



AIA Best Practices: Schematic design phase quality management

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Summary

A checklist can assist project teams in meeting their schematic design obligations. In developing a checklist for general applicability, it is necessary to decide upon some frame of reference; this checklist assumes a medium to large commercial project. The checklist could be trimmed for smaller projects, expanded for larger ones, and revised to be applicable to particular building types or specific projects.

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General objectives of phase

Setting general objectives is a critical first step in schematic design. The starting point is the contract; refer to AIA B101-2007, the [Standard Form of Agreement Between Owner and Architect](#), for general requirements, and to the specifics of the project agreement, whether executed or still in negotiation. The general objectives should be clear, concise and shared with the entire project team, including the client.

The architect and greater design team need to be aware of how a client intends to utilize schematic design documents. They may be part of approval processes conducted by a zoning, local planning commission or other regulatory body. The documents are also submitted for owner approval, which could extend to parties other than those generally representing the owner in routine communication, such as a board of directors or lending institutions. A client may be using the documents to confirm programming, issues of building performance, design concerns, addressing project construction costs, project scheduling, project logistics, and other issues. Find out to be sure.

Phase task checklist

The body of the checklist is a more extensive tabulation of specific tasks organized under the following headings:

- Management/quality management/schedules
- Program/construction costs/regulatory requirements

- Performance criteria
- Civil/site design
- Design/architecture
- Structural
- MEP/FP
- Other consultants

These tasks are still somewhat general, and focused primarily on tracking the completeness or status of specific project-related tasks. This checklist is not sufficient to address very specific or technical tasks associated with a project. It is a tool primarily designed to assist the project manager or project architect and associated team members.

There are action items within the checklist suggesting a development of schematic design that is consistent with AIA B101-2007, but greater specificity is also associated with many action items. There are also action items that suggest a fairly high standard of quality and completeness; and it is possible that the checklist exceeds the scope of work defined in AIA B101- 2007. One example: The performance criteria section suggests that, within the schematic design documents, the design team provide performance criteria for the principal systems of the project; these can be narratives.

One of the Design/Architecture action items suggests that some representative portion of a plan be “graphically correct and coordinated with structural and MEP.” This task item is, primarily, a function of a development of the documents in an efficient manner and to address issues of quality management. A firm or project team can easily modify the standards set within this template to be consistent with the firm’s standard of practice and to address project specific requirements. These tasks are general and suggestive.

Deliverables for phase

It is often the case that clients do not have a sufficiently clear idea of what the schematic design documents will be until they are delivered. Architects are often in a similar position, not clearly knowing in advance what they will receive from their consultants. This is not an acceptable situation. To help avoid this, consider developing clearly stated deliverables after the schematic design phase starts that are consistent with the phase’s general objectives and the specific tasks established for the phase. This portion of the checklist should also be shared with the owner and the appropriate members of the design team so that the expectations are clearly articulated.

Conclusion

This quality management phase checklist is one in a series intended to address typical phases for medium to large projects. The checklists include:

- Pre-design services/site analysis (pending)
- [Schematic design](#)
- [Design development](#)
- Construction documents (pending)
- Bidding or negotiation (pending)
- Construction contract administration (pending)
- Post-construction administration (pending)

Each of these checklists are designed to be easily manageable in the length. As a result of this limitation, the checklists will not serve as detailed technical task checklists addressing the various details of the documents.

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About the contributor

Michael J. Lough, AIA, is a principal of Integral Consulting, a Quality Management and Technical Services consulting practice. The practice focuses on Peer Reviews, exterior envelope services and other technical services designed to assist firms and project teams in improving the successful implementation and execution of architectural projects. Clients include architects, owners, development management companies and contractors.

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This article corresponds to:

Architect's Handbook of Professional Practice, 15th edition Unit 1 - The Profession
 Chapter 12 – Quality Management
 Section 03 – Checklists