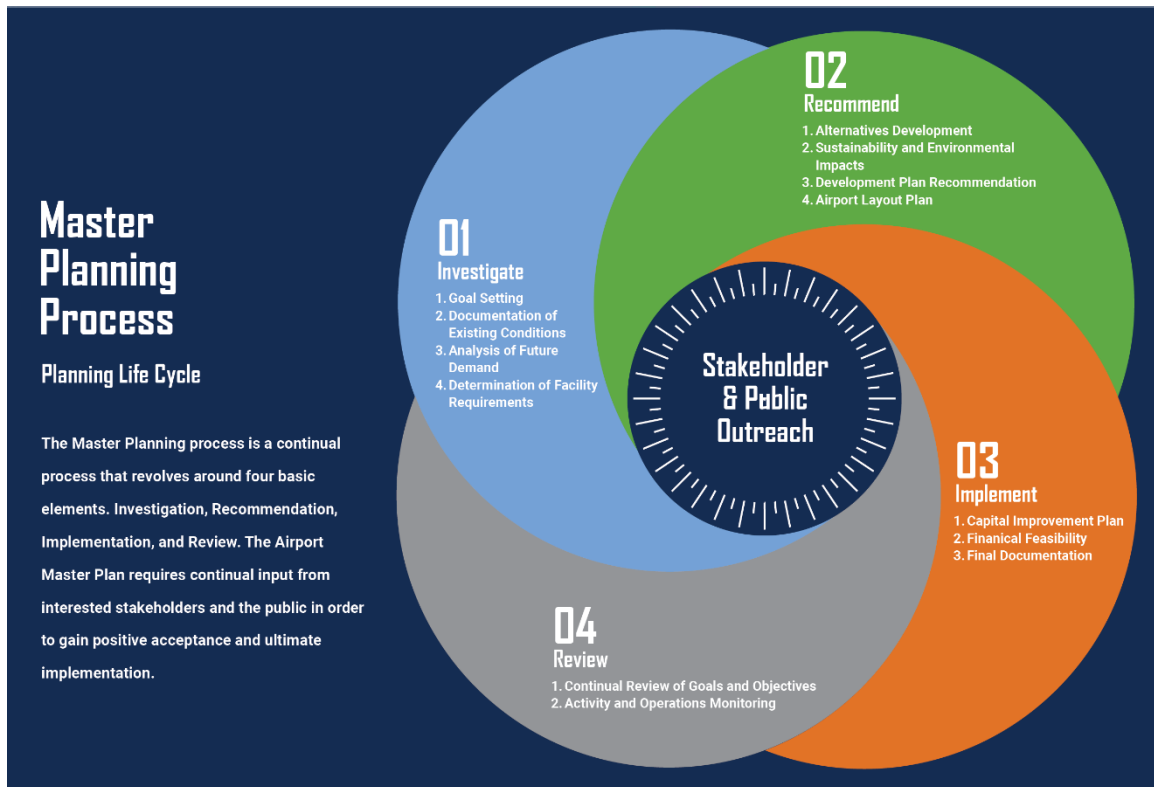


# What is an Airport Master Plan?

An Airport Master Plan (AMP) is a 20-year development program that supports safe, efficient, economical, and environmentally responsible growth of the airport. The plan will evaluate and determine the best development options to position the airport to be capable of facilitating the demand for aviation services, meet the development goals of Sullivan County, and create additional public value for the residents of the surrounding communities.

The Tri-Cities Airport Master Plan is a cooperative effort between the Airport, the Tennessee Department of Transportation, and the Federal Aviation Administration. The Master Plan will ultimately provide a written and graphical representation of the future development plan for the Airport. The intention of the Master Plan is to serve as a guide for the phased implementation of necessary improvements to meet future demand at the Airport through the short-(0-5 years), medium-(6-10 years), and long-term (11-20 years) planning periods, ending in 2043.

Through the Master Planning Process, the Airport will identify the needs of the Airport to ensure continuous and appropriate growth with respect to size, operations, and economic stimulation. An Airport Layout Plan (ALP) is essential to an airport's ability to qualify for and receive federal and/or state funding assistance and is required by U.S. Code Title 49 Section 47107(a)(16). The ALP provides a graphical representation of the analysis and future development needs identified in the Master Plan and is meant to be used in unison with this plan.



# Features of an Airport Master Plan

## Public Involvement Program

The Public Involvement Program (PIP) aims to generate public awareness of the AMP project to promote public input regarding the produced project findings. Generating public input ensures that the planning effort meet the stakeholders’ needs. The level of public involvement in airport planning is proportionate to the complexity of the planning study and the degree of planning interest. Th PIP strategy for the Airport involves public awareness through information sharing via a website and public open house. It also involves a feedback mechanism at relevant milestones of the AMP process to encourage sharing between stakeholders and the planning team.

The first public meeting will cover the initial phase of the AMP, including the existing conditions inventory and the forecast of operations for the Airport. Please see the meeting details below – we look forward to seeing you there!

**The first public meeting open house for the Tri-Cities Master Plan will be held:**

**November 15<sup>th</sup>, 2023, from 3:00pm to 6:00pm**

**Northeast State Community College Library in Room L106 – First Floor**

**2475 Highway 75, Blountville, TN 37617.**

Comments can be sent to [Aviation.Planning@atkinsrealis.com](mailto:Aviation.Planning@atkinsrealis.com) or via online form at: <https://forms.office.com/e/5XSvNyWjyq>

## Goals and Objectives

### Inventory

A thorough inventory of existing facilities was required to understand the existing conditions of the Airport. Knowing the conditions of all the airport facilities is crucial in determining what changes and updates may be needed to meet future demand, and to create a more sustainable airport. The inventory provides a collection and categorization of all the information available on existing Airport Facilities. The three categories that facilities at the Airport fall under are listed below.

#### Airside Facilities

- Runways
- Taxiways
- Aprons
- Lighting
- Markings
- Signage

#### Landside Facilities

- Fixed-Base Operators
- Flight Training Operators
- General Aviation Terminals
- Hangar Areas
- Fuel Storage
- Automobile Parking
- Airport Fencing
- Aircraft Rescue and Fire Fighting
- Roadways
- Utilities

#### Navigational Aids (NAVAIDs)

- En-Route NAVAIDs
- Terminal Area and Landing NAVAIDs
- Other NAVAIDs

## Forecast

Airport Forecasts are critical to determining facility and infrastructure improvements necessary to meet the predicted future levels of demand. The objective of the forecasting process is to obtain two key pieces of information: forecasted based aircraft and forecasted operations. To best evaluate the operations and based aircraft levels at an airport, multiple data sources are examined. In order to accurately project future Airport demand, there must be an understanding of the relationship between the airport operating environment and a number of trends including socioeconomic, industry and demographic trends. Analyzing these trends alongside the airport operating environment allows for educated assumptions to be made with regards to how a specific market may be served in the future or how airport activity and operations may be impacted.

## Demand/Capacity & Facility Requirements

The Demand/Capacity section of an AMP compares the projected aviation demand from the Forecast section to the existing capacity of facilities at Tri-Cities Airport. This comparison assists in determining future facility requirements for both airside and landside facilities over the 20-year planning period. Recommendations for improvements are made based on the evaluation of existing capacity and future demand to mitigate any facility deficiencies in the future. Details on the recommended improvements are covered in the Development Alternatives section.

## Environmental

The AMP for Tri-Cities Airport will present an overview of the existing environmental conditions at Airport. Evaluating existing environmental conditions will assist the airport in ensuring that future development will minimize potential environmental impacts to the greatest extent possible. The evaluation also provides baseline information that will assist in expediting future environmental clearances. This overview does not constitute compliance with the national Environmental Policy Act (NEPA), as defined by the Federal Aviation Administration (FAA) in Order 5050.4B, National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions, and Order 1050.1F Environmental Impacts: Policies and Procedures. However, the overview will be conducted in accordance with the guidelines set forth in FAA orders. The overview will provide background information on each NEPA impact category. Independent of this AMP, a NEPA environmental evaluation will be required on a per-project basis. Impact categories include

- Air Quality
- Coastal Barriers
- Coastal Zone Management
- Compatible Land Use
- Construction Impacts
- Section 4(f) Lands
- Prime and Unique Farmland
- Fish, Wildlife and Plants (biotic communities)
- Floodplains
- Hazardous Materials, Pollution Prevention, and Solid Waste
- Historical, Architectural, Archaeological, and Cultural Resources
- Light Emissions
- Natural Resources, Energy Supply, and Sustainable Design
- Noise
- Secondary (Induced) Impacts
- Socioeconomic Impacts, Environmental Justice, and Children’s Environmental Health and Safety Risks
- Water Quality
- Wetlands
- Wild and Scenic Rivers

Only the applicable categories will be addressed in this section for Tri-Cities. Some of the applicable categories listed in the AMP may require a more detailed analysis in a formal NEPA document for the preferred development alternatives.

## Development Alternatives

The development alternatives section of the AMP will evaluate and outline development alternatives that were produced based on the results from the information in the forecast and capacity/demand and facility requirements sections. A number of development alternatives will be established, and one will be selected as the preferred alternative based on evaluation criteria listed below.

- Operational Performance – Preferred alternative should be capable of meeting the Airport’s facility needs that were identified for the planning period. Operational performance should be reached with regards to safety, capacity, and efficiency.
- Best Planning Principles and Other Factors – The preferred alternative should be feasible and justifiable based on the technical analysis of the Airport’s needs and should not exceed the identified demand. Although additional development areas should be identified to ensure flexibility.
- Environmental Factors – The preferred alternative should strive to minimize environmental impacts on and off the airport property to the best extent possible. Moreover, the preferred alternative should ensure compliance with all applicable local and federal laws.
- Fiscal Factors – The preferred alternative should consider financial feasibility to ensure that development is planned to reasonably and responsibly meet the identified demand. Advantages and disadvantages to construction and maintenance costs should also be considered.
- Sustainability – The preferred alternative should consider the four pillars of sustainability (human, social, economic, and environmental) to ensure that any airport development promotes economic viability, operational efficiency, natural resource conservation, and social responsibility. Taking these factors into account will ensure that there is minimal impact on the surrounding community, as well as the airport’s long-term use.

## Capital Improvement Plan (CIP)

The Capital Improvement Plan (CIP) section of the AMP will outline proposed capital improvements through the 20-year planning period and provide general financial guidance with regards to proposed improvements and anticipated development costs at the Airport. A project phasing approach will be utilized to determine summaries of capital needs for each project deemed necessary at the Airport.

Funding sources for capital improvements include, but are not limited to, airport generated funds, local funds, grants from the Tennessee Department of Transportation, and federal grants through the FAA through the Airport Improvements Program (AIP). Airport generated funds are typically collected from taxes, lease payments, investment income, airport fees, and forms of debt financing. Additional sources may be available on a case-by-case basis. AIP funds provide finances for airport development and planning projects at public-use airports that are a part of the National Plan of Integrated Airport Systems (NPIAS). AIP funding is appropriated by congress on an annual basis and can be used for a specific list of eligible projects and is reliant on the FAA determining if the project is justifiable.

## Sustainability

The FAA does not require sustainability planning; however, the FAA does highlight the importance for airports to integrate sustainability into their decision-making process. Sustainable actions that the FAA emphasizes are to reduce environmental impacts, help maintain high and stable levels of economic growth, and help achieve social progress that ensure organizational goals are reached in a way that is consistent with the needs and values of the local community. Airports nationwide are also supported by local and state governments in implementing sustainability planning. Sustainability planning is a cycle, starting with completing a baseline assessment, and from there selecting sustainable initiatives, and then establishing the sustainability framework. The Tennessee Department of Transportation (TDOT) has a number of state-wide sustainability programs and resources to encourage the use of sustainability practices.

## Airport Layout Plan (ALP) Set

The ALP is a set of drawings that provides a graphical representation of the 20-year development plan established within the AMP. The ALP provides a blueprint for future airport development and should be used in conjunction with the AMP to gain a full understanding of the purpose and need for all identified development.

The ALP is required as part of 49 U.S.C. § 47107(a)(16). All development at an airport must follow the approved ALP to ensure safety, utility, and efficiency at the Airport. The FAA requires that the ALP be kept up to date to ensure compliant with the law. The ALP sheets include:

- Cover Sheet
  - Provides baseline information regarding the ALP set and includes the official airport name, airport owner, associated geographic location and the responsible part for preparing the ALP.
- Data Sheet
  - Provides key data related to the overall location of the airport and it's associated runways, taxiways, imaginary surfaces, navigational aids, lighting, declared distances and wind coverage data. The data sheet includes information for the existing and future airfield conditions.
- Existing Facilities
  - Provides the existing facilities including runways, taxiways, aprons, buildings, roadways, fencing, etc. Imaginary surfaces and runway safety areas are also shown.
- Airport Layout Plan
  - Provides planned development at the airport over the 20-year planning period. This sheet includes existing facilities and all future development and associated imaginary surfaces and labels.
- Terminal Area Plan
  - Provides greater detail of an airport's existing and planned terminal and apron areas such as apron dimensions, annotations, and offsets between various design elements. There can be multiple Terminal Area Plan sheets as a result of general aviation and commercial aviation terminals being located in different areas of the airfield.
- Inner Approach Plan & Profile
  - Provides critical natural and man-made features parallel to the extended runway centerlines and assists in identifying any potential obstructions that may impact the safe and efficient operation of aircraft.
- Airport Airspace (Part 77)
  - Provides natural and man-made features surrounding an airport outside of the inner approach and depict surfaces in Title 14 CFR Part 77, Safe, Efficient Use, and Preservation of Navigable Airspace, in relation to existing and future runway ends and elevations. These sheets identify objects that may impact the safe and efficient operation of aircraft in surrounding airspace.
- Departure Surface Plan & Profile
  - Provides the critical natural and man-made features located within the departure surface for each runway end. Each obstruction will be identified in a table.
- Airport Land Use Plans
  - Provides the on- and off-airport land uses surrounding the airport property.
- Exhibit 'A' Airport Property Inventory Map
  - Provides inventory of all parcels and easements that make up the airport property. This sheet documents how and when each parcel was acquired, the funding source used to acquire the property, or if the property was conveyed to the airport as a Federal Surplus land or Government property. Exhibit 'A' also

identifies future land or easements needed for development at the airport, and all former parcels owned by the airport and when they were released/sold.

## Final Documentation

The final documentation of the AMP will include a technical report that details all of the sections listed above specific to Tri-Cities Airport, as well as the full ALP sheet set.