

# Advisory Circular

Subject: Predesign, Prebid, and Preconstruction Conferences for Airport

**Grant Projects** 

Date: 9/30/2009 **AC No:** 150/5300-9B

**Initiated by:** AAS-100 Change:

- 1. PURPOSE. This advisory circular (AC) provides guidance for conducting predesign, prebid, and preconstruction conferences for projects funded under the Federal Aviation Administration (FAA) airport grant program.
- 2. CANCELLATION. This AC cancels AC 150/5300-9A, Predesign, Prebid, and Preconstruction Conferences for Airport Grant Projects, dated May 5, 1985.
- **3. APPLICATION.** The FAA recommends the guidelines in this AC for conducting predesign, prebid, and preconstruction conferences. In general, use of this AC is not mandatory. However, use of this AC is mandatory for all projects funded with federal grant monies through the Airport Improvement Program (AIP) and with revenue from the Passenger Facility Charges (PFC) Program. See Grant Assurance No. 34, "Policies, Standards, and Specifications," and PFC Assurance No. 9, "Standards and Specifications."
- **4.** BACKGROUND. Predesign, prebid, and preconstruction conferences should be conducted to ensure the sponsor, the engineer, the contractor, and other interested parties are aware of design, safety, and construction requirements and have an understanding of their individual responsibilities, as well as the technical and legal requirements of the contract. The magnitude, type, and location of the project and the nature of airport use will determine the need for such conferences.
- **5. PRINCIPAL CHANGES.** The AC includes the following principal changes:
  - a. Replaced Minority Business Enterprise (MBO) with Disadvantaged Business Enterprise (DBE).
  - **b.** Added quality acceptance as a topic of discussion for the preconstruction conference.
  - c. In the Design Phase section of appendix 1, added items to be addressed in the engineer's report, including operational safety, site conditions, marking and signage, and the project budget.
  - **d.** In the Construction Phase section of appendix 1, added more details about what should be included in the phasing plan.

**e.** In the Construction Phase section of appendix 2, added construction management plans as an item to be discussed.

#### 6. PREDESIGN CONFERENCE.

- **a. Purpose.** A predesign conference, convened and conducted by the sponsor or an authorized agent, should be used to discuss various items relating to design parameters, airport safety, routing of aircraft and equipment, sequencing of construction operations, environmental considerations, and civil rights requirements. A predesign conference is essential when a project is of sufficient magnitude to affect airport operations during construction. Possible conflicts between construction activities and the operation of the airport should be resolved at this meeting.
- **b. Timing.** The meeting should be held as soon as sufficient preliminary design work has been completed and always prior to preparation of the final plans and specifications. Sufficient time should be allowed to notify all parties so schedules can be arranged accordingly. We recommend a minimum of 10 working days.

### c. Participants.

- (1) The participants will vary according to the effect the proposed construction will have on airport operations. As applicable, the sponsor should invite the following parties to participate:
  - (i) Sponsor's design engineer.
  - (ii) Airport management.
  - (iii) Air Transport Association regional representatives.
  - (iv) Air Line Pilots Association representatives.
  - (v) Fixed base operators.
  - (vi) Airline representatives.
- (vii) FAA airport certification inspector at all airports certified under Title 14, Code of Federal Regulations (CFR), Part 139, Certification of Airports.
  - (viii) Representative of FAA Airports regional or field office.
- (2) The FAA Airports regional or field office should ensure that all appropriate FAA offices (Air Traffic, Flight Standards, etc.), military installations, and Federal agencies that may have an interest in the project are notified.
- **d. Agenda Items.** The sponsor should prepare an agenda of items to be discussed at the predesign conference. Appendix 1 contains a list of typical items. This list is not all-inclusive, and items should be added, as necessary.

#### 7. PREBID CONFERENCE.

- **a. Purpose.** The sponsor's engineer should conduct a prebid conference for large projects or projects with unique features to help clarify and explain construction methods, procedures, and safety measures required by the contract.
- **b.** Timing. The meeting should be held a minimum of 10 days prior to the bid opening date.

**c. Participants.** The participants should normally include prospective bidders, subcontractors, and material suppliers. Under normal circumstances, FAA participation is not required.

- **d.** Agenda Items. Typical agenda items include:
  - (1) New or unique construction methods.
  - (2) New construction procedures, i.e., statistical acceptance testing.
  - (3) Operational safety requirements.
- (4) Disadvantaged Business Enterprise (DBE) and other civil rights requirements. See AC 150/5100-15, Civil Rights Requirements for the Airport Improvement Program (AIP), current edition.
- (5) Labor requirements. See AC 150/5100-6, Labor Requirements for the Airport Improvement Program (AIP), current edition.

Any changes or modifications recommended during the conference will be included in an addendum to the bid documents. A copy will be furnished to each prospective bidder who purchased or borrowed bid documents, including those who did not attend the conference.

Copies of the proceedings, containing all items discussed, including responses to questions, will be made available to each of the participants, upon request.

- **e. Availability of Advisory Circulars.** Current copies of ACs applicable to a project should be available for distribution to prospective bidders, including:
  - (1) AC 150/5345-53, Airport Lighting Equipment Certification Program.
- (2) AC 150/5100-6, Labor Requirements for the Airport Improvement Program (AIP).
- (3) AC 150/5100-15, Civi1 Rights Requirements for the Airport Improvement Program (AIP).

AC 150/5345-53 lists the names and addresses of manufacturers of airport lighting equipment. ACs 150/5100-6 and 150/5100-15, respectively, contain the basic labor and civil rights requirements that contractors must meet.

#### 8. PRECONSTRUCTION CONFERENCE.

- **a. Purpose.** A preconstruction conference, convened and conducted by the sponsor or an authorized agent, should be used to discuss operational safety, testing, quality control, quality acceptance, security, safety, labor requirements, environmental factors, and other issues. This meeting, among all parties affected by the construction, should assist in a better understanding of potential problems and possible solutions.
- **b. Timing.** The preconstruction conference should be conducted as soon as practicable after the contract has been awarded and before issuance of the notice to proceed. Sufficient time should be allowed to notify all parties so schedules can be arranged accordingly. We recommend a minimum of 10 days.

#### c. Participants.

(1) The participants will vary according to the size and type of airport and the potential effect the proposed construction will have on the operation of the airport. As applicable, the sponsor should invite the following parties:

- (i) Sponsor's engineer.
- (ii) Resident engineer.
- (iii) Airport management.
- (iv) Testing laboratory representative.
- (v) Contractor and subcontractor(s).
- (vi) Contractor's project superintendent.
- (vii) Contractor's project clerk.
- (viii) Airport users, including airline representatives, fixed base operators, Air Line Pilots Association representative, Air Transport Association regional representative, and military representative (joint-use airport).
  - (ix) Utility companies affected by the proposed construction.
  - (x) Federal, state, or local agencies affected by the proposed construction.
  - (xi) Representative of FAA Airports regional or field office.
- (2) The FAA Airports regional or field office should ensure that all appropriate FAA offices (Air Traffic, Flight Standards, etc.), military installations, and Federal agencies that may have an interest in the project are notified.
- **d. Agenda Items.** The sponsor or authorized agent should prepare an agenda prior to the preconstruction conference. Appendix 2 contains a list of typical discussion items. This list is not all inclusive and items should be added, as necessary. A written report or minutes should be furnished to all participants. The report should consist of a summary of the discussions, with the conference agenda and a list of attendees attached.

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#### APPENDIX 1. AGENDA ITEMS FOR PREDESIGN CONFERENCE

#### 1. DESIGN PHASE.

- a. Scope of work and design parameters peculiar to the project, including items such as design aircraft, local conditions and materials, use of recycled materials, design options, use of FAA standards, and materials furnished by others.
- b. Submission of an engineer's report with the plans and specifications. The report should include:
  - (1) Scope of proposed project.
  - (2) Photographs that depict existing site conditions.
- (3) Design standards. List applicable standards such as design aircraft, geometric dimensions, safety areas, and object free areas.
- (4) Airport operational safety. Describe how operational safety will be maintained during construction and address phasing and pavement closures.
- (5) Site conditions. Describe conditions and include a summary of the geotechnical report.
  - (6) Design alternatives and reason for selected design.
- (7) Pavement design, including summary on FAA Form 5100-1, Pavement Design. Supporting information should include fleet mix, selection of paving materials, and summary of design calculations. Material availability may need to be discussed for remote locations.
  - (8) Drainage design computations.
- (9) Lighting design. Address design criteria, design selection, and lighting layout. Explain choice of equipment.
  - (10) Marking and signage. Address pavement marking and signage requirements.
- (11) Sponsor Modifications to Design Standards. Explain deviations from FAA design standards.
- (12) Sponsor Modifications to Construction Standard Specifications. Describe reasons for modifications to construction standards.
  - (13) Description of non-Federally funded work to be included in the contract.
- (14) Engineer's estimate of construction contract cost. Describe provisions included in the plans and specifications to carry out environmental mitigation actions resulting from the environmental coordination process.
- (15) Project Budget. Include a budget that identifies all anticipated project costs (administrative, engineering design, construction oversight, construction, etc.).

#### 2. CONSTRUCTION PHASE.

a. Sequence of construction phases and any necessary special routing of aircraft considering airline schedules; lead time for clearance of runway, taxiway, or apron by construction equipment; notification of schedule changes; and procedures for emergency handling of aircraft. Phasing plans should address:

- (1) Work area limits.
- (2) Pavement closures.
- (3) Notice to Airmen (NOTAM) issuance. (See the current version of AC 150/5200-28, Notices to Airmen (NOTAMs) for Airport Operators.)
- (4) Airport operations area security concerns.
- (5) Airfield communications.
- b. Location of auto parking lot for use by contractor's employees and access from public road.
  - c. Marking and lighting of construction areas.
  - d. Location of contractor's stockpiles, construction office, and plant.
  - e. Location of access to construction work areas and on-site material haul roads.
  - f. Designation of on-site waste areas.
- g. Control of air, water, and noise pollution and other environmental considerations and requirements.
- h. Access from public road to construction area and construction office and the need for security measures.
- i. Establishment of minimum distance restrictions for construction vehicles, equipment, workers, and materials in relation to runway, taxiways, and navigational aids (NAVAIDs) that remain in operational use. See AC 150/5370-2, Operational Safety on Airports During Construction, current edition.
- **3. OPERATIONAL SAFETY.** The provisions of AC 150/5370-2 and the appropriate provisions incorporated into the plans and specifications in a section on airport safety.
- **4. NOTICE TO AIRMEN (NOTAMS).** The party responsible for issuing and maintaining the currency of NOTAMs during the construction period and the point of issuance.

#### 5. MARKING AND LIGHTING.

- a. Threshold displacement.
- b. Temporary or permanent runway or taxiway closing, including marking.
- c. Installation and maintenance of marking and lighting for threshold displacement or closing of runway and taxiway.

#### 6. TRAFFIC CONTROL.

a. The requirement of a signal person or vehicular traffic control at point of conflict between aircraft and surface vehicles.

- b. The marking and/or lighting of construction equipment and vehicles.
- c. The parking of construction equipment and vehicles when not engaged in construction, during non-working days and at night.
- d. Any required communications between construction or inspection forces and the Air Traffic Control Tower (ATCT) or the Flight Service Station (FSS).

#### 7. NAVAIDS.

- a. The impact of proposed construction on instrument approach procedures and takeoff or landing minimums and the need for temporary NAVAIDs and/or visual aids. See AC 150/5370-2.
- b. The time sequence of contractor events related to the required temporary shutdown of a NAVAID system to ensure minimum facility shutdown time.
  - c. Identification of buried cables and utilities within the construction area.
- **8. SECURITY.** Requirements to maintain temporary airport security, i.e., security control at gates where contractor personnel and equipment enter the airport.
- **9. ENVIRONMENTAL.** Environmental mitigation actions resulting from the environment coordination process.
- **10. CIVIL RIGHTS AND LABOR REQUIREMENTS.** Civil rights and labor requirements applicable to the project.

#### APPENDIX 2. AGENDA 1TEMS FOR PRECONSTRUCTION CONFERENCE

The conference should be scheduled so items of general interest to all participants are discussed prior to special interest items.

#### 1. GENERAL INTEREST AND SAFETY ITEMS.

- a. The scope of the project and the sequence and timing of all operations.
- b. Relationship of the resident engineer to the sponsor with emphasis on the authority of the resident engineer to act on the sponsor's behalf. Advise that the resident engineer has the authority to suspend operations, wholly or in part, when safety violations or nonconformance to the contract specifications are noted.
  - c. Relationship between the FAA and the sponsor.
- d. Identification of the contractor's superintendent and a discussion of his/her authority and responsibilities.
- e. Designation of sponsor representative responsible for notifying the Flight Service Station serving the airport of the proposed start and completion dates of construction or of any circumstances requiring a NOTAM.
- f. Scheduling of work and the need to perform certain items at various stages of the project, including operational safety problems that might arise because of the proposed work.
  - g. Notice to proceed date.
- h. Safety during construction, including the responsibility for marking and lighting of closed and hazardous areas. See AC 150/5370-2 and AC 150/5340-1, Standards for Airport Markings, current edition, for detailed information.
  - i. Security requirements.
- j. The need for continuing vigilance for potential or existing hazards relative to any of the items listed in appendix 1. In addition to these items, all responsible parties must be alert to the following hazard-producing situations, which may develop during the construction period:
  - (1) Open trenches and settlement of backfill in runway and taxiway safety areas.
  - (2) Pavement "drop offs" or "lips" at pavement tie-in areas.
- (3) The obliteration, inadvertent relocation, or disturbance of the marking and/or lighting of displaced threshold and marking of closed runways or taxiways.
- (4) Damage to existing in-use pavement lighting, marking, or NAVAIDs by construction forces.
  - (5) Spillage from vehicles on active airport pavement.
  - (6) Temporary stockpiling of material for an extended period of time.
- (7) Contractor vehicular traffic through restricted critical areas of NAVAID facilities and the airport operating area.

(8) Dust control and environmental factors, such as burning, waste disposal, etc.

(9) Maintenance of sanitary facilities on the project site.

#### 2. CONSTRUCTION ITEMS.

- a. The general requirements of quality control and testing should be discussed. It should be clearly understood who will do the testing, what is to be tested, when it is to be tested, and the location and number of tests. The general requirements for construction management plans, sometimes called construction observation programs, should be discussed. These plans detail the measures and procedures that will be used to assure compliance with the quality control / quality assurance provisions of the construction contract.
- b. Test Reports. Each report should, as a minimum, contain the following information:
  - (1) Test performed.
  - (2) Applicable standard.
  - (3) Test location.
  - (4) Test result.
- (5) Action taken for failing tests. A copy of all test reports should be furnished to the resident engineer in a timely manner. Failing test results should be reported to the resident engineer immediately. Explain that the FAA is not obligated to financially participate in construction that does not meet contract plans and specifications.
  - c. Role of the Resident Engineer. Duties to emphasize include the following:
    - (1) Ensures all required testing is performed.
- (2) Ensures tests are performed at the frequency stated in the specifications. If not stated in the specifications, makes sure an adequate number of tests are taken to document an acceptable level.
  - (3) Reviews test results for conformance to specifications.
- (4) Informs the contractor of deficiencies so corrections can be made and retests performed prior to covering any substandard work with additional material.
  - (5) Maintains record of quantity of materials used on the project.
  - (6) Maintains copies of test reports on file.
  - (7) Maintains diary. Contents of a diary should include:
    - (i) Weather conditions and temperature.
    - (ii) Work in progress and location.
    - (iii) Equipment in use, including types and numbers.
    - (iv) Size of work force, including supervision.
    - (v) Hours worked per day for contractor and subcontractors.

- (vi) Materials delivered.
- (vii) Any instructions to the contractor.
- (viii) Principal visitors.
- (8) Maintains set of working drawings that can be used to prepare "asconstructed" drawing.
- d. Periodic construction report, Construction Progress and Inspection Report (FAA Form 5370-1).
  - e. Change orders, time extensions, periodic cost estimates, and liquidated damages.

## **3. LABOR REQUIREMENTS.** Labor requirements, including items such as:

- a. Minimum wage rates.
- b. Employee classification and payrolls.
- c. Review of payrolls by sponsor. AC 150/5100-6 contains the basic labor requirements for sponsors and contractors working on AIP projects.

# **4. CIVIL RIGHTS REQUIREMENTS.** Civil rights requirements including items such as:

- a. Disadvantage Business Enterprise (DBE) participation
- b. Equal Employment Opportunity.
- c. Certification of Nonsegregated Facilities.

AC 150/5100-15 contains the basic civil rights requirements for sponsors and contractors working on AIP projects.

#### 5. ENVIRONMENTAL.

- a. Compliance with applicable Federal, state, and local air and water quality standards during construction.
- b. Environmental mitigation actions resulting from the environmental coordination process.