

FS2-Volume IV Technical Details and Forms A. General Design and Construction Requirements – 1. OPR

July 1, 2016

1. Owner's Project Requirements (OPR) Guidelines

1.1 Introduction

The OPR forms the foundation for the design, construction, occupancy and operation of the facility. Additionally, it precedes and is the reference document for the Basis of Design (BOD) and the Commissioning Plan (Cx) as well as serving as a reference for the project work-plan, procurement strategy, and project budget. The OPR is a document that is revised throughout each project with the FS Project Charter is the first step in defining the information that will become the OPR. Once a project team is assembled the initial OPR is to be developed by the consultant and serve as the primary tool for benchmarking success, scope and quality at all phases of project delivery and throughout the life of the facility. The OPR will, therefore, be updated throughout the project to reflect the approved changes to the University's project requirements. After the initial OPR is written by the consultant, further revisions will be made by the consultant at the Project Manager's discretion and approval.

The consultant shall provide the Basis of Design (BOD) which is to be an inclusive, detailed description of the consultant's concepts, assumptions, calculations, decisions, product selections and operating conditions to meet the University's project requirements and to satisfy codes, Facility Standards (FS2) and industry standards. It shall be formatted to coordinate with and respond to the OPR.

As decisions are made during the Design, Construction, Occupancy and Operations reviews the OPR document shall be updated to reflect the current project requirements of the Owner.

The frequency of OPR updates and its formulation is tied to the project delivery methodology.

1.2 The OPR will:

- 1.2.1 Engage FS staff (Operations, Energy & Utilities, Sustainability, Planning + Design, Capital Project Delivery) and the Commissioning Team during Pre-Design, to facilitate development and documentation of the OPR.
- 1.2.2 List and define refined performance criteria for the specific project. It will define the standards and expectations on the project's scope, define the aesthetic exterior and interior goals of the project, material durability, life cycle expectations, program and staffing objectives including primary adjacencies, and include the fundamental user needs in the project such as temperature/humidity ranges, lighting levels, sound transmission and reverberation levels.
- 1.2.3 List and define the systems and assemblies to be commissioned. The systems and assemblies being commissioned shall have defined performance and acceptance criteria.



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- 1.2.4 List building and site flexibility and expandability requirements (spare capacities, survivability, reliability, redundancy, back-up power, utilities, etc.)
- 1.2.5 Document operational assumptions (maximum occupancy on a room-by-room and aggregate basis), occupancy schedules, special activities, building diversity, potential future uses, etc.
- 1.2.6 Detail building energy performance expectations.
- 1.2.7 Detail building envelope performance criteria.
- 1.2.8 List indoor services and technology requirements (clean room and bio-safety lab classifications, furniture, marker boards, process water, gases, communications, data, security, access control, A/V, etc.)
- 1.2.9 List architectural, mechanical and electrical systems operation and maintenance expectations.
- 1.2.10 List Owner-Furnished and Installed equipment.
- 1.2.11 Summarize occupant and Maintenance training requirements.
- 1.2.12 Detail the Project Schedule.
- 1.2.13 Detail the Project budget.
- 1.2.14 Include impacts from the University Master Plan guidance and their implication on the specific project. (University Master Plan, Landscape Master Plan, Utility Master Plan, campus sub-region planning)
- 1.2.15 Include any special indoor environment requirements, including any temperature, humidity, requirements of radiant surfaces, ventilation, and other elements of human comfort or program requirements.
- 1.2.16 Include Commissioning Cx process scope, testing requirements and verification.
- 1.2.17 List any special equipment including any assembly requirements and special warranty provisions.
- 1.2.18 Describe any special maintenance, access or performance requirements.
- 1.2.19 Require consultant to list all applicable codes and standards applicable to this project.
- 1.2.20 Define the overall project schedule and any special phasing required.
- 1.2.21 The OPR shall be included in the Contract Documents
- 1.2.22 Provide OPR updates throughout the project and Cx process to reflect changes necessitated by the owner, client, designers, and construction team decisions, issues resolutions, and/or operational decisions. In some instances it will be the BOD which is revised with concurrence by the Owner.

1.3 Acceptance

The OPR shall be formally accepted by the University's Project Manager during Predesign. Updates to the OPR made during subsequent project activities shall also be formally approved by the Project Manager.