



INTRODUCTION

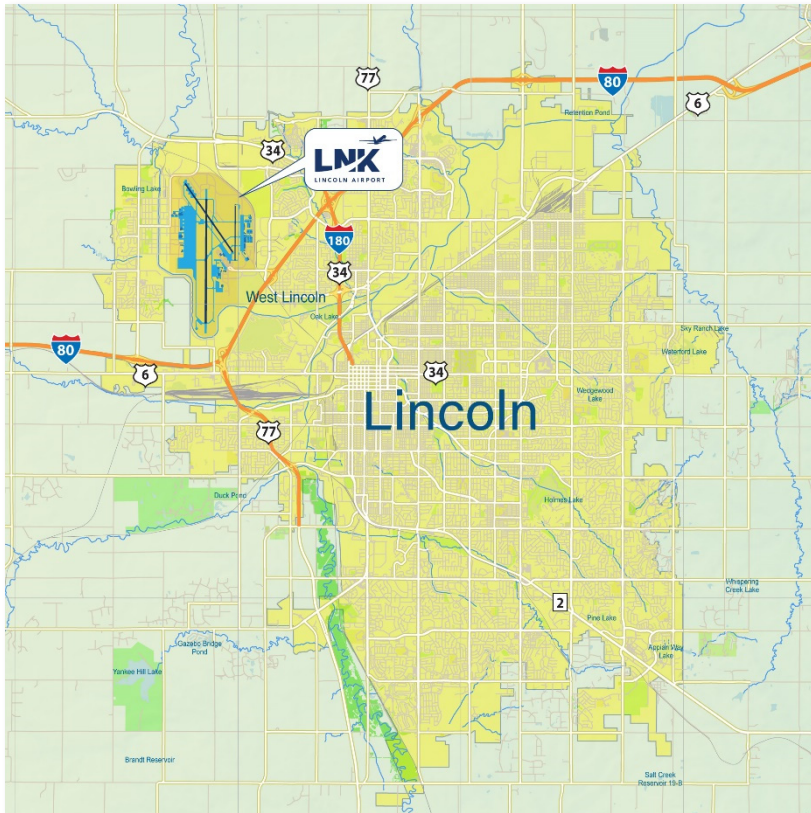
The Lincoln Airport Authority (LAA) for the City of Lincoln, Nebraska owns and operates the Lincoln Airport (LNK). The Lincoln Airport is situated on 5,500 acres of property located approximately four miles northwest of downtown Lincoln, and immediately west of Interstates 80 and 180 and south of U.S. Route 34. LNK is one of six primary commercial service airports in the State of Nebraska and is second behind Omaha’s Eppley Airfield (OMA) in terms of annual enplanements (revenue passenger boardings). The airport is also home to the Nebraska Air National Guard 155th Air Refueling Wing, and Duncan Aviation a world-renowned aircraft maintenance, repair, and overhaul (MRO) business. In terms of economic impact, a recent study sponsored by the Nebraska Department of Transportation Division of Aeronautics (NDOT DOA) found that **the Lincoln Airport supports 8,884 jobs, \$508 million in annual payroll, and \$1.4 billion in total economic impact to the local economy.**

The Lincoln Airport is a vital infrastructure component that supports economic development and quality of life for residents in and around the City of Lincoln. In addition to serving as an access point for air travelers to the national and international system of airports, the availability of air transport contributes to public safety by supporting police operations, firefighting teams, and air ambulance services.

A master plan is being undertaken for the Lincoln Airport to provide the LAA with proper guidance for future airport development that will satisfy aviation demands within the City of Lincoln and the greater regional area, while also being wholly compatible with the environment and the communities which surround and support the airport.

WHAT IS A MASTER PLAN?

The Federal Aviation Administration (FAA) recommends that airports update their long-term planning documents every seven to 10 years, or as necessary, to address local changes at the airport. The last master plan update for the Lincoln Airport was completed in 2007. The LAA, the sponsor of LNK, has received a grant from the FAA to update the airport master plan.



The LAA is responsible for funding capital improvements at LNK, as well as obtaining FAA and NDOT DOA development grants. In addition, the LAA oversees facility enhancements and infrastructure development conducted by private entities at the airport. **The master plan is intended to provide a true vision for how LNK is developed, guidance for future development, and justification for projects** for which the airport may receive funding through an updated capital improvement program (CIP) to demonstrate the future investments required by the LAA, FAA, and NDOT DOA.

The airport master plan follows a systematic approach outlined by the FAA to identify airport needs in advance of the actual need for improvements.

This is done to ensure that the LAA can

coordinate environmental reviews, project approvals, design, financing, and construction to minimize the negative effects of maintaining and operating inadequate or insufficient facilities. An important outcome of the master plan process is a recommended development plan, which reserves sufficient areas for future facility needs. Such planning will protect development areas and ensure they will be readily available when required to meet future needs. The intended outcome of this study is a detailed, on-airport land use concept that outlines specific uses for all areas of airport property, including strategies for revenue enhancement.

The preparation of this master plan is evidence that the LAA recognizes the importance of the airport to the entire region and the associated challenges inherent in providing for its unique operating and improvement needs. The cost of maintaining an airport is an investment which yields impressive benefits to the local community. With a sound and realistic master plan, the airport can maintain its role as an important link to the regional, state, national, and global air transportation systems. Moreover, the plan will aid in supporting decisions for directing limited and valuable LAA resources for future airport development. Ultimately, continued investment in the airport will allow the City of Lincoln to reap the economic benefits.

Some common questions regarding what a master plan is and is not are answered in the graphic below.



What an Airport Master Plan is:

- ✈️ A comprehensive, long-range study of the airport and all air and landside components that describes plans to meet FAA safety standards and future aviation demand.
- ✈️ Required by the FAA to be conducted every 7-10 years to ensure plans are up-to-date and reflect current conditions and FAA regulations. The last Master Plan was completed in 2007.
- ✈️ Funded by the FAA through the Airport Improvement Program (AIP), which provides 100% of the total project costs.
- ✈️ A Lincoln Airport Authority document that will ultimately be presented for approval by the City of Lincoln. The FAA approves only two elements of the Master Plan, the Aviation Demand Forecasts and the Airport Layout Plan (ALP drawing set).
- ✈️ An opportunity for airport stakeholders and the general public to engage with airport staff on issues related to the airport and its current and future operations, and environmental and socioeconomic impacts. Three (3) public information workshops will be conducted throughout the Master Plan process to facilitate this public outreach effort.

What an Airport Master Plan is not:

- ✈️ A guarantee that the airport will proceed with any planned projects. Master Plans are guides that help airport staff plan for future airport development; however, the need/demand for certain projects might never materialize.
- ✈️ A guarantee that the Lincoln Airport Authority, Nebraska Department of Transportation Division of Aeronautics, or the FAA will fund any planned projects. Project funding is considered on a project-by-project basis and requires appropriate need and demand. Certain projects may require the completion of a benefit cost analysis.
- ✈️ Environmental clearance for specific projects. The Master Plan includes an environmental overview that identifies potential environmental sensitivities per the National Environmental Policy Act of 1969 (NEPA). Most planned projects will require a separate NEPA study (environmental impact statement/environmental assessment/categorical exclusion) prior to construction.

WHO IS PREPARING THE MASTER PLAN?

The LAA has contracted with the airport planning firm of Coffman Associates, Inc. to undertake the Airport Master Plan. Coffman Associates is an airport consulting firm that specializes in master planning and environmental studies. Coffman Associates will lead the planning team, with support from the following firms:

- **Aeroplex Leasing** | Conducting a general aviation area hangar and facilities analysis;
- **Alfred Benesch & Company** | Engineering support primarily to offer insights into facility requirements, development alternatives, and estimates of probable costs;
- **Alliance** | Input into terminal building development plans;
- **DKMG Consulting** | Financial planning and input into development of a capital improvement program
- **Loomacres** | Conducting a wildlife hazard site assessment; and,
- **Martinez Geospatial** | Aerial photography, ground survey, and GIS products to meet FAA 5300-18B requirements for Airports GIS data submittal.

The Airport Master Plan Update will be prepared in accordance with FAA requirements, including Advisory Circular (AC) 150/5300-13A, *Airport Design* (as amended), and AC 150/5070-6C, *Airport Master Plans* (as amended). The plan will be closely coordinated with other planning studies relevant to the area and with aviation plans developed by the FAA and NDOT DOA. The plan will also be coordinated with the City of Lincoln, as well as other local and regional agencies as appropriate.



GOALS, OBJECTIVES, AND ASSUMPTIONS

The primary goal of this master plan is to provide the framework needed to guide future airport development that will cost-effectively satisfy aviation demand, while also considering potential environmental and socioeconomic impacts. Accomplishing this goal requires an evaluation of the existing airport to decide what actions should be taken to maintain a safe, adequate, and reliable facility. A long-range planning study also requires several baseline assumptions that will be used throughout the analysis. Specific objectives and assumptions for this study are as follows:

OBJECTIVES

- Runway 14-32 and 18-36 length eligibility and justification analysis
- Runway 17-35 future eligibility and justification analysis – analysis in this study will be required for FAA’s continued support as a “secondary” runway.
- Evaluate parallel runway orientation re-designation to limit aircraft from misaligning on approach.
- Consider solutions for and prioritization of geometry corrections to the Runway 18-36-Echo-Delta-Juliet intersection (designated by FAA as Hotspot 1).
- Determine a location for dedicated general aviation MRO engine run-ups.
- Establish a development plan for west ramp aeronautical activities after the Offutt lease term, including the possible relocation of the Midwest Roadside Safety (MwRSF) facility, and a determination for marketing and developing the area for dedicated aircraft cargo operations.
- Analyze potential residential development near the airport for compatibility issues.
- Consider the potential for railpark development west of the Kawasaki plant.
- Evaluate the Runway 14 Runway Protection Zone (RPZ) to determine if existing and/or planned roadway changes prohibit the runway from supporting a larger RPZ.
- Develop a new Exhibit A - Airport Property Inventory Map per FAA’s SOP 3.00 requirements.
- Determine if proposed terminal building improvements impact Runway 14-32.
- Incorporate sustainability and environmental best practices into recommended plans.
- Determine if there is a need to address the levee around the south end of the airfield. The levee does not meet FEMA freeboard requirements and was therefore decertified. Most of the south 1/3rd of Runway 18-36 and much of the Nebraska Air National Guard facility are now in the 100-year flood plain. Determination will be made on whether this will have an impact on future BRAC considerations and, if so, the planning process will outline potential mitigation options/opportunities.

ASSUMPTIONS

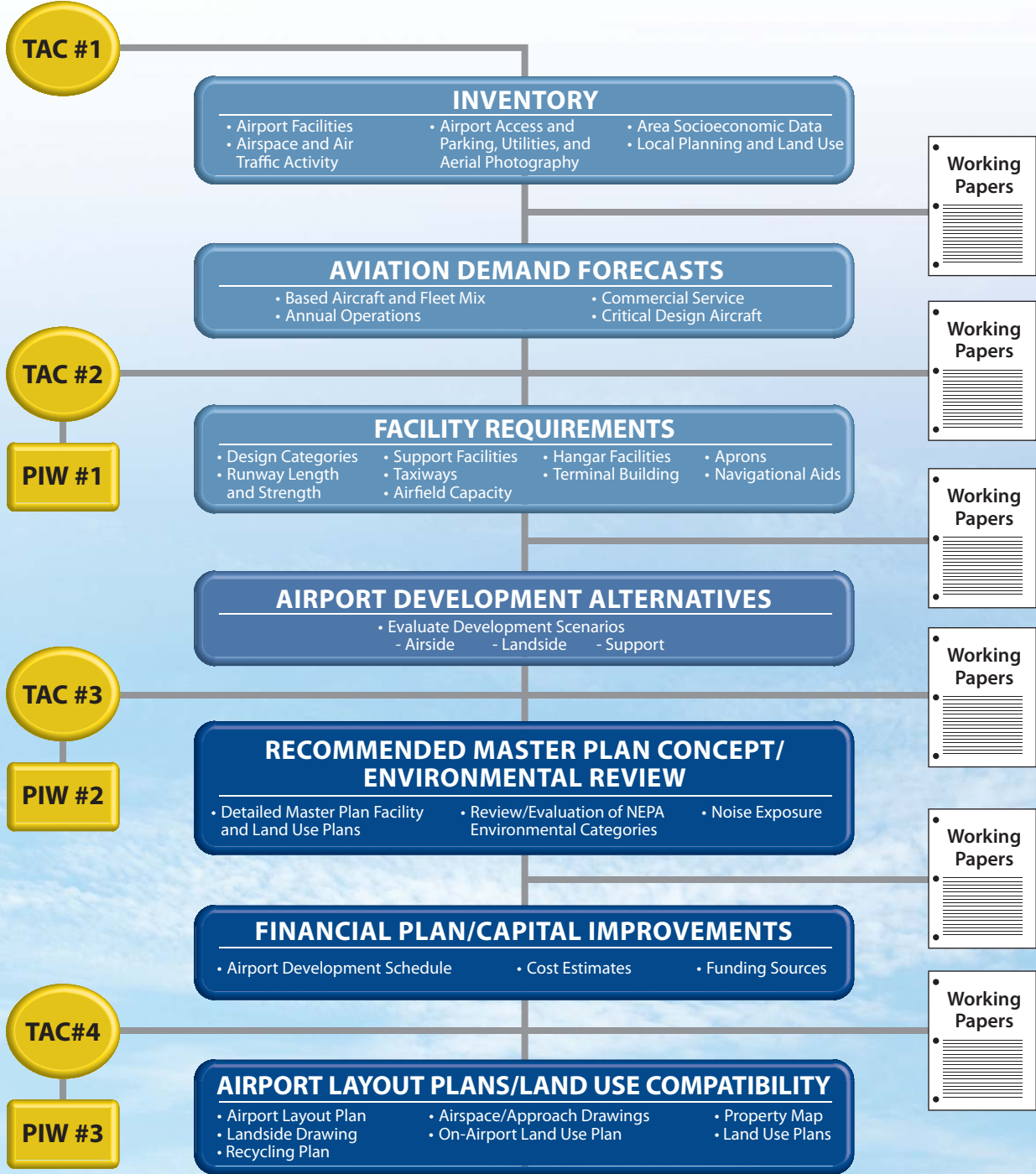
- LNK will continue to accommodate commercial activity (passengers and cargo), the Nebraska Air National Guard, general aviation tenants, as well as itinerant and/or local aircraft operations by air carrier, air taxi, general aviation, and military operators.
- The aviation industry will develop through the planning period as projected by the FAA. Specifics of projected changes in national aviation industries are described in Chapter Two – Aviation Demand Forecasts.
- The socioeconomic characteristics of the region will generally change as forecast (see Chapter Two).
- A federal and state airport improvement program will be in place through the planning period to assist in funding future capital development needs.
- A national/global economic and aviation industry recovery from the COVID-19 pandemic will occur over the course of the next several months and years.

MASTER PLAN ELEMENTS AND PROCESS

The master plan has 10 elements that are intended to assist in the evaluation of future facility needs and provide the supporting rationale for their implementation. **Exhibit iA** provides a graphical depiction of the process involved with the study.



PROJECT WORK FLOW



KEY:
 TAC - Technical Advisory Committee
 PIW - Public Information Workshop



Element 1 – Study Initiation and Organization includes the development of the scope of services, schedule, and study website. Study material will be assembled in a workbook format. General background information will be established that includes outlining the goals and objectives to be accomplished during the Master Plan.

Element 2 – Inventory of Existing Conditions is focused on collecting and assembling relevant data pertaining to the airport and the area it serves. Information is collected on existing facilities and operations. Local economic and demographic data is collected to define the local growth trends, and environmental information is gathered to identify potential environmental sensitivities that might affect future improvements. Planning studies which may have relevance to the Master Plan are also collected.

Element 3 – Aviation Demand Forecasts examines the potential aviation demand at LNK. The analysis utilizes local socioeconomic information, as well as national air transportation trends to quantify the levels of aviation activity which can reasonably be expected to occur at LNK over a 20-year period. An existing and ultimate critical design aircraft, based upon AC 150/5000-17, *Critical Aircraft and Regular Use Determination*, is also established to determine future planning design standards. The results of this effort are used to determine the types and sizes of facilities which will be required to meet the projected aviation demand at the airport through the planning period. This element is one of two elements that are submitted to the FAA for approval.

Element 4 – Facility Requirements determines the available capacities of various facilities at the airport, whether they conform with FAA standards, and what facility updates or new facilities will be needed to comply with FAA requirements and/or projected 20-year demand.

Element 5 – Airport Development Alternatives considers a variety of solutions to accommodate projected airside and landside facility needs through the long-term planning period. An analysis is completed to identify the strengths and weaknesses of each proposed development alternative, with the intention of determining a single direction for development.

Element 6 – Recommended Master Plan Concept provides both a graphic and narrative description of the recommended plan for the use, development, and operation of the airport. Additional tasks include the preparation of an environmental overview that will identify potential environmental issues associated with the recommended concept and land use management techniques that should be applied to promote land use compatibility.

Element 7 – Financial Management and Development Program analyzes the benefits and costs associated with the recommended plan. Specific project costs are established for the development of a capital improvement program (CIP) that ensures logical staging of improvements.

Element 8 – Geographical Information System (GIS) and Data Collection Services is the collection of high-resolution aerial photography, high precision surveys of safety critical airport data, and additional feature collection. This element produces a dataset of the airport and its surrounding environment in conformance with FAA AC 150/5300-13A, 16B, 17C, and 18B. The data collected is also used in development of the ALP.



Element 9 – Airport Plans is the preparation of the official Airport Layout Plan (ALP) drawings based on the recommended development concept. The ALP set is used by the FAA in determining grant eligibility. This element is the second element of the study that is submitted to the FAA for approval.

Element 10 – Final Reports provide documents which depict the findings of the study effort and present the study and its recommendations to appropriate local organizations. The final document incorporates the revisions to previous working papers prepared under earlier elements into a usable Master Plan document.

COORDINATION AND OUTREACH

This study is of interest to many within the local community and region. This includes local citizens, local businesses, community organizations, City officials, airport users/tenants, and aviation organizations. As a component of the regional, state, and national aviation systems, LNK is of importance to both state and federal agencies responsible for overseeing the air transportation system.

To assist in the development of the master plan, a Technical Advisory Committee (TAC) has been established to act in an advisory role. TAC members will meet up to four times at designated points during the study to review study materials and provide comments to help ensure that a realistic, viable plan is developed.

Draft working paper materials will be prepared at various milestones in the planning process. The working paper process allows for timely input and review during each step within the master plan to ensure that all issues are fully addressed as the recommended program develops.

A series of three open-house public information workshops is also planned as part of the study coordination and outreach efforts. Workshops are designed to allow all interested persons to become informed and provide input concerning the master plan process. Notices of meeting times and locations are advertised through local media outlets. All draft working papers, reports, meeting notices, and materials will be made available to the public on a study-specific website: lincoln.airportstudy.net.

SWOT ANALYSIS

A SWOT analysis is a strategic business planning technique used to identify **Strengths**, **Weaknesses**, **Opportunities**, and **Threats** associated with an action or plan. The SWOT analysis involves identifying an action, objective, or element, and then identifying the internal and external forces that are positively and negatively impacting that action, objective, or element in a given environment. A SWOT analysis was conducted at the first TAC meeting, the findings of which are presented in **Table iA**.



Table iA – LNK SWOT Analysis

STRENGTHS	<ul style="list-style-type: none"> • LNK offers a 3-runway system capable of serving multiple categories of users/demand groups • Proximity of hangars to runways and taxiways • Strong tenant base • LNK has one of the largest industrial parks in the Midwest with ample opportunity for expansion • LNK is a good landlord to its tenants • Location is ideal as it is not hemmed in and has growth/expansion opportunities • Good ground access to the airport; good surrounding infrastructure • Approach capabilities; lack of obstructions; airport traffic control tower (ATCT) • LNK offers convenient, quick, and reliable commercial service • The airport has a good working relationship with local government, the public, and other groups • Airport staff provides excellent customer service • Airport has good leadership with elected official serving on the board • The community is supportive of the airport • LNK supports the state capitol and the University of Nebraska
WEAKNESSES	<ul style="list-style-type: none"> • Lack of hangar capacity; hangars on east side are packed in • Proximity to Eppley Airfield (OMA) impacts commercial service and results in leakage • Competition with west/central Nebraska for commercial service • There is not a lot of incentivization for commercial development on the airport • Aging pavement infrastructure • Outdated terminal • Inability to remove aging infrastructure because other projects take priority; aesthetically, this is a barrier to development • The public does not fully understand the value of the industrial park
OPPORTUNITIES	<ul style="list-style-type: none"> • Growth in ultra-large GA aircraft offers employment and revenue opportunities • Studies show there is a strong market for commercial service and expansion in this area • West and south sides offer space for future development, including the possibility of a cargo facility • Growth of Lincoln • Inclusion in the Big 10 brings new opportunities for growth • Growth in the unmanned aerial vehicle (UAV) segment of the industry
THREATS	<ul style="list-style-type: none"> • Increased UAV activity can result in obstructions and hazards to flight • Wrong runway alignments • COVID economy and retrenching • Lincoln has a low unemployment rate, limiting employment growth for businesses on the airport • Taxes for new businesses are high, making it difficult to bring them to the city/airport • Stagnant AIP funds; funding has not increased commensurate with inflation • Other states have an advantage in terms of securing air service development funding • Essential Air Service (EAS) providers bidding on service in competitive airports to the west • Autonomous vehicles/new age of transportation