The types of construction contract arrangements under discussion can best be described by contrasting them with the traditional mode of structuring a construction project. In the traditional situation an owner hires an architect or engineer to design the project and to prepare the plans and specifications which communicate the design to the contractor. The owner then selects a contractor—by competitive bidding, negotiation, or some combination of the two—who contracts directly with the owner to construct the entire project. The contractor assumes complete responsibility for procuring and furnishing, either directly or indirectly, all labor and material necessary to complete the project within the allotted time. Usually the architect or engineer retains certain functions during the construction phase, such as processing change order and payment requests and visiting the site to see that the work is being performed in accordance with the plans and specifications. Under the most commonly used forms of contract, the architect or engineer also assumes a quasi-arbitral role of deciding, in the first instance, disputes between the owner and contractor.
Construction management involves assigning some of the functions usually performed by the contractor and some of the functions usually performed by the architect to an entity known as the construction manager (CM). Construction management is often, but not always, employed on a multiprime project. Under a multiprime contractual regime, the owner contracts with a number of contractors, rather than with a single contractor responsible for the entire project. These contracts are normally divided along traditional trade or craft lines. In addition, such contracts may be phased so that one contractor performs all of the work until a certain stage of completion, he then turns the site over to another contractor who either completes the project or tenders it to yet another contractor. A third multiprime possibility involves having separate contracts awarded for various portions of a large site.

Regardless of the particular multiprime arrangement adopted, the CM is the party usually charged with the responsibility for scheduling and coordinating the work of the various prime contractors. This duty of the CM is very similar to that of the general contractor who is charged with the responsibility for coordinating his subcontractors and suppliers. The CM may also have other functions, including preparing and revising project budgets, preparing or coordinating the

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10. See R.S. Noonan, Inc. v. Morrison-Knudsen Co., 522 F. Supp. 1186 (E.D. La. 1981). More specifically, the CM is required to perform the following scheduling and coordination services during the construction phase:

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11. AIA General Conditions, supra note 1, art. 4.3.1; see also Johnson v. Fenestra, Inc., 305 F.2d 179
contract packages for the separate prime contractors, reviewing long lead time items, and inspecting the work of trade contractors for deficiencies.

The term CM is used even when some person or entity is acting as a CM, although not formally so designated. Thus, the chameleon-like CM may take many forms including that of the architect or engineer who designed the project, a prime contractor who is also performing a portion of the work with his own forces, an owner acting as his own CM, or an entity who functions exclusively as a CM. Construction management, assuming that applicable regulatory laws permit, may be performed by an architectural firm, an engineering firm, a general contractor, and perhaps even by other types of entities. It is not surprising, therefore, that the many different functions the CM now performs were once the responsibility of the general contractor, architect, or engineer. The CM is truly a construction hybrid.

A. Licensing

General contractors sometimes assume that, because they are licensed to perform the services a general contractor traditionally performs, which include scheduling and coordination of numerous subcontractors and vendors on large projects, they are ipso facto properly licensed to enter into construction management agreements to perform those same services on multiprime contracts. That assumption, however, is not necessarily accurate or wise. One commentator has suggested that many architectural licensing statutes could be construed to prohibit anyone but a licensed architect from acting as a CM. Further support for the position that a CM must be licensed as an architect or engineer comes from cases such as At/1n Construction, Inc. v. Muncie Community Schools, which held that public bid statutes do not apply to construction management contracts because they more closely resemble contracts for architectural or engineering services rather than construction contracts. Logically, if a CM is so similar to an architect for the purposes of a public bid statute, it is equally likely that the courts will require the CM to be separately licensed as an architect or engineer. In some states the problem may be


13. Id. art. 2.1.5.

14. AGC 1977 GMP Agreement, supra note 10, art. 2.2.4.

15. Id. art. 2.2.8; AIA CM Agreement, supra note 12, art. 1.1.12.


17. 413 N.E.2d 281, 290 (Ind. Ct. App. 1980); accord Mongiovi v. Doerner, 24 Or. App. 639, 645, 546 P.2d 1110, 1113 (1976). Atlin should be compared to City of Inglewood v. Superior Court, 7 Cal. 3d 866, 866, 500 P.2d 601, 103 Cal. Rptr. 689 (1972), in which the California Supreme Court ruled that a CM contract awarded without competitive bids was invalid. Id. at 867, 500 P.2d at 605, 103 Cal. Rptr. at 693. In that case, unlike Atlin, the CM guaranteed the maximum cost of the work. Id. at 866, 500 P.2d at 604, 103 Cal. Rptr. at 692; see also Bechel Power Corp. v. Secretary of Labor, 548 F.2d 248, 249 (8th Cir. 1977) (CM liable for safety violations because its functions were an "integral part of the total construction"). One commentator has suggested statutory revisions to alleviate the licensing problems attending construction management. Note, supra note 16, at 447.
the opposite. For example in Alabama, the State Licensing Board for general contractors has an unpublished policy that anyone acting as a CM must be licensed as a general contractor. 18

A general contracting firm seeking to perform construction management work must investigate carefully the laws of the jurisdiction involved. If it appears that there is a risk that the licensing statutes for architects and engineers apply to construction management services, careful drafting of the CM's scope of authority may reduce the risk to an acceptable level. Needless to say, if there is case law holding squarely that only licensed architects or engineers may perform construction management services, it would then be foolishly improvident to perform these services without such a license.

B. Types of Contracts

A CM may act solely in a construction management capacity or he may be a general contractor who is performing that portion of the work not performed by others who are often referred to as trade contractors. The two leading forms of construction management contracts clearly reflect their origins. In American Institute of Architects (AIA) Document B801, the listing of the CM's services does not include performing construction work. 19 Undoubtedly, AIA Document B801 is designed to cast an architectural firm in the role of CM. The CM undertakes neither to provide craft labor nor to furnish materials. 20 He undertakes instead to provide "his best skill and judgment" 21 and to use "his best efforts." 22 The CM's duties under B801 differ from those of an architect on a standard project insofar as the CM coordinates and schedules the work of the various prime contractors and recommends courses of action to the owner to keep the project on schedule. 23

In contrast to AIA Document B801, the Association of General Contractors (AGC) Document No. 8 states that the CM will provide all labor and materials that neither the owner nor a trade contractor provides. 24 AGC Document No. 8 is thus equally designed to cast a general contracting firm in the role of CM. Because of the commitment to perform whatever work is not performed by trade contractors or the owner, a garden variety architectural or engineering firm simply could not act as a CM under the AGC Document.

The role of a general contractor as a CM differs significantly from the traditional role of a general contractor in several key respects. The CM is extensively involved in the design phase of the project; 25 scheduling the project during the design phase; 26 developing a realistic project budget 27 (an area in which a general

19. AIA CM Agreement, supra note 12.
20. Id.
21. Id. art. 1.
22. Id.
23. Id. arts. 2.2.1, 2.2.1.5.
24. AGC 1977 GMP Agreement, supra note 10, art. 2.2.2.
25. AIA CM Agreement, supra note 12, art. 2.
26. Id. art. 2.1.2.
27. Id. art. 2.1.3.
contracting firm should have important skills which can complement those of the architect or engineer); and developing and coordinating the various contract document packages. This last task is analogous to the task a general contractor undertakes when he breaks a standard project into pieces for performance by his subcontractors. One of the most valuable services provided by a general contractor/CM in the design phase is sometimes referred to as "value engineering." Value engineering involves suggesting to the architect or engineer ways to reduce the owner's outlay by making changes in material specifications or by changing design details which are cumbersome and costly to execute.

During construction, a general contractor/CM operating under AGC Document No. 8 acts much as he would under the traditional format. Probably the most significant deviation is that, if the owner has entered into trade contracts or purchased goods from vendors directly, then the CM must endeavor to coordinate the trade contractors' or vendors' work without the power conferred by privity and the standard provisions of a subcontract.

C. Problem Areas During Performance

1. Delays in Completion. Inflation, and high interest rates make delay the most serious threat to a general contractor/CM's solvency. If a project is delayed in its completion, there may well be claims for damages between a general contractor/CM and the owner or between a general contractor/CM and one or more trade contractors.

a. Owner v. Construction Manager. If an owner claims delay damages from his general contractor/CM, in the absence of a broad exculpatory clause, there are two possible bases for recovery. First, the owner may claim that the project was delayed because the CM failed to perform in a timely manner those aspects of the work which the CM elected to perform with his own forces. If the owner proves that the CM did fail to perform in a timely fashion and if that delay is the sole proximate cause of the slippage of the completion date, the analysis is quite simple: the CM is liable. Where a delay caused by a trade contractor not in privity with the CM has a delaying effect on completion equal to a delay caused by the CM in performing work with his own forces no clear rule of liability exists. One possibility is to apportion liability between the CM and the trade contractor in proportion to their fault. Another possibility would be to deny recovery to the owner.

28. Id. art. 2.1.4.
29. Under the AIA CM Agreement, the CM who performs some of the physical construction work is governed by the AIA General Conditions with respect to the execution and timely completion of such work. Id. art. 2.2.2. Moreover, under the AIA General Conditions substantial completion must be achieved within the contract time. AIA General Conditions, supra note 1, art. 8.2.2. Accordingly, the CM may be held contractually liable for any delay in the completion date resulting from his failure to timely perform the work required of his own forces.
30. Cf. Gaede & Bynum, supra note 9, at 8. In such a case the CM and the trade contractor are equally at fault in the delay in the completion of the project making it difficult to determine liability.
entirely on the theory that he bears responsibility for the trade contractor just as the general contractor bears full responsibility for his subcontractors' shortcomings. 32 A third alternative would be to allow the owner to recover his entire loss from either the CM or the trade contractor as if they were joint tortfeasors under common law. 33

At this stage in the development of the law relating to construction management, it is impossible to state a general rule or, in most jurisdictions, to even predict a result with reasonable certainty. The moral for a general contractor/CM is clear: thoroughly investigate the law of the pertinent jurisdiction before signing a contract and negotiate reasonable limits on liability for delay.

A second basis for an owner's delay claim against a general contractor/CM is that the CM failed to properly perform his duty to schedule and coordinate the work of the trade contractors. This situation is analytically distinct, although often virtually impossible in practice to distinguish, from the situation in which, despite the best efforts of a competent professional CM, a trade contractor delays the job. The first issue is what standard applies to the review of the general contractor/CM's performance. The CM will not be strictly liable to the owner for a trade contractor's derelictions unless he unwisely signs a contract with unequivocal language that permits such a result. 34 No such language appears in either the AIA or the AGC documents. It is likely that the CM will be held to a standard of professional care analogous to the standard usually imposed by law upon architects and engineers. 35

An issue likely to cause many problems is the extent to which the general contractor/CM must impose or recommend the imposition of sanctions upon delinquent trade contractors to avoid liability to the owner. 36 If the term "construction

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32. The author is aware of no case on point in the CM context. Cf. J.A. Jones Constr. Co. v. Greenbriar Shopping Center, 332 F. Supp. 1336, 1349 (N.D. Ga.), aff'd, 461 F.2d 1269 (5th Cir. 1971) (where contractor and owner each contributed materially to delay, neither was allowed to recover damages for delay).

33. In the arbitration which followed the decision in Episcopal Hous. Corp. v. Federal Ins. Corp., 273 S.C. 1811, 255 S.E.2d 451 (1979), the owner claimed against the design professional and the contractor as joint tortfeasors with respect to certain building defects and delays. The legal analysis would be the same in the context of a CM and a parallel prime contractor whose defaults both contributed to delay damages suffered by an owner or another prime.

34. For example, see the new South Carolina Procurement Code in which the CM guarantees price quality, and on-time delivery.

35. Connor, Legal Aspects of Claims on Construction Management Projects, in WINNING AND NOT LOSING at 15-17 (1983). The adoption of a standard of due care for the CM is merely an extension of well settled principles of professional liability. Sneed seems to agree with this analysis:

Presumably a construction manager would be liable to GSA in the event it failed to establish a schedule and advise GSA's Contracting Officer of prime contractors' failures to comply with the schedule or its coordination directives, or if it failed to transmit orders of the contracting officer in a timely manner.

Sneed, supra note 10, at 363-64.

36. The courts have held that a CM cannot be held liable for the actions of individuals over which he has no actual control. See Everett v. Alyeska Pipeline Serv. Co., 614 P.2d 1341, 1346 (Alaska 1980); Hammond v. Bechtel, Inc., 606 P.2d 1269 (Alaska 1980). See generally Foster, supra note 8, at 113. Thus, without the power to impose sanctions upon delinquent trade contractors the CM cannot be held liable in tort. Nevertheless, the CM may be held liable in contract for any delay to the extent that he has guaranteed completion of the project on time, even though he may have no enforcement or sanction power over dilatory trade contractors.
manager” means anything, a CM should have to go beyond establishing reasonable schedules when it is clear that one or more trade contractors, for reasons other than those deemed excusable, are delaying the work. The CM should, at a minimum, press the delinquent trade contractors to bring their work back on schedule. On the other hand, even if the general contractor/CM has the power to impose sanctions, such as default termination on trade contractors without the express consent of the owner, he may hesitate to impose such sanctions for valid reasons. For example, the CM may decide that a trade contractor has an excuse for the delay and that default termination would thus subject him and the owner to an unreasonable risk of liability. The CM may also conclude that bringing in a replacement contractor in midstream will result in a greater total delay than that caused by the original trade contractor. The result is that the liability of a CM to an owner for delay because of the CM’s failure to properly schedule and coordinate the activity of trade contractors is likely to be a question of fact rather than one of law.

b. Construction Manager v. Owner. A general contractor/CM may also have claims against an owner for delay caused either by the owner or by a trade contractor. The AGC has sought to avoid any dispute between the owner and the general contractor/CM on this issue by providing that “[f]or delays in the Project not the responsibility of the Construction Manager, there will be an equitable adjustment in the fee to compensate the Construction Manager for his increased expenses.”37 Thus under the AGC document if the CM can show that either a trade contractor not in privity with him or the owner has delayed completion, he is entitled to an appropriate fee adjustment. The owner, however, retains the defense that the CM’s failure to schedule and coordinate caused the delay.

In the absence of a clear relief granting clause and of an enforceable exculpatory clause, an owner clearly should be liable to his CM for extra costs incurred as a result of owner caused delays. With respect to delays caused by trade contractors in privity with the owner the question of liability to the CM is more uncertain. A court might hold, as some have done in multiprime situations when the federal government was the owner, that the owner has no liability to a prime contractor claimant so long as he takes reasonable steps to require the other prime contractor to meet his obligations.38 A court might also hold that, because the prime contractor/CM participated in selecting the trade contractor and assumed responsibility for scheduling his work, the CM should bear the risk of the trade contractor’s delay. Finally, a court might find the owner liable under the same theory that holds a prime contractor/CM liable for delays caused by his subcontractors.

37. AGC 1977 GMP Agreement, supra note 12, art. 7.2.2.
38. E.g., Paccon, Inc. v. United States, 399 F.2d 162, 170 (Ct. Cl. 1968). But see Freuhauf Corp. v. United States, 587 F.2d 486, 496-97 (Ct. Cl. 1978) in which the Court of Claims held the government liable to one prime contractor under the “suspension of work” clause for an unusually severe delay even though the government was completely innocent in the matter. The general rule is that the government must use reasonable efforts to make each of the multiprime contractors under its control comply with the schedule. Paccon, 399 F.2d at 170.
c. Contractor/CM v. Trade Contractors. In the real world, trade contractors not in privity with the CM face two major obstacles in attempting to recover for delays that they feel have been caused by a general contractor/CM. First, most trade contractor/owner contracts have "no damage for delay" clauses which purport to insulate both the owner and CM from delay claims made by the trade contractors. The extent to which such clauses are enforceable varies with the particular facts, the skill of the draftsman, and the law applicable to the project. Second, a trade contractor not in privity with the CM may be unable to persuade the court or arbitrator that under the governing law he is a third party beneficiary of the contract between the owner and the CM. Thus, he may be forced to pursue an action in negligence, which may not always be available.

A CM who wishes to pursue a trade contractor may not have an easier time. Most trade contracts do not contain clauses protecting the trade contractor from claims by the CM. To the extent that the general contractor/CM has relinquished the right to collect delay damages or their equivalent from the owner, he may be forced to sue the trade contractor on the theory that he is a third party beneficiary of the trade contractor's contract with the owner. To be sure, the availability of a third party beneficiary remedy will turn upon the language of the contract and the law of the forum state. Ideally, the general contractor/CM would prefer an automatic remedy for trade contractor caused delay as provided by AGC Document No. 8. When such a remedy is unavailable, however, he should attempt to insert language into the trade contractor contracts disclosing that the CM is a third party beneficiary of the trade contractor's obligations to the owner.

39. Admittedly, many of the standard form contract documents do not contain such clauses, but owners and CMs frequently amend the forms to add protection against delay claims. Such amendments to the standard form agreements by owners and CMs are primarily the result of economic necessity caused by the enormous escalation in construction costs. As a consequence, one commentator has observed that "owners have sought to protect themselves against . . . delays by inserting clauses in construction contracts which prohibit the contractor, or those who claim under or through him, from asserting claims for damages for delay, whatever the causes therefor." Foster, Presenting/Defending the Claim for Delay, Disruption, or Interference, in Winning and Not Losing at IV-63 to 64 (1983). Notwithstanding the increased use of "no damages for delay" clauses by owners and CMs, these exculpatory provisions "are strictly construed and all ambiguities are resolved in favor of the party upon whom the clause was imposed." Id. at IV-64.

40. In John E. Green Plumbing & Heating Co. v. Turner Constr. Co., 500 F. Supp. 910 (E.D. Mich. 1980), the court held that a no damage for delay clause barred claims against the CM based on allegations of negligence, but not for claims based on active interference by the CM with the contractor's performance. In deciding whether to enforce a no damages for delay clause, the courts typically determine if the damages actually incurred were contemplated by the parties at the time the contract was executed. See Houston v. R.F. Ball Constr. Co., 570 S.W.2d 75 (Tex. Civ. App. 1978); Seattle v. Dyad Construction, 17 Wash. App. 501, 565 P.2d 423 (1977). See generally Foster, supra note 39, at IV-63 to 69; Annot. 74 A.L.R. 3d 187 (1976).


42. For examples of contracts which strongly suggested that each prime was a third party beneficiary of the others' contracts with the owner, see M.T. Reed Constr. Co. v. Virginia Metal Prod. Corp., 213 F.2d 337, 338 (5th Cir. 1954); Hanberry Corp. v. State Bldg. Comm'n, 390 So. 2d 277, 281, 282 (Miss. 1980) (allowing direct action by one prime against another); see also Reynolds, Co-Prime Contracts: Is One Co-Prime a Third Party Beneficiary under the Performance Bond of Another Co-Prime?, 31 Fed'n Ins. Coun. Q. 21 (1980).
d. *A Case in Point.* A general contractor should assiduously avoid being cast as a CM unless he is given the tools by contract to do the job effectively. If one signs a contract that does not provide those tools, the result may be disastrous cost overruns as well as a substantial risk of liability. The case of *Edwin J. Dobson, Jr., Inc. v. Rutgers*43 graphically illustrates the problems caused by an unfortunate divorce between power and responsibility.

In *Dobson*, the owner, who was building a medical school, awarded several prime contracts and, in effect, designated the general contractor as the CM.44 The general contractor, however, had no power to compel the other primes to do as he directed. The situation was further complicated by the owner's retaining an independent critical path method (CPM) consultant, answerable only to the owner, to prepare and revise the schedule.45 The architect not only was vested with power to render decisions on certain disputes between the owner and the primes,46 but he was also vested with power to decide disputes between the various primes regarding responsibility for delay.47 The owner had the power, but not the duty, to withhold funds from a delay causing contractor for its own protection and to protect other contractors also harmed by the delay.48 The owner sought to insulate itself from management of the project.

The project was an unqualified disaster with respect to both time and cost. Consequently, the various parties brought claims, counterclaims, and cross-claims resulting in an extremely complex trial. Significantly, no party under the contractual arrangement had the power or capability to manage the project.49 Counsel for the owner, who prepared the documents, probably felt that by liberally sprinkling the various contract documents with exculpatory and indemnity clauses and by channelling the claims of the various primes horizontally rather than vertically,50 he was protecting his client from rapacious contractors. The unintended, but to this author obvious, side effect was that he also precluded the possibility of his client's receiving effective construction management.

*Dobson* counsels in favor of the use of contract forms which vest the construction management function in someone who has the expertise to perform it and which allocate sufficient power to the CM so that he can effectively control the job. Exculpatory and indemnity clauses definitely have their place, but this place is secondary to the establishment of a framework for the effective transmission of information and for the enforcement of decisions.

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44. Id. at 366-67, 384 A.2d at 1125-26.
45. Id. at 367-68, 384 A.2d at 1126.
46. Id. at 391, 384 A.2d at 1138.
47. Id. at 392, 384 A.2d at 1139.
48. Id.
49. Id. at 367, 384 A.2d at 1125.
50. See id. at 364-80, 384 A.2d at 1124-37.
II

DESIGN-BUILD/FAST TRACK CONSTRUCTION

Design-build construction is a contractual arrangement whereby the owner contracts with a single entity for the design and construction of a project, rather than separating the design and construction contracts.\(^5^1\) That entity may be a joint venture between an architect or engineer and a general contractor, a design-build firm which has both design professionals and contractors on its payroll, or a general contracting firm which has subcontracted the design work to an architectural or engineering firm. Design-build contracts appeal to owners because the owner need only look to one entity for performance. If a problem arises, the owner does not have to decide whether the architect or the contractor is the culprit when instituting litigation or arbitration. From the standpoint of the contractor, particularly the large design-build firms, design-build contracts are advantageous because they secure both design fees and construction profits. In addition, many design-build contracts are "cost-plus"\(^5^2\) and are therefore less risky than fixed price work.

A design-build job may be performed like the traditional project, insofar as the contractor may prepare complete design documents and obtain approval of them by the owner before construction commences.\(^5^3\) Many design-build jobs, however, entail preparation of the design documents in phases and the commencement of construction as each phase of the design is complete or virtually complete.\(^5^4\) The process of starting construction before the overall design is complete is known in the trade as "fast track" construction.\(^5^5\) The obvious appeal of fast track construction to an owner is that, if it works as advertised, the shorter time from conception to completion of a project reduces financing costs and minimizes the often disastrous effects of inflation on a construction budget. While analytically there is no essential linkage between the design-build and fast track concepts, in practice they are very often employed together.\(^5^6\)

A. Licensing

Obviously, licensing problems arise when a single entity provides both professional design and general contracting services under a single contract. Someone within the entity serving as the design-build contractor must be licensed as an architect, engineer, or both, depending upon the nature of the design work. Moreover, the entity must also include someone licensed as a general contractor.

Defining the problem is simple, but solving it may not be. For example, a number of states, including New York, do not permit the practice of architecture or engineering by ordinary corporations.\(^5^7\) Therefore, in those states a general

\(^{51}\) Foster, supra note 8, at 118.
\(^{52}\) Id.
\(^{53}\) See id.
\(^{54}\) Id.
\(^{56}\) Foster, supra note 8, at 118.
\(^{57}\) See N.Y. EDUC. LAW §§ 7206, 7209 (McKinney 1972) (engineers) and id. §§7305, 7307 (archi-
A general contractor cannot simply hire a staff of design professionals, although they are eminently qualified and properly licensed in the state where the project is located and then quietly enter into a design-build contract with a sophisticated owner. Rather, the general contractor must enter into a contract with a person or firm possessing the appropriate registration. Further, the general contractor must carefully structure the contract with the owner to ensure that the design services are not only furnished by the party in privity with the owner, but are also performed concurrently by someone who is qualified under the applicable regulations. Similarly, an architectural or engineering firm cannot merely hire an experienced construction superintendent and then enter into design-build contracts. Not surprisingly, these firms must be licensed as general contractors.

B. Insurance

Traditionally the builder's risk and comprehensive general liability insurance carried by a contractor excludes from coverage errors and omissions in design. Likewise, an architect's or engineer's errors and omissions policy does not cover the contractor's mistakes. These exclusions are rational in the context of a traditional project, but they are outmoded and dangerous on a design-build job. Given the exposure which the design-build contractor may encounter, he must procure insurance policies which cover design mistakes as well as the perils for which a general contractor is traditionally insured. These insurance requirements may be easy to meet if a design-build firm is involved, but they may also require very careful handling if the design-build contractor is a joint venture between a design professional and a contractor or if the design services are being provided under a subcontract.

A professional association, however, whose shareholders are all licensed professionals, can practice these disciplines. See generally Note, Design-Build Contracts in Virginia, 14 U. Rich. L. Rev. 791 (1980).

Although these problems are of considerable importance, they are beyond the narrow scope of this article and must therefore be saved for later discussion elsewhere. As a caveat, however, a general contractor seeking to perform design-build work must address them before he signs his first design-build contract.


An architect or engineer does not warrant the results of his efforts. Rather, he agrees to perform his services in accordance with accepted professional standards. Thus, the architect's errors and omissions policy only covers failures to meet professional standards. In fact, such policies as a rule exclude coverage for warranties which a design professional extends by contract. A contractor on the other hand warrants his work against defects in workmanship or materials. His liability to repair defects is not grounded in negligence. There may well be coverage, though, if the architect or engineer negligently failed to discover that the contractor had deviated from the plans and specifications. See Foster, Insurance, in Winning and Not Losing at 80-82 (1983).

To the extent that the design and construction functions are merged on a design-build project, it becomes increasingly difficult to determine whether a problem is the result of a design or construction error. Similarly, it also becomes more difficult to determine if an error is the result of negligence or non-compliance with the contract plans and specifications. In either case, the failure to include the contractor's errors clearly increases the amount of risk exposure undertaken by the design-build firm as opposed to the normal general contractor and architect under the traditional regime.
C. Forms of Contract

Nearly all design-build contracts result from some form of negotiation rather than competitive bidding. In addition, most design-build contracts contain a cost-plus formula rather than a lump sum price for the construction work. Normally, the parties begin without a guaranteed maximum price for the work, but later agree to a guaranteed maximum price when the design progresses to the point that estimating project cost becomes feasible and fair.

Most of the major design-build firms have standard forms which they use whenever possible. For those who have not developed their own forms, the AGC has developed a Standard Form of Design-Build Agreement and General Conditions Between Owner and Contractor. This document may be used with minor adaptation for fast track projects. The author is unaware of any published AGC or AIA forms specifically tailored for use in fast track situations.

There has been little reported litigation between design-build/fast track contractors and owners. There are several apparent reasons for this lack of judicially resolved disputes. First, in contrast to owners who select their contractors on a competitive bid basis so that both owner and contractor are aware that the project may constitute a one time business deal, the large design-build firms and their clients often have longstanding business relationships which the parties are reluctant to jeopardize. Second, the cost-plus format leads to fewer heavy losses and therefore fewer disputes than does the lump sum, competitively bid contract. Third, many design-build contracts contain binding arbitration clauses which effectively preclude courtroom litigation for dispute resolution.

D. Various Problems

1. Design Responsibility. It is axiomatic that under a design-build contract the contractor assumes, in the absence of limiting or exculpating contractual provisions, liability for design deficiencies. For example, in *Mobile Housing Environments v. Barton & Barton*, the original and the successor contractors on a “turn-key” design-build project were held jointly and severally liable to the owner for design deficiencies. Accordingly, most substantial design-build firms attempt to negotiate contractual limits on their liability. First, they seek to exclude liability for consequential damages, which in effect limits their exposure to the cost of redesign and repair of the defective work and the work damaged by the defective work. Second, they also carry, at the owner’s expense, or have the owner carry broad builder’s risk policies which cover the cost of repairing work damaged by design deficiencies excluding the cost of the defectively designed work itself. Third, they negotiate a guaranteed maximum price sufficiently high so that the cost of redesigning and repairing most design deficiencies is borne by the owner.

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62. See, e.g., Associated General Contractors, Standard Form of Design/Build Agreement and General Conditions Between Owner and Contractor, Doc. 6A (1980).
63. Id. As stated previously, a complete warranty of design can be disastrous because it will void coverage under standard errors and omissions insurance policies.
64. AMERICAN INSTITUTE OF ARCHITECTS, DESIGN-BUILD-BID, TASK FORCE REPORT 8 (1975).
66. The term is synonymous with the term “all risk.” See Braude & Patin, All Risk Insurance, CONSTRUCTION BRIEFING (1981); Foster, supra note 60, at 127-53 & Appendix Forms.
Finally, they attempt to have the owner obtain waivers of subrogation from its insurers.

2. Delay Damages. In the absence of contractual limits, a design-build/fast track contractor will almost certainly be liable to an owner where the work is not completed on time. There may, however, be a number of avenues of escape for the contractor, particularly in the fast track context. In the event that the owner is delinquent in furnishing information about his needs and in making decisions which only he can make, the contractor should be entitled to an increase in time and in the guaranteed maximum price. Furthermore, if the owner delays in making the site available to the contractor, an equitable adjustment likewise is in order. Finally, whenever the owner approves a given phase of the work for commencement of construction but subsequently makes decisions which require substantial or major design modifications, the contractor should be entitled to an equitable adjustment as long as the changes were not required because of the contractor's mistakes.

3. Changes Within the Scope of the Project. Where one is working within the traditional format, the determination whether a change is within or without the scope of the project is relatively simple. As Justice Potter Stewart once said about obscenity, "I know it when I see it." On a fast track job, however, the finishing details of the job are defined after the construction has commenced. Thus, there is more room for misunderstanding between the owner and the contractor regarding when design changes require renegotiation, as opposed to an incremental adjustment of the guaranteed maximum price and the contractor's fee. Some factors that should be considered include: (1) the impact of the changes on work in progress; (2) the impact on completion time; and (3) the cost of the changes. The keys to minimizing disputes in this area are constant communication with the owner regarding what the contractor deems the scope of his work and prompt notice if the contractor perceives that the bounds have been or are about to be overstepped.

In this regard, a contractor should define the parameters of his obligations as early in the contracting process as possible. For example, the parties should be able to agree on the type and function of the structure, the number of stories, and the approximate area before design commences. Before establishing a guaranteed maximum price, as many details as possible should be agreed upon by the contractor.

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67. In one of the few reported cases involving a design-build contractor, the contractor escaped liability for delays and certain design deficiencies because both the owner and the contractor had materially breached the contract so that neither was entitled to recover from the other. Armour & Co. v. Scott, 360 F. Supp. 319, 325 (W.D. Pa. 1972), aff'd, 480 F.2d 611 (3d Cir. 1973). One factor which seemed important to the court was that the owner had as much, if not more, design expertise in-house than did the contractor. Id. at 327.

68. See generally Foster, supra note 39, at IV-16 to 33.


70. See Ahmer v. Peters, 17 Ill. App. 2d 113, 119, 149 N.E.2d 503, 507 (1958) (contractor allowed to recover for design changes made by owner); cf. Connell Constr. Co. v. Phil Dor Plaza Corp., 310 S.W.2d 311, 313 (Tex. 1958) (contractor allowed to recover for extra work required by owner's requests).

tractor and owner. These details could include types, sizes, and approximate location of equipment, types of materials, and types of finishes to mention only a few. Even with earnest effort and good faith on both sides, there will, nevertheless, be room for disagreement because the design process will not be complete. The parties, however, will have at least done what is reasonably possible to avoid conflict, misunderstanding, and costly litigation.

CONCLUSION

Much remains to be said about both construction management and design-build/fast track construction from the perspective of the general contractor. The limitations of space and time as well as the immensity of the subject matter preclude it being said here. Contractors and their attorneys should be aware that both types of arrangements have generated a mere paucity of case law. Inevitably, this lack of reasoned judicial opinions on the subject means that the result of litigation involving these arrangements cannot be predicted with the degree of certainty which obtains in the case of contract disputes under the traditional standard format. As a result, careful negotiation, drafting, and attention to the applicable law is of paramount importance.