600 - Project Formulation

In This Section

Project formulation represents necessary actions that must occur prior to actual project implementation. A sponsor initiates project formulation by identifying the development needs of their airport. Effective airport planning is the sponsor's primary source for identifying short term and long term needs of their airport. Airport needs may also originate from airport inspections, Runway Safety Action Team (RSAT) and Safety Risk Management recommendations and security assessments.

Project formulation activities include such actions as

- Establishing and refining development objective
- Evaluating technical design considerations
- Acquiring property necessary for the project
- Preparing costs estimates (scoping, preliminary and final)
- Conducting Cost Analyses (Benefit/Cost and Life Cycle)
- Conducting Environmental reviews (NEPA, ESA, etc.)
- Coordinating with FAA Technical Operations
- Preparing technical specification and project drawings
- Conducting Safety Risk Management Assessment
- Bid letting costs

The project formulation phase is complete once the sponsor accurately defines the projects costs (i.e. receives bids) and submits a project application to the FAA.

Limitations of Use

Users of this guide should note the obligation for any required action addressed within this document originates within applicable federal directives such as United States Code (USC), Public Law (PL), Code of Federal Regulations (CFR) and official FAA policies. The supplemental information provided within this guidance does not itself establish additional requirements for participation in the AIP. In the event there is a discrepancy between this guidance and current AIP policy, AIP policy shall always take precedence.

609 - Project Formulation Costs

To remain eligible for AIP reimbursement, project formulation costs must directly relate to the FAA approved project. The project specific formulation costs must be necessary for carrying out the development objective and be reasonable in price. The sponsor will incur such costs prior to receiving a grant for the project development.

Formulation costs that address elements outside of the approved project are not eligible under the AIP as project formulation costs. For example, costs associated with a comprehensive update of a sponsor ALP or their Capital Improvement Plan are not eligible as project formulation costs. However, if the costs only address updates specific to the approved project, such costs may be eligible for participation.

Examples of Allowable Project Formulation Costs

Based on the AIP Handbook, FAA Order 5100.38, some examples of allowable project specific formulation costs include:

- Project related airport layout plan revisions
- Environmental studies (if not a stand-alone environmental study grant)
- Land appraisals and review appraisals, title examination, and relocation plans
- Land acquisition
- Airspace studies
- Benefit Cost Analyses
- Preliminary engineering (Field surveys, geotechnical tests etc.)
- Estimate preparation
- Life Cycle Cost Analyses
- Independent Fee Estimates
- Safety Risk Management (SRM) analysis for the specific project
- Project related administrative expenses (legal, mailing, fees, etc.)
- Plans and specifications (if not a stand-alone design grant)
- Bid Letting Costs (advertisement, pre-bid conference, etc.)

610 - Requesting Federal Aid under the FAA ACIP

FAA's Airport Capital Improvement Plan (ACIP)

Eligible airport owners that desire Federal assistance for airport development must submit such requests for aid through the FAA Airport Capital Improvement Plan (ACIP). The ACIP is the FAA's internal program for administering the Airport Improvement Program. The ACIP is a subset of the National Plan of Integrated Airport Systems (NPIAS). The ACIP is developed from the NPIAS.

The ACIP is the FAA's primary planning tool for systematically identifying, prioritizing and assigning funds to critical airport development and associated capital needs. The FAA relies on the ACIP to serve as the basis for the distribution of limited grant funds under the Airport Improvement Program.

Sponsors Capital Improvement Plan (CIP)

A sponsor's Capital Improvement Plan (CIP) represents their five-year program for planning and development at their airport. The five-year program should be submitted to the FAA. Sponsors identify individual projects by submitting a CIP Data Sheet for each work item they desire to accomplish within the first three years. The request must include necessary supporting documentation such as initial cost estimate and environmental documentation.

The FAA puts all eligible and justified projects in the NPIAS. The FAA develops its ACIP by evaluating each individual project request for:

- Eligibility
- Justification
- Reasonableness of cost
- Priority assessment
- Reasonableness of project schedule
- Information deficiencies

The FAA will only accept into the ACIP those projects the FAA deems eligible and justified under the AIP. Also, the requested development must comply with the current FAA approved Airport Layout Plan.

Additionally, projects requiring discretionary funds in excess of ten million dollars (per the AIP handbook section 3-15) require the sponsor to prepare and submit a benefit/cost analysis that is acceptable to the FAA.

Clarification on ACIP Project Acceptance

We caution sponsors that the FAA's acceptance of a project into the ACIP **does not** represent a guarantee the sponsor will receive Federal funds. The official notice that a sponsor will receive Federal funds is through a Congressional notification for release of funds. Until this formal release occurs, the FAA views all project efforts by sponsor as a sponsor initiative as opposed to a FAA assurance of funding.

Sponsor Submittal of their CIP

In order to receive consideration under the FAA's ACIP, the sponsor must prepare and submit their Capital Improvement Plan to the FAA. To facilitate this submittal for Central sponsors, we have prepared a CIP Data Sheet template that addresses the necessary information we require to evaluate your projects. Sponsors should prepare a CIP data sheet for each project they intend to accomplish for the upcoming fiscal year and the two subsequent fiscal years. There is an instruction sheet that describes what should be entered in the CIP data sheet. Please contact your FAA state airport planner to get the CIP data sheet and instructions. Projects beyond three years should be identified but do not require a CIP data sheet.

- **Sponsor Verification** – Sponsor shall provide confirmation that they have properly planned the project and assure that it is ready to "go" within the first year of the three-year CIP program period and that local matching funds are available. The sponsor must complete these prerequisite requirements before the FAA will consider a project for funding. For the second and third years of the CIP program, the sponsor should be working towards satisfying these requirements. The following are project specific requirements.
  - Land Acquisition: The current FAA approved ALP must indicate the proposed development and land acquisition; all required environmental evaluation must be complete; sponsor must have possession of the land or have a signed purchase agreement
  - Snow Removal Equipment: Include an inventory of existing airport equipment and calculations for minimum equipment needs using Chapters 4 & 5 of Advisory Circular (AC) 150/5200-30 *Airport Winter Safety and Operations* and AC 150/5220-20, *Airport Snow and Ice Control Equipment.* For the sponsor's convenience, we have established a Snow Removal Equipment Sizing Calculator (MS Excel) to assist them with determining the minimum size and number of SRE equipment needed for the specific location. Please contact your FAA airport planner for this spreadsheet.
  - General aviation apron expansion: Include calculations based on Appendix 5 of the AC 150/5300-13 *Airport Design* that justifies the required size of apron. For the sponsor's convenience, we have established an Apron Area Calculator (MS Excel) to assist them with determining the AIP eligible apron size. Please contact your FAA airport planner for this spreadsheet.
  - Revenue producing facilities (fuel farms, hangers): Please contact the State Airport Planner responsible for your state for eligibility requirements. Submit:
    a) A statement that airside development projects are complete or a financial plan to fund airside needs over the next three years
    b) A statement that approach surfaces are clear of obstructions
    c) A statement of capacity justification for the project
- **State and Regional Clearinghouse coordination** – As applicable, the sponsor should provide documentation of this coordination along with the CIP Data Sheet.

Timing of Submission

The sponsor may submit a request-for-aid at any time during the year. However, in order to be included in a specific federal fiscal year (FFY = October 1 – September 30), timely submittal of the request is essential. Sponsors should typically submit requests for a particular federal fiscal year by February of the previous federal fiscal year. For example, sponsors should submit requests for FFY 2019 no later than February of 2018.

Coordination

Early coordination with the FAA will greatly benefit an airport sponsor that is trying to secure Federal AIP funds. Please address any questions pertaining to a request for Federal Assistance to the applicable FAA Airport Planner as indicated on our Central Region Employee Roster.

RESOURCES

Guidance

- **Benefit Cost Analysis**
- **FAA Order 5100.39 - Airports Capital Improvement Plan Order**

620 - Benefit/Cost Analysis

A Benefit Cost Analysis (BCA) provides a quantitative method for assessing the potential benefits a project or action offers as it relates to the potential associated costs. The primary objective of a BCA is to determine whether a proposed project provides a net benefit to the aviation public.

On October 21, 2011, the FAA issued Federal Register notice 76 FR 65769 Modifications to Benefit Cost Analysis (BCA) Threshold. Under this notice, the FAA modified the threshold requirement for when a Sponsor must conduct a Benefit Cost Analysis for capacity projects requiring discretionary funding. The current threshold is now $10 million of discretionary funds. This revision does not restrict the FAA's authority to require a BCA on any project requesting Federal funds.

We encourage sponsors to incorporate the BCA task within their master planning efforts. If this is not feasible, the sponsor can prepare a project specific BCA as part of project formulation

Objectives of BCA

The sponsor's BCA should include information that allows the FAA to determine whether:

- There is adequate information indicating the need and consequences of the proposed project or action;
- Potential benefits to society (defined as the aviation public) justify potential costs (recognizing that not all benefits and costs can be quantified in monetary terms);
- The proposed project or action will maximize net benefits to society;
- Data used in the BCA represents the best reasonably technical, economic, and related information that is available.

BCA Process

The BCA process typically consists of the following steps:

- Define project objectives
- Specify assumptions about future airport conditions
- Identify the base case (no investment scenario)
- Identify and screen all reasonable alternatives to meet objectives
- Determine appropriate evaluation period
- Establish reasonable level of effort for analysis
- Identify, quantify, and evaluate benefits and costs of alternatives relative to base case
- Measure impact of alternatives on airport usage
- Compare benefits and costs of alternatives
- Evaluate variability of benefit-cost estimates
- Perform distributional assessment when warranted; and
- Make recommendation of best course of action

RESOURCES

Guidance

- Airport Benefit-Cost Analysis Guidance (12/15/99)
  - Addendum (6/14/10)
- Airway Planning Standard Number One (PDF) – FAA Order 7031.2

630 – FAA Reimbursable Agreements

Overview

A reimbursable agreement is a contractual agreement between the FAA and a sponsor for services the FAA provides to the sponsor. This agreement typically addresses reimbursement for materials, supplies, equipment and services the FAA provides to the sponsor.

Why is a Reimbursable Agreement Necessary?

The FAA Air Traffic Organization (ATO) is responsible for installing and maintaining FAA facilities in support of the National Airspace System (NAS). These facilities include approach lights, instrument landing systems, air traffic control tower and other navaid equipment.

Occasionally, airport sponsored development will impact an FAA owned facility (e.g. approach lighting system). The sponsor's development may require relocation, replacement or modification of the FAA owned facility. The sponsor is responsible for reimbursing the impacted FAA organization (typically FAA ATO) for all costs associated with mitigating the impacts caused by the sponsor's development. This is very similar to the situation where a sponsor's development requires relocation of a local utility's underground cable.

The annual budget for FAA office such as the FAA ATO does not address costs associated with services necessary to mitigate a sponsor's development. Additionally, the Office of Management and Budget (OMB) does not permit Federal agencies to incur obligations without establishing the funding source.

Without readily a readily available funding source, the FAA ATO must seek advance payment for services necessary to mitigate impacts associated with a sponsor's development in order to comply with the OMB provision.

The Reimbursable Agreement (RA) is the vehicle the FAA uses to define contractual responsibilities and to establish the value of the sponsor's advance payment.

What does a Reimbursable Address?

The reimbursable agreement establishes the roles and responsibilities of the FAA organization and the sponsor. The RA's scope of work clearly establishes requirements that assure work performance complies with National Airspace System (NAS) standards. FAA ATO services may include one or more of the following:

- Preliminary evaluation
- Engineering Design
- Engineering Review
- Construction oversight
- Actual construction
- Installation and testing
- Flight Inspection
- Closeout Requirements

Each project presents different requirements and challenges. Sponsors should coordinate with the FAA project manager and the FAA ATO early during the project formulation phase to establish the extent of any impact to FAA owned facilities and the anticipated services the FAA ATO may need to provide.

Timeline for Establishing a Reimbursable Agreement

The process to establish a reimbursable agreement can take on average up to 10-12 months. Fiscal year-end closure requirements may further extend this timeframe. To avoid unnecessary delays, the sponsor should strive to initiate the process during the planning and project formulation phases. Sponsors should initiate the process at least two years prior to the actual start of the construction phase.

Reimbursable Process

The typical steps required for a reimbursable agreement are as follows:

Project Initiation

- Sponsor coordinates with FAA Airports Division and local FAA Technical Operations personnel to discuss potential impacts to FAA owned facilities.
- Discovery meeting – Meet with FAA project manager and FAA ATO organization to gather information regarding the sponsor's project and the impacts to FAA owned facilities.
- We prefer to conduct the discovery meeting at the project site with all appropriate parties present. For smaller projects, it may be acceptable to conduct the discovery meeting via a telephone conference call. For more involved projects, the FAA ATO may require the sponsor to enter into a limited Reimbursable Agreement to address travel costs.

Development Phase

- Define scope of work
- Review project timeline and identify conflicts
- Identify equipment and material requirements (Target of Opportunities)
- Develop initial cost estimates
- Prepare draft Reimbursable agreement
- Sponsor reviews draft agreement
- FAA Airports office reviews draft agreement for AIP eligibility

Finalize Reimbursable Agreement

- Final internal FAA review (Legal, Logistics, Financial etc)
- Agreement processed by FAA Contracting Officer
- Final Agreement submitted to sponsor for signature
- Sponsor reviews and executes the agreement
- Sponsor returns executed agreement to FAA contracting officer
- FAA contracting officer requests advance payment from the sponsor

FAA Processing of Project Authorization

- Sponsor remits advance payment.
- FAA initiates Project Authorization.

Project Commencement

- FAA contracting officer establishes the project authorization, which permits the FAA ATO to apply resources to the project.
- The FAA ATO fulfills their responsibilities as outlined in the executed reimbursable agreement

Project Closeout

- Once FAA ATO completes the work, the sponsor should initiate a letter to the FAA ATO NAS Planning and Integration team requesting closure of the project and the return of any remaining funds from the advance payment.
- Sponsor may need to complete and submit an automated clearinghouse form to the FAA accounting office in order to facilitate processing of a refund.

FAA Reimbursable Agreement and AIP Eligibility

Costs necessary to mitigate any impacts to FAA owned equipment caused by a sponsor's AIP funded development project are eligible for reimbursement under the AIP. However, the AIP **cannot** participate in costs associated with making improvements to existing FAA owned equipment. Using AIP funds to make improvement to FAA owned facilities is an impermissible augmentation of another Federal program (i.e. F&E).

Sponsors must be diligent in making sure that their reimbursable agreement does not include non-allowable improvements in the scope of work. Failure to avoid this situation could result in the sponsor funding the improvement costs without the ability to seek reimbursement under the AIP. Some examples of this situation include:

- Requiring the sponsor to furnish a new PAPI system in lieu of relocating an existing VASI
- Requiring the sponsor to furnish a new equipment shelter in lieu of relocating the existing shelter
- Requiring the sponsor refurbish the electrical system for an existing equipment shelter.
- Requiring the sponsor to acquire and install a new approach lighting system in lieu of relocating the existing system.

An exception to the "impermissible improvements" rule is the "target of opportunity" scenario. The FAA ATO may determine it beneficial for them to furnish new equipment in lieu of relocating the existing equipment. AIP will consider participating in costs to install the new equipment provided this cost does not exceed that required to relocate the existing equipment.

AIP Reimbursement

Once a sponsor remits the advance payment, the sponsor may seek reimbursement of the AIP share for this cost. Sponsors should track this cost separately on their SF-271 outlay report. Sponsors may modify Line "M" to track this cost.

Unused Reimbursable Funds

If at the conclusion of the project, FAA Accounting returns unused funds to the sponsor, the sponsor must take immediate action to return the AIP share of the refund amount to the AIP program. The sponsor's SF-271 should clearly identify the AIP portion of the refund amount. The sponsor must not have reimbursed AIP funds that exceed their need.