



DESIGN-BUILD DONE RIGHT®

Design-Build Best Practices

UNIVERSALLY APPLICABLE

- any project type
- any sector
- any size
- any variation of design-build delivery



DESIGN-BUILD DONE RIGHT®

Design-Build Best Practices

The practices identified in this document have two basic characteristics:

1 | They are written to be universal in applicability, spanning any type of design-build project:

- public, private or public-private partnerships
- vertical or horizontal
- large or small
- simple or complex

2 | They are important enough to directly affect project performance.

Stated differently, implementing these practices on any type of design-build project increases the probability of a successful project that meets the expectations of all stakeholders.

Conversely, if these practices are not implemented, there is an increased probability that the project's performance will be

compromised, the program, schedule, budget or quality goals may not be met, and that the stakeholders will be disappointed.

For ease of reference, this document is organized into three primary sections:

- I. **Procuring Design-Build Services**
- II. **Contracting for Design-Build Services**
- III. **Executing Design-Build Projects**

Each section contains overarching principles that represent the “Best Practice.” Each Best Practice is supplemented by several techniques that provide guidance on specific ways to implement the best practice – essentially “mini best practices.” The combination of Best Practices and Implementing Techniques are the basis for “Design-Build Done Right®”

Guiding Principles

The practices identified in this document are anchored by these guiding principles:

Universal Ethical Conduct: Everyone involved in a design-build project should conduct themselves with high standards of honesty, transparency and integrity in compliance with the DBIA Code of Professional Conduct and other applicable ethical obligations.

Demonstrated Competence: Several Best Practices and Implementing Techniques in this document emphasize the importance of training and experience in design-build project delivery. Wherever possible, training and competence of those involved should be demonstrated by attaining appropriate professional certifications (e.g., DBIA



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Certification, professional licensure, LEED certification, etc.).

Sustainable Professional Development:

When undertaking a design-build project, Owners and practitioners should proactively engage emerging professionals in a meaningful way to help plan and execute Best Practices and Implementing Techniques. This practice will encourage each member of the team to grow professionally and play a more significant role on the team and within the industry on each successive project.

Supporting Diversity, Equity and Inclusion:

When undertaking a design-build project, Owners and practitioners should intentionally create opportunities to involve and engage historically under-represented companies and individuals, prioritizing fair treatment without any racism or bias.

These guiding principles are driven by the core belief that design-build projects are best executed within the context of an integrated collaborative team grounded in an atmosphere of mutual trust, transparency, respect and open, candid communications.

The sum of all of us is greater than the contribution of any team member. The best projects unleash the power of a “high-

performing team,” and everybody should have the opportunity to grow professionally and contribute to the success of the project.

DBIA recognizes that there are real-world differences among design-build market sectors (e.g., water/wastewater, transportation, commercial development, federal projects, etc.), and flexibility in how design-build projects are procured, contracted and executed.

Consequently, specific implementation techniques might differ slightly from one market sector to another or between design-build variations.

DBIA recognizes that Owners and practitioners may want further explanation to fully appreciate the thought behind the principles in this document. DBIA expects that many users of design-build would benefit from having detailed guidance on how to put these best practices and implementing techniques to use for their unique project.

Given this, DBIA continually updates its portfolio of publications, tools and other resources so that design-build stakeholders will have access to leading-edge information that defines Design-Build Done Right® in accordance with the concepts expressed in this document.

I. PROCURING DESIGN-BUILD SERVICES

An Owner's strategic choices of a project delivery system and procurement approach strongly influence project results.

These choices are among the first decisions an Owner makes on a project and they form the foundation for how the project will be developed, procured and executed. They determine how the key project stakeholders communicate and relate to each other.

It is critical for an Owner to carefully consider the goals, objectives,

opportunities and constraints particular to the project. This includes a thorough analysis of the procurement and delivery options available to the Owner.

Should design-build prove to be the best delivery method for the project, the Owner should proactively plan how to take full advantage of the many benefits that are inherent in the design-build process.

DBIA Considers the following as five (5) best practices for project initiation and procurement:

1 | Strategic Project Delivery Planning

An Owner should conduct a proactive and objective assessment of the unique characteristics of its program/project and its organization before deciding to use design-build.

IMPLEMENTING TECHNIQUES

- a. **Owner Self-Assessment.** Owners should understand the potential benefits, limitations and attributes of design-build and make an informed decision as to whether the use of design-build will benefit their program/project.
- b. **Supportive Organization.** Owners should create an organizational culture that supports the successful procurement and execution of a design-build project, with key personnel (including consultants serving as Owner Advisor as may be needed) who are experienced in design-build best practices and are educated, trained in and understand among other things:
 1. The procurement, contracting and execution of design-build projects;
 2. The importance of setting expectations and fostering an integrative and collaborative relationship among everyone involved in the project; and
 3. The potential impact of procurement and execution decisions on the Owner, Design-Builder and stakeholders; including attainment of project goals and critical success factors, as well as appropriate allocation of risk.
- c. **Stakeholder Engagement.** Owners should identify and involve key project stakeholders at the early stages of project planning. Stakeholder goals, expectations, challenges, constraints and priorities should guide all project planning, procurement, implementation and operations/maintenance. Stakeholder engagement should include:

1. Training in the design-build process and unique project nuances;
 2. Determination and implementation of design excellence, sustainability, financial viability and any other project-specific goals;
 3. Definition of project lifecycle and durability expectations; and
 4. Uses of physical and digital project documentation throughout the functional life of the project.
- d. **Senior Leadership Team.** Owners should establish a senior leadership team that demonstrates a commitment to the success of the design-build process, as this practice will foster a healthy and trusting relationship among the entire project team.
- e. **Market Research.** Owners should carefully research and assess current market conditions as they plan their design-build programs, as this will identify potential risks and opportunities. Among the issues to be researched and assessed include:
1. Alignment of scope, budget and schedule for current market conditions;
 2. Procurement actions that could limit or expand competition, including advance notice to industry;
 3. Projected labor, material and equipment availability;
 4. Available pool of experienced and qualified Design-Builders and trade partners interested in pursuing the project; and
 5. Lessons learned from similar projects.
- f. **Risk and Opportunity Assessment.** Owners should implement a rigorous and equitably balanced project risk and opportunity assessment early in the procurement process and update/refine the risk and opportunity assessment as the project proceeds from procurement through project execution. Owner's risk and opportunity assessments should include:
1. Identification of issues that have potential to negatively and positively impact project success;
 2. Assessment of probability of occurrence and impact of each risk and opportunity factor(s) identified;
 3. Alignment of risk and opportunity analysis with Design-Builder selection evaluation factors; and
 4. Alignment of contract provisions as well as incentives and/or award fees with risk analysis.
- g. **Procurement Constraints.** Owners should understand all procurement constraints imposed or flexibilities afforded by their legislative, regulatory or internal requirements (e.g., governing board, senior level approvals).
- h. **Conflict-of-Interest Policy.** Owners should make an early determination of their programmatic position on conflicts-of-interest policy for design-build procurements and promptly disclose this policy to the marketplace that will likely pursue these design-build procurements.
- i. **Start-up | Commissioning Clarity.** Owners should make an early determination about their expectations for the Design-Builder's role in the start-up, commissioning, turnover and operations/maintenance of the completed project and reflect those expectations in their procurement approach.

2 | Design-Build Oriented Procurement Plan

An Owner should implement a procurement plan that enhances collaboration/integration and other benefits of design-build that is in harmony with the reasons the Owner chose design-build.

IMPLEMENTING TECHNIQUES:

- a. **Qualifications Focus.** Owners should use a procurement process that:
 1. Focuses heavily on the qualifications of the Design-Builder and its key team members more significantly than price; and
 2. Rewards design-build teams that have a demonstrated history of successfully integrating and collaborating on similar delivery methods on projects.
- b. **Disclose Form of Agreement.** Owners should provide proposers with a draft design-build contract at the RFQ phase of procurement which:
 1. Informs potential proposers of contract terms and conditions as they contemplate whether to pursue the opportunity;
 2. Informs potential proposers of conditions (e.g., contract incentives, partnering, commissioning, LEED Certification, etc.) that could affect how they structure to deliver their services;
 3. Provides proposers with an opportunity to suggest modifications during the proposal process; and
 4. Enables proposers to base their proposals on what will become the final version of the contract.
- c. **Trade Contractors.** Owners should use a procurement process that encourages the early participation of key trade contractors, subconsultants and suppliers.
- d. **Performance Requirements.** Owners should develop their design-build procurement with the goal of minimizing the use of prescriptive requirements and maximizing the use of performance-based requirements, such that:
 1. Performance requirements are based on recognized industry standards that are current, attainable and appropriate for the project;
 2. Performance requirements provide the design-build team adequate guidance and flexibility to optimize the balance between scope, quality, schedule and budget within current market conditions; and
 3. The design-build team is empowered to meet or exceed the Owner's needs through innovation and creativity.
- e. **Achievable Budgets.** Owners should develop realistic project budgets and provide clarity in their procurement documents about their budgets, including, as applicable:
 1. Identifying "hard" and "soft" contract cost/budget ceilings;
 2. Stating whether target budgets can be exceeded if proposed solutions enhance overall value; and
 3. Clearly identifying the status and constraints of funding for the project.



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- f. **Limit Deliverables.** Owners should consider the level of effort required by proposers to develop responsive proposals as well as the time and effort the Owner needs to evaluate the proposals. Owners should limit the deliverables sought from proposers to only those in line with the scored elements needed to differentiate between proposers during the selection process.
- g. **Confidential Meetings.** Owners should conduct confidential meetings with each shortlisted proposer prior to the submission of technical and price proposals, as this encourages the open and candid exchange of concepts, concerns, ideas and curtails wasted effort on unacceptable proposals. (In some instances this is also referred to as Proprietary Meetings.)
- h. **Protect Intellectual Property.** Owners should protect the proprietary business information and intellectual property of all proposers and should not disclose such information at any time, except as required by law.
- i. **Technical Submittals.** Owners who require project-specific technical submittals for evaluating and selecting the Design-Builder should:
 - 1. Use a two-phase procurement process; and
 - 2. Limit the requirement for such submittals to the second phase, where the list of proposers has been reduced.
- j. **Owner's Evaluation Team.** Owners should ensure that their technical and cost proposal evaluation team members:
 - 1. Are trained in design-build best practices and the particulars of the procurement process;
 - 2. Are unbiased;
 - 3. Are available to participate in the entire evaluation process;
 - 4. Maintain confidentiality and are free from outside influence or conflict of interest; and
 - 5. Undertake their reviews and evaluations in a manner consistent with the philosophy and methodology prescribed in the procurement documents.
- k. **Debriefing.** Owners should provide all proposers with an opportunity to participate in an informative debriefing session once procurement is completed.

3 | Best Value Design-Build Procurement (2-Step Process)

An Owner using a competitive Best Value design-build procurement that seeks price and technical proposals should:

- Establish clear evaluation and selection processes;
- Ensure that the process is fair, open and transparent; and
- Appropriately value both technical concepts and price in the selection process.

IMPLEMENTING TECHNIQUES:

- a. **Front End Due Diligence.** Owners should perform appropriate front-end tasks and documents (e.g., zoning, site surveys, property entitlements, geotechnical investigations, environmental assessment and preliminary permit acquisitions) to enable the Owner to:
 1. Develop a realistic understanding of the project’s scope, budget and schedule;
 2. Inform the risk and opportunity analysis process; and
 3. Furnish proposers with information that they can reasonably rely upon in establishing their technical proposal, price and other commercial decisions
- b. **Shortlisting.** During Step 1 (RFQ) evaluation, Owners should appropriately shortlist the number of proposers invited to submit Step 2 proposals to a maximum of three (3), as this will, among other things, provide the best opportunity for obtaining high-quality competition and focusing the Owner’s time on the best qualified teams.
- c. **Draft RFP.** Owners should provide shortlisted proposers with a draft of the design-build RFP at the outset of the second phase of procurement, which:
 1. Provides proposers an opportunity to provide input during the proposal process, before the RFP is finalized; and
 2. Enables the Owner to receive feedback as to whether the scope, schedule and target budget are achievable.
- d. **Best Value.** Owners should seek proposals that provide the Best Value, through optimization of design, quality and other project goals attainable within the project target budget and schedule; rather than the lowest price offer meeting minimum requirements, including:
 1. Disclosing the budget ceiling;
 2. Declaring whether the Owner expects proposers to develop technical proposals that will encompass the entire target budget, encouraging project enhancements/betterments within the project ceiling; and
 3. Ensuring that the selection process is based primarily on non-cost/price factors.

- e. **Stipend.** Owners should offer a commensurate stipend, announced at the RFQ phase, to unsuccessful shortlisted proposers to enhance competition and acknowledge the level of effort required to submit a fully compliant proposal.
- f. **Evaluate Technical Proposals First.** During Step 2 (RFP), Owners should ensure that technical review teams do not have access to financial/price proposals until after the scoring of technical proposals.

4 | Progressive Design-Build Procurement¹

An Owner using a Progressive Design-Build process that does not request a project price, schedule or design during the procurement should implement a procurement that:

- Seeks to engage the Owner and Design-Builder in an integrated and cohesive strategic partnership for the development of the project;
- Focuses primarily on qualifications and the proposer's integrated process for selection of the design builder; and
- Formalizes the joint effort of advancing the design to a point of mutual commitment to scope, quality, schedule, commercial terms and contract price to occur after selection of the Design-Builder.

IMPLEMENTING TECHNIQUES:

- a. **Qualifications Based Selection.** Owners should use a procurement process that focuses on the qualifications, key individuals, team dynamics and successful past performance of the competing Design-Builders to select the design-build team that:
1. Will work well and collaboratively and in an integrated fashion with the Owner's team;
 2. Will provide fully transparent pricing throughout the development of the scope, schedule and contract price;
 3. Offers an approach that has the best likelihood to meet the Owner's project goals and required outcomes; and
 4. The Owner believes is trustworthy, fair and highly qualified.
- b. **Collaborative Multi-Phase Services.** Owners should formalize the design process with a multi-step agreement that collaboratively "progresses" toward consensus among all parties on project design, scope, schedule and contract price, including:
1. **Validation:** The Design-Builder and Owner engage in mutual goal setting and the Design-Builder validates the material information regarding the project, including the following:
 - a) The project parameters, such as whether the desired scope can be accomplished within the stated budget and schedule;
 - b) Joint risk analysis and allocation; and
 - c) Site conditions, and other potential obstacles to the completion of the project.

¹ Additional information on Progressive Design-Build is available in DBIA's Progressive Design-Build: A Design-Build Done Right® Deeper Dive

2. *Preliminary Design*: The Design-Builder and Owner collaboratively advance project design to the point that the Design-Builder submits a proposal to establish an upper contract price and other contract terms. Activities during Preliminary Design can include:
 - a) Mutual goal setting;
 - b) Definition of Basis of Design;
 - c) Space programming;
 - d) Definition of performance requirements;
 - e) Initial cost modeling and budgeting;
 - f) Joint contingency development;
 - g) Scheduling;
 - h) Constructability reviews;
 - i) Lifecycle cost analysis; and
 - j) Other such considerations.
3. *Final Design and Construction*: The Design-Builder completes final design, construction and turnover of the project per the approved proposal.
- c. **Delayed Price Commitment**. The Owner does not seek, nor does the Design-Builder commit, to contract price at the time of selection of the Design-Builder. Rather, the price commitment comes after the parties have agreed upon scope, schedule, design and other commercial terms.
- d. **Off-Ramp**. The procurement should clearly identify the process for the Owner to exercise the “off-ramp” provision of progressive design-build procurement if the Owner and Design-Builder are unable to agree on design, schedule, commercial terms and/or contract price. Off-ramp provisions of the procurement should clearly define:
 1. Circumstances under which the parties may cease contract negotiations and exercise the off-ramp provisions of the procurement, including the notification and procedural processes for doing so;
 2. Payment due the Design-Builder for the earned value of design-build services;
 3. Rights of the Owner to use the work product of the Design-Builder for subsequent procurements associated with the project; and
 4. Rights of the Owner to take assignment of subcontracts and material purchase orders.



The Design-Builder and its team members should mutually agree upon the tools and techniques that will cultivate an integrated and cohesive project team.

5 | Proposing on Design-Build Procurements

A Design-Builder seeking to respond to an Owner's procurement solicitation should:

- Form a highly qualified team capable of delivering exceptional design-build services;
- Develop effective, integrated team dynamics to ensure a cohesive organization;
- Strategically analyze the Owner's project and procurement documents; and
- Persuasively respond to the Owner's solicitation.

IMPLEMENTING TECHNIQUES:

- a. **Build Relationships.** In advance of project pursuit, Design-Builder should intentionally develop professional relationships with potential team members and key individuals with shared values and compatible cultures.
- b. **Be Prepared.** Design-Builder should proactively build the entire team's training, experience and knowledgebase in design-build project delivery and pertinent subject matter expertise:
 1. Coordinate design-build training for all potential team members; and
 2. Identify potential team members with successful experience in design-build projects with similar size, scope and complexity.
- c. **Get Organized.** The Design-Builder and its team members should mutually agree upon the tools and techniques that will cultivate an integrated and cohesive project team, including:
 1. Clarification of roles, responsibilities and communications protocols;
 2. Commitment to preliminary BIM Execution plans, shared software platforms and decision-making structures; and
 3. Building team trust, transparency and shared understanding of team vision, values and goals.
- d. **Teaming Agreements.** During procurement, the Design-Builder should use written teaming agreements with key team members to develop and capture an understanding of their relationship and its key commercial aspects, including:
 1. The organizational structure of the team;
 2. Responsibility to maintain confidentiality of proposal-related information;
 3. The teaming party's compensation, if any, during the proposal period;
 4. The teaming party's role in reviewing/approving the proposal;
 5. The teaming party's role in collaborating with estimators in establishing and updating project cost estimates/cost models;
 6. The teaming party's ability to rely on the accuracy of the team's cost estimates in a design-to-budget process;
 7. The form of the subsequent agreement, including the contractual liability of the teaming party for problems, including delays, issues during execution; and
 8. The teaming party's ability to use project contingency.

- e. **Builder | Designer Interaction.** The builder and designer(s) should agree on the extent of design advancement appropriate for the proposal and the reliability of information prepared during the procurement.
- f. **Strategic Response Analysis.** Upon receipt of the Owner's procurement solicitation, the Design-Builder should conduct a thoughtful analysis of the project to strategically determine whether and how to respond, including:
 - 1. Carefully read all the procurement documents and discuss them among the entire team in order to achieve a shared understanding of the project and what is required to submit a winning response;
 - 2. Evaluate the Owner's implementation of design-build best practices, conduct an internal risk analysis and allocation process, and confirm whether the Design-Builder's team would be a "good fit" for this project;
 - 3. Mine the combined insight of the entire Design-Builder's team concerning the Owner, its goals and objectives, the project requirements and the expected deliverables for a response to the solicitation;
 - 4. If applicable, agree on a pre-design cost model, the level of design advancement required to respond to the solicitation, including critical tasks and schedule milestones for preparation of a response; and
 - 5. Making a formal "go/no-go" decision concerning a response.
- g. **Effective Response.** To effectively and persuasively implement the strategic, project specific plan to respond to an Owner's solicitation, all design-build team members should:
 - 1. Devote the time, resources and energy needed to effectively respond to the Owner's solicitation;
 - 2. Embrace opportunities to engage with the Owner during procurement, (e.g., Owner briefings, pre-proposal breakout meetings and RFI processes) and demonstrate the team's integration and cohesion during those interactions;
 - 3. Avoid "boilerplate" responses and instead develop a laser-focus on directly, clearly and succinctly providing the information the Owner requests in its solicitation documents;
 - 4. Think beyond the solicitation documents to develop unique, insightful responses that add value beyond Owner's expectations that distinguish the Design-Builder's team;
 - 5. Execute quality-assurance/quality-control program for all procurement deliverables, including ensuring strict compliance with all solicitation instructions, prior to submitting them to the Owner; and
 - 6. Prepare and rehearse for any presentations/interviews that are part of the Owner's procurement process.

II. CONTRACTING FOR DESIGN-BUILD SERVICES

The use of fair and clear contracts is fundamental to any delivery process. Because there are some important differences between design-build contracts and those for other delivery systems, it is particularly important for the individuals who administer the design-build procurement and execution to understand the contract's language and its practical application.

For design-build to succeed, these principles should be incorporated into prime contracts and the contracts of those subconsultants, subcontractors and major suppliers working within the design-build team.

DBIA considers the following as three (3) Best Practices in design-build contracting:

1 | Design-Build Contracts

Contracts used on design-build projects should be fair, balanced and clear, and should promote the collaborative aspects inherent in the design-build process.

IMPLEMENTING TECHNIQUES:

- a. **Joint Risk Assessment.** Contracting parties should proactively and cooperatively identify significant project-specific risks and clearly identify in the contract how such risks will be handled.
- b. **Risk Allocation.** Contracts should reasonably allocate risks to the party that is best capable of addressing and mitigating the risk.
- c. **Understandable.** Contracts should use language that is understandable to those personnel who are administering the contract and the people who are performing the work.
- d. **Communication Protocols.** Contracts should encourage, rather than hinder, communications among project stakeholders.
- e. **Expedient Change Process.** Contracts should contain a fair process that facilitates and expedites the review and resolution of potential changes to the contract and adjustments in the contract price and time.
- f. **Proactive Dispute Resolution.** Contracts should contain a dispute resolution process that promotes the prompt identification and resolution of disputes at the lowest possible level of hierarchy within the parties' organizations.

2 | Owner | Design-Builder Agreement

The contract between the Owner and Design-Builder should address the unique aspects of the design-build process.

IMPLEMENTING TECHNIQUES:

- a. **Cost Incentives and Award Fees.** Owners should, consistent with their overall procurement strategy, evaluate and use appropriate contractual cost incentives and/or award fees that facilitate the alignment of the performance of their design-build teams with the Owner's project goals.
- b. **Performance Guarantees.** If the Design-Builder is expected to meet performance guarantees, the contract should clearly identify such guarantees. All guarantees should be capable of being measured and reasonably achievable by a Design-Builder performing its work in a commercially reasonable fashion.
- c. **Owner's Role.** The contract should clearly specify the Owner's role during project execution, particularly relative to:
 1. The process for the Design-Builder reporting to and communicating/meeting with the Owner;
 2. The Owner's role in acting upon design and other required submittals;
 - a) The Owner should have a clear design review and approval process that is consistent with the overall project schedule. The process should be adequately staffed and include stakeholder review.
 - b) Owner should adequately staff construction submittal review and associated project decisions during construction.
 3. The Owner's role, if any, in quality assurance and quality control (QA/QC); and
 4. The role of a third-party Owner's advisor in fulfilling or supporting the role of the Owner.
- d. **Design Professional(s)-of-Record.** The contract should clearly define the role(s) of the Design Professional(s)-of-Record and how each will communicate with the Owner.
- e. **Roles and Responsibilities.** The contract should clearly define the roles and responsibilities of each party for processes requiring specific actions and documentation, such as:
 1. Commissioning
 2. Project Closeout
 3. Sustainability Certification (e.g., LEED, Energy Star, Well Building)
 4. Facility Accreditation (e.g., ISO, ACA, ASCLD, JCI, ACHC, HFAP, HACCP)
 5. Operations and Maintenance during Construction
- f. **Defined Milestones.** The contract should clearly define requirements for achieving project milestones, inclusive of design commitment phases, Substantial Completion, Final Completion and final payment.
- g. **Standard of Care.** The contract should clearly define expected Standards of Care for all professional services. Such definition should be in line with normal industry standards for each profession.

3 | Design-Builder | Team Member Subcontracts

The subcontracts between the Design-Builder and its team members should address the unique aspects of the design-build process.

IMPLEMENTING TECHNIQUES:

- a. **Clear Roles and Responsibilities.** The subcontract should establish the roles and primary responsibilities of each entity on the Design-Builder's team during each phase of the project, including:
 1. The regular and active involvement of the Design Professional(s)-of-Record throughout the project's execution;
 2. Primary design responsibilities, by system or project element;
 3. Design-assist | design review support (e.g., constructability, scheduling, peer-review, pricing, procurement, safety and logistics planning, etc.);
 4. Quality Assurance and Quality Control (e.g., document review, mock-ups, design advancement review, design commitment, submittal review, field interpretations, RFI support, punchlist and closeout); and
 5. Construction and Construction Phase Services.
- b. **Team Communications.** The subcontract should define how the team members will communicate, including regularity and whether in-person or virtual, with each other and with the Owner, including:
 1. Meeting attendance;
 2. Decision-making and issue resolution;
 3. Communication protocols and response times;
 4. Participation in common software platforms (e.g., project websites, document editing software, etc.);
 5. Expectations for physical co-location;
 6. VDC/BIM execution plan determination and compliance;
 7. Deliverables; and
 8. Reviews.
- c. **Flow-Down Provisions.** Team member subcontracts should have a clear and appropriate "flow down" of obligations from the prime design-build contract.



The subcontracts between the Design-Builder and its team members should address the unique aspects of the design-build process.

III. EXECUTING DESIGN-BUILD PROJECTS

DBIA recognizes that the Best Practices associated with the execution of a design-build project are similar to projects delivered under other systems. It is not the intent of this document to focus on identifying general best practices associated with design, construction or project management. Rather, this document's Best Practices for project execution focus on unique features of the design-build process, where successful execution is based on relationships

built upon trust, transparency and team collaboration/integration.

Individuals should be competent in their specific areas of responsibility. They should understand the design-build process and that success is directly dependent upon the ability of the entire team to work together collaboratively.

DBIA considers the following as five (5) best practices for executing design-build projects:

1 | The Right People

Everybody involved in a design-build project should be educated and trained in the design-build process. They should be knowledgeable of the differences between design-build and other delivery systems.

IMPLEMENTING TECHNIQUES:

- a. **Trust and Collaboration.** Each individual participating in a design-build project must understand that the project's success is dependent on the ability of the team members to work collaboratively and to trust that each member is committed to working in the best interests of the project.
- b. **Design-Build Mental Shift.** Projects should be staffed with individuals that are well educated and experienced in the implementation of design-build best practices, and whose personalities and mindset are well suited to the collaborative/integrated nature of the design-build process.
- c. **Project Champions.** All project teams should have senior leadership committed to the success of their projects and actively supportive of design-build best practices.
- d. **Trade Partners.** The Design-Builder should recognize the benefit of including experienced design-build trade contractors on its team early in the design process and procurement phase.

2 | The Right Tools

The project team should establish logistics and infrastructure to support integrated project delivery.

IMPLEMENTING TECHNIQUES:

- a. **Co-Location.** Owners and the Design-Builder's design and construction team members should physically co-locate when justified by project characteristics, and generally adopt practices that support immediate and transparent communications (e.g., "Big Room" project headquarters, electronic meeting platforms, project websites, etc.)
- b. **Effective Administration.** Owners and Design-Builders should ensure that the administrative processes established for project execution are appropriate, well-understood and expeditious.

3 | Exemplary Communications

The project team, at the outset of the project, should establish processes to facilitate timely and effective communication, collaboration and issue resolution.

IMPLEMENTING TECHNIQUES:

- a. **Partnering.** The Owner and Design-Builder should develop and use a structured partnering process, scaled appropriately to reflect the project's size and complexity.
- b. **Validation.** The Owner and Design-Builder should, as early as possible, conduct a rigorous review of the Owner's RFP, the Design-Builder's proposal, and all other available information to validate the basis of design and other commercial terms at the outset of the project. Validation activities may include:
 1. Review of project scope requirements and provide clarification of any ambiguities or inconsistencies;
 2. Agree on basis of design parameters, key design commitment milestones and any other aspects of advancement of design to completion;
 3. Achieve common understanding of the administration of any incentive and/or award fee programs;
 4. Review of status of permitting activity to date and remaining to complete;
 5. Review of existing project site conditions and any additional due diligence that is appropriate;
 6. Joint update of project risk and opportunity analysis;
 7. Joint review of project contingencies and/or allowances; and
 8. Clearly document the process and any clarifications in writing.
- c. **Executive Leadership Team.** The Owner and Design-Builder should create an executive leadership group, including individuals from key members of the Design-Builder's team (e.g., Design Professional(s)-of-Record and key trade

- partners) to meet regularly, monitor the project’s execution, and facilitate the understanding, support and achievement of the parties’ mutual goals.
- d. **Stakeholder Interfaces.** The Owner and Design-Builder should develop processes that enable key stakeholders (e.g., end users, local community groups, government agencies and third-party operators) to interface directly with the Design-Builder and its design professionals on significant elements of the work.
 - e. **Integrated Design & Construction.** The Owner and Design-Builder should, at the outset of the project, endorse and liberally use techniques that effectively integrate design and construction activities and take steps to continue these processes throughout the duration of the project.
 - f. **Owner Engagement.** The Owner should be fully engaged and prepared to make the timely decisions necessary to facilitate the Design-Builder’s performance, including being represented by staff with the authority to make timely decisions and perform its project functions.
 - g. **Complete Transparency.** The Design-Builder should clearly, thoroughly and expeditiously advise the Owner about any issues that might impact the contract price, schedule or material matters affecting the project, as this will, among other things, enable the Owner to make timely and informed decisions on how to address such issues.

4 | Design Management

The project team should ensure there is alignment among the team as to how to execute design management.

IMPLEMENTING TECHNIQUES:

- a. **Design Review.** The Owner and Design-Builder should acknowledge the significant level of effort required to manage development and review of the design and, consequently:
 1. Dedicate sufficient resources to foster a collaborative environment for this work;
 2. Mutually develop a realistic design development plan that efficiently engages the Owner and key members of the Design-Builder’s team (e.g., Design Professional(s)-of-Record and key trade partners) in purposeful meetings;
 3. Commit to the review and comment resolution process;
 4. Involve key stakeholders, including end-users, early in the design process; and
 5. Have a clear process for design acceptance.
- b. **Design Commitment.** The Design-Builder should ensure that iterative design advancement and formal design commitment processes are clearly, thoroughly and contemporaneously documented. There must be a clear and mutual understanding as to how and when the Owner is integrated into the decision-making process for incremental design commitment, such that:

1. The Design Professional(s)-of-Record confirms that the Contract Documents conform with the Owner's project criteria and the design meets all applicable codes and standards;
 2. The design-build team collectively confirms and agrees the design to be within budget and attainable on schedule, within the standard of care; and
 3. The Owner is then engaged for review of Design Submissions and Construction Documents to affirm compliance.
- c. **Submittal Review.** The Owner and Design-Builder should agree upon clear, realistic and expeditious submittal and review/approval processes that are in harmony with the parties' schedule and other project-specific goals. Technical submittal review processes should recognize the Design-Builder's primary responsibility for both quality assurance and quality control (QA/QC) and the Owner's responsibility for compliance oversight.
- d. **Trend Management.** The Design-Builder and its team should establish a formal system from the outset of the design-build process to:
1. Identify, track, evaluate, document and manage the evolution of the advancement of the design so that the project schedule or cost are not adversely impacted;
 2. Clearly, thoroughly, transparently and contemporaneously communicate to the Owner the information derived from the system; and
 3. Maintain the system for the entire duration of the project.

5 | Commissioning and Turnover

The Owner and Design-Builder, from the outset of the project, should establish a collaborative/integrated plan for commissioning, completion and turnover of the project.

IMPLEMENTING TECHNIQUES:

- a. **Roles and Responsibilities.** Identify each party's roles and responsibilities, including third-party commissioning agents where appropriate.
- b. **Engaging Stakeholders.** Engage end users and other stakeholders in identifying:
 1. Operational parameters that will drive programming of project systems (e.g., temperature controls, safety, security, traffic management, etc.) during commissioning; and
 2. Need for training, attic stock, spare parts, O&M manuals, record documents, etc.
- c. **Testing and Substantiation.** Schedule testing and substantiation of installed systems, particularly where performance guarantees are part of the contract.
- d. **Conditions of Acceptance.** Clearly define conditions of acceptance of completed work.
- e. **Completion and Turnover.** Establish processes for Substantial Completion and Final Completion of the project.

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