



  
**Asheville**  
REGIONAL AIRPORT  
**Master Plan**  
Executive Summary

## Introduction

In an effort to establish a solid plan for the future development of the Asheville Regional Airport, the Greater Asheville Regional Airport Authority, in conjunction with the Federal Aviation Administration (FAA), elected to update the airport's master plan. The airport has experienced significant development and growth since the last master plan study was completed in 2001. These changes necessitated an

updated review of the airport's facilities to measure how each will meet the future air transportation demands of Western North Carolina. The infrastructure improvements identified through this process will help guide the planning and development decisions of airport officials and the FAA for the next 20 years.

## What is an Airport Master Plan?

Airport master plans are comprehensive studies of an airport that analyze short-, medium- and long-term infrastructure needs over a 20-year period to identify cost-effective solutions that will be necessary to meet anticipated aviation demand. Master plans may vary in complexity and scope, based on the size, function, issues and challenges of an individual airport.

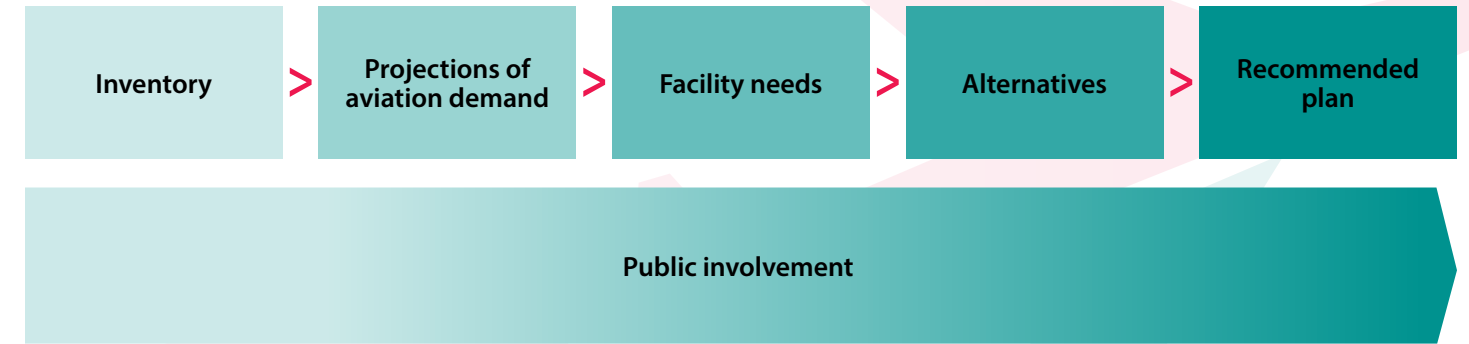
Asheville Regional Airport's Master Plan serves as a guide for improving the airport over the long-term (20-year) period. The improvement plan includes projects necessary for the airport to meet existing FAA safety standards, as well as expansion projects that can be implemented to meet the needs of, and provide a high level of service to, the existing and projected users.

The purpose of a master plan is to provide the framework necessary to guide the future development of an airport. In addition, master plans help evaluate the costs associated with alternative concepts and establish a timeline and financial approach for their implementation. Master plans also help provide preliminary information needed to further evaluate environmental and socioeconomic impacts of each proposed alternative.

The airport layout plan (ALP) is the official graphic depiction of recommended facility improvements at an airport. In order to be eligible to receive federal and state funding, projects must be shown on an approved ALP.



## The Master Plan Process



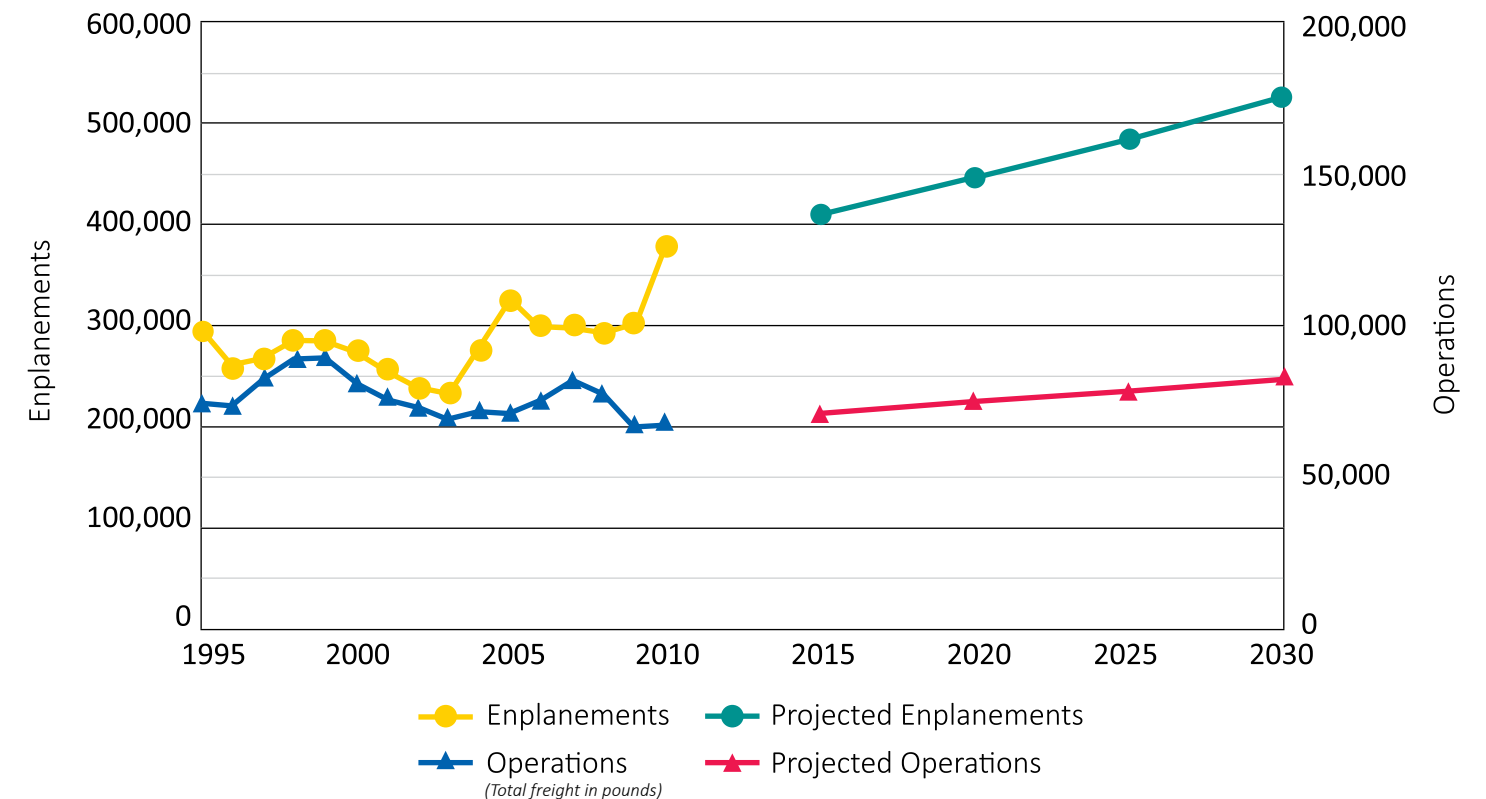
## Projections of Aviation Demand

Projections of aviation demand are an important element of the master planning process, as they provide the basis for several key analyses, including:

- Determining the role of the airport, with respect to the type of aircraft to be accommodated in the future
- Evaluating the capacity of existing airport facilities and their ability to accommodate projected aviation demand

- Estimating the extent of airside and landside improvements required in future years to accommodate projected demand

Demand projections were developed for key activity elements, such as passengers, aircraft operations, based aircraft and others.



Sources: Historical Enplanements – Airport Records, Historical Operations – FAA Air Traffic Activity Data System (ATADS), Projections – Mead & Hunt, Inc.





## Facility Needs

The investment and planning that the airport has completed to improve facilities over the years has positioned it well to meet the air transportation demands of the Western North Carolina region for the next 20 years.

A review of existing infrastructure and its ability to accommodate projected levels of demand has identified areas that should be the focus of future planning and development. Addressing these needs by improving facilities and services will enhance the capability of the airport to accommodate projected demand throughout the planning period while continuing to provide the region with a vital transportation link for the efficient movement of people, goods and services. The following is a summary of the facilities' needs.

### RUNWAY 16/34

- Increased separation between the runway and its parallel taxiway
- Major rehabilitation of deteriorated pavement
- Paved shoulders to conform to FAA standards
- Longitudinal grading to meet allowable standards
- Runway designation change to 17/35
- Additional runway length (needed if nonstop service to destinations west of the Rocky Mountains is desired)

### TAXIWAYS

- Paved shoulders to meet FAA design standards
- Increased width of taxiway safety area and object-free area for future Aircraft Design Group (ADG)-IV designation
- Transverse grade correction on Taxiway P
- Increased width for Taxiways D1, D2, F, G and H



### TERMINAL AREA

- Increase in apron space for two additional aircraft parking locations
- Three additional terminal building boarding gates
- Commercial vehicle curb lane
- Access roadway from car rental service facility to ready/return lot



### PARKING

- Approximately 600 additional long-term parking spaces needed
- Improved walking path with reduced grade
- Expansion of rental car/ready return lot (approximately 83 additional spaces needed)

### GENERAL AVIATION AREA

- Increase of 52,500 square feet of box-style hangar space
- 15 additional T-style hangar units
- Increased pavement strength on north ramp and mid-apron for larger business jet aircraft
- Consideration of air cargo development area



### AIRFIELD

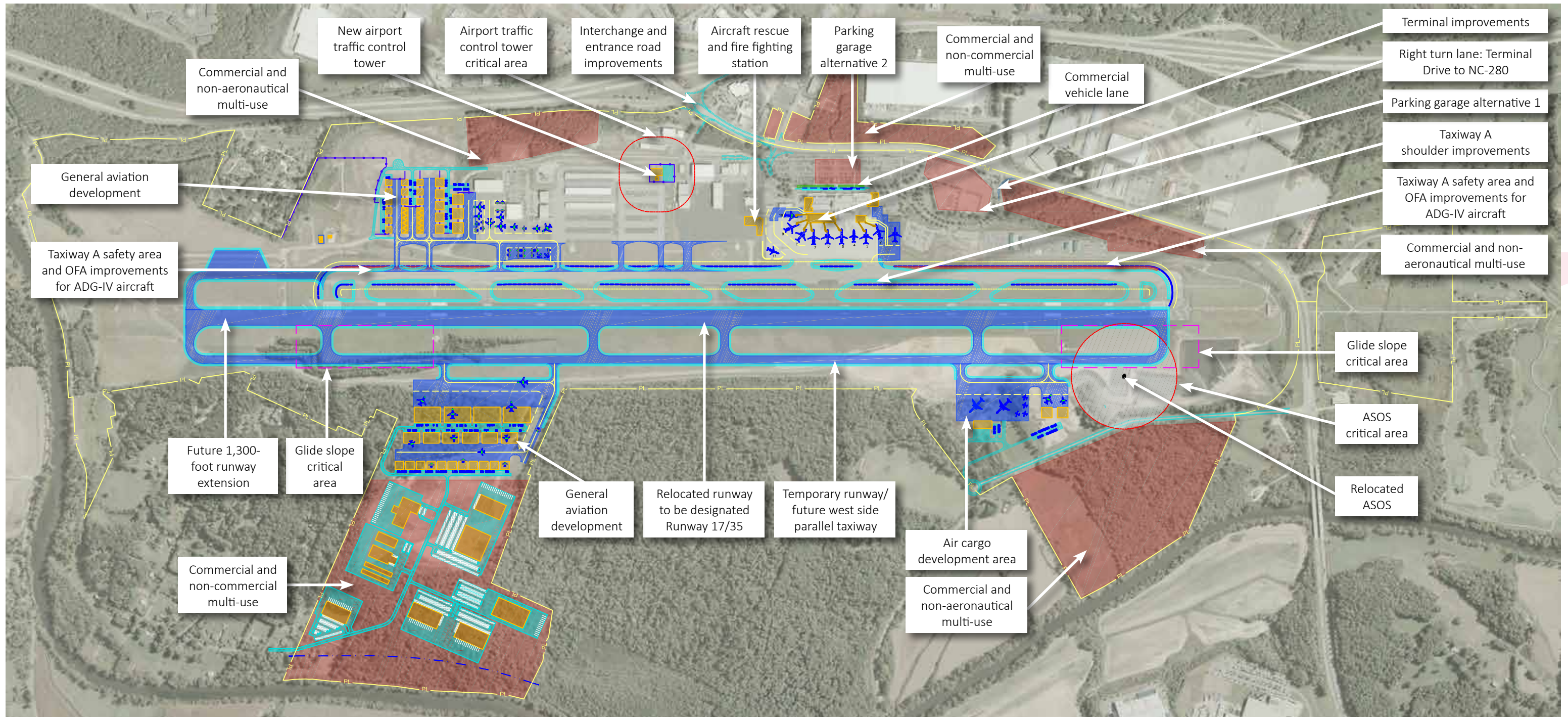
- Continued protection of airspace surfaces around the airport (per Title 14 Code of Federal Regulations Part 77)
- Site evaluations to relocate the airport traffic control tower
- Relocation site for the automated surface observation system (ASOS) weather unit
- Replacement of airfield lighting
- Replacement of outdated and noncompliant airfield signage
- New aircraft rescue and fire fighting (ARFF) and public safety building



### OTHER/NON-AERONAUTICAL

- Identification of airport property available for non-aeronautical purposes to diversify the airport's revenue stream





## Recommended Development Plan

After identifying facility needs, the master plan team prepared alternatives to address each need. The alternatives considered the airport's long-term demands while also addressing developments that are necessary to meet immediate and short-term requirements.

The goal of this analysis was to evaluate the advantages and disadvantages of each development option while considering the following key evaluation criteria:

- Operational factors
- Economic factors
- Environmental factors
- Implementation feasibility

The alternatives that most effectively addressed the needed infrastructure improvements while considering these evaluation criteria were selected as the preferred alternatives and make up the recommended development plan.

Facility improvements presented in this drawing are conceptual in nature and subject to further financial, environmental and engineering refinements.





### Economic Impact

A study of the airport’s contribution to the local and state economy was recently completed by the North Carolina Department of Transportation, Division of Aviation. The study determined Asheville Regional Airport generates 1,700 local jobs and nearly half a billion dollars in economic impacts.

ECONOMIC IMPACT			
	JOBS	PAYROLL	ECONOMIC OUTPUT
Direct	750	\$22,810,000	\$107,570,000
Indirect	680	\$10,370,000	\$203,780,000
Induced	270	\$8,290,000	\$162,410,000
<b>Total</b>	<b>1,700</b>	<b>\$41,470,000</b>	<b>\$473,760,000</b>

The economic contribution results are presented in three categories: direct, indirect and induced impacts. The indirect and induced impacts capture multiplier impacts. Direct impacts result from firms that are directly engaged in the movement of people or goods through an airport. Indirect impacts represent the impacts of spending by airport-related firms on products and services provided by support businesses (such as material supply companies, property maintenance, etc.). Induced impacts result from payroll expenditures of employees of directly- and indirectly related firms that produce successive spending (which is money that is re-circulated in an economy resulting in additional economic activity).

An economic impact study conducted by SYNEVA Economics assessed the local economic impact resulting from activities generated at or resulting from Asheville Regional Airport.

On average, a passenger accounts for \$125.30 worth of additional local income as a result of economic activities generated by the airport. Based on the average per passenger impacts, estimates were calculated for two round-trip flight examples. Each example provides a rough approximation of the total local economic impact per round-trip flight.

PER PASSENGER EFFECTS			
	JOBS	INCOME	OUTPUT
Direct	0.0029	\$70.12	\$260.39
Indirect	0.0009	\$29.00	\$94.57
Induced	0.0008	\$26.18	\$78.97
<b>Total</b>	<b>0.005</b>	<b>\$125.30</b>	<b>\$433.93</b>



A 50-passenger round-trip flight at 70 percent capacity generates nearly one-third (0.32) of a local job, \$8,771 in additional local income and \$4,190 in tax revenues.

ECONOMIC IMPACT: 50-Passenger Round-Trip at 70 Percent Capacity			
	JOBS	INCOME	OUTPUT
Direct	0.20	\$4,908	\$18,227
Indirect	0.06	\$2,030	\$6,620
Induced	0.06	\$1,832	\$5,528
<b>Total</b>	<b>0.32</b>	<b>\$8,771</b>	<b>\$30,375</b>

TAX REVENUES: 50-Passenger Round-Trip at 70 percent Capacity	
TAX TYPE	REVENUE
State/Local	\$2,012
Federal	\$2,178
<b>Total</b>	<b>\$4,190</b>

A 70-passenger round-trip flight at 70 percent capacity generates nearly one-half (0.45) of a local job, \$12,280 in additional local income, and \$5,866 in tax revenues.

ECONOMIC IMPACT: 70-Passenger Round-Trip at 70 Percent Capacity			
	JOBS	INCOME	OUTPUT
Direct	0.29	\$6,872	\$25,518
Indirect	0.09	\$2,842	\$9,268
Induced	0.08	\$2,565	\$7,739
<b>Total</b>	<b>0.45</b>	<b>\$12,280</b>	<b>\$42,525</b>

TAX REVENUES: 70-Passenger Round-Trip at 70 percent Capacity	
TAX TYPE	REVENUE
State/Local	\$2,816
Federal	\$3,050
<b>Total</b>	<b>\$5,866</b>



## Capital Improvement Plan

Implementation of the recommended alternatives is guided by a Capital Improvement Plan (CIP) that establishes a timeline and cost estimate for each planned improvement. CIPs help identify the level of financial, staffing and scheduling resources needed for each improvement while organizing the timing of

necessary preliminary projects such as design plans, land acquisitions and environmental reviews. CIPs also help illustrate the capital needs of an airport, assisting the funding allocation decisions of federal, state and local officials.

FUNDING SOURCES	IMPROVEMENT TIME FRAMES			
	SHORT TERM 2013-2017	MID TERM 2018-2022	LONG TERM 2023-2032	TOTALS
Total Cost	\$71,087,328	\$57,800,000	\$65,720,000	\$194,607,328
FAA AIP (Entitlement)	\$12,559,318	\$16,090,000	\$26,412,000	\$55,061,318
FAA AIP (Discretionary)	\$41,255,587	\$9,220,000	\$-	\$50,475,587
NCDOT	\$3,700,000	\$1,667,500	\$1,870,000	\$7,237,500
PFC	\$12,713,840	\$10,897,250	\$9,118,000	\$32,729,090
Airport Authority	\$858,583	\$15,925,250	\$14,900,000	\$31,683,833
Other	\$-	\$4,000,000	\$13,420,000	\$17,420,000

Notes: Other funding sources include Rental car customer facility charges (CFC), FAA facilities and private funding sources

As shown in the table, federal and state funding has a significant role in project financing. Federal grant funding comes from the FAA's Airport Improvement Program (AIP). AIP is funded by users of airports — specifically, aircraft operators (taxes on aviation fuel) and passengers (ticket tax). These taxes are deposited in the federal aviation trust fund for the purpose of improving the nation's aviation infrastructure.

Currently, AIP funds account for 90 percent of eligible projects at airports such as Asheville Regional. The remaining 10 percent of costs for AIP-eligible projects are the responsibility of an airport sponsor, using passenger facility charges (PFCs) or other airport funds. North Carolina provides a fixed amount of dollars each year to commercial service airports which can be used to help meet this local share of AIP-eligible projects. North Carolina's State Aid to Airports Program may also offer funding support for a variety of non-AIP-eligible projects.



## Frequently Asked Questions

### HOW DOES THE AIRPORT PLANNING PROCESS WORK?

The FAA is responsible for the development and publication of the National Plan of Integrated Airport Systems (NPIAS). The NPIAS lists the airports considered to be in the national interest and eligible for federal funding, including Asheville Regional Airport.

State aviation organizations identify existing airports that meet the state air transportation goals and any new airports required to meet future aviation demand. This information is then used to identify airports for inclusion in the NPIAS.

At the local level, airport owners and operators develop master plans that typically contain a higher level of detail than system plans.

### WHAT IS THE AIRPORT'S DEVELOPMENT PROCESS?

An airport's development process begins with the airport master plan and ALP. Following local, state and federal approval of the ALP, the airport may begin development of the projects as depicted on the approved ALP. The projects eligible for state and/or federal funding are completed based upon the approved Airport Capital Improvement Program (ACIP), which details the projects that are eligible to receive federal funding. The ACIP is updated each fiscal year.

Based on the scope of the proposed project, an airport may need to complete an environmental review. This effort can range from a checklist to an environmental assessment or an environmental impact statement. Approval of the appropriate environmental documentation is necessary before the project can begin.

### HOW IS A MASTER PLAN APPROVED?

An airport master plan, including the ALP, is produced following FAA guidelines and regulations found in FAA Advisory Circular 150/5070-6, *Airport Master Plans*. The FAA does not approve a master plan text document, but rather "accepts" it, meaning they do not verify the narrative information or data contained in the overall plan. The final ALP drawing set, however, is approved by the state and FAA as being in conformance with planning and design guidelines.

### IS THE AIRPORT DEVELOPMENT FUNDED WITH TAXPAYERS' MONEY?

Users of our air transportation system (including people shipping packages, private pilots, airline passengers and employees flying on corporate aircraft) pay for the costs of developing the United States' National Airspace System and a portion of public use airports.

Similar to the national highway system, much of airports' infrastructure is paid for with user taxes on airline tickets, air freight and aviation fuels.

Typically, federal funding is provided by the FAA AIP. The AIP is funded by aviation user taxes deposited in the federal aviation trust fund for the purpose of improving the nation's aviation infrastructure. Currently, AIP funds account for 90 percent of eligible projects at airports such as Asheville Regional. The remaining 10 percent of project costs for AIP-eligible projects are divided between state and local funds. State aviation organizations may also offer funding support for a variety of non-AIP-eligible projects.

### WHERE CAN I FIND MORE INFORMATION ABOUT THE AIRPORT AND THE MASTER PLAN?

You can find more details and provide feedback at [flyavl.com](http://flyavl.com).



**Asheville**  
REGIONAL AIRPORT  
Prepared by Mead & Hunt  
and Delta Airport Consultants