Chapter 110

Design-Build Projects

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Exhibit 110-1 Design Documentation Sequence for a Typical Design-Build Project

110.01 General

This chapter emphasizes that the *Design Manual* applies to the delivery methods of all Washington State Department of Transportation (WSDOT) capital projects, including design-build projects. Certain terms are defined to coincide with WSDOT design-build project delivery; however, it is beyond the scope of this manual to extensively define design-build projects. Design-build projects are based on their own contractual documents (such as a Request for Proposal), which present directive language intended to legally define the project and identify requirements and controls, roles and responsibilities, and procedures and outcomes. See WSDOT Design-Build Manual M3126.06 for processes and procedures for procuring design-build contracts. www.wsdot.wa.gov/projects/delivery/designbuild/

Design-build is a method of project delivery in which WSDOT executes a single contract with one entity (the design-builder) for design and construction services to provide a finished product. In a traditional WSDOT design-bid-build contract, the design process is completed independent of the construction contract. Under WSDOT policy, the Basis of Design (see Chapter 1100 and Chapter 300) is approved prior to issuing an RFP.

Delivering a project using design-build contracting eliminates *very few steps* when compared to the typical WSDOT design-bid-build process. The same project work tasks and products are normally required whether performed by WSDOT or the design-builder. The timing, order, and level of task detail performed are what make design-build contracting different than design-bid-build. The design-build process may shift many tasks and responsibilities from WSDOT to the design-builder depending on the project's scope/risk analysis. The shift changes the order and development detail of the tasks and thus must be reflected in the process through contractual documents.

According to state law, preservation projects with an overall project cost of \$10 million and over, and all other projects with an overall project cost of \$2 million and over, are required to go through the Project Delivery Method Selection process (see Section 300.02(1) Project Delivery Method).

110.02 Terminology and Language Used

110.02(1) Application of Terminology

Several terms are encountered throughout the *Design Manual* that are not normally applicable to design-build project delivery. They are expanded in this chapter to provide appropriate meaning for design-build projects and design-build personnel. It is intended that design-build personnel acknowledge these expanded meanings and apply them throughout the manual, which will eliminate the need to restate them each time they are encountered.

design-builder The firm, partnership, joint venture, or organization that contracts with WSDOT to perform the work.

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designer This term applies to WSDOT design personnel. Wherever "designer" appears in this manual, design-build personnel shall deem it to mean: Engineer of Record, Design Quality Assurance Manager, design-builder, or any other term used in the design-build contract to indicate design-build personnel responsible for the design elements of a design-build project, depending on the context of information being conveyed.

Project Engineer This term applies to WSDOT personnel. Wherever "Project Engineer" appears in this manual, the design-builder shall deem it to mean "Engineer of Record."

Request for Proposal (RFP) The document package issued by WSDOT requesting submittal of proposals for the project and providing information relevant to the preparation and submittal of proposals, including the instructions to proposers, contract documents, bidding procedures, and reference documents.

Additional information about RFP is found in Section 5-8 of the Design-Build Manual.

110.02(2) Language Used for Design Flexibility

The *Design Manual* is primarily written for WSDOT engineering personnel; however, design-builders, local agencies, and developers also use it for state and local agency projects. Under WSDOT practical design, flexibility is encouraged to develop independent designs tailored to context and identified performance need. (See chapters in the 1100 series for more information about practical design policy and guidance.)

With the exclusion of this chapter, the *Design Manual* is intentionally written to avoid or minimize the use of directive words like "shall" and "should" in order to retain this important flexibility for the larger set of users.

In the case of design-build projects, design flexibility applies to the extent allowed by the contract. The design-builder shall refer to the project-specific RFP for design guidance. The RFP will identify design decisions and provide technical specifications relating to the project's design.

110.03 Design and Documentation Responsibility

In the traditional design-bid-build format, WSDOT bears the entire responsibility and risk for any design-related issues. As the owner, all responsibility for design decisions and conformance to standards rests with WSDOT.

For design-build projects, many design responsibilities shift to the design-builder once the Notice to Proceed is issued. WSDOT is still responsible for establishing the scope, performance measurements, and existing conditions of the site as part of preliminary design. Any preliminary design done by WSDOT would be filed and documented in the Design Documentation Package (DDP) and/or the Project File (PF), which are provided to the selected design-builder to maintain throughout the design-build project design phase and then returned to WSDOT for retention.

It is important to note that the design content presented in this manual has valid application based not on delivery method, but on practical design procedures and specified needs such as roadway and land use context, traffic volumes, and identified performance needs, as presented in Chapter 1100 (and other chapters).

It is also important to specify that design documentation is a requirement for WSDOT projects, regardless of delivery method. WSDOT still holds the valid requirement to have an organized design documentation file and as-constructed plans for future reference after the project is built.

Plan accuracy, conformance with established design guidelines, and constructability of the project rests with the design-builder.

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The DDP and the PF include all the elements identified in the project RFP. The RFP specifies various DDP and PF submittals to WSDOT, identifying how each item will be submitted (report, plan sheet element, Basis of Design and design parameter element, and so on) and who is responsible for the development status (such as *complete, in progress,* or *not started*) of each item. The RFP also indicates that some of the DDP and PF items have components that were started by WSDOT and that the design-builder shall complete or update those item(s). It is the design-builder's responsibility to obtain copies of the information from WSDOT for use in completing the DDP and PF items.

The DDP and the PF require retention of original, signed documents—not copies.

The RFP typically specifies that the design-builder shall provide WSDOT with updates to the DDP and PF items throughout construction of the project.

For further guidance on design documentation and WSDOT acceptance thereof, see Chapter 300, the project RFP, and the Design Documentation Checklist.

110.04 References

110.04(1) Design-Build Manual

The Design-Build Manual is available at: Design-Build Manual | Manuals | WSDOT (wa.gov)

Design-Builder Delivers Completed Documentation WSDOT Begins Project Design Documentation Package to WSDOT Documentation Handoff to Design-Builder Design Documentation Package Project Development Project Ad Approval Project Award Design-Build Project Design RFP Development Ad Period Package 1 Preliminary Design Submittal Design Approval Final Design Submittal Design Submittals are released in packages by the Design-Builder to WSDOT Released for Construction Submittal **Project Scoping** Package 2 Preliminary Design Submittal Final Design Submittal Released for Construction Submittal Package n Preliminary Design Submittal Final Design Submittal Released for Construction Submitta Project Completion Construction

Exhibit 110-1 Design Documentation Sequence for a Typical Design-Build Project

Notes:

The Design Documentation Package (DDP) is started by WSDOT during scoping/pre-RFP design. The design-builder completes the DDP as the project proceeds.

The design-builder shall refer to the RFP for specific review and approval processes. The RFP will specify procedures for design submittals, including notifications to WSDOT and the time allowed for reviews.

WSDOT will review design submittals for conformance with requirements of the contract.

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