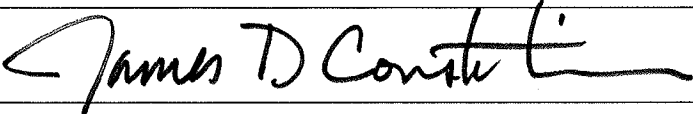




King County

Title Design Management	Document Code No. CON 7-14-1 (AEP)
Department/Issuing Agency DES /FBOD / Procurement and Contract Services	Date 2/19/14
Approved 	

- 1.0 SUBJECT TITLE: Design Management
 - 1.1 EFFECTIVE DATE: 10 days after signature by the Executive
 - 1.2 TYPE OF ACTION: Supersedes CON 7-14 (AEP) “Design Management” dated, October 1, 2000
- 2.0 PURPOSE: This policy provides the minimum guidelines for the County’s development of procedures for the management of in-house or consultant design services on CAPITAL PROJECTS. The procedures to implement these guidelines will be in the individual Implementing Agency (IA) Project Management Manual.
- 3.0 ORGANIZATIONS AFFECTED: All Executive Departments, Offices and Agencies.
- 4.0 REFERENCES:
 - 4.1 CON 7-5-2 (AEP) Contract Closeout.
 - 4.2 CON 7-7-1 (AEP) Procurement for Capital Projects.
 - 4.3 CON 7-8-2 (AEP) Change Order/ Amendment Administration.
 - 4.4 CON 7-9-2 (AEP) Capital Project Planning and Management.
 - 4.5 CON 7-10-2 (AEP) Project Control Officer.
 - 4.6 CON 7-13-1 (AEP) Introduction to Construction Management Policies and Procedures.
- 5.0 DEFINITIONS:
 - 5.1 “CONSTRUCTABILITY REVIEW” is a thorough review of the processes and sequence needed to construct the designed improvements before the design is finalized and the PROJECT bid. The purpose of this review is to identify inconsistencies, ambiguities, and errors in the plans and specifications, potential schedule delays, and cost overruns to the PROJECT.

- 5.2 “DESIGN CRITERIA” is the assembly of specific measurable standards or benchmarks used to ensure that the design meets the requirements of the IA.
- 5.3 “DESIGN REVIEW” is the review of the design, scope, and value of the PROJECT to be conducted at key milestones to ensure conformance with the DESIGN CRITERIA and ensure the PROJECT can be completed within budget.
- 5.4 “DESIGN SERVICES” shall include architectural, engineering and PROFESSIONAL SERVICES provided by in-house staff or by consultants.
- 5.5 See CON 7-13-1 (AEP) Appendix A “P&P Defined Terminology.” All words that appear in CAPS are defined terms that are found in the Defined Terminology Appendix or in this section.

6.0 POLICIES:

- 6.1 All IA Project Management Manuals shall include the following minimum guidelines for management of DESIGN SERVICES on CAPITAL PROJECTs.
- 6.2 The IA shall establish procedures for the following PROJECT development and design phases. These phases are defined in CON 7-13-1 (AEP) Appendix A “P&P Defined Terminology:
 - a. PLANNING PHASE
 - b. PRELIMINARY DESIGN PHASE
 - c. FINAL DESIGN PHASE
 - d. IMPLEMENTATION PHASE
 - e. CLOSEOUT PHASE
 - f. ACQUISITION PHASE
- 6.3 The IA shall also develop procedures for the following items:
 - a. Establishment and documentation of DESIGN CRITERIA to include input from stakeholders, end users and regulatory agencies. This normally occurs during the PRELIMINARY DESIGN PHASE.
 - b. Establishment of a schedule for development of the design and for DESIGN REVIEW.
 - c. Establishment of the BASELINE cost estimate for the completion of the design.
 - d. Establishment of the BASELINE cost estimate for the implementation of the design.
 - e. Establishment of a process for DESIGN REVIEW in accordance with the DESIGN REVIEW schedule.

- i. Establishment of the DESIGN REVIEW team
 - ii. DESIGN REVIEW team shall review the design against the established DESIGN CRITERIA and document the results of the review. The documented review should include comments regarding the compliance with the DESIGN CRITERIA.
- f. Establishment of requirements for CONSTRUCTABILITY REVIEWS prior to completion of construction drawings. Including an ESTIMATE review and if required a reconciliation of PROJECT scope, schedule and budget.

6.4 The IA shall evaluate the need for utilizing value engineering on an individual PROJECT basis. Techniques utilized shall be consistent with best industry practices to maintain the highest available quality commensurate with the program requirements and the PROJECT budget.

7.0 PROCEDURES:

Action By: Implementing Agency

- 7.1 IA's Project Management Manual shall provide detailed guidelines for the management of the design of CAPITAL PROJECTS, including the PLANNING, PRELIMINARY DESIGN, FINAL DESIGN, IMPLEMENTATION, CLOSEOUT, and ACQUISITION phases of each PROJECT.
- 7.2 At a minimum, the IA's Project Management Manual shall include procedures to:
- 7.2.1 Ensure that cost ESTIMATES are prepared at appropriate PROJECT MILESTONES, as described in paragraph 6.3 of this policy.
- 7.2.2 Establish that the PROJECT can be constructed within the construction dollars budgeted. ESTIMATES should include the implications that the following items, among others, may have on the PROJECT cost:
- A. Permitting
 - B. Site conditions
 - C. Geotechnical data
 - D. Seismic safety
 - E. Americans with Disabilities Act compliance
 - F. Environmental impacts
 - G. Zoning
 - H. All applicable codes, local and state ordinances
 - I. Coordination with utilities districts
 - J. Record drawings
 - K. Life cycle cost analysis
 - L. Specifications for County furnished equipment, etc.

7.2.3 If at any time the construction cost ESTIMATE exceeds the construction dollars budgeted in the PROJECT budget, the design shall either be value engineered and re-designed, including reducing scope, until the design is consistent with the construction budget, or the budget shall be adjusted. The PROJECT MANAGER shall document supporting justification if the construction budget is increased.

Action By: DESIGN REVIEW team

7.3 Ensure that all DESIGN CRITERIA are documented and properly reflected in the design.

7.4 Ensure that DESIGN REVIEWS are conducted at appropriate PROJECT MILESTONES or intervals, as follows:

7.4.1 Procedures for conducting reviews, including determination of the scope of each review, organization and makeup of the review team, and documentation of the results of the review. Review documentation should include the critical comments received, the disposition of the comments, and the responsibility for the resolution of the comments by the consultant or in-house design staff.

7.4.2 All important exceptions noted by the review team should be addressed or corrected before additional design work is undertaken.

7.4.3 DESIGN REVIEW teams should include representation from the PROJECT MANAGER, the maintenance and operations function, the end user, and other individuals deemed necessary by the IA s full DESIGN REVIEW team members.

7.5 Ensure adherence to all procedures described in the IA's Project Management Manual applicable to the PROJECT.

8.0 RESPONSIBILITIES:

8.1 The PROJECT MANAGER in charge of the subject PROJECT shall be responsible to oversee the successful completion of the design management activities described in this policy.

9.0 APPENDICES: None