project planning and scheduling. While they were included in the planning and scheduling to some extent, only 12 subcontractors (43%) were regularly informed by the general contractors of when their services would be needed on the projects. The remainder, representing a significant majority of the subcontractors, would monitor project progress on their own.

Responses of subcontractors were mixed as to how their relationships with other subcontractors were handled. Eleven firms (39%) stated that this was generally done by the general contractors while six (21%) stated that



**TABLE 4. Practices Related to Subcontract Administration**

Subcontract administration practices (1)	Number of responses (2)
The subcontracting firm must have its own safety policy	23 of 28
What type of safety policy is required for each project?	
General	19
Unique for the project	1
Unique for only the larger projects	1
Subcontractors are considered in the general contractor's safety program	19 of 26
Do subcontractors participate in project planning and scheduling?	
Often	14
On some occasions	10
Very seldom	4
How do subcontractors know when they are needed on a project?	
Contractor gives notifications	12
Subcontractor monitors progress	16
How are relationships with other subcontractors handled?	
By the general contractor	11
Worked out between the subcontractors	6
Varies by general contractor	11
How does the general contractor represent the subcontractor's interest?	
Well	8
Adequately	6
Poorly	7
Varies by contractor	7
Does the contractor review shop drawings?	
Yes	5
No	13
Do not know	3
Show drawing reviews are timely	13 of 22
Are subcontractors involved in change orders?	
Direct participation	24
Dictated by the contractor	2
Is some work traded between subcontractors and the general contractor?	
Yes	14
No	11
Varies by contractor	3

this was handled directly with the other subcontractors. The other subcontractors stated that this issue was quite variable between general contractors. Similar variability was evidenced when subcontractors were asked how well their interests were represented by the general contractors. Some felt that this was done well or adequately by the general contractors, some felt that this was done poorly, and others stated that this varied with the general contractor. Regarding shop drawings, a majority of the subcontractors stated that the general contractors did not review their shop drawings and a small majority felt that the general contractors did handle their shop drawings in a timely fashion.

A degree of fairness was evidenced by most subcontractors' feelings of how change orders were handled. While 24 of the subcontractors (92%) stated that they were directly involved in change orders, only a few felt they

were at the mercy of the general contractors' dictates. In addition, 14 (50%) of the subcontractors stated that they had traded work with the general contractor or with other subcontractors, primarily in the interest of maintaining friendly relations on the projects.

Subcontractors were also asked about project closeout. First of all, subcontractors were asked how they were informed about punch list items that impacted them. Although responses varied considerably, many subcontractors are informed by receiving the entire punch list, with some having their work items highlighted for them. Some receive punch lists that have been specifically prepared for them. In a few cases, the punch list items are communicated verbally, and in others, no punch list is prepared.

Payment is important to most firms involved in the construction process. Slightly more than a third of the subcontractors stated that on periodic payments the retainage withheld from the payments was equal to that withheld by the owner from the general contractor. The remaining subcontractors stated that the retainage percentage was not the same as that withheld from the general contractor or that they were not aware of the retainage withheld from the general contractor. One subcontract agreement stated even if the owner reduced the retainage amount that the subcontractor was not entitled to a similar reduction. That provision stated the following:

If at any time, prior to final payment, the Owner reduces the percentage of retainage withheld from the Contractor, the Contractor, in its sole discretion, may, but shall not be required to, reduce accordingly the percentage withheld from the Subcontractor.

While there is no indication that the general contractor will enforce this provision, the subcontractor can only assume that the provision is included because the general contractor wants to have the right to enforce it. Another agreement contained the following provision:

If earnings retained by the Owner accrue interest, any such interest shall be solely for the Contractor's account and the Subcontractor shall not be entitled to any portion thereof.

This provision makes it clear that the general contractor wants to maximize profits and that fair play is not part of the agreement. A large subcontractor could easily perform 10–20% of a project. The retainage on such a subcontractor's work could be substantial and the interest that might be generated would not be trivial.

When asked about payment problems of particular concern, no responses were dominant. One seemingly universal practice is that subcontractors are not paid by the general contractors until the general contractors have been paid by the owners. A typical provision is as follows:

Progress payments and final payment (including retainage) will be made thirty (30) days after receipt of payment to the Contractor by the Owner.

In this provision note that essentially an entire month must elapse after the general contractor has received payment before the subcontractor can expect to be paid. This time frame is not always succinctly stated, but the requirement that the owner must first pay the general contractor is a standard

prerequisite for subcontractor payment. The pay-when-paid issue is a problem but seems to be accepted by many subcontractors. Change orders, back charges, and delays in payment caused by the late completion of other subcontractors were among the other problems noted.

Subcontractors were asked about the amount of time that had to transpire after project completion before the retainage was received. The responses ranged from less than 30 days to more than one year. It was noted that some subcontractors wield greater clout in persuading contractors to pay them. For example, elevator subcontractors have very specialized equipment and tend to receive somewhat more favorable treatment from the general contractors. Practices related to project closeout are presented in Table 5.

Although not specifically solicited as part of this study, some subcontractors shared additional information about practices of general contractors. Specifically, some shared provisions to which they were required to agree as a condition of being awarded the subcontract. These tended to be provisions that subcontractors realized could place them at a decided disadvantage. The following is one such example:

The Subcontractor shall furnish sufficient forces to assure proper performance of its agreement in strict compliance with all performance

**TABLE 5. Practices Related to Project Closeout**

Project closeout practices (1)	Number of responses (2)
How is the subcontracting firm informed about its punch list work items?	
Subcontractor items are highlighted	8
Subcontractor receives entire punch list	2
Punch list is prepared for subcontractor	7
Verbal communications only	3
A walk through on the project is conducted	2
An ongoing list is maintained	2
No punch list is prepared	2
Is the retainage withheld from the contractor the same as withheld from subcontractors?	
Yes	9
No	7
Do not know	7
When is retainage received from the general contractor?	
Up to 30 days after final completion	1
Up to 90 days after final completion	4
Up to 120 days after final completion	1
Up to six months after final completion	3
Up to one year after final completion	9
More than one year after final completion	5
What are the primary problems subcontractors face with regard to final payment?	
The pay-when-paid policy	2
Change orders	4
Other subcontractors not finished	1
Backcharges	1
No particular problems cited	7

schedules . . . The Subcontractor shall promptly increase its work force, accelerate its performance, work overtime, work Saturdays, Sundays and holidays, all without additional compensation, if, in the opinion of the Contractor, such work is necessary to maintain proper progress.

The following is also an example of a provision in which the subcontractor must carefully evaluate the total risk:

Should the Subcontractor, without fault or neglect on its own part, be delayed in the commencement, prosecution, or completion of the work by the fault or neglect of the Contractor, the Subcontractor shall be entitled to a reasonable extension of time only and shall in no event be entitled to compensation or damages for such delays.

Another provision that may put a subcontractor at risk is the following:

The Subcontractor specifically and expressly waives any immunity that may be granted it under the Workers' Compensation Act of this state.

Although the employer is normally immune from suit for injuries sustained by employees, the foregoing provision essentially erodes this protection. If the general contractor is successfully sued by an injured employee of the subcontractor, the subcontractor will probably be obligated to reimburse the general contractor for damages up to the limit permitted by law. By entering into agreements in which such provisions are included, subcontractors essentially must assume that the provisions will not be enforced. If it is assumed that the provisions might be enforced, the subcontractor must then include an adequate allowance for any added costs in its bid on the work. Alternatively, subcontractors may be well advised to strike out or modify such provisions or to refuse to enter into agreements that contain such provisions.

## CONCLUSION

It is apparent from the results that not all subcontractors have the same perception of the contractor-subcontractor relationship. In some instances the relationship borders on being a partnership or team arrangement while for others the relationship is more adversarial in nature with a greater amount of distrust and lack of communication. This adverse environment may begin with bid shopping, which appears to be a continuing practice. In regard to postbid bid shopping, subcontractors often feel at a loss as to what steps might be taken to minimize or reduce this practice. Many feel that this is simply a problem in the industry and accept it as a practice that is difficult to curtail. In anticipation of having their bids shopped after the contractor is awarded the contract, many subcontractors will give the suspected shoppers higher bid quotations. Many subcontractors do not like the bid shopping practices that apparently take place, but they also feel at a loss to prevent other firms from engaging in such practices.

Many subcontracts are awarded without any formal discussion taking place between the contractor and the subcontractor. This may increase the probability of a conflict after construction work has begun. This failure to communicate between the contracting parties is highlighted by the fact that

most subcontractors are bound by the terms of the general contractor's contract with the owner while not being given the opportunity to examine the terms of that agreement. While not defensible, it is possible that some subcontractors fail to exercise the proper diligence and care when submitting their bids because of the large numbers of bids that they submit each year. With perhaps hundreds of projects being bid each year, the subcontractors may simply "lower their guard" because of the added effort that would be required if they were to submit each bid with a full understanding of all the inherent contractual risks.

In terms of project coordination, most subcontractors rely on their own project monitoring efforts rather than placing reliance on the general contractor. To a large extent, this practice exemplifies the fact that many subcontractors do not feel that the general contractor is concerned about what is in the best interest of the subcontractors. In effect, subcontractors often act autonomously to assure the smooth execution of their project obligations.

Payment problems often plague subcontractors. The retainage withheld by the general contractor is frequently a percentage that is higher than that withheld by the owner from the general contractor. Final payments are often delayed considerably, often approaching or exceeding one year after project completion. Such practices of general contractors permit them to finance their operations to a significant degree with the funds earned by but not returned to the subcontractors.

Subcontractors appear to be at a decided disadvantage when entering agreements with general contractors. They appear to accept this disadvantage in many instances without sensing any recourse to change the circumstances. Perhaps this perspective is fostered by the fact that failure to accept the terms of contracting posed by the general contractor will result in the selection of another subcontractor who is willing to accept those terms. As long as this attitude prevails, the practices are not readily subject to change.

Since subcontractors appear to be placed in weak positions by contract verbiage, one might ask why firms are willing to take the risks posed by entering these types of agreements. It must be recalled that most of the subcontractors included in the study entered into more than a hundred subcontract agreements each year. It is possible that subcontractors are so focused on estimating costs and then performing the work that the details of a subcontract agreement do not receive primary attention. Some subcontractors, by their own admission, do not fully understand all of the provisions to which they are contractually bound.

## RECOMMENDATIONS

General contractors and subcontractors should carefully review all aspects of each project in order to assure that they have a meeting of the minds. Any items excluded from the subcontractor's bid should be clearly noted. If not discussed prior to contract award, the potential for a major dispute is dramatically increased. General contractors should discuss every portion of each subcontractor's work in order to assure fair treatment and a reasonable profit for all contracting parties. Since subcontractors are generally contractually bound by the terms of the general contractor's agreement with the owner, it is important for this document to also be provided for examination by the subcontractors. Subcontractors should not enter any contracts in which they are not fully aware of all of the conditions to which they will agree to be bound.

Subcontractors are advised to thoroughly assess the risks posed by the different provisions in the subcontract agreements. First, subcontractors should insist on obtaining all aspects of the contract to which they will be bound. Second, all such materials should be read very carefully and considered in terms of the risk assumption. Where the risks are not acceptable, subcontractors may be well advised to strike those provisions. If the risk was not a serious concern for the general contractor, such modifications should be accepted. If such modifications are not permitted by the general contractor, the subcontractor has adequate warning that the general contractor probably intends to enforce such provisions if certain conditions exist. The subcontractor should then evaluate the merits of entering such an agreement. Perhaps subcontracts that pose the potential of huge losses are best avoided instead of optimistically pursuing an agreement in hopes of earning a small profit.

The relationship of subcontractors and general contractors is one that merits further study. Many aspects of this relationship should be examined. In-depth research studies should address the various issues identified by this study. Furthermore, all information that is gleaned through research should be shared with the construction community, particularly the subcontractors or specialty trades firms.

Lastly, it is imperative that the industry strive to establish working relationships through the most ethical means. Unethical practices should be strongly discouraged by associations of subcontractors and/or general contractors. Practices that are in accord with good ethical standards will contribute favorably to the integrity and public image of the construction industry. This will improve the image of the industry and will lend a greater sense of pride to those involved in the construction process.