

Comparative Analysis between AIA and DBIA Contract Documents:

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**Comparative Analysis between AIA and DBIA Contract Documents:
AIA Document A295 and DBIA Document No. 535**

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Abstract

Integrated Project Delivery has emerged as a popular in project delivery methods in the past decade partially, because construction projects have become more complex with tight budgets and more strenuous schedules. According to the American Institute of Architects (2007), “Integrated Project Delivery (IPD) is a project delivery approach that integrates people, systems, business structures and practices into a process that collaboratively harnesses the talents and insights of all participants to optimize project results, increase value to the owner, reduce waste, and maximize efficiency through all phases of design, fabrication, and construction” (p. 2). IPD integrates project teams in order to take full advantage of the knowledge of all the project’s key stakeholders. In response to this trend the American Institute of Architects (AIA) released a new set of transitional documents in 2008 including A195, B195, and A295, which are geared towards integrated design and construction. Particularly, AIA Document A295, *General Conditions of the Contract for Integrated Project Delivery* outlines the roles of the Owner, Architect, and Contractor with a number of similarities to the Design-Build Institute of America’s (DBIA) Document No. 535, *Standard Form of General Conditions of Contract Between Owner and Design-Builder*. While there is very limited information available on whether or not any projects have been completed using one of AIA’s new transitional documents, they have stirred up numerous questions among professionals in the industry in regards to they compare to DBIA, which is widely used set of documents. Thus, the objective of this paper is to compare AIA document 295 and DBIA document 535 to highlight the similarities and differences between the two documents. One of the main findings was that the AIA document is more prescriptive compare with the DBIA document, which is more flexible. This comparison contributes to the body of knowledge by allowing owners to make educated decisions regarding which document to use for their Design-Build projects. In addition, faculty and students will benefit by increasing their understanding about the content of both contract

documents. Upon graduation, engineering and construction management students will enter the industry where they will most likely work on this type of projects.

Keywords: Integrated design and construction, Design-Build, Construction contracts, Comparative analysis

Introduction

The construction project delivery strategy influences the outcomes of the project since this strategy establishes the framework of responsibilities and risk allocation for the execution of the project. Types of project delivery systems include design-bid-build, design-build, construction management at risk, and fast track delivery. In the U.S., the use of an integrated design and construction method that allows cross-disciplinary teamwork has become fundamental for sustainable projects. Proposed methods for integrative-design include Design-Build (Gransberg et al., 2010), Integrated Project Delivery (AIA, 2007; Erickson, 2010) and Whole Building Design Guide (WBDG, 2009), providing owners with more opportunities to increase productivity and to minimize costly disputes (Yudelson, 2008).

In response to the challenges the construction industry is facing in today's tough economic climate and the development of sustainable projects, integrated design and construction has emerged as a leader in project delivery methods in the past decade. Integrated design and construction fully integrates project teams in order to take full advantage of the knowledge of all the project's team members, including the Owner, Architect, and Contractor; to maximize a project's outcome. Integrated design and construction occurs when integrated practices are applied to more traditional delivery approaches including Design-Bid-Build contracts (ACG of America, 2011). IPD has several advantages including better project outcomes (cost, schedule, quality) by creating a collaborative approach, and effectively integrating the use of Building Information Modeling (Kent and Becerik-Gerber, 2010). IPD also has disadvantages including an increased risk if the team does not have close partnerships and since it is a relatively new project delivery methods, there is a need from new legal frameworks (Kent and Becerik-Gerber, 2010). As projects have become more complex with tight budgets and more strenuous schedules, integrated approach such as Design-Build is becoming increasingly popular in both the public

and private sectors. Design-Build furnishes the owner with a single point of responsibility for costs and delays associated with both design and construction problems. The main advantage to owners is that Design-Build offers a single point of responsibility for both design and constructions as well as continuity of the project knowledge (Gransberg and Molenaar, 2004). Thus, the owner has only one contract for the entire project (Songer et al., 1995; Lopez del Puerto et al., 2008). According to RCD/RSMMeans, forty percent of non-residential U.S. construction was awarded using Design-Build. The percentage of project awarded using Design-Build is expected to continue to steadily grow (Reed Construction Data/RSMMeans Market Intelligence, 2013).

The American Institute of Architects (AIA) released a new set of transitional documents in 2008 unlike anything it has published before; A195, B195, and A295, which are geared towards integrated design and construction as opposed to AIA's traditional Design-Bid-Build (DBB) agreements. AIA Document A295, *General Conditions of the Contract for Integrated Project Delivery* outlines the roles of the Owner, Architect, and Contractor with a number of similarities to the Design-Build Institute of America's (DBIA) Document No. 535, *Standard Form of General Conditions of Contract Between Owner and Design-Builder*

The objective of this paper is to compare AIA document 295 and DBIA document 535 to highlight the similarities and differences between the two documents. This comparison contributes to the body of knowledge by allowing owners to make educated decisions regarding which document to use for their Design-Build projects. In addition, faculty and students will benefit by increasing their understanding about the content of both contract documents. Upon graduation, engineering and construction management students will enter the industry where they will most likely work on this type of projects.

Research Approach

We used a comparative analysis to comprehend the similarities and differences between the AIA and DBIA documents. For purposes of this analysis, the General Conditions of the Contract for Integrated Project Delivery denominated AIA Document A295 and the Standard Form of

General Conditions of Contract Between Owner and Design-Builder (Document No. 535) were selected as the Design-Build agreement to compare.

Comparative analysis has been documented as a technique to offer descriptive comparisons that allow discovering distinguishable elements (Pickvance, 2001). To perform this comparison, we identified the following steps:

1. Determining a commensurable subject with which to compare the new AIA document A295. The DBIA document No. 535 was selected.
2. Selection of a comparison framework. The contract outline was selected as a framework of representative construction agreements. Particularly, the following three provisions were selected due to their influence in the success of Design-Build project delivery: Purpose, Structure and Risk Allocation.
3. Identification of contractual topics contained in both agreements. This discrete approach allows identifying topics provision-by-provision in both contract agreements.
4. Comparative analysis to identify any similarities of contractual intent required by the specific contractual language.
5. Evaluation of contractual topics unique to either the AIA or DBIA agreements to identify any differences of contractual intent.

The research approach for this exploratory study consists of a provision-by-provision comparison analysis of these two sample forms of agreement.

Results and Discussion

One purpose of a comparative analysis of design-build agreements between AIA and DBIA is to identify general similarities and differences for the two approaches in relation to construction projects. Utilizing the three provisions, the analysis detects contract topics unique to one or other document and common to both documents in other instances. The starting point of the analysis is the purpose of the documents, and then we compare the structure between them. In addition, risk allocation are presented in this comparative analysis, including *Insurance* and *Indemnification*.

Purpose

According to Article 1: General Provisions of AIA's Document A295 the purpose of the contract is to make a record stating that:

The Owner, Architect and Contractor have agreed to plan, design, and construct the Project in a collaborative environment following the principles of Integrated Project Delivery and to utilize Building Information Modeling to maximize the use of their knowledge, skills, and services for the benefit of the Project. The Architect and Contractor will deliver the Project in the following phases, which may overlap: Conceptualization, Criteria Design, Detailed Design, Implementation Documents, Construction and Closeout (American Institute of Architects, 2008, p. 11).

From the beginning of the AIA document the language of the document seems to be very rigid as opposed to flexible. By defining the exact order of the project delivery the document may be limiting the potential benefits of integration. In contrast to AIA's purpose statement DBIA's Document No. 535 embraces a much simpler and straight forward statement without any specific guidelines such as project order or phases.

Purpose of This Document: The General Conditions of Contract provide the terms and conditions under which the Work of the Project will be performed (DBIA, 2010, p. 2).

The DBIA purpose statement allows for the parties to collaborate from the onset of a project as it is not as prescriptive as AIA's document. This may seem unconventional for a contract, but flexibility and integration often results in a better product. Project development can progress within the scope at hand allowing decisions to be made accordingly and not based on the order specified.

Structure

In a traditional AIA design-bid-build contract the owner holds a separate contract with each the architect and contractor and there is no contractual agreement between the architect and contractor. Without a contract tying the architect directly to the contractor there is no guarantee that the involved parties will collaborate effectively. In AIA's 295 contractors have no legal right to give their input to the Architect during the design phase which may strip a project of a potential solution due to the lack of collaboration.

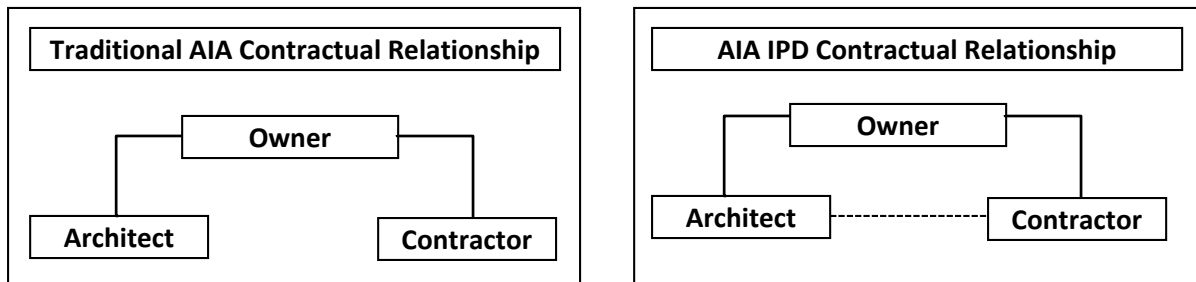


Figure 1: American Institute of Architects’ Traditional vs. Integrated Project Delivery Contractual Relationships

In dissimilarity to AIA’s contractual relationships DBIA’s contracts all follow a very straight forward collaborative relationship in which the owner has a single contract with the design-builder, as represented in **FIGURE 2**. In DBIA’s 535 contract the architects and contractors on the project are considered as a single entity and referred to as the design-builder. This arrangement reflects a balanced approach to risk and considers the legitimate interests of all parties.

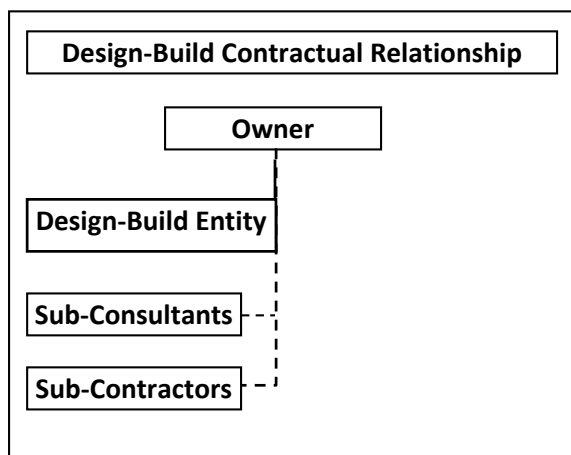


Figure 2: Design-Build Institute of America’s Design-Build Contractual Relationship

Risk Allocation

Two key sub-provisions were identified in the analysis *Insurance* and *Indemnification*. In the context of insurance, architects on a project under AIA’s A295 contract retain a large amount of control, not only over the design, but also over the construction as the contractor must build what the architect and the owner have agreed upon (American Institute of Architects, 2008, p. 22).

This aspect of the document has not been expressed in the manner by which insurance requirements are assigned. The Architect is under no contractual obligation to obtain any insurance in respect to the project in question. An unnecessary amount of burden is placed on the Owner as they must obtain and maintain all insurance for the project except for the Contractor's personal liability insurance. It is important to note that courts still hold designers liable for errors and omissions despite contract clauses. According to the AIA Document A295 the property insurance shall;

... include interests of the Owner, the Contractor, Subcontractors and Sub-subcontractors in the Project (American Institute of Architects, 2008, p. 41)

Alternatively, with multiple parties having a vested interest in a project under a DBIA contract, the Design-Builder and the Owner share the responsibility of retaining and maintaining insurance as a sign of their joint obligations to the project (DBIA, 2010). Contrary to AIA's guidelines for property insurance, DBIA's document requires the Design-Builder to retain their own insurance freeing the Owner up from a portion of the risk. The insurance provided by the Owner covers the project and their own interests, not that of others. According to the DBIA Document 535 the property insurance shall;

... cover the entire Project to the full insurable value of the Project, including professional fees, overtime premiums and all other expenses incurred to replace or repair the insured property (DBIA, 2010, p. 10).

The language used by the DBIA includes the interest of the project as a whole instead of the individuals which is more collaborative and straight forward.

Furthermore, in relation to indemnification, clause in AIA's A295 Document states;

To the fullest extent permitted by law the Contractor shall indemnify and hold harmless the Owner, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses and expenses.... (American Institute of Architects, 2008, p. 26).

Regardless of the fact that the only type of insurance the Contractor is required to maintain throughout the project is Liability Insurance the Indemnification Clause protects the Owner and the Architect from being responsible for;

...attorneys' fees, arising out of or resulting from performance of the Work, provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property.... but only to the extent caused by the negligent acts or omissions of the Contractor.... (American Institute of Architects, 2008, p. 26).

Instead of providing a second Indemnification Clause in which the Owner indemnifies and holds harmless the Contractor and Architect the AIA Document includes a *Waivers of Subrogation* section requiring the Owner and Contractor to;

...waive all rights against (1) each other and any of their Subcontractors, Sub-subcontractors, agents and employees, each of the other, and (2) the Architect, Architect's consultants, separate contractors if any, and any of their Subcontractors, Sub-subcontractors, agents and employees, for damages caused by fire or other causes of loss to the extent covered by property insurance obtained pursuant to this or other property insurance applicable to the Work... (American Institute of Architects, 2008, p. 42).

The implementation of AIA's A295 Document also requires the establishment of a Single-Purpose Entity (SPE), a limited liability corporation (LLC). Similarly, the Indemnification Clause in DBIA's Doc. 535 states the;

Design-Builder, to the fullest extent permitted by law, shall indemnify, hold harmless and defend Owner, its officers, directors, and employees from and against claims, losses, damages, liabilities, including attorneys' fees and expenses, for bodily injury, sickness or death, and property damage or destruction.... (DBIA, 2010, p. 14).

At first this clause seems nearly identical to that found in AIA's document, however the DBIA also includes a number of other Indemnification Clauses including the following that states the;

Owner, to the fullest extent permitted by law, shall indemnify, hold harmless and defend Design-Builder and any of Design-Builder’s officers, directors, and employees, from and against claims, losses, damages, liabilities, including attorneys’ fees and expenses, for bodily injury, sickness or death, and property damage or destruction.... (DBIA, 2010, p. 14).

As expressed throughout the document the risk and responsibilities between the Owner and Design-Builder are equal in every instance under the DBIA document. If all parties are to benefit from a positive aspect of a project they should be equally responsible if the outcome is negative and the only way to ensure this is to include Indemnification Clauses for all parties. AIA’s inclusion of a Waiver of Subrogation instead of additional Indemnification Clauses to protect the remaining parties limits the amount protection and does not promote an equal division of the risk.

In summary, this exploratory comparative analysis between AIA and DBIA documents offers a brief review of three provisions, identifying similarities and differences contained within these agreements as shown in table 1.

Table 1: Summary comparison between AIA Document A295 and DBIA Document No. 535

Provisions	AIA Document A295	DBIA Document No. 535
a.Purpose	Prescriptive	Flexible
b.Structure	The owner has a single contract with the design-builder.	The owner has a single contract with the design-builder.
c.Risk Allocation:		
General	The architect retains a large amount of control. The contractor must build what the architect and the owner have agreed upon.	All parties benefit from a positive outcome and are equally responsible for a negative outcome.
Insurance	The Architect is under no contractual obligation to obtain insurance.	Design-Builder and the Owner share the responsibility of retaining and maintaining

Indemnification	Favors the architect and the owner	insurance. Protects the interests of the project as a whole instead of the individuals
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Conclusions

Integrated project delivery such as Design-Build is valuable approach to the execution of construction projects. This delivery approach is rapidly growing in adoption by owners. Thus, professional organizations, such as AIA, have developed new contract guidelines for their members to increase its adoption. In particular, this paper introduces a comparative analysis of three clauses: purpose, structure and risk allocation. Risk allocation was divided into three subparts: general risk allocation, insurance and indemnification. This paper aims to open a dialogue and knowledge generation regarding the challenge and opportunities of design-build approach based on the current contracts. Future work will include a comparative analysis of other clauses and well as a comparative analysis with other contract documents. This paper also contributes to the body of knowledge by allowing owners to make educated decisions regarding which document to use for their Design-Build projects. In addition, faculty and students will benefit by increasing their understanding about the content of both contract documents. Upon graduation, engineering and construction management students will enter the industry where they will most likely work on this type of projects. Future research can enhance current understanding of these documents by conducting a focus group with other experts to provide validation of the results of the comparative analysis presented here. Specifically, an analysis related to the implementation of design-build delivery method targeting certified sustainable projects such as LEED and Living Building Challenge could further enhance the understanding of similarities and differences of these agreements.

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