



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

# Memorandum

Subject: Program Guidance Letter 90-6

Date: SEP 21 1990

From: Manager, Grants-in-Aid Division, APP-510

Reply to  
Attn. of:

To: PGL Distribution List

90-6.1 Order 5100.38A, Chapter 4, Planning Projects, Working  
Draft - Mark Beisse (267-8826).

Attached is a working draft of Chapter 4 of the AIP Handbook. Although further coordination of this chapter is still underway, the guidance is to be used effective immediately. It reflects much of the comment and suggestions made by each region over the past year.

The chapter includes many new features to strengthen the airport planning and capital improvement programming process. If you have further revisions to suggest, please send them in writing to APP-510 or call Mark Beisse by November 30.

In accordance with the recent letter on delegation of system planning project approvals (copy attached), headquarters will discontinue review of work programs for these projects. We are, however, available to assist you upon request.

Lowell H. Johnson

Attachment

27 AUG 1990

Delegation of System Planning  
Project Approvals

Assistant Administrator, Office  
of Airports, ARP-1

All Regions  
Attn: Airports Division Managers

The authority to approve airport system planning projects which exceed \$250,000 Federal share is hereby delegated to regional Airports Division managers. Orders 1100.5C, 1100.154A, and 5100.38A will be revised to reflect this change. This authority cannot be successively redelegated to other levels.

Leonard L. Griggs, Jr.

cc: ARP-11B/APP-1/500/510  
APP-510:MBeisse:8/7/90  
Disc 15 Delegate

9/21/90

WORKING DRAFT

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## CHAPTER 4. PLANNING PROJECTS

### SECTION 1. PLANNING PROJECT SCOPE AND ELIGIBILITY

400. THE PLANNING PROCESS. Airport planning should lead to the effective use of airport development resources in developing an efficient network of airports for current and forecast needs. The planning process should produce a plan of action to develop airports consistent with local, State, and national goals. Airport planning is frequently a complex process involving a large number of decision makers at various levels of government and in the private sector. The airport planning process should provide products which are useful to decision makers and which satisfy an airport need. The planning process precedes development and will include analysis of the interrelationship of some or all of the project elements described in paragraphs 405 and 406 to achieve plan implementation.

401. ELIGIBLE PLANNING PROJECTS. Eligible planning projects include integrated system plans for a network of airports within States or metropolitan areas, and master plans for an existing or new individual airport. Specific study elements of system and master planning projects, such as a capital improvement program (CIP) or a noise compatibility plan, are eligible as a supplemental project. System and master planning projects may be based on short-, intermediate-, and long-range forecasts of aviation demand, usually 5, 10 and 20 years. This is desirable to relate the various projects in phased master plans, plan updates, and continuous planning. However, supplemental projects for specific study elements may be based on any of the above time frames or without reference to timing.

a. General. At least 0.5 percent of AIP funds made available through appropriations each fiscal year are set aside for system plan projects. State apportionment funds for projects at airports as prescribed by Section 507(a)(3) of the Act cannot be used for system plans. Airport sponsors who operate two or more airports are eligible for system plan projects covering them if they are the authorized area-wide planning agency (see paragraphs 204 and 205). No specified amount is set aside in the Act for master plan projects.

b. State Airport System Planning. An integrated State airport system plan is the representation of aviation facilities required to meet immediate and future needs and achieve overall goals of the State. It recommends the general role, location, and characteristics of new airports or the nature of expansion for existing ones. It shows the timing and estimated cost of development, provides a mechanism to prepare CIP and NPIAS data, and can relate airport system planning to economic and environmental objectives of the State. This is accomplished in a

comprehensive planning framework. When the State contains areas for which metropolitan airport system plans are to be prepared, it is necessary that they be integral components of the State plan developed in conjunction with State planning. State system plans provide a basis for the preparation of definitive and detailed airport master plans. Guidance for the preparation of State airport system plans is contained in Advisory Circular 150/5050-3.

c. Metropolitan Airport System Planning. A metropolitan airport system plan usually covers one or more metropolitan statistical areas defined by U.S. Bureau of Census, a State planning region, or other areas. A metropolitan system plan should be prepared in conjunction with and become a part of a State airport system plan as indicated in paragraph 401b. Metropolitan agencies may request financial assistance from FAA to supplement State planning if airport capacity problems require a higher level of effort in the local area than provided as a part of State-wide analysis. Cosponsorship with State agencies should be considered where such an arrangement would improve cooperation. Metropolitan areas with a hub airport which annually has 0.25 percent or more of U.S. enplanements (medium and large hubs) are eligible for system planning grants. Exceptions to this hub airport eligibility criterion may be considered on a case-by-case basis and shall be coordinated with APP-510. Guidance for the preparation of metropolitan airport system plans is contained in Advisory Circular 150/5070-5.

d. Annual System Planning. Low levels of activity on an ongoing basis are an option in the system planning process rather than major updates infrequently. Because of changes in the many issues or variables influencing integrated system plans, ongoing tracking of the airport development and reevaluation of the plan may be necessary. One way to do this is to establish a planning capability to monitor and assess the effects of the changes and to update the plan over a specified period of time. This planning process is achievable through a structured Continuous Airport System Planning Process (CASPP). Included in the CASPP are such activities as continuing surveillance and coordination, periodic plan reevaluation, special studies, and interim and formal updates. A description of the CASPP can be found in Advisory Circular 150/5050-5.

(1) Annual Planning Products. When a continuous planning project is approved, the CASPP shall be structured to produce specified end products. As a minimum, annual CIP and NPIAS data will normally be required.

(2) Annual Planning Cycle. System planning projects should generally be limited to work which is to be completed within one year. The annual CASPP projects are accomplished on a continuing basis with a complete cycle of activities and updates

typically requiring three to five years.

e. Airport Master Planning. An airport master plan represents the sponsor-approved actions to be accomplished for phased development of the airport. It presents the research and logic from which the plan evolved and displays the plan in a graphic and written report. Master plans address the modernization, instrumentation, and expansion of existing airports and site selection and planning for new airports. Master plans should include preparation of CIP and NPIAS data. Guidance for the preparation of airport master plans is contained in Advisory Circular 150/5070-6.

(1) State Planning Sponsorship. State sponsorship of detailed master planning as described in paragraph 405y is an eligible system plan project subject to written agreements with airport sponsors. The agreements should establish concurrence on the scope of work, responsibilities of the participants, and uses of planning products. However, the agreements do not need to be in the form specified in paragraph 209 for a system plan project. Master planning for an airport should be limited to work which is not available or current in existing State system plans.

(2) Master Planning Updates. Periodic updates of master plans are typically needed on a five-year cycle for active airports, although timing may vary. For airports with relatively stable aeronautical activity, a ten-year cycle may be adequate. However, unusual economic or aeronautical activity changes may signal the need for a special planning study in less than five years.

f. Airport Noise Compatibility Planning. Noise compatibility planning for an airport includes the development of noise exposure maps and possibly a noise compatibility program in accordance with FAR Part 150. Airport noise compatibility planning may be accomplished as part of airport master plan projects or in a supplemental project, although it should not proceed without considering the relation of master plans. A noise compatibility program needs to be a stand alone document if submitted to FAA for approval in accordance with Part 150.

402. The Capital Improvement Program (CIP). A capital improvement program is the compilation of planned projects for the next five years including the priority, costs, and expected funding sources for each project. Capital improvement programming may be accomplished as a part of airport system or master planning projects or in a supplemental project. The sponsor's CIP developed under planning projects will be used as a basis for the FAA's annual CIP. Therefore, FAA planners should work closely with sponsors in the CIP development process.

403. PLANNING WORK SCOPE REQUIREMENTS. No airport planning

project activity shall be approved unless it meets the general requirements specified in this paragraph. Review of the planning work scope should ensure that each product will be appropriate for later FAA approval actions described in paragraph 428.

a. Study Design and Structure. The structure and work scope of a planning study should be creatively tailored according to the individual requirements for the airport or system of airports being studied. For most simple projects, this can be accomplished by identification of issues and selection of appropriate work elements relying heavily on paragraphs 405 and 406. The cost of study design is reimbursable, but FAA should concur on the need and cost of the study design prior to its initiation.

(1) Complex Projects. A more extensive study design is recommended in complex projects to specifically identify project goals, the level of effort for each activity, and participants based on the community decision-making structure. The study design and goal setting should normally be accomplished by a combined consultant-sponsor effort.

(2) Selection of Work Elements and Activities. Paragraphs 405 and 406 describe the elements that should be considered for a study. The enumerated elements generally involve sub-elements or activities. However, the work scope may not need to include all the elements listed, or the elements may be very abbreviated. For example, rather than develop new forecasts or capacity analyses in a master plan for a small airport, it may be desirable to obtain these from system planning and other current sources. Consequently, the work scope would not contain a detailed forecast or capacity element. Each item in the work scope should contribute to defining and resolving airport problems. Items in the planning advisory circulars which are not relevant to a specific study should be omitted. Elements not listed in paragraphs 405 and 406 are ineligible unless specifically approved by APP-510.

(3) Supplemental Projects. Specific study elements such as a CIP or noise compatibility plan may be funded as supplemental projects if they are required to satisfy an immediate airport need (see paragraph 300a). Supplemental projects shall be designed to supplement a basic system or master plan which FAA has determined to be current in other respects.

(4) Relation to Airport Development. The results of system and master planning should directly affect the recommendations and decision-making in establishing or revising the planned airport role or development. The scope of proposed planning should be reviewed to ensure it will result in an identifiable end product that clearly benefits the airport(s) and will lead to appropriate development. Tasks required only for

the sponsor's administrative, management, or operational purposes are ineligible, e.g. preparation of an airport security program or emergency plan required under FAR Parts 107 or 139.

b. Planning Products and Phasing. The work scope for system or master planning studies must show that complete, cohesive, and usable products will be produced. The form of the products expected must be well defined, e.g. technical analysis, drawings, reports, or approval by appropriate agencies.

(1) Project Phasing. A project should normally be separated into several phases if it involves uncommitted airline service, site selection, extensive environmental analysis, system plans, or unusual resources. Each phase may be a separate grant. This will facilitate review of planning products or elements such as site selection studies and environmental assessments to ensure progress is made before new funds are committed. Generally, no more than three planning projects under the same sponsorship for a location or area should be open at one time. When multiple projects are undertaken, each shall specifically recognize the relationship between products of previous and ongoing studies so they can be clearly separated in the grant agreements.

(2) Approval Actions at Key Points. Tentative approval of products by the sponsor and FAA may be required by the field office at key decision points before proceeding with a study. Changes in the structure of the study may also be required. FAA review should ensure that products in the study will be usable.

c. Force Account Work. Force account may be requested for some work to establish and maintain a local or State aviation planning capability. If force account is proposed, there should be a clear understanding with the sponsor that FAA will fund only work primarily associated with planning which is necessary for airport development. The scope of planning shall be consistent with guidelines described in paragraph 310c on administrative costs.

d. Work Scope Coordination and Jurisdiction. The sponsor should coordinate the draft work scope with FAA and other interested parties to establish the availability of existing data or to delete activities better accomplished by other agencies. This coordination will also help ensure that the products will be mutually useful for local, State, and Federal agencies. The work scope for planning by more than one agency for the same airport/area needs special coordination during study design. This may occur whenever State and metropolitan system plan projects coexist, and when sponsors propose transportation or land use planning outside the airport boundaries. This intermodal and interagency cooperation during study design is more extensive than the project notification process described in

paragraph 906. Additionally, FAA review should determine that the proposed sponsor has appropriate jurisdiction to carry out or influence the planning recommendations and is capable of producing results required (see paragraph 201).

e. Study Area. The basic organization, work scope, and approach of system or master planning shall focus on a study area that will be useful in solving airport problems. For instance, planning a new airport in a metropolitan area may involve geographic areas beyond the jurisdiction of any single governmental entity. Cooperation in the form of interagency agreements with adjacent local jurisdictions and/or States may be required by the FAA whenever airport site requirements go beyond the sponsor's jurisdiction. When specific study areas are unknown, the sponsor should establish a policy for achieving coordination with other jurisdictions.

f. Action Plan. The work scope of a study should include an action-oriented plan and/or program for implementation of recommendations where the FAA and sponsor agree that such a plan would be beneficial in carrying out recommendations. The action plan should identify activities and responsibilities at a level of detail appropriate to the nature and timing of the recommendations. For example, an action plan should always be included with pavement management studies.

g. NPIAS Airports. For master plan projects, the airport should be included in the first five-year period of the National Plan of Integrated Airport Systems. NonNPIAS airports may be included in system planning projects where the cost of a work activity is nominal, e.g. general inventories, forecasting, or facility requirements. System planning activities involving significant cost, such as pavement or obstruction surveys, are ineligible at airports not in the first five-year NPIAS period.

404. ELIGIBLE STUDY ELEMENTS AND ACTIVITIES. The elements which are eligible for funding as part of airport system and master planning projects are described in paragraphs 405 and 406. Although many system and master planning elements are similar in name, they differ in scope and degree of detail. Master planning study elements are typically developed in far greater detail than system planning elements. System plans are area-wide in nature and are intended to set the framework for the development of master plans. Master plans, in turn, serve as the basis for design and engineering (see Chapter 9). Preparation of an updated airport layout plan, CIP, or an environmental assessment to meet requirements for a development project may be a project formulation cost rather than a planning cost. Except for study designs, the cost of work performed on planning projects will not be allowed unless incurred after the date of the grant agreement.

405. SYSTEM PLANNING ELEMENTS. A basic airport system plan normally includes items described in paragraphs 405a through 405q, and special studies may cover the remaining elements as needed. However, projects should include only those of the following elements or activities required to produce a plan which meets the sponsor's needs:

a. Study designs to identify the framework, parties involved, organizational arrangements, major airport problems to be resolved, specific objectives, scope of work, time schedules, and cost breakdowns for system planning projects;

b. General site inspections and inventories including goals, airports, airspace, airport activity, user preferences, environment, land use, ground transportation planning, financial resources, and secondary socioeconomic data. This is limited to collection of data to be used for analysis in other planning elements identified in the scope of work;

c. Forecasting for justification of proposed airport development in terms of existing or forecast aviation activity levels and aircraft mix. Forecasting is limited to simple methods and assumptions which establish the components and dynamics of demand for aircraft operations, based aircraft, passengers, cargo, and/or ground access. A high and low range of forecasts in addition to the preferred forecast is eligible to identify consequences of uncertainties such as decisions on economic developments or new airline service. Application of complex statistical forecasting techniques or market research is eligible only to the extent that costs do not exceed those of simple methods above (see paragraph 428a);

d. Capacity analysis of airports based on airfield, terminal area, and access systems to provide for determination of capacity values, identify causes of airport delay, analyze alternatives, or develop input to a system capacity enhancement plan;

e. Capacity analysis of airspace based on air navigation aids, communication facilities and natural or man-made obstructions which affect the use of airspace. This is limited to that needed to support airport development. Contact the Air Traffic Division and ASC-1 for assistance on airspace policy or airport capacity task forces;

f. Facility requirements determination including analysis of the suitability, expansion possibilities, safety deficiencies, and accessibility of existing airports; the general location and need for land bank programs or new airports; and analysis of the compatibility of airports with access planning and comprehensive planning;

g. Analysis of a reasonable number of alternative airport systems including feasibility and sensitivity analysis and evaluation of safety, efficiency, environmental impacts, energy considerations, and cost;

h. Preparation and adoption by the sponsor of the airport system plan for each planning period including airport role assignment, design type, major facilities, and cost estimates;

i. General land use, noise, and environmental studies to consider the impact of airport development on neighboring areas and the protection of airports from surrounding land uses. This is limited to work for area-wide application or specific classes of airports, except in site selection or master plan studies;

j. Schedules of plan implementation describing the timing of airport land acquisition and construction based on aviation demand forecasts;

k. Financial analysis of the funding by Federal, State, local, and other sources which will be required to implement the plan;

l. Capital improvement programs (see paragraph 402);

m. Preparation of NPIAS documentation for airports meeting entry criteria (see paragraph 428f);

n. Meetings of local and State agencies, sponsors, and other participants for areas with a hub airport which has 0.25 percent of enplanements (medium and large hubs). The meetings may be required to discuss capacity problems and the progress of planning or other actions. This is appropriate only when local and State agencies agree to participate;

o. Study coordination and reports. A reasonable number of meetings will be allowed for a single advisory committee to exchange information or negotiate between elected decision makers, other officials, and/or representative technical advisors. Funding of more than one committee is normally limited to the circumstances described in paragraph 405n. Public involvement sessions are eligible as is the printing of a reasonable number of reports and graphics. The number of copies of technical documents should be limited through wide distribution of summary reports. Costs associated with videotape or similar audio/visual presentations are eligible only to the extent they are used to replace or supplement printed material that would have been prepared in conjunction with public information briefings, executive summaries, or similar briefing activities of the study. Consequently, costs associated with printed material or audio/visual presentations should be a relatively minor cost of the overall planning effort;

p. Continuous planning activities that relate to elements of ongoing or existing system plans;

q. Action plans (see paragraph 403f);

r. Preparation of State standards for development at nonprimary airports. This is limited to State airport system plan projects;

s. Site selection and feasibility studies of the general area (excluding the specific airport configuration) for new, replacement, or supplemental airports. This is limited to cases where existing public airport sponsors agree to participate or an area-wide agency is required or authorized by State or local law to do the planning (see paragraph 428b);

t. Acquisition, licensing, and use of commercially available computer software including simulation models and other applications dedicated to the study when warranted to accomplish an approved system planning purpose. Customizing of commercially available software is eligible if reasonable in terms of the overall product needed. Software development, including customizing, paid for in part with grant funds shall be in the public domain and shall be made available to any user without cost beyond handling costs. Computer software development and automated data processing should not be approved unless clearly shown to be necessary and to be the least cost method. For instance, an information management system may be eligible if directly related to airport planning elements described in this paragraph and reasonable in terms of overall project cost. The purchase of computer equipment is not eligible, nor is the cost of ongoing computer operations or software for general clerical, administrative, or airport management purposes;

u. Economic studies to measure the impact of airport activity and benefit of interrelated developments in the network of airports. This is limited to simple methods, such as those developed by FAA, rather than complex socioeconomic studies and extensive collection of new data. Sophisticated video presentations or printed material on the economic impact of airports, which are basically marketing or promotional material for a sponsor, are not eligible;

v. Identification of appropriate airport sponsorship arrangements such as for a new airport, airports which have inappropriate ownership, or where interagency agreements are needed;

w. Policy analysis for specific airport development proposals, such as the need for State aviation taxes, or land use policies. This is limited to State airport system plan projects and must be coordinated with APP-510;

x. Establishing or refining priority systems for pavement management and capital improvement programs; and

y. Participating in or conducting master plan projects at two or more airports provided the airport sponsors agree in writing to the scope of work (see paragraph 401e). This includes any of the elements and activities described in paragraph 406.

406. MASTER PLANNING ELEMENTS. A basic airport master plan normally includes items described in paragraphs 406a through 406p, and special studies may cover the remaining elements as needed. However, projects should include only those of the following elements or activities required to produce a plan which meets the sponsor's needs:

a. Study design to identify the framework, parties involved, organizational arrangements, specific issues and objectives, detailed scope of work, time schedules, and cost breakdowns for master planning projects;

b. Site inspections, inventories, and surveys including goals, policies, historical information, activity counts, user preferences, utilities, facilities, pavements, property maps, meteorological data, obstructions, environmentally sensitive features, or information on area-wide planning. This is limited to collection of data to be used for analysis in other planning elements identified in the scope of work;

c. Forecasting for justification of each item of proposed airport development in terms of existing or forecast activity levels, aircraft mix, and airport role assignment. Forecasting is limited to simple methods and assumptions which establish the components and dynamics of demand for airport activity including passengers, air cargo, operations, based aircraft, and/or ground access. A high and low range of forecasts in addition to the preferred forecast is eligible to identify consequences of uncertainties such as decisions on economic developments or new airline service. Application of complex statistical forecasting techniques or market research is eligible only to the extent that costs do not exceed those of simple methods above (see paragraph 428a);

d. Demand/capacity analysis for airspace, airfield use, terminal area, airway facilities, and access facilities to provide for determination of capacity values, identify causes of airport delay, analyze alternatives, or develop a capacity enhancement plan. Contact the Air Traffic Division and ASC-1 for assistance on airspace policy or airport capacity task forces;

e. Facility requirements determination to establish a list of needs and alternatives for the length, strength, and number of runways; number of gates; areas of aprons; square footage of

terminal buildings and cargo buildings; navigation aids; number of public and employee parking spaces; and airport access facilities to provide a basis for site selection and concept studies;

f. Analysis of a reasonable number of airport development alternatives including feasibility and sensitivity analysis, and evaluation of safety, security, efficiency, public protection, environmental impacts, cost of the alternate airport designs, and energy conservation. Order 1053.1 describes energy planning and conservation;

g. Preparation and adoption by the sponsor of airport layout plans establishing dimensioned layouts for existing and future runways, safety areas, taxiways, aprons, terminal building areas, roads, fences, property and relocation, airport airspace, runway protection zones (approach and clear zones), air navigation facilities, and nonaeronautical use areas (see paragraph 428d);

h. Noise contours for existing conditions and reasonable forecast periods (see paragraphs 428e and 713);

i. Land use plans or reuse studies for areas within the boundaries of the airport and for areas outside the boundaries which are impacted by airport operations. Participation in commercial or industrial park studies is normally limited to delineating and inventorying areas available on the airport for nonaeronautical use. However, land use studies of surplus Federal property or areas acquired for noise compatibility are eligible (see paragraph 715c). Studies of compatible land use zoning or other similar controls are also eligible for the entire airport site, the impacted airport vicinity, and terminal airspace. Aerial photography for land use studies is eligible only if the information is not otherwise available in an adequate form;

j. Schedules of proposed development to indicate the staging of improvements proposed in the master plan based on short-, intermediate-, and long-range forecasts (5, 10 and 20 years) of aviation activity;

k. Estimates of development costs proposed in the master plan;

l. Preparation of a financial plan for the long-term development and operation of the airport. The plan should include, as applicable, airport operational revenue, general obligation bonds, revenue bonds, taxation, private financing, government assistance or combinations thereof;

m. Capital improvement programs (see paragraph 402). This

may include preparation of NPIAS documentation for the airport (see paragraph 428f);

n. Meetings of local and State agencies, airport sponsors, and other participants, for hub airports which have 0.25 percent of enplanements (medium and large hubs). The meetings may be required to discuss capacity problems, progress of the planning process, or other actions. This is appropriate only when local and State agencies agree to participate;

o. Study coordination activities and a reasonable number of meetings for a single advisory committee to exchange information or negotiate between elected decision makers, other officials, and/or representative technical advisors. Funding of more than one committee is normally limited to the circumstances described in paragraph 406n. Public involvement sessions are eligible as is the printing of a reasonable number of reports and graphics. The number of copies of technical documents should be limited through wide distribution of summary reports. The costs associated with scale models, videotape, or similar audio/visual presentations are eligible only to the extent they are used to replace or supplement printed material that would normally have been prepared in conjunction with public information briefings, executive summaries, or similar briefing activities of the study. Consequently, the costs associated with printed material or audio/visual presentations should be a relatively minor cost of the overall planning effort;

p. Action plans (see paragraph 403f);

q. Site selection studies for new airport locations including the study of airspace, environmental factors, community growth, airport access, availability of utilities, land appraisals, and development factors which affect site costs (see paragraph 428b);

r. Environmental assessment for consideration of the effects of proposed airport development in order to provide a basis for the preparation of environmental impact statements or findings of no significant impact. The assessment may identify environmental consequences of ultimate airport development, mitigation policies, categorically excluded projects, and permits required. Ecological studies and wildlife hazard management plans required under FAR Part 139 are eligible to the extent that they are necessary in an environmental assessment for proposed airport development (see paragraph 428c);

s. Terminal area plans for the overall terminal complex and for components within that complex such as terminal buildings, cargo buildings, gates, hangars, shops, service roads, service buildings, motels, aircraft rescue and fire fighting buildings, automobile parking, entrance roads, and intermodal

connections. These plans are limited to conceptual analysis and drawings which include dimensioning of overall plans, building restriction lines, height limitations, shadow studies, and schematic drawings of profiles necessary to picture concepts and ensure that safety and operational factors are considered;

t. Airport access plans which indicate the proposed routing to central business districts and to existing or planned arteries. The plan should be based on other airport access studies which take into account traffic demand, existing and potential access problems, surface transportation facilities, heliports, and central business district terminal facilities. Order 1110.86 describes intermodal transportation planning;

u. Acquisition, licensing, and use of commercially available computer software, including simulation models and other applications dedicated to the study when warranted by the complexity of an airport or the project. Customizing of commercially available software is eligible if reasonable in terms of the overall product needed. Software development, including customizing, paid for in part with grant funds shall be in the public domain and shall be made available to any user without cost beyond handling costs. Computer software development and automated data processing should not be approved unless clearly shown to be necessary and to be the least cost method. For instance, an information management system may be eligible if directly related to airport planning elements described in this paragraph and reasonable in terms of overall project cost. The purchase of computer equipment is not eligible, nor is the cost of ongoing computer operations or software for general clerical, administrative, or airport management purposes;

v. Pavement management programs to evaluate pavements and establish priorities on an annual basis (see paragraph 306);

w. Preliminary feasibility studies for the establishment of navigation aids and the designation of instrument runways. These may include preparation of preliminary instrument approach procedures directly related to airport development which is shown on the airport layout plan. Field surveys, e.g. determination of runway end latitude, longitude, and elevation, are eligible only as an incidental part of other master planning;

x. Airport noise compatibility planning involved in developing noise exposure maps and a noise compatibility program. These activities are described in FAR Part 150 (see paragraph 428e). Planning for noise demonstration programs is not eligible as a master planning project. Contact APP-600 for assistance on noise policy and Part 150 planning; and

y. Economic studies to measure the impact of airport

activity and benefit of airport development. This is limited to simple methods, such as those developed by FAA, rather than complex socioeconomic studies and extensive collection of new data. Sophisticated video presentations or printed material on the economic impact of an airport, which are basically marketing or promotional material for a sponsor, are not eligible.

407.-409. RESERVED.

## SECTION 2. PLANNING PROJECT APPLICATION

410. GENERAL. The application process for planning projects includes an optional conference between the sponsor and the FAA, preparation and review of the application, and issuance of a grant offer by the FAA. Preapplication forms are not necessary for planning projects, although a draft scope of work may be required to define issues. A master planning project request may be included with a sponsor's preapplication for other development at the airport. However, the sponsor normally will submit a separate application.

411. PRE-PLANNING CONFERENCE. Depending on project complexity, airport site inspections and a conference to discuss the proposed study can be arranged between the sponsor and/or State, consultant, and FAA before final preparation of the grant application. Such meetings are appropriate for controversial projects, or where navigable airspace or airport design issues are likely. Likewise, sponsors with no prior grants need to be aware of assurances and procedures for airport development as well as planning projects. The conference may be used to discuss and/or negotiate the following before starting work on the project:

- a. Merits of the project and specific objectives;
- b. Relationship to local, State, and national airport planning and development issues;
- c. Study structure and parties involved;
- d. Planning process and organizational arrangements;
- e. Intergovernmental project review (see paragraph 906);
- f. Civil rights requirements (see Advisory Circular 150/5100-15A);
- g. Scope of work and time schedules;
- h. Project costs;
- i. Force account work;

- j. Special grant conditions and project issues; and
- k. Compliance with other grant assurances.

412. PREPARATION OF APPLICATION. The sponsor should submit Standard Form 424 and FAA Form 5100-101, Parts II, III, and IV, contained in appendix 5. These forms should be completed in accordance with the instructions on the back of the forms. Sponsors should be advised to consult with FAA prior to submission of the application regarding project costs to ensure they are reasonable and to settle misunderstandings concerning the scope of work.

a. Standard Form 424, Application for Federal Assistance. This form contains general information concerning the sponsor and the proposed project. In the case of an application with more than one sponsor, additional Standard Form 424 application pages and/or appropriate agreements should be attached and duly signed by each sponsor. In such a situation, only Items 1, 5, 11, 17, and 18 need be completed. All other information does not need to be repeated (see paragraphs 202, 203, and 209).

b. FAA Form 5100-101, Project Approval Information (Part II). Only Items 4 and 5 are required to be completed. Item 4 should be used to indicate whether or not the requested assistance requires State/local approval. As a general rule, this item will be marked "yes" in those situations in which there exists a State or local law authorizing a public or planning agency to act as an agent on behalf of the sponsor. The terms and conditions of the agency's authority to act for the sponsor should be submitted as an attachment together with any endorsement required.

c. FAA Form 5100-101, Budget Information (Part III). This part is to be used to submit all budget information pertaining to the proposed planning project. Particular attention should be directed to the following sections of the form.

(1) Section B, Budget Categories. The total cost of consultant contracts should be aggregated and listed in line f of Section B.

(2) Section F, Other Budget Information. Section F is to be submitted as an attachment on additional sheets of paper and should include a separate breakdown of costs by the specific elements and work activities in the study. This breakdown should be developed on an employee-hour and a cost per employee-hour basis, taking into account categories of employment to be used for each element or activity. Force account and work which will be accomplished under third-party contracts between the sponsor and consultants should be listed separately in the breakdown. Direct expenses, such as travel, should also be related to

particular elements or activities in Section F.

d. FAA Form 5100-101, Program Narrative (Part IV). A program narrative which outlines the study structure is to be submitted as an enclosure and should contain the items below.

(1) Objectives. This is an itemized list of the major problems, issues, and objectives in applying for the grant.

(2) Benefits Anticipated. This is a statement of the benefits anticipated from the planning effort. It should include a summary of significant areas to be addressed in the study and previous planning efforts that will be used and updated as a result of this effort.

(3) Approach to the Planning. This item should include detailed information for each element or work activity to be performed in the planning project.

(a) Scope of Work. In general, the proposed scope of work should reflect the study elements identified in the system and master planning advisory circulars.

(b) Study Coordination. Study coordination with the public, community organizations, airport sponsors, users, State and local agencies, and other interested parties is very important. The program narrative should include a description of proposed methods to ensure this coordination. Public information sessions, public hearings, meetings, and airport site inspections are normally incorporated into the scope of work for this purpose. At a minimum, the work program should include coordination of interim project reports and draft work products with FAA, State, and other study participants. These interim reports should be required at the completion of each major phase or element during the study. The names and affiliations of advisory committee members should also be identified in the work program. For instance, the sponsor shall coordinate with Air Transport Association (ATA) in airport system and master planning at airports which have ATA member carriers. The sponsor or his consultant should contact the regional ATA office which in turn will designate an industry representative to provide liaison during the conduct of the study.

(c) Organizational Responsibilities. This item should contain a list of organizations, consultants, and key personnel who are anticipated to work on the project and their respective areas of responsibility. If the consultant has already been selected, a statement of the firm's experience and qualifications together with a biographical sketch of its key personnel should be included.

(d) Schedule for Accomplishment. The time

schedule proposed for each element should be included.

(4) Geographical Location. A brief description is to be provided of the general area served by the airport. For a system plan project, the boundaries of the planning area should be defined. A map of the area under consideration may be included in this section.

(5) Justification for Force Account. If a public sponsor proposes to accomplish the project work with its own forces or those of another public or planning agency, this fact shall be so stated in the application. Qualifications of key personnel anticipated to perform the force account work shall be included in this section. Costs for force account and related overhead should be identified. The use of a private sponsor's work force to accomplish a planning study should normally not be authorized.

(6) Sponsor's Representative. This item should identify the person representing the sponsor in regard to the application and subsequent planning study, including the person's name, title, address, and telephone number.

e. Sponsor Assurances. The appropriate set of assurances shall be attached to the application (see appendix 1).

413. REVIEW AND APPROVAL OF APPLICATION. The primary responsibility for review and initiating the approval or disapproval of the planning grant application rests with the Airports Division. If necessary, the sponsor's consultant contract should be reviewed and approved at this time (see paragraph 422). The sponsor's use of force account should also be approved based the information made available by the sponsor as described in paragraph 412d.

a. Review of Application. FAA personnel should ensure the application is complete and in full accordance with the intergovernmental review process (see paragraph 906). A project evaluation report should be prepared (see paragraph 921). FAA review should determine whether the project is properly structured, study objectives are identified, work is eligible, descriptions of elements are complete, the work scope is sound, and work is commensurate with costs. The proposed time schedule of accomplishment should be reviewed to ensure that it is realistic, and special grant conditions should be identified based on project issues.

b. Revision of Application. If the FAA determines that the application needs revision, the sponsor should be advised of required corrective actions.

c. Project Approval. The region is responsible for

approving all planning project applications. Upon notification of regional approval, APP-500 will coordinate Congressional notification requirements with the Office of the Secretary and will inform the region by telephone upon completion of Congressional notification. The grant offer to the sponsor may be issued after this notification. Each project file will contain the following documents:

(1) Airport Improvement Program Action, FAA Form 5100-107 (see appendix 10);

(2) DOT/FAA Proposed Award of Grant, FAA Form 5100-12 (see appendix 4);

(3) Project Evaluation Report and Analysis, FAA Form 5100-109 (see appendix 12); and

(4) Application For Federal Assistance, Standard Form 424, and FAA Form 5100-101 (see appendix 5).

d. Disapproval of Application. If the FAA determines that the application should be disapproved, the application shall be returned to the sponsor along with an explanation of the disapproval.

414. PLANNING PROJECT REVISIONS. See section 4, Chapter 11, regarding increases and decreases in U.S. obligation or significant changes in scope of work.

415.-419. RESERVED.

### SECTION 3. PLANNING PROJECT ACCOMPLISHMENT

420. CONSULTANT CONTRACTS. Master planning projects are usually accomplished by consultant contracts since most airport operators do not have the staff capability to undertake a master plan. System planning projects are likely to be accomplished by a combination of consultant contracts and force account since many planning agencies have staff capability to perform various activities with their personnel. In using consultants, the firm fixed-price contract is the preferable method. Other contractual methods, such as a cost-plus-a-fixed-fee contract, may be used but should be discouraged unless there are substantial reasons for their use. Any of these methods shall be carried out in accordance with the procurement procedures in 49 CFR 18.36. See also Chapter 8 of this Order and Advisory Circular 150/5100-14 which describe mandatory contract provisions and procedures.

421. FAA ROLE IN CONSULTANT SELECTION. Since many sponsors are unfamiliar with consulting firms that have the capability to do aviation planning, they may seek the advice of FAA personnel.

The role of FAA personnel in this respect is:

a. Aid the sponsor in developing the general scope of services, division of responsibilities, and guidance on expected costs as outlined in Advisory Circular 150/5100-14;

b. For planning to be accomplished in stages, ensure the initial advertisement includes subsequent projects which are expected to be undertaken within three years, if desired;

c. Advise the sponsor to avoid over-solicitation, depending on the size of the project, and to use the competitive procurement process for contracts over \$25,000 as outlined in Chapter 8;

d. If appropriate, suggest that the sponsor establish a consultant selection panel to interview the consultants and/or evaluate their qualifications or proposals;

e. Advise the sponsor that the FAA will not recommend consultants or participate in the consultant interview and selection decision, although records of the consultant selection process may be requested by the FAA; and

f. Advise the sponsor that FAA reserves the right to disapprove employment of consultants and subcontractors, or to disapprove the scope and cost of professional services (see paragraph 1518).

422. CONTRACT REVIEW AND APPROVAL. FAA offices administering planning projects may require sponsors to submit proposed consultant contracts for approval as necessary to carry out the FAA's responsibility described in paragraph 421f.

423. PROCUREMENT DEFICIENCIES. In securing consultants for planning studies, sponsors may use their own procurement regulations reflecting applicable State and local law, rules, and regulations provided they also meet the requirements of 49 CFR 18. If, at any time, the FAA becomes aware of deficiencies based on these standards (as a result of contract reviews, past audits, or special reviews), the sponsor shall be notified in writing and changes needed to achieve compliance shall be specified.

424. PURCHASE OF EQUIPMENT. In general, the purchase of equipment or property shall not be included in a planning grant. However, under certain circumstances, specialized equipment to be used temporarily and not included as a permanent installation may be approved. See paragraphs 307, 561, 713 and 800.

425. PROJECT MONITORING, COORDINATION AND REPORTS. FAA should maintain ongoing involvement with the sponsor during accomplishment of the study to ensure each activity will provide

approvable products or actions specified in the work scope.

a. Sponsor Responsibility. The sponsor has the responsibility for continuous monitoring of the planning project. The sponsor shall ensure that the time schedules are being met, work activities and coordination are accomplished satisfactorily, expenditures are reasonable and justified, and other performance goals are achieved.

(1) Interim Project Reports. Interim project reports or products identified in the scope of work should be sent to the FAA, State, and other study participants for review.

(2) Quarterly Performance Reports. The sponsor shall submit quarterly performance reports to FAA as described in paragraph 1220c.

b. FAA Responsibility. The FAA should review sponsor performance and project reports to ensure that activities or elements of work contained in the grant agreement are treated adequately.

(1) Involvement and Coordination. The FAA should ensure that the sponsor and its consultant adequately coordinate the study as described in paragraph 412d. The scope of work and products of the study should be coordinated with FAA regional divisions by the field office as appropriate. FAA involvement in key planning meetings is necessary to provide national perspective for decision makers, facilitate clear communication of agency requirements, and avoid unrealistic expectations.

(2) Reporting Requirements. The FAA should inform the sponsor of all reporting requirements including any that are beyond those identified in the scope of work and the type of information needed.

(3) Product Review. On initial completion of project elements, the sponsor will submit copies of the planning reports and graphics in draft to the FAA for review and coordination. To avoid unreasonably delaying the sponsor and consultant during the project, the FAA site inspections and review of reports should be completed expeditiously on a schedule satisfactory to all concerned. Sponsors should be held accountable for each draft report or other product identified in the scope of work. Sponsors shall be provided an explanation in writing of deficiencies in the project or other comments about the products.

(4) Disclaimer Statement. The consultant, or sponsor in the case of force account work, shall be notified to include a disclaimer and the project number within the front pages of each

final report. The following statement shall be used:

"The preparation of this document was financed in part through an Airport Improvement Program grant from the Federal Aviation Administration (Project Number \_\_\_\_\_) as provided under Section 505 of the Airport and Airway Improvement Act of 1982, as amended. The contents do not necessarily reflect the official views or policy of the FAA. Acceptance of this report by the FAA does not in any way constitute a commitment on the part of the United States to participate in any development depicted therein nor does it indicate that the proposed development is environmentally acceptable in accordance with appropriate public laws."

426. SUSPENSION AND TERMINATION. See section 5, Chapter 11, for suspension and termination of grants.

427. FINAL PLANNING REPORTS. The sponsor's final planning reports or other products shall be reviewed and coordinated within FAA as necessary to ensure previous comments have been addressed adequately.

a. Completion of Project Elements. On completion of a planning project, phase, or element, the sponsor will submit copies of the final planning reports and graphics to the FAA. The number of copies to be submitted will be determined by each region. Sponsors should be held accountable for each report or other product identified in the scope of work.

b. FAA Distribution of Products. Each completed product shall be distributed within FAA for use as appropriate. In addition, a copy of final summary documents for system plan projects and final master planning reports with the ALP for hub airports which have 0.25 percent of enplanements (medium and large hubs) shall be transmitted to APP-400.

c. Incomplete Planning. Further communication after completing final reports, possibly including meetings between FAA and sponsor/State, may be arranged to request planning which is needed in addition to that completed in the study. Sponsors may be notified of incomplete planning in the project at the time of FAA approval actions described in paragraph 428.

428. FAA APPROVAL ACTIONS. FAA approval of project elements is an opportunity to properly establish the national transportation implications of State and local airport decisions. The FAA should generally limit its formal approvals to elements of a study which may require FAA action. FAA review and approval of sponsor submissions should consider whether the report content and format are adequate and submitted to the FAA in a timely manner. Sponsor and FAA approvals may be required by the field office at key decision points during the planning process to

ensure plan implementation.

a. Aviation Forecasting. Sponsor-approved aviation demand forecasts establish the justification for approval of the airport layout plan and for proposed future development projects. FAA should review sponsor forecasts to ensure they are realistic, supported by information in the study, and provide an adequate justification for the airport planning and development. FAA should approve the forecasts if they are to be used as an input to the NPIAS (see paragraph 403b). If the forecasts vary considerably from existing FAA terminal area forecasts (TAF), they may be accepted if the variance does not result in a significant change in the ALP or NPIAS facility requirements (including timing). If the variance is considered significant, it is important that the differences be resolved. The change may be in TAF, the planning study, or both. If such a resolution cannot be effected, the planning study may still be accepted from the standpoint of grant closeout. However, the exceptions may preclude approval of entry into the NPIAS, changes in the airport role, the ALP, or development projects.

b. Site Selection. Planning projects that include site selection as an element in a full master plan study normally require a tentative approval of the site before proceeding with subsequent elements.

(1) Site Approval Process. Site approval should be made by the sponsor and FAA after considering the airspace determination report, field inspection, site utility, preliminary environmental findings, public testimony, and other pertinent factors (see paragraph 403b). In most cases, it will not be necessary to complete the entire FAA site approval process and environmental processing before permitting the sponsor to proceed with subsequent master planning. However, it may be appropriate to delay controversial projects until the environmental process is completed. In other instances it could be appropriate to use multi-grant procedures, such as focusing on aeronautical aspects initially and completing detailed environmental assessment when alternatives have been narrowed. Once a tentative or final site approval is made, the sponsor should be notified in writing. If approval is conditional for environmental or other reasons, this fact should be clearly stated.

(2) Prior Federal Involvement. Site approval is not necessary for sites with substantial Federally-approved development or prior involvement.

c. Environmental Assessment. An environmental assessment (EA) is normally prepared as part of master planning when it appears likely that a project requiring the EA will occur within five years. When such a report is submitted as part of the

planning project, it should be completed and processed in accordance with Order 1050.1. The FAA may elect to delay processing the EA for good cause. In such a case, the sponsor should be informed of reasons for the delay. Reevaluation of the EA is necessary in accordance with time limitations prescribed in Order 1050.1.

d. Airport Layout Plan. A current ALP which has sponsor and FAA approval from the standpoint of the safety, utility, and efficiency of the airport is required under Section 511(a)(15) of the Act. The ALP has significance relative to many areas of FAA including Air Traffic, Flight Standards, Airway Facilities, Logistics, and Civil Aviation Security. Regions will review, coordinate, approve, and use airport layout plans prepared by airport sponsors as a common focal point for all agency activities on airports. Adequate review and coordination of airport plans prior to FAA approval establishes the basis for agency use of the ALP. The Airports Division should take the lead within the region on airport layout planning actions. FAA initiated activities must also be in accordance with the approved ALP.

(1) Preparation of ALP. The sponsor's ALP should include an airport airspace plan (see Advisory Circular 150/5300-13), runway protection zone plan (approach and clear zone plan), and a property inventory map (see Order 5190.6). They may be contained on or attached to the ALP as an integral part of the plan. Airport layout plans are normally current for a five-year period unless major changes at the airport have been made or are planned within that time. Airport layout plans may be determined to be current beyond the five-year period without making revisions if no changes have occurred or are planned at the airport.

(2) ALP Review and Coordination. Normally the ALP review starts in the Airports Division which will request specific determinations from other divisions during coordination. FAA review and coordination of the ALP will cover Federal interests and any required coordination which was not completed at the local or State level. FAA may request additional information from sponsors, preferably at one time within the review period, to add detail needed for ALP approval. Airport sponsors should be alerted to the delay or disapproval of agency actions when requested information is not provided.

(3) ALP Approval Timing. Due to the length of time involved for Federal ALP approval actions, several forms of letters or notices to the sponsor approving airport development on layout plans may be used (see paragraph 403b).

(a) Conceptual Approval. Conceptual approval may be made, if necessary, in the absence of detailed planning, or

when planning is incomplete. The conceptual approval of development will be specifically limited to actions which have been reviewed and coordinated prior to the agency action.

(b) First-time Approval. First-time approval actions may be taken for those airports where an ALP has not been previously approved or for new airports. First-time ALP approval is normally the culmination of a major study process, including interagency review and discussion between the interested parties.

(c) Informal Revisions. Informal revisions to the plan of a minor nature may be noted on the ALP by pen and ink based on supporting documentation referenced on the drawing. The supporting documentation should identify sponsor and FAA documents which approve the revision.

(d) Formal Revisions. Formal revisions may be approved periodically for major changes to the airport and the existing ALP. Several years may lapse between each formal revision since it normally involves the same degree of study, review, and discussion as a first-time ALP approval.

(4) ALP Approval Conditions. Conditions of ALP approval will be explained in writing to the sponsor and clearly indicated on the plan. Approval of an ALP must be in accordance with environmental criteria in paragraph 30 of Order 5050.4 and current regulations and design standards unless modified as prescribed in Order 5300.1. The approval letter must include a disclaimer statement regarding Federal financial participation (see paragraph 425b). Disclaimer statements should be added concerning sponsor action required on land use planning for the airport vicinity (see paragraph 1521) and the need for airport layout planning to be compatible with Federal facilities (see paragraph 1529). A disclaimer statement should also identify proposed development which is not sufficiently justified.

(5) Use of ALP. Airport layout plans are the representation of policies on current and future airport development as formally adopted by the sponsor and approved by FAA. FAA use of an ALP is contingent upon continuing accuracy of the plan as a reflection of these respective policies. Planning and programming for FAA activities on airports will be based on the sponsor's ALP. Development shown on the ALP for the first five-year period should also be reflected in the sponsor's CIP. FAA plans and programs must be changed to reflect each newly approved ALP.

e. Noise Planning. Guidance on noise control planning is contained in Order 1050.11. Noise exposure maps and noise compatibility programs which result from FAA-funded projects should be completed by the sponsor and provided to the FAA under the sponsor's grant obligation. This does not necessarily

constitute a formal submission to FAA for determinations under FAR Part 150. Submission of noise exposure maps and noise compatibility programs for determinations under Part 150 are not required by the grant. However, if the sponsor decides upon completion of the noise planning to make a submission under Part 150, a letter so stating should be provided with the final products.

f. NPIAS Data. Airport data such as airport development requirements and schedules shall be verified by the FAA prior to inclusion in the NPIAS. Sponsors should be provided an explanation in writing concerning data considered unacceptable, and conflicts should be resolved.

429. FAA ACCEPTANCE OF PROJECTS. See section 2, Chapter 13, for project acceptance and grant closeout procedures.

430. AUDITS. See section 3, Chapter 13, for audits.

431.-439. RESERVED.

#### SECTION 4. CAPITAL IMPROVEMENT PROGRAMMING

440.-499. RESERVED.