



WATER DESIGN-BUILD COUNCIL
AN ASSOCIATION OF LEADING DESIGN BUILDERS

RECOMMENDED BEST PRACTICES in the Use of Design-Build Delivery for Water Infrastructure Projects

These “Recommended Guidelines for Best Practices,” produced by the Water Design-Build Council, summarize the directions provided in the 3rd Edition of the *Municipal Water and Wastewater Design-Build Handbook*. The goal of these practices is to guide Owners and industry members with the steps needed to prepare for, procure and manage a collaborative delivery model for water and wastewater projects.

Preparing for a Water Design-Build Project

1. An initial project delivery and management plan, produced during the planning phase, needs to define the scope of work, required treatment processes and performance capabilities, as well as the functional requirements of all facilities.
2. As early as possible (preferably in the project’s initial phase) take any steps necessary to secure land-related transactions.
3. Initiate an internal education process about design-build delivery with the various stakeholders who will become the project team, and include legal and procurement decision-makers; project managers, administration, operations and maintenance staff.
4. Ensure that key operations and maintenance staff are part of the project team from the inception, so that input into the design process occurs to enhance the successful operability of the completed project.
5. Conduct a project team meeting to discuss the project’s parameters and identify the critical factors (drivers) required to make the project a success. Project drivers are the agreed to project goals and priorities, which become the criteria used to select the design-build delivery method best suited for the project.
6. Make sure that all project team members participate in evaluating the available design-build delivery methods against the weighted/ranked project drivers.
7. Recognize that making changes to the site or facility layout later in the project plan could result in serious design and cost ramifications, particularly with respect to geotechnical and foundation design considerations.
8. Care should be taken during the development of the RFP document to specifically identify those areas of the wastewater or water treatment project for which LEED certification may be desired.
9. Due to the dynamic nature of the surety industry, the subject of sureties should be approached early in the RFP process through the selected short list of proposers.
10. If considering “outside” support of an “Owners Advisor,” use only firms or individuals with specific and previous experience in design-build projects and procurement.
11. Clearly define the “Owners Advisor’s” role, responsibilities and interaction among all parties involved in the design-build project, (e.g., interacting with design-build firm, monitoring the firm’s performance, approving invoices, and, objectively facilitating the resolution of issues that may occur during the course of the project).
12. CMAR delivery requires more owner planning prior to selection of the designer and the CMAR firm.

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Conducting the Procurement Process

1. All members of the project team should be in agreement with the evaluation criteria to select the design-build firm, and participate in the interview/selection process.
2. The RFP should clearly define the criteria to be used to select a design-build firm and include a draft contract for review and consideration of risk issues to be managed by both parties.
3. Integrate into the draft contract equitable adjustments that may result from impacts due to extreme or unusual weather conditions within the project plan.
4. Contracts between parties should allow the design-build firm to recover any schedule or cost impacts associated with permitting delays, new permit conditions, or permit denial.
5. To address the variability of state laws and assure that limitations of liability are fully effective, include (in the contract): "Limitations of and releases from liability set forth herein shall apply whether the liability is claimed to arise in contract, tort (including but not limited to negligence), strict liability, or otherwise.
6. The RFP should include detailed, accurate, complete, and reliable input specifications for plant influent.
7. To avoid excessive contingency amounts in a respondent's cost proposals, or non-predicted and uncontrollable circumstances, include in the RFP and contract a specific clause for reimbursement of the design-build firm, and an adjustment for schedule and cost impacts that could not be avoided by the exercise of reasonable care.
8. Conducting a pre-submittal meeting enables potential respondents to seek clarification on the project, the identified budget, the RFP/RFQ, and design-build selection process.
9. A stipend provided to the short-listed teams participating in the RFP/RFQ process, and who do not win the project, not only helps to help defray the cost of the pursuit, but also attracts the best design-build teams to the proposal process.
10. Another option is to conduct "confidential" sessions with short-listed respondents to answer questions and clarify technical aspects of the project before the final proposal submission.
11. When uncertainties about site conditions and soil or subsurface conditions exist, consider having the design-build firm conduct a detailed site and subsurface survey as a work scope item after the contract is awarded and before the final price is determined.
12. Including in a "guaranteed maximum price" (GMP) procurement, the sharing of cost savings (under-runs) with the design-build firm creates a positive incentive to meet project objectives at least cost; also, consideration of a completion bonus for early delivery and to mitigate liquidated damages for late delivery.
13. Engaging in an "open-book" approach with the selected design-build firm enables a transparent access to project costs to occur, and quality considerations to be factored into the subcontractors and vendors selection process.
14. Obtaining a clear understanding and agreement that the designated design-build manager(s) are committed for the duration of the project is essential.
15. To mitigate design risk associated with constructability, contract early in the design development process with the CMAR firm (no later than at 30% design completion).

Managing the Design-Build Contract

1. In any design-build project, the roles and responsibilities that team members assume during each critical phase of the project should be clearly defined.
2. Integrate into the project plan, a process for the endorsement of external stakeholders who are both affected by, and oppose the project.
3. Making a commitment to a collaborative relationship with the design-build firm works to ensure that the contract proceeds efficiently and transitions go smoothly.
4. Owners and design-builders both benefit when implementation of the project is supported by a process designed to promote a timely, cost effective, and amicable resolution of any disputes that might arise.
5. The collaborative relationship is further reinforced with an initial kick-off workshop and/or formal project chartering session that aligns the owner and design-builder expectations with implementation requirements.
6. Input from the selected design-build firm for the final project delivery and management plan are a valuable component to successful implementation,
7. To maintain synergy among the respective teams and early resolution of disputes, maintain all day-to-day decisions at the Project Manager level.
8. During the execution of a project, owner-directed changes are accommodated much more economically through an early decision-making process.

For additional guidance, refer to the WDBC "Best Practices Guidelines on Using the Project Schedule as a Management Tool."