

April 14, 2004

**Airport Noise Plan:  
Comprehensive Plan & South Subarea**

<b>Applicant</b>	<b>Location</b>	<b>Proposal</b>
Planning Department and Lincoln Airport Authority	Generally between N.W. 70 <sup>th</sup> and N. 1 <sup>st</sup> / 12 <sup>th</sup> Street from W. Claire Avenue north to Waverly Road.	a) Adoption of the Lincoln Airport Federal Aviation Regulation (F.A.R.) Part 150 Noise Compatibility Study as an approved subarea plan; b) Amend language in the “Mobility and Transportation” section; and, c) Amend the Land Use Plan and Future Service Limit
<b>Recommendation:</b> Approval		

Status/Description

The “Lincoln Airport F.A.R. Part 150 Noise Compatibility Study” (referred to as the Noise Study) is the result of an extensive 16 month assessment process. The Noise Study would replace the current Airport Noise Control & Land Use Compatibility (ANCLUC) Study completed in 1980. The ANCLUC Study provided land use guidance and legal basis for the adoption of the Airport Environs Noise District Zoning Ordinance, and the current airport noise regulations that govern the use of land. Since the 1980s, the City has continued growing in multiple directions around the airport, while aircraft technology, airport operations, and the mission of the military has also changed. These changes have led to the need for a new Noise Study to assess the existing and future aircraft noise impacts for the airport environs.

The Noise Study is authorized under the Aviation Safety and Noise Abatement Act of 1979. The Federal Aviation Regulation (F.A.R.) Part 150 Noise Compatibility Study is the administrative rule developed to implement the Act and sets out the requirements for airport operators who undertake an airport noise compatibility study. The Federal Aviation Administration (FAA) is vested with the authority to implement and administer the Act. The Noise Study was prepared according to the regulations contained within the Code of Federal Regulations. All models and methodologies contained within the Noise Study have been approved by the Federal Aviation Administration.

The Airport Environs Noise District boundary identifies properties that are subject to an avigation and noise easement, as a condition of development approval. The easement is a legal requirement that provides notice to prospective property owners of aircraft overflight and noise impacts. The noise contour lines are used to regulate where noise-sensitive uses are permitted. Each Day Night Average

Sound Level (DNL) noise contour line represents a 24-hour annual average weighted noise level measured in decibels. The DNL measurement is the standard FAA metric for determining the cumulative exposure of individuals to aircraft noise. The DNL is weighted by adding a 10-fold penalty to each noise event occurring between 10:00 p.m. and 7:00 a.m.

Beginning with the first meeting in June 2002, a Planning Advisory Committee (PAC) of 24 representatives participated with the Lincoln Airport Authority, and their consultant to complete the Noise Study. Representatives from the Arnold Heights Neighborhood Association, Capitol Beach Community Association, Coddington Mills Neighborhood Association, Highlands Neighborhood Association, West "A" Neighborhood Association, and West "O" Neighborhood Association, the City of Lincoln, various aircraft operators, the military and other groups met regularly to discuss issues and review proposals and alternatives in the Noise Study.

Four public information meetings were held during the Noise Study process to gather opinions and thoughts of residents and interest groups. The Lincoln Airport Authority held a public hearing on the Noise Study, as required by Federal Aviation Regulations (F.A.R.) on July 31, 2003. The Lincoln Airport Authority approved the Noise Study in September 2003, and forwarded it to the Federal Aviation Administration for a compliance review. On February 3, 2004, the City of Lincoln hosted a public information meeting, attended by 23 people, where draft amendments to the Comprehensive Plan and Zoning Ordinance were presented.

The objective of the noise compatibility planning process is to improve the compatibility between aircraft operations and noise-sensitive land uses in the area, while allowing the airport to continue to serve its role in the community, state and nation. The Noise Study includes three elements that are aimed at satisfying this objective.

- 1) The *Noise Abatement Element* includes measures such as runway use and flight routes, facilities development, aircraft operational procedures, airport restrictions, and regulations to reduce the size of the noise contours or move the operations to other areas where noise is less disruptive.
- 2) The *Land Use Management Element* includes measures to mitigate or prevent noise impacts on existing noise-impacted land uses and future land use development in the airport environs. The recommendations specifically addressed in this Comprehensive Plan amendment are shown in the attachment titled, "Table 6C Summary of Noise Compatibility Program, 2002-2017. "
- 3) The *Program Management Element* includes procedures and documents for implementing the recommended noise abatement and land use measures, monitoring the progress of the program, and updating the Noise Study.

This Noise Study has been developed based on a **10-year planning period**.

Highlights of the Noise Study *Land Use Management Element* recommendations are below:

**Measure 1:** Change the boundaries of the Airport Environs Noise District.

*Action: Included with related application - Change of Zone #04024.*

**Measure 2:** Update the Comprehensive Plan to reflect the Airport Environs Noise District.

*Action: Included in this Amendment.*

**Measure 3:** Update the Comprehensive Plan to reflect the 2002 noise contours and incorporate the 60 Day Night Average Sound Level (DNL) noise contour.

*Action: Included in this Amendment.*

**Measure 4:** Modify the existing Airport Environs Noise District regulations to reflect the 2002 noise contour and incorporate the 60 DNL noise contour.

*Action: Included with related application - Change of Zone #04024.*

**Measure 5:** Adopt airport land use compatibility guidelines for review of development projects within the Airport Environs Noise District.

*Action: Included in this Amendment.*

**Measure 6:** Maintain compatibly-zoned areas within the 2002 60 DNL noise contour.

*Action: Included in this Amendment.*

**Measure 7:** Lobby state legislature to modify fair disclosure regulations.

*Action: Not included with this amendment. The Noise Study does not identify the City or County as a participant in completing this measure.*

**Measure 8:** Utilize fair disclosure covenants and signage in new developments within the Airport Environs Noise District to notify prospective landowners of the presence of aircraft operations.

*Action: Included in this Amendment.*

The Noise Study is a comprehensive assessment and detailed program that provides guidance on existing and future developments within the airport environs. Some of the measures included in the Noise Study will require continued implementation and monitoring by the Lincoln Airport Authority. The Noise Study recommendations concerning land use management are the responsibility of local government jurisdictions to adopt, regulate and enforce. This Noise Study will guide future public and private investments in the airport environs.

### Comprehensive Plan Implications

The Noise Study identifies possible changes to land use (i.e., from residential to non-residential) in areas that under the current mapped noise contour lines and zoning regulations in the Lincoln Municipal Code would be prohibited. As a result of the Noise Study's findings, the 2002 noise contour lines and zoning regulations indicate a change in the geographic area covered by land use regulations.

The Noise Study shows the 2002 noise contour lines as generally narrower and shorter, than the mapped noise contour lines identified in the ANCLUC Study completed in 1980. The Noise Study

recommends incorporating the 60 Day Night Average Sound Level (DNL) noise contour. This new noise contour line is added to the 65 DNL, 70 DNL and 75 DNL noise contours already utilized to regulate and maintain compatibly-zoned land uses within the Airport Environs Noise District. These revised noise contour lines and zoning regulations permit the expansion of compatibly-zoned land uses, and ensure minimizing aircraft noise impacts to residential areas within the airport environs. The 2002 noise contour lines and revised zoning regulations will be used to assess requests for new land use designations and evaluate zoning changes in the future.

The current 65 DNL noise contour is very similar in shape to the 2002 60 DNL noise contour. During the preparation of the ANCLUC Study in 1980, the 60 DNL noise contour was recommended to be incorporated into the land use regulations for the City. However, due to the large size of the 60 DNL noise contour at the time and amount of land contained within the contour, it was determined that land use regulation within the 60 DNL noise contour was not feasible. This change to the regulations would have a minimal effect on land uses as the area is currently regulated by land use regulations. The recommended change to the regulations would ensure that noise-sensitive uses are sound-insulated to minimize the impact of aircraft operations.

The Comprehensive Plan section on “Mobility and Transportation” states:

The City of Lincoln’s Airport Environs Noise District and Airport Zoning Regulations have been established to ensure the balance between the airport operations and the surrounding land uses. The regulations govern uses and structural characteristics compatible with the airport’s operations and minimize negative impacts on surrounding residents. The previous Airport noise exposure and land use study on the compatibility of airport noise and land uses was completed in February, 1980. An update of this program will allow measures to be undertaken to provide an improved noise compatibility program to reduce noise and non-compatible land uses. (*Page F 123*)

The Lincoln Airport Authority will assess the existing and future noise impacts, noise contours for the Airport environment in a *Part 150 Airport Noise Compatible Planning Study*. The Airport Authority should begin the *Part 150 Study* within one year from the adoption of this Comprehensive Plan, and the material results should be processed as amendments to the Comprehensive Plan and City and County Land Use ordinances. These results could effect the development patterns in southwest and northwest Lincoln and other parts of the County.

*Strategies: Assess the Existing and Future Noise Impacts*

- Assess the existing and future noise impacts, noise contours for the Airport environment in a “Part 150 Airport Noise Compatible Planning Study.”
- Based on the land use and zoning information gathered, this task will generate analyze and recommend possible actions to improve land use compatibility around the Airport. (*Page F 123*)

### **South Subarea Land Use Amendments**

The revised 2002 noise contour lines and proposed zoning regulations, also lead to a number of changes to the Lincoln/Lancaster County Land Use Plan, including revisions to land use and the City’s future service limit in the vicinity of West “A” and S.W. 27<sup>th</sup> Street. This area is actively developing and

the City has received a number of requests to provide urban services. These amendments are based on a “lot-by-lot” analysis using the 2002 noise contour lines and proposed zoning regulations, as well as discussions with property owners and the neighborhoods.

The specific amendments for the “South Subarea” in the West “A” from S.W. 27<sup>th</sup> to S.W. 40<sup>th</sup> Street vicinity are shown on the attachment titled, “Exhibit A,” and are more specifically described below:

- A. Change the land use designation for approximately 70 acres, on the south side of West “A” Street, between S.W. 27<sup>th</sup> Street and S.W. 31<sup>st</sup> Street, from Commercial to Urban Residential, and change the Green Space designation to correspond to the adjacent land use (Request of Hartland Homes);
- B. Delete the Community Commercial Center designation from the south side of West “A” Street; and
- C. A minor “clean up” in the vicinity of S.W. 40<sup>th</sup> and W. “F” Street, change the land use designation from Low Density Residential to Agricultural Stream Corridor.

**Future Service Limit Expansion**

The expansion of the City’s future service limit is a separate amendment proposal and is not directly related to the Noise Study. The land is located outside of the 2002 noise contour lines. The land to be included within the City’s future service limit represents an adding approximately 115 acres which would be provided with urban services during the 25-year planning period.

The infrastructure needed to serve this area is anticipated to be available during the Tier I Priority A planning period - - or approximately the year 2014. Public Works and Utilities have evaluated this proposal and comment that wastewater improvement projects to serve this area are not included in the 2003-2009 Capital Improvement Program. A water main is built in the general vicinity to serve this area, and a street improvement project along West “A” Street is identified in the Capital Improvement Program for 2007-2008. Capacity at the Theresa Street Wastewater Facility to serve this additional land is available.

There would be a number of upgrades or extensions of urban streets, water mains and the wastewater system needed to serve parts of this area. Specifically, the sanitary sewer line does not have the capacity to carry flows from this area to the Treatment Plant without surcharging. This sanitary sewer line will require significant improvements to accommodate additional wastewater flows. If development is proposed in the near term, the cost of advancing necessary infrastructure projects would be the responsibility of the developer.

The specific amendments to land use and the City’s future service limit in the West “A” and S.W. 40<sup>th</sup> Street vicinity are shown on the attachment titled, “Exhibit A,” and are more specifically described below:

- D. Change the land use designation for approximately 115 acres, between West “A” Street and West South Street, S.W. 36<sup>th</sup> and S.W. 40<sup>th</sup> Streets; and, between West “A” Street and a quarter mile north, S.W. 40<sup>th</sup> and a ½ mile east, from Low Density Residential to Urban Residential; and
- E. Add approximately 115 acres to the City’s future service limit with a designation of Tier I - Priority A.

These changes are contingent upon the adoption of the Noise Study and related application CZ#04024. The proposed land use changes would be in conformance with the goals of the Comprehensive Plan. The Comprehensive Plan promotes the siting of residential uses in appropriate locations throughout the community. A change of zone request is required to finalize a land use change and permit the property to be used as it would be shown in the Land Use Plan, as indicated above. In terms of process, this Comprehensive Plan amendment is the first step.

### Conclusion

The approval of the Noise Study would replace the ANCLUC Study completed in 1980. It provides the best available information to maintain compatibly-zoned land uses, ensures the continued viability of airport operations, requires fair notice and aircraft overflight and noise impact disclosure to prospective residents and business owners, and minimizes noise impacts to existing and future development areas. The Noise Study contains recommendations that, as a comprehensive program, aims to reduce aircraft noise impacts and noncompatible land uses.

This Comprehensive Plan amendment incorporates seven of the eight *Land Use Management Element* recommendations identified in the Noise Study, as shown in the attachment titled, “Table 6C Summary of Noise Compatibility Program, 2002-2017.” The measure that is not incorporated with this amendment relates to lobbying state legislature to modify fair disclosure regulations. These efforts are too specific and not appropriate for the Comprehensive Plan. The adoption of the Noise Study would permit changes to the land use plan, and contingent upon the adoption of the revised noise contours and zoning regulations would continue to ensure compatibly-zoned land use in the airport environs. The proposed land use changes included with this amendment are compatible with the Noise Study.

The Noise Study is in conformance with the goals of the Comprehensive Plan. The Comprehensive Plan supports implementing noise compatibility programs to reduce aircraft noise impacts and non-compatible land use. The Comprehensive Plan promotes the siting of all land uses in appropriate locations throughout the community. The Comprehensive Plan promotes the use of the best available information to remain responsive to changing conditions. The Noise Study would be a guide for future implementation activities, public and private improvements, changes in land use and zoning districts, and other development actions.

Amend the Comprehensive Plan as follows:

1. Amend the “Lincoln/Lancaster County Land Use Plan”, figure on pages F 23 and F 25, to designate changes in land use and to the City’s future service limit as shown on the map, Exhibit A on the following page, and change other maps in the Comprehensive Plan accordingly;

2. Amend the language on page F 123 to reflect the following amendments:

The City of Lincoln's Airport Environs Noise District and Airport Zoning Regulations have been established to ensure the balance between the airport operations and the surrounding land uses. The regulations govern uses and structural characteristics compatible with the airport's operations and minimize negative impacts on surrounding residents. The ~~previous~~ Airport noise exposure and land use study on the compatibility of airport noise and land uses was completed in ~~February, 1980~~ September, 2003. ~~An update of~~ This program will allows measures to be undertaken to provide an improved noise compatibility program to reduce noise and non-compatible land uses.

The Lincoln Airport Authority ~~will~~ has assessed the existing and future noise impacts, noise contours for the Airport environment in a *Part 150 Airport Noise Compatible Planning Study*. The Comprehensive Plan will use information from the Part 150 Study to guide land use planning throughout the airport environs. ~~The Airport Authority should begin the Part 150 Study within one year from the adoption of this Comprehensive Plan, and the material results should be processed as amendments to the Comprehensive Plan and City and County Land Use ordinances. These results could effect the development patterns in southwest and northwest Lincoln and other parts of the County.~~

3. Amend the language on page F 123 to reflect the following amendments to strategies:

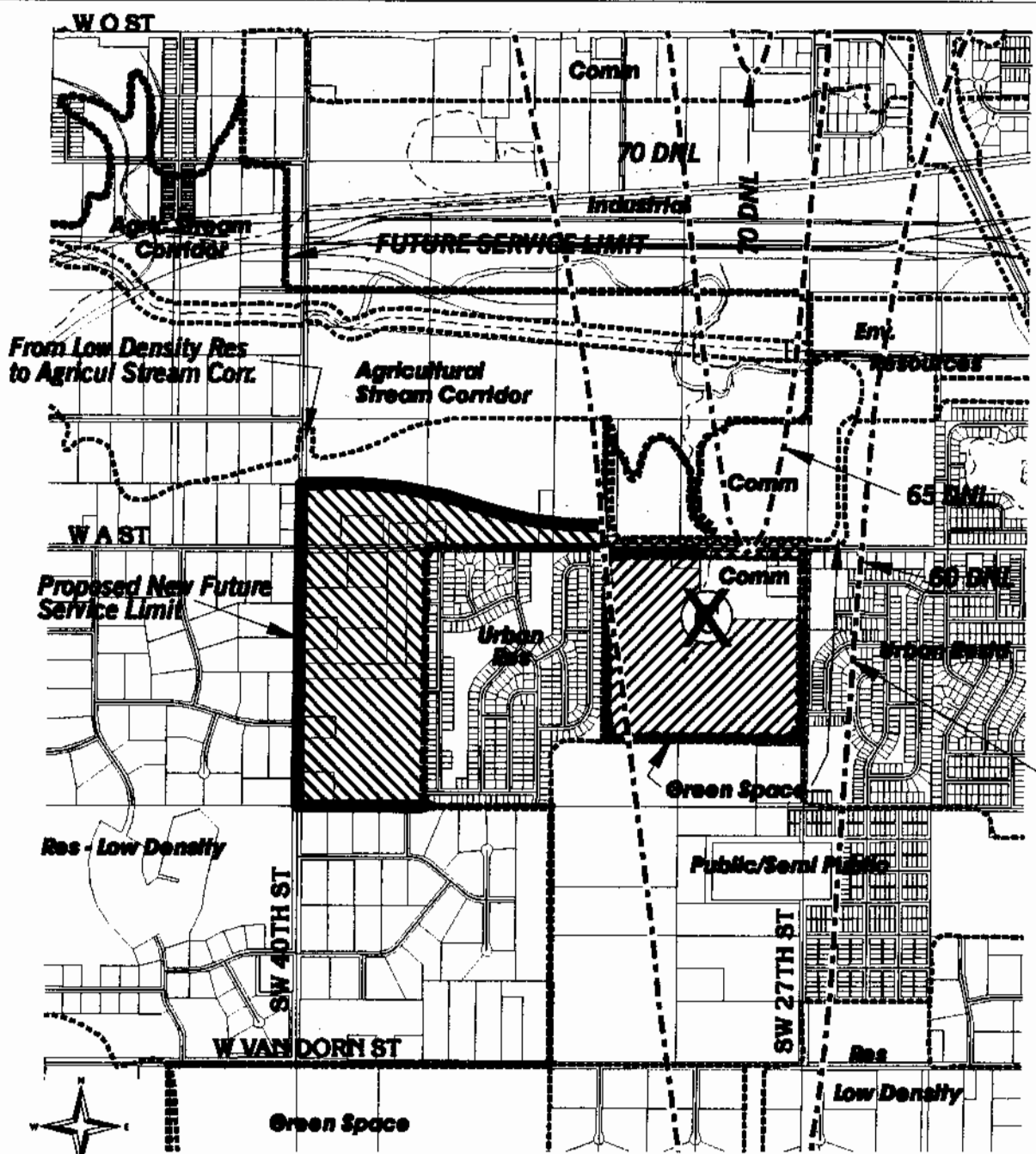
*Strategies: Assess the Existing and Future Noise Impacts*

- ~~Assess the existing and future noise impacts, noise contours for the Airport environment in a "Part 150 Airport Noise Compatible Planning Study."~~ The Lincoln Airport F.A.R. Part 150 Noise Compatibility Study, completed in 2003 is an approved Subarea Plan of the Comprehensive Plan. Recommendations of the Study should be implemented over time.
- ~~Based on the land use and zoning information gathered, this task will generate analyze and recommend possible actions to improve land use compatibility around the Airport.~~ Maintain compatible land uses and zoning within the 60 DNL and 75 DNL noise contour line.

4. Amend the Plan on page F 123 to include the map titled "Lincoln Municipal Airport Environs and Noise Contours" as shown in Exhibit B on the following page; and,
5. Amend the list of approved subarea plans on page F 156 to include the "Lincoln Airport F.A.R. Part 150 Noise Compatibility Study, 2003" as an adopted subarea plan. (The Part 150 Study involves the preparation of two official documents: the Noise Exposure Maps (NEM) and the Noise Compatibility Program (NCP)).

Prepared by

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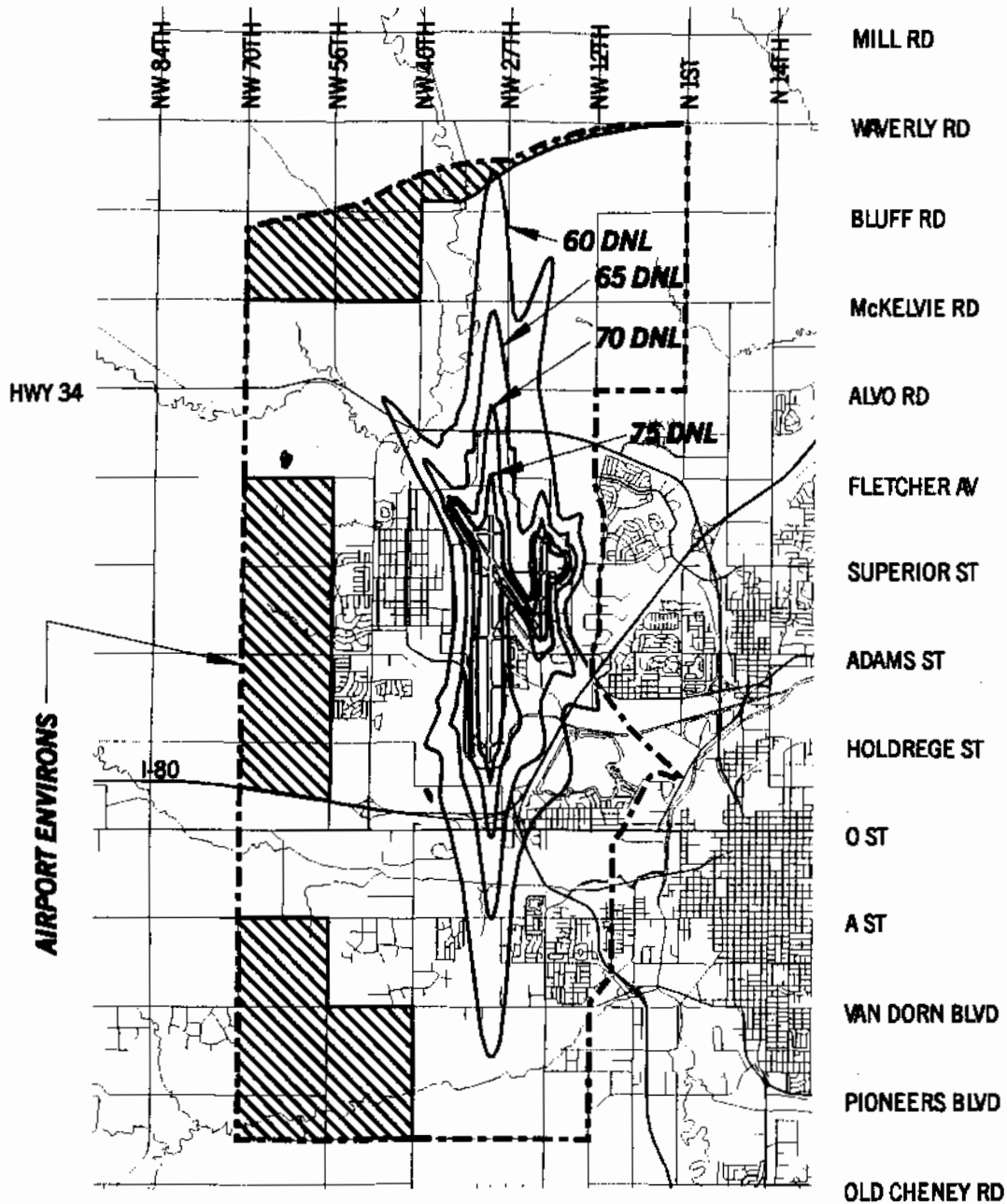
Note: Airport Noise Contours shown for information only

# Airport Noise Plan - South Subarea

## Proposed Amendment # 04002 (Exhibit A)

- ..... Future Service Limit
- - - - - Land Use Boundary
- Res** Land Use Category
-  From Low Density Res to Urban Res and add to Future Service Area
-  From Commercial to Urban Res Res
-  Remove Community Commercial Center (South Side of West A St)
-  New Future Service Limit
-  From Green Space to Commercial
-  From Green Space to Urban Res





# Lincoln Municipal Airport Environs and Noise Contours

## Proposed Amendment 04002 (Exhibit B)



Area to be Added to Existing  
Airport Environs



Excerpt from "Lincoln Airport Part 150  
Noise Compatibility Study"  
Pages 6-20 to 6-22

<b>TABLE 6C</b>					
<b>Summary of Noise Compatibility Program, 2002-2017</b>					
<b>Lincoln Airport</b>					
<b>Measure</b>	<b>Cost to Airport or Government</b>	<b>Direct Cost to Users<sup>1</sup></b>	<b>Timing</b>	<b>Lead Responsibility<sup>2</sup></b>	<b>Potential Funding Sources</b>
<b>NOISE ABATEMENT ELEMENT</b>					
1. Continuation of Airport's existing run-up noise abatement procedures.	\$5,000	None	2002 and ongoing	Lincoln Airport Authority	Airport operating budget
2. Continuation of existing military training procedures and publication of these procedures within the AP/1 and IFR Supplement.	Administrative	None	2002 and ongoing	Lincoln Airport Authority	N.A.
3. Encourage the use of AC 91-53A by large jets.	Administrative	None	2002 and ongoing	Lincoln Airport Authority	N.A.
4. Encourage the use of NBAA noise abatement procedures.	Administrative	None	2002 and ongoing	Lincoln Airport Authority	N.A.
5. Promote the use of AOPA Noise Awareness Steps by light single and twin-engine aircraft.	Administrative	None	2002 and ongoing	Lincoln Airport Authority	N.A.
<b>LAND USE MANAGEMENT ELEMENT</b>					
1. Change the boundaries of the Airport Environs Noise District.	Administrative	None	2004	City of Lincoln Lincoln Airport Authority (Applicant)	N.A.

Excerpt from "Lincoln Airport Part 150  
Noise Compatibility Study"  
Pages 6-20 to 6-22

<b>TABLE 6C (Continued)</b> <b>Summary of Noise Compatibility Program, 2002-2017</b> <b>Lincoln Airport</b>					
<b>Measure</b>	<b>Cost to Airport or Government</b>	<b>Direct Cost to Users<sup>1</sup></b>	<b>Timing</b>	<b>Lead Responsibility<sup>2</sup></b>	<b>Potential Funding Sources</b>
<b>LAND USE MANAGEMENT ELEMENT (Continued)</b>					
2. Update the General Plan to reflect the Airport Environs Noise District.	Administrative	None	2004	City of Lincoln Lincoln Airport Authority (Applicant)	N.A.
3. Update the General Plan to reflect the 2002 noise contours prepared as part of this study.	Administrative	None	2004	City of Lincoln Lincoln Airport Authority (Applicant)	N.A.
4. Modify the existing Airport Environs Noise District regulations to reflect the 2002 noise contours and incorporate the 60 DNL noise contour.	Administrative	None	2004	City of Lincoln Lincoln Airport Authority (Applicant)	N.A.
5. Adopt airport land use compatibility guidelines for review of development projects within the Airport Environs Noise District.	Administrative	None	2004	City of Lincoln Lincoln Airport Authority (Applicant)	N.A.
6. Maintain compatibly-zoned areas within the 2002 60 DNL noise contour.	Administrative	None	2002 and ongoing	City of Lincoln Lincoln Airport Authority (Applicant)	N.A.
7. Lobby state legislature to modify fair disclosure regulations.	Administrative	None	2002 and ongoing	Lincoln Airport Authority and State of Nebraska	N.A.

Excerpt from "Lincoln Airport Part 150  
Noise Compatibility Study"  
Pages 6-20 to 6-22

<b>TABLE 6C (Continued)</b>					
<b>Summary of Noise Compatibility Program, 2002-2017</b>					
<b>Lincoln Airport</b>					
<b>Measure</b>	<b>Cost to Airport or Government</b>	<b>Direct Cost to Users<sup>1</sup></b>	<b>Timing</b>	<b>Lead Responsibility<sup>2</sup></b>	<b>Potential Funding Sources</b>
<b>LAND USE MANAGEMENT ELEMENT (Continued)</b>					
8. Utilize fair disclosure covenants and signage in new developments within the Airport Environs Noise District to notify prospective landowners of the presence of aircraft operations.	Administrative	None	2004	City of Lincoln	N.A.
<b>PROGRAM MANAGEMENT ELEMENT</b>					
1. Establish a GIS system for receiving, analyzing, and responding to noise complaints; publishing the noise contours; and, community outreach.	\$50,000	None	2004	Lincoln Airport Authority FAA	Airport capital budget (10%) FAA (90%)
2. Prepare military and civilian pilot guides.	\$10,000 initially \$5,000 every three years	None	2004	Lincoln Airport Authority FAA	Airport operating budget (10%) FAA (90%)
3. Review Noise Compatibility Program implementation.	\$20,000 every three years	None	ongoing	Lincoln Airport Authority FAA	Airport operating budget (10%) FAA (90%)
4. Update Noise Exposure Maps and Noise Compatibility Program.	\$300,000	None	Five to ten years	Lincoln Airport Authority FAA	Airport capital budget (10%) FAA (90%)
<b>Total Cost and Funding</b>					
		FAA		\$391,500	89%
		Airport Operating Budget		\$13,500	2%
		Airport Capital Budget		\$35,000	9%
		<b>Total</b>		<b>\$440,000</b>	

## MEMORANDUM

To: Duncan Ross, Planning Department  
From: Public Works and Utilities/Wastewater Division  
Subject : Comments Regarding Amendments to Comprehensive Plan  
Date: April 14, 2004  
Cc: Steve Master, Gary Brandt, Brian Kramer, Steve Henrichsen

Listed below are comments that the Wastewater Division has regarding the proposed Comprehensive Plan amendment 04002 now being evaluated.

### **Amendment 04002 --- SW 40<sup>th</sup> & West A Street**

The proposed area is an 80-acre parcel south of West A and East of SW 40<sup>th</sup> Street and approximately 110 acres north of West A Street and East of SW 40<sup>th</sup> Street. Both of these areas would be served from a 12" sewer line located in West A Street. This line is currently at capacity based on a full pipe at design conditions. Improvement would have to be made to approximately 9,500 feet of line to provide relief capacity to serve this area. None of these improvements have been included in the 2003-09 CIP. Only 22 acres north of West A Street can be provided sewer service due to the elevation of the sewer in West A Street and the slope of the area away from West A Street toward Middle Creek. This assumption is based on extending the existing 12" sewer in West A Street at minimum slope to the west. A detailed engineering study is necessary to determine the sub-basin sewer requirements for serving this proposed area. Achieving the improvements necessary to serve this area through a future CIP will require sewer rate increases. Additional 8" sewers will be required to serve this area at the developer's expense. The Theresa Street Treatment Plant has available capacity to serve this development.