

600 - Phase C Intermediate Review Checklist for the Architect-Engineer

This checklist is to be used by the Architect-Engineer during Phase C of the Project and shall be included in the Intermediate Review Phase C Submittal.

Note: If a Phase C Intermediate Review is not required by the Project Manager, the Phase C Intermediate Review Checklist shall become a part of the Phase C Final Checklist.

Project Administration:

- | Yes | No | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Approval: Phase C authorization has been received from Project Manager. |
| <input type="checkbox"/> | <input type="checkbox"/> | Review: Requirements in Chapter 6 - Phase C Final Design, and Chapter 7 - Bidding and Negotiations, of the Capital Construction Project Procedures Manual have been reviewed. |
| <input type="checkbox"/> | <input type="checkbox"/> | Pre-Design, Phase A and Phase B Checklists: The Architect-Engineer has reviewed the Pre-Design, Phase A and Phase B Checklists. All carry forward items remaining from those checklists have been incorporated in the Phase C submittal. These have been discussed at the review meeting. |
| <input type="checkbox"/> | <input type="checkbox"/> | Project Directory: The Project Directory has been updated. |
| <input type="checkbox"/> | <input type="checkbox"/> | Design Review Meetings: The Architect-Engineer has scheduled, conducted and documented Phase C Final Design Review Meetings with the Owner, Using Agency and Design Team. |
| <input type="checkbox"/> | <input type="checkbox"/> | Commissioning Team Meetings: The Commissioning Authority has scheduled, conducted and documented Phase C Commissioning Team Meetings. |
| <input type="checkbox"/> | <input type="checkbox"/> | Value Engineering: The Architect-Engineer has considered value engineering options continuously during construction documents phase. |

Intermediate Phase C Submittal: The Architect-Engineer has included the following information:

- | Yes | No | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Special Conditions - See Section 608.8 |
| <input type="checkbox"/> | <input type="checkbox"/> | Drawings developed to approximately 75% completion |
| <input type="checkbox"/> | <input type="checkbox"/> | Unit Prices - See Section 607.3 |
| <input type="checkbox"/> | <input type="checkbox"/> | Materials List- See Section 608.7 |
| <input type="checkbox"/> | <input type="checkbox"/> | Subcontractors list- See Section 608.7 |
| <input type="checkbox"/> | <input type="checkbox"/> | Alternates- See Section 607.1 |
| <input type="checkbox"/> | <input type="checkbox"/> | Allowances- See Section 607.2 |
| <input type="checkbox"/> | <input type="checkbox"/> | LEED Score Sheet |
| <input type="checkbox"/> | <input type="checkbox"/> | Updated Phase C Estimate of Construction Cost – See Section 611 including the schedule and Space Study Statement. |

Division 020000 - Site

- | Yes | No | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Hazardous Materials Surveys/Abatement - See Sections 212 and 907.2 |
| <input type="checkbox"/> | <input type="checkbox"/> | Subsurface Investigations have been completed. See Section 211 |
| <input type="checkbox"/> | <input type="checkbox"/> | Potential for Human Remains has been assessed. See Section 223 |
| <input type="checkbox"/> | <input type="checkbox"/> | Final Storm Water Pollution Prevention Plan (SWPPP) – Required when Project is 1 acre or more. See Section 220 |

Environmental Permits required but not complete: Provide current status:

- | Yes | No | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | 404 US Army Corps of Engineers Permit: |
| <input type="checkbox"/> | <input type="checkbox"/> | Stream Mitigation |
| <input type="checkbox"/> | <input type="checkbox"/> | Wetlands Mitigation |
| <input type="checkbox"/> | <input type="checkbox"/> | Water Quality Certification (WQC) |
| <input type="checkbox"/> | <input type="checkbox"/> | Floodplain Mitigation |
| <input type="checkbox"/> | <input type="checkbox"/> | Cultural (Archeological) Analysis |
| <input type="checkbox"/> | <input type="checkbox"/> | Air Pollution Permits – Coal Burning Facility |
| <input type="checkbox"/> | <input type="checkbox"/> | Air Space Encroachment – FAA Permits - building on or in the vicinity of an airport |

Utility Investigations: (If required and not complete - provide status.)

- | Yes | No | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Sewer (Division of Water) – adequate capacity and acceptance? |
| <input type="checkbox"/> | <input type="checkbox"/> | Water (Division of Water) – adequate supply, pressure and acceptance of Facilities Services? |
| <input type="checkbox"/> | <input type="checkbox"/> | Has a flow test been performed? |
| <input type="checkbox"/> | <input type="checkbox"/> | Electricity – coordination with local utility – is there adequate electrical supply? |
| <input type="checkbox"/> | <input type="checkbox"/> | Other utilities - is there adequate supply and availability? i.e., gas, communications, etc. |

Divisions 210000 through 280000: Verify the following information is included in the project.

Division 210000 Fire Suppression:

- | Yes | No | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Updated Systems Basis of Design Document |
| <input type="checkbox"/> | <input type="checkbox"/> | Updated Cost Projections |
| <input type="checkbox"/> | <input type="checkbox"/> | Distribution System Design Calculations |
| <input type="checkbox"/> | <input type="checkbox"/> | Distribution System Riser Diagrams |
| <input type="checkbox"/> | <input type="checkbox"/> | Pipe Sizes |
| <input type="checkbox"/> | <input type="checkbox"/> | Equipment Schedules |
| <input type="checkbox"/> | <input type="checkbox"/> | Flow Calculations |
| <input type="checkbox"/> | <input type="checkbox"/> | HVAC / Electrical / Systems Coordination Report |
| <input type="checkbox"/> | <input type="checkbox"/> | Schematics & Details |
| <input type="checkbox"/> | <input type="checkbox"/> | Final Commissioning Plan Approval |

Division 220000 Plumbing:

- | Yes | No | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Updated Systems Basis of Design Document |
| <input type="checkbox"/> | <input type="checkbox"/> | Updated Cost Projections |
| <input type="checkbox"/> | <input type="checkbox"/> | Distribution & Collection System Design Calculations |
| <input type="checkbox"/> | <input type="checkbox"/> | Distribution & Collection System Riser Diagrams |
| <input type="checkbox"/> | <input type="checkbox"/> | Pipe Sizes |
| <input type="checkbox"/> | <input type="checkbox"/> | Fixture & Equipment Schedules |
| <input type="checkbox"/> | <input type="checkbox"/> | Schematics & Details |
| <input type="checkbox"/> | <input type="checkbox"/> | Final Commissioning Plan Approval |

Division 230000 HVAC:

- | Yes | No | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Updated Systems Basis of Design Document |
| <input type="checkbox"/> | <input type="checkbox"/> | Updated Cost Projections |
| <input type="checkbox"/> | <input type="checkbox"/> | HVAC Systems Design Calculations |
| <input type="checkbox"/> | <input type="checkbox"/> | HVAC Systems Riser Diagrams / Elevations |
| <input type="checkbox"/> | <input type="checkbox"/> | Double Line Air Distribution Complete |
| <input type="checkbox"/> | <input type="checkbox"/> | Air Outlet & Inlet Device Placement Complete |
| <input type="checkbox"/> | <input type="checkbox"/> | Double Line Main Piping Complete |
| <input type="checkbox"/> | <input type="checkbox"/> | Branch Piping Complete |
| <input type="checkbox"/> | <input type="checkbox"/> | Locate Terminal Equipment & Devices |
| <input type="checkbox"/> | <input type="checkbox"/> | Equipment Schedules |
| <input type="checkbox"/> | <input type="checkbox"/> | Schematics & Details |
| <input type="checkbox"/> | <input type="checkbox"/> | HVAC / Electrical / Structural Coordination Report |
| <input type="checkbox"/> | <input type="checkbox"/> | HVAC / Electrical / Systems Coordination Report |
| <input type="checkbox"/> | <input type="checkbox"/> | Completed Functional Performance Test |

Division 250000 Integrated Automation:

- | Yes | No | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Updated Systems Basis of Design Document |
| <input type="checkbox"/> | <input type="checkbox"/> | Updated Cost Projections |
| <input type="checkbox"/> | <input type="checkbox"/> | Cable Schedule |
| <input type="checkbox"/> | <input type="checkbox"/> | Systems Architecture Riser Diagrams |
| <input type="checkbox"/> | <input type="checkbox"/> | HVAC / Electrical / Systems Coordination Report |
| <input type="checkbox"/> | <input type="checkbox"/> | Equipment / Installation Schematics & Details |
| <input type="checkbox"/> | <input type="checkbox"/> | Equipment Schedules |
| <input type="checkbox"/> | <input type="checkbox"/> | Integrated Specifications Final Draft |
| <input type="checkbox"/> | <input type="checkbox"/> | Final Commissioning Plan Approval |
| <input type="checkbox"/> | <input type="checkbox"/> | Completed Functional Performance Test |

Division 260000 Electrical:

- | Yes | No | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Updated Systems Basis of Design Document |
| <input type="checkbox"/> | <input type="checkbox"/> | Updated Cost Projections |
| <input type="checkbox"/> | <input type="checkbox"/> | Electrical Load Summary |
| <input type="checkbox"/> | <input type="checkbox"/> | Electrical Power Calculations |
| <input type="checkbox"/> | <input type="checkbox"/> | Panel Schedules |
| <input type="checkbox"/> | <input type="checkbox"/> | Lighting Design Calculations |
| <input type="checkbox"/> | <input type="checkbox"/> | Lighting Fixture Schedule |
| <input type="checkbox"/> | <input type="checkbox"/> | Lighting Control Diagrams |
| <input type="checkbox"/> | <input type="checkbox"/> | Lighting & Power Circuiting |
| <input type="checkbox"/> | <input type="checkbox"/> | Large Conduit Layout |
| <input type="checkbox"/> | <input type="checkbox"/> | Equipment / Installation Schematics & Details |
| <input type="checkbox"/> | <input type="checkbox"/> | Equipment Schedules |
| <input type="checkbox"/> | <input type="checkbox"/> | Coordinated Fixture / Switching Layout |
| <input type="checkbox"/> | <input type="checkbox"/> | Coordinated Power Receptacle Layout |

Division 260000 Electrical: (continued)

- | Yes | No | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | HVAC / Electrical / Structural Coordination Report |
| <input type="checkbox"/> | <input type="checkbox"/> | HVAC / Electrical / Systems Coordination Report |
| <input type="checkbox"/> | <input type="checkbox"/> | Integrated Specifications Final Draft |
| <input type="checkbox"/> | <input type="checkbox"/> | Final Commissioning Plan Approval |
| <input type="checkbox"/> | <input type="checkbox"/> | Completed Functional Performance Test |

Division 270000 Communications:

- | Yes | No | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Updated Systems Basis of Design Document |
| <input type="checkbox"/> | <input type="checkbox"/> | Updated Cost Projections |
| <input type="checkbox"/> | <input type="checkbox"/> | Cable Schedule |
| <input type="checkbox"/> | <input type="checkbox"/> | Backboard Layout |
| <input type="checkbox"/> | <input type="checkbox"/> | System Architecture Riser Diagram |
| <input type="checkbox"/> | <input type="checkbox"/> | Equipment / Installation Schematics & Details |
| <input type="checkbox"/> | <input type="checkbox"/> | Equipment Schedules |
| <input type="checkbox"/> | <input type="checkbox"/> | HVAC / Electrical / Systems Coordination Report |
| <input type="checkbox"/> | <input type="checkbox"/> | Final Commissioning Plan Approval |
| <input type="checkbox"/> | <input type="checkbox"/> | Completed Functional Performance Test |

Division 280000 Electronic Safety & Security

- | Yes | No | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Updated Systems Basis of Design Document |
| <input type="checkbox"/> | <input type="checkbox"/> | Updated Cost Projections |
| <input type="checkbox"/> | <input type="checkbox"/> | Systems Riser Diagrams |
| <input type="checkbox"/> | <input type="checkbox"/> | Equipment / Installation Schematics & Details |
| <input type="checkbox"/> | <input type="checkbox"/> | Equipment Schedules |
| <input type="checkbox"/> | <input type="checkbox"/> | HVAC / Electrical / Systems Coordination Report |
| <input type="checkbox"/> | <input type="checkbox"/> | Integrated Specifications Final Draft |
| <input type="checkbox"/> | <input type="checkbox"/> | Completed Functional Performance Test |

Division 019113 Commissioning Authority

- | Yes | No | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Updated Owner's Project Requirements & Manual |
| <input type="checkbox"/> | <input type="checkbox"/> | Updated Systems Basis of Design Documents |
| <input type="checkbox"/> | <input type="checkbox"/> | Integrated Specifications Final Draft |
| <input type="checkbox"/> | <input type="checkbox"/> | Functional Performance Test |
| <input type="checkbox"/> | <input type="checkbox"/> | Construction Forms & Checklists |
| <input type="checkbox"/> | <input type="checkbox"/> | Intermediate Design Review Report |
| <input type="checkbox"/> | <input type="checkbox"/> | Systems Manual Update |

End of Phase C Intermediate Review Checklist for the Architect-Engineer

600.1 – Phase C Final Review Checklist for the Architect-Engineer

This checklist is to be used by the Architect-Engineer during Phase C of the Project and shall be included in the Phase C Submittal.

Project Administration:

- | Complete | N/A | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Phase C Authorization: The Project Manager has issued authorization for Phase C. |
| <input type="checkbox"/> | <input type="checkbox"/> | Review: The requirements in Chapter 6 – Phase C Final Design, and Chapter 7 – Bidding and Negotiations, of the Capital Construction Project Procedures Manual have been reviewed. |
| <input type="checkbox"/> | <input type="checkbox"/> | Pre-Design, Phase A, Phase B and Intermediate Phase C Checklists: Each of the preceding checklists was reviewed. All carry forward any items remaining from those checklists have been addressed and discussed at the review meeting. |
| <input type="checkbox"/> | <input type="checkbox"/> | Project Directory: The Architect-Engineer has updated the Project Directory. |
| <input type="checkbox"/> | <input type="checkbox"/> | Review Meetings: The Architect-Engineer scheduled, conducted and documented Phase C Final Design Review Meetings with the Owner, Using Agency and Design Team. |
| <input type="checkbox"/> | <input type="checkbox"/> | Commissioning Team Meetings: The Commissioning Authority scheduled, conducted and documented Phase C Commissioning Team Meetings. |
| <input type="checkbox"/> | <input type="checkbox"/> | Unresolved Issues: Any unresolved, incomplete items or additional data received from Owner, Using Agency or consultants has been reviewed and incorporated into the Contract Documents. |
| <input type="checkbox"/> | <input type="checkbox"/> | Additional Meetings: The Architect-Engineer has conducted additional meetings as necessary to resolve coordination issues. |
| <input type="checkbox"/> | <input type="checkbox"/> | Coordination: The Architect-Engineer has coordinated the work of all team members, including consultants. |
| <input type="checkbox"/> | <input type="checkbox"/> | Phase C Construction Documents: The Phase C Construction Documents (approximately 100% complete documents) that adhere to the Owners Project Requirements, Project Program and construction budget have been developed. |
| <input type="checkbox"/> | <input type="checkbox"/> | Drawings: The drawings have been coordinated with the Project Manual. |
| <input type="checkbox"/> | <input type="checkbox"/> | Site Inspection: The Architect-Engineer has conducted a “plan-in-hand” site inspection to insure that final design accuracy reflects existing site conditions. |
| <input type="checkbox"/> | <input type="checkbox"/> | Special Conditions: See Section 608.8. |

Budget and Scheduling:

- | Complete | N/A | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Cost Estimate: Each consultant’s final construction cost estimate for their portion of the project has been obtained. |
| <input type="checkbox"/> | <input type="checkbox"/> | Phase C Estimate of Construction Cost: The Phase C Estimate of Construction Cost including the schedule and area calculations has been updated. The Owner has been advised of any significant changes to the estimate. |
| <input type="checkbox"/> | <input type="checkbox"/> | Owner Furnished Items: The Architect-Engineer has determined the Owner Furnished Items and those to be included in the contract. |

Aids to Advertising: See Section 608.7

- | Complete | N/A | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Front End Documents: The Project Manual front end documents have been obtained from CCPA. |
| <input type="checkbox"/> | <input type="checkbox"/> | Alternates, Allowances and Unit Prices: The alternates, allowances and unit prices to be used for the project, if applicable, have been identified. See Section 607. |
| <input type="checkbox"/> | <input type="checkbox"/> | Aids to Advertising: All Aids to Advertising have been submitted for review as listed in the Phase C Ready to Advertise Submittal in Section 608.7 of the Procedures Manual or the Intermediate Phase C Submittal in Section 606. |
| <input type="checkbox"/> | <input type="checkbox"/> | Single Source Procurements: The Architect-Engineer has obtained approval from CCPA for any single source procurements or restrictive specifications (i.e., less than 3 manufacturers) of materials or services. |
| <input type="checkbox"/> | <input type="checkbox"/> | Special Bidders: Projects requiring special bidder qualifications have been identified. |

Permits and Utilities: See Pre-Design Checklist - Section 200 and Regulatory Approvals - Section 609

- | Complete | N/A | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Federal Environmental Permits |
| <input type="checkbox"/> | <input type="checkbox"/> | State Environmental Permits |
| <input type="checkbox"/> | <input type="checkbox"/> | Utilities Acceptance |
| <input type="checkbox"/> | <input type="checkbox"/> | Department of Housing and Building Construction Submittal - including the fee calculation worksheet and energy workbook. Copy to Project Manager. |
| <input type="checkbox"/> | <input type="checkbox"/> | Submit Storm Water Pollution Prevention Plan - See Sections 220 and Sections 312500-1 through 312500-9 |
| <input type="checkbox"/> | <input type="checkbox"/> | Phase C documents – Submit to appropriate governing authorities for final approvals and permits. |
| <input type="checkbox"/> | <input type="checkbox"/> | Temporary Utilities - See Section 608.9 |

Commissioning:

- | Complete | N/A | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Pre-Submittal Meeting: The Commissioning Authority has scheduled, conducted and documented pre-submittal commissioning review and coordination meeting. |
| <input type="checkbox"/> | <input type="checkbox"/> | Phase D Commissioning Process Activities Schedule: The Commissioning Authority has developed Phase D Commissioning Process Activities schedule based upon revised Project Schedule. |

Phase C Submittal – Review Submittal: The Phase C Submittal shall contain: (See Section 608)

- | Complete | N/A | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Drawings: 100% Drawings in 24" x 36" bound format. Drawing sets shall include a cover sheet, original site survey (if provided), original geotechnical survey (if provided) and all necessary civil, landscape, structural, architectural, mechanical, plumbing, fire protection, electrical, communications and other drawings as necessary to completely describe and detail the project. Review Submittal drawings may be submitted as half-size prints upon approval of the Project Manager. |
| <input type="checkbox"/> | <input type="checkbox"/> | Specifications: 100% Specifications submitted on bound 8-1/2" x 11" double-sided hardcopy. |
| <input type="checkbox"/> | <input type="checkbox"/> | Construction Cost: Estimate of probable construction cost. Incorporate each consultant's estimate into the Phase C Estimate of Construction Cost. Provide additional sheets with detailed breakout of cost information as appropriate. |
| <input type="checkbox"/> | <input type="checkbox"/> | Project Schedule: Updated project schedule included in the Phase C Estimate of Construction Cost. |

Phase C Submittal – Review Submittal: (continued)

- | Complete | N/A | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Gross Area Calculations: Updated gross area calculations included in the Phase C Estimate of Construction Cost. |
| <input type="checkbox"/> | <input type="checkbox"/> | Phase C Commissioning Plan. |
| <input type="checkbox"/> | <input type="checkbox"/> | Phase C Review Submittal Checklist: Completed copy submitted. |
| <input type="checkbox"/> | <input type="checkbox"/> | Copies: Submit four sets (three hard copy and one electronic) of Phase C Review Submittal documents to Project Manager. |
| <input type="checkbox"/> | <input type="checkbox"/> | Documentation: Include Phase C Final Review Meeting comments, revisions and changes. Incorporate such comments, revisions and changes into Phase C Documents. |
| <input type="checkbox"/> | <input type="checkbox"/> | Rendering: Provide Project rendering as required in the Contract. |

Phase C Submittal – Ready-to-Advertise Submittal: See Section 608.5

The Ready-to-Advertise submittal represents corrected construction documents, including drawings and specifications incorporating comments from the Phase C Final Review. The Ready-to-Advertise documents shall be submitted ready for reproduction.

- | Complete | N/A | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Submit one set of Ready-to-Advertise drawings unbound on 24" x 36" paper or vellum sheets. |
| <input type="checkbox"/> | <input type="checkbox"/> | Submit one set of Ready-to-Advertise specification on a CD with all files in PDF format. |

Aids to Advertising: Submit as MS Word files so they can be edited by the Owner. Include the following:

- | Complete | N/A | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Project Manual Table of Contents |
| <input type="checkbox"/> | <input type="checkbox"/> | Description of Work |
| <input type="checkbox"/> | <input type="checkbox"/> | List of Drawings |
| <input type="checkbox"/> | <input type="checkbox"/> | List of Alternates |
| <input type="checkbox"/> | <input type="checkbox"/> | List of Unit Prices |
| <input type="checkbox"/> | <input type="checkbox"/> | List of Proposed Subcontractors |
| <input type="checkbox"/> | <input type="checkbox"/> | List of Proposed Materials and Equipment |
| <input type="checkbox"/> | <input type="checkbox"/> | List of Owner-Furnished Equipment |
| <input type="checkbox"/> | <input type="checkbox"/> | Special Conditions - See Section 608.8 |
| <input type="checkbox"/> | <input type="checkbox"/> | Final Phase C Estimate of Construction Cost (signed and dated) |
| <input type="checkbox"/> | <input type="checkbox"/> | Ready to Advertise Submittal Checklist (completed copy) |
| <input type="checkbox"/> | <input type="checkbox"/> | Phase C acceptance letter issued by Project Manager |

Divisions 210000 through 280000: Verify the following information is included in the project.

Division 210000 Fire Suppression

- | Complete | N/A | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Final Systems Basis of Design Document |
| <input type="checkbox"/> | <input type="checkbox"/> | Final Cost Projections |
| <input type="checkbox"/> | <input type="checkbox"/> | 100% Construction Documents |
| <input type="checkbox"/> | <input type="checkbox"/> | Contract Specifications |
| <input type="checkbox"/> | <input type="checkbox"/> | Pre-Bid Conference Agenda Items |
| <input type="checkbox"/> | <input type="checkbox"/> | Completed Permitting Forms |

Division 220000 Plumbing

- | | | |
|--------------------------|--------------------------|--|
| Complete | N/A | |
| <input type="checkbox"/> | <input type="checkbox"/> | Final Systems Basis of Design Document |
| <input type="checkbox"/> | <input type="checkbox"/> | Final Cost Projections |
| <input type="checkbox"/> | <input type="checkbox"/> | 100% Construction Documents |
| <input type="checkbox"/> | <input type="checkbox"/> | Contract Specifications |
| <input type="checkbox"/> | <input type="checkbox"/> | Pre-Bid Conference Agenda Items |
| <input type="checkbox"/> | <input type="checkbox"/> | Completed Permitting Forms |

Division 230000 HVAC

- | | | |
|--------------------------|--------------------------|--|
| Complete | N/A | |
| <input type="checkbox"/> | <input type="checkbox"/> | Final Systems Basis of Design Document |
| <input type="checkbox"/> | <input type="checkbox"/> | Final Cost Projections |
| <input type="checkbox"/> | <input type="checkbox"/> | 100% Construction Documents |
| <input type="checkbox"/> | <input type="checkbox"/> | Contract Specifications |
| <input type="checkbox"/> | <input type="checkbox"/> | Pre-Bid Conference Agenda Items |
| <input type="checkbox"/> | <input type="checkbox"/> | Completed Permitting Forms |

Division 250000 Integrated Automation

- | | | |
|--------------------------|--------------------------|--|
| Complete | N/A | |
| <input type="checkbox"/> | <input type="checkbox"/> | Final Systems Basis of Design Document |
| <input type="checkbox"/> | <input type="checkbox"/> | Final Cost Projections |
| <input type="checkbox"/> | <input type="checkbox"/> | 100% Construction Documents |
| <input type="checkbox"/> | <input type="checkbox"/> | Contract Specifications |
| <input type="checkbox"/> | <input type="checkbox"/> | Pre-Bid Conference Agenda Items |
| <input type="checkbox"/> | <input type="checkbox"/> | Completed Permitting Forms |

Division 260000 Electrical

- | | | |
|--------------------------|--------------------------|--|
| Complete | N/A | |
| <input type="checkbox"/> | <input type="checkbox"/> | Final Systems Basis of Design Document |
| <input type="checkbox"/> | <input type="checkbox"/> | Final Cost Projections |
| <input type="checkbox"/> | <input type="checkbox"/> | 100% Construction Documents |
| <input type="checkbox"/> | <input type="checkbox"/> | Contract Specifications |
| <input type="checkbox"/> | <input type="checkbox"/> | Pre-Bid Conference Agenda Items |
| <input type="checkbox"/> | <input type="checkbox"/> | Completed Permitting Forms |

Division 270000 Communications

- | | | |
|--------------------------|--------------------------|--|
| Complete | N/A | |
| <input type="checkbox"/> | <input type="checkbox"/> | Final Systems Basis of Design Document |
| <input type="checkbox"/> | <input type="checkbox"/> | Final Cost Projections |
| <input type="checkbox"/> | <input type="checkbox"/> | 100% Construction Documents |
| <input type="checkbox"/> | <input type="checkbox"/> | Contract Specifications |
| <input type="checkbox"/> | <input type="checkbox"/> | Pre-Bid Conference Agenda Items |
| <input type="checkbox"/> | <input type="checkbox"/> | Completed Permitting Forms |

Division 280000 Electronic Safety & Security

- | | | |
|--------------------------|--------------------------|--|
| Complete | N/A | |
| <input type="checkbox"/> | <input type="checkbox"/> | Final Systems Basis of Design Document |
| <input type="checkbox"/> | <input type="checkbox"/> | Final Cost Projections |
| <input type="checkbox"/> | <input type="checkbox"/> | 100% Construction Documents |
| <input type="checkbox"/> | <input type="checkbox"/> | Contract Specifications |
| <input type="checkbox"/> | <input type="checkbox"/> | Pre-Bid Conference Agenda Items |
| <input type="checkbox"/> | <input type="checkbox"/> | Completed Permitting Forms |

Division 019113 Commissioning Authority

- | | | |
|--------------------------|--------------------------|--|
| Complete | N/A | |
| <input type="checkbox"/> | <input type="checkbox"/> | Updated Owner's Project Requirements & Manual |
| <input type="checkbox"/> | <input type="checkbox"/> | Final Systems Basis of Design Documents |
| <input type="checkbox"/> | <input type="checkbox"/> | 100% Construction Documents |
| <input type="checkbox"/> | <input type="checkbox"/> | Contract Specifications |
| <input type="checkbox"/> | <input type="checkbox"/> | Intermediate Design Review Report |
| <input type="checkbox"/> | <input type="checkbox"/> | Pre-Bid Conference Agenda Items |
| <input type="checkbox"/> | <input type="checkbox"/> | Pre-Bid Conference Construction Phase Checklist Examples |
| <input type="checkbox"/> | <input type="checkbox"/> | Updated Commissioning Plan |
| <input type="checkbox"/> | <input type="checkbox"/> | Systems Manual Update |

End of Phase C Final Review Checklist for the Architect-Engineer

600.2 - Phase C Checklist for the Project Manager

This checklist is to be used by the Project Manager during Phase C of the Project.

Instructions: At the time of the Phase C submittal, the Project Manager will mark the box below indicating completion of each action in accordance with the requirements in the Procedures Manual (including applicable laws, regulations, and requirements) or that the action is not applicable to the Project.

Project Administration: The Project Manager has:

- | YES | N/A | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Authorization: Written Phase C authorization has been provided to the Architect-Engineer. |
| <input type="checkbox"/> | <input type="checkbox"/> | Review: The requirements in Chapter 6 - Phase C Final Design and Chapter 7 - Bidding and Negotiations, of the Capital Construction Project Procedures Manual have been reviewed. |
| <input type="checkbox"/> | <input type="checkbox"/> | Pre-Design, Phase A and Phase B Checklists: The Project Manager has reviewed the Pre-Design, Phase A and Phase B Checklists and noted carry forward items that must be addressed in Phase C of the Project. All carry forward items have been brought to the attention of the Architect-Engineer. |
| <input type="checkbox"/> | <input type="checkbox"/> | Unresolved Issues: Unresolved or incomplete issues from Phase B have been reviewed and discussed with the Architect-Engineer, Using Agency, and Owner. |
| <input type="checkbox"/> | <input type="checkbox"/> | Federal Funding: The status of permit review on projects with Federal funding has been identified. |
| <input type="checkbox"/> | <input type="checkbox"/> | Project Directory: An updated Project Directory has been received from the Architect-Engineer. |
| <input type="checkbox"/> | <input type="checkbox"/> | Project Program and Owner's Project Requirements: The revised Project Program and/or Owner's Project Requirements have been reviewed as appropriate and necessary. |
| <input type="checkbox"/> | <input type="checkbox"/> | Surveys: All final subsurface investigations and any other survey information has been provided to the Architect--Engineer. |
| <input type="checkbox"/> | <input type="checkbox"/> | Additional Data: All other data received from Owner, Using Agency or consultants has been reviewed. If necessary, additional data has been requested. |
| <input type="checkbox"/> | <input type="checkbox"/> | Pre-Submittal Meeting: The Project Manager has attended the pre-submittal commissioning review and coordination meeting. |
| <input type="checkbox"/> | <input type="checkbox"/> | Single Source Procurement: The Project Manager has authorized the use of any single source procurements or restrictive specifications (i.e., less than 3 manufacturers) of materials or services. |
| <input type="checkbox"/> | <input type="checkbox"/> | Total Estimate of Funds through Construction - has been completed. See Section 612. |

Phase B Review and Approval:

- | YES | N/A | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Review Meeting: The Project Manager and Architect-Engineer have scheduled the Phase C Review Meeting. |
| <input type="checkbox"/> | <input type="checkbox"/> | Completeness: The Project Manager has reviewed the Phase C Submittal and determined it to contain the components outlined in Section 600.1 or 600.2 Phase C Architect-Engineers Checklist and Section 605 Phase C Responsibilities of the Architect-Engineer. |
| <input type="checkbox"/> | <input type="checkbox"/> | Acceptance Letter: The Project Manager issues the Phase C acceptance letter. |

End of Phase C Checklist for the Project Manager

600.3 - Phase C Checklist for the Using Agency

This checklist is to be used by the Using Agency during Phase C of the Project.

Instructions: At the time of the Phase C submittal, the Using Agency representative will mark the box below indicating completion of each action in accordance with the requirements in the Procedures Manual (including applicable laws, regulations, and requirements) or that the action is not applicable to the Project.

Project Administration:

- | YES | N/A | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Review: The requirements in Chapter 6 - Phase C Final Design and Chapter 7 - Bidding and Negotiations, of the Capital Construction Project Procedures Manual have been reviewed. |
| <input type="checkbox"/> | <input type="checkbox"/> | Phase B Checklist: The Using Agency reviewed items remaining on the Phase B Checklist. |
| <input type="checkbox"/> | <input type="checkbox"/> | Unresolved Issues: Any unresolved or incomplete issues from Phase B were reviewed. |
| <input type="checkbox"/> | <input type="checkbox"/> | Meetings: The Using Agency has attended Phase C Progress and Design Review Meetings with Owner, Architect-Engineer and Design Team. |
| <input type="checkbox"/> | <input type="checkbox"/> | Commissioning Meetings: The Using Agency attended Phase C Commissioning Team Meetings. |

Project Development:

- | YES | N/A | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Project Program and/or Owner's Project Requirements: The Project Program and/or Owner's Project Requirements were reviewed as appropriate and necessary. |
| <input type="checkbox"/> | <input type="checkbox"/> | Verification: The Contract Documents have been verified and comply with the Project Program and/or Owner's Project Requirements. |
| <input type="checkbox"/> | <input type="checkbox"/> | Additional Data: All other data required from the Using Agency has been provided. |
| <input type="checkbox"/> | <input type="checkbox"/> | Commissioning Process: The Using Agency participated in the Commissioning Process. |

Final Budget, Area Calculations and Scheduling Deliverables:

- | YES | N/A | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Construction Cost Estimate: The Agency Representative approved and signed the Phase C Estimate of Construction Cost. This form includes cost scheduling and Space study information. See Section 611 Phase C Estimate of Construction Cost. |

Phase C Submittal Review and Approval:

- | YES | N/A | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Copies: A complete set of Phase C documents has been received. |
| <input type="checkbox"/> | <input type="checkbox"/> | Phase C Review Meeting: The Using Agency attended the Phase C Review Meeting. |
| <input type="checkbox"/> | <input type="checkbox"/> | Review: Comments, revisions and changes to Phase C Documents were reviewed. |
| <input type="checkbox"/> | <input type="checkbox"/> | Approval: The Using Agency approval was issued prior to the Phase C acceptance letter being issued by Project Manager. |

Projects Seeking LEED Certification:

- | YES | N/A | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Enhanced Commissioning: The Using Agency participated in the Commissioning Authority design development review process if <i>enhanced commissioning is used</i> . |
| <input type="checkbox"/> | <input type="checkbox"/> | LEED Credits: The Using Agency assisted the Architect-Engineer and the Project Manager in reviewing the LEED credits appropriate to the Project. |

End of Phase C Checklist for the Using Agency

600.4 – Phase C Checklist for the Commissioning Authority

This checklist is to be used by the Commissioning Authority during Phase C of the Project.

Instructions: The Commissioning Authority shall mark the appropriate check-off box below to indicate completion of each action in accordance with the requirements in the Procedures Manual (including applicable laws, regulations, and requirements) or that the action is not applicable to the Project.

Project Administration:

- | YES | N/A | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Review: The requirements in Chapter 6 - Phase C Final Design and Chapter 7 - Bidding and Negotiations, of the Capital Construction Project Procedures Manual have been reviewed. |
| <input type="checkbox"/> | <input type="checkbox"/> | Pre-Design, Phase A and Phase B Checklists: The Commissioning Authority reviewed the Pre-Design, Phase A and Phase B Checklists. The Architect-Engineer has been consulted to confirm that all items have been included or attached to the Phase C Checklist. |
| <input type="checkbox"/> | <input type="checkbox"/> | Unresolved Issues: All unresolved or incomplete issues have been reviewed. |
| <input type="checkbox"/> | <input type="checkbox"/> | Team Meetings: The Commissioning Authority scheduled, conducted and documented Phase C Commissioning Team Meetings. |
| <input type="checkbox"/> | <input type="checkbox"/> | Design Review Report: A pre-submission Design Review Report has been submitted to the Project Manager. |
| <input type="checkbox"/> | <input type="checkbox"/> | Pre-Submittal Review: The Phase C pre-submittal review has been scheduled and meetings have been coordinated. |
| <input type="checkbox"/> | <input type="checkbox"/> | Commissioning Plan: The Commissioning Authority prepared an updated Commissioning Plan for Phase C and provided it to the Project Manager and the Architect-Engineer. |
| <input type="checkbox"/> | <input type="checkbox"/> | Minutes of the Meetings: Minutes of Commissioning Process activities and decisions that alter the Owner's Project Requirements have been prepared and distributed to Commissioning Team members and attendees within five (5) workdays of event. |

Phase C Commissioning Submittals:

- | YES | N/A | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Functional Performance Tests: The Functional Performance Test criteria were defined for the Architect-Engineer. |
| <input type="checkbox"/> | <input type="checkbox"/> | Forms and Checklists: Outlines for Construction Phase Commissioning Forms and Checklists have been developed. |
| <input type="checkbox"/> | <input type="checkbox"/> | Owner's Project Requirements: Updated Owner's Project Requirements have been provided to the Architect-Engineer and Project Manager. |
| <input type="checkbox"/> | <input type="checkbox"/> | Systems Basis of Design Document: The changes, clarifications, and additions to the Systems Basis of Design Document have been reviewed for compliance with the Owner's Project Requirements and changes have been incorporated as approved by the Project Manager. |
| <input type="checkbox"/> | <input type="checkbox"/> | Design Schedule: The Architect-Engineer's changes to the Design Schedule have been incorporated into the Owner's Project Requirements. |
| <input type="checkbox"/> | <input type="checkbox"/> | Process Report: The Commissioning Authority has written the Commissioning Process Report for Phase C and distributed it to all Commissioning Team members. |
| <input type="checkbox"/> | <input type="checkbox"/> | Construction Forms and Checklists: An outline of Construction Forms & Checklists for use by the Architect-Engineer has been prepared. |
| <input type="checkbox"/> | <input type="checkbox"/> | Phase D Forms: The Phase D forms for commissioned systems have been developed. |
| <input type="checkbox"/> | <input type="checkbox"/> | Phase D Checklists: The Phase D checklists for commissioned systems have been developed. |

- Functional Performance Tests:** The functional performance tests for commissioned systems have been devised.
- Integration Plan:** A specification / Commissioning Integration Plan for use by the Architect-Engineer has been prepared.
- Systems Manual:** A Systems Manual Outline for use by the Architect-Engineer has been provided.
- Bid Documents:** The commissioning specifications have been integrated into the Bid Documents for distribution to potential bidders.

Commissioning Requirements: The Commissioning Authority has identified all Commissioning Requirements to the Architect-Engineer. These must be included in the Contract Documents. The information provided includes the following Divisions of Work:

- | YES | N/A | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Division 019113 - Commissioning |
| <input type="checkbox"/> | <input type="checkbox"/> | Division 210000 - Fire Suppression |
| <input type="checkbox"/> | <input type="checkbox"/> | Division 220000 - Plumbing |
| <input type="checkbox"/> | <input type="checkbox"/> | Division 230000 - HVAC |
| <input type="checkbox"/> | <input type="checkbox"/> | Division 250000 - Integrated Automation |
| <input type="checkbox"/> | <input type="checkbox"/> | Division 260000 - Electrical |
| <input type="checkbox"/> | <input type="checkbox"/> | Division 270000 - Communications |
| <input type="checkbox"/> | <input type="checkbox"/> | Division 280000 - Electronic Safety & Security |

Phase C Review and Approval:

- | YES | N/A | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Owner's Project Requirements: The Commissioning Authority shall review documents for satisfaction of the Owner's Project Requirements. |
| <input type="checkbox"/> | <input type="checkbox"/> | Commissioning Process: The Commissioning Authority shall review documents for completion of Commissioning Process activities for Phase C. |
| <input type="checkbox"/> | <input type="checkbox"/> | Acceptance: The Commissioning Authority shall recommend acceptance of the Phase C Submittal to the Using Agency and Owner. |

Projects Seeking LEED Certification:

- | YES | N/A | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | LEED Commissioning Credits: The Commissioning Authority shall provide the Commissioning Plan and appropriate information to the Architect-Engineer in order to comply with the LEED Commissioning credits. |
| <input type="checkbox"/> | <input type="checkbox"/> | Energy Model: The Commissioning Authority shall review the Energy Model to insure the required numbers of points for LEED Energy and Atmosphere Credit 1 are being met. |

End of Phase C Checklist for the Commissioning Authority

601 – Phase C Authorization

601.1 Approval: Phase “B” (design development) documents, including the Phase “B” cost estimate, must be accepted, approved, and signed by Using Agency and approved by CCPA. The Architect-Engineer will be notified in writing of these approvals by CCPA.

601.2 Authorization to Commence with Phase C: CCPA will issue a letter to the Architect-Engineer after approval of Phase “B” documents. No work shall be performed by any Architect-Engineer without this written authorization.

602 – Phase C Responsibilities of the Using Agency

602.1 During Phase C: The Using Agency shall:

- Participate in Phase C progress meetings and subsequent design review meetings.
- Provide additional information as needed or requested.
- Provide formal review, comment and approval of Phase C submittal.
- Participate in the Commissioning Process.
- For projects seeking LEED certification, the Using Agency shall assist the Architect-Engineer and the Project Manager in finalizing the LEED credits appropriate to the Project.

602.2 Site Access: The Using Agency shall provide specific site access information for construction purposes.

603 – Phase C Responsibilities of CCPA

603.1 Items Provided: During Phase C, CCPA will provide the Architect-Engineer the following:

- Phase C Authorization letter (if authorization was not previously incorporated into the Phase B approval letter).
- Instructions to Bidders and General Conditions.
- CCPA will prepare the following non-technical portion of the specifications (i.e., front-end specifications):
 - Project Manual Cover Sheet
 - Sealed Bid Form
 - Prevailing Wage Rates
 - General Conditions
 - Instructions to Bidders
 - Headers for unit prices, materials and subcontractors lists

603.2 Actions Taken: During Phase C of CCPA shall:

- Participate in Phase C progress meetings and subsequent design review meetings.
- Provide additional information as needed or requested.
- Provide formal review, comment and approval of Phase C submittal.
- Monitor Architect-Engineer performance to ensure adherence to Project budget, schedule and program.
- Complete the Total Estimate of Funds through Construction - **See Section 612**
- Advertise for bidding.
- Distribute Bid Documents.
- Issue Addenda.
- Receive, open and review Bids.
- Award Contract.

603.3 LEED: For projects seeking LEED Certification, CCPA shall:

- Provide the USGBC account number for submission for LEED Certification.
- Review the final contract documents and the final energy model with specific attention to the number of points pursued for the Energy and Atmosphere Credit 1
- Participate in the Commissioning Authority construction document design review process to be conducted prior to 50% construction documents or prior to the Phase C intermediate review if required.
- Review the LEED scoresheet for compliance with the appropriate LEED certification desired.

604 – Phase C Responsibilities of the Commissioning Authority

During Phase C the Commissioning Authority shall provide the following as minimum:

604.1 Owner's Project Requirements:

- Review changes, clarifications, and additions to Systems Basis of Design document for compliance with the Owner's Project Requirements
- Incorporate "approved" changes into the Owners Project Requirements
- Document changes inconsistent with the Owner's Project Requirements and report to the Project Manager for resolution.
- Incorporate Architect-Engineer updates to Cost Estimates into Owner's Project Requirements.

604.2 Schedule: Incorporate Architect-Engineer changes to the Design Schedule into the Owner's Project Requirements.

- Schedule and conduct Commissioning Team meetings
- Alter Commissioning Process activities as required by the revised schedule. Tentatively schedule Phase D Commissioning Process activities.
- Schedule Phase C intermediate and final document review and coordinate meetings.

604.3 Documentation: Prepare minutes of Commissioning Process activities and distribute to Commissioning Team members and attendees within five (5) workdays of event.

- Incorporate the updated Systems Basis of Design into the Owner's Project Requirements.
- Revise the Commissioning Plan to incorporate updates and changes to Project information.
- Integrate commissioning specifications into the Bid Documents for distribution to potential bidders.
- Create Phase D forms for commissioned systems.
- Create Phase D checklists for commissioned systems.
- Devise functional performance tests for commissioned systems.
- Update the Systems Manual.

604.4 Document Review: The Commissioning Authority shall conduct an intermediate and final review of Phase C Documents for:

- Satisfaction of the Owner's Project Requirements.
- Completion of Commissioning Process activities for Phase C.
- Final Energy Model.

604.5 Communication:

- Inform Commissioning Team members of decisions that alter the Owner's Project Requirements.
- Verify completion of Phase C deliverables checklist by each design discipline.

604.6 Phase D and Occupancy Phase Commissioning Process Procedures: The Commissioning Authority shall:

- Incorporate the Phase D and Occupancy Phase Commissioning Process procedures into the Commissioning Plan and Bid Documents.
- Assist the Owner in preparing requests for construction phase services by outlining Commissioning Process roles and responsibilities developed in the Commissioning Plan.
- Verify that the Commissioning Process is clearly defined in contractor's scope of work.
- Identify specialists, if required, to complete Phase D Commissioning Process activities for specific systems and assemblies.
- Develop sample forms, checklists, and test procedures for presentation at the Pre-Bid Conference.
- Develop a plan for off-seasonal testing procedures.
- Develop an outline of Owner training program requirements.
- Write intermediate and final Commissioning Process report for Phase C and distribute to all Commissioning Team members.

604.7 LEED: For projects seeking LEED certification, the Commissioning Authority shall provide the Commissioning Plan to the Architect-Engineer in order to comply with the LEED Commissioning credits.

604.8 Approval: The Commissioning Authority shall recommend acceptance of Phase C deliverables to the User Agency and Owner.

605 – Phase C Responsibilities of the Architect-Engineer

The Architect-Engineer shall provide the following as minimum services under Phase C:

605.1 Project Program and Administration: Phase C construction documents, including bidding and negotiations, represent 75% of the design contract. The Architect-Engineer shall:

- Not begin Phase C construction documents until formal approval of Phase B has been received from CCPA.
- Insure the Phase C documents adhere to the design and budget parameters established in Phase B.
- Continue development and expansion of Phase B documents into construction documents that establish in detail the requirements of the project.
- Meet with the assigned CCPA representatives and the appropriate Using Agency representative(s) as needed to fully detail and complete the construction documents.
- Involve and coordinate all design team sub-consultants throughout the Phase C construction documents process.
- Coordinate a plan-in-hand site inspection prior to the Phase C construction documents submittal to insure that the final design accurately reflects existing site conditions. Any changes in site conditions that have occurred during the design period shall be annotated and brought to the attention of the Project Manager for direction.
- Assist CCPA in bidding and contract award.
- Participate in the pre-bid conference, prepare addenda, attend the bid opening and participate in review and evaluation of bids.

605.2 Budget – Cost Estimate: The Architect-Engineer shall:

- Update the Cost Estimate on the Phase C Estimate of Construction Cost to reflect any adjustment in estimated construction cost made necessary by changes in project scope, requirements or general market conditions.
- Inform the Project Manager should the project begin to deviate from Phase B cost, area or budget parameters. The Architect-Engineer shall be prepared to explain reasons for any change in area or cost.
- Provide a Value Engineering assessment as required during development of construction documents. Value engineering shall be a continuous process that is applied to all phases and aspects of the Project. If at any time the Architect-Engineer identifies that the Project scope is likely to exceed the Project budget, the Architect-Engineer shall provide a candidate list of areas to be considered for Value Engineering evaluation.

605.3 Schedule: The Architect-Engineer shall:

- Update the Project Schedule on the Phase C Estimate of Construction Cost defining any adjustments to Project design and construction milestone dates or times.
- Deliver the Phase C submittal to CCPA's representative two weeks prior to the formal review unless notified otherwise.

605.4 Space Study Statement: The Architect-Engineer shall update the Space Study Statement on the Phase C Estimate of Construction Cost defining any adjustments to the area of the Project.

605.5 Commissioning: The Architect-Engineer shall:

- Participate in the Commissioning Authority construction document design review process to be conducted prior to intermediate Phase C review.

605.6 LEED: For projects Seeking LEED Certification, the Architect-Engineer shall:

- Insure that the contract documents incorporate information including drawings, details and specifications necessary to meet the LEED requirements for credits being pursued.
- Provide the final energy model and the resulting number of points for Energy and Atmosphere Credit 1 to the Owner at the completion of construction documents.
- Prepare and submit the LEED Design Application to the USGBC.
- Include Contractor requirements relating to LEED documentation, process, etc. Include commissioning requirements in the contract documents.
- Initiate the Design Application appeal if necessary. The Owner will pay any appeal fees that may be required.

606 – Phase C Intermediate Review

A Phase C intermediate review is required on large or complex projects. Such determination shall be made by CCPA. All Sub-consultants shall be present at this meeting for document review and comment.

The Phase C Intermediate Review meeting shall be scheduled allowing two (2) weeks for plan review prior to the meeting. The following documents shall be reviewed at this Phase:

- The Phase C Intermediate Review Checklist (include checklist in submittal)
- Drawings developed to 75% Completion
- Special Conditions
- Unit Prices
- Materials list
- Subcontractors list
- Proposed Alternates
- Proposed Allowances
- Updated Cost in the Phase C Estimate of Construction Cost
- Updated Schedule in the Phase C Estimate of Construction Cost
- Updated Space Study Statement in the Phase C Estimate of Construction Cost
- LEED Score sheet
- Updated Energy Model
- Status of all Federal and State permits
- Status of all utilities

607 – Alternates / Allowances / Unit Prices

607.1 Alternates: Portions of the Work may be defined in the contract documents to allow Work to be added to the base bid. Alternate bids shall not be allowed unless approved by the Project Manager. All Alternates shall be additive and will be accepted in sequence of their listing within available funding.

607.2 Allowances: Certain items may be specified by the use of allowances when it is necessary to defer selection or quantity of actual materials and equipment to a later date when additional information is available for evaluation. Use of allowances shall be minimized and all allowances shall be reviewed with and approved by the Project Manager. Types of allowances may include the following:

- Lump-sum allowances.
- Unit-cost allowances.
- Quantity allowances.

607.3 Unit Prices: Unit prices may be requested as part of the bid form when it is necessary to establish a bid price per unit of measurement for materials or services. These services are to be added or deducted from the Contract Sum by appropriate modification, if estimated quantities of Work required by the Contract Documents are increased or decreased.

Unit Prices shall include a brief description of the unit price item and an indication of the unit for which a price is to be provided. The number of unit prices should be limited and include only those unit prices that are important to the Project. Unit prices shall include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead, and profit.

608 – Phase C Submittal

The Architect-Engineer will furnish to CCPA, Using Agency, and others as determined by the Project Manager a Phase C submittal package. Generally a minimum of four sets (three hard copy and one electronic) of submittals will be required for the Phase C review, but the Project Manager will determine the exact number needed for any given project. The Phase C submittal shall include the following:

608.1 Phase C Checklist: With the Phase C submittal, the Architect-Engineer shall prepare the Phase C Checklist. This checklist shall be placed at the beginning of the Phase C submittal.

See 600.1 Phase C - Intermediate Review Checklist for the Architect-Engineer or

See 600.2 Phase C - Final Review Checklist for the Architect-Engineer.

608.2 Federal Funding: When Federal Funding is involved, the Using Agency and/or CCPA will update the status of the Federal review. If the Architect-Engineer is responsible for these reviews then they shall provide the status of the federal review. The Architect-Engineer shall include this status in the Phase C submittal.

608.3 Final Phase C Commissioning Plan: During Phase C, the Commissioning Team will:

- Finalize the Commissioning Plan begun in Pre-Design and modified in Phase A and Phase B.
- Improve the accuracy of the plan and incorporate any alterations and/or decisions made during Phase B.
- Identify more details of the Construction Phase and Warranty Phase commissioning requirements.
- Submit this information to the Project Manager as the Commissioning Authority's Phase C Submittal Document.

608.4 Phase C Review Submittal: The Phase C Review Submittal represents complete construction documents, including drawings and specifications, for the purpose of final review and comments. All documents shall include the file number and date.

- Phase C Review Submittal drawings shall be full size, 24" x 36" black line prints.
- Drawing sets shall include a cover sheet, original site survey (if provided), original geotechnical survey (if provided) and all necessary civil, landscape, structural, architectural, mechanical, plumbing, fire protection, electrical, communications and other drawings as necessary to completely describe the Project.
- Phase C Review Submittal specifications shall be submitted on bound 8-1/2" x 11" double-sided hardcopy.

608.5 Ready-to-Advertise Submittal: The Ready-to-Advertise submittal represents corrected construction documents, including drawings and specifications incorporating comments from the Phase C final review. The Ready-to-Advertise documents shall be submitted ready for reproduction.

The Ready-to-Advertise drawings shall be submitted unbound on 24" x 36" paper or vellum sheets. All drawings shall be stamped and signed by the responsible design professional.

Ready-to-Advertise specification master shall be submitted on electronic media in PDF format. The Aids to Advertising documents shall be submitted on electronic media in Word

format. The cover sheet shall be omitted. The cover sheet for the Ready-to-Advertise specifications will be produced by CCPA.

608.6 Specifications - Division One (front end) Documents: CCPA will prepare the non-technical "front-end" portion of the specifications using input provided by the Architect-Engineer. Owner-provided specification front-end documents will include:

- Specification Cover Sheet
- Sealed Bid Form
- Notice to Contractors
- Advertisement for Bids
- Instructions to Bidders
- General Conditions
- Prevailing Wage Rates

608.7 Aids to Advertising: In addition to the drawings and specifications, the Architect-Engineer is required to furnish certain "Aids to Advertising". All Aids to Advertising required with the Ready-to-Advertise submittal must be furnished in electronic media in Word format.

Aids to Advertising shall include, but may not be limited to, the following:

- **Specifications Table of Contents:** The Architect-Engineer shall prepare a "Table of Contents". The Table of Contents for all specifications sections are to be included in the main table and not provided as a supplement table at the beginning of those sections.
- **Description of Work:** The Architect-Engineer shall furnish a "Description of Work" statement. This will be a brief written description of the Work involved and will include a summary of Project requirements, principal materials and trades, restraints and abnormal site conditions. The Project title and location, including the City and County will be furnished. This description shall be suitable for insertion into the Advertisement for Bids without modification or editing.
- **List of Drawings:** The list of drawings consists of drawing sheet numbers, titles and date(s). Titles on the List of Drawings shall match the titles on the individual drawings and the drawing index on the cover sheet of the drawing set.
- **List of Additive Alternates:** Provide a list of bid additive alternates identified by priority order. Include a brief description of each alternate. **See Section 607 – Alternates / Allowances / Unit Prices**
- **List of Unit Prices:** Include a brief description of unit price items and the units of measure for which prices are to be provided. Limit the number of unit prices listed and include only those unit prices that are important to the Project, i.e. where there will be a likely need to modify the contract. **See 607 – Alternates / Allowances / Unit Prices**
- **List of Proposed Subcontractors:** The List of Proposed Subcontractors should include only major/important trades to the Project. Include a brief identification of each trade and a line for the insertion of the proposed subcontractor's name.
List of Proposed Materials and Equipment: The List of Proposed Materials and Equipment should include only those suppliers/manufacturers that are important to the Project. Include a brief description of each product and a line for the insertion of the proposed supplier/manufacturer.
- **List of Owner-Furnished Equipment:** Include equipment descriptions, sizes and quantities. Include in the Contract Documents who, owner or contractor, will coordinate and install all Owner-Furnished equipment.

Any questions concerning the above-listed Aids-to-Advertising submittals should be directed to the Project Manager or Project Contracting Officer for resolution prior to submission of the Ready-to-Advertise documents.

608.8 Special Conditions: The Architect-Engineer shall prepare the Special Conditions for the Project. The Special Conditions shall be coordinated with the University's standard General Conditions.

The Special Conditions shall not duplicate or modify any provisions of the General Conditions without concurrence from the Project Manager.

The Special Conditions shall include project-specific special provisions that address unusual situations that are not otherwise addressed in the technical specifications. The following categories are typical (but are not to be considered an exhaustive list):

- Times for completion (establish times both Substantial and Final)
- Liquidated damages (establish amount)
- Electrical Inspections and fees
- Testing and fees
- Identification of work to be performed "by others"
- Site office
- Site communications (contractor phone, fax, etc)
- Resident Observer – Include requirements for space including desk, chair, legal file cabinet, data connection, etc.
- Employee conduct
- Temporary utilities
- Site access
- Security/safety requirements
- Material storage
- Contractor staging
- Construction sequences/phasing
- Building occupation during construction
- Interface Issues
- Utility outages
- Commissioning
- Builder's Risk Insurable Value

608.9 Temporary Utility Services (Power, Lights, Temporary Heat and Water): Typically, the General Contractor shall be responsible for providing and paying for temporary electrical service, temporary heat and water. The Project Manager may direct otherwise for certain Projects.

608.10 Phase C Cost Estimate: The Architect-Engineer shall verify and further develop the Phase B estimate. The Architect/Engineer shall:

- Consider the economics that will affect the construction cost of the Project. The estimate must be researched for cost trends, escalation and industry factors to ensure its sufficiency through the design phases, the bidding process and construction.
- Prepare the cost estimate on the Phase C Estimate of Construction Cost form, provided by CCPA (available in Excel format). Additional sheets with detailed breakout cost information shall be provided as appropriate. **See Section 611 for the Phase C Estimate if Construction Cost.**
- Not include any contingency as part of the estimate. Contingency factors are included in separate CCPA documents.
- Notify the Project Manager and the Using Agency Representative if the final estimate exceeds the last approved estimate. Explain fully the reasons for the increase. This must be done a minimum of two (2) weeks before any review of final plans will be considered. Failure to obtain approval of the increased cost will result in delay and a possible directive to redesign.
- Update the schedule information on the Phase C Estimate of Construction Cost
- Update the Space Study Statement on the Phase C Estimate of Construction Cost
- The authorized Using Agency representative shall accept Phase C Submittal by signing the Phase C Estimate of Construction Cost in the space provided for the Using Agency acceptance.

608.11 Builder's Risk Insurable Value: Normally, the insurable value for builders risk insurance is the construction contract amount. Deviations may be made from the "construction contract amount" when a building project involves a large amount of site excavation, etc. However, the main point of emphasis is that the "insurable value" must always be defined.

- The special conditions shall read, "The insurable value is the contract amount" or "The insurable value is the contract amount less the value of certain designated phases of work."
- The Project Manager shall coordinate this determination with the Director of CCPA.

608.12 Other Specification Requirements: The Architect-Engineer is advised of the following expectations:

- **Pre-Qualifications:** Specifications requiring pre-qualification of subcontractors, suppliers, and manufacturers are allowed as specifically authorized by CCPA.
- **Geotechnical Exploration Report (if necessary):** The geotechnical exploration report shall be included in the Project Manual. Drawings indicating boring locations and/or logs of borings may be included in the Project Manual or in the drawing set.
- **Earth and Rock Excavation:** Earth and rock excavation shall be UNCLASSIFIED unless specifically authorized by CCPA. Geotechnical information shall be included in the bid documents. Coordination is expected in regard to this matter among the Architect-Engineer and all Sub-Consultants.
- **Inspection and Testing of Materials:** All inspection and testing costs required by the Contract Documents, other than those required by Special Inspections shall be paid by the Contractor. Special Inspections shall be paid and/or contracted by CCPA. Testing reports shall be transmitted directly to the Architect-Engineer and the Project Manager by and from the testing agency. Reports shall also be transmitted to the Contractor and/or appropriate Subcontractors.
- CCPA shall approve all proposed testing agencies prior to the work being performed.

608.13 Special Inspections: The following is an excerpt from the Kentucky Building Code:

SECTION 1704 - SPECIAL INSPECTIONS

1704.1 General. Special inspections are required for all buildings and structures that require the services of a registered design professional per Section 106, Section 122 and Table 122.1. Where application is made for construction as described in this section, the owner or the registered design professional in responsible charge acting as the owner's agent, shall employ one or more special inspectors, as defined in 1702, to provide inspections during construction on the types of work listed under Section 1704. These inspections are in addition to the inspections specified in section 109.

It is the responsibility of the Architect-Engineer to include in the specifications the Special Inspections required by the Kentucky Building Code.

Special inspections will be contracted either through the Architect-Engineer, by separate contract with the Special Inspection firm or a combination of the two depending on the specific inspections required.

608.14 Electrical Inspections: The Contractor shall not use private inspectors. All electrical inspections will be performed by inspectors from the Kentucky Division of Building Code Enforcement, Electrical Inspections. **See Section 226 Department of Housing Building and Construction (502-573-1797).** <http://dhbc.ky.gov/bce/ei/Pages/default.aspx>. The contractor shall be responsible for requesting, scheduling and coordinating all electrical inspections through the Electrical Inspections Section.

608.15 Building Design Criteria and Code Analysis Plan: The Architect-Engineer shall provide a floor plan showing the minimum standards required to comply with applicable building codes. Information shown shall include, but not be limited to the following:

- Required codes referencing edition used.
- Use and Occupancy Classification.
- General Building Height and Area (with calculations).
- Type of Construction; Fire-Resistance-Rated Construction.
- Fire Protection Systems.
- Means of Egress (with occupant loads per space noted on plans).

608.16 Renderings and Models: The Architect-Engineer shall submit the rendering in electronic media and photographs in accordance with the Architect-Engineer's Agreement, on or before the date of the final review.

- **Renderings:** When required by the Architect-Engineer Agreement, the Architect-Engineer shall prepare a colored perspective rendering of the principal element of the project (i.e.: building exterior, site layout, etc.). The Architect-Engineer shall submit a sample or a copy of a previous colored rendering, indicating the proposed artistic style. The proposed view of the project rendering shall also be submitted. The actual rendering shall not to be executed until the artistic style and selected view are approved by the Project Manager.
The overall size of the rendering shall be 24 inches wide by 14 inches high, or as appropriate for the building scale. The rendering shall be matted with a 3-inch wide single matte board, and professionally framed with non-glare glazing. The rendering shall include:

- (1) Project name,
- (2) Project location,
- (3) Eastern Kentucky University, and

(4) Architect-Engineer firm's name.

The Architect-Engineer shall provide two (2) framed renderings (original plus one reproduction) and two (2) unframed 8-inch by 10-inch reproductions of the rendering. In addition, the Architect-Engineer shall provide a high-resolution digital file for the rendering.

- **Models:** When required by the Architect-Engineer Agreement, the Architect-Engineer shall prepare a working model constructed of crescent board, styrene board or other appropriate modeling materials. Specific modeling techniques and level of detail shall be appropriate for the Project and as agreed upon with the Project Manager.
- **Computer Animations:** When required by the Architect-Engineer Agreement, the Architect-Engineer shall prepare computerized "fly-throughs" or other visualizations. Specific techniques and level of detail shall be appropriate for the Project and as agreed upon with the Project Manager.

608.17 Project Signage: A project sign is to be specified only when authorized by the Project Manager. When authorized, a detailed drawing of the project sign is to be included in the bid documents. Provide a reproduction-ready digital signage graphics file. See **Section 608.21 Project Sign** for a guide drawing of a typical project sign. Alternate sign formats or graphics must be approved by the Project Manager.

608.18 Contractor Commissioning Requirements: Commissioning Process activities shall be included in the Bid Documents as follows:

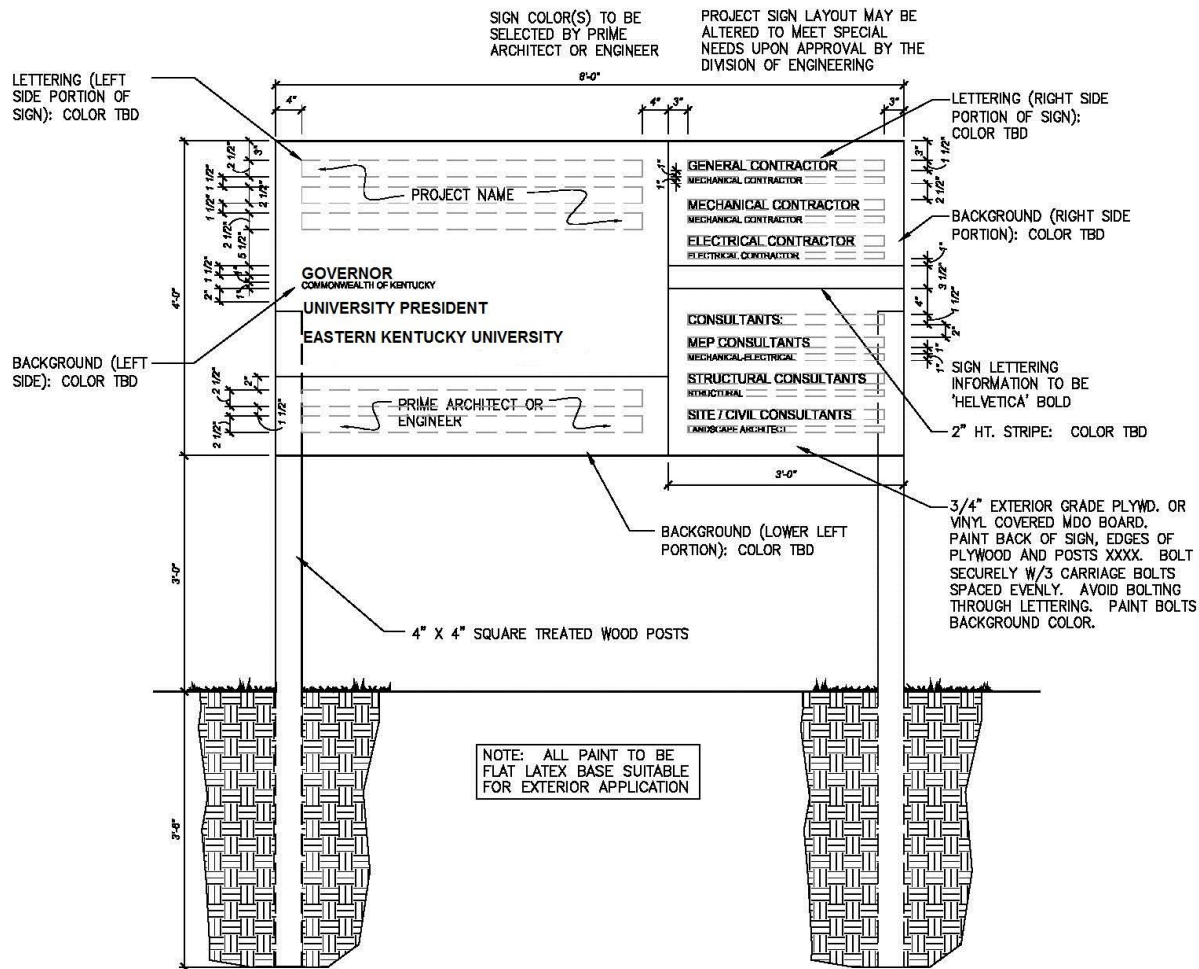
- The specifications will describe the roles, communications methodologies, and reporting requirements necessary for the Project.
- The specifications will not necessarily dictate the means and methods for satisfying the Commissioning Process, but shall describe the required activities and deliverables.
- The Bid Documents shall instruct the Contractor to provide for these activities in their bids.

608.19 Commissioning: The Architect-Engineer shall revise or include any Commissioning requirements and review comments into the Contract Documents.

608.20 LEED: During Phase C, the Architect-Engineer shall perform the following for Projects seeking LEED Certification:

- Insure that the Contract Documents incorporate information including drawings, details and specifications necessary to meet the LEED requirements for credits being pursued.
- Include Contractor requirements relating to LEED documentation, process, etc.

608.21 Project Sign: A guide drawing for a typical ECU project Sign is shown on the following page.



609 – Regulatory Approvals and Permits

The Architect-Engineer shall identify all federal, state and local regulatory submittals and reviews required relative to the specific project at hand. The Architect-Engineer shall prepare and submit all applications and related exhibits necessary for each required regulatory submittal and secure all required approvals.

The following Sections of the Procedures Manual are intended to be a guide in determining the types of permits required and the professionals required leading the permitting process.

- Section 214 - Federal Environmental Laws
- Section 215 - State Environmental Laws
- Section 216 - Wetlands
- Section 217 - Corps of Engineers 404 Permit – Streams and Wetlands
- 404 Corps of Engineers (USACE) Permit is required if the project is located on Federal property, is Federally funded or impacts a stream, wetland or endangered species
- Section 218 - 401 Water Quality Certification and Floodplain Management
- Section 219 - Stream and Wetland Mitigation
- Section 220 - SWPPP Storm Water Pollution Prevention Plan - Policy
- Section 221 - Wastewater Collection Systems
- Section 222 - Historic Preservation and Cultural Analysis
- Section 223 - Discovery of Human Remains
- Section 224 - Air Quality
 - Air Pollution Permits – Coal Burning Facility
 - Air Pollution Permits – Air Quality Standards
- Section 225 FAA Permits - Air Space Encroachment & Airport Zoning
- Section 226 - Department of Housing, Building & Construction (HBC) Review

Utility Investigations: Provide a complete list, including utility, availability and contacts.

- Sewer (Division of Water) – adequate capacity?
- Water (Division of Water) – adequate supply, and pressure?
- Has a flow test been performed?
- Electricity – coordination with local utility – is there adequate electrical supply?
- Other utilities - is there adequate supply and availability? i.e., Gas, Communications, etc.

Miscellaneous Items:

- Coal Life Cycle Cost Analysis – **See Section 230000-4 Coal Life Cycle Analysis**
- Hazardous Materials Survey – **See Section 212 and Section 907.2.**
- Housing, Building & Construction (HBC) Review **See Section 226**
 - ADA Compliance
 - Boiler / High-Pressure Piping

Local: Food Service and Septic systems are generally permitted out of the local County Health Department.

610 – Phase C Final Review and Approval

610.1 Review: As the Phase C process nears completion, the Architect-Engineer shall confirm the Final Submittal date and the Final Review Meeting date with the Project Manager and the Using Agency Representative. The Architect-Engineer, Project Manager, Using Agency Representative and all Sub-Consultants shall attend the Final Review Meeting.

The Final Review submittal date shall be at least two weeks before the Final Review Meeting to allow for internal review by the Project Manager and the Using Agency Representative. Unless the Project Manager directs otherwise, the Final Review meeting will be held in the offices of CCPA.

If the plans or specifications are deemed to be incomplete, review of the submittal may be terminated and new dates for a complete submittal and Final Review may be scheduled by the Project Manager.

Following the Final Review meeting, the Architect-Engineer shall document all identified significant issues or concerns in the meeting minutes. All comments, drawing mark-ups and other issues and concerns identified during the Final Review meeting are then incorporated into the Project documents. The responsibility for document completeness and accuracy remains with the Architect-Engineer.

610.2 Required Permits and Regulatory Approvals: Concurrent with the delivery of Final Review documents, the Architect-Engineer shall submit evidence of application for required permits and regulatory approvals.

The Architect-Engineer shall copy the Project Manager on the Department of Housing Building and Construction submittal which includes the review fee form and the Energy Workbook.

610.3 Approval: When the Phase C documents are acceptable:

- The Using Agency Representative shall forward to the Project Manager a signed Phase C cost estimate.
- The Project Manager will then notify the Architect-Engineer, and request delivery of the Ready-to-Advertise documents and authorize Phase “C” payment.
- The Project Manager shall sign the original plans in the title block.

project name:

date:

office project #:

611 - ARCHITECT/ENGINEER'S ESTIMATE OF CONSTRUCTION COST PHASE "C" - CONSTRUCTION DOCUMENTS

Project: _____ RCF Number: _____
 Location: _____ Org Code: _____
 File No.: _____ Activity Code: _____

I.

SITWORK

A. GENERAL DEVELOPMENT		Base Bid	Add. Alt.
1.0	Demolition	\$ -	\$ -
2.0	Clearing	\$ -	\$ -
3.0	Grading	\$ -	\$ -
4.0	Paving (Roads & Parking)		
a.	Concrete	\$ -	\$ -
b.	Bituminous	\$ -	\$ -
c.	Other	\$ -	\$ -
5.0	Site Structures	\$ -	\$ -
a.	Retaining Walls	\$ -	\$ -
b.	Headwalls, Flumes, etc.	\$ -	\$ -
6.0	Landscape Development		
a.	Walkways	\$ -	\$ -
b.	Swim Pools	\$ -	\$ -
c.	Lawns	\$ -	\$ -
d.	Plantings	\$ -	\$ -
e.	Trees	\$ -	\$ -
f.	Furniture	\$ -	\$ -
g.	Specialties	\$ -	\$ -
7.0	Miscellaneous Special items		
a.	List	\$ -	\$ -
General Development Subtotal (A):		\$ -	\$ -
B. ONSITE MECHANICAL (Exterior)		Base Bid	Add. Alt.
1.0	Storm Drainage	\$ -	\$ -
2.0	Sanitary	\$ -	\$ -
3.0	Water System	\$ -	\$ -
4.0	Steam Lines, etc.	\$ -	\$ -
5.0	Treatment Plants:		
a.	Water	\$ -	\$ -
b.	Sewage	\$ -	\$ -
6.0	Miscellaneous Items	\$ -	\$ -
Onsite Mechanical Subtotal (B):		\$ -	\$ -
C. ONSITE ELECTRICAL (Exterior)		Base Bid	Add. Alt.
1.0	Overhead Service	\$ -	\$ -
2.0	Underground Service	\$ -	\$ -
3.0	Manholes	\$ -	\$ -
4.0	Transformers & Mounts	\$ -	\$ -
5.0	E.T.V. & TV Cables	\$ -	\$ -
6.0	Communications:		
a.	Telephone	\$ -	\$ -
b.	Other	\$ -	\$ -
7.0	Switchgear	\$ -	\$ -
8.0	Miscellaneous items	\$ -	\$ -
Onsite Electrical Subtotal (C):		\$ -	\$ -

project name:

date:

office project #:

D.	RELOCATION OF UTILITIES		\$	-	\$	-
	TOTAL SITE WORK (A+B+C+D)		\$	-	\$	-
II.	OFF-SITE UTILITIES			Base Bid		Add. Alt.
A.	Structures (Types)		\$	-	\$	-
B.	Storm Sewers (Size)		\$	-	\$	-
C.	Sanitary Sewers (Size)		\$	-	\$	-
D.	Water Service (size)		\$	-	\$	-
E.	Fire Lines & Hydrants		\$	-	\$	-
F.	Gas Service (Size)	(Pressure)	\$	-	\$	-
G.	Electric Power (KVA)		\$	-	\$	-
	TOTAL OFF-SITE UTILITIES (A thru G)		\$	-	\$	-
III.	BUILDING CONSTRUCTION					
A.	GENERAL WORK			Base Bid		Add. Alt.
1.0	Excavation		\$	-	\$	-
2.0	Structural					
	a. Foundations		\$	-	\$	-
	b. Frame		\$	-	\$	-
3.0	Architectural					
	a. General		\$	-	\$	-
	b. Casework (list)		\$	-	\$	-
	c. Food Service Equipment (list)		\$	-	\$	-
	d. Fixed Equipment (list)		\$	-	\$	-
	e. Acoustic Flooring		\$	-	\$	-
	f. Elevators		\$	-	\$	-
	g. Special Items (list)		\$	-	\$	-
4.0	General Conditions		\$	-	\$	-
	General Work Total (A):		\$	-	\$	-
B.	MECHANICAL WORK			Base Bid		Add. Alt.
1.0	Fire Suppression		\$	-	\$	-
2.0	Plumbing		\$	-	\$	-
3.0	Heating, Ventilation & Air Conditioning (HVAC)		\$	-	\$	-
4.0	Controls		\$	-	\$	-
5.0	Special Systems		\$	-	\$	-
6.0	Miscellaneous Items		\$	-	\$	-
	Mechanical Subtotal (B):		\$	-	\$	-
C.	ELECTRICAL WORK			Base Bid		Add. Alt.
1.0	Electrical		\$	-	\$	-
2.0	Communications		\$	-	\$	-
3.0	Electric Safety & Security		\$	-	\$	-
4.0	Special Systems		\$	-	\$	-
5.0	Miscellaneous Items		\$	-	\$	-
	Electrical Subtotal (C):		\$	-	\$	-
	TOTAL BUILDING CONSTRUCTION (A+B+C)		\$	-	\$	-

project name:

date:

office project #:

IV. SUMMARY OF CONSTRUCTION COSTS		Base Bid	Add. Alt.
A.	General Construction (Including General Development)	I. (A.) and III. (A.) Total: \$ -	\$ -
B.	Mechanical Work	I. (B.) and III. (B.) Total: \$ -	\$ -
C.	Electrical Work	I. (C.) and III. (C.) Total: \$ -	\$ -
D.	Off-Site utilities (When Applicable)	II. Items (A.) thru (G.) Total: \$ -	\$ -
E.	Relocation of Site Utilities	I. Item (D.) \$ -	\$ -
TOTAL CONSTRUCTION COST SUMMARY (No Contingency)		\$ -	\$ -

NOTE: A/E to consider overhead, profit, and assignment fees in estimate above. Do not list separately.

V. FURNISHINGS AND LOOSE EQUIPMENT		Base Bid
A.	Furnishings	\$ -
B.	Loose Equipment	\$ -
C.	Speciality Items (list)	\$ -
D.	Communications Cabling & Equipment	\$ -
TOTAL FURNISHINGS AND LOOSE EQUIPMENT (A thru D)		\$ -

NOTE: Item V. to be prepared and included only when this work is assigned to the Architect by Special Contract Advice to the Architect/Engineer's Agreement. Required "Back-up" to cost totals are "Tear Sheets", Listing of Items, etc., and all costs are to be shown as delivered to the project. Placement and installation cost to be shown when this service is included in the Program Requirements by the User Agency.

VI. SUMMARY GRAND TOTAL (BASE BID + FURNISHINGS/LOOSE EQUIPMENT + ADDITIVE ALTERNATES)		
1.0	Base Bid Total Construction Cost Estimate	\$ -
2.0	Furnishings and Loose Equipment	\$ -
3.0	Total Additive Alternates Cost (list #)	\$ -
GRAND TOTAL COMBINED COST ESTIMATE		\$ -

VII. SPACE STUDY STATEMENT		Base Bid	Add. Alt.
A.	Total Gross Area:	gsf -	-
B.	Net Area (Standard AIA Method):	gsf -	-
C.	Assignable Area (Productive Space):	aa -	-
D.	Item C % of Gross (Efficiency):	efficient %	%
E.	AIA Square Foot Costs (Excluding Site Development)	\$ - /sf	\$ -
F.	Square Foot Costs per Assignable Area	\$ - /sf	\$ -
G.	Site Development Cost, (Item I.)	\$ -	\$ -

NOTE: Per AIA Method Document D-101 (June, 1974).

Any additional information relating to this estimate to be attached.

project name:

date:

office project #:

VIII

CONSTRUCTION TIME:

A. Time in calendar days after Contract Date is issued to Substantial Completion: _____ Days

IX.

SIGNITURES

A. A/E Firm Preparing Cost Estimate:

_____ Firm Name: _____ Location: _____

B. This Estimate prepared by:

_____ Title: _____ Date: _____

C. This Estimate certified by:

_____ (Principal of Firm) Title: _____ Date: _____

D. Estimate approved and accepted for agency by:

_____ Head of Using Agency or Cabinet Secretary Date: _____

612 - Estimate of Funds Required Through Construction Phase - Form B-210-11

**Eastern Kentucky University
Capital Construction and Project Administration**

PROJECT DESCRIPTION:

Location -
Using Agency:
Contact:
Current Project Estimate =

REFERENCE DATA:

RCF Number: _____
Org Code: _____
Account Number: _____
Prepared By: _____
Date/Revised: _____

Site Survey & Subsurface Investigation		\$	-	
Architect-Engineer Fee		\$	-	
HBC Review Fees		\$	-	
Electrical Insp. Fee @ 1.3%		\$	-	
Resident Inspector Salary Mos.@		\$	-	
Testing Costs (Special Insp, T & B)		\$	-	
Duplication of Plans, etc.		\$	-	
	Subtotal	\$	-	
Design Contingencies @ 10%			-	
(701) TOTAL ALLOTMENT REQ'D.		\$	-	
Less Previous Allotment				
<u>ADDITIONAL ALLOTMENT REQ'D.</u>				\$ -
Construction Costs:		\$	-	
	Subtotal	\$	-	
Contingency @ 10%			-	
(703) TOTAL ALLOTMENT REQ.		\$	-	
Less Previous Allotment				
<u>ADDITIONAL ALLOTMENT REQ'D.</u>				\$ -
Total 701 + 703 Balance Required		\$	-	\$ -
	Total 701 + 703 Scope	\$	-	
712 FUNDS - Movable Equipment & Furnishings		\$	-	
730 FUNDS - Land Acquisition		\$	-	
Other		\$	-	
	TOTAL PROJECT SCOPE	\$	-	