Design Collaboration on Construction Projects

PART 1:

Delegated Design, Design Assist, and Informal Involvement – what does it all mean?



This paper was developed as a collaboration between the American Institute of Architects and the American Institute of Steel Construction. This "Part I" will discuss three collaboration methods - Informal Involvement, Design Assist, and Delegated Design, and seeks to provide standardized definitions and descriptions particularly as they relate to Design Assist and Delegated Design. "Part II" is a companion paper that will address Design Assist as it relates to the fabricated structural steel industry.

PREAMBLE

This paper was written as a collaboration between the American Institute of Architects (AIA) and the American Institute of Steel Construction (AISC) with significant contributions from the AIA's Documents and Risk Management Committees and the AISC's Committee on the Code of Standard Practice. The goal of this paper is to provide general guidance about design collaboration strategies used on construction projects. Part 1 of this paper addresses the following collaboration strategies - Informal Involvement, Design Assist, and Delegated Design. It describes in general terms the roles and responsibilities of the project participants under each of these design collaboration concepts and offers definitions and guidelines that design professionals and the construction industry can adopt for their use. Part 2 of this paper will be published after Part 1 and will address Design Assist as it specifically relates to fabricated structural steel. This paper does not provide legal advice, and no one should act upon the information provided in this paper without seeking appropriate legal counsel.

AIA Risk Management Committee

aia.org/risk-management

AIA Contract Documents Committee

aiacontracts.org aiacontracts.org/committee email: docinfo@aia.org tel: (202) 626-7526

AISC Code of Standard Practice

aisc.org/publications/steel-standards

AISC Steel Solutions Center

email: solutions@aisc.org tel: 866.ask.aisc

Over the past few decades, there has been an increasing emphasis on collaboration between design professionals and contractors to realize benefits that can be achieved when aspects of a project's design are informed by contractor input. While design-bid-build was once the customary delivery method for construction projects, the drive for shared expertise coupled with the increase in demand for cost and schedule efficiency by owners, has led to the emergence of alternate delivery methods such as design-build, construction manager at risk and as advisor, and integrated project delivery.¹ As building materials and systems have become more complex and proprietary, specialty contractors and product manufacturers have also emerged as knowledgeable participants who can make valuable technical contributions to some of the most complex parts of a project's design. These paradigm shifts have spurred the development of strategies to connect design professionals with contractors, specialty contractors, and product manufacturers during the design stages of a project.

In some sense, design collaboration has been in the construction industry for decades. After all, proprietary products and certain building components, like fire protection systems, have traditionally been designed by the parties who provide them. Yet over time, design collaboration has expanded to also include assistance with broader aspects of a project's design. Today, design collaboration can be found everywhere on a project. Collaborative strategies are routinely used in the design of mechanical systems, structural steel, retaining walls, clean rooms, and curtain wall assemblies, just to list a few.² These collaborative strategies range from informal discussions all the way to contractor acceptance of responsibility for elements of the project's design. The goal is to deliver a project on schedule and budget, minimizing the costs and impacts of changes due to late design.

This is a two-part paper: Part I will discuss three collaboration methods along this continuum - Informal Involvement, Design Assist, and

I The Associated General Contractors of America (AGC) has established two defining characteristics to identify project delivery methods: (1) contractual agreements among the core project team and (2) whether total construction cost is part of the criteria in the final selection of the constructor. Using these criteria AGC has identified four project delivery systems: design-bid-build, construction manager at risk, design-build, and integrated project delivery. *Project Delivery Systems for Construction*, 3rd Edition, AGC of America, (Arlington, Virginia, 2011). The American Institute of Architects also recognizes construction manager as advisor as a project delivery method.

² Some elements of the project design, such as design of the primary structural frame, cannot be delegated in some jurisdictions. See e.g. *Duncan v. Missouri Bd. for Architects, Professional Engineers and Land Surveyors*, 744 S.W.2d 524 (Mo. Ct. App. 1988); *Missouri Bd. for Architects, Professional Engineers, and Land Surveyors v. Daniel M. Duncan, Jack D. Gillum, and G.C.E. International, Inc.*, before the Administrative Hearing Commission, State of Missouri, Case No. AR840239, Nov. 14, 1985. See also N.Y. Comp. Codes R. & Regs. tit. 8, § 29.3 (permitting design delegation to unlicensed entities only for project components ancillary to the main components of the project).

Delegated Design; Part II will address Design Assist, specifically as it relates to fabricated structural steel. For the purposes of Part I of this paper, none of these are considered project delivery methods themselves.³ Rather, they are collaborative techniques that can be used with any project delivery method.⁴

As collaborative strategies have evolved, the industry has adopted and begun to use descriptive terms, including "Delegated Design" and "Design Assist". Unfortunately, those terms often mean different things to different parties and, when used in contracts or related documents, can result in differing expectations among the project participants.⁵ The goal of Part I of this paper is to differentiate the roles and responsibilities of the project participants under each of these design collaboration concepts, and to offer definitions and guidelines that the design and construction industry can adopt to standardize their use.

The key points of distinction between these collaboration strategies are (1) whether the contractor is merely providing input to influence a design or is taking contractual responsibility for a portion of the design itself, (2) the nature and timing of contractor involvement, and (3) the degree of liability that flows from the contractor's involvement.

Regardless of the collaboration strategy used, contractor involvement should always occur at an appropriate time during the development of the design in order to provide value to the project. Also, the interests of all parties should be considered when soliciting contractor design collaboration, and such collaboration should be part of the agreedupon design process. If not properly planned, ad hoc or late occurring contractor involvement can have significant impacts on the timely development or revision of the design and the resources budgeted by the design team or others.

³ But see, Joel Heusinger. *Ambiguity Breeds Conflict: The Importance of Defining 'Design-Assist' in the Construction Industry.* Journal of the American College of Construction Lawyers, Vol. 11, No. 1 (Winter, 2017) pgs. 7–8, 16 (suggesting that some might consider Design Assist to be a "procurement" or "project delivery" method.)

⁴ The design collaboration techniques discussed in this paper should not be confused with the design-build project delivery method. Design-build describes a contractual structure in which the owner hires one entity, a design-builder, to be responsible for both the design and construction of a project. The design collaboration techniques discussed herein can be used in a design-build scenario as the design professionals in a design-build project are often subconsultants to the design-build entity, resulting in the same issues that make design collaboration appealing in other delivery methods. A discussion of design-build and bridging documents, which are a common feature of design-build projects that allow the owner to communicate its design criteria to the design-builder, is beyond the scope of this paper.

⁵ Rangel, Cirilo I. et al. *Contractors' Knowledge and Understanding of Design Assist Contracting Risks*. Associated Schools of Construction, 54th ASC Annual International Conference Proceedings, 2018 (finding survey data demonstrating difference of attitudes between general contractors and subcontractors regarding transfer of design liability in design assist scenarios.)

There's one last point to consider before turning to the business of defining Informal Involvement, Design Assist, and Delegated Design. These collaborative techniques can happen in the context of many different relationships on a project, in every delivery method, and along any tier of the design and construction team hierarchy. For example, architects regularly collaborate with construction managers, but it can be just as important for architects to collaborate with specialty contractors and product manufacturers. Further, any given project may employ more than one of these collaborative techniques at a time. When project collaboration will include some level of reliance on information or services provided or some level of design delegation, it is critically important to the success of the project that the responsibilities of all parties involved in the collaboration be clearly stated in the contract documents. Also, rather than repeating the various possible project team relationships in each context, we simply use the terms "design professional" and "contractor" throughout this paper, with the term "contractor" used generally to refer to general contractors, construction managers, specialty contractors, subcontractors, suppliers, and product manufacturers. Likewise, the term "design professional" is used generally to refer to architects and other licensed design consultants. It must be recognized that design collaboration can take many different forms depending on the particular discipline involved (e.g. fire protection, window wall, structural steel, etc.). Part I is written to apply in a general way to all the different disciplines and different types of "contractors" and "design professionals" that can participate across the industry in the different forms of collaboration discussed in this paper. With the ground rules now set, let's turn to the first design collaboration strategy commonly used on today's construction projects.

"Informal Involvement" is an informal exchange of information between a design professional and contractor in which there is typically no agreement, no compensation, and no expectation that the contractor will guarantee or be responsible for the accuracy of the information provided.

Informal Involvement occurs when a design professional contacts a contractor and asks for information that may help inform the project's design. This is an informal exchange of information, often occurring in the

initial stages of design. For example, an architect might contact a trusted contractor and ask for feedback on matters such as:

- the constructability of a design element relating to the Project's work;
- realistic scheduling of work activities, such as material delivery, off-site construction, and field labor;
- cost estimates for portions of the work;
- ideas for possible cost reductions or enhancing value;
- product reliability based on the contractor's experience;
- product availability; and
- production schedules.

Each of these elements can potentially influence the project's design, schedule, and cost; and when the design team gets contractor input about these items, the owner is often the beneficiary in terms of reduced costs and increased efficiency.

With Informal Involvement, there is typically no agreement, no payment to the contractor, and no expectation that the contractor will guarantee, or be responsible for, the accuracy of the information provided. The contractor's input is simply a recommendation for the design professional to consider. The design professional is expected to use its own judgment to make final design decisions. If the design professional uses the information, he or she does so at their own risk with the understanding that the design professional will verify that the information conforms with the overall design. Similarly, the design professional is not obligated to accept the contractor's recommendation or act based on the contractor's opinions.

The design professional remains responsible for all design elements and the overall design of the project. If the design professional needs more than an informal recommendation, the owner and contractor should enter into a written agreement where the contractor is compensated for the time, cost, and risk involved in providing information. The relationship then becomes one of formal engagement as opposed to informal involvement as the party supplying the information becomes an integral and essential part of the process.

Informal Involvement can be part of all common delivery methods. For example, in the design development phase of a design-bid-build project, a design professional could seek input from a contractor on subjects such as constructability, scheduling, and cost estimates. This input could enable the design professional to provide a more efficient design that decreases labor and the overall schedule duration.

"Design Assist" describes a form of collaboration where a contractor provides information to assist a design professional's design, typically before pricing for the work has been agreed upon or before the work has been awarded. The design professional and contractor typically have separate written contracts with the owner that describe the scope of the contractor's design assist services and the extent to which the design professional can rely on the contractor's information. The contractor may incur contractual liability for the information it provides, but the design professional is responsible for incorporating the contractor's information into its design and maintains professional responsibility for the overall design.

Over the last decade, the term Design Assist has become a buzz-word in the design and construction industry, yet there is no universally accepted definition of the term.⁶ One goal of this paper is to clarify this term and the responsibilities of the parties involved in a Design Assist scenario.

Design Assist describes collaboration that goes beyond Informal Involvement. The goal of Design Assist is to provide contractors an opportunity to suggest modifications to design elements while the design is still being developed. After all, if a contractor can inform the design in a way that will save time or money, or provide some other benefit, it's better for the design professional to consider that information before construction is underway when changes are costly and time consuming to implement.

In Design Assist, contractors must be paid or otherwise compensated for their design input under a written agreement, yet Design Assist is not a delegation of design responsibility. While the design professional

⁶ Heusinger, *Ambiguity*, at 24; See also Ohio Rev. Code Ann. **§** 153.50 (defines design assist services as "monitoring and assisting in the completion of the plans and specifications."); Utah Admin. Code r. R131-4-501 (allowing design-assist contracting in scenarios where a contractor has unique knowledge of a material or product that warrants the interaction of the contractor with the designer.)

can use contractor-provided information to inform its design, the design professional maintains control over all aspects of the preparation of the construction documents, including the responsibility to integrate contractor-provided information into the design and identify and resolve design conflicts.

Design Assist promises many benefits. Communication between the design and construction teams is often improved, and coordination activities often happen at an earlier stage when problems can be solved easier. Change orders and requests for information are often reduced and constructability issues can be identified early on. Owners often see cost and scheduling benefits as costs can be locked in early and materials can be procured and assembled more quickly. However, all parties must have a clear understanding of the responsibilities of each party in the collaboration process. As mentioned earlier, the interests of all parties should be considered when soliciting contractor's design collaboration, and contractor involvement should occur at the appropriate time and should be part of the agreed upon design process.

Contractors are usually hired to perform Design Assist services during the schematic design or design development phases of the project – well before the design team has begun construction documents. In most instances, Design Assist services are provided before pricing for the work has been agreed upon or before the work has been awarded.⁷ In these scenarios, the contractor and owner will need to execute a separate agreement or amend the original agreement if the contractor is going to provide construction work following the pre-construction Design Assist services.

In any event, under a Design Assist collaborative arrangement where the contractor is expected to give a fixed price or guaranteed maximum price for the work, a guarantee of the contract price and contract time should not be sought until the scope of work has been defined to an extent that will allow for accurate pricing and scheduling. Also, the Design Assist agreement should be in writing and should include (1) the Owner's responsibilities to provide accurate and timely information to the design professionals and contractors, (2) the contractor's scope of work, and the extent of any guarantee or warranty of information provided

⁷ See *AdvanceTEC, L.L.C. v. Wohlsen Constr. Co.*, No. 3:17-CV-201-HEH, 2017 WL 1904255 (E.D. Va. May 9, 2017) (company specializing in cleanroom design and construction initially entered into a design-assist agreement with the expectation of being awarded a design-build contract to complete the design and perform the construction work at a later date.)

by the contractor, (3) the timing for when such information will be exchanged, and any special requirements for how the information is to be communicated, (4) the contractor's compensation, and (5) other specific responsibilities associated with the Design Assist services and assumed by various project participants.

Typically, contractors rely on their own expertise to provide Design Assist services. This is in contrast with Delegated Design services, where a contractor must employ, or otherwise retain, a design professional to fulfill the design responsibilities delegated to it. For example, the contractor's Design Assist services might include the following activities:

- evaluating alternative design solutions for cost and constructability;
- collaborating with the design team to suggest improvements to design elements;
- suggesting modifications to the specifications;
- preparing cost estimates for a specified scope of the work;
- preparing schedule requirements;
- validating the proposed design from a construction standpoint; and
- assisting the design professional in developing a design that brings the highest value.

Standard form contracts used in the construction manager as constructor delivery method offer guidance in describing the nature and extent of activities that might be part of a Design Assist process. For example, AIA Document A133-2019, Standard form of Agreement between the Owner and Construction Manager as Constructor (where the basis of payment is the cost of the work, plus a fee, with a GMP) describes both pre-construction and construction phase services. The pre-construction phase services, and caveats to those services, described in A133 are easily recognizable as having a Design Assist collaborative flavor.⁸ A few examples are highlighted below, and more are included in Appendix 1:⁹

⁸ All text from AIA Documents is copyrighted by The American Institute of Architects and is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this text, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law.

⁹ See also ConsensusDocs 541, Addendum to Agreements between Owner and Construction Manager and Between Owner and Design Professional for Design-Assist Services.

§ 3.1.1: The Owner and Architect shall be entitled to rely on, and shall not be responsible for, the accuracy, completeness, and timeliness of services and information furnished by the Construction Manager.

§ 3.1.1: The Construction Manager, however, does not warrant or guarantee estimates and schedules except as may be included as part of the Guaranteed Maximum Price.

§ 3.1.3.2: The Construction Manager shall also provide recommendations to the Owner and Architect, consistent with the Project requirements, on constructability; availability of materials and labor; time requirements for procurement, installation and construction; prefabrication; and factors related to construction cost including, but not limited to, costs of alternative designs or materials, preliminary budgets, life-cycle data, and possible cost reductions.

§ 3.1.4: When Project requirements in Section 4.1.1 have been sufficiently identified, the Construction Manager shall prepare and periodically update a Project schedule for the Architect's review and the Owner's acceptance.

§ 3.1.6.2: As the Architect progresses with the preparation of the Schematic Design, Design Development and Construction Documents, the Construction Manager shall prepare and update, at appropriate intervals agreed to by the Owner, Construction Manager and Architect, an estimate of the Cost of the Work with increasing detail and refinement.

"Delegated Design" describes a form of collaboration between a design professional and contractor where the contractor assumes responsibility for an element or portion of the design. The design professional and contractor typically have separate written contracts with the owner that establish their respective design responsibilities. In the contractor's case, those design responsibilities are often established by performance specifications prepared by the design professional. The contractor may incur liability for the portion of design delegated to it, and may also assume professional design responsibility and liability for its design.¹⁰ The ability to delegate professional design responsibility has limitations and, in many situations, professional design responsibility must remain with the design professional of record for the project.

Delegated Design is a further step along the continuum of design collaboration and is typically part of a contract that has been awarded for a scope of work on the project. In Delegated Design, a contractor assumes responsibility for developing design details for certain elements of the project as part of its scope of work. Delegated Design is normally based on performance criteria established by the design professional's specifications. The design team is responsible for the adequacy of the performance criteria, while the contractor is responsible for achieving the portion of the design delegated to it-typically a discrete element of the project, such as the curtain walls or fire protection system. The contractor-provided portion of the design must conform to the performance criteria, applicable building code requirements, and the applicable standard of care for professional services involved. The design professional will be required to review submittals pertaining to the portion of design that has been delegated and check that the design complies with the information given, and with the design concept expressed in the performance specifications.

Delegated Design tends to occur later in the design process than Design Assist services. Design Assist services occur as the design professional is still developing its design deliverables, while in Delegated Design, it is the design professional's deliverables (i.e. the specifications) that set the parameters for the contractor's design obligations.¹¹ Another distinction between Delegated Design and Design Assist is that a contractor will often need to engage the services of a licensed design professional to provide its Delegated Design services.¹² This is often not the case in a Design Assist scenario, where the contractor provides input based primarily on its own expertise. A contractor who provides Delegated Design services should be aware that additional risk may arise and should

¹⁰ Professional design responsibility is the obligation to provide a design that meets the applicable professional standard of care and other legally required building code and health, safety, and welfare requirements.

II See Kinsley Constr., Inc. v. Kroger Co., No. 5:15–CV-05185, 2016 WL 5345860 (E.D. Pa. Sept. 23, 2016) (an architect delegated the design of retaining walls, which included comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.)

plan for that risk in its contractual obligations by consulting with legal counsel and insurance professionals, as needed.

In Delegated Design, the extent of responsibility retained by the design team may vary, and the ability to delegate the design of certain components of a project may be limited by building codes, regulations, and professional licensure requirements. For example, the ability of structural engineers to delegate the design of a project's structural elements is often limited.¹³ In those circumstances, specialty contractors might provide design suggestions that need to be reviewed, verified, and adopted by the structural engineer of record in accordance with applicable codes, standards, and regulations.

As with Design Assist, Delegated Design responsibilities should be expressly stated in an agreement. In most instances, Delegated Design requirements will not form a separate agreement. Rather, those responsibilities will be part of a broader scope of work, included in the prime agreement between owner and contractor (or contractor and subcontractor), that also includes construction of the Delegated Design elements. Delegated Design obligations are often included in the Project specifications incorporated into the agreement(s).¹⁴ Those agreements should include (1) the contractor's overall scope of work; (2) a clear statement regarding the delegated design responsibilities, including responsibility for the adequacy of the performance criteria and the design responsibilities for each project participant; (3) how design information will be used and shared; (4) the contractor's compensation; and (5) requirements for professional liability insurance to be obtained by the contractor.

The American Institute of Architect's A201, General Conditions of the Construction Contract has long been recognized as the industry standard for design delegation in construction contracts.¹⁵ Section 3.12.10.1 of

¹³ *Duncan v. Missouri Bd. for Architects, Prof'l Engineers & Land Surveyors,* 744 S.W.2d 524, 536 (Mo. Ct. App. 1988) (emphasizing that Missouri law requires structures which require engineering expertise to be designed by or under the direct supervision of a specified certified structural engineer and that that engineer bear personal and professional responsibility for the whole engineering project as evidenced by affixing of his seal on the plans.)

¹⁴ Also, the agreement between the owner and design professional should be coordinated with the owner/contractor agreement with regard to Delegated Design responsibilities. See, e.g., AIA BI01-2017, Section 3.6.4.3 and AIA A201-2017, Section 3.12.10.1 (containing coordinated language for design delegation).

¹⁵ *Gen. Bldg. Contractors of New York State, Inc. v. New York State Educ. Dep't Bd. of Regents of Univ. of State*, 175 Misc. 2d 922, 670 N.Y.S.2d 697 (Sup. Ct. 1997) (noting that A201-1997's provision permitting delegated design is evidence of the customary practice in the building industry.) Also, design delegation involving fabricated structural steel is governed by American National Standards AISC 303, AISC 341, and AISC 360, portions of which are incorporated into the International Building Code, and which will be further discussed in Part 2 of this paper. See Advance Conveying Tech. v. Lemartec Corp., 931 F.3d 715 (8th Cir. 2019) (recognizing AISC Code of Standard Practice as governing custom and usage in the industry).

A201[®]-2017 contains several examples of the Delegated Design concepts discussed above:

If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of the Contractor by the Contract Documents, the Owner and the Architect will specify all performance and design criteria that such services must satisfy. The Contractor shall be entitled to rely upon the adequacy and accuracy of the performance and design criteria provided in the Contract Documents. The Contractor shall cause such services or certifications to be provided by an appropriately licensed design professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings, and other submittals prepared by such professional. Shop Drawings, and other submittals related to the Work, designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to the Architect. The Owner and the Architect shall be entitled to rely upon the adequacy and accuracy of the services, certifications, and approvals performed or provided by such design professionals, provided the Owner and Architect have specified to the Contractor the performance and design criteria that such services must satisfy. Pursuant to this Section 3.12.10, the Architect will review and approve or take other appropriate action on submittals only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents.

Section 3.12.10.1 sets forth the basic structure of how Delegated Design works on many projects. Fundamentally, it allows an owner, through the drawings and specifications prepared by the architect, to delegate the design of systems, materials, or equipment to the contractor, and their appropriately licensed design professional. The architect is required to specify the performance and design criteria that the contractor will be required to achieve. The contractor then provides those design services through an "appropriately licensed design professional" who uses its own signature and seal on design documents it produces. Both the architect and contractor are entitled to rely on information and services provided by the other, through the owner, in this exchange. Lastly, the architect will be required to review submittals pertaining to the portion of design that has been delegated and check that the design conforms to the information given and with the design concept expressed in the Contract Documents, including the performance specifications.

A New York statute – Rule 29.3(b) of the Rules of the Board of Regents – is a rare state statute to address the issue of Delegated Design, and it has much in common with Section 3.2.10.1 of A2O1-2017.¹⁶ For example, Rule 29.3(b) expressly allows delegation of design responsibilities from one design professional to another through an intermediary (i.e. a contractor). It requires the first design professional to specify all parameters which the design must satisfy. It also requires the first design professional to review the design for both conformance with those parameters and to determine that the design can be integrated into the overall project design.¹⁷ Further, it requires the second design professional to be properly licensed to perform the design services and to sign and certify any design prepared.

Rule 29.3(b) was created primarily to clarify that contractors who provided Delegated Design services were not improperly performing professional design services.¹⁸ Yet, the heart of Rule 29.3(b) and Section 3.2.10.1 of A201-2017 get at the same issue – the true nature of the design and construction environment has changed, and design professionals and contractors need the flexibility to delegate design in situations requiring special expertise.¹⁹

SUMMARY

The collaboration strategies discussed in this paper all have similar features; however, each strategy also assigns different roles and responsibilities to the project participants. This paper highlights the key distinctions between these collaboration strategies and is intended to strengthen a consistent understanding of these terms for the design and construction industry. Also, please note that Part II of this paper, which addresses Design Assist as it relates to fabricated structural steel, will be published separately in the fall of 2020.

¹⁶ Appendix 1; N.Y. Comp. Codes R. & Regs. tit. 8, § 29.3.

¹⁷ Though Rule 29.3(b) of the Rules of the Board of Regents and AIA A201-2017, Section 3.2.10.1 have much in common, they differ in their exact language and pose different obligations on design professionals.

¹⁸ Gen. Bldg. Contractors of New York State, Inc., 175 Misc. 2d at 925.

APPENDIX I

AIA Document A133-2019, Standard Form of Agreement Between Owner and Construction Manager as Constructor where the basis of payment is the Cost of the Work Plus a Fee with a Guaranteed Maximum Price

§ 3.1 Preconstruction Phase

§ 3.1.1 Extent of Responsibility

The Construction Manager shall exercise reasonable care in performing its Preconstruction Services. The Owner and Architect shall be entitled to rely on, and shall not be responsible for, the accuracy, completeness, and timeliness of services and information furnished by the Construction Manager. The Construction Manager, however, does not warrant or guarantee estimates and schedules except as may be included as part of the Guaranteed Maximum Price. The Construction Manager is not required to ascertain that the Drawings and Specifications are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, but the Construction Manager shall promptly report to the Architect and Owner any nonconformity discovered by or made known to the Construction Manager as a request for information in such form as the Architect may require.

§ 3.1.2 The Construction Manager shall provide a preliminary evaluation of the Owner's program, schedule and construction budget requirements, each in terms of the other.

§ 3.1.3 Consultation

§ 3.1.3.1 The Construction Manager shall schedule and conduct meetings with the Architect and Owner to discuss such matters as procedures, progress, coordination, and scheduling of the Work.

§ 3.1.3.2 The Construction Manager shall advise the Owner and Architect on proposed site use and improvements, selection of materials, building systems, and equipment. The Construction Manager shall also provide recommendations to the Owner and Architect, consistent with the Project requirements, on constructability; availability of materials and labor; time requirements for procurement, installation and construction; prefabrication; and factors related to construction cost including, but not limited to, costs of alternative designs or materials, preliminary budgets, life-cycle data, and possible cost reductions. The Construction Manager shall consult with the Architect regarding professional services to be provided by the Construction Manager during the Construction Phase.

§ 3.1.3.3 The Construction Manager shall assist the Owner and Architect in establishing building information modeling and digital data protocols for the Project, using AIA Document E203[™]-2013, Building Information Modeling and Digital Data Exhibit, to establish the protocols for the development, use, transmission, and exchange of digital data.

§ 3.1.4 Project Schedule

When Project requirements in Section 4.1.1 have been sufficiently identified, the Construction Manager shall prepare and periodically update a Project schedule for the Architect's review and the Owner's acceptance. The Construction Manager shall obtain the Architect's approval for the portion of the Project schedule relating to the performance of the Architect's services. The Project schedule shall coordinate and integrate the Construction Manager's services, the Architect's services, other Owner consultants' services, and the Owner's responsibilities; and identify items that affect the Project's timely completion. The updated Project schedule shall include the following: submission of the Guaranteed Maximum Price proposal; components of the Work; times of commencement and completion required of each Subcontractor; ordering and delivery of products, including those that must be ordered in advance of construction; and the occupancy requirements of the Owner.

§ 3.1.5 Phased Construction

The Construction Manager, in consultation with the Architect, shall provide recommendations with regard to accelerated or fast-track scheduling, procurement, and sequencing for phased construction. The Construction Manager shall take into consideration cost reductions, cost information, constructability, provisions for temporary facilities, and procurement and construction scheduling issues.

§ 3.1.6 Cost Estimates

§ 3.1.6.1 Based on the preliminary design and other design criteria prepared by the Architect, the Construction Manager shall prepare, for the Architect's review and the Owner's approval, preliminary estimates of the Cost of the Work or the cost of program requirements using area, volume, or similar conceptual estimating techniques. If the Architect or Construction Manager suggests alternative materials and systems, the

Construction Manager shall provide cost evaluations of those alternative materials and systems.

§ 3.1.6.2 As the Architect progresses with the preparation of the Schematic Design, Design Development and Construction Documents, the Construction Manager shall prepare and update, at appropriate intervals agreed to by the Owner, Construction Manager and Architect, an estimate of the Cost of the Work with increasing detail and refinement. The Construction Manager shall include in the estimate those costs to allow for the further development of the design, price escalation, and market conditions, until such time as the Owner and Construction Manager agree on a Guaranteed Maximum Price for the Work. The estimate shall be provided for the Architect's review and the Owner's approval. The Construction Manager shall inform the Owner and Architect in the event that the estimate of the Cost of the Work exceeds the latest approved Project budget, and make recommendations for corrective action.

§ 3.1.6.3 If the Architect is providing cost estimating services as a Supplemental Service, and a discrepancy exists between the Construction Manager's cost estimates and the Architect's cost estimates, the Construction Manager and the Architect shall work together to reconcile the cost estimates.

§ 3.1.7 As the Architect progresses with the preparation of the Schematic Design, Design Development and Construction Documents, the Construction Manager shall consult with the Owner and Architect and make recommendations regarding constructability and schedules, for the Architect's review and the Owner's approval.

§ 3.1.8 The Construction Manager shall provide recommendations and information to the Owner and Architect regarding equipment, materials, services, and temporary Project facilities.

§ 3.1.9 The Construction Manager shall provide a staffing plan for Preconstruction Phase services for the Owner's review and approval.

§ 3.1.10 If the Owner identified a Sustainable Objective in Article 1, the Construction Manager shall fulfill its Preconstruction Phase responsibilities as required in AIA Document E234[™]-2019, Sustainable Projects Exhibit, Construction Manager as Constructor Edition, attached to this Agreement.

§ 3.1.11 Subcontractors and Suppliers

§ 3.1.11.1 If the Owner has provided requirements for subcontractor procurement in section 1.1.14, the Construction Manager shall provide a subcontracting plan, addressing the Owner's requirements, for the Owner's review and approval.

§ 3.1.11.2 The Construction Manager shall develop bidders' interest in the Project.

§ 3.1.11.3 The processes described in Article 9 shall apply if bid packages will be issued during the Preconstruction Phase.

§ 3.1.12 Procurement

The Construction Manager shall prepare, for the Architect's review and the Owner's acceptance, a procurement schedule for items that must be ordered in advance of construction. The Construction Manager shall expedite and coordinate the ordering and delivery of materials that must be ordered in advance of construction. If the Owner agrees to procure any items prior to the establishment of the Guaranteed Maximum Price, the Owner shall procure the items on terms and conditions acceptable to the Construction Manager. Upon the establishment of the Guaranteed Maximum Price, the Owner shall assign all contracts for these items to the Construction Manager and the Construction Manager shall thereafter accept responsibility for them.

§ 3.1.13 Compliance with Laws

The Construction Manager shall comply with applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities applicable to its performance under this Contract, and with equal employment opportunity programs, and other programs as may be required by governmental and quasi-governmental authorities.

§ 3.1.14 Other Preconstruction Services

Insert a description of any other Preconstruction Phase services to be provided by the Construction Manager, or reference an exhibit attached to this document.

(Describe any other Preconstruction Phase services, such as providing cash flow projections, development of a project information management system, early selection or procurement of subcontractors, etc.)

8 NYCRR 29.3

Section 29.3. General provisions for design professions

(a) Unprofessional conduct shall also include, in the professions of architecture and landscape architecture, engineering, land surveying and geology:

(1) being associated in a professional capacity with any project or practice known to the licensee to be fraudulent or dishonest in character, or not reporting knowledge of such fraudulence or dishonesty to the Education Department;

(2) failing to report in writing to the owner or to the owner's designated agent any unauthorized or improperly authorized substantial disregard by any contractor of plans or specifications for construction or fabrication, when professional observation or supervision of the work is provided for in the agreement between the owner and the design professional or when supervision of the work is under the control of the design professional;

(3) certifying by affixing the licensee's signature and seal to documents for which the professional services have not been performed by, or thoroughly reviewed by, the licensee; or failing to prepare and retain a written evaluation of the professional services represented by such documents in accordance with the following requirements:

> (i) a licensee who signs and seals documents not prepared by the licensee or by an employee under the licensee's direct supervision shall prepare, and retain for a period of not less than six years, a thorough written evaluation of the professional services represented by the documents, including but not limited to drawings, specifications, reports, design calculations and references to applicable codes and standards. Such written evaluation shall clearly identify the project and the documents to which it relates, the source of the documents and the name of the person or organization for which the written evaluation was conducted, and the date of the evaluation, and the seal and signature of the licensee shall also be affixed thereto; and

(ii) nothing in this paragraph shall be construed as authorizing the practice of a design profession in this State by persons other than those authorized to practice pursuant to the provisions of article 145, 147 or 148 of the Education Law;

(4) failure by a licensee to maintain for at least six years all preliminary and final plans, documents, computations, records and professional evaluations prepared by the licensee, or the licensee's employees, relating to work to which the licensee has affixed his seal and signature;

(5) having a substantial financial interest, without the knowledge and approval of the client or employer, in any products or in the bids or earnings of any contractor, manufacturer or supplier on work for which the professional has responsibility;

(6) permitting any person to share in the fees for professional services, other than: a partner, employee, associate in a professional firm or corporation, subcontractor or consultant. This prohibition shall include any arrangement or agreement whereby the amount received in payment for furnishing space, facilities, equipment, or personnel services used by a professional licensee constitutes a percentage of or is otherwise dependent upon the income or receipts of the licensee from such practice. This provision shall apply in lieu of section 29.1(b)(4) of this Part;

(7) accepting any form of compensation from more than one party for services on the same project without fully disclosing the circumstances and receiving approval from all interested parties;

(8) participating as a member, advisor or employee or a government body in those actions or deliberations which pertain to services provided by the practitioner or his or her organization for such government body; or

(9) in the profession of land surveying, the revision, alteration, or update of any existing boundary survey without adequate confirmation of relevant boundary lines and monuments. To be adequate, such confirmation shall include a reasonable field verification and shall be sufficiently extensive to reasonably ensure the accuracy of the revision, alteration, or update, as appropriate to the circumstances of the revision, alteration, or update.

(b) Unprofessional conduct shall not be construed to include:

(1) the employment, with the knowledge of the client, of qualified consultants to perform work in which the consultant has special expertise. This provision shall apply in conjunction with section 29.1(b)(9) of this Part; and

(2) participation as a delegator, or delegatee in delegating or accepting delegation, through an intermediate entity not authorized to provide professional design services, of specifically defined work involving the performance of a design function requiring a professional license, under the following terms, conditions and limitations:

(i) such specifically defined design work shall be limited to project components ancillary to the main components of the project;

(ii) the delegator shall specify in writing to the delegatee all parameters which the design must satisfy;

(iii) the design function shall be required to be performed in accordance with performance specifications established by the delegator;

(iv) the delegatee shall be required to be licensed or otherwise legally authorized to perform the design work involved and shall be required to sign and certify any design prepared;

(v) the delegator shall be required to review and approve the design submitted by the delegatee for conformance with the established specifications and parameters and such determination shall be in writing; and

(vi) the delegator shall be required to determine that the design prepared by the delegatee conforms to the overall project design and can be integrated into such design and such determination shall be in writing.

(3) As used in paragraph (2) of this subdivision:

(i) Delegator means a primary design team or team of design professionals which may be composed of professional engineers, land surveyors, architects and landscape architects acting either alone or in combination, licensed and registered in accordance with articles 145, 147 or 148 of the Education Law, and authorized to provide the services being delegated.

(ii) Intermediate entity means a person or entity, typically a contractor or subcontractor, responsible for performing the work under the contract for construction.

(iii) Delegatee means a design professional, licensed and registered in accordance with articles 145, 147 or 148 of the Education Law, who is employed or retained by the intermediate entity to produce design work in compliance with the performance requirements and parameters specified by a delegator.

(iv) Certify means a written statement by a licensee confirming responsibility for the work and attesting that the work prepared meets the specifications (as well as conforming to governing codes applicable at the time the work was prepared), and conforms to prevailing standards of practice.