



U.S. Department
of Transportation
Federal Aviation
Administration

Advisory Circular

Subject: Quality Management for
Airport Construction Projects

Date: DRAFT
Initiated by: AAS-100

AC No.: 150/5370-12C
Change:

Purpose.

This advisory circular (AC) provides information on the management of quality during all phases of federally funded projects at airports.

Background.

The Federal Aviation Administration (FAA) has the responsibility to ensure that airport Sponsors' design and construct projects accomplished under Federally Funded Airport grants in accordance with all applicable federal standards and requirements.

The Airport Sponsor is responsible for quality management during all phases of a project. This includes design, bidding, and final acceptance of construction.

FAA involvement in federally funded projects is generally limited to the oversight necessary to protect the federal interests as specified in 31 USC 6304, *Using Grant Agreements*.

Cancellation.

This AC cancels AC 150/5370-12B, dated September 14, 2015.

Application.

The Federal Aviation Administration (FAA) recommends the guidelines and specifications in this AC for all airfield development on airports.

This AC does not constitute a regulation, is not mandatory, and is not legally binding in its own right. The AC will not be relied upon as a separate basis by the FAA for affirmative enforcement action or other administrative penalty. Conformity with this AC is voluntary, and nonconformity will not affect rights and obligations under existing statutes and regulations.

The use of this AC is mandatory for all projects funded under Federal grant assistance programs, including the Airport Improvement Program (AIP). See Grant Assurance No.

34., Policies, Standards, and Specifications. This AC is mandatory, as required by regulation, for projects funded with the Passenger Facility Charge program. See PFC Assurance #9, Standards and Specifications.

5 **Principal Changes.**

This AC contains the following changes:

1. Revised the name of the AC to Quality Management for Airport Construction Projects.
2. Added a new chapter on Quality Management.
3. Revised chapter on responsibilities to be Roles and Responsibilities.
4. Added Figure 2-1, Quality Management Organization.
5. Added discussion of quality control and quality assurance during Project Design.
6. The term “quality acceptance” is now referred to as “acceptance”.
7. Construction Management Program retitled to Quality Management Program (QMP) to better reflect the purpose of the program.
8. Added a sample agenda for a Prebid Conference as Appendix B.
9. Added Chapter on QMP.
10. Added a checklist for QMP as Appendix E.

6 **Feedback on this AC.**

If you have suggestions for improving this AC, you may use the online AAS Advisory Circular (AC) Feedback | Federal Aviation Administration form.

Patricia Hiatt
Acting Director of Airport Safety and Standards

CHAPTER 1. Quality Management

1.1 General.

The primary goals of any project are to have it be completed on time, within budget, and meets performance needs. Using a systematic approach to managing quality helps ensure that a project meets performance expectations. Quality must be built into each stage of the project and continuously managed throughout design and construction.

1.2 Quality Management System (QMS).

A QMS is a formalized system that documents the processes, procedures, and responsibilities for achieving a quality project. A QMS promotes a continuous, systematic process for total quality management through a cycle of planning, implementation, monitoring, and corrective or preventive actions. The use of a quality management system is applicable to all projects. Projects with larger and longer durations require QMS processes similar to smaller, shorter duration projects, but the scale of the effort may differ.

All quality management systems need to:

1. Establish quality objectives.
2. Establish quality indicators.
3. Identify the processes, procedures, and resources needed to achieve quality.
4. Continuously evaluate the quality of project outputs and implement process improvements to ensure compliance with established quality criteria.

1.3 Communication.

The importance of effective communication cannot be over emphasized. An effective quality management program promotes open, timely, two-way communication between all parties involved throughout all phases of the project. These parties include, but are not limited to the Sponsor, designers, construction management team, contractor and their quality control team, Resident Project Representative (RPR), acceptance inspection and testing staff, and the FAA. Within the FAA, relevant parties include the FAA Airports Division (Airports District Office and Regional Office as needed, including the Part 139 Certification Inspectors), the Airport Traffic Control Tower, and other FAA lines of business including Flight Standards, Flight Procedures, Tech Ops, and Engineering Services.

In addition to open communication between organizations, there also needs to be open communication within each organization. One of the purposes of Predesign, Prebid, and Preconstruction meetings is to establish points of contact for all parties.

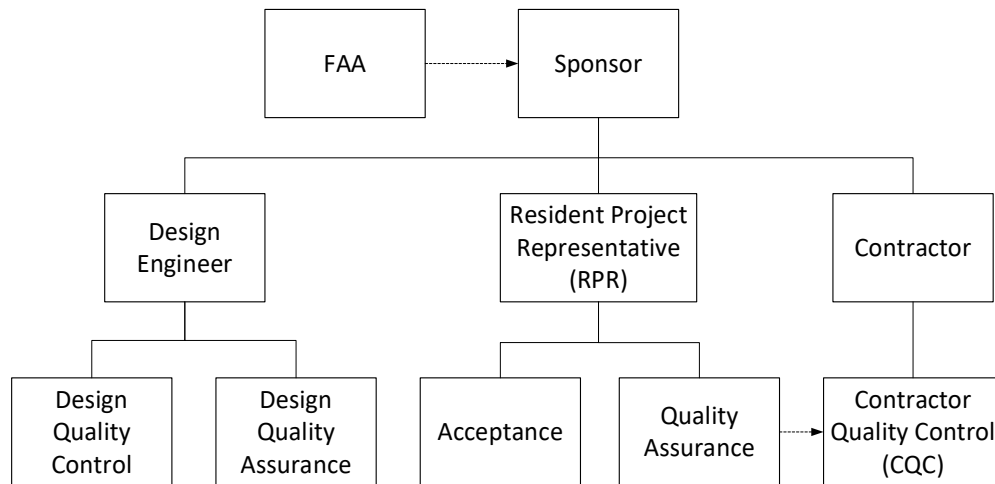
Clear communication ensures that the goals of quality management are understood by all parties, fosters a seamless exchange of information that promotes teamwork and mutual understanding, and enables issues to be addressed promptly.

CHAPTER 2. Project Roles and Responsibilities

2.1 Sponsor's Responsibilities.

The Sponsor is responsible for management and oversight of all phases of federally funded airport construction projects. The Sponsor is the only entity that has contractual ties to all parties on the project. They have a grant agreement with the FAA, professional services contracts with a Design Engineer, a firm to provide (RPR) services, and a construction contract with a Contractor. See Figure 2-1 for a graphical depiction of the Quality Management Organization. The Sponsor needs to have an overall project quality management system over both the design and construction process.

Figure 2-1. Quality Management Organization



2.2 FAA Program/Project Manager's Responsibilities.

The FAA Program/Project Manager in the FAA Airports District Office (ADO) establishes grant eligibility of the project, primarily under the Airport Improvement Program (AIP). They oversee design and construction projects to ensure adherence to AIP funding requirements.

FAA Program/Project Managers review project plans, specification and construction documents to ensure they're in conformance with FAA standards and requirements. They communicate with the airport Sponsor, consultants, and other stakeholders. They coordinate the project layout and the construction process with: FAA Airports Division (Regional office, including Part 139 Certification Inspectors, and HQ as needed), FAA Lines of Business (Airport Traffic Control Tower, Flight Standards, Flight Procedures, Tech Ops, Engineering Services), military installations, and other Federal agencies in advance of and during the life of the project. They ensure that Safety Risk Management requirements are met.

2.3 Design Engineer Responsibilities.

The design engineer is responsible for producing the project plans and specifications, including a construction safety and phasing plan, conforming with applicable FAA standards. In addition, the design engineer, in coordination with the Sponsor will prepare an Engineer's report that includes design alternatives, calculations, materials, equipment and data needed to support the project. Prior to finalizing project plans the design engineer needs to assist the Sponsor in obtaining approval for any modifications to standards (MOS) in accordance with FAA Order 5300.1, Modifications to Agency Airport Design, Construction, and Equipment Standards. As a minimum, Quality control and Quality assurance checks must be done at all milestones prior to progress submittals to the Sponsor and FAA. As the engineer of record, they are responsible for the design and engineering support during the bidding phase.

2.3.1 Design Quality Control.

Design engineering quality control is part of a quality management system that ensures that deliverables adhere to the criteria established by the Sponsor and that the plans and specifications meet their company's quality standards. Quality control focuses on identifying and correcting defects, for example, are all the cross references correct in specifications, or is the project number correct on all drawings, or were the most recent standards used.

2.3.2 Design Quality Assurance.

Design engineering quality assurance is a separate activity from design quality control. Examples include, but not limited to, whether: a quality control check was performed, the changes identified in the QC check were implemented, the project was developed in conformance with current FAA standards, all comments from previous reviews were addressed, and approval of any modifications to FAA standards was received.

2.4 Resident Project Representative Responsibilities.

The RPR is an individual, partnership, firm, or corporation authorized by the Sponsor for observation of tests of the materials or work product produced by or for the contractor. A laboratory and other representatives conduct the specified acceptance tests on materials and finished construction products under the supervision of the RPR.

The RPR is the Sponsor's technical representative during the construction phase. They are responsible for interpreting plans and specifications to determine compliance. When a technical issue arises during construction the RPR is responsible for providing the expertise to review and make recommendations to the Sponsor on acceptable resolution of the issue.

The Sponsor may assign qualified members of its organization to perform RPR duties, provided the Sponsor retains documentation demonstrating the assigned individual possesses the technical experience, qualifications, and competency commensurate with the project scope and complexity.

2.4.1 Quality Assurance.

Quality assurance is focused on the process of controlling quality. Quality assurance may be a function of the RPR or may be a separate contract with the Sponsor. Regardless of the contractual role the Quality Assurance team identifies the potential for out of compliance work and notifies the Contractor and the RPR. Quality assurance does not include the acceptance or rejection of work.

Quality assurance includes inspections, observations, observation of tests, and review of testing of the materials or work product produced by or for the Contractor. Included in quality assurance is the review and oversight of the Contractors QC program. For example, is the Contractor using statistical analysis of the QC control charts to adjust materials and production to produce acceptable results? Is the Contractor performing an adequate number of tests to control the materials and production? When tests are outside of control limits of specifications, are appropriate adjustments being made to materials or production?

2.4.2 Acceptance.

Acceptance of work and materials includes the performance of sampling, testing, and inspection as specified. The RPR's acceptance laboratory performs some of the acceptance sampling and testing. The acceptance laboratory, equipment, and personnel used to perform material testing must meet current ASTM standards for the tests to be performed. On pavement projects this generally means the laboratory must be accredited, meeting standards outlined in ASTM C1077, *Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation*, or ASTM D3666, *Standard Specification for Minimum Requirements for Agencies Testing and Inspecting Road and Paving Materials*.

2.4.3 Reasonably Close Conformance.

Before accepting any non-conforming work, the RPR needs to determine if the work is in reasonably close conformity following the steps outlined in the project specifications. Refer to Section 50 in AC 150/5370-10. The RPR can only determine reasonably close conformance after performing an appropriate engineering analysis to determine if the materials, work, or finished product will provide equal or better performance.

2.5 **Contractor.**

The contractor is responsible for completing the project in accordance with the project plans and specifications. To accomplish this the contractor must have a system to control the construction process, i.e., the materials, methods and equipment needed to construct the project.

2.5.1 Contractor QC.

The Contractors Quality Control Program (CQCP) is a project specific program that outlines the staff, procedures, and processes that the Contractor will use to control the materials and construction process to assure compliance with the project specifications. QC includes sampling, testing, inspection, and corrective action (when required) to

191 maintain continuous control of production. The Contractors laboratory, equipment, and
192 personnel used to perform material testing must meet current ASTM standards for the
193 tests to be performed. On pavement projects this generally means that the laboratory
194 meets the standards of ASTM C1077 on concrete projects and ASTM D3666 on asphalt
195 projects. It is important to note that having laboratory accreditation means that the
196 laboratory has demonstrated that their equipment, personnel, and processes have the
197 capability to perform the test in accordance with ASTM standards. It does not ensure
198 that the tests are performed in accordance with the applicable standards.

CHAPTER 3. Design, Bidding, and Construction

3.1 Engineering Services.

See AC 150/5100-14, *Architectural, Engineering, and Planning Consultant Services for Airport Grant Projects*, for guidance on the selection and contracting for professional services. The AC identifies items to be included in a contract for engineering services. The Architectural/Engineering services contract must clearly delineate services to be performed during each phase; and the division of responsibility and authority between the Sponsor, the Consultant, RPR, quality acceptance inspectors, and the quality acceptance testing laboratory.

Engineering services are usually broken into distinct and sequential phases: Preliminary Design, Design, and Engineering (which may also include bidding and Engineering support during construction).

Construction phase services is usually a separate professional services contract that includes RPR services, Construction Inspectors, Acceptance Inspectors, Acceptance Testing Laboratory, other Special Services, and Project Closeout.

3.2 Preliminary Design.

This phase involves all activities required to define the scope, phasing, and scheduling. The Predesign Conference is held during this phase.

3.2.1 Predesign Conference.

The optimum time to hold a predesign conference is early in the preliminary design process. Allow sufficient time, a minimum of 10 working days in advance, to notify all parties that could be affected by the project.

A predesign conference, conducted by the Sponsor or their authorized agent, is used to discuss items including, but not limited to: project scope, critical design parameters, airport safety during construction, airport operations during construction, phasing of construction operations, and environmental considerations. Potential conflicts between construction activities and the operation of the airport should be identified.

The participants will vary according to the scope of the project, the size of the airport, and the impact the proposed construction will have on airport operations. Participants may include: Airport Engineer, Airport Manager, Airport Operations, Airport Maintenance, Aircraft Rescue and Fire Fighting (ARFF) Manager, FAA program/project manager, FAA Airport Certification Safety Inspector (ASCI), FAA Airport Traffic Control Tower Manager (at airports with a control tower), Fixed Base Operator (FBO), and Airport tenants potentially impacted by construction and Airline and airport industry representatives.

3.2.2 Agenda.

Appendix A contains a sample agenda of typical items discussed at the predesign conference. This agenda is not all-inclusive, and items may be added or deleted as

necessary. On smaller projects, this meeting may consist of a conference call. Larger projects may involve an onsite meeting.

3.3 **Project Design.**

This phase involves the development of detailed plans and specifications.

The Construction Safety and Phasing Plan must be developed and approved early in the design process, typically it is included as part of the initial (30%) design submittal. The number and size of individual phases will impact both the cost and length of time needed to construct the project.

The design phases include all activities required to accomplish a complete project design, including development of plans and specifications. The guide specifications in AC 150/5370-10, *Standards for Specifying Construction of Airfields*, relate to materials and methods used in the construction of airports and must be used for federally funded airport projects. These specifications reflect acceptable standards, materials, practices, and techniques for airport construction. To be used for contract purposes, the various permissible options regarding local materials, methods, and testing must be specified in the contract documents.

Typically, the project design schedule includes periodic submittals to the Sponsor and other interested parties at the 30%, 60%, 90%, and Final Bid Documents. The Sponsor's quality management system should include requirements that the Design Engineer includes both quality control and quality assurance reviews of all submittals.

3.4 **Bidding.**

The Design Engineer is typically involved in assisting the Sponsor during the bidding and award of the construction contract. The Design Engineer responds to requests for information (RFI) during the bidding period, clarifying and responding to questions regarding solicitation, plans, and specifications. At the close of bidding the Engineer provides the final conformed documents including all amendments issued during the bid phase. These documents are the final construction documents issued to the Contractor.

3.4.1 Prebid Conference.

A Prebid conference is recommended to inform all bidders of items that may have an impact on the project. Prebid conferences are typically held from 10-20 working days before the date of bid opening. Attendees should include (but are not limited to) the Sponsor, Airport Engineer, Prospective contractors and subcontractors, key material suppliers, and Airport Operations.

3.4.2 Prebid Conference Agenda.

Appendix B includes a sample Prebid Conference Agenda. This agenda is not all-inclusive, and items may be added or deleted as necessary.

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CHAPTER 4. Construction

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4.1 Construction.

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Construction involves the bidding, award, materials, construction processes, quality control of materials and processes, and quality acceptance of materials and processes.

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4.2 Construction Phase Engineering.

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Engineering services during construction are different than construction phase services. The construction phase includes all activities required after the award of a construction contract. This phase involves: shop drawing review, responding to requests for information (RFI) regarding plans or specifications, review of any value engineering proposals, review of any change orders or supplemental agreements, observation and inspection of materials and processes, acceptance testing, and measurement of work product produced and update to design drawings or specifications for changes during construction such as unforeseen site conditions. The basic services of an engineering agreement normally include periodic inspection of the work in progress by the design engineer. Special services of an engineering agreement will address the requirements for inspection and quality acceptance testing for each project.

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4.2.1 Preconstruction Conference.

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The preconstruction conference is convened and conducted by the Sponsor or their authorized agent. The primary purpose of the conference is to thoroughly discuss critical project issues such as contract requirements, operational safety, construction phasing and sequencing, airport security, quality control, quality acceptance testing, labor requirements, Equal Employment Opportunity (EEO) obligations, Disadvantage Business Enterprise (DBE) requirements, and other pertinent project matters. The Sponsor must tailor the agenda for each conference to address the unique and/or complex issues specific to their project.

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4.2.1.1 Timing.

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The optimum time to hold a preconstruction conference is as soon as practicable after the contract has been awarded and before issuance of the Notice to Proceed (NTP). Sufficient time should be allowed to notify all parties. A minimum of 10 working days advance notice is recommended.

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4.2.1.2 Participants.

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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. Typically, the preconstruction conference includes, but is not limited to, the Sponsor, their engineer, airport management & operations, FAA Region/ADO and local FAA Air Traffic Organization (ATO) representatives, RPR, RPR personnel responsible for acceptance sampling and testing and acceptance testing laboratory, quality control (QC) personnel and quality control testing laboratories, key contractor and subcontractor personnel, airline

and industry representatives, FBOs, affected utilities owners, and affected tenants.

4.2.1.3 Agenda Items.

Appendix C contains sample agenda for a Preconstruction Conference. This agenda is not all inclusive and items may be added or deleted, as necessary.

4.3 Construction Safety and Phasing Plans (CSPP).

Operational safety on the airport is the Sponsor's responsibility at all times. The Sponsor develops and submits the CSPP to the FAA in accordance with AC 150/5370-2, Operational Safety on Airports During Construction. The AC outlines the requirements for the CSPP for federally funded airfield construction projects including projects on an airport certificated under Part 139. Requirements for the Contractor implementation of the CSPP are covered in Item C-101, *Airfield Work Zone Operational Safety*. The FAA Regional Office or ADO must review and approve or disapprove these CSPPs in writing for Federally funded projects. The Sponsor's certification of plans and specifications does not include the approval of the CSPP.

4.4 Construction Quality Management.

The Design Engineer, the Contractor, and the RPR all have contractual relationships with the Sponsor. The Sponsor is responsible to provide and maintain competent technical oversight of the project to ensure the work conforms to the plans, specifications, and schedules for the project. The Sponsor is responsible for ensuring that the project is constructed in conformance with the approved plans and specifications. During construction, the contractor is responsible for the quality control of materials and processes, and the RPR is responsible for acceptance testing. Another function of the RPR is overall quality assurance and monitoring and tracking of the quality control process.

4.4.1 Contractor Quality Control.

The Contractor is responsible for controlling the construction materials and processes to ensure that the final product meets or exceeds the requirements of the project plans and specifications. Contractor quality control includes all the steps that the contractor must take to control the construction process to meet the quality requirements of the project specifications. The Contractor must develop and implement a Contractor's Quality Control Program (CQCP). The CQCP establishes the processes and the roles of the quality control personnel to monitor the materials, equipment, and construction process to ensure that the final product meets or exceeds the acceptance standards in the project specifications.

4.4.2 Quality Assurance.

The Sponsor is responsible for monitoring the Contractor's QC process to be assured that the contractor has and implements a QC program to monitor the quality of materials and the construction process. The Sponsor's QMP outlines the quality assurance actions

on behalf of the project Sponsor. The firm responsible for RPR services typically performs: design audits, checks, and reviews; construction oversight, including specification compliance reviews, document control, and plan review; material verification sampling and testing at production and project site; oversight of manufacturing/processing facilities and equipment; oversight of on-site equipment, calibration of test equipment, oversight of contractors QC activities, and acceptance or rejection of material based on verification, acceptance testing; and documentation of all Quality Assurance (QA) activities.

The quality assurance and acceptance team must be in constant communication with the Contractors quality control organization monitoring the QC testing and inspection. Quality assurance is a continuous process during construction.

Refer to AIP Grant Assurance No. 17, *Construction Inspection and Approval*. The Sponsor must provide adequate construction acceptance inspection and testing for all stages of work. This includes adequate documentation of the quality assurance results and reporting on the contractor's work progress.

4.4.3 Quality Management Program (QMP).

Refer to Chapter 5, Quality Management Program, for the minimum requirements for a QMP. Note, what is called a QMP here is what was previously referred to as a Construction Management Program (CMP). The name has been changed to reflect the intent of the QMP is to manage the oversight of quality of construction not to manage the construction process. It is the contractor's responsibility to manage the construction process.

Note: The QMP is a separate document from the CQCP as specified in AC 150/5370-10, Item C-100, *Contractor Quality Control Program*. The QMP is how the Sponsor manages quality assurance and acceptance and the CQCP is how the contractor manages the construction process.

Regardless of project size, it is a best practice to have a QMP on all projects.

4.4.4 Construction Progress Reports.

The airport Sponsor has primary responsibility for supervision, inspection, and observation of construction work performed with federal funding. Construction progress, inspection, and testing needs to be reported to the FAA periodically during a project. FAA Form 5370-1, *Construction Progress and Inspection Report*, or a form that provides equivalent information, can be used for these reports. Problems, delays, or adverse conditions that occur may require the Sponsor to submit interim reports. The Sponsor and their consultant should not depend on these reports alone to communicate issues and alert the ADO. Use of this form is not mandatory, and the Sponsor may prepare and use their own customized forms. A copy of Form 5370-1 is included in Appendix F. Form 5370-1 is available for download at the FAA Airports website: <https://www.faa.gov/forms/index.cfm/go/document.information/documentID/186168>.

4.4.5 Final Inspection.

A final inspection is required for all federally funded construction projects. The final inspection is conducted by the Sponsor, or their representative. The ADO has the option to either participate in the final inspection or accept Sponsor certification.

4.4.6 Construction Final Report.

The Sponsor's final construction report should include, but is not limited to:

1. A summary of the quantity of completed construction as required by the grant agreement.
2. Documentation of the quality of the completed construction as documented with acceptance testing.
3. Documentation of any work accepted as in reasonably close conformity in accordance with the requirements of Section 50 in AC 150/5370-10.
4. Portions of work, materials, or finished product found to be not in reasonably close conformity by the RPR but found to provide a finished product that has a level of safety, economy, durability, and workmanship acceptable may be accepted by the RPR only after appropriate adjustments in contract price have been agreed to by the Sponsor and the FAA and is documented in a change order.

4.4.7 Sponsor Certification.

The Sponsor must complete the FAA Form 5100-129, *Sponsor Certification for Project Final Acceptance*. See AIP Handbook Order 5100.38 for additional information on Sponsor certifications.

4.4.8 Administrative Closeout of AIP Grant.

The ADO initiates the grant closeout process upon receipt of project completion documentation consistent with FAA SOP 10.00, *Administrative Closeout of Airport Improvement Program Grants*. The office reviews the documentation for completeness and finalizes the closeout package in accordance with the procedures established in SOP 10.00.

CHAPTER 5. Quality Management Program (QMP)

5.1 Quality Management Program.

The Sponsor is required to submit a Quality Management Program (QMP) to the FAA on federally funded airport construction projects when the paving costs of a project exceed \$500,000; however, it is recommended to have a QMP on all projects regardless of amount of paving. The cost of pavement construction includes the cost of the entire pavement section, i.e., subgrade, subbase, base, and surface course. Refer to Order 5100.38, Airport Improvement Program Handbook, for further eligibility guidance on the QMP. (Note at the time of publication Order 5100.38 calls this a Construction Management Program (CMP), the name has been changed to Quality Management Program (QMP) to better convey the purpose of this program).

The initial QMP is submitted to the FAA before the start of construction, however the QMP is a living document. The Sponsor needs to keep the QMP current and updated as the project progresses. The QMP must be updated during construction noting changes such as changes in key staff or responsibilities.

5.2 Minimum requirements for QMP.

The Sponsor is free to establish a QMP in any format, and the QMP may be a part of an overall larger Program or Project Management Plan.

The following is an example of what type of information should be included in a QMP:

1. The names of the Sponsor, the firms and key individuals that will provide RPR services, along with details of their experience. In addition, it needs to identify the name of the Contractor, and the staff and laboratory responsible for Quality Control sampling and testing. The name of the person representing the Sponsor who has overall responsibility for contract administration for the project and the authority to take necessary actions to comply with the contract.
2. Names of testing laboratories and consulting engineer firms with quality assurance responsibilities on the project, together with a description of the services to be provided.
3. Procedures for determining that the testing laboratories meet the requirements of the American Society for Testing and Materials (ASTM) International standards on laboratory evaluation referenced in the contract specifications (ASTM D3666, ASTM C1077).
4. Qualifications of engineering supervision and construction inspection personnel.
5. A listing of all tests required by the contract specifications, including the type and frequency of tests to be taken, the method of sampling, the applicable test standard, and the acceptance criteria permitted for each type of test.
6. Procedures for ensuring the tests are taken in accordance with the program, they are documented daily, and proper corrective actions, where necessary, are undertaken.

7. At the completion of the project, the Sponsor must submit a final test and quality assurance report summarizing the results of all tests performed, highlighting those tests indicating failure, or that did not meet the applicable test standard. The report must include the pay reductions applied and the reasons for accepting any out-of-tolerance material.
8. An interim test and quality assurance report must be submitted if requested by the FAA. Refer to Appendix D for a sample QMP. Refer to Appendix E for a sample Quality Management Plan Checklist that could be used by a project Sponsor.

5.2.1 Project Information.

Airport Name and Location

Project Number (AIP Number on Federally funded projects)

Project Name

Description of Work to be performed

5.2.2 Project Sponsor.

Name of person with overall responsibility and authority for contract administration for the project Sponsor.

5.2.3 Quality Management Organization.

5.2.3.1 Resident Project Representative Services.

Name and contact information for firm or individual responsible for providing RPR services. The RPR must be a Professional Engineer, licensed in the state where construction takes place or a reciprocal state and have overall responsibility for construction observation and acceptance. The RPR must have the authority to make approval and acceptance decisions regarding the project, subject to approval of the Sponsor. The RPR needs a minimum of 3 years' experience in earthwork, base and subbase construction, and 5 years in pavements, of which at least 2 years on Airports.

5.2.3.2 Assistant Resident Project Representative.

Name and contact information of any assistant RPR.

5.2.3.3 Construction Observers.

Name and contact information for construction observers for sitework, structures, marking and lighting, pavement and any others as needed.

5.2.3.4 Acceptance Testing Laboratory(s).

Name of Acceptance Testing laboratory, Names of key laboratory personnel (Laboratory Manager, Laboratory Supervisor, testing technicians). The supervisor(s) of the acceptance testing laboratory needs a minimum of two years' experience with the laboratory or with other laboratories with approved accreditation. The Laboratory Supervisor is responsible for ensuring that all

sampling and testing is performed in accordance with the applicable ASTM or AASHTO test standard. The supervisor does not need to be present for field sampling and field testing but is responsible for ensuring that field testing personnel are following applicable testing standards.

5.2.3.5 Field Testing Personnel.

Field testing personnel need a minimum of one year of experience in the field testing the material being tested and have appropriate state or national accreditation in the tests being performed. A certificate of completion from a training course may be accepted subject to RPR approval.

5.2.4 Contractor.

5.2.4.1 Project Manager.

Name and contact information for project manager.

5.2.4.2 Superintendent.

Name and contact information for superintendent.

5.2.4.3 Quality Control Manager.

Name and contact information for Quality Control Manager.

5.2.4.4 Quality Control Laboratory.

Name and contact information for quality control laboratory.

5.2.5 Detailed Resumes of Key Personnel.

Include resumes or summaries of experience that indicates amount and type of experience with pavement construction. Note, differentiate between experience working on airport pavements and experience on highway pavements. In addition, note any specialized training such as ACI Concrete Field Testing or State Certifications or Engineering Training.

5.2.6 Listing of All Tests Required the Contract Specifications.

Listing of all tests required by the contract specifications including the type and frequency of tests to be taken, the method of sampling, the applicable test standard, and the acceptance criteria permitted for each type of test.

5.2.7 Procedures for Ensuring the Tests Are Taken in Accordance with the Program.

Procedures for ensuring that the tests are performed, documented, and reported daily. When necessary, proper corrective actions are undertaken and documented.

5.2.8 Final Test and Acceptance Report.

At the completion of the project, the Sponsor must submit a final test and quality assurance report summarizing the results of all tests performed, highlighting those tests indicating failure, or that did not meet the applicable test standard. The report must include the pay reductions applied and the reasons for accepting any out-of-tolerance

528 material. An interim test and quality assurance report must be submitted if requested by
529 the FAA.

APPENDIX A. SAMPLE PREDESIGN CONFERENCE AGENDA**Airport Name:** [Insert Airport Name] **Location:** [City, State]**Project Title:** [Insert Project Title] **Date:** [Insert Date]**AIP Grant Number(s):** [Insert Grant Numbers if available]**1. Welcome and Introductions**

- Purpose of meeting
- Attendee introductions (Sponsor, Consultant, FAA, stakeholders)

2. Project Overview and Funding

- Project description and scope (federally funded vs. non-federally funded)
- ALP and ACIP consistency
- Funding sources (entitlements, discretionary, local share, PFCs)
- Engineering fees & FAA reimbursable agreements
- Budget and schedule

3. Regulatory & Administrative Requirements

- FAA design standards, ACs, wage rates, Buy American
- Contracting/subcontracting requirements
- Quality Management Program (QMP) and SMS overview
- AGIS, environmental review, stormwater
- Engineer's report and cost estimate

4. Technical Design Coordination

- Design aircraft, local/recycled materials
- NAVAID impacts, instrument procedures, flight checks
- Utility ID, pavement (FAARFIELD), drainage, lighting, markings
- Standard and specification modifications (MOS), plan review, non-fed work scope

5. Construction Planning and Phasing

- CSPP development and sequencing
- AOA security, staging/access routes, ARFF routing
- Temporary markings, clearance times, lighting for night work

6. Operational Coordination & Communication

- ATC coordination, schedule change notifications
- FOD control, coordination tools, meeting frequency
- Airfield Operations

7. Wrap-Up

- 564 • Key action items and responsibilities
- 565 • Next steps and open discussion

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APPENDIX B. SAMPLE PREBID MEETING AGENDA

Airport Name: [Insert Airport Name] **Location:** [City, State]
Project Title: [Insert Project Title] **Date:** [Insert Date]

AIP Grant Number(s): [Insert Grant Numbers, if available]

1. Welcome and Introductions

- Meeting purpose and expectations
- Introductions and points of contact (Sponsor, Consultant, FAA, etc.)

2. Project Overview

- Summary of project scope and phasing
- Key construction schedule constraints and required completion dates
- Operational considerations (e.g., access, airfield activity, phasing)

3. Procurement and Bidding Process

- Bid submission procedures and deadlines
- RFIs: format, deadlines, and contact
- Subcontracting, bonding, insurance requirements
- Federal, state, and local labor and contract provisions
- Buy American compliance
- Amendments if applicable

4. Construction Site Requirements

- Construction Safety and Phasing Plan (CSPP) summary
- Access to work areas and staging zones
- AOA driving permits, security procedures
- Site-specific constraints (e.g., runway clearance times)
- Site walk-through: staging areas and work zones

5. Materials and Quality Control

- Material requirements and known long-lead items
- Submittal procedures and schedule
- Contractor Quality Control (QC) responsibilities
- Sponsor Quality Acceptance (QA) procedures
- FOD control and housekeeping expectations

6. Payment and Administrative Procedures

- Invoicing process, frequency, and retainage policy
- Documentation and compliance tracking

- 601 **7. Wrap-Up and Questions**
- 602 • Open Q&A session
- 603 • Review of next steps and key dates

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APPENDIX C. SAMPLE PRECONSTRUCTION CONFERENCE AGENDA**Airport Name:** [Insert Airport Name] **Location:** [City, State]**Project Title:** [Insert Project Title] **Date:** [Insert Date]**AIP Grant Number(s):** [Insert Grant Numbers if available]

1. Welcome and Introductions

- Meeting purpose and expectations
- Introductions and points of contact (Sponsor, Contractor, RPR, QC Manager, QA Manager, FAA, Operations Manager, etc.)
- Define Roles, responsibilities and reporting structure
- Decision making authority: Sponsor, Contractor, RPR

2. Project Overview

- Scope of Project
- Staging Areas
- Breakdown of Phasing, Access Points to airfield, Access routes to work area
- Project Schedule and milestones

3. Administrative and Contract

- Status of Contract, Grant Agreement
- Anticipated date of Notice To Proceed (NTP)
- Bonds, Labor Requirements
- Reimbursable agreements
- Other administrative requirements (DBE, Buy American)

4. Safety and Security

- Construction Safety and Phasing Plan (CSPP)
- Part 139 (Vehicle operator training, Badging, etc)
- ARFF routes and procedures
- Notice to Airmen (NOTAMs) (Who submits and updates)
- Protection of NAVAID's (ID Cable locations, protection plans)
- Airfield Security, Airfield Operations
- Airfield safety concerns (Designation of work area, ARFF Routes, vehicle escorts, communication with ATCT, Access points and work Area access, Temporary marking, lighting and barricades, FOD Control, Part 77 (Equipment and stockpile height limits)
- Consequences for non-compliance with Safety or Security Protection

5. Quality Management Program and Contractors Quality Control Program

- Sponsor's Quality Management Program (Role of RPR, Construction Observers, and Acceptance and Testing)
- Contractors Quality Control Program (QC manager, QC inspectors, QC laboratory)
- Submittals
- Procedures for posting & sharing test results (Quality Control, acceptance)
- Process control versus acceptance
- Control Strips

6. Project Closeout

- Acceptance of work and opening of phases
- Final Acceptance

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APPENDIX D. SAMPLE QMP

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Sample QMP and Submittal Register is available on the Airports website:

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[http://www.faa.gov/regulations_policies/advisory_circulars/index.cfm/go/document.current/d](http://www.faa.gov/regulations_policies/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5370-12)

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[ocumentNumber/150_5370-12.](http://www.faa.gov/regulations_policies/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5370-12)

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APPENDIX E. SAMPLE QUALITY MANAGEMENT PLAN CHECKLIST**Airport Name:** [Insert Airport Name] **Location:** [City, State]**Project Title:** [Insert Project Title] **Date:** [Insert Date]**AIP Grant Number(s):** [Insert Grant Numbers]**CHECKLIST ITEM****REMARKS****1. General Project Information**

- ☐ Project Name, Location, and AIP Number
- ☐ Description of work and construction phases
- ☐ Sponsor's designated project administrator identified

2. Key Personnel & Organizations

- ☐ Sponsor's representative with contract authority named
- ☐ Resident Project Representative (RPR) and assistants identified
- ☐ RPR meets PE licensure and airport experience requirements
- ☐ Construction observers and their scopes identified
- ☐ Acceptance testing laboratory named, with lab manager/supervisor
- ☐ QC lab and Contractor QC Manager identified
- ☐ Contact information for all listed personnel

3. Qualifications & Experience

- ☐ RPR and assistants have minimum years of experience
- ☐ Acceptance testing staff and field technicians meet ASTM qualifications
- ☐ Resumes of key personnel are included
- ☐ Certifications or training (ACI, state DOT, etc.) attached or referenced

4. Testing & Acceptance

- ☐ List of required tests includes:
 - ☐ Test type
 - ☐ Frequency
 - ☐ Sampling method
 - ☐ Applicable standard
 - ☐ Acceptance criteria
- ☐ Procedures to verify tests are performed and recorded daily
- ☐ Corrective action procedures defined

5. Quality Control (Contractor)

- ☐ Contractor's QC Plan (CQCP) submitted separately
- ☐ QC lab accreditation meets ASTM C1077/D3666
- ☐ CQCP includes control charts, frequency, actions on failure

691 CHECKLIST ITEM	692 REMARKS
692 6. Quality Assurance (Sponsor/RPR)	
693 ☐ QA responsibilities for the RPR clearly defined	
694 ☐ Oversight and coordination between QA and QC teams documented	
695 ☐ Communication protocols between RPR, contractor, and Sponsor in place	
696 7. Reporting & Documentation	
697 ☐ Construction Progress Reports (FAA Form 5370-1 or equivalent) planned	
698 ☐ Interim QA report (if required by FAA) format established	
699 ☐ Final QA/Test report structure outlined	
700 ☐ Pay adjustments or deviations documented and justified	
701 8. Meetings & Communication	
702 ☐ Predesign conference held (agenda documented)	
703 ☐ Prebid conference conducted (agenda documented)	
704 ☐ Preconstruction conference conducted (agenda documented)	
705 ☐ Communication methods (email, meetings, data sharing) agreed upon	

APPENDIX F. FAA FORM 5370-1, CONSTRUCTION PROGRESS AND INSPECTION REPORT

Form available at

<https://www.faa.gov/forms/index.cfm/go/document.information/documentID/186168>.

 Construction Progress and Inspection Report U.S. Department of Transportation Federal Aviation Administration Airport Grant Program			OMB CONTROL NUMBER: 2120-0569 EXPIRATION DATE: 12/31/2026
			Period Ending
Airport Name			Project Number
Project Description		Contractor's Name	
1. Contract Time	No. Days Charged to Date	Last Working Day Charged (Date)	
2. Brief Weather Summary this Period, including Approximate Rainfall and Periods of Below Freezing Temperature (On earthwork jobs, include soil conditions.)			
3. Rough Estimate of Percent Completion to Date of Construction Phases (Include items such as clearing, grading, drainage, base, surface, lighting, etc.)			
4. Work Completed or In Progress this Period			
5a. Summary of Laboratory and Field Testing this Period (Note failing tests and any retests. Summarize out-of-tolerance.)			
5b. Material (Identify material subject to pay reduction.)			
6. Description of Anticipated Work by Contractor for Next Period			
7. Problem Areas/Other Comments (Include revisions to plans and specifications approved or denied, delays, difficulties, etc. and actions taken.)			
SPONSOR'S INSPECTOR OR REPRESENTATIVE			
Date	Typed or Printed Name and Title		Signature

FAA Form 5370-1 (2/24) SUPERCEDES PREVIOUS EDITION