Double vertical lines in the margin indicate areas of material change since the October 1997 edition.

CHAPTER 8

CONSTRUCTION INSPECTION & MONITORING OF PROJECTS OF STATE AGENCIES & DEPARTMENTS, POSTSECONDARY EDUCATION, PSCA, AND SIMILAR AUTHORITIES

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A. APPLICABILITY of CHAPTER

This chapter defines construction inspection and monitoring that will be performed by the ABC and sets forth related requirements and procedures for design professionals for projects supervised and administered by the Technical Staff. The types of projects to which this chapter applies includes projects of:

- $ State Agencies & Departments
- $ Postsecondary Education
- $ Public School & College Authority (PSCA)
- $ Alabama Building Renovation Finance Authority (ABRFA)
- $ Alabama Corrections Institution Finance Authority (ACIFA).
- $ Alabama Mental Health Finance Authority (AMHFA)
- $ Other "authorities" established by legislative acts to fund specific construction or improvement programs and which are assigned by the legislative act to the ABC for administration and supervision.

B. INTRODUCTION

For projects administered by the ABC, the Inspection Division: (1) performs scheduled and periodic inspections of in-progress and completed work to ensure code compliance and conformance with contract requirements, (2) monitors and administers the services performed by the design professional during construction, (3) monitors the contractor's progress and performance of the work, and (4) documents concurrence with final acceptance of the Work by the design professional and Awarding Authority. These inspections are also applicable to locally-funded K-12 public school projects.

BEFORE PROCEEDING WITH THE REQUIREMENTS OF THIS CHAPTER, it is recommended that the reader first refer to the "Summary of ABC Requirements by Project Type" in the Introduction to this Manual and then to the project appendix indicated in the "Summary" to obtain a general understanding of the ABC's authority, requirements, and procedures applicable to the proposed project.

This Manual only addresses requirements and procedures of the ABC, the design professional should determine whether sources of project funding (such as federal funding) or regulations peculiar to the Awarding Authority may require supplementation of the ABC requirements and procedures.

C. ASSIGNMENT of and COMMUNICATIONS with the BC PROJECT INSPECTOR

The Inspection Division is composed of inspectors located in and assigned to territories of the state, headed by a Chief Inspector who is also assigned to a territory, but maintains an office in Montgomery with support staff. Inspector assignment is by territory, whose name, home address, and home telephone number will be provided to the design professional at the beginning of the project.

The design professional is to provide the BC Project Inspector with a copy of each inspection report at the Inspector's home address as it is submitted to the ABC Montgomery office. **All reports and correspondence must bear the BC Project Number.** The design professional must contact the BC Inspector (by telephone) at least seven (7) days before scheduling inspections or meetings requiring the BC Inspector's attendance. Scheduling with the Project Inspector should be by telephone and confirmed in writing.

D. STATEMENT of FIELD OBSERVATIONS, ABC Form B-10

All site inspections and observations are to be recorded utilizing ABC Form B-10, Statement of Field Observations, which is contained in Appendix B. The standard form contains spaces for reporting typical information regarding project status, **ALL BLANK**

SPACES ARE TO BE COMPLETED ON EACH REPORT. The design professional must also concisely report any deficiencies encountered, problems or questions raised by the contractor, instructions or answers given to the contractor, and administrative or construction delays observed. The design professional must endeavor to write his or her reports utilizing descriptions of components and areas that are consistent with descriptions contained in the plans and specifications so that the "third-party reader" can understand what is being discussed and where it is located in the project. Each report is to be distributed by the design professional to the Awarding Authority, contractor, Technical Staff, and BC Project Inspector promptly after conducting an inspection so that all parties are kept current regarding events on the project.

The ABC utilizes a document management system which is capable of scanning, storing, retrieving, and faxing documents. To produce an acceptable quality in documents retrieved from this system, the following is required of inspection reports and attached documents submitted to the Technical Staff:

- Submit original documents - no carbon copies.
- Do not highlight text. Highlighted text does not produce a good scanned image.
- Preferably, submit only letter size (8½ X 11) documents.
- Preferably, send only one-sided documents.

E. SCHEDULED CONFERENCES and INSPECTIONS

The design professional shall schedule and conduct the following project conferences and inspections. The BC Project Inspector shall be contacted (by telephone and confirmed in writing) at least seven (7) days before scheduling.

1. PRE-CONSTRUCTION CONFERENCE

Within two weeks after the date of commencement stated in the Notice To Proceed, the design professional is to conduct a pre-construction conference to be attended by the contractor, Awarding Authority's representative, and BC Project Inspector; on projects involving significant work in engineering specialties, consulting engineers and major subcontractors should also attend. The conference should be conducted at the site of the work if suitable facilities are available. During the conference the duties and responsibilities of the various entities are to be discussed and administrative requirements and procedures explained. Minutes of the conference should be prepared by the design professional and distributed to the attendees and Technical Staff.

ABC Form B-8, Pre-Construction Conference Checklist, is contained in Appendix B as a recommended reference for this conference. This conference may be waived on simple projects of less than $100,000 in value. If re-roofing is the sole purpose of the project, the business of a Pre-construction Conference may be covered during the Pre-roofing Conference.

2. PRE-ROOFING CONFERENCE

On projects involving the installation of a new roof system or replacement of an existing roof, a pre-roofing conference is required before any roofing materials are installed. This conference shall be conducted by the design professional as described in Chapter 5, Section C.4, and attended by the BC Project Inspector.

The Architect shall prepare a written report indicating actions taken and decisions made at this pre-roofing conference. This report shall be made a part of the job record and copies furnished the general contractor, the Awarding Authority, the Technical Staff, and the BC Project Inspector.

3. ABOVE CEILING INSPECTION(S)

The design professional is to conduct an above ceiling inspection of all spaces in the building before the ceiling material is installed. The inspection is to be attended by the BC Project Inspector, the consulting engineers who designed systems installed above the ceiling, the contractor, installers of systems above the ceiling, and the installer of the ceiling framing system. In buildings of multiple floors and/or large floor areas, multiple above ceiling inspections should be conducted consistent with construction sequencing and phasing to avoid delaying progress.

Above ceiling inspections are to be conducted at a time when all above ceiling systems are complete and tested to the greatest extent reasonable pending installation of the ceiling material. System identifications and markings are to be complete. All fire-rated construction including fire-stopping of penetrations and specified identification above the ceiling should be complete. Ceiling framing and suspension systems should be complete with lights, grilles and diffusers, access panels, fire protection drops for sprinkler heads, etc., installed in their final locations to the greatest extent reasonable. Above ceiling framing to support ceiling mounted equipment should be complete. In short, the above ceiling construction should be complete to the extent that after the inspection the ceiling material can be installed without disturbance.

4. FINAL INSPECTION

The design professional and consulting engineers shall conduct a Final Inspection of the work, which will be attended by the BC Project Inspector, the Awarding Authority's representative, the contractor, and appropriate subcontractors. The purpose of this Final Inspection shall be to establish that the Work, or a designated portion of the work, is substantially complete, accepted by the design professional and Awarding Authority, and ready for occupancy or use by the Awarding Authority. **Prior to scheduling the Final Inspection, the design professional should remind the Awarding Authority to make the necessary preparations to assume building security, maintenance, utility services, and insurance coverage on the date of substantial completion.** At

the conclusion of this inspection, items requiring correction or completion should be minimal and require a short period of time for accomplishment; therefore, the design professional shall have conducted detailed inspections to satisfy himself that the Work is ready for Final Inspection and acceptance before scheduling the inspection. If the project includes the installation, or modification, of a fire alarm system, **THE FIRE ALARM SYSTEM MUST BE TESTED AND CERTIFIED BEFORE THE FINAL INSPECTION**. The design professional is to submit inspection reports evidencing follow-up inspections accounting for correction and/or completion of items listed in the Final Inspection.

5. YEAR-END INSPECTION

An inspection is required near the end of the contractor's one year warranty period. The inspection is to be scheduled and conducted by the design professional and is to be attended by the BC Project Inspector, Awarding Authority's representative, contractor, and applicable consulting engineers and subcontractors. The design professional's report of this inspection is to be promptly distributed to all attendees. This report will serve as confirmation that the contractor was notified of deficiencies needing repair or correction in accordance with Guarantee of the Work of the General Conditions of the Contract.

F. PERIODIC INSPECTIONS and OBSERVATIONS by the DESIGN PROFESSIONAL

In the absence of weekly, or reasonable explanations of their absence, the ABC's Chief Inspector must assume that the design professional is not fulfilling his obligations under the O/A Agreement.

The Standard Articles of the O/A Agreement provide that the frequency of the design professional's site visits and inspections shall be consistent with the size and nature of the project, but will include at least one per week. The weekly inspection requirement when weather and other conditions delay progress or inherently slow phases of construction make weekly site visits unwarranted, but in such periods the Technical Staff and BC Project Inspector are to be advised of the situation by use of a Statement of Field Observations that states that no weekly visit was made and why. In the absence of weekly Statements of Field Observations, or reasonable explanations of their absence, the ABC's Chief Inspector must assume that the design professional is not fulfilling his or her obligations under the O/A Agreement.

G. ENGINEERS' INSPECTIONS and OBSERVATIONS

The Basic Services of the O/A Agreement include inspections by the consulting engineers and other consultants who designed the specific disciplines of the work. Unless specific inspection requirements are negotiated into the Agreement, the number

and frequency of inspections by its consultants is the responsibility of the design professional, but the Standard Articles require them to be appropriate to each discipline of design and in keeping with the design professional's obligations to the Owner. The design professional is not required to have its consultants participate in the year-end inspection except in the case of complex systems or the presence of recurrent problems that warrant inspection by the system designer. Reports of engineers' inspections are to be attached to the primary design professional's Statement of Field Observations for distribution.

H. ABC PERIODIC INSPECTIONS

The BC Project Inspector will periodically inspect the project, usually scheduling his inspections around key stages of construction based upon information reported in the Statement of Field Observations. As the design professional or Awarding Authority deems appropriate, the BC Project Inspector, as well as staff members in the Montgomery office, can be requested by telephone, or in writing, to schedule special inspections or meetings to address specific matters. The findings of ABC inspections will be transmitted to the Awarding Authority, contractor, ABC Montgomery office, and design professional in a format similar to the Statement of Field Observations.

I. CERTIFICATE of SUBSTANTIAL COMPLETION, ABC Form C-13

ABC Form C-13, Certificate of Substantial Completion, is contained in Appendix C and is the document that: (1) establishes acceptance of the work, or a designated part of the work, by the design professional, Awarding Authority, and ABC, (2) establishes that the Awarding Authority can occupy or use the work, or designated part, (3) establishes the date upon which the work, or designated part, was substantially complete, (4) establishes the beginning date of the one-year and special warranties for the work covered by the certificate, and (5) establishes the date upon which the Awarding Authority becomes responsible for building security, maintenance, utility services, and insurance. If it is agreed between the contractor and Awarding Authority that responsibility for building security, maintenance, utility services, or insurance transfer to the Awarding Authority or that any warranties begin on a date other than the date of substantial completion, such agreements must be recorded as an attachment to the Certificate of Substantial Completion. This document is to be the product of the Final Inspection. During the Final Inspection all parties should agree upon the Date of Substantial Completion, which may, or may not, be the date of the Final Inspection.

The Date of Substantial Completion ends the contractor's exposure to Liquidated Damages for late completion of the work or the portion of the work covered by a Certificate of Substantial Completion. However, the General Conditions allow the contractor 30 days, or a longer period if stated on the Certificate, to complete or correct "punch list" items recorded with a Certificate. If the contractor fails to complete or correct "punch list" items within this time, any resulting expenses incurred by the Awarding Authority, such as additional services rendered by the design professional,

may be charged to the contractor.

It should be noted that the Certificate of Substantial Completion states that, If completed or corrected within the period stated in the Certificate, warranties of these items commence on the Date of Substantial Completion, otherwise such warranties commence on the date of Final Acceptance of each item.

The Certificate of Substantial Completion marks a pivotal point of the project, but is not valid until signed by all parties. The document shall be prepared and signed by the design professional and then signed, in order, by the contractor, Awarding Authority, BC Project Inspector, BC Chief Inspector, and Director, Technical Staff. For projects which include roofing work, the General Contractor's (5-year) Roofing Guarantee, ABC Form C-9, must be executed by the general contractor and attached to the Certificate of Substantial Completion. If the contract specifies any other roofing warranties to be provided by the roofing manufacturer, subcontractor, or general contractor, they must also be attached to the Certificate of Substantial Completion. **The Technical Staff will not sign the Certificate of Substantial Completion in the absence of the roofing guarantees.** The fully executed form will be distributed by the Technical Staff.