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THE CONSTRUCTOR

THE MANAGEMENT MAGAZINE OF THE CONSTRUCTION INDUSTRY

JANUARY 1964



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16 \$88 Billion Year for Construction

William G. Dooly

13th annual Construction Forecast sees construction volume
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but still bears personal imprint of founders

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B&R-172



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First budget of President Johnson would raise construction expenditures by about \$300 million

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27 What About These Equal Opportunity Requirements?

Some state and local construction officials have gone overboard in interpreting and administering the President's nondiscrimination program. If you are confused as to your obligations in this matter, here are some specific answers

28 Excavation Failures: Their Cause and Prevention

George F. Sowers

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36 The AGC and How It Began J. L. Allhands

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THE MANAGEMENT MAGAZINE OF THE CONSTRUCTION INDUSTRY

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CHECK THOSE SAFETY STANDARDS!

'Whether He Knows It or Not, No One Has More Liability Problems than a Contractor'



Recent rash of cave-ins because some contractors failed to take reasonable precautions has worked hardship on whole industry.

Recommended practice: Expert review of all plans, specs, contracts to ensure compliance with safety codes or standards. In case of accident, an alert plaintiff's attorney will capitalize on any omission or deviation.

by Richard E. Schroeder

*Liability Engineer,
American Mutual Liability Insurance Co.*

(EDITOR'S NOTE: In this fifth article in a series on safety in trenching and excavation, the author, an authority on liability matters, has expanded his subject to cover all types of construction.)

FAILURE TO COMPLY with standards, codes and some contractual obligations can result in property damage and personal injuries, thereby becoming the basis for law suits against a contractor. Such suits may be filed by his own employees (indirectly), by employees of subcontractors, or by members of the public.

One source of difficulty is trenching operations. The recent rash of cave-ins involving trenches has resulted in considerable legislation outlining operational procedures and imposing penalties. Some states have gone so far as to make it an act of criminal negligence to perform certain trenching operations without the prescribed shoring.

The failure of some contractors to take reasonable precautions to prevent trapping workmen in cave-ins has worked a hardship on the whole industry. As always happens where "crash legislation" is used to correct a situation believed to be intolerable, a specification type of code results.

This tends to freeze methods of operation and makes the use of new methods extremely difficult, if not impossible. Trench shields are believed by many competent persons to be a very good control over trench cave-ins, but they are excluded in many areas because of the existence of specification codes which do not recognize trench shields. Trench shields will eventually

be recognized by most codes, but in the meantime the use of this efficient tool will be denied to many who could use it to good advantage.

Excavating, pile-driving, and dewatering operations bring out a multitude of liability problems. All standards and codes in regard to sheeting, shoring, under-pinning, barricades, fencing, watchman service, traffic routing, and warning devices should receive the most careful attention. There can be little doubt that if a contractor overlooks an applicable standard or deviates from it, an alert plaintiff's attorney will find the omission or the deviation and make capital use of it.

Sometimes the standards may seem unduly burdensome to a contractor, or he can see little exposure which justifies the control measure. Perhaps the following incident will demonstrate how far he may have to look at times:

A contractor, during the course of a construction job, dug a trench about 50 feet long, 10 feet wide and 3 feet deep. Shortly after the trench was dug, there was rain for several days. The trench filled with water and a 5-year-old child drowned in it. The contractor was found liable for the death of the child due to failure to erect a barricade, or otherwise taking steps to prevent such an eventuality.

'Safe Place to Work' Laws

Perhaps the most common sources of difficulty for a contractor are the "safe place to work" laws and the various "scaffold" laws. These laws vary considerably in the details of what is required, but a failure to comply makes out a prima facie case against a contractor if damage or injury results.

Even when there are no specific statutory requirements, recourse may be had to local or national standards

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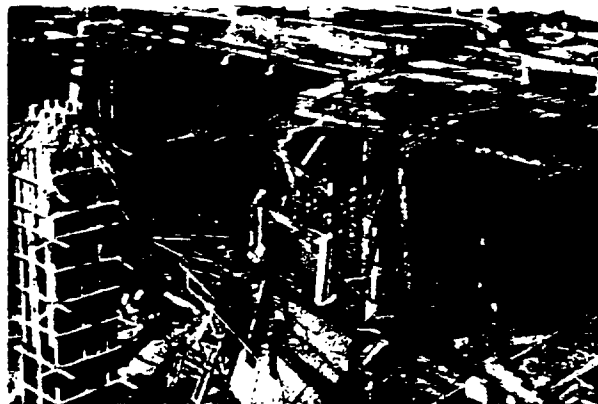
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Dewatering for a sewer caused damages to building and grounds exceeding \$20,000.



Collapse of this overloaded concrete form killed one man, injured 21 others.

as a measure of the standard of care required to protect persons and property.

In one case a workman was found badly injured directly below an elevated ramp. It was alleged that he fell the 30 feet from the ramp to the concrete below because the general contractor failed to provide toe-boards and a mid-rail in accordance with requirements of "a safe place to work" statute. The law was precise and specific and the failure to comply was patent. No adequate defense could be made and the case was settled for \$75,000.

This case brings out the importance of complying with statutory requirements even though the result might have been the same if the statute had not been so specific. In all likelihood other codes and standards would have been introduced in evidence and they all would require toe-boards and mid-rails.

However, even the minute requirements can result in the impositions of liability. In a recent case, the use of nails instead of bolts on a scaffold was determined by the court to be the proximate cause of an accident resulting in serious personal injuries. Here it was successfully argued that if the rails had been bolted instead of nailed, the railing would not have failed, allowing the person to fall.

There can be no question that a joint can be made just as strong and suitable for the intended use by nailing, but when it isn't, the failure to comply stands out like a sore thumb.

Form Failures Not Rare

Ladders, scaffolds, and concrete forms are an ever-present source of costly suits for property damage and personal injuries. There are numerous standards and codes covering these

items. They should be followed not only because they may be used to establish the degree of care required, but because they provide good design criteria to ascertain that they will, in fact, perform their intended tasks in a safe manner.

Probably the best known concrete form failure is the New York Coliseum. However, form failures are not as rare as it might seem from considering only the newspaper headline cases. Too many contractors rely too much on the fact that such forms have to carry the full load for a relatively short period of time. It should be borne in mind that it also doesn't take long to do extensive damage.

The loss record in form failures indicates that the major causes of grief are the lack of attention to cross-bracing, and over-loading. The common assumption seems to be that all loading will be in nice, straight lines. It turns out, however, that some of the supporting members are bent or placed on blocks that produce an inclined plane or that movement of men and material knocks over one or more supports.

With reference to contractual obligations, a contractor should be aware that job specifications may be imposing liabilities in several ways. They may require adherence to certain standards. They may give rights to persons not a party to the contract, and they may require him to do some things which he may think only a matter of form, but which may have sufficient teeth to produce a near-fatal bite.

Some standard contract and specifications forms are requiring the contractor to designate someone whose duty it is to supervise safety of the job. Recently this was the basis for a suit against a general contractor. Some structural steel erection was being per-

formed by a subcontractor. While attempts were being made to secure a beam to a column, the column fell, resulting in serious injury to a steel worker. It was successfully maintained that failure to detect some poorly-anchored anchor bolts was the cause of the failure, and that it was the duty of the designated safety supervisor to detect and correct such conditions.

Suits by Third Parties

It should also be noted that some states allow suits on a contract by persons not a signatory thereto, provided they can show that they are members of a class for whose benefit such a contract was made. Thus a contractor who agrees with a city that he will indemnify it for any damage caused in construction of a highway may find himself sued on the contract by householders along the way for real or fancied damage to their property.

A further example of this rule is noteworthy: A suit was filed by a union member, alleging that he was a third party beneficiary to a contract between the union and his employer to provide ventilating systems in ore mines. The court agreed with the plaintiff and held that he was a member of a class for whose benefit the agreement was made, and that he had a right thereon.

The above are only some of the pitfalls that a contractor faces in undertaking a construction job. It is hoped, however, that they will serve to direct attention to this area, which is all too frequently overlooked. It should be made a standard operating procedure to have someone, especially trained in such matters, carefully review all plans, specifications, and contract details to see that all applicable codes or standards are being followed.