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LIABILITY OF DESIGN PROFESSIONALS FOR THE REVIEW/APPROVAL OF CONTRACTOR SUBMITTALS

A Thesis in

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by

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ABSTRACT

This thesis presents inquiries relevant in determining a design professional's liability for the review and approval of four types of contractor submittals: shop drawings, "or equals", product samples, and approved methods. Appellate court cases dealing with these disputes were identified and evaluated to determine the key and consistent issues and rules applied by the courts.

The inquiries are organized in the form of a list for each type of submittal. The objective is for design professionals, owners, contractors, and contract administrators to resolve their disputes with the aid of these inquiries, thus avoiding unnecessary and costly litigation.

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Chapter 1

INTRODUCTION TO SUBMITTAL DISPUTES

The design professional's role in any construction project is important, multiple, and varied. In addition to actually designing the work, the design professional performs functions such as making regular visits to the job site to gain a familiarization with the progress and quality of the work, rejecting work not in conformance with the contract documents, preparing change orders, determining dates of substantial and final completion, and issuing a final certificate for payment. Of equal importance is the review and approval of contractor submittals.

Submittals are pieces of project information that the contractor is contractually obligated to forward to the design professional for review/approval. Submittals include shop drawings, product data, material and equipment samples, mock-ups, test results, warranties, maintenance agreements, workmanship bonds, project photographs, record drawings, field measurement data, and operating and maintenance manuals.[1]

The submittal review process provides owners with added assurance that the project is being constructed as designed and will meet their needs. Subcontractors often start the process by preparing the submittal for review by prime contractors and for review/approval by the design professional. The review process is sometimes a contentious issue in contract disputes.

Background

The submittal review process is a source of concern for design professionals in that it exposes them to potential claims, such as delaying the construction schedule due to untimely submittal review. They may also be liable in the event that injuries are sustained by persons due to a construction failure, where the failure can be traced to negligence in submittal review. Liability can also extend to consulting engineers hired by the prime design professional.

Design professional organizations, such as the American Institute of Architects (AIA) and the Engineers' Joint Contract Documents Committee (EJCDC), have recognized this concern and have taken steps over the years to limit liability or the potential for claims. These steps are in the form of revisions to standard contract documents used by the design professional. For instance, much more attention is given to the submittal process in AIA's 1987 versions of B141, Standard Form of Agreement Between Owner and Architect, and A201, General Conditions of the Contract for Construction, than can be found in earlier versions.[2, 3]

The greatest liability exposure produced by the submittal process is the design professional being liable for construction defects or accidents that can be traced to submittal approval.[4] AIA A201 attempts to combat this exposure by stating that submittals are not contract documents. Instead, they only demonstrate how the contractor proposes to conform to the design concept expressed in the contract

documents. Additionally, AIA B141 and A201 state that "Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities...shall not constitute approval of safety precautions or of construction means, methods, techniques, sequences or procedures."

Another significant liability exposure occurs when the design professional unreasonably delays the contractor by untimely submittal review. Again, AIA B141 and A201 make an attempt to exculpate design professionals from this claim by stating, in part, that "action shall be taken with such reasonable promptness as to cause no delay in the Work...while allowing sufficient time in the Architect's professional judgment to permit adequate review."[5, 6]

It is evident that professional organizations recognized where problems with submittals can occur and have made exhaustive efforts to negate or reduce the likelihood that design professionals could be legally responsible in the event that contractors, owners, or third parties decided to pursue litigation against them.

Problem Statement

There is not a clear understanding of how courts decide cases charging design professionals with negligence for the review/approval of contractor submittals. How do the courts view design professionals' responsibilities with respect to this issue? Do standard contract documents limit the design professional's exposure to liability? As

noted earlier, professional organizations have gone to great lengths to minimize liability, but have they instead clouded the issue? These are some of the questions that required further research.

Objective

The objective of this research is to define the liability rules applied to design professionals for the review and approval of contractor submittals. The research is limited to the following types: shop drawings, "or equals," material and equipment samples, and approved methods.

The research will show where the courts consistently apply rules to decide these matters and develop a condensed list of pertinent issues which must be addressed in determining the likelihood that the design professional is liable.

Value of the Work

Since the graduate education is being financed by the U.S. Navy, the research must be of interest to the Naval Facilities Engineering Command (NAVFAC). NAVFAC will benefit from this research by gaining a better understanding of the limits of liability which can aid the organization in its relationships with design professionals. In addition, the results may reveal where changes need to be made to the contracts between the Navy

and design professionals. These same benefits may also be realized by private owners and contractors as well.

Outline of Tasks

To complete the research, the following tasks were completed:

1. Define industry standard procedures for submittal review and approval
2. Identify appellate court cases dealing with the issues
3. Evaluate appellate decisions to determine key and consistent judicial viewpoints and attitudes
4. Compare judicial attitudes to industry standard procedures
5. Organize rules in an easily understood listing
6. Test the validity of the rules with several sample cases

Methods

The methods used to accomplish the above outline of tasks are as follows:

1. *Define industry standard procedures for submittal review and approval.* A literature search was conducted to define current procedures used by design professionals. Sources included standard documents recommended by AIA and EJCDC and those used by NAVFAC. Specific contract language was compared.

2. *Identify appellate court cases dealing with the issues.* The "West System," a comprehensive scheme of appellate court decisions from all jurisdictions, was used to identify applicable cases. Textbooks, periodicals, and legal journals were also consulted. The cases covered federal, state, and private sector contracts. "Shepard's System," a method to determine whether a case still carries precedential authority, was used to assure the accuracy of the outcome.
3. *Evaluate appellate decisions to determine key and consistent judicial viewpoints and attitudes.* This is perhaps the most critical element of the research. It is important that a good cross-section of decisions dealing with similar issues from multiple jurisdictions be compared to identify common inquiries and based on the outcome of the inquiry, evaluate the consistency of the conclusion. This step yielded the inquiries and rules.
4. *Compare judicial attitudes to industry standard procedures.* This step was necessary to illustrate where design professionals are correct and where they are incorrect in relying upon the contracts they are using to guide them in the performance of their jobs.
5. *Organize rules in an easily understood listing or flowchart.* This was the ultimate goal of the research. The final product was expected to be a short list of qualifying questions which should be asked to determine whether or not a design professional can be considered liable in a court of law.

6. *Test the validity of the rules with several sample cases.* Where possible, additional cases were evaluated by applying the rules established to ensure that reliance upon these rules would help to predict eventual outcome.

Organization

This thesis is divided into five chapters. **Chapter 2** defines the rules for a design professional's liability with respect to shop drawing review and approval. **Chapter 3** supports previous research conducted by C. William Ibbs in defining issues important to defining a design professional's liability in using "or equal" specifications. Application of these same issues to product sample submittals is shown. **Chapter 4** identifies the rules which define a design professional's liability for approving methods employed by contractors on the construction site. **Chapter 5** contains the thesis summary and conclusions.

Chapter 2

LIABILITY FOR SHOP DRAWING REVIEW

Design professional practice frequently involves the processing, review, and approval of shop drawings. The use of shop drawings plays an important role in the design professional's ability to render appropriate professional services on behalf of the owner. Whether or not a professional liability claim will result from the processing, review, and approval of shop drawings often is determined by a number of factors. These include how well the architect or engineer understands the function and purpose of shop drawings, as well as their relationship to the design and the contract documents. Another factor involves the willingness of the design professional to insist that all parties adhere to the procedures for handling shop drawings set forth in the General Conditions of the contract documents. It is unlikely that a professional liability claim will arise if reasonable care in processing and approving them is exercised and the design professional insists that others meet their contract obligations, as well, in connection with preparing and submitting shop drawings.[7]

Definition Of Shop Drawings

A commonly accepted definition of shop drawings is found in the Glossary of Construction Industry Terms published in the American Institute of Architects' (AIA)

Document M101. A very similar definition is found in the Engineers' Joint Contract Documents Committee's (EJCDC) Document Number 1910-8. The AIA definition reads as follows:

> Shop Drawings: Drawings, diagrams, illustrations, schedules, performance charts, brochures and other data prepared by the Contractor or any Subcontractor, manufacturer, supplier or distributor, which illustrate how specific portions of the Work shall be fabricated and/or installed.[8]

The concepts contained in this definition are reflected in the provisions of the standard AIA and EJCDC General Conditions. Thus, it is important to understand exactly what the shop drawings are. Equally important, it is necessary to perceive what the shop drawings are not: Shop drawings are not part of the "contract documents." The standard General Conditions define which documents constitute the "contract documents" for the project, and neither the AIA nor the EJCDC General Conditions include shop drawings within that definition. A quick review of the definitions for the "contract documents" contained in the standard General Conditions indicates that the component parts of the contract documents are prepared by or with the assistance of the design professional.[9] However, as can be seen by the definition for shop drawings set forth above, the shop drawings are prepared by the contractor (or someone directly responsible to the contractor). As a result, it would be inappropriate to include shop drawings within the definition of those documents which are the responsibility of the design professional.

Design Professional Duties

In a typical three-party relationship, there exists certain duties that the design professional owes the owner and the contractor. As shown in Figure 2.1, these include contractual duties owed to the owner and legal and professional duties owed to both the owner and contractor.

Contractual. The design professional is obligated by contract to perform the services for which the owner is paying.

Legal. By virtue of the licensing requirements for design professionals, they incur a legal obligation to both the owner and the contractor as well as the general public. Section 8 of Corpus Juris Secundum (C.J.S.) reads, in part:

> Statutes requiring persons practicing architecture (or engineering) to be registered or licensed by a state board are not revenue measures but police measures, and are founded upon sound public policy. The purpose of such statutes is to protect and safeguard life, health and property, or to protect the public health, safety or welfare, and they should be strictly enforced. The underlying policy of the statutes is to protect citizens of the state from untrained, unqualified and unauthorized practitioners, to prevent the unlicensed from the unauthorized practice of architecture, and to give protection against the irresponsible practice of the profession.[10]

Professional. Lastly, design professionals incur professional obligations in their relationships with owners and contractors. Section 25 of C.J.S. outlines the professional duties as follows:

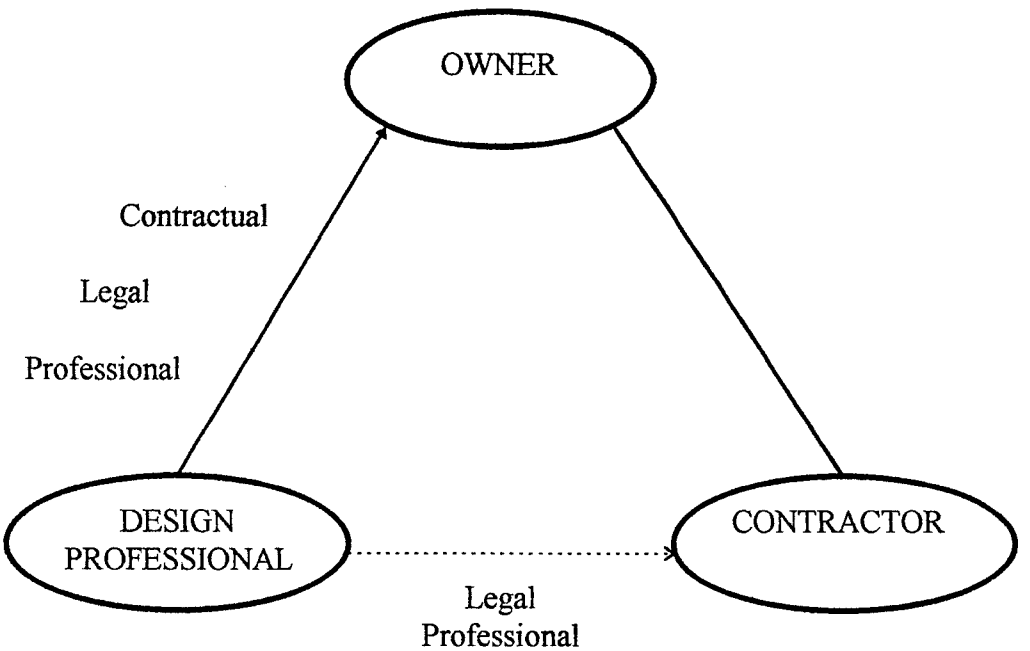

Figure 2.1, Duties of the Design Professional

...Basically, the duty owed by an architect (or engineer) to his employer is that he will exercise and apply his skill and ability, judgment and taste, reasonably and without neglect...Both the owner and contractor are entitled to rely upon the architect's (or engineer's) judgment, and he must exercise all his professional skill and knowledge as an expert in advising them...[11]

Defining Design Professional Liability

The research revealed three significant issues which determine if a design professional is likely to be held liable for the review and approval of shop drawings:

- Does the approved shop drawing meet the design intent?
- Was the review timely?
- Did the contractor deviate from contract requirements?

Does the approved shop drawing meet the design intent?

In reviewing and approving shop drawings, the design professional determines if the specific details reflected in the shop drawings conform to the overall design intent and are compatible with other aspects of the project which are beyond the responsibility of the preparer of the specific shop drawings. In this regard, there is often no clear line of demarcation between what information should be shown in the shop drawings and what information belongs in the contract documents.

Figure 2.2 introduces two models which illustrate separate approaches used in allocating responsibility for developing design detail information. If the information relates to fundamental design criteria for the project or will affect the public health, safety or welfare, it is normally developed by the design professional and covered in the contract documents. This approach is shown in Model 1 of Figure 2.2. On the other

hand, elements of the work which are subject to specific fabrication, manufacturing, assembly or installation requirements are often left to be shown in detail in the shop drawings. This approach is shown in Model 2 of Figure 2.2.

The standard General Conditions published by AIA and EJCDC contain detailed requirements for processing shop drawings. The language in the AIA and EJCDC General Conditions are essentially the same. Likewise, AIA Document B141, Owner-Architect Agreement and EJCDC Number 1910-1, Owner-Engineer Agreement parallel each other. AIA Document B141 gives specific instructions to the design professional for the review and approval of submittals. In regard to design intent, subparagraph 2.6.12 says, in part:

> The Architect shall review and approve or take other appropriate action...*but only for the limited purpose of checking for conformance with information given and the design concept* expressed in the Contract Documents. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as *dimensions and quantities*...review shall not constitute approval of safety precautions or, unless otherwise specifically stated by the Architect, of *construction means, methods, techniques, sequences or procedures.*[12] (emphasis added)

Courts have repeatedly enforced this language. Such was the case in **Jaeger v. Henningson, Durham & Richardson, Inc.**[13] (HDR) where construction company employees, Jaeger and Sell, brought action against the architect. HDR was being sued for negligence in failing to detect and correct errors in shop drawings. The contract specifications required that steel stair landing pans be fabricated from 10-gauge steel

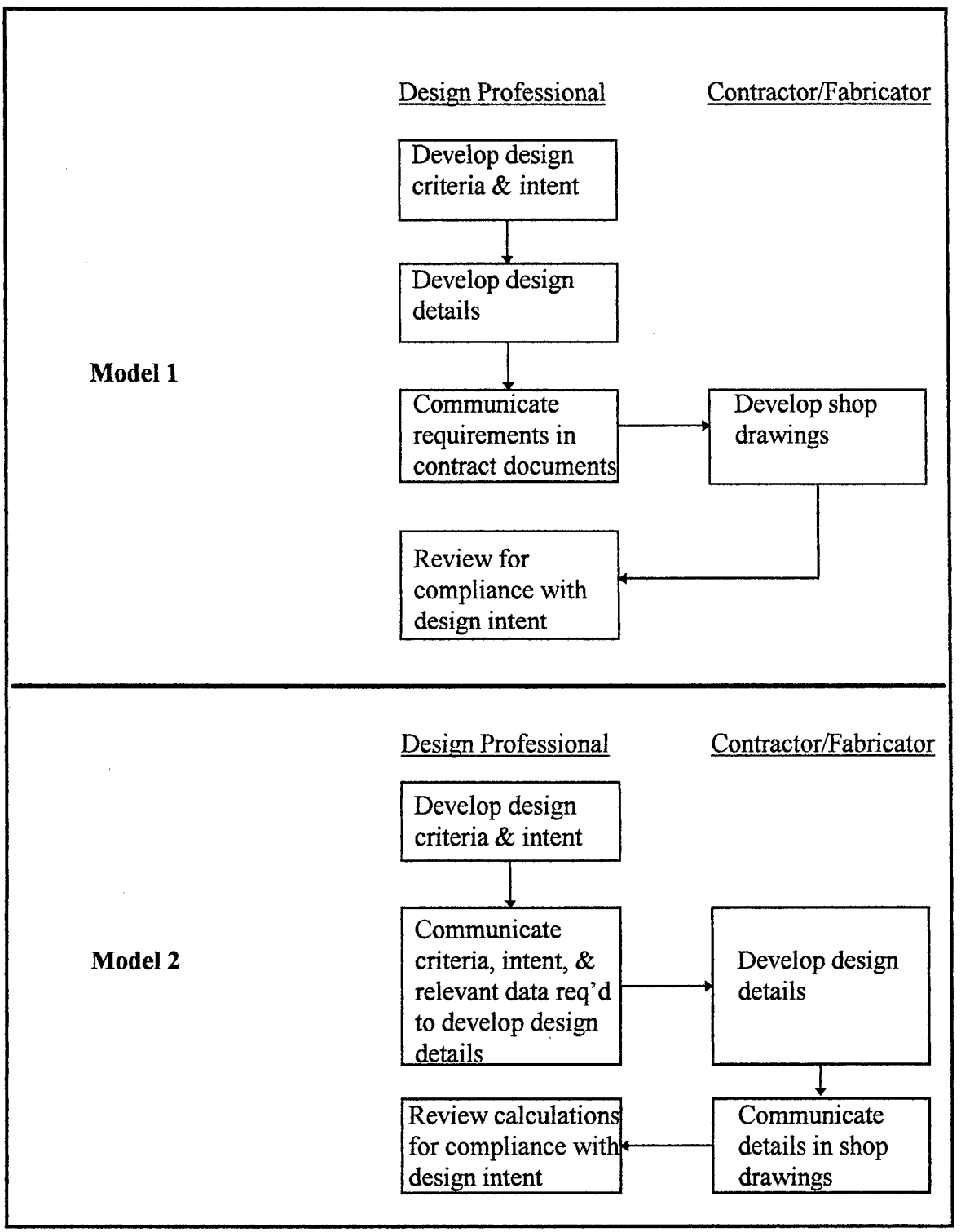

Figure 2.2, Models for Developing Design Details

with angle supports as required. However, the applicable shop drawings indicated 14-gauge steel without angle supports for the landing pans. HDR granted approval for construction. One of the landing pans subsequently failed when Jaeger and Sell stepped onto it, causing them to fall 16 feet to the floor below. Both were injured in the fall. The court upheld a jury's decision against the architect, as the shop drawing did not meet the design intent of the landing pans (i.e. loading requirements). This case illustrates the design professional's legal duty to "protect and safeguard life, health and property" noted in Figure 2.1 and is an example of Model 1 of Figure 2.2.

As noted earlier, elements of the work which are subject to specific fabrication, manufacturing, assembly or installation requirements are sometimes left to be shown in detail in the shop drawings. This process is shown in Model 2 of Figure 2.2. **Duncan v. Missouri Board for Architects, Professional Engineers And Land Surveyors**[14], commonly referred to as the "Hyatt Regency Case," clearly illustrates the use of this process. In this case, the design professional provided structural drawings for a box beam-hanger rod connection for suspended walkways in a hotel atrium. The original design called for the fourth and second floor walkways to be supported by what is referred to as a "one rod" design. The steel fabricator proposed the use of a "double rod" system instead because of certain fabricating problems. The effect of this change was to double the load on the fourth floor walkway and the box beam-hanger rod connections on that walkway. Shop drawings incorporating the change were prepared by the fabricator and approved by the design professional. The walkway subsequently failed after the

hotel opened, killing 114 people and injuring at least 186 others. The court held the design professional liable, finding that he did not review the shop drawings for conformance with the design concept.[15] Referring to Figure 2.2, the design professional failed to communicate certain information and data essential for the fabricator to design the connection and he failed to review calculations for the "double rod" system, ensuring that it would still meet the original design intent.

In determining if a shop drawing meets the design intent, it is also necessary to review the contractor's obligations. The contractor is obligated to prepare the shop drawings, or have them prepared by a subcontractor, manufacturer, supplier or distributor. In addition, the contractor is obligated by contract to check and approve shop drawings before submitting them to the design professional. This requirement is applicable to both models shown in Figure 2.2. AIA Document A201, subparagraph 3.12.7 states:

> By approving and submitting Shop Drawings, Product Data, Samples and similar submittals, the Contractor represents that the Contractor has determined and verified materials, field measurements and field construction criteria related thereto, or will do so, and has checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.[16]

The contractor's review and approval involves far more than simply seeing that the shop drawings called for by the contract documents are prepared.

Fenestra, Inc. v. Merle Patnode Co.[17] illustrates this point. A section of the specifications required that "New steel roof deck units shall match existing steel roof

deck units used in...manufacturer, size, gage and installation." The General Conditions of the contract were similar to AIA Document A201 in that "approval of drawings shall not be construed as relieving the Contractor of the responsibility for any errors, including details, dimensions, materials, etc." The contractor and the contractor's supplier failed to verify dimensions prior to submitting shop drawings for the roof panels. The owner (the G.S.A.) approved the shop drawings, and the panels were delivered to the site but were unable to be installed because they were too short. The court cited the General Conditions in noting that "Approval of G.S.A. not binding as to dimensions."[13] It can be inferred that rejection or disapproval of shop drawings are also not binding as to dimensions.

Was the review timely?

The provisions in the AIA and EJCDC General Conditions require the design professional to review shop drawings with reasonable promptness. Subparagraph 4.2.7. of AIA Document A201 states:

> The Architect's action will be taken with such reasonable promptness as to cause no delay in the Work or in the activities of the Owner, Contractor or separate contractors, while allowing sufficient time in the Architect's professional judgment to permit adequate review.[18]

Obviously, the amount of time required to review shop drawings will vary with the complexity of the project and the nature of the shop drawings submitted by the

contractor. Therefore, it is important for design professionals to establish procedures and a schedule for the receipt, review, approval and return of shop drawings to the contractor.

In **E. C. Ernst, Inc, v. Manhattan Construction Company of Texas**[19], the court found that the "Owner's architect on hospital construction project was negligent as matter of law by virtue of pattern of procrastination in approval of electrical fixtures and generator system..." as a result of the architect delaying approval of the electrical fixture and generator shop drawings by 14 months and 161 days, respectively. In both cases, a great deal of correspondence flowed between the architect and the contractors and many meetings were held regarding the shop drawings; however, the architect procrastinated in resolving the items in question.

Did the contractor deviate from contract requirements?

An important and often overlooked, provision in the General Conditions requires the contractor to notify the design professional in writing about any information in the shop drawings which deviates from the requirements of the contract documents. Subparagraph 3.12.8 of AIA Document A201 states:

> The Contractor shall not be relieved of responsibility for deviations from requirements of the Contract Documents by the Architect's approval of Shop Drawings...unless the Contractor has specifically informed the Architect in writing of such deviation at the time of submittal and the Architect has given written approval to the specific deviation.[20]

Similar language is found in paragraphs 6.25.2 and 6.27 of EJCDC's General Conditions.

The architect's or engineer's approval does not in and of itself, and pursuant to the contract provisions, relieve the contractor from responsibility for errors or omissions in the shop drawings. Such was the case in **Samuel J. Creswell Iron Works v. Housing Authority of Camden, New Jersey**[21], where the architect, Liszewski, approved a shop drawing for steel stairs which deviated from the specification requirements. The architect subsequently required the contractor to replace the stairs at the contractor's expense. The relevant contract language stated:

> If the shop drawings show variations from the requirements of the Contract...the Contractor shall make specific mention of such variation in his letter of transmittal...otherwise the Contractor will not be relieved of the responsibility for executing the work in accordance with the Contract even though such shop drawings have been approved.[22]

No mention of the deviation was made in the contractor's letter of transmittal. The court held that:

> The language of this section of the contract compels the conclusion that the mere approval by Liszewski of Creswell's shop drawing did not bind the Authority to the changes in specifications for the shop drawing was unaccompanied by the requisite letter of transmittal detailing the discrepancies between the shop drawing and the original specifications.[23]

Similarly, in the **Appeal of Community Science Technology Corporation, Inc.**[24], the court stated:

> We have consistently held that a "Shop Drawings" provision such as found in this contract does not relieve appellant (contractor) of the responsibility for errors or omissions therein nor can appellant normally rely on or derive any benefit from erroneous Government approval of the shop drawings.[25]

If the contractor submits shop drawings which have not been checked and approved by him/her, the design professional should promptly return the shop drawings

unapproved so that there will be no opportunity for the contractor to claim that he/she was unduly delayed by the design professional.

Illustrative Examples

C.W. Regan, Inc.
v.
Parsons, Brinckerhoff, Quade and Douglas[26]

Facts

This is a suit by a tunnel construction contractor, Regan, to recover for damages which occurred when a temporary bulkhead built by another contractor and approved by the project engineer subsequently leaked and caused flooding. Diamond, the "other" contractor, requested permission of Parsons, the engineer, to cut out a steel bulkhead and to build a temporary wooden bulkhead in another location to allow access for their work. Diamond drafted plans for the bulkhead, which Parsons examined and made certain recommendations for changes so that it would be structurally stronger. The leak occurred in the caulking which was to provide water tightness between the bulkhead and the masonry tunnel.

As defined by the contract, the plans drafted by Diamond were called "working drawings". Section 105.03, Plans and Working Drawings, of the contract specified:

> It is expressly understood that the approval by the Department of the Contractor's working drawings relates to the requirements for strength and detail, and such approval will not relieve the Contractor from responsibility for errors in

> dimensions...The Contractor shall submit to the Engineer the designs and working drawings for plant and temporary structures required in the work...Such approval, however, will not relieve the Contractor of his responsibility for the adequacy of their design, construction and use...[27]

Analysis and Conclusion

The contract language cited above is similar to standard AIA and EJCDC language in that the engineer's responsibility was only to check the drawings for strength and detail requirements, or for conformance with the design concept. The contractor retained responsibility for construction means and methods. The court agreed in noting that:

> There was no evidence of any duty on the part of Parsons to specify how the bulkhead should be caulked nor how it should be fitted against the surrounding masonry walls. No defect in the plans was suggested nor shown. All the evidence showed that the manner of fitting the bulkhead against the masonry and the manner of caulking to prevent leaks were field details which were the responsibility of the contractor. No damage resulted from any defect in the plan.[28]

Appeal of Ellis Construction Co., Inc.[29]

Facts

Ellis Construction Co., Inc. contracted with the Army to construct a refuse receiving and control building at the Holston Army Ammunition Plant in Kingsport, Tennessee. The roof of the building was specified as concrete over steel joists. The construction plans required the roof to slope 1/4 inch from centerline. The Government approved a subcontractor's shop drawings of the roof which reflected the 1/4 inch slope

requirement. The approved shop drawings were given to a second subcontractor for use in preparing a Roof Joist Placing Plan. This plan was submitted to the Government with a series of specific questions noted on the face of the plan, none of which called specific attention to the fact that the 1/4 inch slope requirement would not be met. Again, approval was granted by the Government.

The contractor purchased a type of joist which had a straight parallel top. The government refused installation, requiring the contractor to purchase the requisite slope joist. The contractor complied and sued for the additional cost.

> Special Provision No. 10 of the contract, addressing shop drawings, stated in part:
>
> The approval of the drawings by the Contracting Officer shall not be construed as a complete check, but will indicate only that the general method of construction and detailing is satisfactory. Contractor is responsible for dimensions and design of adequate connections, details, and satisfactory construction. *Approval shall not be construed to indicate approval of a substitute unless the contractor has specifically and affirmatively put the Government on notice that this submittal includes a proposed substitution and the Government acknowledges the substitution by specific approval action for the substituted item.*[30] (emphasis added)

Analysis and Conclusion

The shop drawing provision clearly and unambiguously requires that the contractor call attention to any deviation in the shop drawings from the contract requirements. Contractors who choose to ignore language such as this do so at their own peril as evidenced by the court's decision against the contractor in this case.

Chapter 3

LIABILITY FOR USING "OR EQUAL" SPECIFICATIONS AND CONSIDERATION OF SUBMITTED SAMPLES

Product specifications can be written two ways: They may be open to all qualified vendors or they may be available to only one. The first situation is referred to as an "open" specification and the second is called a "closed" specification. For construction projects where public funds are used, the closed specification is illegal. The result of a closed specification is to eliminate competition, even if the closed specification is used for only one product for the project. Since this is contrary to public interest, legislation has been enacted forbidding its use on public projects. On the other hand, open specifications make it possible for the greatest number of firms or manufacturers to compete for the contract for that branch of the work.[31]

A common approach used by design professionals to specify materials or equipment is called a "restricted" specification, which is a combination of open and closed specifications. Under this approach, brand names are listed followed by the phrase "or approved equal." The specification drafter must exercise care to ensure that all brands listed are in fact equal and that an unfair advantage is not granted to one of the vendors. The phrase "or approved equal" is interpreted to mean approved as equal by the design professional. The contractor does not have the authority to establish equality of products.

Since the use of a restricted specification does not violate the law for public projects, the use of such is quite common. Some writers have warned against using "or equal" specifications [32,33], but their use continues nonetheless. Among the many reasons cited, the writers have claimed that the determination of equality is always uncertain and subject to criticism by contractors and manufacturers, and that the use of "or equals" contributes to bid shopping.

Although still common in public contracts, even the federal government has indicated reservations in using "or equal" specifications. In particular, the Navy, in its *Guide For Architect-Engineer Firms Performing Services For The Northern Division Naval Facilities Engineering Command*, includes the following section:

> 11.7.2.2 "Or Equal" Specifications
>
> The practice of specifying items by naming acceptable commercial products followed by the words "or equal" is not permitted unless written approval by the Contracting Officer has been obtained. "Or Equal" approval may be authorized for the following situations:
>
> a) there are no industry or government-type specifications for the item.
> b) the item is a minor part of the construction project.
> c) the item cannot be described adequately because of its technically involved construction or composition.
>
> In each instance, a minimum of three manufacturers shall be included in the description followed by the words "or equal". The essential features (salient characteristics) of the item must also be set forth in sufficient detail to establish the basis upon which the equality of nonlisted products will be determined.[34]

"Or Equal" Contract Clauses

AIA provides very little instruction or guidance for the handling of material substitutions in the General Conditions of the Contract. Most of the discussion is limited to paragraph 3.3 of the *Instructions to Bidders*, AIA Document A701. EJCDC, on the other hand, provides substantial guidance in paragraphs 6.7.1 through 6.7.3 of its Standard General Conditions.[35] EJCDC also discusses the topic in its *Guide to the Preparation of Instructions to Bidders*, Document Number 1910-12.

Federal contracts frequently include a brand name "or equal" in the specifications. Even where none can be found, the Material and Workmanship clause provides assurance to the contractor that substitutions may be proposed for named products. This clause reads as follows:

> Unless otherwise specifically provided in this contract, reference to any equipment, material, article, or patented process, by trade name, make, or catalog number, shall not be regarded as limiting competition, and the contractor may, at his option, use any equipment, material, article, or process which, in the judgment of the Contracting Officer, is equal to that named. The Contractor shall furnish to the Contracting Officer for his approval the name of the manufacturer, the model number, and other identifying data and information respecting the performance, capacity, nature, and rating of the machinery and mechanical and other equipment which the Contractor contemplates incorporating in the work. When required by this contract or when called for by the Contracting Officer, the Contractor shall furnish the Contracting Officer for approval full information concerning the material or articles which he contemplates incorporating in the work. When so directed, samples shall be submitted for approval at the Contractor's expense with all shipping charges prepaid. Machinery equipment, material, and articles installed or used without required approval shall be at the risk of subsequent rejection.[36]

"Or Equal" and Sample Submittal Liability Issues

This research supports the previous findings of C. William Ibbs, Jr.[37] The primary issues for "or equal" specifications are listed below; these same issues have been found to be equally applicable when considering liability for consideration of product sample submittals:

- Salient Features of Product Desired
- Bidding Equals
- Interchangeability/Compatibility (as a salient feature)
- Commercial Availability of Product
- Superior Quality Substitutes

Salient Features of Product Desired

As noted earlier in the Navy's Guide for Architect-Engineer Firms, it is very important to list the features of the product desired, such as physical, functional, or others deemed necessary to meet the owner's needs. The listed features establish the basis upon which the equality of nonlisted products will be determined. Ibbs noted that "failure to provide such a descriptive statement forces bidders to speculate about the true needs of the procuring agency, a condition traditionally held to be unfair to all parties concerned."[38]

The courts have been clear and consistent in holding that all salient features identified must be met for the proposed substitute to be considered "equal." This includes appearance or aesthetics as a salient feature as well. In **The George Hyman Construction Company v. The United States**[39] the contract specifications named three kinds of stone to be furnished for alterations and additions to an existing facility. Also included was the following provision:

> 20-3. NAMING OF STONE. The naming of granites is for the purpose of indicating the type that is required, but is not intended to exclude any granite having the characteristics which in the opinion of the Service, are so nearly like those named that they will give practically the same effect.[40]

Hyman proposed substitute stones which were rejected by the architect and the contracting officer. A second substitution was offered which again met rejection on the ground that the proposed substitutes did not have the same characteristics as the named granites and would not give practically the same effect. Hyman then used the stone identified in the contract and sued for the additional cost. The court held that "under the unambiguous language of the contract, plaintiff (Hyman) might have used granite which met the requirements of the specifications...and if no such granite was found and offered for approval by plaintiff, then the granite named in the contract would have to be used."[41]

Design professionals and owners must also be aware of the significance of the salient features that they include in contracts. They, too, will be held liable if approval is not granted to proposed substitutes which meet the features desired. In the case of **E.C. Ernst, Inc. v. Manhattan Construction Company of Texas**[42], the contract specifications outlined in great detail the required features of bedlight fixtures to be

installed for a hospital project. In addition, the lighting fixture schedule said that they were to be Sunbeam Centron 5 fixtures (further described by the catalog numbers from the manufacturers catalog) or an "approved equal". The contractor proposed to substitute Palco Versalux fixtures, complete with samples and detailed data which indicated that the salient features required would be met. The architect initially rejected the proposal without noting the reasons for the rejection. Approval of the substitution was eventually granted, however the resultant delay was 14 months. The court held the architect liable for this delay, noting that "the Palco fixtures were at all times the functional equivalent of the Sunbeam and of equal quality."[43]

Although it has been established that the salient feature issue is important in determining liability for "or equal" specifications, it remains unclear how courts rule in cases where salient features are not listed with the proprietary item.

Bidding Equals

Some design professionals and owners are reluctant to consider substitutions during the bidding phase. Some claim that by doing so, it permits the contractor more opportunity for last-minute substitutions, requiring overhasty consideration by the architect; it contributes heavily to "bid shopping" which results in construction delays since the substitution is usually submitted at the last moment.[44] EJCDC recommends that substitutions not be considered until after the Effective Date of the Agreement. If,

however, substitutions are to be considered during the bidding phase, EJCDC recommends that Article I-9 of the Instructions to Bidders be amended in the following manner:

> 9. Substitute of "Or Equal" Items
> The materials and equipment described in the Bidding Documents establish a standard of required function, dimension, appearance and quality to be met by any proposed substitution. No substitution will be considered unless written request for approval has been submitted by the Bidder and has been received by Engineer at least fifteen days prior to the date for receipt of Bids. Each such request shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitute including drawings, cuts, performance and test data and any other information necessary for an evaluation. A statement setting forth any changes in other materials, equipment or Work that incorporation of the substitute would require shall be included. The burden of proof of the merit of the proposed substitute is upon the Bidder. The Engineer's decision of approval or disapproval of a proposed substitution shall be final. If Engineer approves any proposed substitution, such approval will be set forth in an Addendum issued to all prospective Bidders. Bidders shall not rely upon approvals made in any other manner.[45]

Detailed instructions such as this are not always used though and an addendum may not always be issued to all bidders. Instead, bidders may be permitted to propose "equals" with their bid and consideration will be made by the design professional on an individual basis. This process does not offer an unfair advantage to any one bidder since they all have the opportunity to propose an "equal" or submit a bid on the proprietary item specified. Ibbs noted that it is incumbent upon the bidder to prove the equality of the item at the time of bid submission.[46] Failure to do so may lead to rejection of the entire bid for nonresponsiveness.

Belousofsky v. Board of Education of City of Linden[47] demonstrates this requirement that the bidder prove equality of a proposed substitute. The specifications

provided that "In all cases where fluorescent lighting fixtures are specified, they shall be Pittsburgh 'Norwin', 40 watt fixtures or Equal approved." The contractor's bid included an "Alternate bid if Smithcraft is used." The alternate bid was rejected because it did not indicate whether Smithcraft was the name of a manufacturer or of a fixture, nor was there any description of the fixture which the contractor proposed to furnish. The court upheld the rejection, finding that "It was impossible, even for an expert, to determine from the bid which fixture (the contractor) proposed to furnish; When essential information is missing from a bid when it is opened, it may not be supplied then or thereafter..."[48]

Interchangeability/Compatibility (as a salient feature)

As Ibbs noted, a determination of equality among products becomes even more clouded when interchangeability or compatibility with existing systems is introduced as a salient feature. This issue has become a contentious one with no clear precedence established; however, the existence of an "or equal" clause requires that the design professional at least consider the equality of a proposed substitute. In other words, the clear and unambiguous language of the "or equal" clause cannot be ignored: design professionals must evaluate proposed substitutes even though the manufacturer differs from that named in the specifications. Such was the case in **Jack Stone Company v. United States**[49]. The specifications for a fire alarm system provided as follows:

> 16-3. GENERAL. ...The existing system is of Sperti Faraday manufacture. All new equipment and parts furnished shall be of the same manufacturer to insure full and satisfactory performance of the completed system.

However, the "Standard References" section of the specifications contained the following:

> 1-19 (c) Reference in the specifications to any article, device, product, materials, fixture, form or type of construction by name, make, or catalog number, shall be interpreted as establishing a standard of quality, and not as limiting competition. The Contractor may make substitutions equal to the items specified if approved in advance in writing.

The contractor proposed a system manufactured by A.D.T. The contracting officer rejected the proposal, not because it was found to be unequal or deficient, but simply because it was not manufactured by Sperti Faraday. The contractor was forced to install the Sperti Faraday equipment and claimed for the difference in cost. In finding for the contractor, the court noted that the language in the "or equal" clause "shows that the clause does not merely give the contracting officer permission, if he so desires, to allow an item of another manufacture; he is required by paragraph 1-19 to interpret the brand-name citations in the specifications as establishing no more than a 'standard of quality.'"[50]

Commercial Availability of Product

Although contractors need to be concerned about their ability to acquire the proprietary or "or equal" products listed in a contract, courts have shown that design professionals and owners bear a greater risk in ensuring that the products they identify are commercially available to all potential bidders. Absent commercial availability of

the product, sufficient description must be given so that it may be fabricated by the bidder or others.

In **Aerodex, Inc. v. United States**[51], the government contracted for the supply of thermistor mounts for a missile system. The contract required that the thermal resistors, a component of the thermistor mounts, be "Western Electric Company's Part No. GA51387...'or approved substantial equal'". These thermal resistors were the only components of the 35 elements comprising the thermistor mount whose material contents were not described in the contract. Aerodex discovered that the government lacked and could not obtain the material specifications from Western Electric, nor would Western Electric sell the parts to Aerodex. In addition, other suppliers recommended by the government were unable to provide resistors which met the required performance levels. In finding for Aerodex, the court stated:

> ...it is the obligation of the Government to ascertain and assure to bidders the commercial availability of the component from its manufacturer before it employs it as a purchase description or, failing that, to provide bidders with a sufficient description of the physical specifications and performance characteristics so that it may be duplicated by the bidders either by in-house fabrication or by purchase from suppliers.[52]

Similarly, in **E.C. Ernst, Inc. v. Manhattan Contruction Company of Texas**[53], the design professional developed detailed specifications for an emergency generator system and cited three manufacturers that would be considered acceptable. After considerable time and energy was spent by the contractor and generator supplier in their attempt to seek approval for a substitute generator, it was discovered that the stringent specifications could not be met by that generator or any of those listed in the contract. In

court the engineer testified that at the time he wrote the specifications, he did not know of a single engine of any manufacturer which complied fully with the specifications. Naturally, the court found the engineer liable for drafting deficient specifications (i.e. the generator described was not commercially available).

Superior Quality Substitutes

Ibbs states that "Conceivably a contractor may wish to supply an item superior in some aspect to the specified brand. Lacking the contracting officer's (or design professional's) authorization though, a contractor should not expect to receive extra compensation for such a substitution. In fact, such a substitution may be rejected for not complying exactly with the contract specifications."[54]

Additional Considerations

It is common practice in the construction industry for owners and design professionals to seek the assistance of "experts" of certain equipment or systems in drafting specifications. The specifications are usually written around that particular expert's product, including details of its performance levels. The product is typically named in the "or equal" clause. This practice has been contentious for many years because others claim that it violates federal and state antitrust laws. That is, it

discourages competition and attempts to monopolize or restrain trade. Several cases have addressed this issue; some include the following:

- **Kendall Elevator Co., Inc. v. LBC&W Associates of South Carolina, Inc.**[55]
- **Fisher v. Borough of Longport**[56]
- **Security Fire Door Company v. County of Los Angeles**[57]
- **George R. Whitten, Jr., Inc. v. Paddock Pool Builders, Inc.**[58]

The courts have held that design professionals, like product manufacturers, "may select their customers and may refuse to deal with anyone provided the refusal does not further a restrictive trade practice."[59] Although difficult to prove, if a design professional conspires with a contractor or vendor to limit competition, the design professional can be held liable for violating the antitrust laws, regardless of the inclusion of an "or equal" clause.

Illustrative Example

Waldor Pump and Equipment Company
v.
Orr-Schelen-Mayeron and Associates, Inc.[60]

Facts

Waldor Pump filed a suit against Orr-Schelen-Mayeron (OSM), the engineering firm for the updating of a wastewater treatment facility. Waldor Pump was subcontracted by PALCO, the prime contractor, to provide eight sludge pumps for the facility. The contract specified a self-priming pump with a coil spring. Approved

substitutions were permitted. OSM rejected PALCO and Waldor Pump's first proposal, claiming that the pump did not have a coil spring. Instead, a more expensive pump was later approved and installed. Waldor Pump sued for the additional cost.

Waldor Pump stated that although the first pump did not have a coil spring, it was self-priming. Expert testimony showed that the first pump conformed in all material aspects to the specifications.

Analysis and Conclusion

The expert testimony proved that the salient features of the specifications would be met by the first proposed pump and that OSM had no other reason for rejecting it. Courts will repeatedly hold that if a contractor proposes a substitute that's equal in terms of functional equivalence, the engineer must accept the alternative product.

Chapter 4

LIABILITY FOR APPROVING METHODS USED BY CONTRACTORS

Descriptive vs. Performance Specifications

In general, there are two basic approaches to writing specifications: the method system and the results system. When the method system is used, the specifier describes in detail the materials, workmanship, installation, and erection procedures to be used by the contractor in order to achieve the results expected. These are called methods or descriptive specifications. Conversely, the results system places the responsibility on the contractor to achieve the desired results by whatever means and methods the contractor chooses to use. The results system employs what is referred to as performance specifications.

The specification writer, most often the project architect, who uses the methods approach to specifications must be prepared to accept more responsibility than would be the case if the performance system were used. Since both the materials and methods to be used are specified in detail, it would be extremely unfair to force a contractor who has complied with the specifications to be responsible for performance.

Due to increased liability exposure associated with methods or descriptive specifications, their use is limited. AIA and EJCDC have gone to great lengths to reduce

a design professional's potential liability when it comes to the means and methods used by contractors in the field.

Defining Design Professional Liability

In defining a design professional's potential liability for approving methods employed by a contractor, the following inquiries must be made:

- What site services are required of the design professional?
  - Supervision vs. Observation
  - Cannot ignore the clear and unambiguous language
  - "Approved Methods" specifically called for
- Did the design professional assume more responsibility than required?
  - Intentions of the parties are demonstrated by their actions

What site services are required of the design professional?

Supervision vs. Observation

AIA and EJCDC have favored placing the authority and responsibility for executing the design solely upon the contractor and limiting the design professional to a more passive role.[61] This is demonstrated by changes made to standard contract documents. For instance, prior to 1961 the architect had general supervision of the work per AIA documents. AIA dropped the phrase "general supervision", replacing it with an observation requirement.

Responsibility-limiting attempts by the professional associations are clearly evident in the following standard paragraphs of AIA Document B141:

> 2.6.5 The Architect *shall visit the site at intervals appropriate* to the stage of construction or as otherwise agreed by the Owner and Architect in writing to *become generally familiar* with the progress and quality of the Work completed and to *determine in general* if the Work is being performed in a manner indicating that the Work when completed will be in accordance with the Contract Documents. However, the Architect *shall not be required to make exhaustive or continuous on-site inspections* to check the quality or quantity of the Work. On the basis on on-site *observations* as an architect, the Architect shall keep the Owner informed of the progress and quality of the Work, and *shall endeavor to* guard the Owner against defect and deficiencies in the Work. (emphasis added)
>
> 2.6.6 The Architect shall not have control over or charge of and *shall not be responsible for construction means, methods, techniques, sequences or procedures, or for safety precautions* and programs in connection with the Work, since these are solely the Contractor's responsibility under the Contract for Construction...The Architect *shall not have control over or charge of acts or omissions of the Contractor, Subcontractors, or their agents or employees*, or of any other persons performing portions of the Work.[62] (emphasis added)

Although this language is quite common in most contracts, the exact nature of the design professional's site visits depends upon the contract as a whole, both its express and implied terms. The contract may specify continuous versus noncontinuous presence, the frequency and timing of visits, the intensity of inspection, and action to be taken upon discovery of deficiencies.[63]

Cannot ignore the clear and unambiguous language

In **Hanna v. Huer, Johns, Neel, Rivers and Webb**[64] two subcontractor employees were injured on the jobsite when a steel joist fell from an upper level of the building's steel skeleton. The injured employees sued the project architect for negligent

supervision of construction. The relevant portions of the contract which described the architect's site visit duties was nearly identical to the AIA Document B141 paragraphs shown above. In ruling for the architect, the court stated:

> We conclude, as a matter of law, that the terms of both contracts are unambiguous and insufficient to support a conclusion that the parties intended the Architects have the duty of supervising the method and manner of construction to insure that the work be performed safely. The provisions, when considered in the context of the entire contract, merely evidence an intention that the Architects exercise such supervision as is necessary to assure that the work comply with the plans and specifications prepared by the Architects.[65]

Similar contract language is also found in **Mayor and City Council of City of Columbus, Mississippi v. Clark-Dietz and Associates-Engineers, Inc.**[66] Here, the court, in referring to the contract, noted:

> These paragraphs unambiguously limit Clark-Dietz' duty for supervising construction to an obligation to observe the general progress of the work, and not to make continuous and exhaustive inspections. We hold that Clark-Dietz performed this contractual duty by generally overseeing construction and conducting soil tests with reasonable care.[67]

With specific regard to the means and methods used by the contractor, the court in **Miller v. DeWitt**[68] held:

> The general duty to 'supervise the work' merely creates a duty to see that the building when constructed meets the plans and specifications contracted for...an architect does not by reason of his supervisory authority over construction assume responsibility for the day-to-day methods utilized by the contractor...[69]

As is the case with any rule, there may be exceptions. Although unsubstantiated by a significant number of cases, Sweet identified other factors which may have an impact on a court's determination of whether the duration, frequency, and timing of site visits are adequate.[70] These factors include:

1. Size of the project.
2. Distance between the site and the design professional's home office.
3. When crucial steps are undertaken, such as pouring concrete or covering work.
4. Type of construction contract. (Cost contracts require more monitoring.)
5. Experimental design or unusual materials specified.
6. Extent to which owner has a technical staff that will take over some of these responsibilities.
7. Observation of contractor's performance during visits.
8. Contractor's record of performance on the project.

"Approved Methods" specifically called for

Occasionally, a design professional may deem certain portions of the work important enough to require that the methods to be used by a contractor be approved. In these cases they may include in the specifications a statement which stipulates that a specific installation be performed "by an approved method." Requirements such as this may impose upon the design professional a higher duty to ensure that the work is performed in an approved manner (i.e. supervision vice observation is required for that portion of the work.).

In **Pastorelli v. Associated Engineers, Inc.**[71], after the completion of construction, an employee of the owner was injured by a falling heating duct. The duct, which was twenty feet long and weighed five hundred pounds, was suspended from hangers attached by nails to a ceiling of seven-eighths inch sheathing. Good practice would have required securing the hangers to the roof joists or the roof itself with lag screws. The evidence showed that the architect was not aware of the defective manner of installation of the hangers. He had not been present while the duct was being installed

and had made no effort afterwards to determine how the duct had been installed. He made this admission despite the fact that the specifications required that "the ducts shall be securely supported from the building construction in an approved manner". The court held that, because it was apparent that the safety of persons in the structure required that the ducts be securely fastened, the architect's failure to take steps to ascertain how they were affixed constituted negligence.[72]

Did the design professional assume more responsibility than required?

Intentions of the parties are demonstrated by their actions

As noted, the professional organizations have changed standard contract documents to lessen the responsibilities of the design professional on the construction site. Despite the protective language of the contract documents, design professionals can, at their own peril, demonstrate certain actions which bring more responsibility upon themselves.

In the cases of **Westerfield v. Arjack Co.**[73] and **Hausam v. Victor Gruen & Associates**[74], the courts identified a number of factors which should be considered in determining whether the design professional assumed a supervisory role, taking charge of the work and should be more responsible for the actions of the contractor. These factors include:

1. The degree of actual supervision and control of the work
2. Retention of any rights to supervise and control
3. Constant participation in ongoing activities at the construction site

4. Supervision and coordination of subcontractors
5. Responsibility for taking safety precautions at the job site
6. Authority to issue change orders
7. The right to stop the work
8. Knowledge of unsafe conditions

In **Hanna v. Huer, Johns, Neel, Rivers and Webb**[75], the court noted that "such factors, while not exclusive, would appear to be relevant in any case where an attempt is made to expand the architect's liability beyond the specific provisions of the employment contract."

McDonnell v. Wasenmiller[76] clearly demonstrates where the design professional assumed a greater role than he was contractually obligated to provide. In this case, an explosion occurred when an expansion joint anchor failed after steam was turned on in a steam heating plant. The applicable paragraph of the contract required that "The Engineers furnish consultant service on the conduit work, specifying the sizes of pipe and conduit and approving design". The court noted that the engineers interpreted its duties to include inspections of the work as evidenced by inspection letters forwarded to the contractor, despite the fact that a different engineering firm was contracted to supervise the construction. Additionally, the engineers had continuous on-site presence throughout. In its ruling, the court stated:

> Evidently the Burns & McDonnell Company (the engineers) recognized a responsibility and a duty in the construction and installation of the conduit line beyond the mere specification of sizes of pipe and design.[77]

Consequently, the court upheld the lower court's ruling that Burns & McDonnell should have seen that a proper anchorage was installed to prevent the sleeve of the last section of pipe from slipping out of its expansion joint.

Illustrative Example

Waggoner
v.
W&W Steel Company[78]

Facts

The architects in this case designed a steel frame hospital in Oklahoma City, Oklahoma. Expansion joints were designed so that a shelf, welded to a column, provided a seat for a beam which was held in place by "keeper angles" welded in on either side of the beam. During construction, a gust of wind hit a section of the steel before it could be secured in place, causing it to collapse, resulting in the death of two workmen and the injury of another. The architects were sued for not ensuring that the contractor employ safe methods and procedures in performing his work.

The General Conditions of the contract specified that the contractor was to supervise the work, being "solely responsible for all construction means, methods, techniques, and sequences and procedures". The architect was responsible for

periodically visiting the site but was not required to make "exhaustive or continuous on-site inspections to check the quality or quantity of the work".

Analysis and Conclusions

The relevant General Conditions of the contract were identical to those recommended by AIA. The court enforced the unambiguous language of the contract which placed responsibility for construction means, methods, and safety on the contractor. No action by the architect indicated a willingness to accept this responsibility.

Chapter 5

SUMMARY AND CONCLUSIONS

Included in this chapter are summaries of chapters two, three, and four, conclusions, and recommendations for future research related to the topic addressed in this thesis.

Summary of Chapters

Chapters 2 through 4 define the issues which must be addressed in determining the liability of design professionals for the review/approval of four types of submittals: shop drawings, "or equals", product samples, and approved methods. These issues were defined using the methods described in Chapter 1.

Shop Drawings

Does the approved shop drawing meet the design intent?

Courts have enforced the standard contract language found in AIA's and EJCDC's General Conditions. The standard clauses require that design professionals check shop drawings only for conformance with the plans and specifications and the design concept. Design professionals should pay particular attention when the contractor

develops the design details as shown in Model 2 of Figure 2.2. Courts will not hold design professionals accountable for errors in dimensions and quantities on the contractor's shop drawings.

Was the review timely?

Standard contracts require that design professional action will be taken with such reasonable promptness as to cause no delay in the work. Although difficult to define reasonable promptness, it is clear that design professionals should ensure that procedures are established for the receipt, review, approval, and return of shop drawings to the contractor. Prolonging decisions exposes the design professional to more scrutiny by the courts.

Did the contractor deviate from contract requirements?

Courts enforce standard contract requirements that the contractor notify the design professional if their shop drawings deviate from contract requirements in any way. Contractors cannot hold design professionals responsible for approving faulty shop drawings without notification.

"Or Equals" and Product Samples

Salient Features of Product Desired

The courts have been clear and consistent in holding that all salient features identified must be met for a proposed substitute or sample to be considered "equal." Design professionals must also be aware of the significance of the salient features that they include in contracts. They, too, will be held liable if approval is not granted to proposed substitutes or samples which meet the features desired. Although it has been established that the salient feature issue is important in determining liability for "or equal" specifications, it remains unclear how courts tend to rule in cases where salient features are not listed with the proprietary item.

Bidding Equals

Belousofsky v. Board of Education of City of Linden[79] demonstrates the requirement that the bidder prove equality of a proposed substitute. Failure to provide enough information for the design professional to make a determination of equality will render the bid nonresponsive. Design professionals will not be held liable.

Interchangeability/Compatibility (as a salient feature)

The clear and unambiguous language of the "or equal" clause cannot be ignored: design professionals must evaluate proposed substitutes even though the manufacturer differs from that named in the specifications.

Commercial Availability of Product

Courts have shown that design professionals bear a risk in ensuring that the products they identify are commercially available to all potential bidders. Absent commercial availability of the product, sufficient description must be given so that it may be fabricated by the bidder or others.

Superior Quality Substitutes

Superior quality substitutes may be rejected for not complying exactly with the contract specifications.

Approved Methods

What site services are required of the design professional?

Courts have concluded that the terms of standard contracts are unambiguous and insufficient to support a conclusion that design professionals have the duty of supervising the method and manner of construction. The provisions require that design professionals

exercise such supervision as is necessary to assure that the work comply with the plans and specifications. Occasionally, a design professional may deem certain portions of the work important enough to require that the methods to be used by a contractor be approved. Requirements such as this may impose upon the design professional a higher duty to ensure that the work is performed in an approved manner.

Did the design professional assume more responsibility than required?

Despite the protective language of the standard contract documents, design professionals can, at their own peril, demonstrate certain actions which bring more responsibility upon themselves. Courts will hold them accountable for the contractor's means and methods if these actions are demonstrated.

Conclusion

Design professional associations have revised their standard contract documents over time in an effort to reduce the liability of the group which they represent. These efforts have been in response to litigation aimed at penalizing design professionals when something goes wrong on a construction project.

The handling of contractor submittals is but one facet of the profession which has been scrutinized by the courts. As is the case with other issues in construction law, key and relatively consistent judicial attitudes have been established which help to predict the

liability of a design professional for the review and approval of contractor submittals. The common inquiries made by the courts are detailed in the previous chapters.

Recommendations For Future Research

Following is a list of topics related to this topic which may warrant additional research:

1. As noted in Chapter 3, it remains unclear how courts tend to rule when salient features are not listed in "or equal" clauses. Perhaps in time, appellate decisions will help to answer this question.
2. Numerous texts and periodicals address the importance of the "Architect's stamp" for contractor submittals. How important is it according to the courts?
3. As noted in Chapter 4, use of "approved methods" clauses may impose upon the design professional a higher duty to ensure that the work is performed in an approved manner. Do more recent appellate decisions support this theory?
4. The appendix offers a guide for design professionals to use to minimize their liability for submittal review and approval. A similar guide for contractors to use could be developed which would help them to define the "model submittal".

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Appendix

GUIDE TO MINIMIZING LIABILITY FOR SUBMITTAL REVIEW/APPROVAL

The following is offered by the Architect's Handbook of Professional Practice, "Construction Contract Administration":

- Insist that office and field personnel read and follow the provisions related to shop drawings and other types of submittals contained in the General Conditions of the Contract for Construction.
- Hold a preconstruction conference with the contractor(s) to point out the specific contract requirements in regard to the processing of shop drawings and other submittals. Insist throughout the project that contractors adhere to their contractual obligations to check and approve shop drawings before submitting them to the architect.
- Confine the architect's and engineer's review and approval of shop drawings to a determination of whether they conform to the design concept and the requirements of the contract documents. It should be made clear that any approval does not extend to information not called for in the contract documents.
- Do not do the contractor's job - if shop drawings have been submitted without having been checked and approved by the contractor, do not accept them.

- Do not accept shop drawings and other required submittals from anyone but the contractor; these should not be submitted directly to the architect from subcontractors or suppliers.
- Establish and maintain a log in the office to record the dates on which all submittals are received and returned.
- If contractor submittals cannot be approved, document carefully and in writing the reasons why they have been rejected or returned without approvals.

The following additional recommendations are offered by the author:

- Ensure that contractors are aware that they must notify the design professional of any deviations from contract requirements contained in shop drawings.
- Ensure that all salient features of products desired are listed and attainable by contractors and their suppliers.
- If contractors fail to adequately demonstrate the equality of products during bid submission (if allowed), reject the bid immediately.
- Avoid the requirement that products be interchangeable where possible.
- Do not assume more responsibility for site supervision than called for by the contract.
- Tailor the standard contract clauses recommended by AIA and EJCDC to meet individual needs. Where possible, incorporate these clauses "as is"

because precedence-setting cases have proven that they do limit a design professional's liability for contractor submittal review and approval.