



1000 – Construction Phase: Development Projects

In This Section

1010 – Bidding: Development Projects

1020 - Contract Award: Development Projects

1030 - Construction Management Program (CMP): Development Projects

1040 - Preconstruction Conference: Development Projects

1041 – Aeronautical Review of Equipment Heights: Development Projects

1050 - Notice-to-Proceed: Development Projects

1060 - Labor Provisions: Development Projects

1070 – Inspections: Development Projects

1071 - Review of Construction Project Submittals: Development Projects

1072 - Construction Records: Development Projects

1073 – Monitoring Labor and Civil Rights Requirements: Development Projects

1074 - Final Acceptance: Development Projects

1080 - Contract Modifications: Development Projects

1081 - Change Order: Development Projects

1082 - Supplementary Agreements: Development Projects

1083 – Liquidated Damages: Development Projects

General

Sponsors are directly responsible for monitoring all aspects of project accomplishment. To remain eligible under the Airport Improvement Program (AIP), Sponsors must ensure compliance with all requirements of the grant agreement. This includes complying with technical standards as well as Federal requirements such as labor provisions, civil rights requirements, Buy America Preferences and Disadvantaged Business Enterprise (DBE) requirements.

Sponsors are required to provide competent and qualified Engineering supervision and construction inspection. The Resident Engineer (RE) must maintain adequate daily records of the construction activity that documents the Contractor's progress. The RE should continuously compare this progress to the baseline construction schedule submitted at the start of construction. The RE must be diligent in watching for potential delays in completion of the construction.

At the time of final acceptance, the Sponsor must be in position to adequately address each checklist item in the Sponsor Certification for final acceptance. The Sponsor must provide an explanation for any negative reply to a certification statement.



1010 – Bidding: Development Projects

Sealed Bid Method

For construction projects exceeding the simplified acquisition threshold (presently set at \$250,000), the preferred method of procurement is by sealed bids (49 CFR Part 18.36.d).

This method assumes that two or more qualified bidders are readily available and that the grantee will award the contract to the lowest responsive and responsible bidder. The use of the sealed bid method allows the establishment of a contract based on a firm fixed price.

Solicitation under Sealed Bid

Under the sealed bid method, Sponsors must publicly advertise an invitation-for-bid (IFB) for the purpose of soliciting interested bidders.

AIP does not establish a time frame for how long a sponsor must advertise for bids. Federal Regulation 49 CFR Part 18 does state that grantees must provide a sufficient amount of time in order to allow prospective bidders time to prepare a responsive proposal.

For relatively small and simple projects, this may only be two weeks. For larger complex projects, this may be 45 to 60 days. For most projects, a bid period of at least 30-45 days has proven to be a reasonable timeframe. State and local procurement provisions may dictate a minimum timeframe.

The intent is to maximize competition in order to obtain the most economical price. Sponsor must avoid any practice that unduly restricts a qualified prospective bidder from competing for the work.

Pre-bid conference

A pre-bid conference is an excellent opportunity for prospective bidders to ask questions and for Sponsors to convey clarifications. The discussion should address issues such as

- CSPP requirements
 - Site access
 - Staging area location
 - Material stockpile locations
- Airport Operations
- Construction constraints
- Common, avoidable bid issues such as:
 - Paving machine requirements
 - Aggregate and admixture supply constraints

- Winter shutdown requirements and pavement marking requirements, etc.

The agenda for this meeting should extend beyond just technical matters. Other topics the Pre-bid conference should include are:

- Disadvantaged Business Enterprise
 - Participation by DBE firms
 - Sponsor DBE liaison
 - Good Faith Efforts
 - Sponsor's DBE Policy Statement
- Buy American
 - AIP vs other Agency's Buy America
 - US trade Agreements and AIP
- Davis-Bacon Wage rate Schedule

We caution Sponsors, however, not to make attendance of a pre-bid conference mandatory. It is possible to construe mandatory attendance as unduly restricting competition.

The procurements package (Plans, specification, front end, addenda, etc.) constitute the complete requirements and prospective bidder needs in order to prepare and submit a bid. Sponsors must document any clarifications or revisions made as part of the pre-bid conference by issuing an addendum.

A prospective bidder who elects not to attend a pre-bid conference will have access to the same requirements that will allow them to prepare a proposal. What they may miss is a visual inspection of the project site conditions, which is at their risk.

In lieu of mandatory attendance, Sponsor should instead considering using terminology such as "We strongly encourage prospective bidders to attend the pre-bid". Sponsors may also highlight the risk bidders assume by not attending.

There could be consequence with AIP eligibility if a sponsor makes attendance mandatory. If only one prime bidder shows up to the pre-bid conference, an unacceptable situation exists where a firm is knowingly competing for a single bid. This may preclude AIP participation in the project.

Bid Opening

The sponsor must publicly open all properly submitted bid proposals at the time and place identified within the invitation for bids. Sponsors



should read aloud all bids submitted by the specified time and date. Sponsors should declare bids received after the specified date and time as non-responsive and thus automatically reject the bid proposal.

Bid Evaluation

Following the opening of the bids, the Sponsor should identify an apparent low bidder. The Sponsor should not make any formal award of contract until they have thoroughly evaluated all bid submittals for responsiveness. This includes and evaluation of DBE participation and Buy American compliance. Sponsors should identify this timeframe within the Instructions-to-Bidders. A bid evaluation period of 45-60 days is typical reasonable for most projects.

Projects that include potential discretionary funding incur uncertainty as to when or if funding will actually become available. Sponsors of projects that are relying on the availability of discretionary funds should establish a longer evaluation period to account for this uncertainty. A 90 to 120 day bid hold may be necessary in some cases.

Because long bid evaluation periods increase risk to the bidder due to price uncertainty, we do not recommend Sponsors establishing a bid hold beyond 120 days.

During this evaluation period, the Sponsor should review each proposal for such things as:

- Bid errors
- Proper extension of all unit prices
- Bid irregularities
- Unbalanced bids
- Bidder responsiveness
- Bid guarantee
- Qualified bids
- DBE Utilization, including good faith effort is goal not met
- Buy America Certification, including waiver request if necessary

The Sponsor's Consultant shall prepare bid abstract. The bid abstract is a tabular summary that lists itemized values each bidder's proposal as well as the Engineer's estimate.

The sponsor along with their Consultant should evaluate significant disparities in unit prices between the apparent low bidder and the Engineer's estimate. If the Consultant cannot establish a reasonable explanation for a

discrepancy, the Sponsor should open up negotiations for the questioned bid item.

Sponsors should reject bid proposals found not to be responsive or found to be irregular.

Single Bids

The use of the sealed bid method assumes there are two or more qualified bidders available to compete for the project. The presence of multiple bidders is generally sufficient justification that demonstrates a competitive bid environment.

If only one bidder submits a proposal, a non-competitive bid environment exists. The Sponsor needs to investigate why they only received one bid; and determine if their procurement action unduly restricted competition.

The fact that an apparent low bid is less than the Engineer's estimate is not necessary by itself sufficient justification to determine whether or not the single bid is reasonable. The sole bidder is not truly competing against the Engineer's estimate. The Engineer's estimate represents more of a benchmark rather than a confirmation of fair and equitable price.

As a minimum, the Sponsor should take the following actions:

- 1) Contact plan holders to inquire why they did not submit a bid. The sponsor should document the responses of those plans holders thy contact.
- 2) Evaluate the project manual and specifications to determine if the project requirements unduly restrict competition. If the sponsor determines the project requirements did not unduly restrict competition, the sponsor should document their evaluation with a written statement attesting their judgment that the project requirements were not restrictive. This does not preclude the FAA program manager from reviewing the project manual and specifications to determine if restrictive conditions exist.
- 3) Conduct a cost or price analysis to determine reasonableness of costs. A cost analysis requires breaking bid items down to basic elements of costs such at material, equipment, labor, overhead and profit. A price analysis involves comparing the unit bid prices against recent market driven unit prices for work of similar



nature and scale. This can include information from bid abstracts from recent State Highway Department bid lettings.

- 4) For situations where only the unit prices of select bid items exceed the Engineer's estimate, the sponsor should enter into negotiations with the sole bidder see if a the bidder is receptive to negotiating a lower unit price. FAA recognizes that such negotiations may not be permitted by state or local law.

If the FAA determines the Sponsor's project procurement actions were restrictive, the FAA may declare the Sponsor's procurement unjustified sole-source procurement and thus deny AIP participation.

Determination of Fair and Reasonable Price

Per regulation, the FAA cannot interject their opinion of behalf of the Sponsor. The FAA program manager will thus not evaluate bids for the Sponsor. This does not mean however that the FAA is obligated to accept Sponsor's determination.

The Sponsor, with assistance from their Consultant, must make a determination on whether the apparent low bidder's proposal is responsive and whether it represents an equitable price taking into account all requirements and assumption of risk.

The Consultant will typically initiate a letter to the Sponsor recommending they award the contract to the successful bidder. Because Sponsors remain responsible for all contractual matters, it is important that the Sponsor take action on the Consultant's recommendation. It is not acceptable to simply pass the Consultant's recommendation onto the FAA for review and approval.

The sponsor must indicate whether or not they concur with the Consultant's recommendation. Sponsors may make this statement in writing within the letter that transmits the bid information to the FAA.

The Sponsor must adequately document their bid evaluation and determination of a fair and reasonable price such that a third party auditor may easily track the history of the procurement action.



1020 - Contract Award: Development Projects

Overview

Once the Sponsor has properly evaluated the bids, the grantee must make the award of contract to the **lowest responsive and responsible bidder** [49 CFR Part 18.36(d)(2)(ii)(D)].

The Sponsor should typically notify the apparent low bidder by issuing a "Notice of Award". The Sponsor should make it clear to the successful bidder that they should not construe the issuance of a "Notice of Award" as a binding contractual agreement. The executed contract agreement will serve as the binding contract.

Bid Guaranty

The Sponsor generally holds the bid guaranty of the apparent low bidder and the next low bidder until they establish a contract agreement with the successful bidder. If the apparent low bidder fails to execute the contract agreement, the Sponsor may recover the bid guaranty as a liquidated damage and the award of contract would then proceed with the second low bidder.

FAA Concurrence

The FAA's basis for concurring with AIP participation in a Sponsor's award of contract is primarily the receipt of a satisfactory Sponsor certification for Award of Contract.

This does not preclude the FAA from conducting a cursory review of the Sponsor's procurement action. Such review by the FAA is generally for the purpose spot-checking the validity of the self-certification and to assure compliance with AIP provisions. Sponsors must not construe any review by the FAA a review for legal sufficiency. Additionally, reviews by the FAA do not relieve the Sponsor of any responsibility as it pertains to latent non-compliant matters.

Once the Sponsor has concurred in the award of contract, the Sponsor must submit the following information to the FAA:

1. **Cover letter:** Letter should indicate whether the Sponsor has:
 - Thoroughly evaluated the bid by the apparent low bidder and has determined the bidder to be responsive and responsible.
 - Determined the contract price to be fair and reasonable.

- If it is the Consultant who established the determination of a fair and reasonable price, the Sponsor must state whether or not they concur with the Consultant's determination.
2. **Copy of Bid Tabulation/Abstract:**
 3. **DBE Information:** Submit the following:
 - Completed DBE Letters of Intent
 - DBE Utilization forms.
 - Written affirmation by the DBE subcontractor attesting to their participation
 - Copy of the DBE's current certification
 - Documentation supporting good faith efforts if advertised goal is not met.
 4. **Buy American:** (Refer to Sponsor Guide Section AIP-430)
 - Submit the successful bidder's Buy American certification.
 - If the successful bidder certifies 100% compliance, no further submittal is necessary.
 - If the low bidder requests a waiver to Buy America provisions, refer to sponsor guide section 493:



Contract Execution

The intent of bidding by the sealed bid method is for the Sponsor to enter into a firm-fixed-price contract with the Contractor.

Once FAA grants approval for AIP participation in the award of contract, the sponsor may proceed with formally executing the contract. Sponsors that execute a contract prior to FAA concurrence do so at their risk.

Upon execution of the contract, the Contractor must present the required performance and payment bonds to the Sponsor. Unless otherwise specified, the Contractor should submit the required bonds within two weeks of the contract execution. Sponsors should not generally accept bonds established prior to the contract execution.

The Sponsor must submit a copy of the executed contract along with the executed performance and payment bonds to the FAA prior to issuing a Notice-to-Proceed.



1030 - Construction Management Program (CMP): Development Projects

Overview

Sponsors are obligated by grant assurance #17 to provide and maintain competent technical supervision at the construction site throughout the life of the project. The purpose of this grant provision is to ensure Contractor conformance with the approved plans and specifications as well as with AIP standards.

For paving projects expected to exceed \$500,000, the FAA incorporates a grant condition that requires the preparation and submittal of a "Construction Management Program". This document may also be referred to as a "Construction Management Program".

The Construction Observation Program (CMP) details the measures and procedures necessary to assure compliance with the quality control provisions of the construction contract.

The Sponsor must submit a copy of the CMP to the FAA for review and acceptance prior to issuing a Notice-to-Proceed to the Contractor. FAA concurrence with the issuance of the Notice-To-Proceed is contingent upon submittal of an acceptable observation program.

Standards for Construction Observation

To attain FAA acceptance, the consulting firm responsible for construction observation services shall prepare a CMP that satisfactory addresses the minimum standards and qualifications for personnel, equipment, and facilities. The CMP must identify the required tests for both quality control and quality acceptance. The CMP should also identify the frequency of tests and any applicable action limits.

At least a minimum of 10 days prior to the preconstruction meeting, the Engineer should submit a project specific construction observation program to the FAA for review and approval.

A [Sample CMP](#) (pdf) format is available to assist sponsors in developing a project specific CMP. Users shall not construe this sample as being complete and whole. Our intent with this sample is to provide the Sponsor and Consultant a starting point to develop an acceptable construction management program specific to their project.

I. Construction Observation Program (CMP):

The CMP shall detail the measures and procedures the Engineer must utilize to comply

with quality assurance provisions of the construction contract, including but not limited to all tests required by the project specifications. The program shall include the following items as a minimum:

- a. Brief narrative that describes the general scope of the project work.
- b. Name and title of the Sponsor's authorized representative (Airport Manager, City Engineer etc.).
- c. Name of Contractor and project Superintendent.
- d. Name of Project Engineer/Manager that has overall responsibility for administration of the construction contract. This person shall have the authority, as described in Section 50-08 of AC 150/5370-10, to take necessary actions to assure compliance with the contract requirements.
- e. Name of Resident Observer. Identify the limits of the observer's responsibilities
- f. Name of Sponsor's Quality Assurance testing laboratory and a copy of their certificate of accreditation. For FAA standard paving materials, the accreditation shall be from a nationally recognized accreditation program (AASHTO, A2LA, etc.) as opposed to a State Highway program. The laboratory must have proper accreditation for the specific tests required of the specified material.
- g. Name of Contractor's Quality Control testing laboratory including a point of contact.
- h. Names of any other Engineering firms with quality assurance responsibilities for the project. Include a description of the services each firm will provide.
- i. List qualifications for the Project Engineer, site inspectors, laboratory personnel, and testing personnel.
- j. Itemized listing of all tests required by the contract specification. Include the type and frequency of required tests, the method of sampling, the applicable test standard, and the acceptance criteria or tolerances permitted for each type of test.



- k. Identify procedures for assuring that:
- Tests are taken in accordance with the approved construction management program;
 - Tests are documented properly;
 - Corrective actions / retesting is taken for failed tests;
 - Mix designs meet project specifications. Include documentation of Engineer's approval,
 - Quality and quantity of materials meet project requirements;
 - Reports are transmitted to proper parties.

II. Engineer's Field Office and Laboratory, Equipment and Contract Documents

- a. The Engineer must assure that a facility suitable for use as a field office and laboratory is provided for within the construction contract documents (Ref. Section 60-05)
- b. The Engineer must assure that necessary equipment required for surveying, material testing, and project inspection is available and is in proper working order.
- c. The Engineer shall assure that approved plans and/or specifications are available to construction observation and testing laboratory personnel employed by the Engineer or working under contract with the Engineer.

III. Personnel Qualifications

- a. Project Engineer/Manager: The Project Engineer/Manager shall be a Professional Engineer, licensed in the state where construction takes place (or a reciprocal state), and shall have overall responsibility for construction observation of the project.
- The project Engineer must be on the project site at the beginning of any critical operations and shall supervise all additional construction observation personnel. Define critical operations in the Construction Observation Program (CMP).
 - The Engineer shall have authority to make decisions regarding the project, subject to approval of the sponsor/Owner and the FAA. The Project Engineer must sign all official project documents (i.e. change orders, inspection reports, etc.).
 - Unless otherwise approved by the FAA, the Project Engineer shall meet the following minimum requirements:

- 1) Earthwork - 3 years' experience in earthwork construction.
- 2) Base and Subbase - 3 years' experience in base and subbase construction
- 3) Concrete or Asphalt - 5 years' experience in airport or highway pavement construction.

b. Resident Observer

The Engineering consulting firm may supplement the Project Engineer with a Resident Observer. The use of a Resident Observer may not diminish the responsibility of the Project Engineer. The Project Engineer must be present at the start of all critical operations. The Resident Observer may assist the Project Engineer with construction observation but must not assume the overall responsibility of the Project Engineer. The qualifications for construction observation personnel will vary depending upon the material being placed. We recommend a minimum of two years' experience. Refer to the minimum standards for materials to ascertain the minimum qualifications for the Resident Observer.

c. Field Testing Personnel

Unless otherwise specified, field-testing personnel shall have a minimum of one-year experience in field-testing of the material being placed or constructed. In lieu of working experience, a certificate of completion from an acceptable training course is acceptable subject to FAA approval.

d. Laboratory Personnel

The supervisors of the main testing laboratory and field laboratory shall have as a minimum; two years of prior employment with the official project testing laboratory or other testing laboratories with approved accreditation. The supervisor is ultimately responsible for the testing activity, but need not be present for field sampling or field-testing.

IV. Testing Laboratory

- a. The laboratory furnishing testing services for the project must have a current accreditation by a nationally recognized accreditation program (e.g. AASHTO, A2LA). If a testing laboratory can show evidence that it has applied for and paid necessary fees to an acceptable laboratory accreditation program, such evidence may, satisfy this requirement on an interim basis. The laboratory accreditation must address the tests required in the project.



- b. Testing functions occurring in the field such as density testing, material sampling, or specimen preparation may be performed by accredited laboratory personnel or other qualified personnel. Field-testing personnel shall have as a minimum, one year of experience with the appropriate material and construction methods.

V. Surveying

- a. The surveying included in this portion of the observation program is limited to that required for construction of the project. The Project Engineer should have access to all field notes and data collected during design regardless of who designed the project. The survey party shall consist of a qualified party chief and survey crew. All survey equipment must be in proper working operation prior to use. If property surveying is required, the party chief must be a registered land surveyor.
- b. Horizontal and Vertical Control: Per Section 50-06 of AC 150/5370-10, the Sponsor's Engineer is responsible for establishing horizontal and vertical control. Occasional spot check should be required to assure the integrity of the control monuments. Due to accuracy requirements for aeronautical information, the construction monuments for runway projects must be tied into the National Geodetic Service (NGS) National Spatial Reference System (NSRS). For horizontal control, the referenced datum must be NAD83. For vertical control, the referenced datum must be NAVD88. The Contractor must adequately protect the construction monuments throughout the duration of the project.
- c. Construction Layout and Staking: The Contractor shall accomplish construction layout and staking by using horizontal and vertical control monuments established by the Sponsor's surveyor. The Sponsor should avoid situations that use the Engineering Consultant to accomplish construction layout and staking. The responsibility and risk associated with construction layout and staking must remain with the Contractor.
- d. During the course of the project work, the Sponsor's survey party shall make spot checks on alignment, verify proper cross sections of the completed pavement layers (subgrade, subbase, base course and surface course) and verify final cross sections for computing final pay quantities.

VI. Construction Observation and Material Testing

a. Subgrade, Subbase, and Base Course Construction Personnel.

1. Field Construction Observer: The Sponsor's Engineer shall provide at least one on site construction observer per shift with a minimum of 2 years' experience in earthwork, and aggregate subbase/ base course construction. Subject to FAA approval, the observer may substitute up to one year of experience with a four-year college degree in Engineering or a certificate of completion from an acceptable training course. If additional assistant construction observers are necessary, they shall have a working knowledge of earthwork and subbase/base coarse construction procedures.
2. Field Testing Personnel: Unless otherwise specified, field testing personnel shall have a minimum of one-year experience in field testing of subgrade, subbase, and base courses. In lieu of working experience and subject to FAA approval, it may be acceptable to reference a certificate of completion from an acceptable training course.
3. Laboratory Personnel: The supervisor(s) of the main testing laboratory and field laboratory shall have as a minimum; two years of prior employment with the official project testing laboratory or other testing laboratories with approved accreditation. The supervisor is ultimately responsible for the testing activity, but need not be present for field sampling or field testing.

b. Bituminous Paving Observation Personnel.

1. Field and Plant Inspectors: The Sponsor's Engineer shall furnish a sufficient number of observers to adequately observe plant and field lay down operations. A minimum of one on site observer per shift shall have at least five years of experience in the field of bituminous pavement construction. Subject to FAA approval, the inspector may substitute up to one year of experience with four-year college degree in Engineering or a certificate of completion from an acceptable training course. Assistant observers must have a working knowledge of the appropriate construction procedures. This includes observers for construction of bituminous seal coats and surface courses.
2. Field Testing Personnel: Unless otherwise specified, field-testing personnel shall



- have a minimum of one-year experience in field testing and sampling of bituminous concrete. In lieu of working experience and subject to FAA approval, a certificate of completion from an acceptable training course may be accepted.
3. **Laboratory Personnel:** The supervisor(s) of the main laboratory and field laboratory shall have a minimum of two years of supervisory employment with this laboratory or other laboratories with approved accreditation. Additional laboratory personnel shall have a working knowledge of bituminous mixture testing. The supervisor is ultimately responsible for the testing activity, but need not be present for field sampling or field testing.
- c. **Concrete Paving and Structural Concrete Observation Personnel.**
1. **Field Observers:** The Sponsor's Engineer shall furnish a sufficient number of observers to adequately observe plant and field placement operations. A minimum of one on site observer per shift shall have at least 5 years' experience in concrete pavement construction. Subject to FAA approval, the observer may substitute up to one year of experience with a four-year college degree in Engineering or a certificate of completion from an acceptable training course. The observer shall be on site during the placing, initial sawing and initial curing operations. Additional assistant observers shall have a working knowledge of concrete paving procedures.
 2. **Field Testing Personnel:** Unless otherwise specified, field-testing personnel shall have a minimum of one-year experience in field testing and sampling of Portland cement concrete (PCC). In lieu of working experience and subject to FAA approval, the testing personnel may substitute the experience with a certificate of completion.
 3. **Testing Laboratory Personnel:** The supervisor of the main laboratory and field laboratory shall have a minimum of two years of employment with this laboratory or other laboratories that have approved accreditation. Additional laboratory personnel shall have a working knowledge of concrete testing. The supervisor is ultimately responsible for the testing activity, but need not be present for field sampling or field-testing.
- d. **Manufactured Materials**
For manufactured items such as cement, asphalt, steel, lime, fly ash and etc., the Project Engineer may accept the vendor's certification that the materials meet the specifications. The Project Engineer may also require testing of the material to assure compliance to the specifications.
 - e. **Report of Test Results to the Contractor:**
The Project Engineer, or designee, shall verbally notify the Contractor of the test results immediately after the tests are complete. The information shall include the results of the tests and any payment deductions due to substandard construction materials. In no case shall the Contractor receive notice more than 4 working hours after the test results are complete. Provide additional written notification to the Contractor within 7 days after the tests are complete.
 - f. **Retesting**
The testing laboratory shall provide written notification to the Sponsor and the Contractor of additional costs incurred from retesting of failed materials and additional quality assurance tests.

VII. Reports

- a. **Progress Reports:** The Consultant shall prepare a weekly construction progress and inspection report conforming to FAA form 5370-1. An equivalent format is acceptable provided the substitute format addresses the same information. Record and file tests reports in a timely and orderly manner. Tests reports shall include type of tests taken, applicable standards, location of tests, tests results (highlighting those tests which fail specification requirements), provisions for failed tests, and specification requirements. Test reports must be made available for FAA review upon request.
- b. **Final Report:** At the end of the project, the Project Engineer shall submit a final test and quality control report that documents the results of all tests performed. Highlight tests that failed or did not meet the applicable test standard and note corrective action and re-testing results. The report shall include any applied pay reductions and justification for accepting any out-of-tolerance materials.



1040 - Preconstruction Conference: Development Projects

Overview

The preconstruction conference offers a forum for all interested parties to discuss the scope of the project and its impact on normal airport operations. 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, acceptance testing, labor requirements, EEO obligations, DBE requirements and other pertinent matters.

As each project may be unique in type and complexity, the Engineer should tailor the agenda for each conference to address the issues specific to their project.

Scheduling of Conference

The Sponsor/Consultant should schedule the preconstruction conference immediately following FAA's concurrence with the award of contract to the apparent low bidder Contractor.

We request a minimum of 10 days advance notice in order to permit adequate time to inform other FAA offices (ATO, TSA etc.) who may be interested in the project.

Participants

As a minimum, the following parties should be present at the conference:

- Airport Sponsor/Manager
- Sponsor's Consultant
- Proposed Resident Engineer/Observer
- Sponsor's Acceptance Testing Laboratory
- Contractor
- Contractor's Project Superintendent
- Contractor's Quality Control Laboratory

Additional parties that should be notified include:

- FAA Project Manager
- FAA Technical Operations Representative (for impacts to FAA owned facilities and/or cables)
- Department of Homeland Security Federal Security Director
- Air traffic control (if ATC is present)
- Subcontractors

Conference Administration/Structure

The Sponsor, through their delegated Consultant, is responsible for conducting the preconstruction conference. The Consultant shall prepare an agenda that addresses pertinent project issues. The Sponsor shall record minutes of the meeting and forward copies of the meeting minutes to all participants and the project files.

It is not necessary that all invitees attend the entire conference. Sponsors may find benefit in structuring the preconstruction conference such that only specific topics are discussed during select session times. This allows individuals to focus on their area of interest rather than sit through discussions they have no interest in participating. The following session structure is one such example.

Day 1 – Morning (General)

- Introductions
- Scope of work
- Schedule & NTP
- Submittals
- SWPP/Environmental
- Utilities

Day 1 – Afternoon (Contract Administration)

- Davis Bacon (Payrolls)/Wage Rate Interviews
- DBE
- EEO
- QA/QC Testing
- Pay Requests
- Contract Modifications
- ATCT Concerns
- ATO Technical Operations
- Part 139 Issues

Day 2 – Morning (Safety & Security)

- CSPP
- NOTAMS
- Badging/Driver Training
- Part 139 Issues
- ATCT Concerns
- ATO Technical Operations
- Security



Conference Agenda

Advisory Circular AC 150/5300-12 presents a complete listing of recommended agenda items. The type, magnitude and uniqueness of a project will likely necessitate modifications to the standard agenda. The conference agenda should, as a minimum, include the following:

1. Identify main points of contact
 - Owner, Owner's Representative, Contractor, Superintendent, Resident Engineer, etc.
 - Identify roles and responsibilities
 - Discuss authority of Engineer
 - Relationship between FAA and Sponsor
2. Scope of work
 - Include general plan or chart to depict proposed work
 - Proposed schedule of work
 - Identify construction phasing concerns
3. Notice-To-Proceed: Contingent upon;
 - Execution of grant agreement
 - Execution of contract & required bonds
 - Sponsor acceptance of DBE participation
 - FAA approval of waiver to Buy American preferences (if applicable)
 - FAA Approval of Construction Observation Program
 - Safety Plan compliance Document
4. Operational safety & security:
 - Safety Plan Compliance Document
 - Delineation of construction limits
 - Runway and taxiway safety areas limits (open trenches, drop offs, irregular surfaces)
 - Potential impacts to airport operations
 - Operational Safety requirements of approved CSPP (AC 150/5370-2)
 - Vehicular operation within the A.O.A. with emphasis on runway incursions.
 - Staging area location and haul route limitations
 - Stockpile Limitations and Part 77 Notification (FAA Form 7460-1)
 - Equipment heights and Part 77 Notification (FAA Form 7460-1)
 - Foreign Object Debris (FOD) control (windblown and tracked-on)
 - Temporary markings & Barricades
 - Airfield security Requirements
 - Non-compliance consequences (Removal, suspension of work etc.)
5. Part 139 Issues
 - Vehicle Operator/pedestrian training
 - Impacts to ARFF operations and response time
6. NOTAMS
 - FDC NOTAMS for Temporary Structure Notification
 - The need to file will be identified in the Project Final Determination Letter received from the Airspace Specialist.
- Filing is conducted through the OEAAA Website and will require the ASN's associated with the case to proceed.
- A FDC NOTAM Desk Reference Guide is available within the Instructions Link found on the OEAAA Website.
 - Notify Tech Ops of facility outages at least 10 working days prior to activity
7. FAA Technical Operations (Airway Facilities)
 - FAA Facility Outages: 7 day advance notice required
 - Location of buried cables
8. Construction Observation Program
 - Identify Contractor's and Sponsors laboratory
 - Acceptance testing versus Quality Control testing
 - Test reports, record keeping, daily diary
9. Project Submittals: Approval based upon;
 - Technical requirements
 - Buy American Provisions (Origin of Manufacture)
 - Approved Lighting Equipment (Appendix 3 of AC 150/5345-53)
10. Labor Requirements
 - Davis Bacon Wage Rates (Must be posted on conspicuous project board)
 - Labor poster (Must be posted prior to start of work)
 - Submittal of payrolls
 - Wage rate interviews
11. Civil Rights/DBE Requirements
 - Advise Contractor that project is subject to the EEO clause
 - EEO posted notices must be posted prior to start of work
 - Sponsor monitoring of DBE
 - DBE Fraud indicators
12. Contract Modification Process
 - Refer to central region guidance
 - Sponsor may not seek reimbursement for change order work until FAA approves AIP participation in the change order.
 - Refer to Section 1080 – Contract Modifications: Development Projects
13. Utilities
 - Locating
 - Protection of FAA Cables/Infrastructure
14. Environmental Issues
 - Storm Water Permitting
 - Waste Disposal
 - Other site-specific environmental issues



Conference Record

The Sponsor, through their Consultant, should record discussions that occurred during the preconstruction meeting sessions. This record should document any clarifications and actions items addressed as part of the discussions that took part.

Disseminate copies of the meeting record to attendees as well as one copy to the FAA Program Manager.

RESOURCES

Advisory Circulars

- [AC 150/5370-10](#): Standards for Specifying Construction

Required Posted Notices

- [Davis Bacon Poster WH 1321](#) – DOL “Notice to All Employees” Poster



1041 – Aeronautical Review of Equipment Heights: Development Projects

Impact of Equipment Heights

The operation of Contractor's equipment on or near an airport can have a significant impact to existing approach and departure procedures. The consequences of these impacts could result in increased risk to operations safety as well effects on aircraft procedures (i.e. minimums reduced or temporary not authorized).



Sponsor Notification Requirements

Proponents of construction activity on an airfield are required by regulation (14 CFR Part 77) to provide notification to the FAA of their work. This notification addresses both permanent improvements and the temporary construction objects.

The evaluation of temporary construction objects requires a separate study for each object type that the proponent submits through the OEAAA system.

Due to the extent of adverse effect, such objects may have on aeronautical operations; we **strongly** encourage proponents of AIP development work to submit appropriate studies during the design phase. This will allow time to incorporate any mitigating measures and limitations into the CSPP and the procurement package.

The Sponsor of the AIP project should typically submit 7460-1 forms for select points of interests that will include:

- anticipated equipment heights at the project work area limits;
- Proposed haul routes;
- Anticipated location of stockpiles;

- Proposed staging area.

Early evaluation of such potential impacts reduces the probability that high risk reaches the construction site and limits costly corrective change orders.

The formulas in OE/AAA rely on accurate data input in order to quantitatively evaluate an objects effect on aeronautical surfaces and procedures. The 7460 submittal requires accurate information addressing geodetic coordinates, ground elevation and the height of anticipated equipment.

Example: Assume a Sponsor submits data for temporary construction objects that address an anticipated 25' AGL equipment height and ground elevation at the work area boundary. OE/AAA will evaluate these points and determine the impact equipment up to 25' AGL will have on established aeronautical surfaces such as approach and departure procedures.

If the study results do not indicate any adverse effect to established aeronautical surfaces, reasonably assurance is established that the Contractor may operate equipment up to 25' AGL within the defined project work area limits without concern of adversely affecting airport operations.

There is an AC that details how to submit on-airport proposals into OE/AAA: [AC 150/5300-20](#)

Contractor Notification Requirements

If the Contractor or a subcontractor proposes to use equipment (e.g. cranes, boom trucks, and concrete pumps) that exceed the horizontal and vertical limits addressed under the Sponsor's submittal, the Contractor must submit a separate Part 77 notice for the purpose of evaluating impacts of their equipment may have on aeronautical operations.

The sponsor should inform the Contractor no later than the pre-construction conference of their requirement to submit a 7460-1 for each individual piece of equipment height not previously studied by the FAA.

The Sponsor should advise the Contractor that they must submit this information no later than **60 days** prior to expected use. Failure to address this matter in a timely manner may result in the temporary loss of aeronautical use such as "n/a" approach procedures or closure of the runway.



Multiple Phases and Construction Objects

If an airfield construction project involves multiple phases and sequencing, it is important to note the phase for which an object under study is applicable. An object may not have an adverse effect for a particular phase, but for another phase, result in significant adverse effect. Without clear and accurate information, the subject matter expert will likely assume the worst-case scenario and issue an object for all phases.

Role of CSPP Review through OE/AAA

The aeronautical review of the construction safety plan through OE/AAA is primarily an internal FAA coordination review. This study will typically be initiated by the FAA Program Manager given that Part 77 does not require proponents of airfield development project to submit their CSPP for evaluation via OE/AAA.

The purpose of the internal review is to obtain comments and concerns from the various FAA lines of business (LOBs) as they pertain to their area of responsibility. Such reviews are qualitative in nature as opposed to the quantitative assessment that results from the Part 77 notification. The FAA PM will convey any comments and concerns submitted by other FAA LOBs along with their own CSPP review comments.

RESOURCES

Advisory Circular

- [AC150/5200-28](#): Notices to Airmen (NOTAM) for Airport Operators
- [AC 150/5210-5](#): Painting Marking and Lighting of Vehicles Used on an Airport
- [AC 150/5340-1](#): Standards for Airport Marking
- [AC 150/5370-2](#): Operational Safety on Airport During Construction

On-Line 7460-1 Form

- [Obstruction Evaluation / Airport Airspace Analysis \(OE/AAA\)](#)



1050 - Notice-to-Proceed: Development Projects

Conditions for FAA Concurrence

The Sponsor should avoid issuing a Notice-to-Proceed to the Contractor until satisfying all pre-requisites to FAA's satisfaction. The FAA will typically conduct a cursory review of contract documentation to ensure compliance with AIP requirements and to ensure the Sponsor has met pre-construction requirements.

Absent any objections, once the Sponsor meets the following conditions, they may proceed with issuing a Notice-to-Proceed:

1. **Proper Execution of the Contract**
Both parties must properly execute the contract agreement. This includes signature and date.
2. **Bonding Requirements Fulfilled**
The Contractor must submit satisfactory Performance and Payment Bonds issued from a solvent surety.
3. **DBE Participation**
The sponsor has confirmed that the Contractor's have either met the published DBE goal or have provided adequate documentation supporting their good faith efforts in obtaining participation by DBE firms.
4. **Buy America Waiver** If the Buy America certification for the apparent low bidder indicates a request for a waiver to Buy America preferences, the bidder must submit satisfactory documentation that supports a permissible waiver. Sponsors should not enter into the contract agreement until the FAA offers concurrence with a Contractor's waiver request.

5. **Construction Management Plan**

For projects involving airfield paving that equal or exceed \$500,000, the Consultant must prepare and submit to the FAA a satisfactory construction management plan.

6. **Proper Execution of Grant Agreement**

With the exception of projects funded entirely by primary entitlement funds, no development shall take place unless the Sponsor has adequately executed the associated grant agreement. Any actual construction that occurs prior to establishment of the associated grant agreement may become ineligible for AIP participation.

7. **Safety Plan**

The sponsor must resolve all applicable FAA comments that result from the aeronautical reviews of construction safety plan and the associated project elements (staging area, work area, haul roads and etc.).

Contractor's Proposed Construction Schedule

Section 80 of AC 150/5370-10 requires the Contractor to submit within 10 days of the issuance of the NTP a copy of their proposed progress schedule. Forward a copy of this schedule along with the actual NTP letter to the FAA Program Manager once it is received from the Contractor.

RESOURCES

Advisory Circulars

- [AC 150/5370-12](#): Quality Management for Airport Construction
- [AC 150/5370-10](#): Standards for Specifying Construction



1060 - Labor Provisions: Development Projects

Overview

AIP Sponsors with construction projects that exceed \$2,000 are required to comply with applicable Federal Labor provisions. This requirement is included in the grant assurances and the FAA considers this a condition of grant acceptance.

The Department of Labor (DOL) maintains oversight and enforcement over regulations and laws pertaining to labor standards. As an AIP grantee, the Sponsor assumes a role in providing day-to-day administration and monitoring of applicable labor standards.

Federal Regulations 29 CFR Part 5 establishes the provisions for labor requirements on construction projects exceeding the \$2,000 threshold. Federal Regulations 49 CFR 18.36 serves as a guide for AIP Sponsors in complying with applicable labor provisions.

Sponsors should note that at the conclusion of an AIP project, the Sponsor is required to certify compliance with the applicable labor provisions. The form 5100-129 titled "*Sponsor Certification for Final Acceptance*" contains various questions regarding the Contractor's compliance with labor requirements.

Responsibilities of the Sponsor

As an AIP grantee, the Sponsor assumes responsibility for ensuring compliance with relevant labor standards. This responsibility includes but is not limited to the following:

- Incorporate in each bid solicitation a copy of the current wage rate determination as issued by the DOL (29 CFR Part 1.6). Sponsor may access current wage rates determinations at the Department of [Labor Wage Determinations Online](#) website.
 - The selected determination should contain worker classifications that are most appropriate for the type of work involved on the project.
 - For most airfield projects, the highway classification is appropriate. For projects involving building construction (ARFF building, SRE building etc.) use the building classification.
- For all construction contracts expected to exceed \$2,000, include contract clauses and provisions as required by 29 CFR Part 5.5.
- Award contracts conditioned on the acceptance and adherence of the appropriate wage determination.
- Report all suspected or reported violations to the DOL.
- Withhold from the Contractor accrued payments or advances as may be considered necessary to pay laborers and mechanics employed by the Contractor the full amount of wages required per the contract (29 CFR Part 5.5)
- Review weekly payroll records in order to ascertain compliance with the applicable wage rate determination.
- Conduct labor standard interviews for purposed of assuring compliance. There is no established frequency for conducting such interviews. 29 CFR Part 5.6 states that interviews shall be conducted with such frequency as necessary to assure compliance with labor standards.
- Verify that award of contract is not being made to a firm debarred for violations of the Davis-Bacon Act.
- Assist in the classification of any laborer or mechanic not classified under the appropriate wage determination.
- Discuss labor standards during the preconstruction meeting in order to achieve an understanding of the requirements for each individual party.

Responsibilities of the Contractor

Contractors of AIP funded construction projects assume the following obligations:

- Pay the laborers and mechanics the wages and fringe benefits stipulated by the appropriate wage determination.
- Post the wage rate determination and the Davis Bacon Poster (WH-1321) in a prominent and conspicuous location on the job site.



Central Region Airports Division AIP Sponsor Guide - 1000

January 2021

- Ensure that all construction subcontracts contain the appropriate labor provisions established in 29 CFR Part 5.5.
- Maintain payrolls and records for all laborers and mechanics engaged in the project work. Contractor must retain records for a period not less than three years from completion date of the project.
- Submit to the Sponsor or their representative a copy of weekly payrolls consisting of the following minimum information.
 - Name, Address and Social security number
 - Classification and hourly rate
 - Daily and weekly number of hours worked
 - Itemization of Deductions
 - Actual wages and fringe benefits.
- Maintain written evidence of the registration or apprenticeship programs

Applicable Labor Regulations

Listed below are some of the applicable statutes and regulations pertaining to labor standards. Do not construe this listing as inclusive of all regulations pertaining to required labor standards. Additional regulations, policies, executive orders and other regulations may apply. Consult the Department of Labor [Employment Law Guide](#) for a comprehensive view of labor requirements. The information provided below is based on information provided on the DOL website.

Davis-Bacon Act (DBA) - The Davis Bacon Act requires payment of prevailing wages and fringe benefits for all AIP projects expected to exceed \$2,000. This requirement extends to all subcontractors employed under the prime Contractor.

The Sponsor shall assure that a current wage rate determination and the DBA contract provision is **physically** included in the project bid solicitation. If multiple wage schedules apply, the instruction to bidders must provide clear instruction as to the application of similar wage rates provided by the separate schedules.

The wage determination must also be posted at the job site in a conspicuous and accessible location.

While the issuance of a change order would not require an update to the

contract wage determination, the execution of a supplemental agreement, which exceeds \$2,000, does require such an update. Supplemental agreements generally cover work not included in the original scope of work.

For labor classifications not included in the wage determination, the Contractor and Sponsor shall jointly complete Standard Form 1444 for submittal and approval by the DOL. The Sponsor and Contractor should note that this process may take up to thirty 30 days to resolve.

Contract Work Hours and Safety Standards Act (CWHSSA)

- The Contract Work Hours and Safety Standards Act (CWHSSA) applies to Contractors and subcontractors with federal service contracts and federally funded and assisted construction contracts that exceed a certain dollar amount. The Act requires Contractors and subcontractors with covered contracts to pay laborers and mechanics employed in the performance of the contracts one and one-half times their basic rate of pay for all hours worked over 40 in a workweek. This Act also prohibits unsanitary, hazardous, or dangerous working conditions in the construction industry on federal and federally financed and assisted projects.

The CWHSSA provides most workers on federal assisted contracts the right to receive time and one-half for overtime hours worked on such contracts. The DOL Wage and Hour Division accepts complaints of alleged CWHSSA wage violations.

Contractors or subcontractors who violate this Act may be subject to fines, imprisonment, or both. Intentional violations of this Act are misdemeanors and may be punished by a fine not to exceed \$1,000 or by imprisonment for not more than six months, or both. Overtime wage violations may result in the assessment of liquidated damages in the sum of \$10 for each calendar day an employee is allowed to work in excess of a 40-hour workweek without payment of the required overtime compensation.



Central Region Airports Division AIP Sponsor Guide - 1000

January 2021

Accrued contract amounts may also be withheld in sums necessary to satisfy the liability for unpaid wages and liquidated damages. Employees have rights of action and/or of intervention against the Contractor and its sureties if the amounts withheld are insufficient to reimburse the unpaid wages. Contractors or subcontractors found to have committed willful or aggravated violations of the overtime requirements may have their contracts terminated and may be declared ineligible to receive future contracts for a period not to exceed three years.

Copeland Anti-Kickback Act

The "Anti-Kickback" section of the Copeland Act applies to all Contractors and subcontractors performing on any federally funded or assisted contract for the construction, prosecution, completion or repair of any public building or public work, except contracts for which the only federal assistance is a loan guarantee. This provision applies even where no labor standards statute covers the contract.

The regulations pertaining to Copeland Act payroll deductions and submittal of the weekly statement of compliance apply only to Contractors and subcontractors performing on federally funded contracts in excess of \$2,000 and federally-assisted contracts in excess of \$2,000 that are subject to federal wage standards.

The "Anti-Kickback" section of the Act precludes a Contractor or subcontractor from in any way inducing an employee to give up any part of the compensation to which he or she is entitled under his or her contract of employment. The Act and implementing regulations require a Contractor and subcontractor to submit a weekly statement of the wages paid to each employee performing on covered work during the preceding payroll period. The regulations also list payroll deductions that are permissible without the approval of the Secretary of Labor and those deductions that require consent of the Secretary of Labor.

The "Anti-Kickback" provisions of the Copeland Act give covered workers on subject federal contracts the right to receive the full pay to which they are entitled for the work they perform. The Act also gives such workers the right to receive pay on a weekly basis. The DOL Wage and Hour Division of the Employment Standards Administration accept complaints of alleged Copeland Act wage violations.

Any Contractor or subcontractor who induces an employee working on a covered contract to give up any part of the compensation to which he or she is entitled is subject to a \$5,000 fine, or imprisonment for up to five years, or both. Willful falsification of the statement of compliance may subject the employer to civil or criminal prosecution and may be cause for contract termination or debarment. Contractors may challenge determinations on debarment before an administrative law judge. Decisions of administrative law judges may be appealed to the Administrative Review Board. Final determinations on debarment may be appealed to and are enforceable through the federal courts. Civil and criminal sanctions are pursued through the federal courts.

Occupational Safety and Health Act

In general, the Act covers all employers and their employees in the 50 states, the District of Columbia, Puerto Rico, and other U.S. territories. Coverage is provided either directly by the federal Occupational Safety and Health Administration (OSHA) or by an OSHA-approved state job safety and health plan. The Act applies to employers and employees regardless of whether Federal assistance is present or not.

Compliance with OSHA requirements is primarily the responsibility of the Contractor. The Sponsor through their Consultant however, should report any suspected violation of OSHA standards to the DOL for prompt resolution.

RESOURCES



Department of Labor Requirements

- [Davis Bacon Wage Rate Determinations](#)
- [Davis Bacon Poster WH 1321](#) – DOL “Notice to All Employees” Poster



1070 – Inspections: Development Projects

Overview

AIP Sponsors assume the responsibility for monitoring Contractor progress in carrying out the project and ensuring compliance with the approved plans and specifications. Grant assurance #17 states that the Sponsor must provide and maintain competent technical supervision at the construction site throughout the duration of the project.

Sponsors typically must retain the services of a qualified Consultant Engineer to furnish competent construction oversight. Sponsors that desire to accomplish a portion of the inspection responsibilities must submit to the FAA a formal request for use of a sponsor force account. Refer to the AIP handbook for more requirements regarding the use of a sponsor force account.

Quality Control of AIP Construction

As the Sponsor's agent, the Consultant Engineer protects the Sponsors and has delegated responsibility for reporting on the Contractor's progress and quality of work. This does delegation of responsibility does not relieve the Sponsor of their obligations and accountability to the FAA.

The Sponsor should clearly define the responsibilities of the Consultant in a written agreement. Advisory Circular 150/5370-12 addresses the responsibilities of the Sponsor and the Engineer. The agreement should, as a minimum, address the following tasks:

Project Administration

- Conduct Preconstruction Conference per AC 1500-5370-12
- Prepare Contract Documents for execution
- Prepare and distribute Construction documents (Plans & Specifications) for use by the Contractor
- Provide general consultation and technical assistance to the Owner
- Act within the limits of the authority of the Engineer established by Section 50-01 of the project manual
- Prepare and verify Contractor periodic payment requests
- Prepare an Outlay Report and Request for Reimbursement for Construction Programs (SF271) and a Federal

Financial Report (SF425) for Sponsor signature.

- Develop Construction Observation program per Sponsor's Grant condition
- Prepare and administer contract modifications as required and as approved by the FAA and the Owner.
- Monitor AGIS progress (as required)
- Reports:
 - Prepare and update Sponsor Quarterly Performance Reports
 - Prepare and submit progress reports
- Monitor Contractor's compliance with Davis Bacon requirements including reviews of Contractor certified payrolls and conducting wage rate interviews
- Monitor Contractor's compliance with DBE requirements.
- Evaluate proposed waiver of Buy American preferences (if applicable)
- Monitor Contractor's compliance with E.E.O requirements

Field Services

- Provide horizontal and vertical survey control for use by the Contractor.
- Conduct acceptance reviews of shop drawings and materials certifications
- Monitor Contractor's compliance with Buy American contract provision.
- Provide qualified Resident Engineer to monitor Contractor's conformance with Contract requirements.
- Document Contractor's performance, observe acceptance testing of construction materials and verify installed construction quantities.
- Coordinate Contractor's activities and progress with the Owner.
- Monitor Contractor's compliance with approved CSPP
- Maintain construction diary that documents daily work activities and contract time
- Prepare and submit progress reports
- Perform quality acceptance testing in accordance with the project specifications
- Conduct routine site visits by Project Engineer for purpose of coordinating with Resident Engineer and observing Contractor's progress.



Central Region Airports Division AIP Sponsor Guide - 1000

January 2021

- Obtain and submit updated runway survey and commissioning data (As required per project)

Project Closeout

- Attend and conduct a final walk through and inspection of the completed project with the Contractor and Owner.
- Monitor completion of punch list items
- Prepare and distribute record of final inspection.
- Prepare and distribute a Final construction report that documents key project milestone dates, final project costs, final SF-271, final SF-425, summary of test results and material certifications, summary of contract modification, compliance with labor provisions and photographs of completed project work.
- Prepare and distribute record drawings
- Update and distribute revised Airport Layout Plan drawings (As Required)
- Verify AGIS data information and submit for FAA acceptance (As Required)
- Submit above noted closeout documentation within 90 days of Owner's acceptance of project from Contractor.

RESOURCES

Advisory Circulars

- [AC 150/5370-12](#): Quality Management Control for Federally Funded Airport Construction Projects

Grant Obligations

- [Airport Sponsor Assurances](#) (pdf)



1071 - Review of Construction Project Submittals: Development Projects

Project Submittals

A critical step in assuring Contractor compliance with the approved plans and specification is the review of project submittals. Sometimes referred to as the “shop drawing” phase, this step involves the submittal and review of catalog cut sheets, product information sheets, schedules, fabrication details, installation diagrams and manufacturer’s instructions.

Per Section 60-01 of the FAA Standards for Construction (AC 150/5370-10) the Contractor shall submit to the Engineer complete statements as to the **origin, composition and manufacture** of all materials the Contractor intends to use in the project work. Section 100 of Advisory Circular 150/5370-10 requires a submittals schedule as part of the Contractors Quality Control Program.

The prime Contractor assumes the key responsibility for assembling and submitting shop-drawing documentation that demonstrates compliance with the contract plans and the project manual.

The Sponsor, through their Consultant, shall review the shop drawing submittals for general conformance with the approved contract plans and specifications. This review should note any deviations or exceptions made by the Contractor.

AIP Requirements

While the focus of the shop drawing review is typically weighted heavily toward checking conformance with the technical requirements of the contract specification, it is equally important that this review also address verification of Contractor conformity with AIP provisions of the contract. Specifically, the Sponsor should confirm Contractor compliance with the Buy America provisions and the Airport Lighting Equipment Certification Program.

Failure to verify conformance with AIP provisions could lead to a situation where the installed material or equipment satisfies the technical requirements of the contract, however the FAA deems the work ineligible for AIP participation because the Contractor failed to meet AIP contract requirements.

Buy American

To remain eligible for AIP participation, the apparent low bidder must certify that they will comply with Buy America preferences. If the bidder is unable to fully comply with furnishing 100% United States made equipment and manufactured products, the bidder may request a waiver of the 100% Buy America preference.

The FAA will consider a waiver if the bidder can demonstrate that more than 60% of the cost of components comprising the equipment or manufactured product are made in the United States and final assembly occurs within the U.S. A significant limitation to Buy America waivers is that the FAA cannot approve a waiver request for non-domestic steel products. All steel products such as concrete reinforcement and steel framing must be 100% U.S. made.

The FAA maintains a listing of equipment and products that they either have granted a national waiver or have found meet 100% Buy American preferences. Additional evaluation for Buy American conformance is not necessary for equipment identified on the current listing. Sponsors and Consultants may access the current list at the following web link:

[Nationwide Buy American Waivers Issued](#)

The Sponsor’s Consultant must confirm and document the origin of manufacture of proposed equipment and manufactured products. The shop drawing stage permits the opportunity for the sponsor and their Consultant to verify Contractor compliance with Buy America.

Equipment and products that are 100% U.S product meet the AIP preference and thus are acceptable. For equipment and products not fully made in the United States, the Sponsor or their Consultant needs to make sure the Contractor submits the proper waiver request prior to execution of the contract. Once the Sponsor reviews this request and concurs with the waiver request, the FAA Regional Office will evaluate the request and determine if a waiver is justified.

Sponsors should note that NAFTA and other U.S trade agreements **do not** apply to the Airport Improvement Program.



Airport Lighting Equipment Certification Program

To remain eligible under the AIP, all installed airfield lighting equipment must be listed within the current version of Appendix 3 of AC 150/5345-53 (Approved Lighting Equipment) that is effective as of the date of the contract bid.

When reviewing submittals for airfield lighting equipment, the Sponsor and their Consultant should not rely solely on vendor statements that claim compliance with FAA standards. The reviewer should instead base acceptance upon a crosscheck of the proposed vendor's product number with the number listed in Appendix 3 of AC 150/5345-53.

AIP cannot participate in costs associated with products from vendors who claim they meet the FAA standards but for which they do not have a valid FAA certification for said product.

Submittal Log System

Consultants should maintain a submittal log system that adequately documents project submittal information. The submittal log system should not only address compliance with the technical requirements, but also address compliance with Buy America provisions as well as the FAA Airport Lighting Equipment Certification Program.

For purpose of third party audit and FAA verification, the Sponsor should retain a copy of this log at the conclusion of the project. Failure to maintain adequate documentation could lead to a situation where the FAA declares installed work ineligible because the sponsor cannot prove compliance with AIP requirements.

Contract Modification and Submittals

The shop drawing review process should never serve as a means for establishing a contract modification. If there is mutual acceptance with a proposed modification or deviation, the Sponsor should initiate a written change order to address the modification or deviation rather than rely on a submittal approval action.



1072 - Construction Records: Development Projects

Daily Records

The Sponsor must have a Resident Observer maintain daily records that sufficiently describe the work accomplished each day. The Sponsor should identify this requirement as a responsibility in the Consultant's service agreement.

FAA Form 5370-1 is available to assist Sponsors in documenting the construction progress. Consultants may use a customized format provided that it documents equivalent information as Form 5370-1.

Submittal

The FAA does not require the Sponsor to submit the daily records to the FAA. However, such records must be made available upon request by the FAA.

Consult the FAA Program Manager to determine frequency of submittal for progress reports. Depending on the size and nature of the project, the FAA Program Manager may request daily, weekly, monthly or a one-time submittal of such reports.

The Sponsor shall maintain the records for a period not less than three years from the date of project acceptance.

Required Information

As a minimum, the Sponsor's Consultant shall record the following:

- Daily weather conditions and temperatures
- Worked accomplished that day, including exact location
- Work day count and contract time
- Percentage estimate of physical work completed to date
- Hours worked per day
- Quality and Quantity of material delivered on-site
- Type and amount of equipment in use
- Size of work force including presence of Contractor's supervisor
- Acceptance tests conducted and results obtained
- Corrective actions taken by the Contractor
- Status of approved Safety Plan measures
- Identification of critical construction issues

RESOURCES

Advisory Circulars

- [AC 150/5370-12](#): Quality Management for Federally Funded Airport Construction Projects

Forms

- [FAA Form 5370-1](#) (PDF): Construction Progress and Inspection
- [SF 1445](#) (PDF)– Labor Standards Interview form from GSA



1073 – Monitoring Labor and Civil Rights Requirements: Development Projects

Labor and Civil Rights

In addition to verifying Contractor compliance with technical and contractual requirements, the Sponsor must also ensure the Contractor complies with applicable labor and civil rights.

These tasks, which are typically included as part of the Consultant's contract, include but are not limited to the following:

1. Weekly review of payroll records and wage rate interviews (frequency as necessary) to ascertain the Contractor compliance with the applicable wage rate determination.
2. Monitoring of the Contractor's work force to verify proper classifications for the work being performed.
3. Verification of the Contractor's compliance with applicable requirements of the E.E.O provision.
4. Monitoring and verification of actual participation by DBE subcontractors including commercial useful functions.
5. Confirmation that the Contractor has properly posted the required notices in a prominent and conspicuous location.

RESOURCES – Labor Requirements

Department of Labor Requirements and Guidance

- [Davis Bacon Wage Rate Determinations](#)
- [Davis Bacon Poster WH 1321](#) – DOL “Notice to All Employees” Poster

Federal Regulations

- [29 CFR - Labor](#)
- [49 CFR 18.36 - Procurement](#)



1074 - Final Acceptance: Development Projects

Final Acceptance

At the conclusion of construction work, the sponsor must conduct a final inspection for the purpose of accepting the work from the Contractor. The Contractor, Resident Engineer and Sponsor shall be present for this conference.

The Sponsor should give the FAA Program Manager 10-days advance notice of this inspection in order to permit adequate time to properly schedule their attendance if so desired.

FAA attendance at the final inspection is generally limited to availability and the timing of the inspection. The FAA Program Manager does not conduct the final inspection.

The FAA's purpose at the final inspection meeting is solely for ensuring that the Sponsor has satisfactorily addressed FAA and AIP interests. The Sponsor remains responsible for ensuring compliance with all technical and legal requirements of the contract. The determination of project final acceptance from the Contractor must come from the Sponsor and not the FAA. Keep mind the FAA may not substitute their judgment for that of the Sponsor.

Record of Final Inspection

The Sponsor must prepare a record of the final inspection that identifies the date of the inspection, those present and outstanding issues that affect final acceptance. The record should note any deficiencies and unfinished work along with a date for completion of any corrective action. If the deficiencies and unfinished work are minor in nature, the Sponsor may declare the project

work substantially complete and thus accept the project conditioned upon the Contractor taking corrective action to resolve any punch list items.

The record of final inspection should include a statement that indicates whether or not the sponsor/Engineer find the project work be in substantial compliance with the requirements of the contract. The actual final acceptance occurs at the time the Contractor and the Sponsor each execute the final construction pay estimate.

Runway Commissioning

The opening of a new or modified runway requires advance notification and submittal of critical aeronautical information. To meet critical publication dates, Sponsors must submit necessary information to the FAA no later than the cutoff date published on the insider cover of the Airport/Facility Directory. This date is typically at least six weeks prior to the publication date.

Sponsor Certification

FAA AIP concurrence with the Sponsor's final acceptance is primarily based upon the satisfactory completion of the Sponsor Certification for "Construction Project Final Acceptance". This certification identifies twelve critical AIP requirements presented in a checklist format.

The Sponsor should seek assistance from their Consultant when completing this form; however, the designated official of the Sponsor must sign and date the certification. Execution of this certification by the Sponsor's Consultant is not permissible.

RESOURCES

Forms

- [FAA Form 5370-1](#) (PDF): Construction Progress and Inspection



1080 - Contract Modifications: Development Projects

Coordination with FAA

A contract modification may become necessary to facilitate the original intent of the project. Sponsors generally address such modifications by one of two contract instruments:

- 1) Change Order
- 2) Supplementary Agreement

Sponsors should address issues regarding eligibility, reasonableness of costs and AIP justification for the modification **prior** to executing a change order or supplemental agreement. Failure to do so may result in the Sponsor assuming the cost of the entire modification without Federal participation.

The Sponsor can realize substantial savings of time, money and effort through advance coordination of contract modifications with the appropriate FAA Project Manager. Concerns regarding eligibility, reasonableness of costs and justification may be resolved by a simple phone call thus reducing the chance of misdirected work efforts.

Extra Work

Sponsors should not use change orders and supplemental agreements to add work items that are outside of the approved project scope of work as defined by the grant description. Savings that may result from the construction effort are not automatically available to add work elements outside of the approved scope or work.

Eligibility vs Commitment of Funds

Sponsors should note that the FAA's review and concurrence with a contract modification is limited to a determination of AIP eligibility and **does not** represent a commitment of Federal funds for the modification. The FAA's commitment of additional AIP funds can only be accomplished by a grant amendment. In the event approved cost overruns exceed the original grant amount, the Sponsor may request an amendment to the original grant amount. This typically occurs after the project is complete. Refer to AIP sponsor Guide 1640 for additional information on grant Amendments.

Definitions

Section 10 of Advisory Circular 150/5370-10 establishes definitions for critical terms associated with a modification to contract work.

These terms are as follows:

Change Order - A written order by the sponsor to the Contractor covering changes in the plans, specifications, or bid quantities and establishing the basis of payment and contract time adjustment, if any, of the work affected by such changes. Work covered by a change order must be within the general scope of the contract (Para. 10-12, AC 150/5370-10).

Extra Work - An item of work not provided for in the awarded contract as previously modified by change order or supplemental agreement, but which is found by the Engineer to be necessary to complete the work within the intended scope of the contract as previously modified (Para. 10-25, AC 150/5370-10).

Supplemental Agreement - A written agreement between the Contractor and the Owner covering:

- (1) Additional work within the original scope or work that increases or decreases the total amount of the awarded contract, or any major contract item, by more than 25 percent; or
- (2) Work that is not within the scope of the originally awarded contract (Para. 10-52, AC 150/5370-10).

Major and Minor Contract Items - A major contract item shall be any item that is listed in the proposal, the total cost of which is equal to or greater than 20 percent of the total amount of the award contract. All other items are minor contract items (Para. 10-33, AC 150/5370-10).

Contractual Responsibility

The Sponsor is the responsible authority, without recourse to the FAA, regarding the settlement and satisfaction of all contractual and administrative issues involving procurements in support of an airport aid grant (49 CFR Part 18.36(b)(11)). The reviews and approvals made by the FAA are primarily for determinations of AIP eligibility. The



FAA will not substitute its judgment for that of the Sponsor with regard to contractual matters.

Rights of Sponsor/Engineer

The Sponsor, as the Owner, reserves the right to make alterations in the work as determined to be necessary or desirable to complete the work originally intended in an acceptable manner. The AIP standard General Provision authorizes the Engineer to make such alterations in the work as may increase or decrease the original contract quantities.

Such alterations that do not result in a 25% cost increase of a major item or a 25% increase in the total contract cost should be addressed under a change order. Sponsors must address alterations that exceed the 25% upper limit under a supplemental agreement. (Para. 40-02, AC 150-5370-10).

The Sponsor and Engineer should note that the above statements refer to the rights of the Sponsor & Engineer over the Contractor. These rights do not imply that the FAA automatically deems all such alterations eligible for AIP reimbursement. The FAA reserves the right to review the extent of the altered work for the purpose of making a determination of AIP eligibility.

Modifications due to Errors and Omissions

FAA policy limits AIP participation to the minimum costs necessary to carry out a project. Costs associated with corrective modifications may not be fully eligible for AIP participation. The FAA Program Manager will assess all modifications for justification. If the modification is corrective in nature, any duplicate or re-work necessary due to the modification will likely be ineligible.

If the corrective action does not involve re-work, the modification itself may be fully eligible; however, secondary costs may not be eligible.

This is due to AIP prohibition on participating in costs associated with errors and omissions. The FAA relies on Sponsor certification that the Plans and Specifications are free of errors and omissions at the time of bidding. Additional design costs and inspections costs attributed to correcting an error or omission are not eligible. The FAA expects the Sponsor to track such time as ineligible costs.

Grant Limitation

The Sponsor and Engineer should be aware that the approval and execution of change orders and supplemental agreements could affect the final Federal share of Grant Agreement. FAA approval of a change order is subject to the limitations of the Grant Agreement. Each AIP grant contains a provision that limits upward adjustment of the maximum obligation to 15% over the original grant amount.

It is possible that additional project costs the FAA previously declared eligible for AIP participation can actually be denied reimbursement if the cumulative additional costs result in the AIP share exceeding the 15% limitation.

We caution Sponsors that while the FAA may increase the maximum obligation of a Grant up to 15% over the original obligation, that actual reimbursement of such costs is contingent upon the availability AIP funds to fund the increase. The FAA does not guarantee the availability of such funds. Sponsors should also note that funding amendments could take a significant amount of time.

RESOURCES

Advisory Circulars

- [AC 150/5370-10](#) - Standards for Specifying Construction

Federal Regulations

- [49 CFR Part 18](#) - Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments



1081 - Change Order: Development Projects

General

A Change Order is a contract instrument issued by the Sponsor to the Contractor that addresses modification of work items that fall within the general scope of the contract.

Change Order vs Supplemental Agreement

Sponsors typically initiate a change order to address incidental extra work, eliminate items of work or adjust final contract quantities. The work included in a change order must fall within the general scope of the contract.

Sponsors should use a supplemental agreement for extra work that does not fall within the general scope of the contract.

Administering Change Orders

Extra work added by change order is not automatically eligible. If the FAA has not made a determination of eligibility for extra work added to a project, Sponsors should refrain from seeking reimbursement of those costs.

To properly administer change orders, the Sponsor and their Consultant need to comply with all applicable AIP procurement requirements. Failure of the Sponsor or the Engineer to properly administer a change order can financially encumber the Sponsor by making a change order ineligible due to non-compliance with AIP procurement rules. For example, failure to conduct a cost analysis may render the change order ineligible regardless of whether the cost is deemed reasonable after the fact.

How Sponsors administer a change order will depend on various factors including the extent of modification, time critical requirements and the cost of the modification. The larger the cost impact, the greater is the need for advanced coordination with the FAA for purposes of review for AIP eligibility.

Eligibility

To become eligible, Sponsors must submit all proposed change orders to the FAA for a review and determination of AIP eligibility. The evaluation by the FAA addresses 3 general areas:

1. Allowability
2. Justification
3. Reasonableness of cost

Allowability

Is the extra work permitted under the AIP? Improvements not permitted under the AIP are automatically ineligible. For example, a change order to add landscaping is ineligible because the AIP statute does not permit AIP funds to be applied to landscaping.

Justification

Is the additional work necessary to carry out the original approved project scope? If the extra work is not necessary for the approved scope of work, it is not justified for inclusion under the subject grant project. The change order work must be necessary to carry out the project as original intended.

Example: If under an apron expansion project, the sponsor, due to favorable bids, elects to add select panel replacement on a taxiway section outside of the work limits. Because such work is outside of the grant description, it cannot be reimbursed under the current grant.

Reasonableness of costs

A cost is reasonable if, in its nature and amount, it does not exceed that which would be incurred by a prudent person under the circumstances prevailing at the time the decision was made to incur the cost.

The determination of whether or not a cost is reasonable starts with the Sponsor preparation of a cost estimate. The Sponsor uses this estimate to conduct a cost analysis of the proposed costs. FAA expects the Sponsor to enter into negotiations with the Contractor for any change order item where other than minor differences exist. The Sponsor concludes their analysis with a determination of a fair and equitable price.

While the Sponsor's determination of a fair and equitable price goes a long way towards determining reasonableness of costs, it does not automatically constitute a determination of



reasonable costs. As it relates to reimbursement under the AIP, the FAA Program Manager reserves the final decision on whether a cost is reasonable or not.

Sponsor Estimate

For change orders that modify unit prices or which add new bid items, the Sponsor must prepare an estimate **prior** to negotiating with the Contractor (49 CFR Part 18.36(f)). The estimate must include signature and date of the preparer, which is typically the Sponsor's Consultant. The Sponsor relies on this estimate when conducting their cost analysis.

Change orders that are limited to a modification of the existing contract to reflect actual field quantities do not require preparation of an independent cost estimate. Such Change orders still require the Sponsor to prepare a justification for the altered quantities.

Cost Analysis

Federal Regulation 49 CFR Part 18.36(f) requires all contract actions to be subject to some form of price or cost analysis. 49 CFR Part 18.36(f) also specifically requires the Sponsor to negotiate profit as a separate element of price when competition is lacking. Change Orders that add extra work are by their nature non-competitive procurement actions. For this reason, change orders adding new work items require a cost analysis

Under the cost analysis approach, the Contractor must breakdown their proposal into the various elements of costs such as labor, material, equipment, overhead and profit. To facilitate the analysis, the cost estimate should include a similar breakout.

Areas of moderate to significant differences between the estimate and the proposal, as it relates to work item time and cost, should be subject to negotiation.

Contract Quantity Adjustments

Modifications that affect existing contract work items already have an established unit price for that item. Unless the modification falls within the criteria of a supplemental agreement (major versus minor contract item), we consider the established contract unit price to be a reasonable and fair price. It thus becomes an issue of justifying for the modified quantities.

We do recommend that Sponsors establish a final change order that addresses the adjustment of final contract quantities to reflect actual field quantities. The final change order should include an itemization of all modified bid item quantities. The Engineer must also provide a justification that explains why these items require an adjustment.

The Sponsor and Engineer should note that if there is an upward quantity adjustment, the Contractor might be entitled to a proportional increase in the contract time (Para. 80-07, AC 150/5370-10).

Submittal

We encourage Sponsors to submit change orders for FAA review prior to execution. This allows time for the Sponsor to assess consequences of the FAA Program Manager's eligibility determination.

As a minimum, the Sponsor's submittal for a proposed change order should contain the following:

- a. Sponsor cover letter that states the overall justification for the order and their recommendation.
- b. Change Order document that identifies the estimated quantities, unit prices, description of work and any adjustment of contract time.
- c. Copy of Engineer's independent cost estimate
- d. Documentation of cost analysis
- e. Detailed justification statements for modifications
- f. Record of negotiations
- g. Justification for time extension (As Applicable)
- h. Drawings/Sketches (As Applicable)



FAA Review

The Sponsor must seek and obtain FAA concurrence on all change orders for the purpose of establishing AIP eligibility. Sponsors should not request reimbursement under the AIP until the FAA makes this determination.

To limit misdirected efforts, we strongly encourage Sponsors and Engineers contact the FAA Program Manager prior to initiating any change order. We caution Sponsors that change orders they execute without prior FAA approval incur the risk of an ineligible determination by the FAA after the Sponsor incurs the costs.

The FAA Program Manager will review the change order based on the 3 elements of AIP eligibility. The FAA Program Manager will identify eligible and non-participating costs and document this determination in correspondence back to the Sponsor.

Sponsors must not construe the FAA review and eligibility determination as a commitment of additional AIP grant funds. The formal commitment of additional AIP funds requires an amendment to the original grant obligation.

Formal FAA Concurrence

The FAA Program Manager will issue a determination letters that indicates one of the following actions:

- 1) Approved (i.e. eligible)
- 2) Partially Approved (i.e. partial eligibility)
- 3) Disapproved (i.e. ineligible)

The letter will address limitations of the approval action. This includes:

- Advisory note that approval does not constitute a grant amendment.
- Limitations on AIP participation in secondary costs (e.g. increases to design and inspection)

- Requirement to maintain a cost accounting system that properly tracks eligible costs separate from ineligible costs.

Provisional Concurrence

For time critical modifications and small cost changes, the sponsor may seek and obtain provisional approval from the FAA. Such action is sometime necessary to avoid delays to project when sufficient information and time is not available to negotiate a change order under the conventional process. Most provisional approvals will be via e-mail.

A provisional approval is tentative in nature. The FAA Program Manager may rescind a provisional approval at a later date depending on the circumstances. To remove the provisional status, the Sponsor must eventually provide the FAA Program Manager the same documentation as required under the formal approval process.

If time is critical, the use of a time and material payment approach may be acceptable to initiate the extra work. Under this approach, the Sponsor must maintain accurate and detailed records that document Contractor labor, material, equipment charges. The ultimate goal is to convert the initial T&M payment method into a firm fixed price before the extra work is complete.

Execution

The Sponsor shall forward one signed copy of the change order to the FAA Program Manager as soon as it is available. Sponsors that execute change orders prior to the FAA determination of eligibility do so at their risk as FAA could subsequently deny AIP participation.

Unless there are extenuating circumstances that warrant the time and material approach, the Contractor should not commence work addressed under a change order until there is a signed agreement in place between the Sponsor and the Contractor.

RESOURCES

Advisory Circulars

- [AC 150/5370-10](#): Standards for Specifying Construction

Federal Regulations

- [49 CFR Part 18](#) - Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments



1082 - Supplementary Agreements: Development Projects

General

A Supplemental Agreement is a written agreement between the Contractor and the Owner covering:

1. Work that is not within the scope of the originally contract (Para. 10-43, AC 150/5370-10) or;
2. Work that would increase or decrease the total amount of the awarded contract, or any major contract item, by more than 25 percent, such increased or decreased work being within the scope of the originally awarded contract.

A major contract item is any item listed in the proposal for which the total cost is equal to or greater than 20 percent of the total amount of the award contract. All other items are minor contract items (*Para. 10-33, AC 150/5370-10*).

In general, it is best to view a supplemental agreement as a separate contract requiring execution by both parties, the Sponsor and the Contractor. Sponsors should be aware that execution of a supplementary agreement could affect various provisions of the Contract.

When proposing a supplementary agreement, the Sponsor must address the impact to the following contract requirements:

1. **Wage Rates:** Because a supplemental agreement is essentially a separate contract, the Sponsor should incorporate the current wage rate determination (Par. 940b, FAA Order 5100.38) if the supplement agreement exceeds \$2,000.
2. **Surety & Bonding:** Issuance of a supplemental agreement may require the consent of the Contractor's surety. If the supplement is significantly large in value, the sponsor may need to revise the existing performance and payment bonds.

Administering Supplemental Agreements

Extra work added by supplemental agreement is not automatically eligible for AIP participation. Sponsors must not request reimbursement of costs associated with a supplemental agreement unless the FAA provides explicit approval for the supplemental work.

Similar to change orders, the Sponsor and their Consultant need to comply with all applicable AIP procurement requirements. Failure to properly

administer a supplemental agreement can financially encumber the Sponsor by making the supplemental work ineligible due to non-compliance with AIP procurement rules.

For example, failure to conduct a cost analysis may render the change order ineligible regardless of whether the cost is deemed reasonable after the fact.

Eligibility

To become eligible, Sponsors must submit all proposed supplemental agreements to the FAA for a review and determination of AIP eligibility. The evaluation by the FAA addresses 3 general areas:

1. Allowability
2. Justification
3. Reasonableness of cost

Allowability

Improvements not permitted under the AIP are automatically ineligible. For example, a supplemental agreement to pave exclusive use areas is ineligible. Whereas a supplemental agreement to pave additional taxiway pavement is allowable but may not be justified.

Justification

Is the additional work necessary to carry out the origin approved project scope? If the extra work falls within the scope addressed by the grant description but outside the scope of the contract, the supplement agreement may be eligible for reimbursement if it is necessary to carry out the project as intended.

Example: An apron reconstruction uncovers unforeseen sub-grade drainage concerns. The addition of a sub drainage system would represent extra work that falls within the grant description and is necessary to carry out the project as intended. This would likely be eligible for AIP participation.

If the extra work is not necessary to carry out the approved scope of work per the grant description, it is not justified for inclusion under the subject grant project. However, the possibility does exist that such costs could be eligible for reimbursement under a future entitlement funded grant.



Example: A sponsor with an ongoing apron rehabilitation project wants to add elevated runway guards lights due to a recent Runway Safety Action Team inspection and recommendation. Since this is outside the scope of the original grant agreement and is not necessary to complete the apron work, these costs may not be reimbursed under the apron grant. However, the Sponsor might be able to seek reimbursement under a future year grant using their entitlement funds and look back provision.

Reasonableness of Costs

The determination of whether or not a cost is reasonable starts with the Sponsors preparation of a cost estimate. The Sponsor uses this estimate to conduct a cost analysis of the Contractor's proposal. The FAA expects the Sponsor to enter into negotiations with the Contractor for any work item where other than minor differences exist. The Sponsor completes their analysis with a determination of a fair and equitable price.

While the Sponsor's determination of a fair and equitable price goes a long way towards determining reasonableness of costs, it does not automatically constitute a reasonable cost decision. As it relates to reimbursement under the AIP, the FAA Program Manager reserves the final decision on whether a cost is reasonable or not.

Sponsor Estimate

When considering extra work, the Sponsor must prepare an estimate **prior** to negotiating with the Contractor (*49 CFR Part 18.36(f)*). The estimate must include signature and date of the preparer, which is typically the Sponsor's Consultant. The Sponsor relies on this estimate when conducting their cost analysis.

Cost Analysis

Federal Regulation 49 CFR Part 18.36(f) requires all contract actions to be subject to some form of price or cost analysis. 49 CFR Part 18.36(f) also specifically requires the Sponsor to negotiate profit as a separate element of price when competition is lacking. Supplement agreements are by nature non-competitive procurement actions. For this reason, Supplemental Agreements that add new work items require a cost analysis

Under the cost analysis approach, the Contractor must breakdown their proposal into the various elements of costs such as labor, material,

equipment, overhead and profit. To facilitate the analysis, the cost estimate should include a similar breakout.

Areas of moderate to significant differences between the estimate and the proposal, as it relates to work item time and cost, should be subject to negotiation.

Submittal

As with a change order, we strongly recommend Sponsor submit proposed supplemental agreements to the FAA for review and eligibility determination prior to execution of the agreement. This will allow the Sponsor to assess the consequences of the FAA eligibility determination prior to committing to the agreement.

As a minimum, the Sponsor submittal for a proposed supplemental agreement shall contain the following:

1. Sponsor cover letter that states the justification for the extra work and their recommendation to accept the supplemental agreement.
2. Copy of Supplemental Agreement document with estimated quantities, unit prices, description of work and detailed justification.
3. Copy of Engineer's independent estimate.
4. Copy of cost analysis
5. Record of negotiations
6. Drawings/Sketches (As applicable).
7. Revised Performance and Payment Bonds (As applicable).
8. New wage rate determination (As applicable).

FAA Review and Eligibility Determination

The FAA review of supplemental agreements is similar to that for change orders. To become eligible under the AIP, Sponsors must submit all supplemental agreements and supporting documentation to the FAA for an eligibility review.

The FAA Program Manager will review the supplemental agreement based on the 3 elements of AIP eligibility. The FAA Program Manager will identify eligible and non-participating costs and document this determination in correspondence back to the Sponsor.



Sponsors must not construe the FAA review and eligibility determination as a commitment of additional AIP grant funds. The formal commitment of additional AIP funds requires an amendment to the original grant obligation.

The FAA Program Manager will initiate a letter transmitting the eligibility determination. Typically, the action will involve one of the following:

1. Allowability
2. Justification

3. Reasonableness of cost

The letter will also address any limitations such as participation in secondary costs.

Execution

Following FAA review and concurrence, the Sponsor shall submit one executed copy of the supplemental agreement to the FAA Program Manager. Work covered by a supplemental agreement should not proceed until an executed agreement is in place.

RESOURCES

Advisory Circulars

- [AC 150/5370-10](#): Standards for Specifying Construction

Federal Regulations

- [49 CFR Part 18](#) - Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments



1083 – Liquidated Damages: Development Projects

Purpose of Liquidated Damages

Project Owners assess liquidated damages on contracts where the Contractor fails to successfully complete the contract in the specified contract time.

Sponsors accept a level of cost and inconvenience when engaging in construction. The application of liquidated damages offsets the burden to the Owner due to ongoing construction that occurs after expiration of the contract time.

Setting Liquidated Damages

The most important consideration in setting liquidated damages is the contract time and how it Sponsor tracks charged time.

Section 80-08 of AC 150/5370-10E typically identifies the dollar amount of liquidated damages for a specific project. The Sponsor must incorporate this section into every AIP-supported contract. The Sponsor may set a single amount, or may set different amounts based on different parts of the contract such as divisions, schedules, or bid alternates.

The amount of liquidated damages must not be punitive in nature due to the Contractor's failure to perform. Rather, it should be a fair reflection of the anticipated cost burden the Sponsor will incur as a result of the Contractor's failure to complete on time.

Liquidated damages should, at a minimum, cover the incurred cost of additional Engineering services such as construction observation. They may also cover a reasonable amount of lost direct revenue or other substantiated costs that will occur if the project completion is delayed. Such costs must not be arbitrary.

Liquidated damages cannot cover third-party costs such as lost FBO, flight school, or

maintenance shop revenue. They also cannot cover speculative or opportunity costs.

For large airports where the impact on airport operations may be great, it is not practical to attempt to recover all loss of revenue through liquidated damages.

Excessive Liquidated Damages

Sponsors should avoid establishing excessive liquidated damages as this could have adverse effects:

- 1) Unreasonably high liquidated damages have been judged unenforceable in court cases.
- 2) Excessive liquidated damages can adversely affect bid values, as prospective bidders will inflate their bids to insulate themselves from the high risk of applied damages.

Assessing liquidated damages

To assess liquidated damages, the Sponsor must document the Contractor's performance throughout the contract time. Sponsors should ensure that their representative is consistently documenting the construction progress in a diary or log. While the burden is on the Contractor to demonstrate that the delays were not his fault, the Sponsor must have the ability to validate or refute these claims.

The FAA expects Sponsors to administer and enforce the contract. To the maximum extent possible, Sponsors should not charge the AIP for additional costs due to Contractor-caused delays. Sponsors should recover such costs through application of liquidated damages.