



Risk Allocation in Design-Build Construction Projects

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Introduction

A few years ago, I served as a member of the “Committee on Outsourcing of Design and Construction Management Services for Federal Facilities,” sponsored and organized by the National Research Council. Part of the work of the Committee was to interview representatives of numerous federal agencies to determine their intent and goals for the construction projects for which they were responsible, as well as their assessment of how successful or not past projects had been in achieving those goals. The Committee interviewed a fairly large cross-section of federal agencies: military and civilian, large and small, high tech and low tech.

Ultimately, a fairly clear consensus seemed to emerge with regard to the agencies’ objectives and concerns about their construction projects. Three issues arose time and again. The first issue was the duration of the projects from conception to completion: accelerating the process and avoiding delays. The second issue was a desire for greater cost certainty and control. The third issue was a desire to avoid what has come to be known as “claims contracting,” in which a contractor bids the project at an unrealistically low number expecting to make up its profit on change orders. The agencies were concerned about this practice from both a cost and quality standpoint, as well as the drain on their own internal management resources.

More recently, I gave a video conference for several Midwestern municipalities from which I received similar feedback. Their concerns echoed the comments of the federal agency representatives. Not surprisingly, all of them were concerned about the speed, quality and cost of their construction projects.

Of course, these concerns are typical of private sector construction projects as well. The private sector, less constrained in its procurement of construction services, has been leading a significant trend toward reduced reliance on traditional construction project delivery methods. In particular, there has been a phenomenal increase in the use of design-build methods of project delivery in an attempt to better meet the three objectives of speed, quality and cost.

Design-build construction involves a single entity or team that contracts both to design and construct the project. Design-build contracts are not competitively bid in the traditional sense although, particularly in public projects, the ownership entity often requests competitive proposals from multiple design-builders. Statistics show that design-build project delivery methods have gained such popularity

that, if trends continue, they will become the majority project delivery method by the middle of this decade.

The purpose of this paper is to discuss, in a theoretical framework, how risk allocation in design-build projects differs from risk allocation in more traditional construction projects. For purpose of usefulness and simplicity, the first half of this paper will subdivide the risks into the three categories of greatest concern — speed, quality and cost — and will demonstrate how design-build methods are superior at achieving these objectives. The second half of this paper will examine one of the design-build model contract forms that has recently been published, and will analyze its key terms in a chart-type format to illustrate how it allocates the various risks between the owner and the design-builder.

Speed in Project Delivery

In traditional construction projects, a design professional prepares a complete set of construction documents, which are then bid or priced. The owner then selects a construction contractor who proceeds to build the project. Ordinarily, the bidding/pricing phase does not begin until the construction documents are complete, and the construction phase does not begin until the bidding/pricing phase is complete. The length of time from project initiation to completion is often longer than owners desire.

Several variations of these procedures have been and continue to be used in order to try to reduce overall project duration. Some construction projects are “fast-tracked,” which means that construction commences while the final finishing details are still being added to the construction documents. A less aggressive alternative is to bid or price the project from scope documents (construction documents which are approximately 70% complete) so that the bidding/pricing phase considerably overlaps the end of the design phase. Although both of these variations do reduce overall project duration by creating overlap between the various phases, a common criticism of these variations is that cost control suffers because, as the construction documents are being completed, prices may change beyond what the owner and design professional expect. Fast-tracked projects are notorious for being prone to change orders and claims.

Design-build presents an ideal structure for fast-tracking. The designer and constructor are the same entity or on the same team. At least from the owner’s perspective, there is no issue of communications between them or of each properly understanding the other’s intent. In fact, a great deal of the communication of design intent between the design professional and the contractor is face-to-face or

verbal, not simply the preparation and circulation of drawings and specifications.

This communication allows the contractor to begin procurement and construction often long before the construction documents have been completed. Furthermore, there are no cost consequences to the owner from accelerating the delivery process. When the design-builder commits to a price early in the design phase, it cannot subsequently seek extra compensation on the grounds that the construction documents were completed in a more expensive manner than it had anticipated, because the contractor is (or is teamed with) the designer and is deemed to have knowledge of how the design is being completed. In fact, it is common for the design-build contractor to direct the sequence of preparation of design documents and decisions so that necessary information is available in time to order long-lead items and obtain preliminary pricing.

Information compiled by the Construction Industry Institute and the Design Build Institute of America indicate that speed of project delivery is the foremost reason why owners are increasingly turning to design-build methods of project delivery. The organizational advantages of combining the designer and constructor into a single team have resulted in some astoundingly rapid delivery times even for large, complex projects. For example, Engineering News Record recently featured a cover story of a project to develop, design and construct a large, state-of-the-art datacenter for State Farm in Georgia : what would typically be a two year or longer project took less than eleven months from conception to completion.

Moreover, the design-build concept of combining the designer and constructor into a single entity or team allows the owner to shift the risk of delayed completion to the design-builder with greater certainty and at an earlier stage of the project. In traditional projects, a contractor ordinarily cannot commit to a completion date until the design has been significantly developed. In design-build projects, the contractor and design professional can communicate effectively during the earliest conceptual design phases and commit to a completion date before a single drawing has been produced.

Assuring Project Quality

In traditional projects, the owner attempts to assure the quality of the completed project in what can charitably be described as a “roundabout” manner. Logically, the owner would like a financially responsible party to guarantee that the completed structure will perform as it is supposed to. Instead, the owner attempts to assure the quality of the

design by selecting what it hopes to be a qualified design professional and trusting the design professional to produce a good set of construction documents. The owner attempts to assure the quality of construction not by making the contractor responsible for the ultimate operation of the structure, but instead by hiring the contractor to build what is shown on the construction documents and then periodically observing the construction to verify that it complies with the plans.

It is not ordinarily possible to contract with either the designer or constructor to guarantee the performance of the structure. The designer will not guarantee the performance of the actual structure because it does not have firsthand knowledge of and will not vouch for the quality, accuracy and completeness of the construction work. The contractor may be willing to warrant that the final structure conforms to the construction documents, but it ordinarily will not stand behind the design to the extent of warranting its adequacy and therefore will not warrant the performance of the completed structure.

The lack of a single performance guarantee for the structure frustrates owners' attempts to find remedies for defects. When a defect occurs – such as a leaky roof or a mechanical failure – it may be difficult to determine whether the cause is a design or construction defect. Construction litigation is rife with examples of contractors blaming designers and design professionals blaming contractors for these and other kinds of functional failures. Contractors may refuse to honor their (usually one year) warranties, asserting that the cause of the problem was a design error rather than defective construction. Architects (particularly under AIA arbitration clauses with non-joinder provisions) may prohibit the owner from joining both the architect and contractor in a single dispute resolution forum, thereby causing the owner to run the risk of inconsistent adjudications when it pursues its claim against the architect and the contractor in separate forums.

Cost constraints in traditional projects make it even more difficult for owners to assure project quality. A design professional that reduces its fee as a consequence of the owner's negotiation pressure is likely to devote a reduced number of hours to the project, often at the expense of quality control. An owner who uses competitive bidding to obtain the lowest possible construction price may find that the low bid represents an unrealistically low construction cost and that the contractor intends to cut corners, adopt an obstructionist or adversarial approach to the project, and seek excessive change orders or other claims with which to make up the profit that it left out of its competitive bid.

Design-build methods of project delivery involve a simpler and more logical method of assuring project quality. Instead of fragmenting responsibility of quality between design professional and contractor, each owing separate duties to the owner, the design-builder assures project quality by warranting the performance of the completed project. By combining design and construction responsibility into a single entity or team, design-build ensures that there will be a party with sufficient responsibility for the overall project that it can and often does warrant the successful performance of the project. This overall project warranty is both implied as a matter of law and also explicitly written, usually in greater detail, into most design-build contracts.

Skeptics of design-build project delivery methods often suggest that the absence of the architect or engineer as the “owner’s policeman,” protecting the owner against defects and deficiencies in the contractor’s work, increases the owner’s risk of qualitative problems. Statistically there does not seem to be support for this position. Studies by the Construction Industry Institute and Pennsylvania State University indicate that owners have fewer complaints about the quality of their design-build projects than their traditionally delivered projects. (The University of Reading, England’s study of design-build construction in that country concludes that owners subjectively believe that design quality is higher in traditional than in design-build projects; however, even this study does not suggest that there exist the qualitative construction defects that one might expect to find as a consequence of the design professional ceasing to be the owner’s policeman during construction.)

Instead, design-build projects rely on detailed programs and requests for proposals (RFP) to assure the quality of the completed project. The owner who plans a design-build project, often working with a professional known as a “criteria consultant,” prepares a detailed program or RFP that clearly states the objectives of the project: all of the various design, construction and performance criteria that the completed project is to attain. It is advisable that the program or RFP contain sufficient detail so that if the project meets all of the criteria contained therein, the owner will by definition be satisfied with the quality of the project.

Not coincidentally, the program or RFP may become the basis of the design-builder’s express warranty. In most well drafted design-build contracts, the program or RFP is incorporated by reference, and the design-builder warrants that the completed structure will meet or exceed the criteria in the program or RFP.

Specific remedies can be devised for failure of the project to meet one or more of the criteria. For example, in a

project to build a facility that generates electricity, it is common for the design-builder to warrant that the finished plant will maintain a minimum output of a given number of kilowatt hours per unit time. The warranty may be that the facility will achieve this output for a certain number of months after completion. Alternatively, the warranty may state that the facility will pass a performance test at the time of completion demonstrating that it does achieve the stated output. Furthermore, liquidated damages may be provided for failure to achieve this or other criteria, with the amount of damages linked to the market value of the shortfall in electrical output. Such a warranty and remedy, which represent a logical and balanced allocation of risks, are not possible in traditional project delivery systems because the design professional and contractor only have responsibility for their own work, not for the overall performance of the facility.

Related to this concept is a change in the allocation of responsibility for design errors and omissions. In traditional construction, the architect or engineer is not held to a standard of perfection or guarantee of adequacy in the performance of its services. As a professional, the A/E only promises to perform its services with the degrees of skill, care and diligence that the average typical design professional, similarly situated, would employ. At least in theory, it is possible for there to be errors or omissions in the construction documents that may be the responsibility of the owner rather than of the architect or engineer if it can be demonstrated that they did not result from the design professional’s negligence.

This is somewhat counterintuitive to most owners (and to virtually all contractors) who believe that the fees that they pay to the architect or engineer entitle them to a set of construction documents free of errors and omissions, and that the A/E should be responsible for reimbursing the owner for any damages resulting from errors or omissions in the construction documents. They do not expect a design professional to defend the failure of the design to achieve its expected results by claiming that there was never a guarantee that it would do so, and there is no liability in the absence of negligence.

As a practical matter, the design risk allocated to the owner by the absence of a warranty on the A/E’s services is probably very narrow. It is extremely rare for a factfinder to determine that the owner suffered damages because of a problem caused by the design yet to hold that the design professional is not liable for the damages to the owner because the design was not negligently prepared. Nevertheless, at least in theory, this is an important risk which in traditional projects is allocated to the owner. Its importance is underscored by the fact that owners attempt

in their contracts to require the design professional to warrant the adequacy of its design to achieve the intended results, and by the limitations and exclusions in typical professional liability policies which stipulate that there is no coverage for an A/E who is accused of breaching such a warranty unless the design problem resulted from a negligent error or omission.

With regard to the owner, the standard of care for design problems in design-build projects is different. The law is not well settled, but courts have tended to view the design professional's role as subsumed within the objective of the design-build project to produce a completed structure that functions adequately. Thus, a design-builder's design obligations to the owner are deemed to be subject to the implied warranty of adequacy of services in the design-build contract. A design-builder will remain liable to the owner for the failure of the completed structure to function adequately as a consequence of a design problem, even if it cannot be established that the design problem resulted from the design-builder's negligent error or omission.

The theory of design-build, whereby the owner contracts with a single party or entity to undertake complete responsibility for a project, offers extraordinary and unprecedented opportunities for owners to shift other business risks, over and above construction risks, to the design-build team. I have described how design-build allows an owner to obtain a warranty for the overall performance of the structure. By adding additional duties to the design-build team, the owner can transfer other business risks to the design-build team. For example, in a design-build-maintain-operate project, the owner hires a design-build team to design, construct, maintain and run the ongoing operations of the structure. The design-build team may also be hired to finance, subdivide, develop or lease the project and/or the property.

Modern business philosophy suggests further concentration of duties in the hands of the design-build team. Business consultants often advise their clients to focus on their "core competencies" and to outsource to other companies the routine non-core tasks. For example, a company that sells widgets would probably define its core competency as the design and marketing of the widgets, not their manufacture or distribution. It may be logical and advisable for such a company to hire a design-build team to finance, design, construct, operate and maintain a facility for constructing and distributing the widgets. It would be reasonable to require the design-build team to warrant that a minimum number of widgets of a particular quality level would be manufactured and distributed over a defined unit of time. Thus, virtually all risks other than those involved in

sales and marketing of the widgets can be allocated to the design-build team.

Many owners believe that design-build project delivery methods offer superior opportunities for maintaining project quality. It virtually eliminates claims contracting by putting the two ultimately adversarial parties, the design professional and contractor, on the same team, thus removing the owner from the middle of any claims made between them. Defining project quality as the overall functioning of the structure eliminates the need to monitor or police individual events and procedures occurring in the project, since any adverse effects that these events or procedures have on the final project are addressable via the project warranty. A less obvious source of quality control in a design-build project is simply the closer working relationship between the design professional and the contractor in which design intent, construction information and technical details are communicated more effectively and efficiently in traditional projects.

Cost Control

The traditional design-bid-build method of project delivery is not structured to allow an owner to obtain accurate early cost information regarding the project. The traditional structure separates the designer and the constructor, and designers do not have access to the specific and detailed cost information that is compiled by and available to contractors. Furthermore, in designing a project, architects and engineers often do not take into account such issues as ease of constructability and availability of materials. Although a design professional may be contractually obligated to design to a fixed limit of construction cost, often the A/E does not have the necessary construction information to ensure that the bids on the contract documents will be within the budget.

Owners often discover that the project as designed and drawn cannot be built within the agreed budget. However, they do not discover this information until after the construction documents have been completed and even the lowest bids are too high. Variations of the traditional project delivery methods have been developed in which a contractor or construction manager works with the design professional during the design stages to provide greater input as to pricing, but this variation often is inconsistent with the owner's need or desire to competitively bid the project. Furthermore, even detailed construction estimates developed by consultants during the design phase may be significantly inaccurate if market conditions are different when actual bids are solicited or if the estimator during the design phase operates on a different set of factual assumptions than those of the contractors bidding the

project. Furthermore, the consultant providing estimating services during the design phases usually cannot provide definitive numbers until the construction documents have been significantly completed, and by then virtually all of the critical design choices that may affect the construction cost have already been made.

By combining the design and construction functions into a single entity or team, design-build project delivery methods allow for much earlier cost determination. In the early design phases, the architect or engineer works closely with the contractor's conceptual estimators. They jointly make the early design decisions that may have significant impact on project cost and constructability. Even though the documents are at a relatively early stage, the design-build team develops the assumptions according to which the design will be completed and prices the project using established techniques of conceptual estimating. Since the members of the design-build team know that they will be the ones responsible for completing the construction documents, they have the confidence that they will have the flexibility to do so consistent with the pricing assumptions developed during conceptual estimating. Experienced design-builders can provide firm prices with a great deal of accuracy for sufficiently defined projects in the late schematic and early design development phases.

Of course, it is not possible to develop accurate cost information through conceptual estimating unless the project scope has been sufficiently defined. This underscores the need for owners in design-build projects to have detailed and complete programs or RFP's that identify all of the relevant project criteria. Many design-build projects undergo a preliminary phase in which the design-build team or a subset of it works closely with the owner to develop a detailed program so that the next phase of the project can result in a meaningfully priced proposal.

Of course, there is a trade-off between early cost certainty and competitive pressure on pricing. It may be difficult to persuade a design-build contractor to get sufficiently involved in a project to do detailed conceptual estimating and pricing unless the contractor is assured that it will receive the contract to build the project or at least be favored to be awarded the project. To a more limited extent, the same may be true of trade contractors and vendors whom the design builder involves during the conceptual stages of the project. Some owners reconcile these competing concerns by holding design-build competitions in which several design-build teams are encouraged to submit fully priced competitive proposals for a project, with the owner choosing the design-build team that offers the best value.

Although early cost determination is important, the ultimate accuracy of the cost determination is at least equally important. The tendency of construction projects to overrun their initially projected budgets is well known and often accepted as inevitable. It is a major goal for most owners to control and limit cost overruns to the extent possible.

Cost overruns typically result from change orders or claims. On a traditional project, change orders and claims fall into one of the following three categories: scope changes, surprises, and design problems. Scope changes may include changes by the owner or those forced on the project by an outside party, such as a regulatory agency or adjoining land owner. Changes in the surprise category usually arise from concealed conditions, force majeure events, or other unexpected conditions outside the design and construction parameters. Changes on account of design problems usually arise from errors, omissions, ambiguities or contradictions in the construction documents.

In both traditional and design-build projects, the risk of scope changes is usually on the owner. In both project delivery methods, an owner that changes its mind and imposes new requirements on the project is responsible for the financial (and schedule) consequences of its decision. Similarly, if a regulatory agency requires a change to the project before it will issue a permit, the owner is usually responsible for the added cost, if any. However, in certain design-build projects which are performed on a turnkey basis (in which the design-builder undertakes to present the owner with a completed, fully functioning facility), the risk of satisfying regulatory agencies and obtaining proper permits may logically and contractually be shifted to the design-builder.

Similarly, in both traditional and design-build projects, the owner usually bears the risk of surprises during construction. Virtually all construction and design-build contracts contain concealed conditions clauses that entitle the contractor or design-builder to additional compensation and/or time in the event that unusual and unpredicted subsurface or other concealed conditions are discovered. Although it is theoretically possible to shift this risk to the contractor or design-builder, most owners do not deem it financially wise to do so because of the likelihood that higher construction prices will be quoted to insure against such events. In most traditional projects, the contractor is not sufficiently involved in the investigatory and other pre-construction phases to be charged with the responsibility for the kind of detailed examination of the site necessary to reduce the likelihood of concealed conditions to an acceptably low probability. However, in some design-build projects, the design-builder's earliest services may consist

of surveying existing conditions, taking soils borings and doing sufficient destructive testing that it is reasonable to contractually require the design-builder to bear the risk of concealed conditions.

The category of change order in traditional projects that is entirely eliminated in design-build projects is that of design problems. Since the designer and constructor are the same entity or on the same team, it is nonsensical for the design-builder to claim entitlement to additional cost or time as a consequence of its own design mistakes. In contrast, under the Spearin doctrine, the owner warrants to traditional contractors the accuracy and completeness of the construction documents prepared by the architect or engineer. Thus, what is probably the most common, and certainly the most frustrating, kind of construction claim in traditional projects is completely inapplicable to design-build projects.

However, there is one situation in which design omissions may pose a risk to the owner in a design-build project. A dispute may develop when the design-builder refuses or neglects to build an element of the project because it is not shown on the construction documents, yet the owner claims that it should have been constructed because it was part of the original criteria for the project contained in the programming materials or the RFP. This usually becomes a factual dispute, the resolution of which often depends on the information in the project records. In essence, the design-builder claims that to add the element to the project would be a scope change, entitling it to additional compensation, because the element was never part of the original project criteria; whereas the owner asserts that the element was part of the original project criteria that the design-builder is contractually obligated to provide, and its absence in the construction documents is simply a design omission for which the design-builder is not entitled to financial or schedule relief.

The DBIA Model Design-Build Contracts

The Design Build Institute of America (DBIA) is a not-for-profit organization devoted to promoting the understanding and use of design build methods of project delivery. The members who operate and control the DBIA are the major design-builders in the United States. However, the DBIA's members also include architects, engineers, contractors, owners and others who are interested in design-build either academically or for business reasons.

Recently the DBIA has published several new model contract forms intended to be used in design-build projects.

A few months ago, the DBIA published some related forms to be used to document the relationships among the various parties, such as between the design-builder and architect and the design-builder and trade contractors. The purpose of the documents is to establish a fair and evenhanded contractual arrangement that reflects how design-build projects are actually performed.

For the most part, the documents achieve their purpose, although several of the provisions may be considered objectionable by some industry members. The model documents are fairly flexible, useable in a large variety of design-build projects in different industry niches. Given the membership of the DBIA, it is not surprising that they are slanted in favor of the design-builder, but not exceedingly so.

The DBIA model contract documents assume that the owner will hire the design-builder under a preliminary agreement to perform preliminary design and related studies, resulting in a deliverable which would be a proposal to prepare the construction documents and to build the project for a stipulated sum or on a cost-plus-fee basis, possibly with a guaranteed maximum price. The design-build contract forms can be used without the preliminary agreement for those situations in which the owner has worked with a different design consultant to prepare bidding documents or preliminary designs and specifications. Although the DBIA officially disapproves of the concept of "bridging" (when the owner and its design consultant prepare the plans to a 30% or greater level of completion, after which they are competitively bid to multiple design-builders), the contract forms are sufficiently flexible to accommodate such arrangements.

The design-build agreement may consist of as many as three of the model documents: a Preliminary Agreement; a Standard Form of Agreement Between Owner and Design-Builder (either lump sum or else cost-plus-fee with an option for a guaranteed maximum price); and Standard Form of General Conditions. The rest of this article consists of a chart that analyzes and comments on the substance of each of the important provisions of the above documents, with particular emphasis on how common project risks are allocated between the parties. Although I was formerly the Chairman of the Professional Practice and Contracts Committee of the DBIA, the opinions in the comments column of the chart below are strictly my own and do not necessarily reflect the official position of the DBIA.

ANALYSIS OF DBIA MODEL DESIGN-BUILD CONTRACT

Provision Number	Issue	Substance of Provision	Comments
Preliminary Agreement Between Owner and Design-Builder			
Section 1.1	Relationship Between the Parties.	Agreement to cooperate and proceed on the basis of trust and good faith.	Establishes a standard for conduct somewhere in the middle between a fiduciary/agency relationship and an arm's length relationship.
Section 2.1	Provision of Design Services.	The Design-Builder shall comply with state licensing laws by providing professional design services through licensed professionals who are either employees or independent contractors. There is no legal or contractual relationship between the Owner and any independent design professional.	The provision probably does not satisfy every states' professional regulations. The provision also implies that there may be a legal or contractual relationship between the Owner and design professional who is not "independent."
Sections 2.2.1 and 2.2.2	Owner's Project Criteria.	The Owner either provides the Design-Builder with its project criteria or else works with the Design-Builder to develop them.	The Owner's Project Criteria becomes a Contract Document and is one of the Owner's most important tools for ensuring a successful project, particularly if developed in greater detail than a typical Program.
Section 2.3	Schematic Design Documents.	The Design-Builder prepares Schematic Design Documents and modifies them in accordance with the parties' discussion.	Use of the term "Schematic" rather than the AIA's "Preliminary" reflects DBIA's position against bridging that the initial proposal should include only minimal design detail.
Section 2.4	Design-Builder's Proposal.	The Design-Builder's "deliverable" from this preliminary contract is a proposal to complete the design-build project. (Similar to the AIA concept). The Proposal is to include a contract price (lump sum or cost plus with possible GMP), a schedule and substantial completion date, time limit for acceptance of the Proposal, and any other information necessary to enter into the final contract.	The Proposal must be "based on" (but there is no requirement that it be "consistent with") the Owner's Project Criteria and the Schematic Design Documents. There is no reference to a "Deviation List" which is supposed to identify any differences between the Proposal and the Owner's Project Criteria.

ANALYSIS OF DBIA MODEL DESIGN-BUILD CONTRACT

Provision Number	Issue	Substance of Provision	Comments
Preliminary Agreement Between Owner and Design-Builder			
Sections 2.5 and 2.6	Review of Proposal.	The Owner and Design-Builder meet to discuss the Proposal. The Design-Builder may revise the Proposal to accommodate the Owner's comments. This completes the Design-Builder's services.	This provision is an agreement to negotiate but does not bind either party to continue work with the project or to modify its positions.
Section 2.7	Additional Services.	Any Additional Services are described in a separate exhibit and result in a contract price adjustment.	Unlike the AIA and AGC design-build documents, no specific list of Additional Services is provided, probably reflecting the DBIA's desire that the contract form be applicable to all niches in the industry.
Article 3	Information Provided by the Owner.	In addition to the Project Criteria, the Owner is to provide and pay for the usual information including a survey, geotechnical studies, zoning requirements and encumbrances, legal descriptions, as-built/record drawings and environmental studies.	The Design-Builder is entitled to rely upon all Owner-provided information. Section 3.2 provides that assistance given by the Design-Builder to the Owner to develop the Project Criteria is an Additional Service.
Section 4.1	Ownership of Work Product.	The Design-Builder retains all ownership and property interests in the work product that the Design-Builder provides to the Owner except for the Owner's license to use it.	The work product includes electronic data. No exclusion is made for documents or other information originally obtained by the Design-Builder from the Owner or third parties.
Section 4.2	Owner's License to Use the Work Product	After paying the amount due under this contract, the Owner has "a limited license to use the Work Product to complete the Project" even if by someone other than the Design-Builder. This license is conditioned on making an additional payment and indemnifying the Design-Builder (and A/E) for claims arising out of use of the Work Product.	Payment of an additional sum is optional, left as a "fill in the blank." It is not clear whether the Owner's payment of the amount due under the contract is a condition precedent or merely a covenant. Note that the Owner may be required to indemnify the Design-Builder (and A/E) even against claims arising from their negligence in preparing the Work Product, which likely violates some states' Anti-Indemnity Acts.

ANALYSIS OF DBIA MODEL DESIGN-BUILD CONTRACT

Provision Number	Issue	Substance of Provision	Comments
Preliminary Agreement Between Owner and Design-Builder			
Article 5	Contract Time.	Commencement is initiated by a Notice to Proceed, and the completion date is defined as a fixed number of days thereafter. Interim milestone dates may be added in a separate exhibit.	There is no provision for an extension of the contract time. Section 3.1 requires the Owner to perform timely so as not to delay the Design-Builder. There is no provision stating that "time is of the essence."
Article 7	Payment.	No payment procedures are specified; they are to be agreed upon by the parties. Interest commences five days after payment is due. (The percentage is left blank).	There is no space under Section 7.1 in which to record the agreement regarding payment procedures. No provision is made for lien waivers, sworn statements, etc.
Section 8.1	Dispute Resolution.	Broad-form ADR clause for mediation/arbitration through the American Arbitration Association.	A "bare bones" clause that does not address the effect of a statute of limitations, joinder of other parties or claims, or the entry of judgment on the award.
Section 8.7	Other Provisions.	Each party represents to the other possession of adequate financial resources and necessary corporate approvals. There is a large blank space for other provisions.	There is no provision for verifying that these representations remain true as of any date later than the execution date of the contract.

ANALYSIS OF DBIA MODEL DESIGN-BUILD CONTRACT

Provision Number	Issue	Substance of Provision	Comments
Standard Form of Agreement (Lump Sum) Between Owner and Design-Builder			
Section 1.1	Scope of Work.	The Design-Builder is to provide all services and materials “necessary to complete the Work described in and reasonably inferable from the Contract Documents.”	The language is conjunctive, limiting the Work to that which is both described in and reasonably inferable from the Contract Documents, rather than disjunctively described in or reasonably inferable This provision does not mention services that go beyond the scope of design and construction, such as start-up, testing, etc. (which are found in Section 2.7.1 of the General Conditions.)
Section 2.1	List of Contract Documents.	Includes (in order): modifications to the contract; the contract; Supplementary Conditions; General Conditions; Construction Documents (not yet prepared); Design-Builder’s Deviation List (identifying deviations from the Owner’s Project Criteria); the Owner’s Project Criteria; the Design-Builder’s Proposal (excluding the Deviation List); and any other documents such as allowances, unit price schedules or permit lists.	There is no contractual antecedent for the Deviation List, nor any contractual obligation to prepare it. The description of the Design-Builder’s Proposal refers to the original Proposal before any mutually agreed modifications to the Proposal.
Section 3.1	Interpretation and Intent of the Contract Documents.	The Contract Documents are complementary and interpreted consistently with industry standards. The order in which they are listed in Section 2.1 constitutes the order of precedence in the event of inconsistency or ambiguity.	The order of precedence is a very important clause with unclear implications. For example, what if the Construction Documents do not achieve the Project Criteria? (Note that section 2.3 of the General Conditions calls for a performance standards exhibit.) The order of precedence strongly incentivizes the Design-Builder to prepare a complete Deviation List.
Section 4.1	Ownership of Work Product.	Same as Section 4.1 of Preliminary Agreement.	See Preliminary Agreement.
Section 4.2	Owner’s License Upon Payment in Full.	Similar to Section 4.2 of Preliminary Agreement except that the license is “in connection with Owner’s occupancy of the Project.”	The Owner’s duty to indemnify the Design-Builder in connection with its own use of the Work Product is contained in Section 4.5.

ANALYSIS OF DBIA MODEL DESIGN-BUILD CONTRACT

Provision Number	Issue	Substance of Provision	Comments
Standard Form of Agreement (Lump Sum) Between Owner and Design-Builder			
Section 4.3	Owner's License Upon Premature Termination Not the Design-Builder's Fault.	In the event of an Owner termination for convenience or Design-Builder's termination for cause, the Owner has a license to use the Work Product to complete and occupy the Project at its sole risk conditioned on payment of an additional sum (left blank).	No distinction is made between the Owner's termination for convenience and the Design-Builder's termination for cause. Similar to Section 4.2 of the Preliminary Agreement, it is not clear whether the Owner's obligation to pay all amounts due is a condition precedent or merely a covenant.
Section 4.4	Owner's License Upon Design-Builder's Default.	Upon the Owner's termination of the contract due to the Design-Builder's default, the Owner has a license to use the Work Product for completion and occupancy of the Project at the Owner's sole risk.	Why should the Design-Builder escape liability for negligent design or construction by defaulting? The provision requires that it be "determined" that the Design-Builder is in default but does not explain when, how or by whom that determination is made.
Section 4.5	Owner's Indemnification for Use of Work Product.	The Owner agrees to defend and indemnify the Design-Builder (and A/E) from any claims arising out of its use of the Work Product.	The justification for transferring this risk to the Owner, particularly when the Design-Builder defaults, is not clear. (All of the indemnification and acknowledgment of risk provisions in Article 4 apply to the A/E as well as to the Design-Builder.)
Article 5	Contract Time.	Similar to Article 5 of Preliminary Agreement except that it is Substantial Completion that is defined by filling in the blank; Final Completion is to be "achieved as expeditiously as reasonably practicable; time is of the essence but can be adjusted by change order."	There is no maximum permissible interval between Substantial and Final Completion, nor is a mechanism established for specifying such a deadline, although it could be inserted into the Certificate of Substantial Completion. (See Section 6.6 of the General Conditions).
Section 5.4	Issue of Liquidated Damages.	Standard liquidated damages clause linked to substantial completion of the entire work. (Substantial completion of portions of the Work are defined as interim milestones.)	The provision allows identification of a "liquidated damages date" sometime after the "scheduled substantial completion date" to allow for a grace period.

ANALYSIS OF DBIA MODEL DESIGN-BUILD CONTRACT

Provision Number	Issue	Substance of Provision	Comments
Standard Form of Agreement (Lump Sum) Between Owner and Design-Builder			
Section 5.5	Early Completion Bonus.	The Owner may agree to pay a bonus to the Design-Builder at the time of final payment based on the number of days prior to the “scheduled substantial completion date” that substantial completion is achieved by filling in a blank in the provision.	There is a provision to define a separate “bonus date” at a time earlier than the “scheduled substantial completion date.” It may be worthwhile to add an additional condition to the payment of a bonus that final completion be achieved within a certain duration after substantial completion.
Article 6	Contract Price.	The Owner’s payment of a lump sum to the Design-Builder is subject to adjustments for changes. There is a space for agreement on markups to be allowed on change orders.	Due to the possibility of an early completion bonus, there is no provision stating that the lump sum is the “full compensation” due to the Design-Builder. The markups for changes do not apply to those priced on a unit price or mutually accepted lump sum basis.
Section 7.2	Retainage on Progress Payments.	There is a “fill in the blank” retainage percentage, but the provision specifies that no further retainage will be withheld after the project reaches 50% completion. The Owner also agrees to “reasonably consider reducing retainage for Subcontractors completing their work early in the Project.” Upon substantial completion, all retainage is released except for the reasonable value of the punchlist.	Although it is common to cease withholding further retention when the project is half complete, it is unusual for such a clause to be written into a standard form contract. There is no procedure for determining the value of the punchlist. A prudent Owner retains the cost of hiring someone else to complete the punchlist, which is invariably more than the cost for the Design-Builder to do this work.
Section 7.5	Retention of Cost Records.	The Design-Builder is required to keep full and detailed records using generally accepting accounting principles for three years after final completion for all Work performed on a cost basis.	Note that this provision does not apply to work performed on a lump sum or unit price basis.

ANALYSIS OF DBIA MODEL DESIGN-BUILD CONTRACT

Provision Number	Issue	Substance of Provision	Comments
Standard Form of Agreement (Lump Sum) Between Owner and Design-Builder			
Article 8	Termination for Convenience.	The Owner has the right to terminate the contract for convenience but must pay to the Design-Builder all costs and losses including those attributable to termination and demobilization plus overhead and profit and a “fill in the blank” termination fee consisting of a percentage of the remaining balance of the Contract Price.	Even if there is an agreement to pay overhead and profit, it is not clear that it should be paid on the termination and demobilization costs, as opposed to the Work itself. The termination fee may vary depending on whether construction has begun, but there is no definition of at what precise point in the project construction is deemed to have started (i.e., groundbreaking, layout, commencement of procurement, etc.)
Article 9	The Parties’ Representatives.	The Owner and the Design-Builder each designates two representatives: one with authority for day-to-day decisions, and a Senior Representative who “has the authority and responsibility for avoiding and resolving disputes.”	This is an interesting and practical implementation of “step negotiation” procedures as a way of avoiding or a precursor to mediation/arbitration.
Article 10	Bonds and Insurance.	General provisions requiring procurement of insurance and (optionally) bonds in accordance with the provisions of the General Conditions.	The contract contemplates an Insurance Schedule to be attached as an exhibit and leaves a blank for filling in the details of any bonds required. Section 10.1 requires the Design-Builder to procure insurance but does not explicitly so obligate the Owner (whose insurance requirements are at section 5.3 of the General Conditions).
Section 11.1	Other Provisions.	Same as Section 8.7 of the Preliminary Agreement.	During the construction phase, it is even more important that the parties have the right to require ongoing financial representations. Section 3.3.1 does not limit the Design-Builder’s right to request this information to any particular time.

ANALYSIS OF DBIA MODEL DESIGN-BUILD CONTRACT

Provision Number	Issue	Substance of Provision	Comments
Provisions Unique to the Cost-Plus Agreement			
Section 2.1	Contract Documents.	The Design-Builder's Proposal and Deviation List from the Preliminary Agreement are not Contract Documents. Instead, a GMP exhibit is listed in the first subsection as a Contract Document.	If there is no GMP then any provisions in the Design-Builder's Proposal from the Preliminary Agreement apparently cease to have contractual status. The GMP exhibit supersedes all other Contract Documents, which may negate even explicit guarantees and other requirements in the Agreement.
Section 6.1	Contract Price.	The Owner pays the Design-Builder the Cost of the Work plus the Design-Builder's fee, subject to any GMP.	Specific, identified work can be carved out and priced separately. This may allow the parties to contract on a separate basis for additional preliminary services, such as those necessary to create the GMP exhibit.
Section 6.2	Design-Builder's Fee.	The Design-Builder's Fee is defined as a lump sum or as a percentage of the Cost of the Work, but is expected to be adjusted (by filling in a blank) for changes in the Work.	This provision is little more than blanks to be filled in, leaving considerable flexibility.
Section 6.3	Cost of the Work.	A listing of reimbursable costs when "reasonably incurred by Design-Builder in the proper performance of the Work." Only the more interesting or unusual cost items are discussed below.	The list is more generous than the reimbursable costs listed in Article 7 of AIA Document A111.
Sections 6.3.1 and 6.3.2	Wages and Salaries.	Wages of direct employees, supervisors and administrative personnel, both on or off-site, if engaged in performing or expediting the Work, with design professional employees billing at market rates for independent design professionals.	Off-site personnel must be performing the Work. Billing employee design professionals at rates above what their salaries would justify seems to create a hidden extra profit center.
Section 6.3.3	Office Personnel.	The parties may identify specific functions performed by personnel at the Design-Builder's principal or branch offices that are reimbursable with mark-up for overhead.	It is more likely in design-build than in traditional construction that home office employees might be actively engaged in performing specific work for the project.

ANALYSIS OF DBIA MODEL DESIGN-BUILD CONTRACT

Provision Number	Issue	Substance of Provision	Comments
Provisions Unique to the Cost-Plus Agreement			
Section 6.3.7	Correcting Defective Work.	The costs of repairing or correcting defective or damaged work, but only if the cause of the problem was “ordinary mistakes or inadvertence” or “beyond the reasonable control of Design-Builder” and not resulting from the design-build team’s negligence. Any insurance proceeds subsequently received will be appropriately credited to the Owner.	It will be difficult to distinguish “ordinary mistakes or inadvertence” from negligence.
Section 6.3.16	Legal Costs.	Excluding disputes between the Owner and the Design-Builder, legal costs, including dispute resolution procedures, arising from the Work.	There is no exclusion for legal costs arising out of the Design-Builder’s negligence or other events for which the Design-Builder is obligated to indemnify the Owner. There is no clear definition as to when the legal costs arise from performance of the Work as opposed to collateral issues.
Section 6.3.18	Defending Patent Infringement Claims.	Costs Incurred in defending patent infringement claims resulting from the Owner’s specification of a process or product.	This provision is limited to patent claims that are the Owner’s, not the Design-Builder’s, responsibility. Since Section 4.5 obligates the Owner to indemnify the Design-Builder from such claims, why should the costs incurred count against the GMP?
Section 6.3.21	Other Costs.	A catch-all category for other costs incurred in performing the Work “to the extent approved in writing” by the Owner.	This is the reverse of the AIA approach in which any costs not explicitly listed as reimbursable are borne by the contractor. The compromise in this provision is that the Owner must approve these costs in writing.
Section 6.4	Non-Reimbursable Costs.	Compensation for home office personnel, overhead and general expenses, cost of capital, and costs in excess of the GMP.	There is no automatic exclusion for costs incurred as a result of the design-build team’s negligence. The exclusions for home office personnel and overhead expenses are subject to the exceptions set forth in Sections 6.3.1, 6.3.2 and 6.3.3.

ANALYSIS OF DBIA MODEL DESIGN-BUILD CONTRACT

Provision Number	Issue	Substance of Provision	Comments
Provisions Unique to the Cost-Plus Agreement			
Section 6.5.1.1	GMP Established with the Agreement.	The parties fill in the project GMP and identify as the GMP exhibit the documents which form its basis, but the Design-Builder is responsible only for the aggregate GMP, not any specific line item.	Presumably the Design-Builder's proposal from the Preliminary Agreement will be part of the GMP exhibit.
Section 6.5.1.2	Contingency.	A contingency is established as part of the GMP for the Design-Builder's exclusive use, even to correct negligent errors. The Design-Builder notifies the Owner of charges against the contingency, but it is not available to the Owner for any reason.	Contingencies are common in lump sum projects too, but in lump sum jobs a mechanism must be provided for refunding to the Owner the unused portion of the contingency.
Section 6.5.2	GMP Established After the Agreement.	The Design-Builder prepares a detailed GMP proposal including all necessary information, assumptions and limitations, including a time limit for acceptance. The parties meet to discuss and negotiate the GMP proposal, and if the Owner accepts it, either as originally written or as revised after negotiation, it is incorporated into the Agreement by amendment.	The information in the GMP proposal supersedes the Design-Builder's proposal in the Preliminary Agreement.
Section 6.5.2.4	Rejection of the GMP Proposal.	If the Owner rejects the GMP proposal (or fails to accept it within the time limit), the Owner may (i) continue to negotiate it, (ii) authorize the Design-Builder to proceed without a GMP, or (iii) terminate the Agreement for convenience (although without the Design-Builder receiving the additional payment set forth in Section 8.2). If the Owner fails to act, the Design-Builder may continue to proceed with the work without a GMP or suspend performing the work (again without the extra payment set forth in Section 8.2).	The array of options allows either party to halt the project or to proceed on a time and materials basis until or unless the other party stops the work. The Owner has no special remedy in the event that the GMP proposal is inconsistent with the Design-Builder's prior representations.

ANALYSIS OF DBIA MODEL DESIGN-BUILD CONTRACT

Provision Number	Issue	Substance of Provision	Comments
Provisions Unique to the Cost-Plus Agreement			
Section 6.5.3	Savings.	The difference between the GMP and the sum of the Cost of the Work and the Design-Builder's Fee is shared between the parties in accordance with a formula determined by filling in various blanks and is paid as part of final payment except that any reimbursable costs incurred by the Design-Builder after final completion may require return of money previously distributed to the Owner as savings.	There may be a conflict between the Design-Builder's ability to recover costs incurred after final completion under this provision and the general release that it provides with its final pay request pursuant to Section 6.7.2 of the General Conditions.
General Conditions			
Section 1.1	Mutual Obligations.	The Owner and Design-Builder agree to cooperate fully and to "proceed on the basis of trust and good faith."	Same as Section 1.1 of the Preliminary Agreement.
Section 1.2.7	Owner's Project Criteria.	Definition of Owner's Project Criteria, which may include drawings and technical materials.	Although performance requirements are included, they must be listed in the Agreement in order to supersede construction documents that do not attain them.
Section 2.1.2	Status Reports.	The Design-Builder provides the Owner with monthly status reports.	The status reports may serve as a source of notice to the Owner of responses required so as not to delay the project.
Section 2.1.3	The Design-Builder's Schedule.	The Design-Builder prepares and submits to the Owner for review and response before the initial meeting a schedule with milestone dates including those requiring Owner action.	No mechanism is provided in the event that the Owner disapproves of the schedule. It is unclear to what extent the Owner's approval of the schedule implies concurrence with sequences, durations, etc.

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Provision Number	Issue	Substance of Provision	Comments
General Conditions			
Section 2.1.4	Initial Meeting.	The parties meet within a week of signing the Agreement to discuss administrative and procedural issues.	It is important to record the agreements reached because they have contractual significance in that they establish the payment and other administrative procedures that the parties must follow.
Section 2.2	Design Professional Services.	The Design-Builder provides professional design services from licensed A/E's either employed by the Design-Builder or independent.	Same as Section 2.1 of the Preliminary Agreement.
Section 2.3.1	Standard of Care.	Design professional services will be performed with the usual standard of care except that they shall be sufficient to meet any performance standards for the project.	Many courts have held that the Design-Builder warrants the adequacy of the professional services even in the absence of explicit performance standards for the project.
Section 2.4.1	Design Development Documents.	The Design-Builder will provide and explain interim design submittals for the Owner's review and approval.	No mechanism is provided in the event that the parties are not able to agree upon which interim design submittals to review or if the Owner rejects an interim design submittal.
Section 2.4.2	Construction Documents	The Design-Builder submits to the Owner construction documents consistent with the prior interim design submittal for the Owner's review and approval, and proceeds to construct in accordance with the approved construction documents.	There is no procedure in the event that the Owner rejects the construction documents. Nor is there any description of the level of detail required for the documents, particularly since design-build documents often tend to have less detail than traditional construction documents.
Section 2.4.3	Owner's Review and Approval.	The Owner's review and approval of drawings and specifications is not intended to transfer design liability to the Owner.	Doesn't the Owner take some design responsibility if it rejects a submittal because the Owner wants a more aggressive position on a code requirement or wants to reduce a safety factor to save money?

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Provision Number	Issue	Substance of Provision	Comments
General Conditions			
Section 2.4.4	Fast-Tracking.	The Design-Builder may fast-track by starting parts of the construction even though design of other parts is not complete.	Whether to fast-track is the Design-Builder's choice without Owner input, but may be limited by other contract documents.
Section 2.5.2	Changes in the Legal Requirements.	The Design-Builder is entitled to a change order if codes or other laws change after the date of the Agreement or of establishment of a GMP.	What happens if the law does not change but code officials start interpreting it differently or in an unexpected way?
Section 2.6	Government Approvals and Permits.	The Design-Builder pays for and obtains all permits and approvals except for those identified in an Owner's Permit List attached to the Agreement.	This provision places the risk of an overlooked permit on the Design-Builder.
Section 2.7.1	Design-Builder's Construction Phase Services.	General list of all construction phase services to be provided by the Design-Builder.	The provision includes testing and start-up services that are missing from Section 1.1 of the Agreement.
Section 2.7.2	Quality and Control Over Services.	The Design-Builder agrees to perform all construction services adequately and to exercise exclusive control over means and methods of construction.	This "service warranty" requires sufficient quality to "satisfy the requirements of the Contract Documents".
Section 2.7.3	Subcontractors.	The Design-Builder must employ appropriate subcontractors to whom the Owner may object provided that it compensates the Design-Builder for consequences of the rejection.	How can the Design-Builder be compensated in a cost-plus contract if the Owner insists that it employ a cheaper but lower quality subcontractor?
Section 2.8.1	Project Safety.	The Design-Builder is responsible for all safety precautions and designates a safety representative who makes daily inspections and holds weekly meetings.	The safety representative may also have other project duties and may be the project foreman or superintendent.

ANALYSIS OF DBIA MODEL DESIGN-BUILD CONTRACT

Provision Number	Issue	Substance of Provision	Comments
General Conditions			
Section 2.9.1	Warranty of Materials.	The Design-Builder warrants that the materials and equipment are new, of good quality, free from defects and in conformance with the Contract Documents.	The warranty is similar to the standard AIA warranty and is not limited to a particular length of time.
Section 2.10	Correcting Defective Work.	Through one year after substantial completion, the Design-Builder agrees to correct non-conforming work after receipt from Owner of a seven day notice. The Design-Builder merely needs to “take meaningful steps to commence correction” of the offending work, but if it doesn’t the Owner may send a second notice and subsequently correct the work itself (not required for emergency situations).	Similar to the AIA one year callback warranty, this provision does not limit any rights the Owner may have under any other provision of the Agreement.
Section 3.2	Information Provided by the Owner.	The Owner provides a survey, geotechnical information, information regarding zoning and incumbrances and a legal description as well as, to the extent available, as-built/record drawings and environmental studies.	Same as Article 3 of the Preliminary Agreement.
Section 3.3.2	Adjacent Land Owners.	The Owner secures necessary agreements with adjacent land owners and bears all related costs.	This division of responsibility may not be appropriate for a project in which the Design-Builder is also providing real estate development services.
Section 3.3.1	Owner’s Financial Information.	The Owner must furnish evidence of satisfactory funding to the Design-Builder upon request or else the Design-Builder may stop the work.	The provision contains no terms regarding timing or the number of times that the Design-Builder can request financial evidence.

ANALYSIS OF DBIA MODEL DESIGN-BUILD CONTRACT

Provision Number	Issue	Substance of Provision	Comments
General Conditions			
Section 3.3.2	Cooperation with Lenders.	The Design-Builder will cooperate with the Owner's lenders but need not sign any certificate that would expand its obligations or responsibilities.	Similar to the AIA provision regarding architects' signature on certificates for lenders.
Section 4.1	Hazardous Conditions.	Upon encountering a hazardous condition, the Design-Builder may stop work until the Owner retains qualified experts to investigate and remediate the condition and certify that it is safe and proper to proceed. The Design-Builder is entitled to a change order, and the Owner indemnifies the Design-Builder against any consequences of the hazard. However, if the Design-Builder introduced the hazardous material to the site, then the Design-Builder must indemnify the Owner against the consequences.	There is no provision for the Design-Builder to remediate hazardous materials that it introduced to the site, but this duty may be inferred from its duty to complete the Work.
Section 4.2	Differing Site Conditions.	The Design-Builder is entitled to a change order to the extent that concealed or latent Type I or Type II differing site conditions impact its work. The Design-Builder must provide prompt notice of the condition to the Owner (no later than fourteen days) and, if possible, before the condition has been "substantially disturbed or altered."	Providing notice before disturbing the condition probably requires that the notice occur considerably sooner than fourteen days.
Section 5.1	Design-Builder's Insurance.	The Design-Builder provides the usual insurance, pursuant to an exhibit to the Agreement, for bodily injury, property damage and contractual liability of its indemnity obligation, with any design-build exclusions deleted and with certificates evidencing the coverage provided to the Owner.	Section 5.1.5 only requires the Design-Builder to provide the Owner with certificates, in contrast to Section 5.3.3 in which the Owner provides the Design-Builder with the actual endorsements (but only upon occupancy).

ANALYSIS OF DBIA MODEL DESIGN-BUILD CONTRACT

Provision Number	Issue	Substance of Provision	Comments
General Conditions			
Section 5.3	The Owner's Property Insurance.	The Owner purchases Builder's Risk Insurance for the full value of the project naming the design-build team as additional insureds and providing the Design-Builder with endorsements evidencing the appropriate coverage. The Owner and the Design-Builder each waives (and ensures that everyone else waives) any rights of subrogation, and the Owner and Design-Builder jointly serve as trustees of any insurance proceeds.	The provision does not address the size of the deductible nor which party is responsible for paying it. Sometimes the Design-Builder can obtain the Builder's Risk Insurance less expensively than can the Owner. It is not clear whether the waiver of subrogation applies only to the extent of insurance proceeds received. The requirement that the Owner provide endorsements (upon occupancy) to the Design-Builder does not parallel the Design-Builder's certificate requirements in Section 5.1.5.
Section 6.2	Monthly Progress Payments.	The applications for payment and supporting documentation are determined at the initial meeting (see Section 2.1.4) and may include payment for materials suitably stored and protected either on or off site. The application for payment is the Design-Builder's representation regarding quality and progress of and title to the work.	This provision raises the agreements reached at the initial meeting to contractual significance. The language leaves open the possibility that the Design-Builder's representations regarding the work may be made to the lenders or other in addition to the Owner.
Section 6.3	Withholding of Payments.	If the Owner intends to withhold all or part of the payment requested, it notifies the Design-Builder at least five days prior to the due date and identifies the amounts, reasons and contractual basis for withholding as well as any necessary remedial measures.	Since Section 7.1.2 of the Agreement provides only a ten day period for making payment, the Owner will likely be under time pressure to send notice to the Design-Builder.
Section 6.4	Right to Stop Work.	In addition to other remedies, the Design-Builder may stop work if the Owner fails to pay "any amount that becomes due".	There is no notice required before stopping work. (See section 11.3). In conjunction with Section 6.3, it is not clear whether the Design-Builder can stop work if the Owner's reason for withholding is wrong but the Owner follows the proper procedures for giving notice of its intention to withhold.

ANALYSIS OF DBIA MODEL DESIGN-BUILD CONTRACT

Provision Number	Issue	Substance of Provision	Comments
General Conditions			
Section 6.5	Payments to Subcontractors.	The Design-Builder and each senior tier subcontractor pay all of their subcontractors pursuant to the subcontracts all amounts received from the Owner on account of their work.	There may be a contradiction in this paragraph if the subcontracts could impose a duty on the Design-Builder to pay the subcontractor even before receiving payment from the Owner.
Section 6.6	Substantial Completion.	Five days after receiving the Design-Builder's notice, the Owner and Design-Builder jointly inspect the work. The Owner then issues a Certificate of Substantial Completion that includes the punchlist, after which retainage is released less the value of the punchlist. This provision may apply to just a portion of the work, and the Owner may occupy and use the substantially complete portion provided that no one else's interests are prejudiced.	There is no procedure in the event the Design-Builder disagrees with any of the substance of the Certificate of Substantial Completion; presumably the general dispute resolution procedures would apply..
Section 6.7	Final Payment.	With the application for final payment, the Design-Builder provides an affidavit that there are no claims or liens, a general release, consent of surety, certificates of insurance, and operating manuals and other deliverables. By making final payment, the Owner waives all claims except failure to pay subcontractors, incomplete or nonconforming work and special warranties.	It is more common merely for the contract to provide for the Design-Builder's release of claims and warranty of title, rather than having separate documents delivered with the application. The Owner apparently reserves claims for any construction defect, not merely latent defects.
Section 7.1	Patent/Copyright Infringement.	The Design-Builder defends and indemnifies the Owner from any such claim of infringement unless the claim results from the Owner's specifications or actions, in which case the Owner indemnifies the Design-Builder. The Owner's sole remedy (other than indemnification) in the event of an injunction is to require the Design-Builder to procure the necessary rights or to modify or replace the offending work.	The indemnification is effective for awards of damages, but the Owner has no right to compensatory damages if an injunction stops or delays use of the facility.

ANALYSIS OF DBIA MODEL DESIGN-BUILD CONTRACT

Provision Number	Issue	Substance of Provision	Comments
General Conditions			
Section 7.3.1	Payment Claim Indemnification.	Provided that the Owner has properly made payment to the Design-Builder, the Design-Builder indemnifies the Owner, including furnishing an appropriate bond, within three days of receiving notice against any lien or payment claim.	The provision does not identify what actions by the Design-Builder are sufficient to deprive the Owner of the right to discharge the claim or lien itself and backcharge the Design-Builder.
Section 7.4	Design-Builder's Indemnification.	To the extent of its negligence, the Design-Builder indemnifies the Owner against claims for bodily injuries or property damage caused by the design build team.	This is a fairly bare bones indemnity, limited to insured claims and the extent of the Design-Builder's proportional fault.
Section 7.5	Owner's Indemnification.	Similar to the Design-Builder's indemnification, the Owner indemnifies the Design-Builder against similar claims to the extent of the negligence of its separate contractors.	Surprisingly, the Owner does not indemnify against its own negligence, only that of contractors it has retained. The indemnification runs only to the Design-Builder, not to other members of the design build team.
Section 8.2	Delays to the Work.	If the Design-Builder is delayed due to the Owner, changes in the work or various force majeure events, it is entitled to an extension of time, but is not entitled to an adjustment in the contract price for events that are "beyond the control of both Design-Builder and Owner."	This provision does not require the delay to be on the critical path. For some issues, it may be unclear whether the event was beyond the Owner's control. One of the force majeure events listed is "epidemics abroad."
Section 9.1.3	Compensation for Investigating Changes.	The Design-Builder is entitled to reasonable reimbursement for costs incurred preparing a proposal for a change in the work that the Owner subsequently declines to accept.	This provision inhibits owners from considering changes and lacks any mechanism by which the Owner can control its maximum exposure to change investigation costs.
Section 9.2	Work Change Directives.	The Owner may direct a change in the work by written order even if there is no agreement on adjustment to price or time.	The Design-Builder's obligation to perform change directive work is set forth in Section 9.4.3.

ANALYSIS OF DBIA MODEL DESIGN-BUILD CONTRACT

Provision Number	Issue	Substance of Provision	Comments
General Conditions			
Section 9.3	Minor Changes in the Work.	The Design-Builder may make any changes within the intent of the Contract Documents that do not “materially and adversely affect the Work” or involve an adjustment in contract price or time, provided that it subsequently notifies the Owner.	The provision does not address changes in the aesthetics of the project. The Owner has no right to reject or prevent the minor changes.
Sections 9.4.1 and 9.4.2	Pricing of Change Orders.	Change orders may be based on unit prices, mutually agreed lump sums or time and materials, which is the fallback position in the event of a failure to agree. Additions and deletions that net to an increase, but not a decrease, are marked-up for overhead and profit. Unit prices may be adjusted if the “differences in the character or quantity” of the units results in substantial inequity.	There is some inconsistency with Section 9.1.3 in that the costs of preparing the change order do not appear to be an allowed element of pricing. The absence of factors for overhead or profit in deductive change orders is consistent with the Design-Builder’s recovery of overhead for investigation of changes, but the “netting” procedure is not. The opportunity for dispute over equitable adjustment of unit prices renders it prudent to identify explicitly the assumptions underlying the unit prices somewhere in the Contract Documents.
Section 9.4.3	Resolving Payment Disputes.	As part of negotiating the resolution of change order disputes, the Design-Builder furnishes a good faith cost estimate; if the Owner requires the Design-Builder to perform the services directed by the Owner, it must pay 50% of the estimate, but neither party waives its right to contest the issue fully at a later date.	This is an interesting and novel compromise to a common dispute over entitlement to extras. It may be difficult to enforce the “good faith” requirement in order to prevent the Design-Builder from pricing the extra at 200% of its actual value.

ANALYSIS OF DBIA MODEL DESIGN-BUILD CONTRACT

Provision Number	Issue	Substance of Provision	Comments
General Conditions			
Section 10.1	Notice of Claims.	Both the Design-Builder and Owner must provide the other with reasonable advance written notice not in excess of twenty-one days of any claim (unless it reasonably takes longer to recognize the problem). The notice must sufficiently advise the other party of the circumstances giving rise to the claim, the specific relief requested and the basis of the request, and if possible, should occur prior to incurring any cost or expense.	The provision does not provide for waiver of a claim for which untimely notice is given, nor for any other consequence of lack of or untimely notice. Allowing notice to exceed twenty-one days if the problem is difficult to recognize vitiates much of the value of this provision, particularly for the Owner.
Section 10.2	Step Negotiations.	The Owner's and Design-Builder's field representatives will first attempt to resolve any dispute, and if they are unsuccessful, the senior representatives will meet within thirty days to try to resolve it. If they cannot do so, the matter is referred to the American Arbitration Association for non-binding mediation.	Contractually providing for senior representatives to negotiate disputes is a practical, cost-effective procedure. The provision does not include any consequences if one party refuses to bargain in good faith.
Section 10.3	Arbitration.	If mediation is unsuccessful, the dispute is arbitrated under American Arbitration Association rules. The arbitration may be joined or consolidated with any other necessary parties, and the prevailing party is entitled to recover all legal fees and expenses.	The joinder provision minimizes the potential for the Design-Builder to be subjected to separate forums and inconsistent results. Legal fees are not awardable until the dispute rises to the level of requiring arbitration.
Section 10.4	Continued Performance During Disputes.	The Design-Builder and Owner both agree to continue performing the contract unless the contract provides to the contrary.	This provision is of dubious value since the Design-Builder is permitted to stop work for non-payment.

ANALYSIS OF DBIA MODEL DESIGN-BUILD CONTRACT

Provision Number	Issue	Substance of Provision	Comments
General Conditions			
Section 10.5	Waiver of Consequential Damages.	Both parties waive consequential damages except for the payment of any stipulated liquidated damages.	Consequential damages are defined rather loosely to include “losses of use, profits, business, reputation or financing.” Couldn’t this be interpreted to bar the Design-Builder’s claim for overhead and profit in connection with a change order?
Section 11.1	Owner’s Suspension of Work.	The Owner may for its convenience suspend the work for sixty (but not to aggregate in excess of ninety) days, and the Design-Builder shall be compensated by change order as appropriate.	The provision does not address the consequences if the Owner stops or suspends the work for cause.
Section 11.2	Owner’s Termination for Cause.	If the Design-Builder persistently breaches the agreement, then the Owner may terminate the contract if the Design-Builder fails to cure the problems after receipt of two successive seven day notices. Upon such termination, the Owner may take possession of and complete the work, backcharging the Design-Builder for all resulting expenses and damages other than waived consequential damages. If the termination is wrongful, it will be converted into a termination for convenience.	The requirement of two successive notices slows the Owner’s process of taking over the project. Providing that a wrongful termination for cause will be interpreted as one for convenience gives the Owner an incentive to designate any termination as one for cause.
Section 11.3	Design-Builder’s Right to Stop Work.	The Design-Builder may stop work for non-payment or failure of the Owner to provide appropriate financial assurances. The Design-Builder may provide the Owner with a seven-day notice of its intent to stop work if the breach is not cured and is entitled to a change order for the consequences of the work stoppage.	The provision does not clearly state that the Design-Builder may only stop the work after providing the seven day advance notice to the Owner.

ANALYSIS OF DBIA MODEL DESIGN-BUILD CONTRACT

Provision Number	Issue	Substance of Provision	Comments
General Conditions			
Section 11.4	Design Builder's Termination for Cause.	In the event of the Owner's excessive suspension of the work or failure to cure the breaches in Section 11.3, the Design-Builder may terminate the contract after providing two consecutive seven day notices to the Owner during which time the Owner fails to reasonably commence curing the default, in which case the Design-Builder is entitled to the same damages as set forth under Article 8 of the agreement (Termination for Convenience).	The provision does not clearly state that the Design-Builder can only terminate after sending out the two consecutive notices. It is not entirely clear how the right to terminate is reconciled with the right to stop work in Section 11.3: are they alternative rights or sequential?

Conclusion

Although design-build methods of project delivery have existed since before the pyramids (and were reportedly used to construct them), they are only beginning to re-emerge in a significant way into our modern society of high-speed business and litigation. Traditional construction contracts have been fire tested for nearly 100 years in the crucible of the twentieth century. Design-build contracts have received only a fraction of that scrutiny, so their risks and issues are less well understood, and contractual provisions for resolving them are less well settled. The Design Build Institute of America model contract documents represent an interesting and useful allocation of risks for design-build projects and may in fact evolve into an industry norm for such contracts, much like the AIA model documents in traditional construction projects.

About the Author

Mark C. Friedlander is a partner in the Construction Law Group at the law firm of Schiff Hardin LLP. He obtained his B.A. from the University of Michigan in 1978 and his J.D. from Harvard Law School in 1981. He is currently an adjunct professor at the University of Illinois at Chicago School of Architecture and a lecturer at Northwestern University's Engineering School, and had lectured at the Illinois Institute of Technology School of Civil Engineering from 1987-89, at the Engineering School of the University of Wisconsin in 1988 and 1990, and the Architecture School of the Georgia Institute of Technology in 1997-98. Mr. Friedlander concentrates his practice in construction law and litigation with particular emphasis on design-build methods of project delivery.

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