

ConsensusDocs™
BUILDING A BETTER WAY

ConsensusDocs Guidebook and Sample Responsibility Matrix

**ConsensusDocs 541 – Addendum to Agreements Between
Owner and Construction Manager and Between Owner and
Design Professional for Design-Assist Service**

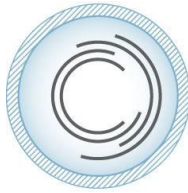
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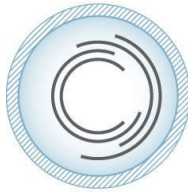
Introduction to the ConsensusDocs Guidebook

ConsensusDocs is the product of leading construction associations, dedicated to identifying and utilizing best practices in the construction industry for standard construction contracts. The more than 40 participating associations represent Design Professionals, Owners, Constructors, Subcontractors, and Sureties that literally spell the Docs in ConsensusDocs. ConsensusDocs contracts and forms attempt to fairly and appropriately allocate risks to the Party in the position to manage and control the risk. The practices articulated in the documents are forward-thinking, and may not always represent the status quo, but rather a better path forward to achieve project results. The goal of the multi-disciplined drafters was to create documents that best place the Parties to a construction contract in a position to complete a project on time and on budget with the highest possibility of avoiding claims.

By starting with better standard documents that possess buy-in from all stakeholders in the design and construction industry, you reduce your transaction time and costs in reaching a final Agreement. By using fairer contracts helps eliminate unnecessary risk contingencies and thereby better pricing. In addition, “fill-in-the-blanks” are intended to lead to productive discussions about how particular risks should be allocated on specific projects before a contract is finalized.

This Guidebook you will find comments by individual associations regarding particular contract documents. These comments are organized by numeric sequence. Association comments are expressions by an association to its association membership only to highlight issues of particular interest.

Lastly, the ConsensusDocs coalition organizations and ConsensusDocs staff are deeply indebted to the hard work of the many the seasoned professionals who contributed countless hours in the creation of the ConsensusDocs contracts as well as this Guidebook. Their collective experience represents hundreds of years of practical experience in the construction field.



Comments regarding ConsensusDocs 541*

Addendum to Agreements Between Owner and Construction Manager and Between Owner and Design Professional for Design-Assist Services

Overview

The Addendum to Agreements Between Owner and Construction Manager and Between Owner and Design Professional for Design Assist Services (“Design-Assist Addendum”) is intended to be used in conjunction with the ConsensusDocs 500 or 510 (Owner - CM at Risk) and ConsensusDocs 240 (Owner – Design Professional) standard forms in those situations where the project team wishes to implement a collaborative design and construction process but does not desire (or is unable) to use Integrated Project Delivery (IPD). The Design-Assist Addendum modifies both the agreement between the Owner and Construction Manager and the agreement between the Owner and the Design Professional to add a specific Design Assist process to the traditional obligations of the parties.¹ In addition to binding the Owner, Design Professional, and Construction Manager to the Design-Assist process, the Design-Assist Addendum can and should be used to incorporate key trade contractors in the process.

Design-Assist is loosely defined in the industry as a process by which the constructors collaborate with the project owner and the design professionals beginning in the design development phase to assist all parties in meeting the Project’s objectives. The Construction Manager and its key trade contractors use their expertise in planning, scheduling, estimating, logistics, production, and project management to assist the Owner and Design Professional in improving the Project design to maximize the value the Owner receives for the resources it expends on the Project. In this Addendum, ConsensusDocs takes that loose definition and standardizes a specific process which can be implemented in real world situations.

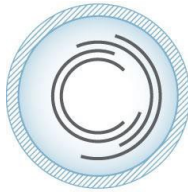
The process contemplated by the Design-Assist Addendum is extensive and ranges from early in design development through completion of construction. As such, it is important that it be implemented as early in the life of the Project as possible, preferably before or at the very beginning of design development. The most important consideration that the project team must evaluate before using the Design-Assist Addendum is whether the project participants are committed to collaboration and have the corporate culture necessary to make a collaborative process work. Collaborative design and construction, whether Design-Assist, Lean Construction, or IPD, requires a completely different environment, culture, attitudes, and mindset than other traditional project delivery methods. However, when implemented properly, the overwhelming evidence is that projects that use collaborative techniques, such as Design-Assist, produce better project outcomes than projects that do not.

As the Design-Assist Addendum is a standard form, it is intended to be broad in scope and flexible in its implementation. It is to be expected that parties using this document will make extensive revisions in order to customize it to take into consideration each project’s own unique circumstances. While the Design-Assist Addendum does not presuppose that a Lean or design-assist consultant will be involved in the Project, a consultant may be beneficial to ensure proper implementation of the Design-Assist Addendum, especially if the parties are unfamiliar with the Lean or design-assist processes.

* This publication is designed to provide information in regard to the subject matter covered. It is published with the understanding that the publisher, endorsers of ConsensusDocs and contributors to this Guidebook are not engaged in rendering legal, accounting, or other professional services. If legal advice or other professional advice is required, the services of a competent professional person should be sought.

—From the Declaration of Principles jointly adopted by a Committee of the American Bar Association and a Committee of Publishers and Associations

¹ The Design-Assist Addendum is also designed to be used in conjunction with the ConsensusDocs 305 Lean Construction Addendum, in those situations where the parties wish to incorporate the Lean Design and Construction process into the Project.



Article 1 - Agreement

The Addendum can be prepared and negotiated at the time of contracting with the Design Professional and Construction Manager or at a later time, such as the beginning of design development. It is strongly recommended that the core project team of the Owner, Design Professional, and Construction Manager be involved as early as possible. However, to obtain the greatest benefit from the Design-Assist process, this should occur at least at the commencement of design development. Article 1 ties the Design-Assist Addendum separately to the Owner-Construction Manager agreement and to the Owner-Design Professional agreement. Each agreement remains separate and distinct; however, the Design-Assist Addendum incorporates the same set of terms into both agreements.

Article 2 – Responsibilities of the Parties

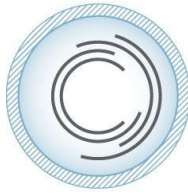
From the very beginning, the Design-Assist Addendum attempts to define the type of environment necessary for a successful project. The design process is required to proceed in a collaborative manner with free flow of accurate information from all parties. The parties must meet regularly to facilitate collaboration as to all aspects of the Project design, planning, material and system selection, and work site use. Despite the level of collaboration required, the Design Assist Addendum is clear that the Design Professional still retains overall responsibility for the project design. Correspondingly, all other parties are still responsible for the risks they assume in their underlying agreements.

The language in the Design-Assist Addendum also makes clear that it does not create an integrated project delivery agreement, design-build contract, nor does it create a fiduciary relationship between the parties. The parties are all still independent contractors and all duties owed by the Design Professional and the Construction Manager are owed solely to the Owner.

While the original 2007 ConsensusDocs 240 Design Professional agreement contained some language that might have been interpreted as creating a fiduciary duty, this language is totally absent from currently published ConsensusDocs. Ironically, the current AIA design-build documents contain language that creates a fiduciary relationship under most state law. The offending language is not flowed down to the architect in the design-builder design professional agreement, but it is highly unlikely that a firm using a prime agreement that proactively creates a fiduciary relationship wouldn't flow such language down the contractual chain. This may be why in the area of design-build, ConsensusDocs and then Design-Build Institute of America (DBIA) are more commonly used for design-build projects than AIA standard contracts.

One of the most important tools to be used in conjunction with the Design-Assist Addendum is the Design-Assist/Design Build Responsibility Matrix (“Responsibility Matrix”) identified in Section 2.4. The purpose of the Matrix is to establish each party’s scope of responsibility for each of the individual Design-Assist tasks that will take place throughout the course of the Project. A sample is attached. The Responsibility Matrix is one of the first tasks to be completed by the project team. That stage of the project is where a lot of efficiencies can be gained by careful and detailed planning; therefore, it is recommended that the parties spend considerable time and effort in developing the Responsibility Matrix.

Section 2.5 describes another important tool for project planning: The Communications Protocol. The Communications Protocol is a detailed list of communications that the parties anticipate will occur during the Project. These include physical and virtual meetings, electronic communications, electronic data transfers, submittals, etc. For each type of communication, the Communications Protocol should identify the participating parties, the manner of communication, the method of memorializing or storing the communication, and which non-participating parties will receive any information emanating from the communication. The Communication Protocol also should identify the types of hardware and software, transmission methods, verification procedures, and storage and retrieval requirements to be used by the



Project participants. The Design-Assist Addendum incorporates ConsensusDocs 200.2 Electronic Communications Protocol Addendum for electronic communications and data transfer.

Closely associated with the Communications Protocol is the requirement for the Project team to use Building Information Modeling (BIM) in Section 2.6. The ConsensusDocs 301 BIM Addendum is the recommended vehicle for establishing BIM parameters, standards, and technological requirements for the Project.

The Design-Assist Addendum provides the option for the Project team to adopt the Lean Construction process outlined in the ConsensusDocs 305 Lean Construction Addendum by virtue of a “check-the-box” option for both the Communications Protocol and BIM.

Creating efficiencies is an important tenant of the design-assist process. A common area of inefficiency during the design-development process is when the design professional completes the design of a system or other project element only for a trade contractor or supplier to redesign the system or element when preparing submittals. The Design-Assist Addendum attempts to resolve this inefficiency by establishing methods for the Project team to prescribe the point at which the Design Professional hands-off the design of a system or element to the design-assist subcontractor. The Responsibility Matrix (Section 2.4), design document standards (Section 2.7), and design for production planning (Section 5.4) all provide for such opportunities. The Owner, Construction Manager, and Design Professional determine by agreement whether the hand-off is done through design-delegation, which specifically transfers the design obligation to the trade contractor.

Article 3 – Design Assist Subcontractors

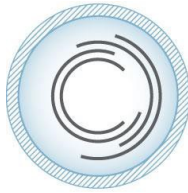
The Design-Assist Addendum contemplates that trade contractors will be involved in the design development process from an early stage. These trade contractors will be subcontractors to the Construction Manager and will provide design-assist services in conjunction with the Construction Manager during design development.

At an appropriate time agreed upon by the Owner, Construction Manager, and Design Professional, the Construction Manager proposes a list of design-assist subcontractors to Owner and Design Professional from whom proposals will be requested. The Owner, Construction Manager, and Design Professional agree on which trades and which prospective trade contractors should be invited to propose. Once proposals are received, the Owner, Construction Manager, and Design Professional jointly determine which subcontractors will participate in the Project. The Construction Manager then negotiates subcontracts with the chosen trade contractors and their tasks are added to the Responsibility Matrix. It is recommended that this process occur prior to the commencement of design development.

The Design-Assist Addendum contemplates that the design-assist subcontractors will continue as subcontractors for their particular trade during the construction phase. However, the Owner and Construction Manager may agree to replace the design-assist subcontractor for construction. Because the Design-Assist Addendum is used in conjunction with the Owner-Construction Manager at Risk agreement, the timing of the replacement would typically occur during development of the Construction Manager’s price proposal.

Article 4 – Design-Assist Scope of Work

The Design-Assist Addendum includes certain tasks that are typical in any construction management project delivery, although some of those tasks are greatly enhanced and they are always performed in collaboration with the Design Professional. The Design-Assist Addendum also includes certain tasks and deliverables that are unique to design-assist. The design-assist tasks and deliverables are identified in Article 4 of the Design-Assist Addendum.



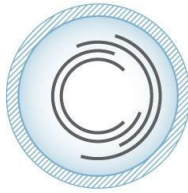
First, the Construction Manager performs a preliminary evaluation of the Owner's Program. The Construction Manager and the Design Professional meet and confer to verify the Project requirements and to jointly submit a preliminary evaluation report to the Owner. The preliminary evaluation of the Owner's Program should identify any additional information needed. It should also propose alternative architectural, civil, structural, mechanical, and electrical elements for consideration by the Owner. When performing the preliminary evaluation of the Owner's Program, the Construction Manager and Design Professional should consider cost, quality, speed of delivery, and if requested by Owner in Sections 5.1 and 5.2, life cycle costs and sustainability.

Similarly, throughout design development, the Construction Manager conducts constructability reviews, coordination planning, and design document review. This constant process helps ensure the quality of the design documents and that the design is being performed in a manner that will result in an efficient construction phase. The Construction Manager is obligated to prepare coordination drawings "to identify routing and eliminate conflicts among the Work of various trades." The coordination drawings are provided to the Design Professional and should include recommendations from the Construction Manager for revisions to the design documents to resolve conflicts. All these tasks should be conducted by the Construction Manager in collaboration with the Design Professional to maximize efficiency during the design process. A risk in using design-assist services, which has led to some bad experiences using design-assist, is not coordinating the efforts of the build and design teams. The owner plays a role in facilitating efforts to ensure teams are collaborating and not finger pointing. The design professional has to be open to receiving ideas and suggestions, and the build team must be constructive in its suggestions rather than starting a blame game of finger pointing. Ultimately, as made clear in the addendum, the design professional still ultimately holds the authority and responsibility for the design, which includes design coordination of different design elements.

Section 4.6 provides for a very specific value analysis/value engineering process. The Design-Assist Addendum defines value engineering as "options for reducing capital or life cycle costs, improving constructability and functionality, and enhancing operation flexibility . . . that create savings of time or money . . . or increase quality, constructability, or other measures of value . . ." The important metric is the measurement of value. The value engineering process is one of adding value through extensive planning and collaboration of the Project team members. The specific process contemplates that either the Design Professional or the Construction Manager may make a value engineering proposal. The proposal should identify the value to be achieved and detail any effects on the Project. The Owner, Design Professional, and Construction Manager decide whether the proposal should be implemented. The Design Professional must verify that the proposal is feasible from a design standpoint.

Section 4.7 contains a "check-the-box" option for using the cost modeling process contained in the Lean Construction Addendum (CD 305) or using a more traditional cost estimating process described in the Design-Assist Addendum. Lean Construction cost modeling is a continuous process which is much more extensive than traditional preconstruction services cost estimating processes in most CM at Risk contracts. The more traditional cost estimating process contained in the Design-Assist Addendum contemplates that the Construction Manager will prepare a cost estimate at specific points during design development. Those are i) after identification of Owner's Program, ii) upon completion of schematic drawings, iii) upon completion of design development documents, and iv) during preparation of the drawings and specs at such times as agreed between Owner and Construction Manager. If an estimate is greater than prior budgets approved by the Owner, then the Construction Manager and Design Professional must recommend revisions to reduce the estimated cost. Whether the Lean Construction cost modeling or the traditional cost estimating approach is used depends on the size and complexity of the Project, the necessity for cost certainty, and the extent of collaboration during design development.

Another important task performed by the Project team is determining which trades to which design will be delegated. As mentioned previously, a great deal of efficiency can be gained by ensuring that each project



element is only designed one time. The involvement of design-build subcontractors helps to achieve that objective. Using CM at Risk in conjunction with design-assist provides a good process to evaluate which trade contracts should be procured using design-build versus plan and spec bidding or negotiation. Because trade contractors are brought in so early in the design development process, the Project team can identify whether more value is created by delegating design to a trade contractor, or by having the design carried out by the Design Professional with the trade contractor providing design-assist services.

The Owner, Construction Manager, and Design Professional jointly agree on which trade packages will be performed on a design-build basis. For each design-build trade package, the Design Professional is obligated to specify performance and design criteria the same as with most any other CM at Risk project delivery. During design development, the design-build subcontractors participate in the collaborative design process just as the Design Professional would have for those trades.

The Design-Assist Addendum specifically gives the Design Professional responsibility for coordinating and integrating the work product of the design-build subcontractors. This is a task that is frequently omitted from design contracts. Note that the timing of establishing a lump sum or guaranteed maximum price (if any) contained in the underlying CM at Risk agreement is not changed by the Design-Assist Addendum.

Article 5 – Optional Additional Design-Assist Services

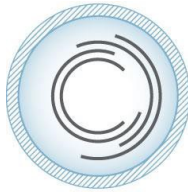
Article 5 of the Design-Assist Addendum contains a list of optional services to be provided by the Construction Manager if requested by the Owner. These services include Life Cycle Cost Analysis, Sustainable Design Recommendations, Risk Analysis, and Design for Production Planning.

Section 5.1, Life Cycle Cost Analysis, provides that the Construction Manager and Design Professional will identify options for reducing life cycle costs and improving functionality and operational flexibility. This process is similar to the value engineering process; however, the cost of proposed enhancements should include an analysis of costs over the entire life cycle of the Project as opposed to just construction costs. As construction costs are usually less than 20% of the entire life cycle cost of a project, it is recommended that this optional service be included whenever practicable.

Section 5.2, Sustainable Design Recommendations, if chosen, provides for the Project team to develop a sustainability plan which identifies the Owner's sustainable objectives. This could include meeting a specific target, such as LEED certification, or simply providing for sustainable considerations during design development. The Sustainable Design Recommendations should identify the deliverables required and the roles and responsibilities of each member of the Project team in achieving the sustainable goals. The Project team may choose to incorporate the ConsensusDocs 310 Green Building Addendum in situations where achieving a sustainable certification is an important aspect of the Owner's project goals.

Section 5.3, Risk Analysis, provides the option of incorporating the process from the Lean Construction Addendum (CD 305) or to use the process identified in the Design-Assist Addendum; however, both are similar. The process identified in the Design-Assist Addendum contemplates that the Owner, Construction Manager, and Design Professional jointly assess and rank risks. The Project team is tasked with adopting a scoring system which identifies the likelihood of occurrence of certain risks and the impact of those risks. The risks are scored and ranked then a risk register is prepared which identifies the principal Project risks and the team member assigned to lead efforts at monitoring and managing each risk. A risk management plan is prepared for addressing the identified risks which sets forth contingency plans, assigns primary responsibility for the management of specific risks, and addresses the role of others in managing risks.

For certain types of projects, designing to a construction production plan can bring about tremendous efficiencies. In Section 5.4, a "check-the-box" option is available for the parties to use the Design for Production Planning process in the Lean Construction Addendum (CD 305) or Design for Production



Planning as provided in the Design-Assist Addendum. In the latter process, the Constructor prepares a production plan for the Project. The Project team identifies the value to be achieved if the production plan is accepted and details the anticipated effect on the Project's appearance, design, safety standards, etc. The Design Professional is responsible for ascertaining the feasibility of design, satisfaction of the design concept, and compatibility and compliance with laws and codes and professional standards of care. The Owner, Construction Manager, and Design Professional then jointly decide whether to implement the plan. This process is particularly useful for projects that could benefit from multi-trade pre-fab and other activities involving extensive multi-trade collaboration.

Article 6 - Services Prior to Construction

One of the most significant challenges in developing contracts involving collaborative design is in demarcating liability for design and construction defects. The question of which party is responsible is ever present when multiple parties participate in each design decision, thus, graying the line that design-bid-build and the *Spearin* Doctrine so carefully created. Yet, as the evidence that collaborative design reduces cost, schedule, defects, and claims becomes clearer, it is more imperative than ever that parties submit to participating in collaborative projects. The Design-Assist Addendum attempts to clarify the obligations of the parties in such a way as to develop as clear a separation between design responsibility and construction responsibility as possible.

The Design Professional is given responsibility for the completeness and accuracy of the design in all occasions except for design delegated to the Construction Manager/design-build subcontractors and design attendant with construction means and methods. The Design-Assist Addendum clarifies that the Construction Manager performs its obligations in its capacity as a contractor and not as a design professional. The design responsibility remains with the Design professional, even where the Construction Manager participates in design decisions, proposes value engineering proposals, or proposes a production plan. With respect to value engineering, the Design Professional is specifically given the responsibility to review and evaluate all value engineering proposals to ensure compatibility with the design documents. The Design Professional is also obligated to revise the drawings and specifications to include accepted value engineering proposals including the impact on other portions of the Work.

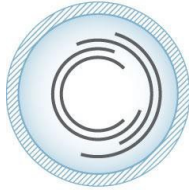
The Design-Assist Addendum does not attempt to modify the Owner's implied warranty of the adequacy of the specifications ("*Spearin* Doctrine"). Owners or Construction Managers may wish to attempt to agree on specific language which clarifies the *Spearin* Warranty as part of the negotiation of the Design-Assist Addendum.

Article 7 – Compensation for Design-Assist Services

The Design-Assist Addendum leaves the compensation model for design-assist services flexible. The amount or method of compensation contained in the underlying contracts provides the primary model for compensating the project team members. The Design-Assist Addendum does contemplate that the Construction Manager will be reimbursed for costs incurred to design-assist subcontractors. As a practice pointer, it is important that the Construction Manager's and Design Professional's compensation be adequate to incentivize commitment to the design-assist process. As an example, the Design Professional should be appropriately compensated for evaluating and incorporating value engineering proposals.

Article 8 – Termination

To provide as much flexibility as possible for the Owner in undertaking the design-assist process, the Design-Assist Addendum allows the Owner to terminate the Addendum for convenience. However, in doing so, the underlying contracts between Owner and Construction Manager and the Owner and Design Professional are not terminated unless Owner separately terminates those agreements.

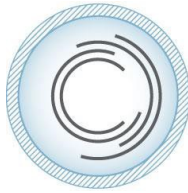


Article 9 – Additional Insurance

The Design-Assist Addendum provides an opportunity for the parties to agree to provide additional insurance over and above what is required in the underlying contracts.

Article 10 – Miscellaneous Provisions

The Design-Assist Addendum includes a standard incorporation clause and no-third party beneficiary statement. It also includes an order of precedence clause which states that the terms and conditions of the Design-Assist Addendum take precedence over the underlying contracts in case of a conflict in terms.



Responsibility Matrix (Example)

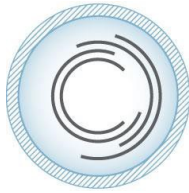
RESPONSIBILITY MATRIX - DESIGN DEVELOPMENT					
D&B - Specialist Design by Sub-Contractor					
		<i>Primary</i>	<i>Review</i>	<i>Due Date</i>	<i>Source</i>
	<i>Performance specification</i>	A/E	CM		Specification
	<i>Design Criteria for Package</i>				
	<i>Design of Interfaces related to DB component as defined by performance requirements</i>				
	<i>Produce Permit Construction Documents for inclusion in permit submission</i>				
	<i>Detailed coordinated design and permit drawings</i>				
	<i>Fully Coordinated shop drawings</i>				
	<i>Produce all installation details</i>				
	<i>Produce dimensioned and coordinated 2D drawings</i>				
	<i>Shop Drawings for Review by A/E</i>				
	<i>BIM Models where required for Review by A/E</i>				

1

Responsibility Matrix (Example Cont.)

DA - Design Assistance from Sub-Contractor					
		<i>Primary</i>	<i>Review</i>	<i>Due Date</i>	<i>Source</i>
	<i>Specification</i>				
	<i>Design Criteria for Package</i>				
	<i>Design of major Interfaces</i>				
	<i>Detailed design and Permit Construction Documents (Stamp documents)</i>				
	<i>Contribute toward Permit Construction Documents</i>				
	<i>Fully Coordinated shop drawings</i>				
	<i>Connection Detailing</i>				
	<i>Produce all installation details</i>				
	<i>Produce dimensioned and coordinated 2D drawing</i>				
	<i>Shop Drawings for Review by A/E</i>				
	<i>BIM Models where required for Review by A/E</i>				

2



Responsibility Matrix (Example Cont.)

Specifications & Drawings					
		<i>Primary</i>	<i>Review</i>	<i>Due Date</i>	<i>Source</i>
Design Coordination					
		<i>Primary</i>	<i>Review</i>	<i>Due Date</i>	<i>Source</i>
	<i>Design/Assist Team Meetings</i>				
	<i>Building Official /Permitting Agency</i>				
	<i>Costing during design</i>				
	<i>Construction Documents</i>				
	<i>Coordinated Design</i>				
	<i>BIM</i>				