

500.1 – Phase B Checklist for the Architect-Engineer

This checklist is to be used by the Architect-Engineer and shall be included in the Phase B submittal.

Instructions: The Architect-Engineer 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"/> | Fee: The fee was negotiated prior to start of Phase B. |
| <input type="checkbox"/> | <input type="checkbox"/> | Preparation: The Architect-Engineer has reviewed requirements in Chapter 5 – Phase B Design Development of the Capital Construction Project Procedures Manual. |
| <input type="checkbox"/> | <input type="checkbox"/> | Pre-Design Issues: The Architect-Engineer has reviewed the Pre-Design and Phase A Checklist. Any carry-forward items have been included or attached to the Phase B Checklist. |
| <input type="checkbox"/> | <input type="checkbox"/> | Phase A Issues: Unresolved or incomplete issues from Phase A have been reviewed with the Using Agency, Owner, Project Manager and Commissioning Authority. |
| <input type="checkbox"/> | <input type="checkbox"/> | Phase B Authorization: The Project Manager has issued Phase B authorization. |
| <input type="checkbox"/> | <input type="checkbox"/> | Federal Funds: The status of permit review on Projects with Federal funding has been identified. |
| <input type="checkbox"/> | <input type="checkbox"/> | Project Directory: The updated Project Directory has been distributed. |
| <input type="checkbox"/> | <input type="checkbox"/> | Progress and Design Review Meetings: The Architect-Engineer has scheduled, and will conduct and document Phase B Progress and Design Review Meetings with the Owner, Using Agency and Design Team. |
| <input type="checkbox"/> | <input type="checkbox"/> | Commissioning Meetings: The Architect-Engineer has attended/will attend Phase B Commissioning Team Meetings. |
| <input type="checkbox"/> | <input type="checkbox"/> | Regulatory Reviews: Regulatory authorities have been conferred with and preliminary reviews will be obtained as documents develop. |
| <input type="checkbox"/> | <input type="checkbox"/> | Project Program/Owner's Project Requirements: The Architect-Engineer has reviewed and revised the Project Program and/or the Owner's Project Requirements as appropriate and necessary. |
| <input type="checkbox"/> | <input type="checkbox"/> | Verification: The Architect-Engineer has verified that the Design Development documents comply with the Project Program and/or Owner's Project Requirements. |
| <input type="checkbox"/> | <input type="checkbox"/> | Preliminary Surveys: Completed preliminary geotechnical, topographic and survey documents have been obtained. Initiated final subsurface investigations and any other survey information based on the Phase A plan. All information has been forwarded to the appropriate consultants. |
| <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 was requested. |
| <input type="checkbox"/> | <input type="checkbox"/> | Phase B Design Development Documents: The Architect-Engineer has prepared Phase B Design Development documents (approximately 40% complete documents) that adhere to project requirements and construction budget. Value engineering options have been considered continuously during design development. |
| <input type="checkbox"/> | <input type="checkbox"/> | Formatting: All consultants have been required to produce their design documents following the same format as the architectural documents. |
| <input type="checkbox"/> | <input type="checkbox"/> | Pre-Submittal Commissioning Review: The pre-submittal commissioning review and coordination meeting has been conducted. |

Project Administration: (continued)

YES N/A

Seismic Requirements: The services of a Structural Engineer have been obtained to investigate/report on review of applicable seismic regulations.

Single Source Procurement: A need determination was made and authorization received from CCPA for the use of any single source procurements or restrictive specifications (i.e., less than 3 manufacturers) of materials or services.

Mechanical and Electrical Engineers: The Architect-Engineer has coordinated the services of Mechanical and Electrical Engineers who were responsible for the following tasks and have provided this information in useable format to the Architect-Engineer. The Architect-Engineer has ensured that Mechanical and Electrical Engineer(s):

YES N/A

Contacted utility companies and public authorities for all services and initiated approval process.

Investigated and reported on their review of all applicable local public utility regulations.

Determined the space needs and location for all systems and provided information to the Architect-Engineer.

Phase B Budget, Area Calculations and Scheduling: In the narrative of the Phase B submittal:

YES N/A

Cost Estimate: The Architect/Engineer's Estimate of Construction Cost "Phase B" has been prepared based upon Design Development documents and all available data. Incorporate each consultant's estimate for their portion of the project. **See Section 508** of the Procedures Manual.

Space Study Statement: The area calculation (net and gross) in the Space Study Statement of the Estimate of Construction Cost "Phase B" has been revised. Update accordingly the Architect/Engineer's Estimate of Construction Cost. **See Section 508** of the Procedures Manual.

Project Schedule: The Project Schedule has been revised. Update according to the Architect/Engineer's Estimate of Construction Cost. **See Section 508** of the Procedures Manual.

Energy Model: The Architect-Engineer has prepared an estimate of probable systems operating costs and included the required energy model. This estimate of operating cost shall be forwarded to CCPA for inclusion in future operating budget in addition to being included in the narrative.

Approvals: Written approval has been obtained from the Project Manager for any increase in area or cost.

Phase A Budget Exceeded: The Architect-Engineer has informed the Project Manager that the Project will exceed the Phase A budget with explanation of the increased cost.

Projects Seeking LEED Certification:

YES N/A

Enhanced Commissioning: The Architect-Engineer has participated in the Commissioning Authority design development review process if enhanced commissioning is used.

LEED Points: The LEED points being pursued have been finalized and included in the narrative.

Updated Energy Model: An updated energy model has been provided to document compliance with the required number of points for LEED Energy and Atmosphere Credit 1. The Using Agency shall apply a contingency in developing their projected operating costs. See Phase A Using Agency Responsibilities Section 302.

Phase B Review and Approval:

- | YES | N/A | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Copies: Four sets (three hard copy and one electronic) of Phase B documents have been submitted to the Project Manager. |
| <input type="checkbox"/> | <input type="checkbox"/> | Phase B Review Meeting: The Architect-Engineer will conduct the Phase B Review Meeting. (This meeting is scheduled by the Project Manager.) |
| <input type="checkbox"/> | <input type="checkbox"/> | Documentation: The Architect-Engineer shall document Phase B Review Meeting comments, revisions and changes and incorporate such comments, revisions and changes into Phase B Documents. |

Phase B Submittal Checklist:

The following documents are required to be provided in the Phase B submittal unless they are not applicable. The Architect-Engineer shall mark the appropriate box identifying whether the submittal contains each item or whether the item is not applicable to the Project.

- | Provided | N/A | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Phase B Checklist: Completed copy of Phase B Checklist. |
| <input type="checkbox"/> | <input type="checkbox"/> | Phase B Cost Estimate: Completed copy of the Phase B Estimate of Construction Cost. See Section 508. |
| <input type="checkbox"/> | <input type="checkbox"/> | Design Narrative: Design Narrative describing the proposed design, materials and equipment. |
| <input type="checkbox"/> | <input type="checkbox"/> | Commissioning Plan: Revised Commissioning Plan to reflect the Phase B Design Development Plan. See the Phase B Commissioning Plan requirements in Section 504 and the Phase B Commissioning Plan Checklist in Section 500.4. |

Drawings:

Phase B Design Development Drawings shall be provided in 24" x 36" bound format. Phase B drawings may be submitted as half-size or 11" x 17" prints upon approval of the Project Manager. Include the following at a minimum:

- | Provided | N/A | |
|--------------------------|--------------------------|------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | Site Plan |
| <input type="checkbox"/> | <input type="checkbox"/> | Site Utility Plan |
| <input type="checkbox"/> | <input type="checkbox"/> | Architectural Floor Plans |
| <input type="checkbox"/> | <input type="checkbox"/> | Architectural Elevations |
| <input type="checkbox"/> | <input type="checkbox"/> | Sections |
| <input type="checkbox"/> | <input type="checkbox"/> | Typical Construction Details |
| <input type="checkbox"/> | <input type="checkbox"/> | Structural Plans |

Division 210000 Fire Suppression drawings:

- | Provided | N/A | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Fire Suppression Entry Schematic |
| <input type="checkbox"/> | <input type="checkbox"/> | Routing of Distribution Mains |
| <input type="checkbox"/> | <input type="checkbox"/> | Location of Major Equipment in Mechanical Rooms |
| <input type="checkbox"/> | <input type="checkbox"/> | Schematics & Details Index |

Division 220000 Plumbing drawings:

- | Provided | N/A | |
|--------------------------|--------------------------|----------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | Domestic Water Systems Schematic |
| <input type="checkbox"/> | <input type="checkbox"/> | Piping Plans |
| <input type="checkbox"/> | <input type="checkbox"/> | Schematic & Details Index |

Division 230000 HVAC drawings:

- | Provided | N/A | |
|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | Single Line Air Distribution Layout |
| <input type="checkbox"/> | <input type="checkbox"/> | Single Line Main Piping Layout |

- Schematics & Details Index

Drawings: (continued)

Division 250000 Integrated Automation drawings:

- | Provided | N/A | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Fire Alarm Zone coordinated with Division 28. |
| <input type="checkbox"/> | <input type="checkbox"/> | Smoke Zones coordinated with Division 28. |
| <input type="checkbox"/> | <input type="checkbox"/> | Security Zones coordinated with Division 28. |
| <input type="checkbox"/> | <input type="checkbox"/> | Device & Outlet Locations |
| <input type="checkbox"/> | <input type="checkbox"/> | Preliminary Systems Riser Diagrams |
| <input type="checkbox"/> | <input type="checkbox"/> | Cable Tray / Conduit Routing Plan |
| <input type="checkbox"/> | <input type="checkbox"/> | Schematics & Details Index |

Division 260000 Electrical drawings:

- | Provided | N/A | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Preliminary Light Fixture / Switching Layout |
| <input type="checkbox"/> | <input type="checkbox"/> | Preliminary Power Receptacle Layout coordinated with Division 27 requirements. |
| <input type="checkbox"/> | <input type="checkbox"/> | Panel Locations coordinated with Division 27 requirements. |
| <input type="checkbox"/> | <input type="checkbox"/> | Electrical Power Riser Diagram |
| <input type="checkbox"/> | <input type="checkbox"/> | Schematics & Details Index |

Division 270000 Communications drawings:

- | Provided | N/A | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Preliminary System Architecture Riser Diagram |
| <input type="checkbox"/> | <input type="checkbox"/> | Cable Tray / Conduit Routing Plan coordinated with Division 26 requirements. |
| <input type="checkbox"/> | <input type="checkbox"/> | Voice / Data Outlet Locations coordinated with Division 26 requirements. |
| <input type="checkbox"/> | <input type="checkbox"/> | Schematics & Details Index |

Division 280000 Electronic Safety & Security drawings:

- | Provided | N/A | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Fire Alarm Zones coordinated with Division 25. |
| <input type="checkbox"/> | <input type="checkbox"/> | Smoke Zones coordinated with Division 25. |
| <input type="checkbox"/> | <input type="checkbox"/> | Security Zones coordinated with Division 25. |
| <input type="checkbox"/> | <input type="checkbox"/> | Device Locations |
| <input type="checkbox"/> | <input type="checkbox"/> | Preliminary Systems Riser Diagram |
| <input type="checkbox"/> | <input type="checkbox"/> | Schematics & Details Index |

Revised Outline Specifications / Design Narrative: See Section 307.1. Submit Equipment and fixtures data (cut) sheets for all significant equipment and fixtures. See Section 506.4 - Phase B Submittal.

Division 21 Fire Suppression Outline Specification/Design Narrative: See Section 307.2

- | Provided | N/A | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Updated portions of the Systems Basis of Design Document |
| <input type="checkbox"/> | <input type="checkbox"/> | Updated Cost Projections |
| <input type="checkbox"/> | <input type="checkbox"/> | Utility coordination description |
| <input type="checkbox"/> | <input type="checkbox"/> | Flow Calculations |
| <input type="checkbox"/> | <input type="checkbox"/> | Commissioning requirements |
| <input type="checkbox"/> | <input type="checkbox"/> | Functional Performance Test(s) |

Revised Outline Specifications / Design Narrative: (continued)

Division 22 Plumbing Outline Specification/Design Narrative: See Section 307.3

- | Provided | N/A | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Updated portions of the Systems Basis of Design Document |
| <input type="checkbox"/> | <input type="checkbox"/> | Updated Cost Projections |
| <input type="checkbox"/> | <input type="checkbox"/> | Utility coordination description |
| <input type="checkbox"/> | <input type="checkbox"/> | Operating & Peak Flow Calculations |
| <input type="checkbox"/> | <input type="checkbox"/> | Commissioning requirements |
| <input type="checkbox"/> | <input type="checkbox"/> | Functional Performance Test(s) |

Division 23 HVAC Outline Specification/Design Narrative: See Section 307.4

- | Provided | N/A | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Updated portions of the Systems Basis of Design Document |
| <input type="checkbox"/> | <input type="checkbox"/> | Updated Cost Projections |
| <input type="checkbox"/> | <input type="checkbox"/> | Updated Life Cycle Evaluations |
| <input type="checkbox"/> | <input type="checkbox"/> | Utility coordination description |
| <input type="checkbox"/> | <input type="checkbox"/> | Equipment List |
| <input type="checkbox"/> | <input type="checkbox"/> | Controls Sequence of Operation |
| <input type="checkbox"/> | <input type="checkbox"/> | Smoke Control and Life Safety Coordination Summary |
| <input type="checkbox"/> | <input type="checkbox"/> | Functional Performance Test(s) |
| <input type="checkbox"/> | <input type="checkbox"/> | Commissioning requirements |

Division 25 Integrated Automation Outline Specification/Design Narrative: See Section 307.5

- | Provided | N/A | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Updated portions of the Systems Basis of Design Document |
| <input type="checkbox"/> | <input type="checkbox"/> | Updated Cost Projections |
| <input type="checkbox"/> | <input type="checkbox"/> | Fire Alarm Zone discussion coordinated with Division 28. |
| <input type="checkbox"/> | <input type="checkbox"/> | Smoke Zones discussion coordinated with Division 28. |
| <input type="checkbox"/> | <input type="checkbox"/> | Security Zones discussion coordinated with Division 28. |
| <input type="checkbox"/> | <input type="checkbox"/> | Equipment List & Cut Sheets |
| <input type="checkbox"/> | <input type="checkbox"/> | Controls Sequence of Operation |
| <input type="checkbox"/> | <input type="checkbox"/> | Smoke Control and HVAC Coordination Summary |
| <input type="checkbox"/> | <input type="checkbox"/> | Functional Performance Test(s) |
| <input type="checkbox"/> | <input type="checkbox"/> | Commissioning requirements |

Division 26 Electrical Outline Specification/Design Narrative: See Section 307.6

- | Provided | N/A | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Updated portions of the Systems Basis of Design Document |
| <input type="checkbox"/> | <input type="checkbox"/> | Updated Cost Projections |
| <input type="checkbox"/> | <input type="checkbox"/> | Updated Life Cycle Evaluations |
| <input type="checkbox"/> | <input type="checkbox"/> | Utility coordination description |
| <input type="checkbox"/> | <input type="checkbox"/> | Lighting Level requirements |
| <input type="checkbox"/> | <input type="checkbox"/> | Electrical Load Estimate |
| <input type="checkbox"/> | <input type="checkbox"/> | Lighting Controls Sequence of Operation |
| <input type="checkbox"/> | <input type="checkbox"/> | Smoke Control and Life Safety Coordination Summary |
| <input type="checkbox"/> | <input type="checkbox"/> | Functional Performance Test(s) |
| <input type="checkbox"/> | <input type="checkbox"/> | Commissioning requirements |

Revised Outline Specifications / Design Narrative: (continued)

Division 27 Communications Outline Specification/Design Narrative: See Section 307.7

- | Provided | N/A | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Updated portions of the Systems Basis of Design Document |
| <input type="checkbox"/> | <input type="checkbox"/> | Updated Cost Projections |
| <input type="checkbox"/> | <input type="checkbox"/> | Equipment List & Cut Sheets |
| <input type="checkbox"/> | <input type="checkbox"/> | Functional Performance Test(s) |
| <input type="checkbox"/> | <input type="checkbox"/> | Commissioning requirements |
| <input type="checkbox"/> | <input type="checkbox"/> | Discussion of coordination with the Commonwealth Office of Technology (COT) |

Division 28 Electronic Safety & Security Outline Specification/Design Narrative: See Section 307.8

- | Provided | N/A | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Updated portions of the Systems Basis of Design Document |
| <input type="checkbox"/> | <input type="checkbox"/> | Updated Cost Projections |
| <input type="checkbox"/> | <input type="checkbox"/> | Fire Alarm Zones discussion coordinated with Division 25. |
| <input type="checkbox"/> | <input type="checkbox"/> | Smoke Zones discussion coordinated with Division 25. |
| <input type="checkbox"/> | <input type="checkbox"/> | Security Zones discussion coordinated with Division 25. |
| <input type="checkbox"/> | <input type="checkbox"/> | Smoke Control and Electrical Coordination Summary |
| <input type="checkbox"/> | <input type="checkbox"/> | Functional Performance Test(s) |
| <input type="checkbox"/> | <input type="checkbox"/> | Commissioning requirements |

Phase B Commissioning Plan: The Phase B Commissioning Plan has been prepared by the Commissioning Authority.

Division 011913 Commissioning Authority Documents: The following items, prepared by the Commissioning Authority, have been included in the Phase B submittal:

- | Provided | N/A | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Updated Owner's Project Requirements |
| <input type="checkbox"/> | <input type="checkbox"/> | Updated Systems Basis of Design Documents |
| <input type="checkbox"/> | <input type="checkbox"/> | Pre-submission Design Review Report |
| <input type="checkbox"/> | <input type="checkbox"/> | Updated Commissioning Plan |
| <input type="checkbox"/> | <input type="checkbox"/> | Specification Table of Contents |
| <input type="checkbox"/> | <input type="checkbox"/> | Specification / Commissioning Integration Plan |
| <input type="checkbox"/> | <input type="checkbox"/> | Construction Forms & Checklists Outline |
| <input type="checkbox"/> | <input type="checkbox"/> | Functional Performance Test(s) defined |
| <input type="checkbox"/> | <input type="checkbox"/> | Systems Manual Outline |

End of Phase B Checklist for the Architect-Engineer

500.2 - Phase B Checklist for the Project Manager

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

Instructions: At the time of the Phase B 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:

- | YES | N/A | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Fee: The Project Manager has coordinated with the Director to negotiate the Architect-Engineer's fee. An Advice of Change has been executed to amend the contract. |
| <input type="checkbox"/> | <input type="checkbox"/> | Review: The requirements in Chapter 5 – Phase B Design Development of the Capital Construction Project Procedures Manual have been reviewed. |
| <input type="checkbox"/> | <input type="checkbox"/> | Pre-Design and Phase A Checklist: The Pre-Design and Phase A Checklist have been reviewed and carry forward items that must be addressed in Phase B of the Project have been noted. All carry forward items have been brought to the attention of the Architect-Engineer. |
| <input type="checkbox"/> | <input type="checkbox"/> | Unresolved Issues: All unresolved or incomplete issues from Phase A have been reviewed and discussed with the Architect-Engineer, Using Agency, and Owner. |
| <input type="checkbox"/> | <input type="checkbox"/> | Authorization: Written Phase B authorization has been provided to the Architect-Engineer. |
| <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"/> | Regulatory Review: The Project Manager has conferred with the Architect-Engineer to obtain preliminary review from regulatory authorities. |
| <input type="checkbox"/> | <input type="checkbox"/> | Project Program and Owner's Project Requirements: The Project Manager has reviewed the revised Project Program and/or Owner's Project Requirements as appropriate and necessary. |
| <input type="checkbox"/> | <input type="checkbox"/> | Design development Documents: The Design Development documents have been verified to comply with the Project Program and/or Owner's Project Requirements. |
| <input type="checkbox"/> | <input type="checkbox"/> | Surveys: Completed preliminary geotechnical, topographic and survey documents have been provided to the Architect-Engineer. |
| <input type="checkbox"/> | <input type="checkbox"/> | Subsurface Investigations: All final subsurface investigations and any other survey information based on the current plan 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"/> | Commissioning 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 Design - has been updated. See Section 202.1 |

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 B Review Meeting. |
| <input type="checkbox"/> | <input type="checkbox"/> | Completeness Review: The Project Manager has reviewed the Phase B Submittal and determined it to contain the components outlined in Section 500.1- Phase B Architect-Engineers Checklist and Section 505 - Phase B Responsibilities of the Architect-Engineer. |
| <input type="checkbox"/> | <input type="checkbox"/> | Acceptance Letter: The Project Manager issues the Phase B acceptance letter. |

End of Phase B Checklist for the Project Manager

500.3 - Phase B Checklist for the Using Agency

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

Instructions: At the time of the Phase B 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 5 – Phase B Design Development, of the Capital Construction Project Procedures Manual have been reviewed. |
| <input type="checkbox"/> | <input type="checkbox"/> | Pre-Design and Checklist: Items remaining on the Pre-Design and Phase A Checklist have been reviewed. |
| <input type="checkbox"/> | <input type="checkbox"/> | Unresolved Issues: Unresolved or incomplete issues from Phase A were reviewed. |
| <input type="checkbox"/> | <input type="checkbox"/> | Meetings: Phase B Progress and Design Review Meetings with Owner, Architect-Engineer and Design Team have been attended |
| <input type="checkbox"/> | <input type="checkbox"/> | Commissioning Meetings: Phase B Commissioning Team Meetings were attended. |

Project Development: The Using Agency has:

- | YES | N/A | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Project Program and Owner's Project Requirements: The Project Program and/or Owner's Project Requirements have been reviewed as appropriate and necessary. |
| <input type="checkbox"/> | <input type="checkbox"/> | Design Development Documents: The Design Development documents have been verified as complying 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 was provided to the Architect-Engineer. |

Final Budget, Area Calculations and Scheduling Deliverables:

- | YES | N/A | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Cost Estimate: The Agency Representative shall approve and sign the Phase A Estimate of Construction Cost. This form includes cost scheduling and Space Study Statement. See Section 508 - Phase B Estimate of Construction Cost. |
| <input type="checkbox"/> | <input type="checkbox"/> | Commissioning: The Using Agency has participated in the Commissioning Process. |

Phase B Submittal Review and Approval:

- | YES | N/A | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Copies: A complete set of Phase B documents has been received. |
| <input type="checkbox"/> | <input type="checkbox"/> | Review Meeting: The Using Agency attended the Phase B Review Meeting. |
| <input type="checkbox"/> | <input type="checkbox"/> | Review: Comments, revisions and changes to Phase B documents were reviewed. |
| <input type="checkbox"/> | <input type="checkbox"/> | Approval: The Using Agency issued approval prior to the Phase B 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 B Checklist for the Using Agency

500.4 – Phase B Checklist for the Commissioning Authority

This checklist is to be used by the Commissioning Authority during Phase B 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: Requirements in Chapter 5 – Phase B Design Development, of the Capital Construction Project Procedures Manual have been reviewed. |
| <input type="checkbox"/> | <input type="checkbox"/> | Pre-Design and Phase A Checklist: The Pre-Design and Phase A Checklist have been reviewed. The Architect-Engineer has been consulted to confirm that all carry forward items have been included or attached to the Phase B Checklist. |
| <input type="checkbox"/> | <input type="checkbox"/> | Unresolved Issues: The Commissioning Authority has reviewed unresolved or incomplete issues from Phase A. |
| <input type="checkbox"/> | <input type="checkbox"/> | Team Meetings: The Commissioning Authority has scheduled, conducted and documented Phase B Commissioning Team Meetings. |
| <input type="checkbox"/> | <input type="checkbox"/> | Phase B Pre-Submittal: The Phase B pre-submittal review has been scheduled and meetings have been coordinated. |
| <input type="checkbox"/> | <input type="checkbox"/> | Design Review Report: The Commissioning Authority has prepared a pre-submission Design Review Report and it has been provided to the Project Manager. |
| <input type="checkbox"/> | <input type="checkbox"/> | Commissioning Process Report: The Commissioning Process Report for Phase B has been written and distributed to all Commissioning Team members. |
| <input type="checkbox"/> | <input type="checkbox"/> | Phase B Commissioning Plan: An updated Commissioning Plan for Phase B was prepared and provided to the Project Manager and the Architect-Engineer. |
| <input type="checkbox"/> | <input type="checkbox"/> | Minutes: The Commissioning Authority has prepared minutes of Commissioning Process activities and decisions; these were distributed to Commissioning Team members and attendees within five (5) workdays of event. |
| <input type="checkbox"/> | <input type="checkbox"/> | Owner's Project Requirements: Commissioning Team members have been informed of decisions that alter the Owner's Project Requirements. |
| <input type="checkbox"/> | <input type="checkbox"/> | Design Schedule: The Architect-Engineer's changes to the Design Schedule and altered Commissioning activities have been incorporated into the Owner's Project Requirements. |

Phase B Commissioning Submittals:

- | YES | N/A | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Owner's Project Requirements: The Owner's Project Requirements have been updated and provided to the Architect-Engineer and the Project Manager. |
| <input type="checkbox"/> | <input type="checkbox"/> | Systems Basis of Design: 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 approved by the Project Manager have been incorporated. |
| <input type="checkbox"/> | <input type="checkbox"/> | Integration Plan: An integration plan to incorporate Commissioning requirements into the Project specifications has been prepared. |
| <input type="checkbox"/> | <input type="checkbox"/> | Forms and Checklists: The outlines for Construction Phase Commissioning Forms and Checklists have been prepared. |
| <input type="checkbox"/> | <input type="checkbox"/> | Systems Manual: An outline for the Systems Manual has been prepared for use by the Architect-Engineer. |
| <input type="checkbox"/> | <input type="checkbox"/> | Functional Performance Tests: The Functional Performance Test criteria have been defined for the Architect-Engineer. |

Phase B Commissioning Submittals: (continued)

- | YES | N/A | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Commissioning Plan: Revisions to the Commissioning Plan have been made that include updates and changes to Project information. |
| <input type="checkbox"/> | <input type="checkbox"/> | Phase B Checklist: The Phase B Submittals Checklist has been verified as complete for each design discipline. |
| <input type="checkbox"/> | <input type="checkbox"/> | Outline Commissioning Specification: An Outline Commissioning Specification for use by the Architect-Engineer has been prepared. |
| <input type="checkbox"/> | <input type="checkbox"/> | Specification/Outline Integration Plan: A Specification / Commissioning Integration Plan was developed for use by the Architect-Engineer. |
| <input type="checkbox"/> | <input type="checkbox"/> | Prepare a Construction Forms & Checklists Outline for use by the Architect-Engineer |
| <input type="checkbox"/> | <input type="checkbox"/> | Prepared a Systems Manual Outline for use by the Architect-Engineer. |
| | | Commissioning Requirements: The Architect-Engineer has received Commissioning Requirements for the following Divisions of Work: |
| <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 B 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"/> | Phase B Commissioning Activities: The Commissioning Authority shall review documents for completion of Commissioning Process activities for Phase B |
| <input type="checkbox"/> | <input type="checkbox"/> | Acceptance of the Submittal: The Commissioning Authority shall recommend acceptance of Phase B 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 B Checklist for the Commissioning Authority

501 – Phase B Authorization

501.1 Approval: The Phase “A” (schematic design) documents including the Phase “A” 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 the Project Manager.

501.2 Authorization to Commence with Phase B: The Architect-Engineer will be sent a letter from CCPA after approval of Phase “A” documents. No work shall be performed by any Architect-Engineer without this written authorization.

502 – Phase B Responsibilities of the Using Agency

During Phase B, the Using Agency shall:

- Participate in Phase B Progress Meetings and subsequent design review meetings.
- Provide additional information as needed or requested.
- Provide formal review, comment and approval of Phase B submittal including review and approval of Phase B drawings, outline specifications, cut sheets, cost estimates, etc.
- Participate in the Commissioning Process.
- For projects seeking LEED certification, the Using Agency shall assist the Architect-Engineer and the Project Manager in reviewing the LEED credits appropriate to the Project.

503 – Phase B Responsibilities of CCPA

503.1 Items Provided: During Phase B, CCPA will provide the Architect-Engineer the following:

- Phase B Authorization letter (if not previously authorized in the Phase A approval letter).
- The remaining topographic and survey work including the second phase subsurface investigations shall be initiated at the beginning of Phase B. These services are typically procured directly by CCPA although those services may be included as a part of the Architect-Engineer's contract.

503.2 Actions Taken: During Phase B, CCPA shall:

- Participate in Phase B progress meetings and subsequent design review meetings.
- Provide additional information as needed or requested.
- Provide formal review, comment and approval of Phase B submittal.
- Update the Total Estimate of Funds Through Design -. **See Section 202.1**
- Monitor Architect-Engineer performance to ensure adherence to Project budget, schedule and program.
- Participate in the Commissioning Process

503.3 Projects Seeking LEED Certification:

- The Project Manager shall assist the Architect-Engineer and the Using Agency in determining the LEED credits appropriate to the Project.
- The Project Manager will review the energy model to insure compliance with the required number of points for Energy and Atmosphere Credit 1.

504 – Phase B Responsibilities of the Commissioning Authority

During Phase B, the Commissioning Authority responsibilities shall include the following as a minimum for all commissioned systems:

504.1 Owner's Project Requirements:

- A review of the changes, clarifications, and additions to the Systems Basis of Design Document for compliance with the Owner's Project Requirements. Incorporate changes approved by the Project Manager.

504.2 Schedule:

- Incorporate Architect-Engineer changes to the Design Schedule into the Owner's Project Requirements.
- Alter Commissioning Process activities as required by the revised schedule.
- Schedule and conduct Commissioning Team meetings.
- Schedule Phase B pre-submittal review and coordinate meetings.

504.3 Documentation:

- Prepare minutes of Commissioning Process activities and decisions; distribute to Commissioning Team members and attendees within five (5) workdays of event.
- Prepare an integration plan to incorporate Commissioning requirements into the Project specifications.
- Prepare outlines for Construction Phase Commissioning Forms and Checklists.
- Prepare an outline for the Systems Manual.
- Write Commissioning Process Report for Phase B and distribute to all Commissioning Team members.

504.4 Phase B Documents Review: Review documents for:

- Satisfaction of the Owner's Project Requirements.
- Completion of Commissioning Process activities for Phase B.
- Energy Model compliance with the requirements of LEED Energy and Atmosphere Credit 1.

504.5 Communication:

- Incorporate revisions of the Commissioning Plan to include updates and changes to Project information.
- Inform Commissioning Team members of decisions that alter the Owner's Project Requirements.
- Verify completion of Phase B Deliverables Checklist by each design discipline.

504.6 LEED: For projects seeking LEED certification, the Commissioning Authority shall:

- Provide the Commissioning Plan and appropriate information to the Architect-Engineer in order to comply with the LEED Commissioning credits.
- Review the Energy Model to insure the required numbers of points for LEED Energy and Atmosphere Credit 1 are being met.

504.7 Approval: Recommend acceptance of Phase B Submittal to the Using Agency and Owner.

505 – Phase B Responsibilities of the Architect - Engineer

505.1 Project Program and Administration: Phase B design development represents 40% of the design contract. The Architect-Engineer shall:

- Begin design development only upon formal approval of the design fee for the remaining phases has been received from CCPA.
- Continue development and expansion of design documents to establish the final scope, relationships, forms, size and appearance of the project.
- Ensure that all remaining topographic and survey work is completed during Phase B. The second phase subsurface investigations shall be initiated at the beginning of Phase B. The Architect-Engineer shall initiate and coordinate all requested work with the selected consultant providing services.
- Meet with the assigned CCPA representatives and the appropriate Using Agency Representative(s) as needed to fully develop the design.
- Involve all Sub-consultants throughout the Phase B design development process.

505.2 Budget - Cost Estimate: The Architect-Engineer shall:

- Update the Cost Estimate on the Phase B Estimate of Construction Cost form. The Project estimate shall reflect any adjustment in cost due to changes in Project Scope, requirements or general market conditions.
- Ensure that Phase B documents adhere to the design and budget parameters established in Phase A. Inform the Project Manager immediately should the Project exceed the Phase A budget with explanations for the increased cost.
- If at any time the Architect-Engineer identifies that the Project Scope is likely to exceed the project budget they shall provide a list of areas to be considered for Value Engineering evaluation.
- Provide Value Engineering during design development of building component systems. Value Engineering shall be a continuous process throughout all phases and aspects of the Project.
- Obtain approval in writing from the Project Manager for any increase in area or cost.

505.3 Schedule: The Architect-Engineer shall:

- Update the Project Schedule on the Phase B Estimate of Construction Cost form defining major project design and construction milestone dates.
- Deliver the Phase B submittal to the Using Agency Representative and the Project Manager two weeks prior to the formal presentation unless notified otherwise.

505.4 Space Study Statement: Update the Space Study Statement on the Phase B Estimate of Construction Cost form defining any adjustments to the area of the project.

505.5 Commissioning: Participate in Commissioning Authority design development review process, when Enhanced Commissioning is used.

505.6 LEED: For projects Seeking LEED Certification, the Architect/Engineer shall:

- Finalize the LEED points being pursued on the Project.
- Provide an updated preliminary energy model as required to document compliance with the required number of points for Energy and Atmosphere Credit One.

506 – Phase B Submittal

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

506.1 Phase B Checklist: With the Phase B submittal, the Architect-Engineer shall prepare the Phase B Architect-Engineer Checklist. This checklist shall be placed at the beginning of the Phase B submittal. **See Section 500.1 - Phase B Architect-Engineer Phase B Checklist.**

506.2 Federal Funding: When Federal funding is involved, the Using Agency and/or CCPA will update the status of the Federal review to the Architect-Engineer. 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 B submittal.

506.3 Phase B Commissioning Plan: The Architect-Engineer shall obtain and include the Phase B Commissioning Plan in the Phase B Submittal: The Phase B Commissioning Plan shall include the following minimum requirements:

- Revisions to the Commissioning Plan created in Phase A.
- Improvements to the accuracy of the plan created in Phase A.
- Inclusion of any alterations and/or decisions made during design.
- A defining of the Construction and Warranty Phase commissioning requirements.

See Sections 019113-1 through 019113-9.1 for additional Commissioning requirements.

506.4 Phase B Design Development Drawings: The Architect-Engineer shall prepare these drawings in 24" x 36" bound format showing the final scope, relationships, forms, size and appearance of the Project. Phase B drawings may be submitted as half-size or 11" x 17" prints upon approval of the Project Manager. Include the following at a minimum:

- **Site plan** shall be developed sufficiently to establish grades, cuts, fills, and major walkways, drives, structures, etc. This work is to be prepared on duplicates of the original certified surveyor's topographical site survey.
- **Site Utility Plan** shall include all utility sources, capacities, and routing.
- **Building Plans** shall be developed at working drawing scales showing all partitions, utility spaces, mechanical areas, service areas and assigned functional areas as programmed. All spaces shall be identified. Walls shall be properly indicated as to width and type. All plans and spaces shall be correctly dimensioned. North arrows shall be shown on all plans.
- **Elevations** of building(s) shall be shown with heights established, materials defined and finish grades indicated with ground elevations established.
- **Sections** shall be provided, including structural and mechanical systems related to the architectural spaces, ceiling and wall types.
- **Typical construction details** shall be provided defining construction requirements for major project elements or features.
- **Structural plans** shall show foundation, building framing systems including floor and roof framing, and typical structural details.

- **Facility Services Subgroup (CSI Divisions 21000 - 29000)** Phase B MEP drawing requirements are presented in the Architect-Engineer's Phase B Checklist. **See Section 500.1 - Phase B Architect-Engineer Phase B Checklist**
- **Outline Specifications:** The Architect-Engineer shall update the Phase A Outline Specifications and include in the Phase B Submittal. **See Section 307 for example Outline Specifications.**
- **Materials/Equipment Data Sheets:** Include Materials/Equipment data "or cut" sheets showing selections that establish requirements for all major equipment, fixtures and building systems.
- Provide all other studies, calculations, evaluations as outlined in the Phase B checklist. **See Section 500 Phase B Checklist.**

506.5 Phase B Cost Estimate: The Architect-Engineer shall verify and further develop the Phase A cost estimate:

- Considering 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.
- Preparing the cost estimate on the Phase B 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 508 Phase B Estimate of Construction Cost.**
- The Architect-Engineer shall not include any contingency as part of the estimate. Contingency factors are included in separate CCPA documents. The Phase B construction cost estimate has a space provided for the authorized Using Agency signature of acceptance of the estimate.

506.6 Project Schedule: The Architect-Engineer shall include the following updated schedule information in the Phase B Estimate of Construction Cost:

- Significant Project design milestones such as review submittals for Phase C.
- Review periods for the Using Agency and the CCPA.
- Anticipated construction start and Substantial Completion dates.

506.7 Space Study Statement: The Architect-Engineer shall update the Phase B Estimate of Construction Cost form provided by CCPA. **See Section 508 for the Phase B Estimate of Construction Cost Form.**

506.8 Commissioning: The Architect-Engineer shall participate in the Commissioning Authority Design Development review process if Enhanced Commissioning is used.

506.9 LEED: For Projects Seeking LEED Certification, the Architect/Engineer shall perform the following during Phase B:

- Finalize LEED points being pursued on the Project.
- Provide an updated energy model as required to document compliance with the required number of points for Energy and Atmosphere Credit 1.

507 – Phase B Review and Approval

507.1 Review: The Project Manager and the Using Agency Representative review the Phase B submittal. The Project Manager schedules a Phase B Review Meeting to evaluate the submittal for compliance with the Project Program, budget and schedule.

Following the review meeting, the Architect-Engineer documents in the meeting minutes all identified significant issues or concerns. All comments, drawing mark-ups and other issues and concerns identified during the Phase B review are then incorporated into the project documents.

507.2 Approval: When the Phase B design is acceptable, the Using Agency shall forward to the Project Manager a signed Phase B cost estimate. The Project Manager then issues a letter of approval to the Architect-Engineer.

508 - ARCHITECT/ENGINEER'S ESTIMATE OF CONSTRUCTION COST PHASE "B" - DESIGN DEVELOPMENT

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

I.

SITWORK

		Base Bid		Add. Alt.
A.	GENERAL DEVELOPMENT			
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)			
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)			
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. <u>Do not</u> 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 <u>Special Contract Advice</u> 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 %	%
NOTE: Per AIA Method Document D-101 (June, 1974).			
E.	AIA Square Foot Costs (Excluding Site Development)	\$ - /sf	\$ -
F.	Square Foot Costs per Assignable Area	\$ - /sf	\$ -
G.	Site Development Cost, (Item I.)	\$ -	\$ -
NOTE: Enclose Calculating Data "Back-up" for Final Estimates			
<u>Any additional information relating to this estimate to be attached.</u>			

project name:

date:

office project #:

VIII

CONSTRUCTION DOCUMENTS:

- A. Time, in calendar days, after receipt of written authorization to complete Phase "C" Plans. _____ Days
Review Period _____ Days
- B. Time, in calendar days, to produce interim Phase C documents. (if applicable). _____ Days
Review Period _____ Days

IX.

CONSTRUCTION TIME:

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

X.

SIGNITURES

- A. A/E Firm Preparing Cost Estimate:

_____ Firm Name: _____ Location:

- B. This Estimate prepared by:

_____ Title: _____ Date: _____

- C. This Estimate certified by:

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

- D. Estimate approved and accepted for agency by:

_____ Date: _____
Head of Using Agency or Cabinet Secretary