

RESEARCH TARGETS IN HIGHWAY CONTRACT LAW*

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At a time when there are increasing pressures from many sides to quicken the pace of the highway construction program, it is indeed appropriate and meaningful to have established the "Committee on Highway Contract Law". After all, the construction is carried out through contractual arrangements and the individual states' ability to cope with the numerous contract problems, both legal and administrative, will to a large extent determine whether their programs can be expanded to meet the urgent need to provide additional highways. The new Committee provides an excellent forum where the more perplexing, knotty highway contract law and administrative problems of general interest can be studied in detail. It is hoped that these studies will substantially reduce the present duplication of effort by individual states which are, from time to time, confronted with similar or related problems.

I will briefly discuss eight (8) areas which I believe are appropriate for study by the Committee at this time. Some of these areas have been the subject of discussions and studies in the past, but as yet, no ideal solution has been arrived at. Several of these are of a more recent vintage; therefore, I will discuss them first and suggest that they be given priority for study.

Supervision And Inspection

In New York, as in most other states, a group of State Engineers, headed by an Engineer-in-Charge, are assigned to each State highway construction project to supervise its construction and to maintain an equitable balance in contractual performance. The inspection of the contract work consumes a major part of the Engineers' physical energies. The continual striving and planning to achieve the best possible job, with the least possible disaccommodation to the general public,

*This paper was prepared for and presented as part of the Fifth Annual Workshop on Highway Law sponsored by the Highway Research Board held July 11-15, 1966 in cooperation with the University of Colorado Law School and the Colorado Department of Highways.

the utilities and the local industry, demands close supervisory control over the construction project and requires administrative scheduling and flexibility by the State Engineers assigned to the project. In order to best accomplish this, the Engineer-in-Charge and his men must exercise what is known as "construction control". Construction control is a method as well as a process; it is a blend of experience, training, judgment and just plain horse sense. These factors, in order to be effective, must be applied continuously from the very inception of the job to the finish. Its purpose is the translation of the contract plans into a completed, effective highway facility.

The contractor, depending on his ability, working force and equipment, will establish a program schedule which will indicate how and when he plans to take the necessary steps and advance the various stages necessary to complete the project. The methods and means of construction he elects to use, providing they do not violate the contract terms, the State specifications and various State industrial codes and safety statutes, are the contractor's prerogative. In the final analysis, the responsibility for successfully completing the highway facilities according to the plans and specifications is a joint one, resting equally on the shoulders of both the Engineer-in-Charge and the contractor. To get the best possible job, the engineer and the contractor must work together and aim for a single goal. The engineer must appraise and consider in advance of the actual work being performed, the work planned and the methods to be used in the next steps of the project. The engineer who waits to see what the contractor is going to do next and how he is going to do it and then informs the contractor of his determination as to whether it is wrong or unacceptable, is not properly carrying out his responsibilities to the State nor is he advancing the project in a sound manner.

I cannot stress too strongly the need for the Engineer-in-Charge to use utmost caution and care in exercising the very delicate degree of supervision which is required in respect to the manner in which the work is to be performed. There is a very definite area of the contractor's prime responsibility and so long as the contract specifications are being followed, the Engineer should not summarily reject the contractor's suggested methods or means unless, of course, it is manifestly unsound or unsafe. Otherwise, the Engineer-in-Charge will find that he is exposing the State to a greater responsibility than the contract imposes and possible legal liability will result from his actions. Similar possible legal liability would attach to a consultant if he were the Project Engineer for the State.

A 1963 lower Court decision in New York (1) extended liability to cover consultant engineers employed by the State in a supervisory capacity on the theory that they exceeded their authority and insisted that a contractor apply a particular method of operation which resulted in personal injury to the contractor's employees. This case was reversed on appeal to the Appellate Division. The Appellate Division's reversal was affirmed by the State's highest Court, the Court of Appeals. However, the seed has been planted and we can expect an increasing number of suits predicated upon this theory or some variation of it since in this way, the injured employee can avoid being confined to a recovery based upon workmen's compensation and look to a trial based upon negligence or a control theory with the possibility of a much more generous award by a jury.

It is, therefore, vitally important that the terms "supervision" and "inspection" be clearly identified and defined in the contract documents so as to preserve the contractor in his proper role as an "independent contractor" with the concurrent responsibility as to the method of operation. On the other hand, the State should exercise that degree of "supervision" and "inspection" necessary solely for the purpose of making certain that the contractor is satisfactorily performing the work within the scope of the contract and the plans and specifications.

The problem of extension of liability for acts which have been long considered supervisory or of an inspection nature should be carefully considered. Study of this problem would not only result in the setting forth of the legal theories that can be used to defeat such an action, but also could develop suggested contract language which may remove the legal basis for such suits. As an adjunct to this study, the recent legal development of the theory for extending liability for faulty designs could also be considered as a basis for a detailed study.

Auditing And Backcharging Items On Federal-Aid Contracts

The recent auditing activities by the General Accounting Office of the Comptroller General of the United States has created a serious administrative problem to many states. To illustrate -- one item which the auditors determined should be backcharged to New York State was brackets to hold utility facilities on bridge structures. The projects audited were from four to twelve years old. The amount involved was relatively small; however, the administrative headaches created are worthy of mention. A project twelve years old is closed on our books, as it must be on your books. To exhume and reaudit this minor item

and attempt to compel the utilities to pay for it is a practical impossibility. Therefore, a separate State appropriation by the Legislature had to be made to cover the item. I use this illustration only to demonstrate that there is a positive need for "finality" in our Federal-aid contract liability. A time period or Statute of Limitations must be established beyond which there can be no further auditing or backcharging by the Federal Authorities. The new Committee could study this problem and develop the time limits which would be acceptable to both the Federal Government and the individual states. At the present time, if a state is the subject of audit, and old dead projects are revived, there can be serious administrative problems which will consume time of the State's administrator that could be well spent on current projects. Sometimes, the administrative costs outweigh the actual amount of the surcharge.

Statutory Controls On Administrative Determinations

A statute requiring a non-collusion affidavit in bids for State work was enacted in New York State in 1965.(2) Under the provisions of this statute, a corporate bidder was required to attach a certified copy of the resolution of the Board of Directors authorizing the person signing the non-collusion bidding certificate to execute such a certification for the particular project. While the intent of the bill was to strengthen the non-collusive bidding statement of bidders, the result created a serious administrative problem. The statutory requirements were too stringent and gave rise to some technical omission or defect when prepared by non-lawyers so that the bid proposal was invalid as a matter of statutory law and could not be given consideration in making an award. Some of the more common defects in the certification which we received were lack of a corporate seal and reference to a resolution by the corporate Board of Directors giving general authorization to signed contracts and other papers on behalf of the corporation rather than specific authorization for the individual to sign the non-collusion bidding certificate for the particular project. A bill introduced and passed at the 1966 Session of the New York State Legislature modified the rigid requirements and provided a more flexible method of handling the non-collusion bidding certification so as to avoid invalidating of many otherwise desirable competitive bids.

At the 1965 Session, a bill was introduced and passed, but subsequently vetoed by the Governor, which would have amended the Public Works Law to require the Superintendent of Public Works to establish a list of individuals and firms ineligible to bid on or receive contracts for public works.(3) An individual or firm would be placed on

the list for five (5) years upon a finding by the Superintendent of Public Works of any of the following willful violations:

1. Use of material below standards established in plans and contracts for public works.
2. Failure to perform in accordance with contract specifications or within the specified time limits.
3. Failure to pay prevailing wages.
4. Acceptance of wage kick-backs.

Any of these violations is a serious offense and should be the basis for debarring the offender from receiving public works contracts. The difficulty with the bill was that it did not include other grounds for disqualifying a bidder on public contracts. Under an existing statute, the Superintendent of Public Works had the right to make an administrative determination as to the responsibility of the low bidder. The Courts in New York have upheld this right; providing such a determination was not arbitrary or capricious. If the Superintendent of Public Works determined that a low bidder was guilty of any of the misdeeds specified in the legislative proposal, he could administratively determine that the contractor was not the 'lowest responsible bidder as will best promote the public interest. The proposed statute ignored the universal principle that the awarding of a contract on the part of a public official to one of several bidders requires the exercise of judgment and discretion. If the legislative proposal had been enacted, it is highly likely that debarment would be limited to the four (4) specified misdeeds and, therefore, would leave no room for administrative discretion if other equally serious misdeeds were committed.

The above discussion illustrates a problem which I believe is not readily apparent to many highway contract administrators; yet, is one which seriously affects their activities. It is my opinion that an analysis of recent legislative enactments and legislative proposals throughout the nation would reveal a definite trend towards restriction of administrative flexibility in making determinations concerning highway contract problems. The primary aim of such a study should be a careful analysis of the pros and cons of this trend, with a sound evaluation of the potential problems which may result if a statute of the type illustrated above were enacted. Such studies would surely be of considerable assistance to a highway contract administrator in persuading legislative bodies that the resultant problems may well outweigh the potential advantages.

Overlapping Statutes

If you look at a typical highway contract, you find the basics set forth in two or three pages followed by five or six pages of "boiler plate" provisions mandated by various statutory requirements. Many of these "boiler plate" provisions duplicate or overlap each other. The new Committee could well include this area with other studies of statutes with relatively little additional effort and at the same time, may evolve sound suggestions to eliminate duplicating and overlapping provisions.

Changed Conditions

The complexities of contract legal construction are most apparent in the area of highway contract administration that generally is termed "changed conditions". These "changed conditions" may result in performance of either "extra work" or "additional work" by the contractor. The terms are not synonymous. "Extra work" usually arises outside of, and entirely independent of, the contract and is not required in its performance; whereas, "additional work" usually results from a change or alteration in work that has to be performed pursuant to the contract and might arise from conditions that could not have been discovered until the specific work of the contract was actually undertaken. Whether "changed conditions" result in "extra work" or "additional work" performed by the contractor has been the subject of argument between the contracting parties and too often becomes the subject of litigation in the Courts. A result that is very expensive for both the contractor and the State.

I will very briefly outline the Federal treatment of this problem and contrast with the method employed in New York, as well as many other states. These views seem to represent the two general schools of thought for treatment of this problem. The Federal Government has endeavored to treat and reduce the risk of changed conditions as it affects the contractor by the inclusion in all Federal construction contracts of a requirement that the contractor immediately notify the contracting officer of (1) subsurface or latent physical conditions at the site which differ materially from those indicated on the contract or (2) unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work of the character provided for in the contract. The contracting officer must then promptly investigate the conditions; and in a proper case, he may make an equitable adjustment and modify the contract accordingly.

Under the New York method, the contractor accepts full responsibility for subsurface conditions encountered on the site, except those resulting from faulty design or misrepresentation.

The problem of changed conditions is not new; however, an in-depth study comparing and analyzing the methods of handling the problem would be a worthwhile project for the new Committee.

Strict Compliance Versus Practical Application

Following the problem of the contract's legal construction is the problem of contract application. This is the area of strict compliance to the legal letter of contract law under "common law" rules versus the practical engineering approach used to obtain a final result. In highway contract administration, care must be used to balance both of these views in order to obtain the desired result most expeditiously and at the minimum cost. I know of no genie who can balance these views and come up with the best results everytime, but experience in this area is an excellent guide. Therefore, good contract administration requires that a large amount of discretion and flexibility be delegated to the experienced contract engineer-administrator so he can use this experience to perform this important balancing function. This is another area in which study by the new Committee could result in the establishment of guidelines for balancing the interests.

Preliminary Activity

Critical attention should be given to three areas of "pre-activity" in order to determine what aid they may offer in minimizing delay in progressing construction contracts. First, let's consider the use of a system of "pre-bidding qualification". In New York, we lean to the position that such a system is not especially effective and our experience has not revealed that there is a compelling need for such procedure. In fact, in our view, it adds to the time factor needed to administratively process the contract after the "low bidder" has been ascertained when the bid box is opened at the letting because our interest is primarily in the qualifications of the low bidder rather than a group of several bidders. The low bidder's qualifications are adequately determined before an award is made to him. The State at that point has no interest in the qualifications of the unsuccessful bidders.

The system of "pre-bidding qualification" is tied in, to a large degree, to the contractor's past performances in similar work and, in particular, those projects he has performed for the State. Mere possession of adequate financing and equipment is not the governing criteria. New or little known contractors, who, incidentally, may well

be equipped with management, manpower and equipment sufficient to handle the project, would be faced with the difficult and costly task of establishing their qualifications. The results could well be that on many projects the number of bidders would be diminished. This would work to the detriment of the State and the cost of projects could increase because of limited bidding by the same few contractors. In New York we think it does not give as free play to the competitive process.

The second suggestion for examination is the use of a system of "pre-award qualification". Although this system is closely akin to the first suggestion, it is more practical because a determination is being made as to the responsibility of the low bidder and his capability to satisfactorily complete the contract. Of course, time can be saved if the bidder has had prior experience with the State because the "book" on the bidder can be up-dated with little additional work.

The third area I will explore, and which, incidentally, I feel offers great opportunities for reducing the time required to initiate and complete projects, is "preconstruction conferences". The use of these conferences in New York State originated in the western part of the State and has spread throughout most of the rest of the State.

A typical conference would include an invitation to the contractor and "other concerned parties" in interest to meet with the State's representatives in the District Office where the project is to be performed. The contractor is required to present his "schedule of operation" so that all possible points of conflict can be determined, discussed and then resolved. The District Engineer conducts the conference and uses a check list, which he has drawn up from experience at many other similar conferences, to ascertain that all areas are covered in an orderly and complete fashion.

We now approach the "other concerned parties" -- the important key. A major problem in almost all projects is the co-ordination of the utility company's activities so that the project is not seriously delayed once under construction. Knowledge of the work schedule can save money because it allows the affected parties, both utilities and contractors, to pre-order any specialized equipment or material that is necessary. Lower costs may result because of the ability to time the purchase and secure a precise delivery date. Further, public relations plays a major role in the conferences. The local officials must be alerted to traffic problems such as traffic delays, congestion

on other routes and detours that become necessary as a result of the planned improvement. The police and fire departments must know what effect the construction will have on their responsibilities.

From this sketchy outline, I believe you can readily appreciate the importance of the co-ordination needs which such a conference can bring about. If the conference is not used, then the contractor and the State would have to do their own arranging after the fact which would, of necessity, entail a greater length of time and possibly not cover the requirements of all the interested parties. This would lead to improvisation and delay -- two of the arch enemies of effective project progress. The methods employed by the various states in relation to preliminary activity would be a very worthwhile project for the new Committee.

Lump Sum Bidding

There is a school of thought which holds the view that "lump sum" bidding would reduce materially the problems in contract administration.

The unit price system is most useful and virtually imperative when conditions make it difficult to precisely establish the quantity of work to be performed or when unknown conditions may be encountered. This occurs primarily in excavation work because of the lack of knowledge of the precise surface and sub-surface conditions. The unit price system allows for the use of estimates and calculated estimates for the bidding process with the accurate determination, upon which the installments and final payments are based, to be made as the work is progressed. Almost every contract that calls for use of this system will end up with changes in the total contract price reflecting the increase or decrease in the items due to actual measurements.

Lump sum bidding on the other hand is practical only when the work is of a definable and exact nature and quantity. In highway construction, such items might include clearing and grubbing of the right-of-way, staking-out of the project, traffic control, bridge superstructure above the footings and surface pavement construction. However, lump sum bidding is not practical where the items tend to vary in quantity.

With the use of lump sum bidding, either the contractor or the State would have to determine with a high degree of accuracy the nature and quantity of work that is entailed in the project. This design accuracy would require substantial engineering expenditures. If a system was adopted which placed the risk of variance and the duty of calculation of work requirements on the contractor, the results would, of

necessity, mean higher bid prices to cover this risk and the cost of the work involved in making the accurate determinations. If the State makes the determination of the quantity of work required and indicates this determination on the contract, then the contractor could recover additional sums when unknown factors are encountered because he is performing work which the contract does not enumerate. The paper and administrative work involved when there are numerous variances would be quite burdensome in addition to substantially increasing the State's cost for preparation of plans as well as supervision.

No matter which system is used, the project must still be performed according to the established specifications and would require inspection so that the problem of quality supervision would not be lessened by the adoption of one system over the other.

Any radical change from one system to the other would require a great deal of adjustment by and "education" of the contractors. For instance, many contractors are equipped to bid under a unit price system where estimates of the work requirements are used because they know that adjustments will be made later at the unit prices to reflect the actual measurements, but they would be unable to cope with the task of estimating the total job for a lump sum bid. In a big project, this risk could well encompass a substantial amount of money.

You can see that the determination of the best system of bidding for highway contracts is not a simple one. Possibly, it lies in a hybrid form with some of both systems incorporated into it. Lump sum bidding could be used for such items as clearing and grubbing, staking-out of the project and traffic control, with unit price bidding used for the remaining items, many of which are apt to vary in quantity.

No discussion of unit price bidding should ever conclude without touching on its one principal vulnerability -- unbalanced bidding. Extreme caution must be exercised in reviewing unit price bids to contrast them with the Engineer's or Department's estimate as well as the competitive bids on the same project which, although higher, may nevertheless, furnish interesting and helpful comparisons. As you all know, an "unbalanced" bid item is one which greatly exceeds the Engineer's estimate for the same item. When discovered, a careful recheck is undertaken to ascertain whether the quantity or number of units are correct and reasonable and do, in fact, reflect the actual quantity

necessary for project completion. Steps are also initiated to insure as much as possible that there will not be an appreciable overrun in the item. Such checking will often uncover errors as to quantities enumerated in the bid proposal so that correction can be made while still possible.

The entire area of bidding is one that I recommend be the subject of review and analysis by the new Committee.

Conclusion

Highway contract administration is replete with manifold problems. Obviously, all of them cannot be discussed in the brief time allotted to me this morning; although I have attempted to present some of the obvious ones. Study of the problems I have suggested, together with others suggested here this morning, in this very important area will be an affirmative approach toward effectively meeting a difficult phase of our work.

Footnotes

- (1) Ramos v. Shumavon, Bronx County Supreme Court, June 8, 1963; reversed 21 A.D. 2d 4, 247 N.Y.S. 2d 699, March, 1964; aff'd. 15 N.Y. 2d 610, 255 N.Y.S. 2d 658, 203 N.E. 2d 912, Nov. 1964.
- (2) Session Laws of New York, Chapter 751 of the Laws of 1965.
- (3) New York State Assembly Bill, Introductory Number 4454, Print Number 4577 (1965).