

## Appendix F: Wind Energy Ordinances

Rapid City Municipal Code Chapter 17.50.215, Wind Energy Conversion Systems

Box Elder Ordinance #478 Section 7H: Wind Energy Systems

Meade County's Wind Generator Ordinance 32





**Rapid City Municipal Code Chapter 17.50.215, Wind Energy Conversion Systems**

#### **17.50.215 Wind energy conversion systems.**

- A. *General.* Wind energy conversion systems shall be allowed as accessory structures as conditional uses in certain zoning districts. In addition to the standards set forth in Chapter 17.54.030 regarding all conditional, all wind energy conversion systems shall also meet all requirements of § 17.50.215 herein.
- B. Commercial sale of power prohibited. Any wind energy conversion system shall be used only for the purpose of generating power for the property on which the wind energy conversion system is located, or for the purpose of transmitting power to the electrical grid of an electric utility company through an approved interconnection.
- C. Utility interconnections. Any wind energy conversion system shall be constructed and operated, and any interconnection between a wind energy conversion system and an electric utility company shall be allowed only in accordance with all local, state, and federal regulations including regulations issued by the Public Utilities Commission and the Federal Aviation Administration. Additionally, electrical interconnections shall be allowed only in accordance with the applicable standards of the electric utility company.
- D. Required setbacks. A minimum setback of one and one-half times the height of the wind energy conversion system shall be maintained between the wind energy conversion system and any property line, structure intended for human occupation, overhead utility line, or other tower support base.
- E. Tower height. In no event shall the height of a wind energy conversion system exceed 90 feet as measured from the ground to the rotor hub. Further, there shall be no less than 30 feet between the lowest arc of the rotors of a wind energy conversion system and the ground, any portion of a structure or any tree.
- F. Rotor size/operation. The maximum size of the rotors of a wind energy conversion system shall be reviewed upon application for a conditional use. In determining the appropriate size for the rotors, the city shall consider such factors as noise, proximity to surrounding residences, safety and aesthetic issues. All systems shall be equipped with appropriate braking devices or similar protective devices to slow down or stop the rotors if the wind exceeds the capacity of the system.
- G. Noise. No wind energy conversion system shall produce more than 60 decibels of sound measured at the closest point on the closest property line from the base of the system. Information from the manufacturer of the wind energy conversion system shall be submitted at the time of the submittal of the conditional use, ensuring
- H. Electromagnetic interference. No wind energy conversion system shall produce electromagnetic interference so as to disrupt transmissions such as those from radio, television or microwave towers. At the time of application for the conditional use, the petitioner must submit information from the manufacturer indicating that, once operational, the wind energy conversion system will not adversely affect the transmissions. If necessary, generators and alternators shall be filtered, shielded, or both so as to prevent the emission of radio and television signals.
- I. Tower access. Appropriate safety measures must be undertaken to discourage unauthorized climbing of a wind energy conversion system tower. Appropriate measures shall include either:
1. The construction of a 6-foot tall chain link fence with locking gate around the tower;
  2. The tower shall be constructed so that the lowest climbing access shall be at least 12 feet above the ground; or
  3. A locked anti-climb device shall be installed on the tower.

J. Warning information. Information related to the maximum power output, nominal voltage and maximum current, and emergency shut-down procedures for the wind energy conversion system shall be posted near the base of the tower in a visible location.

K. Lighting. Unless required by a more restrictive regulation, no lighting shall be installed on a wind energy conversion system.

L. Tower design. In reviewing the conditional use for a wind energy conversion system, the city shall consider the design and color of the tower to ensure that no significant adverse impacts are occurring to neighboring property owners, including, but not limited to, infringement into natural and urban viewsheds, historic property, major community entryways, parks, schools, churches, playgrounds, or similar public and recreational uses.

M. Manufacturer warranty/maintenance information. Upon application for a conditional use for a wind energy conversion system, the petitioner shall submit a manufacturer's statement documenting that the system has been successfully and safely operated in atmospheric conditions that are similar to conditions in Rapid City. Further, the petitioner shall provide a copy of the manufacturer's warranty indicating that the system is warranted against any system failures reasonably expected during severe weather conditions. Further, the petitioner shall submit system specifications including maximum power output and a maintenance schedule for the system.

N. Construction standards. Any wind energy conversion system shall be constructed in accordance with all applicable life, safety, building and fire codes including but not limited to the following:

1. An applicant for a building permit for a wind energy conversion system shall submit plans and specifications stamped by a registered engineer.

2. Lightning Protection. Any wind energy conversion system shall have appropriate lightning protection to sufficiently protect all connected and adjacent equipment and structures from damage. The lightning protection system shall effectively discharge lightning energy from the structure to the ground through the application of shielding, lightning arresters and deep earth grounding.

O. Abandonment/removal.

1. Any wind energy conversion system which has not been used for a period of 6 months or more shall be declared abandoned. Upon abandonment of the system, the city shall revoke the conditional use and the system shall be removed at the expense of the property owner. The city shall determine that a wind energy conversion system has not been used if the following criteria apply:

- a. The wind energy conversion system has not been operating for a substantial period of time and the owner of the system is unable to provide documentation demonstrating that the system has produced a minimum of 25% of the power output as stated in the system specifications over the past 6 months;

- b. The wind energy conversion system has fallen into obvious disrepair and/or has been condemned by the City of Rapid City.

- c. The wind energy conversion system has become violative of some other local, state or federal law and the owner of the system has not taken appropriate actions to remedy the problem.

2. If deemed appropriate, the city may stipulate through the conditional use that the wind energy conversion system shall be removed at the owner's expense, upon the rezoning of the subject property to a zoning district classification in which wind energy conversion systems are not allowed as either a permitted use or conditional use.



**Box Elder Ordinance #478 Section 7H: Wind Energy Systems**

CITY OF BOX ELDER ORDINANCE #478  
PLANNING AND ZONING REGULATIONS

H. Wind Energy Systems (WES).

Wind energy systems shall meet the following criteria and standards:

1. The maximum height of a WES shall be less than seventy-five feet (75') above the pre-construction level of the grade adjacent to the tower location. This height shall be an exception to the Zoning District's maximum structure height.
2. The minimum setback distance between each wind turbine tower and all surrounding property lines, overhead utility or transmission lines, other wind turbine towers, electrical substations, public roads, and dwelling units shall be equal to no less than one point one (1.1) times the system height (measured from the grade adjacent to the tower pad to the highest system component, including blades).
3. The vertical distance from the adjacent grade to the tip of the wind turbine blade when the blade is at its lowest point must be at least twenty-five feet (25').
4. The owner of a WES shall take such reasonable steps as are necessary to prevent, mitigate, and eliminate shadow flicker (the shadow cast by the rotating blade of the WES) on an occupied building on adjacent property.
5. The owner of a WES shall minimize or mitigate interference with electromagnetic communications, such as radio, telephone, microwave, or television signals caused by the WES.
6. The building permit application for a WES, in addition to the requirements of Article 7, Section 2 of this Ordinance, shall include structure plans prepared by a PE and a certification by a PE that the structure has been designed to withstand the wind, snow, and ice loads typical of this area.
7. All ground- or pad-mounted electrical and control equipment shall be labeled and secured to prevent unauthorized access. If the WES is located in a Flood Hazard Area, said equipment shall be located more than three feet (3') above the Base Flood Elevation at the site.
8. All signs, other than the manufacturer's or installer's identification, appropriate warning signs, or owner identification on any WES structure that is visible from any public road shall be prohibited.
9. All electrical wires associated with a WES, other than wires necessary to connect the wind turbine to its base and to overhead collection lines must be buried underground.
10. A WES tower shall be designed and installed so as to not provide step bolts or a ladder readily accessible to the public for a minimum height of eight feet (8') above adjacent grade.
11. A WES shall not be artificially lighted unless such lighting is required by the Federal Aviation Administration.
12. A WES shall not generate more than sixty dBA of sound, as measured at the closest portion of the nearest inhabited dwelling when the wind speed is less than twenty (20) miles per hour.
13. A WES shall remain painted or finished in the color or finish that was originally applied by the manufacturer unless otherwise stipulated in the CUP.
14. A WES shall comply with all applicable state and local construction and electrical codes and the National Electrical Code.
15. A WES shall not be installed until evidence has been provided to the Planning Coordinator that the appropriate utility company has been informed of the applicant's intent to install an interconnected WES. Off-grid systems shall be exempt from this requirement.
16. A WES shall not be installed until evidence has been provided to the Planning Coordinator that all communication tower operators within two (2) miles of the proposed WES location have been informed of the applicant's intent to install a WES.

**CITY OF BOX ELDER ORDINANCE #478  
PLANNING AND ZONING REGULATIONS**

17.A WES that is out-of-service for a continuous twelve (12) month period will be deemed to have been abandoned. An abandoned WES shall be deemed a public nuisance.

**SECTION 8 – NONCONFORMING USE OF LAND OR STRUCTURES.**

- A. Any otherwise lawful use of land or structure existing at the time of adoption of these regulations may be continued, maintained, and repaired except as otherwise provided.
- B. Except as otherwise required by law, a structure or use legally established prior to the adoption date of this Ordinance may be maintained unchanged. In other than criminal proceedings, the owner, occupant, or user shall have the burden to show that the structure, lot, or use was lawfully established.
- C. Where there are existing recorded lots which do not meet minimum lot size requirements and are under separate ownership, including lot area, lot width and lot length, residential buildings may be constructed as long as side yards are not less than five feet (5') wide and the rear yard is not less than fifteen feet (15') deep. Front yard requirements must be met. However, no recorded lot shall be divided into two or more lots unless the resulting lots conform to all size regulations of the Zoning District in which the lot is located.
- D. Any lot or structure, or portion thereof, occupied by a nonconforming use, which is or hereafter becomes vacant and remains unoccupied by a nonconforming use for a period of six (6) months shall not thereafter be occupied, except by a use that conforms to this Ordinance.
- E. The right to operate and maintain any nonconforming use shall terminate whenever the structure or structures in which the nonconforming use is operated and maintained are damaged, destroyed, or become obsolete or substandard beyond the limits hereinafter established for the termination of nonconforming structures.
- F. Except as provided, any nonconforming use shall not be enlarged or extended. A nonconforming structure in which only permitted uses are operated may be enlarged or extended with approved permits if the enlargement or extension can be made in compliance with all of the provisions of this Ordinance established for structures in the Zoning District in which the nonconforming structure is located.
- G. A nonconforming structure damaged in any manner and from any cause whatsoever to the extent of not more than fifty percent (50%) of its replacement cost may be restored, provided restoration is completed within one (1) year of the date of damage.
- H. Maintenance, repairs, and structural alterations may be permitted to be made to nonconforming structures or to a building housing a nonconforming use with approved permits.

## **Meade County's Wind Generator Ordinance 32**



# **WIND GENERATOR ORDINANCE 32**

## **ARTICLE 1 PURPOSE**

### **PURPOSE**

The purpose of the Ordinance is to provide for the construction and permitting of small residential, rural and commercial Wind Generator Facilities in the unincorporated areas of Meade County, subject to reasonable conditions that will protect the public health and safety.

## **ARTICLE II DEFINITIONS**

**“Applicant”** is the person or entity filing an application under this Ordinance.

**“Hub Height”** means the distance measured from the surface of the tower foundation to the height of the Wind Turbine hub, to which the blade is attached.

**“Commercial Wind Generator Facility”** (Wind Farm) means an electric generating facility, placed on 73 acres or more, whose main purpose is to supply electricity; consisting of one or more Wind Turbines and other accessory structures and buildings, including substations, meteorological towers, electrical infrastructure, transmission lines and other appurtenant structures and facilities.

**“Engineering Certification”** – For all commercial wind generators or meteorological towers, the manufacturer’s engineer or another qualified engineer shall certify that the turbine, foundation and tower design of the commercial wind generators or meteorological towers is within accepted professional standards, given local soil and climate conditions.

**“Facility Owner”** means the entity or entities having an equity interest in the Wind Generator Facility, including their respective successors and assigns.

**“Meteorological Tower”**: For the purposes of this Wind Energy Conversion System Ordinance, meteorological towers (temporary or permanent) are those towers which are erected primarily to measure wind speed and directions plus other data relevant to siting or proposed WECS. Meteorological towers do not include towers and equipment used by airports, the South Dakota Department of Transportation, National Weather Service or other similar applications to monitor weather conditions. Meteorological Towers, whether temporary or permanent must meet FAA requirements.

**“Non-Participating Landowner”** means any landowner except those on whose property all or a portion of a Wind Generator Facility is located pursuant to an agreement with the Facility Owner or Operator.

**“Operator”** means the entity responsible for the day-to-day operation and maintenance of the Wind Generator Facility.

**“Occupied Building”** means a residence, school, hospital, church, public library or other building used for public gathering that is occupied or in use when the permit application is submitted.

**“Rural Wind Turbines”** small to medium size wind energy systems installed for on-site use on agricultural property for supplying electricity or other uses, not to exceed 120 feet in height.

**“Small Residential Wind Turbine”** small wind energy systems installed to reduce the on-site consumption of utility supplied electricity. Tower height for property sizes between 3+ acres to 9+ acres the tower height shall be limited to 60 ft. and property sizes of greater than 10 acres up to 39 acres shall have a maximum tower height of 80 ft.

**“Small Wind Turbine System”** A wind energy conversion system consisting of a wind turbine, a tower, and associated control or conversion electronics, which has a rated capacity of not more than 10 kW and which is intended to primarily reduce on-site consumption of utility power.

**“Turbine Height”** means the distance measured from the surface of the tower foundation to the highest point of the turbine rotor plane.

**“Tower Height”**: The height above grade of the fixed portion of the tower, excluding the wind turbine itself.

**“Wind Turbine”** means a wind Generator conversion system that converts wind Generator into electricity through the use of a wind turbine generator, and includes the nacelle, rotor, tower, and pad transformer, if any.

**“WECS” - Wind Energy Conversion System:** An electrical generating facility comprised of one or more wind turbines and accessory facilities, including but not limited to: power lines, transformers, substations and meteorological towers that operates by converting the kinetic energy of wind into electrical energy. The energy may be used on-site or distributed into the electrical grid. The term WECS is synonymous for wind turbine or wind generator.

### **ARTICLE III APPLICABILITY**

A. This Ordinance applies to all Wind Generators, Wind Generator Facilities and temporary or permanent Meteorological Towers proposed to be constructed or placed after the effective date of the Ordinance, and also applies to stand-alone Wind Turbines constructed primarily for residential or farm use.

B. Wind Generators and Wind Generator Facilities including Meteorological Towers constructed or placed prior to the effective date of this Ordinance shall not be required to

meet the requirements of this Ordinance; Provided that any physical modification to an existing Wind Generator Facility that materially alters the size, type and number of Wind Turbines or other equipment shall require a permit under this Ordinance.

## **SECTION 1 PERMITTED USE**

A Wind Generator Facility or Meteorological Tower shall be considered a Permitted Use if approved by the Meade County Governing Board with proper ~~permits and~~ documentation required by this Ordinance.

### **1. PERMIT REQUIREMENT**

A. No Wind Generator Facility, an addition of a Wind Turbine to an existing Wind Generator Facility or Meteorological Tower shall be constructed or located within the unincorporated boundaries of Meade County unless a permit has been issued to the Facility Owner or Operator approving construction of the facility under this Ordinance.

B. The permit application or amended permit application shall be accompanied with a fee in the amount of \$ ~~85.00~~, \$125.00, for all Commercial Wind Generator Facilities. Rural (non-commercial) Wind Turbines and Small Residential Wind Turbines are exempt from permit fees; however, all wind generators require a building permit for the entire structure and equipment, not to exceed \$1,000 per unit.

C. Any physical modification to an existing and permitted Commercial Wind Generator Facility that materially alters the size, type and number of Wind Turbines or other equipment shall require a permit modification under this Ordinance. Like-kind replacements shall not require a permit modification.

D. Commercial Wind Generator Facilities and Meteorological Towers shall only be placed on agricultural property of 73 acres or more.

### **2. PERMIT APPLICATION**

A. The permit application shall demonstrate that the proposed **Commercial Wind Generator Facility, (WCES) or Meteorological Tower**, will comply with this Ordinance.

B. The application shall contain the following:

1. A narrative describing the proposed Commercial Wind Generator Facility or WECS, including an overview of the project; the project location; the approximate generating capacity of the Commercial Wind Generator Facility; the approximate number, representative types and height or range of heights of Wind Turbines to be constructed, including their generating capacity, dimensions and respective manufacturers, and a description of ancillary facilities. Meteorological Tower Application must include a

decommissioning time table for data collection. Temporary Meteorological Towers will be permitted for a maximum duration of 5 years.

2. An affidavit or similar evidence of agreement between the property owner and the Facility Owner or Operator demonstrating that the Facility Owner or Operator has the permission of the property owner to apply for necessary permits for construction and operation of the Commercial Wind Generator Facility or a Meteorological Tower.

3. Identification of the properties on which the proposed Commercial Wind Generator Facility or Meteorological Tower will be located, and the properties adjacent to and within 1,000 foot radius where the Commercial Wind Generator Facility will be located.

4. A site plan showing the planned location of each Wind Turbine (or Meteorological Tower), property lines, setback lines, access road and turnout locations, substation(s), electrical cabling from the Commercial Wind Generator Facility to the substation(s), ancillary equipment, buildings, and structures, including meteorological towers, associated transmission lines, and layout of all structures within the geographical boundaries of any applicable setback.

5. Documents related to decommissioning of all equipment.

6. Other relevant studies, reports, certifications and approvals as may be reasonably requested by Meade County to ensure compliance with this Ordinance.

7. Provide a copy of the agreement between the Facility Owner and the affected local power company, (if applicable).

C. Within (30) days after receipt of a permit application, Meade County Director of Equalization & Planning or his or her designee will determine whether the application is complete and advise the applicant accordingly.

D. The applicant must appear before the Governing Board at the regularly scheduled meeting. The applicant shall participate in the hearings and be afforded an opportunity to present the project to the public and the Meade County Governing Board of Commissioners, and answer questions about the project. The public shall be afforded an opportunity to ask questions and provide comment on the proposed project.

1. Neighbors within a 1000 feet of the property of the proposed wind generator or Meteorological Tower must be Notified by certified mail at least 14 calendar days in advance of any Meade County Governing Board of Commissioners Meeting along with a return receipt requested, of the proposed construction which notice shall include a map of the location of the proposed construction and also:

i.) Given the telephone number and address of the facility owner or operator; and

- ii) Informed of his or her right to participate in the Meade County Planning Commission's proceedings ~~of~~ and the Meade County Governing Board of Commissioners meeting on the application.
- 2. A list of the property owners who received the notice, together with copies of the certified receipts for the notice sent to the listed property owners.
- E. Within (30) days after the close of hearing or at the hearing of the Governing Board, Meade County will make a decision whether to issue or deny the permit application.
- F. Throughout the permit process, the Applicant shall promptly notify Meade County of any changes to the information contained in the permit application.
- G. Changes to the pending application that do not materially alter the initial site plan may be adopted without a renewed public hearing.

## **SECTION 2 DESIGN AND INSTALLATION OF COMMERCIAL WIND GENERATOR FACILITIES.**

### A. Design Safety Certification

The design of the Wind Generator Facility shall conform to applicable industry standards, including those of the American National Standards Institute. The Applicant shall submit an Engineering Certification for all commercial wind generators or meteorological towers, the manufacturer's engineer or another qualified engineer shall certify that the turbine, foundation and tower design of the commercial wind generators or meteorological tower is within accepted professional standards, given local soil and climate conditions. ~~certificates of design compliance obtained by the equipment manufacturers from Underwriters Laboratories, Det Norske Veritas, Germanischer Lloyd Wind Energies, or other similar certifying organizations.~~

### B. ~~Uniform~~ 2006 International Building Code

To the extent applicable, the Wind Generator Facility shall comply with the ~~1997 Uniform~~ 2006 International Building Construction Code.

### C. Controls and Brakes

All Wind Generator Facilities shall be equipped a electronic shut down or with a redundant braking system. This includes both aerodynamic over-speed controls (including variable pitch, tip, and other similar systems) and/or mechanical brakes. Mechanical brakes shall be operated in a fail-safe mode. Stall regulation shall not be considered a sufficient braking system for over-speed protection.

### D. Electrical Components

All electrical components of a Commercial Wind Generator Facility, Rural Wind Generator and Small Residential Wind Turbines shall conform to the National Electric

Code and to relevant and applicable local, state and national codes, including the National Electric Code, and relevant and applicable international standards; along with the standards set forth by the affected local power company.

E. Visual Appearance; Power Lines

1. Wind Turbines shall be a non-obtrusive color such as white, off-white or gray.
2. Wind Generator Facilities shall not be artificially lighted, except to the extent required by the Federal Aviation Administration or other applicable authority that regulates air safety, and/or the Meade County Governing Board of Commissioners.
3. Wind Turbines shall not display advertising, except for reasonable identification of the turbine manufacturer, Facility Owner and Operator.
4. On-site transmission and power lines between Wind Turbines shall, to the maximum extent practicable, be placed underground.

F. Warnings

1. A clearly visible warning sign concerning voltage must be placed at the base of all pad-mounted transformers and substations.
2. Visible, reflective, colored objects, such as flags, reflectors, or tape shall be placed on the anchor points of guy wires and along the guy wires up to a height of ten feet from the ground.
3. Climb Prevention/Locks
  - a. Wind Turbines and meteorological towers shall not be climbable up to fifteen (15) feet above ground surface.
  - b. All access doors to Wind Turbines and/or meteorological towers and electrical equipment shall be locked or fenced, as appropriate, to prevent entry by non-authorized persons.

G. Decommissioning

Any and all WECS (Wind Generator Systems) or meteorological towers which are not used for twelve successive months shall be deemed abandoned and shall be dismantled, including excavating and removing concrete footings to a depth of 4 feet and all materials must be removed from the property at the expense of the facility owner or property owner.” Facility owners of Commercial Wind Generator Facilities must provide a copy of financial surety and or an insurance certificate which will cover the decommissioning of each WECS at the facility or wind farm, to the Meade County Department of Equalization & Planning. For every Wind Generator System (WECS) and any Meteorological Tower (including Temporary Meteorological Tower) that is

decommissioned or removed within Meade County, the facility or tower operator and/or owner must notify in writing to the Meade County Director of Equalization and Planning their intent to decommission or remove the System or Tower, within 14 calendar days of the date the equipment and/or tower is to be decommission or removed by certified mail and must include a copy of the permit along with the written notification.

### **SECTION 3 SETBACKS FOR COMMERCIAL WIND GENERATOR FACILITIES AND METEOROLOGICAL TOWERS.**

#### **A. Occupied Buildings**

1. Wind Turbines shall be set back from the nearest Occupied Building a distance not less than 1.1 times the Turbine Height. The setback distance shall be measured from the center of the Wind Turbine base to the nearest point on the foundation of the Occupied Building.

2. Wind Turbines or meteorological towers shall be set back from the nearest Occupied Building located on a Non-participating Landowner's property a distance of not less than five (5) times the Hub Height, (or in the case of a meteorological tower, the entire height) as measured from the center of the Wind Turbine base to the nearest point on the foundation of the Occupied Building.

B. Property lines: All Wind Turbines shall be set back from the nearest property line a distance of not less than the normal setback requirements per Ordinance No. 20 or 1.1 times the Turbine Height or the total height of the meteorological tower, whichever is greater. The setback distance shall be measured to the center of the Wind Turbine or the meteorological tower base.

C. Public Roads: All Wind Turbines shall be set back from the nearest public road a distance of not less than 1.1 times the Turbine Height or for meteorological towers, the total height of the tower, as measured from the right-of- way line of the nearest public road to the center of the Wind Turbine or meteorological tower base or the minimum setbacks stated in Ordinance No. 20, whatever is greater.

D. Wind Generator Facilities / Wind Farms and meteorological towers must comply with applicable FAA regulations, including any necessary approvals for installations close to commercial or private airports including Ellsworth Air Force Base.

### **SECTION 4 WAIVER OF SETBACKS FOR COMMERCIAL WIND GENERATOR FACILITIES OR COMMERCIAL WECS.**

A. Agricultural Property owners may waive the setback requirements in 9(A)(2) (Occupied Buildings on Non-participating Landowner's property) by signing a waiver

that sets forth the applicable setback provision(s) and the proposed changes if placed on agricultural property of 73 acres or more.

B. The written waiver shall notify affected property owner(s) of the setback required by this Ordinance, describe how the proposed Commercial Wind Generator Facility or a meteorological tower is not in compliance, and state that consent is granted for the Commercial Wind Generator Facility or meteorological towers to not be setback as required by this Ordinance.

C. Upon application, Meade County may waive the setback requirement for public roads for good cause.

## **SECTION 5 USE OF PUBLIC ROADS FOR COMMERCIAL WIND GENERATOR FACILITIES.**

A. The Applicant shall identify all state and local public roads to be used within Meade County to transport equipment and parts for construction, operation or maintenance of the Commercial Wind Generator Facility.

B. The Meade County Highway Superintendent or a qualified third party engineer hired by Meade County shall document road conditions prior to construction. The Meade County Highway Superintendent or a third party engineer shall document road conditions again thirty (30) days after construction is complete or as weather permits.

C. Meade County Governing Board ~~may~~ will require that the road(s) to be used, be bonded by the applicant.

D. Any road damage caused by the applicant or its contractors shall be promptly repaired at the applicant's expense and repairs must be approved by Meade County Highway Superintendent.

E. The Applicant shall demonstrate that it has appropriate financial assurance to ensure the prompt repair of damaged roads either through a bond or a irrevocable letter of credit.

## **SECTION 6 LOCAL EMERGENCY SERVICES FOR COMMERCIAL WIND GENERATOR FACILITIES.**

A. The Applicant shall provide a copy of the project summary and site plan also to local emergency services, including volunteer Fire Department(s).

B. Upon request, the Applicant shall cooperate with Meade County Emergency Management and other emergency services to develop and coordinate implementation of an emergency response plan for the Commercial Wind Generator Facility or meteorological tower.

## **SECTION 13 REGULATIONS FOR RURAL (NON-COMMERCIAL) AND SMALL RESIDENTIAL WIND TURBINES**

**A. Purpose:** It is the purpose of this regulation to promote the safe, effective and efficient use of small wind energy systems installed to reduce the on-site consumption of utility supplied electricity.

**B. Permitted Use:** Small wind energy systems (WECS) shall be a permitted use on Agricultural land and in Medium and Rural Density subdivision classifications (per Ordinance No. 20) where structures are allowed; subject to certain requirements as set forth below:

- 1 Tower Height: For property sizes between 3+ acres to 9+ acres the tower height shall be limited to 60 ft. and property sizes of greater than 10 acres up to 39 acres shall have a maximum tower height of 80 ft. and property from 40 acres or more for Rural Wind Generators, the maximum tower height is 120 ft.
- 2 Set-back: No part of the wind system structure, including guy wire anchors, may extend closer than 1.1 times the hub height in feet to the property boundaries or structures of the installation site.
- 3 Noise: Small wind energy systems shall not exceed 55 dBA for lot sizes of 3+ to 9+ acres, as measured at the closest neighboring inhabited dwelling. The level, however, may be exceeded during short-term events such as utility outages and/or severe wind storms.
- 4 Approved Wind Turbines: Small wind turbines and rural wind generators must have been approved under the Emerging Technologies program recognized by the American Wind Energy Association.
- 5 Compliance with 1997 Uniform-2006 International Building Code: Building permit applications for small and rural wind energy systems shall be accompanied by standard drawings of the wind turbine structure, including the tower, base, and footings.
- 6 Compliance with FAA Regulations: Small and rural wind energy systems must comply with applicable FAA regulations, including any necessary approvals for installations close to airports.
- 7 Compliance with National Electric Code: Building permit applications for small and rural wind energy systems shall meet the National Electrical Code and the local power companies requirements.
- 8 Utility Notification: No small or rural wind energy system shall be installed until evidence has been given that the utility company has been informed of the customer's intent to install an interconnected customer-owned generator. Off-grid systems shall be exempt from this requirement.
- 9 Evidence: that the proposed height of the wind turbine tower does not exceed the height recommended by the manufacturer or distributor of the system.

## **SECTION 14 REMEDIES**

A. It shall be unlawful for any person, firm, or corporation to violate or fail to comply with or take any action which is contrary to the terms of the ordinance, or any permit issued under the ordinance, or cause another to violate or fail to comply, or to take any action which is contrary to the terms of the ordinance or any permit issued under the ordinance.

B. If Meade County determines that a violation of the Ordinance or the permit has occurred; Meade County shall provide written notice to any person, firm, or corporation alleged to be in violation of this Ordinance or permit. If the alleged violation does not pose an immediate threat to public health or safety, Meade County and the parties shall engage in good faith negotiations to resolve the alleged violation. Such negotiations shall be conducted within thirty (30) days of the notice of violation.

C. If after thirty (30) days from the date of the notice of violation Meade County determines, in its discretion, that the parties have not resolved the alleged violation; Meade County may institute civil enforcement proceedings or any other remedy at law to ensure compliance with the Ordinance or permit.

## **ARTICLE IV: VARIANCES**

### **Section 1: VARIANCE PROCEDURE**

The Meade County Board of Commissioners shall hear and decide appeals and requests for variances from the terms of this ordinance. The board shall base its determination on technical justifications, and has the right to attach such conditions to variances as it deems necessary to further the purposes and objectives of this ordinance.

#### **A. Conditions**

In granting variances, modifications, and approvals for the wind generator application, the Governing Board of Commissioners may require such conditions as will, in its judgment, secure substantially the objectives or the standards or requirements so varied, modified, or approved. In granting any variance, the Governing Board of Commissioners shall prescribe conditions that it deems necessary to, or desirable for the public interest. These conditions may include, without being limited to personal, surety, performance, or maintenance bonds, affidavits, covenants, or other legal instruments.

In making its findings, as required herein, the Governing Board of Commissioners shall take into account the nature of the proposed use of

land and the existing use of land in the vicinity, the number of persons to reside or work near the proposed wind generator facility site and the probable effect of the proposed wind generator facility upon living conditions in the vicinity.

That the variance is necessary for the preservation and enjoyment of a substantial property right of the petitioner;

That there are special circumstances or conditions affecting said property such that the strict application of the provisions of this Ordinance would deprive the applicant of the reasonable use of his/her land

#### B. Application Required

Applications for any such variance shall be submitted in writing by the Facility Owner and/or property owner at the time when the wind generator facility application is filed for consideration by the Governing Board of Commissioners stating fully and clearly all facts relied upon by the petitioner and shall be supplemented with maps, plans or other additional data which may aid the Governing Board of Commissioners in the analysis of the proposed wind generator project. The plans for the proposed wind generator or meteorological tower shall include such covenants, restrictions other legal provisions necessary to guarantee the full achievement of the proposed plan.

Applications for variance shall be considered with the wind generator facility application, and the Meade County Governing Board of Commissioners will render its decision at the hearing or no later than thirty (30) days after the hearing at which the preliminary package and request for a variance was submitted. All variances must be approved by the Governing Board.

#### C. Requirements for granting Variance

The Meade County Governing Board shall have the authority to give a Variance, the person claiming the Variance has the burden of showing:

That the granting of the Variance will not be contrary to the public interest;

That the literal enforcement of the Ordinance will result in unnecessary hardship;

That by granting the Variance contrary to the provisions of the Ordinance the spirit of the ordinance will be observed; and

That by granting the Variance, justice will be done.

**D. Report to the County Board**

For each application for a Variance, the Facility Owner and/or property owner will coordinate with the Administrative Assistant to the Governing Board to set a date and time for a public hearing regarding a variance request.

**Section 2: PENALTIES FOR VIOLATION OF ORDINANCE NO. 32**

A: Violation of this ordinance shall be a Class 2 misdemeanor, and each day's violation shall constitute a separate offense. In addition to the criminal penalty set forth above, the Governing Board of County Commission may immediately suspend all of the permits or the construction activities of a wind generator facility which does not meet the requirements of the Meade County Wind Generator Ordinance. If a suspension occurs, the reasons for such suspension shall be clearly stated by the Governing Board. The suspension on wind generator facility permits or construction activities shall be lifted by the Governing Board upon satisfactory approved that the reasons which led to the suspension have been remedied.

**ARTICLE V: SEVERABILITY AND SEPARABILITY**

Should any Article, Section, Sub-section or Provision of the Wind Generator Ordinance be declared by a court of competent jurisdiction to be invalid or unconstitutional, such decision shall not affect the validity or constitutionality of the Wind Generator Ordinance as a whole or any part thereof other than the part so declared to be invalid or unconstitutional.

## ARTICLE VI: EFFECTIVE DATE

Wind Generator Ordinance No. 32 shall take effect and be in force from and after 20 days from the date of completed publication. Adopted this \_\_\_\_ day of \_\_\_\_\_, 2008.

Dated at Sturgis, South Dakota, this \_\_\_\_ day of \_\_\_\_\_, 2008.

Chairman Bob Mallow \_\_\_\_\_  
Meade County Commissioner

Attested: \_\_\_\_\_

Lisa Schieffer, Meade County Auditor

**First Reading: August 2nd, 2007**  
**Second Reading: October 3<sup>rd</sup>, 2007**  
**Adopted: October 3<sup>rd</sup>, 2007**  
**Published:**  
**Effective date:**

**REVISED**  
**First Reading: October 8, 2008**  
**Second Reading: November 12<sup>th</sup>, 2008**  
**Adopted: November 12<sup>th</sup>, 2008**  
**Published:**  
**Effective date:**

# Appendix G: Noise Contours

2008 RCRA Master Plan 2005 Noise Contours

2008 RCRA Master Plan 2025 Noise Contours



## **2005 Noise Contours**

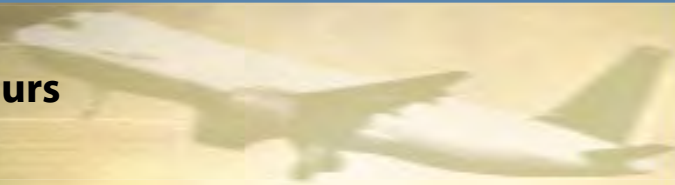
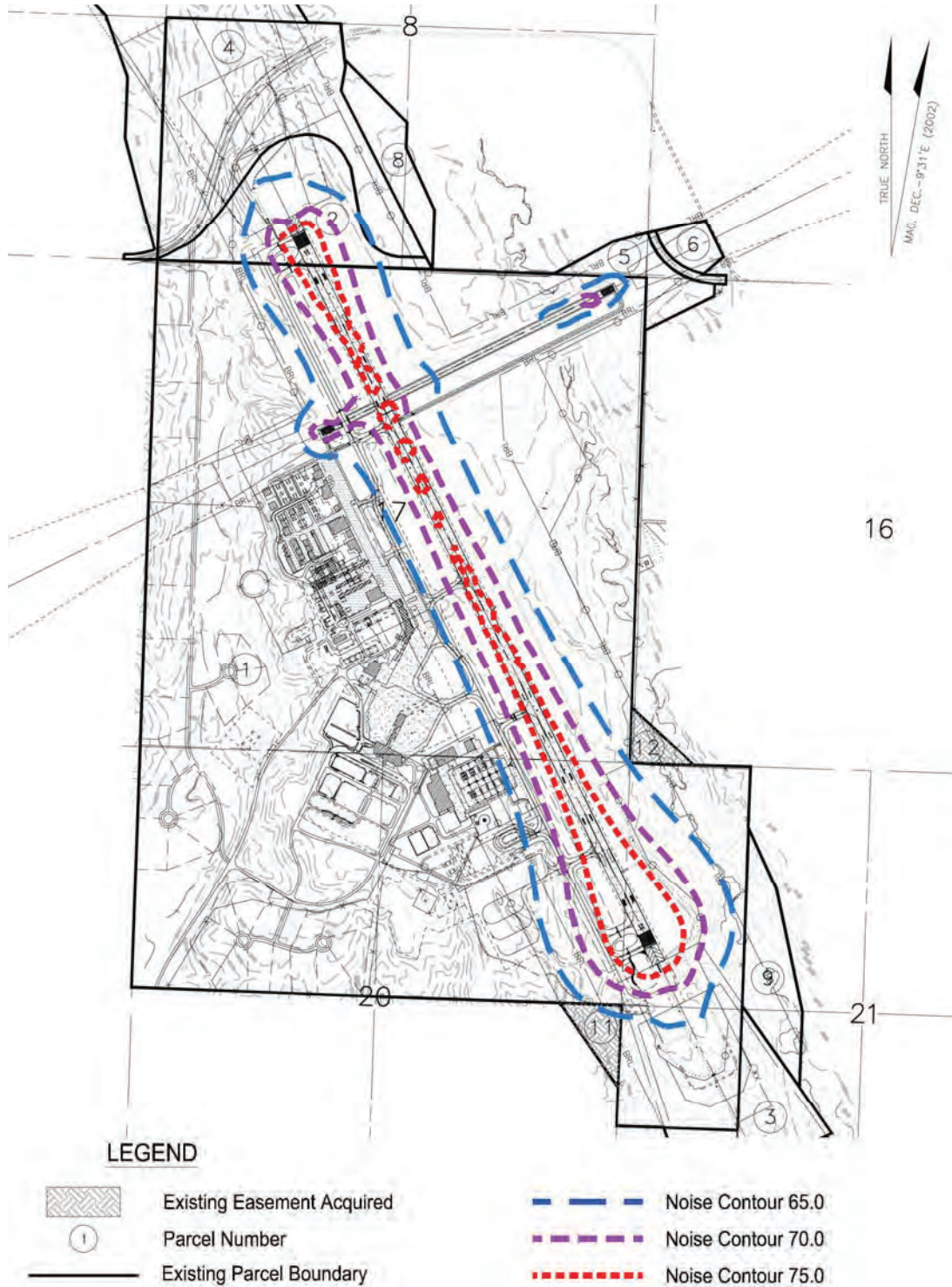


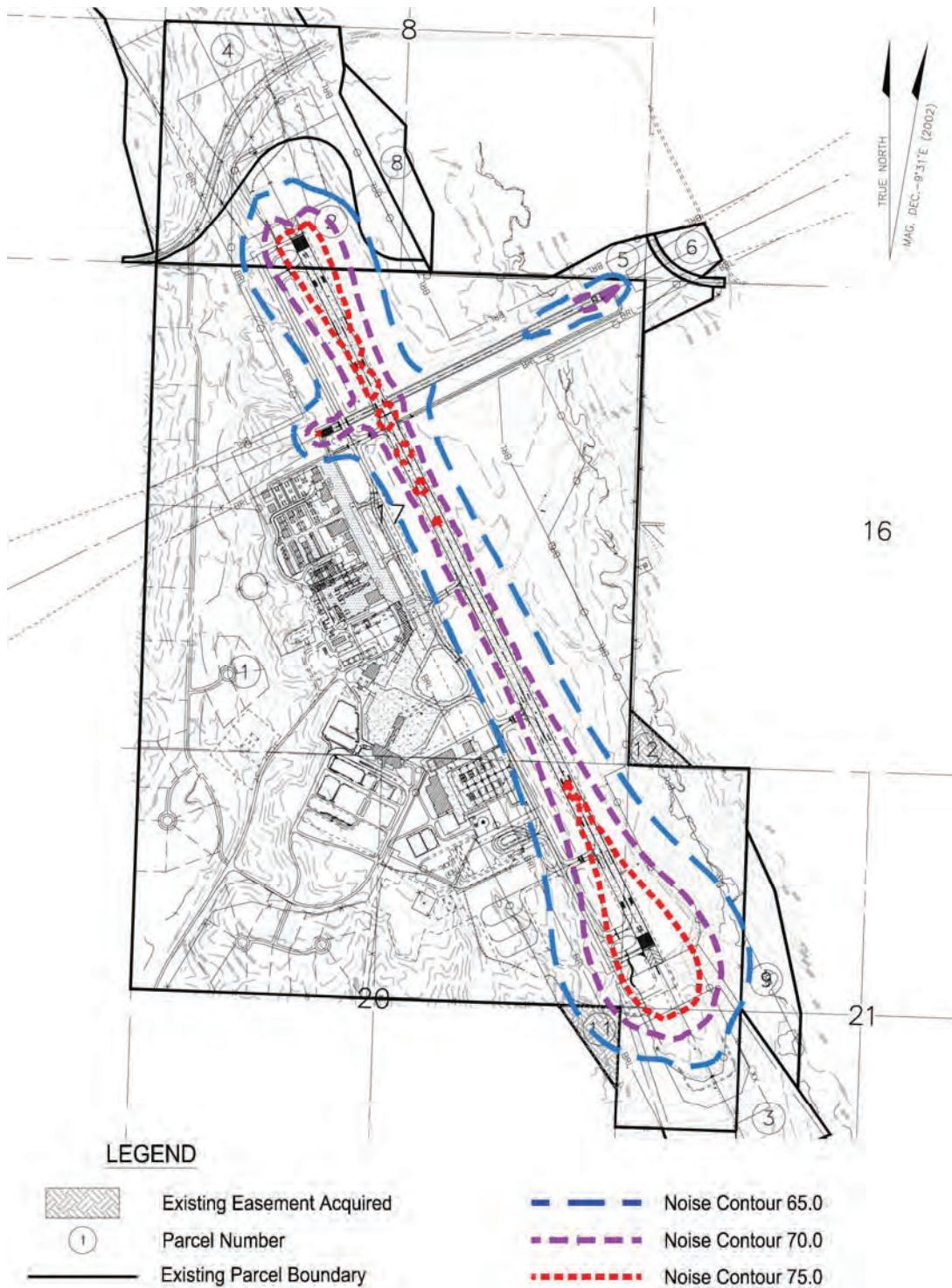
Exhibit 4-47  
EXISTING NOISE CONTOURS



## **2025 Noise Contours**



*Exhibit 4-48*  
**FUTURE NOISE CONTOURS**



# Appendix H: Safety Compatibility Zone Overlays

## Existing Land Use

- Existing Land Use Map
- Safety Compatibility Zones Overlaid on Existing Zoning Map

## Airport Neighborhood Future Land Use

- Airport Neighborhood Future Land Use Plan
- Airport Neighborhood Future Land Use Map
- Safety Compatibility Zones Overlaid on Airport Neighborhood Future Land Use Map

## Pennington County Future Land Use

- Pennington County's Future Land Use Map
- Safety Compatibility Zones Overlaid on Pennington County's Future Land Use Map
- Pennington County Zoning Ordinance, Sections 205 – 213

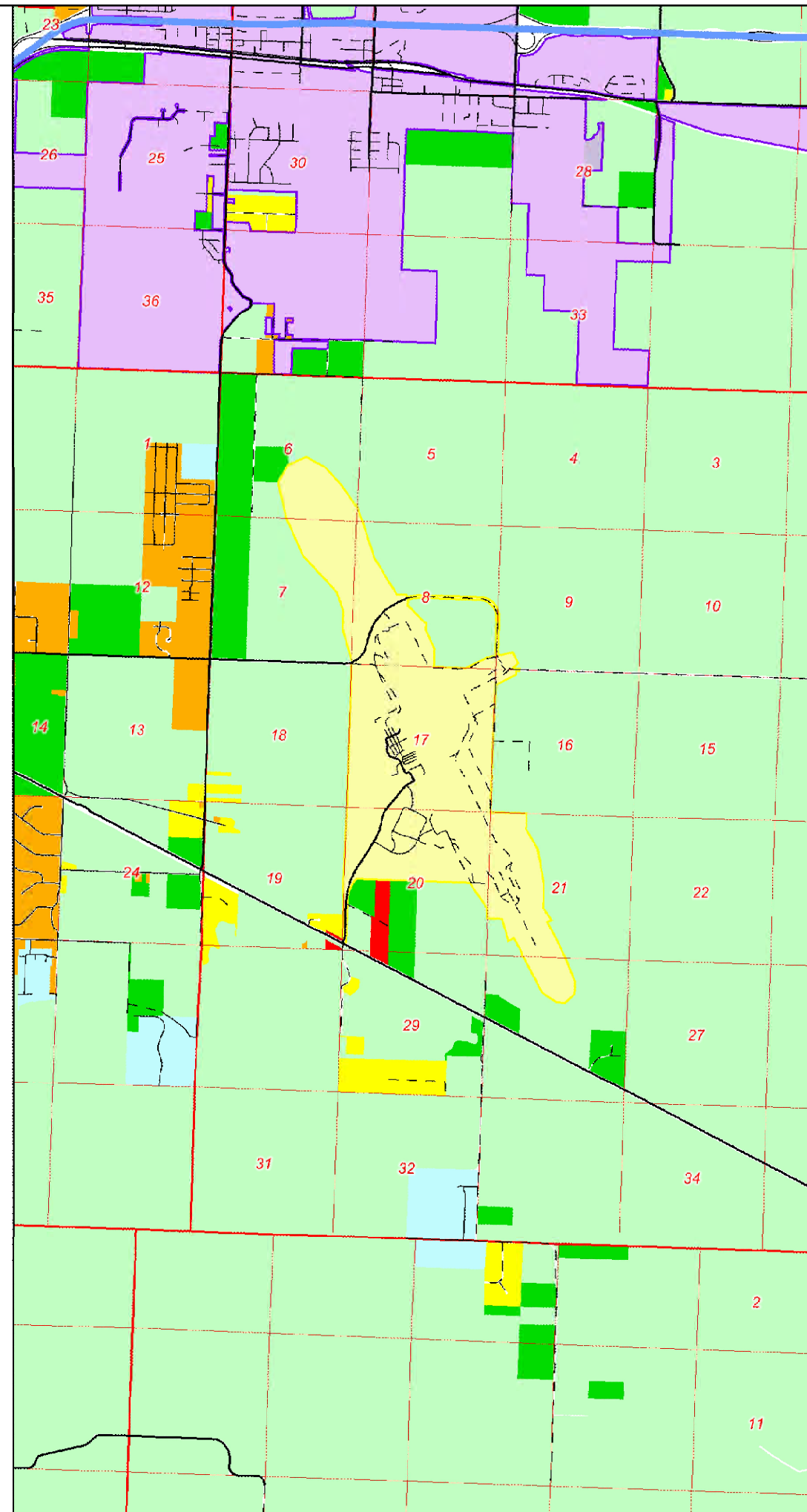


**Existing Land Use**

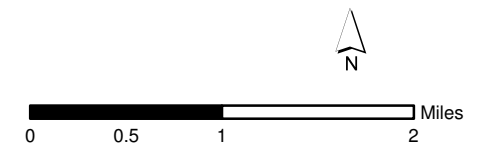


# Rapid City Regional Airport Rapid City, South Dakota

## Existing Land Use Map



- Legend**
- Roads**
- Not classified
  - Interstate
  - US Highway
  - SD Highway
  - County Highway
  - Main Road
  - Minor Arterial
  - Collector
  - Ramp
  - Paved Road
  - Unpaved Road
  - Unimproved Road
  - Trail
  - other
  - Not yet coded
- PLSS Sections**
- County Line
  - Townships
  - City Boundaries
- City Boundaries**
- Rapid City
  - Box Elder
  - New Underwood
  - Wasta
  - Wall
  - Quinn
  - Hill City
  - Keystone
- County Zoning Districts**
- General Agriculture
  - General Commercial
  - Heavy Industrial
  - Highway Services
  - Limited Agriculture
  - Low Density Residential
  - Light Industrial
  - Planned Unit Development
  - Suburban Residential
  - NOCODE



FOR PLANNING PURPOSES ONLY

PRELIMINARY

**Kadrmass  
Lee &  
Jackson**  
Engineers Surveyors  
Planners

\\airport\10509110\GIS\_2010\Maps\RapidCity\_CountyZoningMap1-6\_RCmap.mxd AES 05/13/2010

# Rapid City Regional Airport Rapid City, South Dakota

## Safety Compatibility Zones Overlaid on Existing Zoning Map

### Legend

#### Proposed Airport Land Use Zoning

- ZONE 0 = Airport Property
- ZONE 1 = Runway Protection Zone
- ZONE 2 = Inner Approach/Departure
- ZONE 3 = Circling Traffic Patterns
- ZONE 4 = Precision Flight Corridor
- ZONE 5 = Aviation Hazards



FOR PLANNING PURPOSES ONLY

## **Airport Neighborhood Future Land Use**



# **Airport Neighborhood Area**

## **FUTURE LAND USE PLAN**



in conjunction with the  
Rapid City Area Metropolitan Planning Organization  
and the  
South Dakota Department of Transportation  
and the  
U.S. Department of Transportation  
Federal Highway Administration

## **Airport Neighborhood Area**

### **Future Land Use Plan**

#### Executive Summary

The Future Land Use Plan is an indispensable tool for all sectors of the community. Local government can invest public infrastructure dollars more wisely if the location and magnitude of anticipated growth is identified. Private sector businesses can use the Plan to make more accurate growth projections and better position themselves to meet the needs of the future population. The Plan will provide developers and landowners with a clear idea of the location and type of development desired by the community thus saving time and money in assembling development plans. The Plan will enable individual citizens to be more aware of how the community and their specific neighborhoods will develop, assisting them in making more informed decisions about where to live and work.

The Airport Neighborhood Area Future Land Use Plan includes land within corporate city limits, the three-mile platting jurisdiction and the MPO planning jurisdiction. The Airport Neighborhood Area encompasses approximately 24,418 acres and is located in the eastern portion of the community. The following points summarize the intent of the Airport Neighborhood Area Future Land Use Plan.

- Residential growth patterns will increase, primarily as single family dwelling units
- Extension of infrastructure is identified to support the anticipated growth patterns
- Because South Dakota Highway 44 is an entryway corridor, General Commercial and Industrial uses have been identified along this corridor to accommodate and encourage business development.
- The Plan acknowledges the importance of the noise associated with both the Ellsworth Air Force Base and Rapid City Regional Airport flight paths.
- The Plan acknowledges the importance of protecting the Rapid City Regional Airport from encroachment by residential development.

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# AIRPORT NEIGHBORHOOD AREA FUTURE LAND USE PLAN

## Introduction

The Airport Neighborhood Area encompasses approximately 24,418 acres and is located in the eastern portion of the community. The northern limit of the Neighborhood Area is the first half section into Township 2 North. The western boundary is the western side of Sections 2, 11 and 14, Township 1 North, Range 8 East and Section 35, Township 2 North Range 8 East. The eastern boundary is the range line between Range 9 East and 10 East, which is one mile east of Caputa. The southern limit is South Dakota Highway 44. The Future Land Use Neighborhood Area Map included within this text identifies the Airport Neighborhood Area in geographic relation to the other neighborhoods in the Future Land Use Neighborhood Area.

The Airport Neighborhood Area encompasses the Rapid City Regional Airport and the southern end of the City of Box Elder. The property within the City of Box Elder corporate limits was excluded from the development of this future land use plan.

The *Rapid City Area Future Land Use Plan Overview* provides the background information used in preparing the calculations for the Airport Neighborhood Area Land Use Plan as well as describes the process in developing the Future Land Use Plan. A copy of the Plan Overview is available in the Rapid City Growth Management Department.

The Future Land Use Committee developed this Plan through significant public input in the form of Public Open Houses and private meetings with property owners of 40 acres or more. The larger land owners have the potential to dramatically affect the manner in which the Neighborhood develops, whereas owners of smaller parcels do not have as much direct influence. The Plan also reflects incorporation of portions of the *Pennington County Comprehensive Plan*.

## Neighborhood Profile

### Physical Characteristics

The Airport Neighborhood Area includes a wide variety of topography ranging from approximately 3,400 feet above mean sea level in the northwest corner of the Neighborhood area to approximately 2,925 feet in the southeast corner of the Neighborhood area near Caputa.

The Airport Neighborhood Area is significantly different than all of the other Rapid City Neighborhoods in that the Rapid City Regional Airport significantly impacts the potential

development of the surrounding property. Although a majority of the nearly 1,750 acres within the Regional Airport boundary has a future land use designation of Public within this Plan, there are substantial amounts of industrial and office/service uses within this designation. The land uses within the Regional Airport boundary are shown and described within the Airport Master Plan Update adopted by the Rapid City Common Council in late 2004.

### **Residential Characteristics**

Between 1990 and 1997, the number of dwelling units in the Airport Neighborhood Area increased by 17.1 percent. This 17.1 percent increase amounts to a 2.4 percent average annual increase in total dwelling units in the Airport Neighborhood Area, an increase of approximately 5.3 dwelling units per year.

Figure 1 below identifies the number of residential units in the US 16 Neighborhood Area. This information was taken from the 1990 U.S. Census and supplemented by approved building permits between 1990 and 1997.

**Figure 1**

***Airport Neighborhood Area  
1990 – 2004 Residential Growth***

<b><u>Dwelling Units</u></b>	<b><u>1990 U.S. Census</u></b>	<b><u>1990- 1997 Increase</u></b>	<b><u>1997 Total</u></b>
Single Family	213	37	250
Multi-Family	4	0	4
Total	217	37	254
Percent of Total in Future Land Use Neighborhood Area	0.8%	1.3%	0.8%

Source: Rapid City Growth Management Department

Group homes are included in a category other than the single family homes and the multi-family units because there are not separate kitchen facilities in the group home units. Group home units are identified as assisted living facilities, dormitories, and jails. At 1997 year end, there were no group home units in the Airport Neighborhood Area.

The information provided in Figure 1 is presented to show that significant growth in the Airport Neighborhood Area occurred after the current Rapid City Area Future Land Use Plan Overview planning period.

### **Non-Residential Characteristics**

In 1992, the Airport Neighborhood Area included no retail land uses including motels, a campground, and recreational facilities. During the five year period between 1992 and 1997, the retail land use gross square foot floor area in the Airport Neighborhood Area increased by zero square feet.

The office/service land uses in the Airport Neighborhood Area included the Rapid City Regional Airport Terminal and a repair shop outside of the Regional Airport boundary and had 84,610 gross square foot floor area in 1992, as outlined in the Plan Overview. The office/service land uses in the Area remained constant through 1997 and amounted to 2.1 percent of all total office/service land uses within the Future Land Use Neighborhood Area.

Figure 2 provides a comparison of the non-residential land uses in 1992 and 1997, as well as the Airport Neighborhood Area's percentage of the total gross square foot floor area in comparison to the Future Land Use Neighborhood Area. Figure 2 also identifies the percentage increases for the four non-residential land use categories.

**Figure 2**

**Airport Neighborhood Area  
Non-Residential Land Use  
1992 and 1997 Total Gross Square Foot Floor Area**

	1992		1997		1992-1997
	Gross Sq. Ft. Floor Area	Percent of Total	Gross Sq. Ft. Floor Area	Percent of Total	Percentage Change
Retail Land Uses	0	0.00%	0	0.00%	0.00%
Office/Service Land Uses	84,610	2.28%	84,610	2.12%	0.00%
Industrial Land Uses	192,256	3.85%	208,726	3.63%	8.57%
Public Land Uses	151,503	8.70%	151,503	8.07%	0.00%

Source: Rapid City Growth Management Department

## Existing Land Use Profile

To identify future land uses, it is first essential to determine the existing land uses within a neighborhood area. There are eight (8) residential and six (6) non-residential categories of uses identified in this Neighborhood. Single family residential, multiple family residential, group homes, and mobile homes are evaluated based on the number of units. Retail, office/service, industrial and public uses are evaluated based on the gross square foot floor area.

Figure 3a below identifies the existing uses according to various land use categories for **platted property**. Figure 3b below identifies the existing uses according to various land use categories for **unplatted property**. Each category, i.e., residential use, commercial use, industrial use, and public use is further subcategorized to provide the basis for anticipated density information. These designations correspond to the future land use designations identified on Figure 4, the Airport Neighborhood Area Future Land Use Map.

**Figure 3a**

**Airport Neighborhood Area  
Existing Land Use Compilation for PLATTED Property**

Area Wide  Proposed Land Use	Existing <b>OCCUPIED</b> Platted Land					
	Existing Occupied Platted Parcels	Gross Sq Ft Floor Area	SF Dwell Units	MF Dwell Units	Group Homes	Mobile Homes
<b><u>Residential Uses</u></b>						
Low Density Residential	150.46	8,280	148	0	0	119
Medium Density Residential	5.33	0	3	0	0	0
High Density Residential	34.28	0	2	0	0	38
Planned Residential Development 1.5 du/ac	0.00	0	0	0	0	0
Planned Residential Development 1 du/ac	5.68	0	18	0	0	0
Planned Residential Development 1 du/3 ac	29.65	0	9	0	0	3
Planned Residential Development 1 du/10 ac	201.55	280	3	0	0	18
Rural Reserve (1 du/40 ac Maximum)	104.90	0	7	0	0	0
<b><u>Commercial Uses</u></b>						
Business Park	0.00	0	0	0	0	0
Light Industrial	0.00	0	0	0	0	0
Neighborhood Commercial	0.00	0	0	0	0	0
Office Commercial	0.00	0	0	0	0	0
General Commercial						
with Planned Commercial Development	4.21	0	2	4	0	16
<b><u>Other Uses</u></b>						
Public	98.72	4,800	0	0	0	0
Public/Airport	3.47	84,610	0	0	0	0

**Figure 3b**

**Airport Neighborhood Area  
Existing Land Use Compilation for UNPLATTED Property**

Area Wide  Proposed Land Use	Existing Occupied Unplatted Land					
	Existing Occupied Unplatted Parcels	Gross SqFt Floor Area	SF Dwell Units	MF Dwell Units	Group Homes	Mobile Homes
<b><u>Residential Uses</u></b>						
Low Density Residential	1,124.76	0	24	0	0	16
Medium Density Residential	0.00	0	0	0	0	0
High Density Residential	0.00	0	0	0	0	0
Planned Residential Development 1.5 du/ac	40.54	0	1	0	0	0
Planned Residential Development 1 du/ac	159.94	0	2	0	0	1
Planned Residential Development 1 du/3 ac	285.49	0	1	0	0	1
Planned Residential Development 1 du/10 ac	618.3	0	7	0	0	8
Rural Reserve (1 du/40 ac Maximum)	2,027.00	0	20	0	0	17
<b><u>Commercial Uses</u></b>						
Business Park	0.00	0	0	0	0	0
Light Industrial	157.15	0	1	0	0	0
Neighborhood Commercial	0.00	0	0	0	0	0
Office Commercial	0.00	0	0	0	0	0
General Commercial						
with Planned Commercial Development	49.87	0	2	0	0	2
<b><u>Other Uses</u></b>						
Public	0	0	0	0	0	0
Public/Airport	779.51	341,510	0	0	0	0

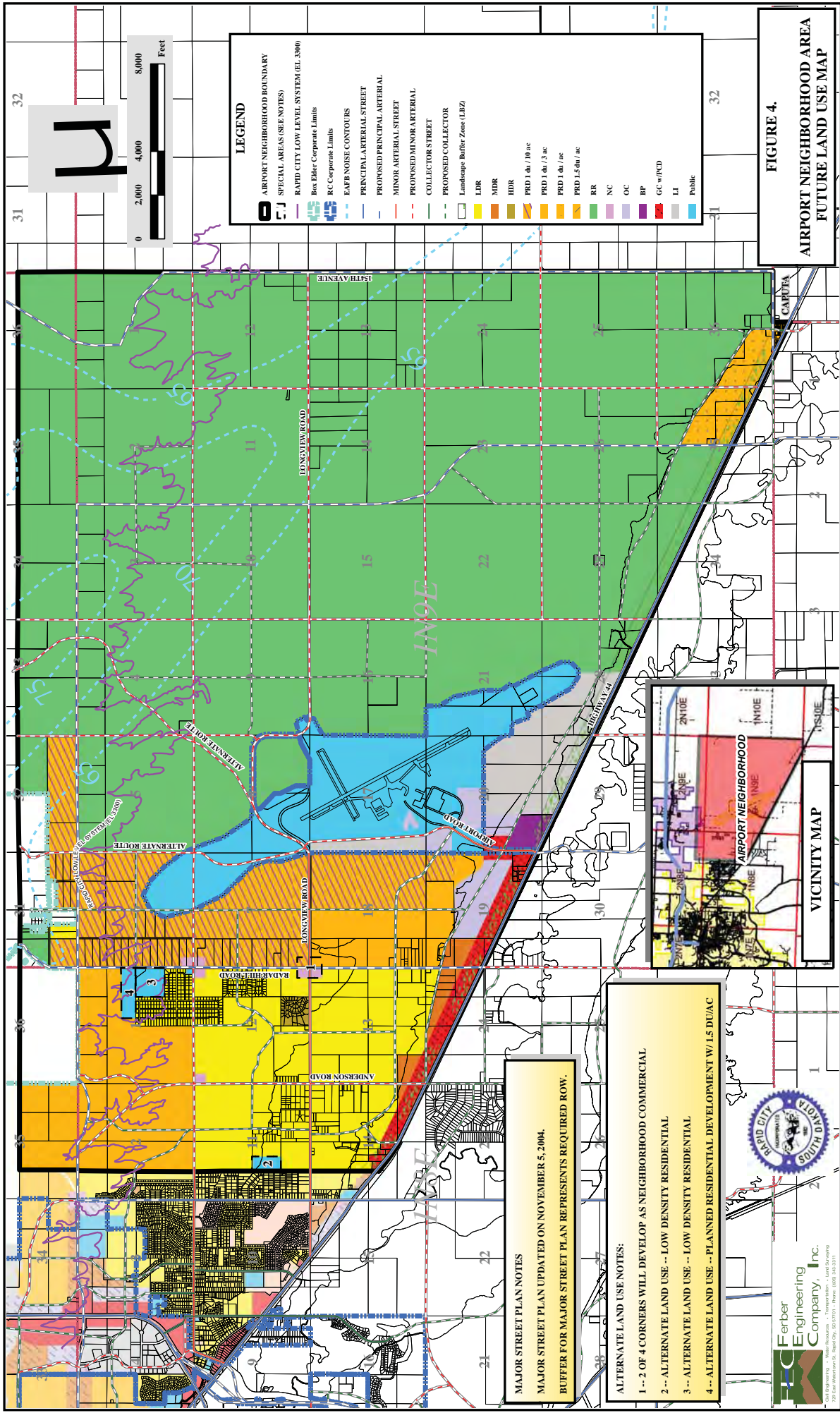


FIGURE 4.  
AIRPORT NEIGHBORHOOD AREA  
FUTURE LAND USE MAP

## Growth Profile

The Future Land Use Study Committee has identified thirteen categories within this Plan for planning purposes, which include low density residential, medium density residential, high density residential, planned residential developments, neighborhood commercial, general commercial, office commercial, business park, public, and rural reserve. These categories provide the basis of the residential, commercial, and public uses described above. *It is essential to note that the commercial and industrial categories identified in Figures 3a and 3b vary from the types of land use.* For example, the General Commercial category allows all four land uses (retail, office/service, industrial, and public).

Low density residential designations include only single family homes, typically with only one family per unit. Land areas designated for current and future residential use should be located close to City services such as fire protection, schools, and parks. Low density residential designations should have some type of buffer from commercial and/or industrial land use activities. This land designation should also have access to an adequate local road system.

Medium density residential designations include all town homes, condominiums, and apartment complexes. Land areas designated for current and future multiple residential uses should also be located close to City services and near collector or arterial streets to address neighborhood traffic safety concerns and provide a buffer between non-residential uses and single family residential uses.

Planned developments provide flexibility in land development to encourage imaginative urban design. Planned developments allow a mix of land uses that are compatible and well integrated. Planned developments provide the opportunity for an adequate review procedure to promote the proper development of those areas that may be environmentally sensitive because of steep slopes and/or unusual topography. A planned development also promotes compatibility with adjacent land use and available public facilities in terms of such factors as intensity of use, density and traffic circulation.

There are four planned residential developments within the Airport Neighborhood Area, each with a different density specification. Each planned development was identified to specifically address issues relative to the property. These four planned residential developments are identified in Figures 3a and 3b as:

- 1) Planned Residential Development 1 incorporates an anticipated density of 1.5 dwelling units per acre;
- 2) Planned Residential Development 2 includes an anticipated density of 1 dwelling units per acre;
- 3) Planned Residential Development 3 includes an anticipated density of 1 dwelling units per 3 acres;
- 4) Planned Residential Development 4 incorporates an anticipated density of 1 dwelling units per 10 acres;

Each area's density designation addresses the physical constraints of the property including steep slopes, unusual topography, access issues, water pressure concerns, land use mix and adjacent land use compatibility, and to encourage unique development potential.

There are four commercial designations within the Airport Neighborhood Area. These designations also provide flexibility in addressing slope stability, site entrances, traffic safety concerns, access issues, and commercial development diversity.

Infrastructure. The *Rapid City Area Major Street Plan* identifies several north/south and east/west arterial and collector streets. These roadways will enhance the existing road network and provide road connections, which will adequately move traffic to the major roadways. It is anticipated that utility infrastructure, including water and sanitary sewer lines, will be extended along these roadways to provide services for existing and proposed subdivisions.

School Sites. There are no existing public schools that lie within the Airport Neighborhood Area.

Parks. The Airport Neighborhood Area includes a variety of potential park sites which will provide a range of recreational opportunities. The principal criteria for future park sites include size and proximity of population to be served, access, topography, and presence of environmental factors such as drainage ways. The parks have been classified according to National Recreation and Park Association standards based on function, size and service area.

Neighborhood parks generally range in size from 5-20 acres and typically have play equipment and picnic areas, and may have playfields, depending upon need and the suitability of the land. They are often combined with other public uses such as schools. Two public areas are proposed for the Airport Neighborhood Area, one contains a road crossing of a major drainage, which could serve as a stormwater detention facility integrated into a centrally located park area. Another area is located along the west boundary of the Airport Neighborhood Area and will serve as a nice park area. Establishing park space in these areas is contingent upon mutual agreement between the landowner and the government authority purchasing the land.

Public Facilities. Currently, there is only a small portion of the Airport Neighborhood Area that is served by public utilities. The Rapid Valley Fire Department fire station is located approximately ¼-mile west of the Airport Neighborhood Area boundary along Highway 44. The Rapid City Regional Airport is located in the eastern half of the Airport Neighborhood Area just north of US Highway 44.

Truck Traffic. Truck traffic is expected to remain on US Highway 44. The Committee anticipates a significant amount of additional truck traffic along US Highway 44 when the Heartland Expressway is completed in 2005. The Heartland Expressway connects

Interstate 90 to SD Highway 79 south to Denver. With anticipated future increases in airline cargo, the Rapid City Regional Airport is expected to contribute to increased truck traffic along US Highway 44. At some point in the future, a direct connection to Interstate 90 Exit 67 is anticipated. No preferred route has been defined, but two alternate Interstate 90 access routes are shown on the Airport Neighborhood Area Future Land Use Map. Access to truck routes is a significant factor in identifying parcels with potential industrial uses.

Safety. Pedestrian, bicyclist, and children's safety are a key concern of the Future Land Use Study Committee. The Committee's desire with the development of this Plan is to locate high traffic generating businesses out of the residential areas and along collector streets and arterial streets. Keeping the truck traffic off local roads also addresses many neighborhood safety concerns.

Capacity. The Future Land Use Study Committee is also cognizant of neighborhood concerns regarding the capacity of the road system and the perception that many of the existing roads already carry more traffic than the roads can handle. The Committee has addressed these concerns by identifying additional collector and arterial streets to handle the traffic flows and proposing those land uses that generate more traffic along those collector and arterial routes as described earlier.

Density. To arrive at the anticipated development density of the Airport Neighborhood Area, the Committee compared the existing density of the various uses to the maximum density allowed by the Rapid City Municipal Zoning Code. The Committee also considered gross density in surrounding and adjacent neighborhood areas for additional comparison. Figure 5 below provides the options used in determining the anticipated development densities. The anticipated density value for dwelling units or square footage per acre is used as a multiplier to determine the total number of dwelling units or total square footage for the undeveloped property within the Airport Neighborhood Area.

The anticipated densities under each type of land use are influenced by the topography, the cost effectiveness in providing municipal water and sewer, and compatibility with surrounding development. A variety of residential land use classifications are used to accommodate housing demand, provide housing choices, and protect existing residential neighborhoods. Additionally, several non-residential uses were also identified to provide development flexibility in addressing the area's commercial and industrial growth needs.

**Figure 5**

***Airport Neighborhood Area  
Land Use Density Comparisons***

	<b>Option A Existing Density</b>	<b>Option B Maximum Density</b>	<b>Option C Anticipated Density</b>
<b><u>Residential Uses</u></b>			
Low Density Residential	0.13 du/ac	6.7 du/ac	2.4 du/ac
Medium Density Residential	0.03 du/ac	25 du/ac	15 du/ac
High Density Residential	0.99 du/ac	68 du/ac	30 du/ac
Planned Residential Development 1.5 du/ac	0.00 du/ac	1.5 du/ac	1.5 du/ac
Planned Residential Development 1 du/ac	0.07 du/ac	1 du/ac	1 du/ac
Planned Residential Development 1du/3 ac	0.09 du/ac	1 du/3 ac	1 du/3 ac
Planned Residential Development 1 du/10 ac	0.20 du/ac	1 du/10 ac	1 du/10 ac
Rural Reserve	0.07 du/ac	1 du/40 ac	1 du/40 ac
<b><u>Commercial Uses</u></b>			
Business Park	0.00 sf/ac	7,000 sf/ac	3,200 sf/ac
Neighborhood Commercial	0.00 sf/ac	5,445 sf/ac	2,600 sf/ac
Office Commercial	0.00 sf/ac	6,353 sf/ac	3,000 sf/ac
General Commercial with Planned Commercial Development	0.00 sf/ac	13,613 sf/ac	9,800 sf/ac
<b><u>Other Uses</u></b>			
Public	48.62 sf/ac	21,780 sf/ac	9,000 sf/ac
Public/Airport	54.08 sf/ac	21,780 sf/ac	400 sf/ac

Source: Rapid City Growth Management Department

The non-residential land use densities are based upon existing development. However, because of the large quantities of undeveloped land in the Airport Neighborhood Area, for many land uses, there is no existing land development of the same type. In these cases representative density numbers were sampled from other areas in Rapid City.

**Year 2025 Residential Growth Projections**

The year 2025 projections indicate how much of the total build out will be achieved in twenty years. The projections provide the basis for planning many public services, including sewer and water, storm drainage, and road networks. The Future Land Use Study Committee determined the Future Land Use Study Area Year 2025 population to be 103,000 based on numerous methodologies. Both the Rapid City Planning Commission and Rapid City Council have adopted this population projection as well. This population projection was then allocated over all of the neighborhood areas based on the assumption that residential growth will continue in a pattern similar to the 1990-1997 residential growth. The individual neighborhood area growth projections were determined by dividing the 103,000 population estimate by 2.55 which is the average number of persons per household within the Neighborhood Area. This calculation provides the total number of dwelling units in the Year 2025, or 40,392 total dwelling

units in the Future Land Use Neighborhood Area. The total number of dwelling units was then allocated to the type of dwelling unit according to the historical patterns within each neighborhood area, i.e., single family units or multi-family units.

During the period from 1990-1997, 1.88 percent of residential building permits for the entire Future Land Use Neighborhood Area occurred in the Airport Neighborhood Area. As shown in Figure 1 above, the Airport Neighborhood Area had 254 dwelling units in 1997, with 98.4 percent single family units and 1.6 percent multi-family units.

In the Year 2025, the Committee anticipates an increase of 623 new dwelling units in the Airport Neighborhood Area, 547 which will be new single family units and 76 will be multi-family dwelling units. The total dwelling units anticipated in the Airport Neighborhood Area is expected to reach 869 by the Year 2025. Figure 6 identifies the breakdown of dwelling unit increases for the years 1998 to 2025 and a total dwelling unit projection by dwelling unit type for the year 2025.

**Figure 6**

***Future Land Use Neighborhood Area  
Year 2025 Dwelling Unit Projections***

<b><u>Dwelling Unit Type</u></b>	<b><u>1998-2025 Increase</u></b>	<b><u>Total Year 2025*</u></b>
Single Family	547	789
Multi-Family	76	80
<b>Total</b>	<b>623</b>	<b>869</b>
Percent of Total in Future Future Land Use Neighborhood Area	6.47%	2.2%

*\*2025 dwelling unit values obtained from Rapid City Area Future Land Use Plan Overview.*

The Committee anticipates new single family residential development extending northerly from generally 500 feet north of US Highway 44 to the northern boundary of the Airport Neighborhood Area. Four (4) planned residential developments of varying degrees of density have been anticipated within the Neighborhood:

- 1) One area of Planned Residential Development 1 dwelling unit per acre (PRD 1 du/ac) is anticipated in and around the community of Caputa,
- 2) An area of Planned Residential Development 1.5 dwelling units per acre (PRD 1.5 du/ac) is anticipated north of Twilight Drive and west of Radar Hill Road,
- 3) One area of Planned Residential Development 1 dwelling unit per 3 acres (PRD 1 du/ac) is anticipated in the first half mile east of Radar Hill Road and south of Longview Road, and
- 4) Two areas of Planned Residential Development of 1 dwelling unit per 10 acres (PRD 1 du/10 ac) are anticipated in the Airport Neighborhood to incorporate existing land uses and to limit encroachment into the Regional Airport flight path:

- a. east of Radar Hill Road and north of Longview Road north of Runway 14/32; and
- b. in the east half of Section 18, T1N, R9E and the north half of Section 19, T1N, R9E, which is west of Runway 5/23 to incorporate existing land uses and to limit encroachment into the Regional Airport flight path.

In addition, Low Density Residential is anticipated, in general, north of Highway 44 east of Radar Hill Road and south of Twilight Drive. This area includes the Valley View Estates and Valley Heights Estates. This type of development is anticipated in order to match the currently recognized land use and development density. This designation will also encourage residential infill in the areas that have yet to be developed to their potential. The Committee anticipates that the Mesa View Estates area will redevelop into High Density Residential at some point in the future.

Since development of areas east of Airport Road is limited by the availability of City utilities and transportation infrastructure, the Committee anticipates that a Rural Reserve designation is best utilized for the foreseeable future. This designation allows a maximum development density of one dwelling unit per 40 acres, which is equivalent to the Pennington County General Agriculture designation. By using the Rural Reserve designation, development will remain limited, but during future updates of this Plan, it is possible that this Rural Reserve designation will be modified to reflect a greater allowable density. However, it is unlikely greater densities will be allowed until public sanitary and water facilities can economically be extended to the Regional Airport and beyond.

Some multi-family developments are identified near non-residential areas to provide a buffer between the non-residential developments adjacent to collector and arterial streets and the single family residential developments.

### **Year 2025 Non-Residential Growth Projections**

The Airport Neighborhood Area non-residential gross square foot floor area is anticipated to increase within the next twenty-eight years. Figure 7 below identifies the projected gross square foot floor area by the four land use categories.

**Figure 7**

***Airport Neighborhood Area  
Year 2025 Non-Residential Projected Increases in  
Gross Square Foot Floor Area***

<u>Land Use Category</u>	<u>Gross Square Foot Floor Area</u>	<u>Percent of Total Increase</u>
Retail Use	48,586	1.0%
Office/Service Use	19,270	1.0%
Industrial	89,331	2.1%
Public	14,465	2.0%

*\*All values presented were taken from the Rapid City Area Future Land Use Plan Overview.*

The rate of growth for commercial and industrial land use is based upon the Plan Overview square foot percentage as compared to the total gross square foot floor area for the entire Future Land Use Neighborhood Area. Growth projections for neighborhood area commercial and industrial uses are then extrapolated based upon twenty-eight year projections for the entire Future Land Use Study Area. Because there is basically no non-residential development within the Airport Neighborhood outside of the Regional Airport boundary, it is difficult to determine any more realistic 2025 projection than that provided in the Plan Overview.

Figure 8 identifies the remaining Airport Neighborhood Area Land Use Compilation totals. This land use compilation provides a summary of all anticipated land uses as identified on the Airport Neighborhood Area Future Land Use Map.

**Figure 8**

**Airport Neighborhood Area  
Vacant and Redeveloped Land Use Compilation Totals**

Area Wide	Vacant Platted Land			Redeveloped Platted Land			Unplatted Vacant Land		
	Vacant Platted Parcels (ac)	Antic. DU or Gross SF	Projected DU or Gross SF	Redev. Parcel Area (ac)	Antic. DU or Gross SF	Projected DU or Gross SF	Vacant Unplatted Parcels (ac)	Antic. DU or Gross SF	Projected DU or Gross SF
<b>Residential Uses</b>									
HDR	6.15	30	16	0	30	0	0	30	0
LDR	292.18	2.4	445	145.75	2.4	331	1,544.51	2.4	3,690
MDR	35.77	15	448	20.17	15	300	48.7	15	728
PRD 1.5 du/ac	1.71	1.5	0	0	1.5	0	1,174.15	1.5	1,757
PRD 1 du/ac	88.65	1	55	2.48	1	2	165.05	1	164
PRD 1 du/3 ac	47.90	0.33	11	93.1	0.33	31	285.49	0.33	93
PRD 1du/10 ac	175.58	0.1	9	0	0.1	0	930.73	0.1	83
RR	792.76	0.025	13	0	0.025	0	15,097.55	0.025	340
<b>Commercial Uses</b>									
BP	64.23	3,200	173,728	0	3,200	0	0	3,200	0
GC w/ PCD	142.29	9,800	916,202	37.97	9,800	372,106	136.99	9,800	1,342,502
NC	14.39	2,600	28,106	0	2,600	0	21.60	2,600	56,160
OC	13.56	3,000	36,810	128.05	3,000	384,150	104.74	3,000	341,220
<b>Industrial Uses</b>									
LI	20.87	2,500	200	30.94	2,500	77,350	554.54	2,500	1,386,350
<b>Other Uses</b>									
Public	4.66	9,000	16,380	0	9,000	0	91.36	9,000	822,240
Public/Airport	730.92	400	284,188	0	400	0	830.14	400	332,056

**Residential Build Out**

Build out is when all developable land parcels have reached anticipated density. The Airport Neighborhood Area build out scenario as proposed under this Plan is based on an analysis of existing patterns of development, physical constraints, access to municipal water and sewer, and existing plans for the area.

Figure 9 below identifies the anticipated total dwelling units at build out categorized by the various proposed residential land use categories within the Airport Neighborhood Area.

Between 1990 and 1997, the Airport Neighborhood Area has grown by approximately 37 single family dwelling units and 0 multi-family dwelling units per year. If history repeats itself, the Airport Neighborhood Area will have the anticipated maximum single family dwelling units of 7,024 by the Year 2288.

**Figure 9**

***Airport Neighborhood Area  
Build Out Projected Dwelling Units at Anticipated Densities***

<b>Proposed Land Use</b>	<b>Gross Neighborhood Acres</b>	<b>Anticipated Density per Acres</b>	<b>Total Dwelling Unit</b>
<b><u>Residential Uses</u></b>			
Low Density Residential	2,132.90	2.4	4,466 DU
Planned Residential Development 1	456.14	3	135 DU
Planned Residential Development 2	1,175.86	1.5	1,757 DU
Planned Residential Development 3	261.86	1	221 DU
Planned Residential Development 4	1,307.86	0.1	92 DU
Rural Reserve	15,995.22	0.025	353 DU
<b>Total Single Family Units</b>			<b>7,024 DU</b>
High Density Residential	40.43	30	16 DU
Medium Density Residential	109.97	15	1,476 DU
<b>Total Residential Dwelling Units</b>			<b>8,516 DU</b>

Source: Rapid City Growth Management Department

However, the Future Land Use Study Area must be considered in its entirety. The anticipated 28 year projections (based on population growth patterns) identify the construction of an average of 47 single family dwelling units per year and 31 multi-family dwelling units per year within the Airport Neighborhood Area. Using these estimates, the land area specifically identified for single family residential land use areas in the Airport Neighborhood Area will be built out by the Year 2153 with an anticipated 7,024 single family dwelling units; the multi-family residential land use areas will be built out by the Year 2052 with an anticipated 1,492 multi-family dwelling units.

**Non-Residential Build Out**

The Airport Neighborhood Area gross square foot floor area build out expectations at anticipated densities are identified in Figure 10. The size of the parcels significantly impacts the total amount of acreage available for development.

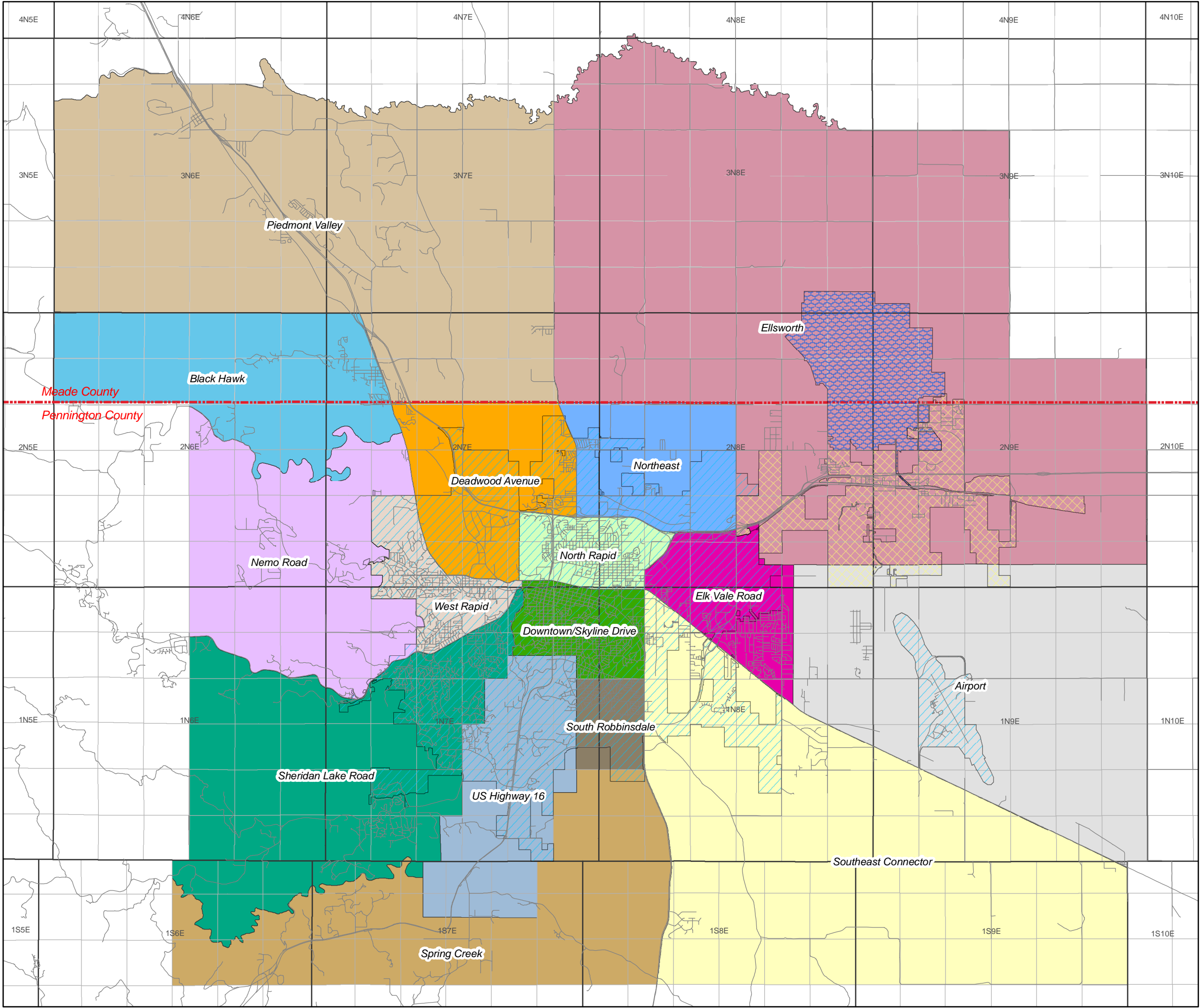
**Figure 10**

***Airport Neighborhood Area  
Non-Residential Gross Square Foot Floor Area  
Build Out Projections at Anticipated Densities***

	Gross Neighborhood Area	Anticipated Density per Acre	Gross Sq. Ft. Floor Area
<b><u>Commercial Uses</u></b>			
Neighborhood Commercial	35.99	2,600	84,266
Office Commercial	246.35	3,000	735,180
General Commercial with Planned Commercial Development	321.46	9,800	<u>2,630,810</u>
Total Commercial Uses			3,450,256
<b><u>Industrial Uses</u></b>			
Light Industrial	606.35	2,500	<u>1,463,700</u>
Total Industrial Uses			1,463,700
<b><u>Other Uses</u></b>			
Public	98.72	9,000	838,620
Public/Airport	1,564.53	400	<u>616,244</u>
Total Public Uses			1,454,864

## Summary

The Airport Neighborhood Area Future Land Use Plan anticipates that the residential growth patterns will continue, primarily as single family units. Additionally, the Plan identifies extension of the infrastructure to support the anticipated growth patterns. There is a need for additional parks and recreational opportunities in the Neighborhood Area and the Future Land Use Plan has identified areas where those sites would be appropriate.

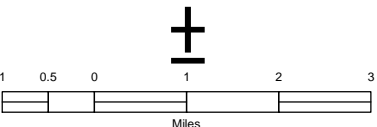


# Rapid City Area Future Land Use Plan

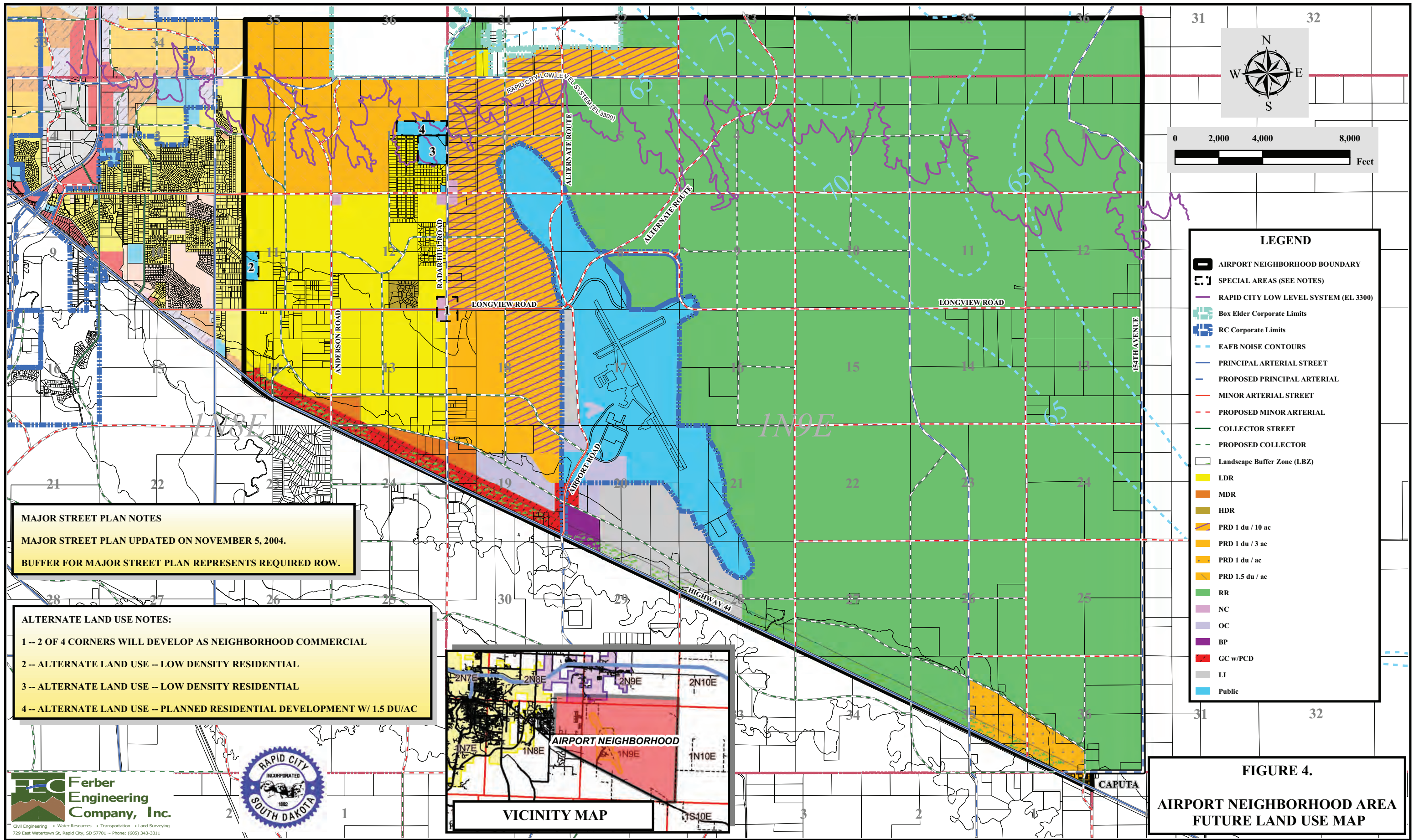
## Neighborhood Study Areas

- Airport
- Black Hawk
- Deadwood Avenue
- Downtown/Skyline Drive
- Elk Vale Road
- Ellsworth
- Nemo Road
- North Rapid
- Northeast
- Piedmont Valley
- Sheridan Lake Road
- South Robbinsdale
- Southeast Connector
- Spring Creek
- US Highway 16
- West Rapid
- City of Box Elder\*
- City of Rapid City
- Ellsworth AFB\*
- City of Piedmont\*
- City of Summerset\*

\*Future Land Use Plans not yet available



Rapid City Area  
Metropolitan Planning  
Organization



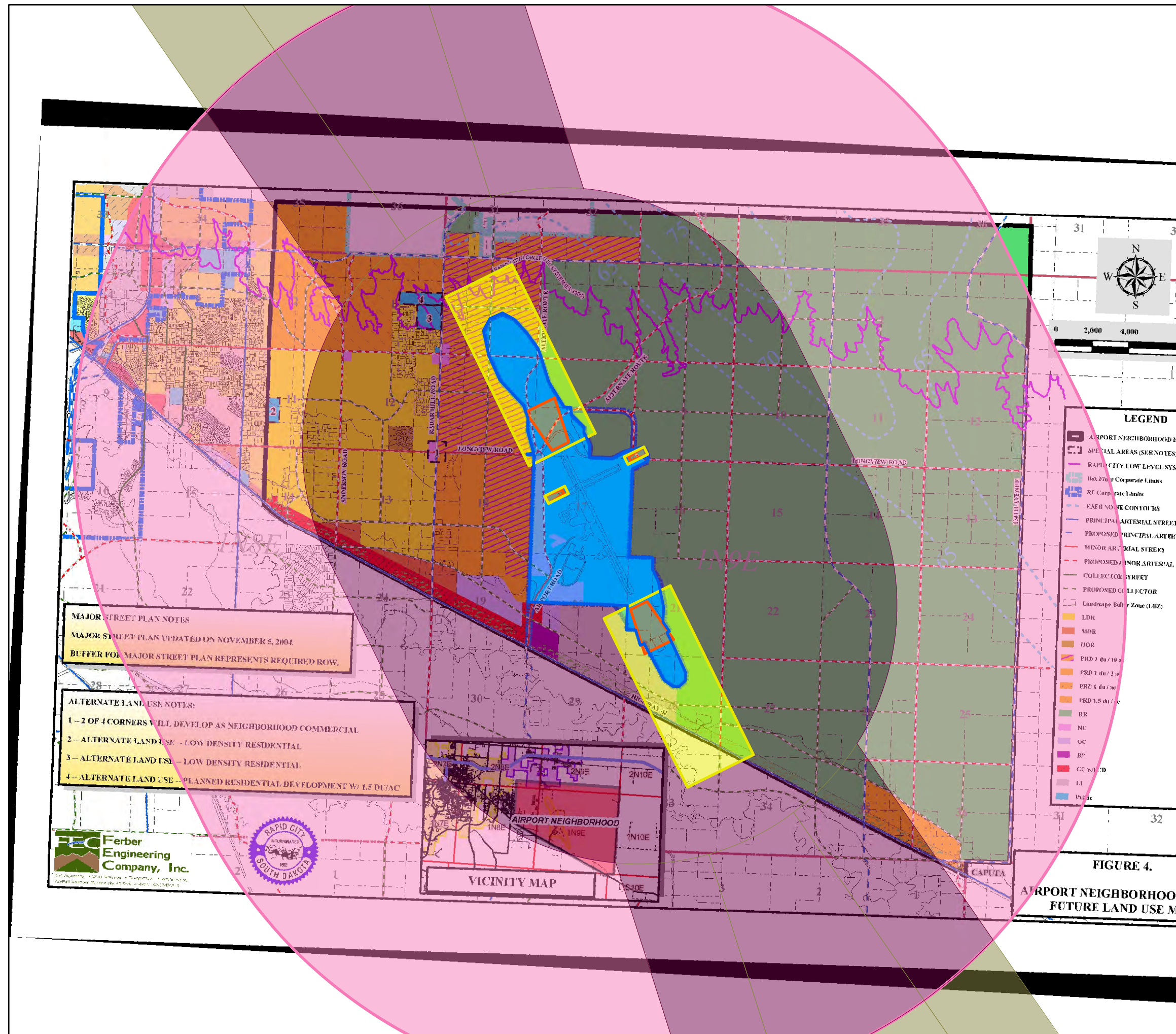
# Rapid City Regional Airport Rapid City, South Dakota

## Safety Compatibility Zones Overlaid on Airport Neighborhood Future Land Use Map

### Legend

#### Proposed Airport Land Use Zoning

- ZONE 0 = Airport Property
- ZONE 1 = Runway Protection Zone
- ZONE 2 = Inner Approach/Departure
- ZONE 3 = Circling Traffic Patterns
- ZONE 4 = Precision Flight Corridor
- ZONE 5 = Aviation Hazards



FOR PLANNING PURPOSES ONLY

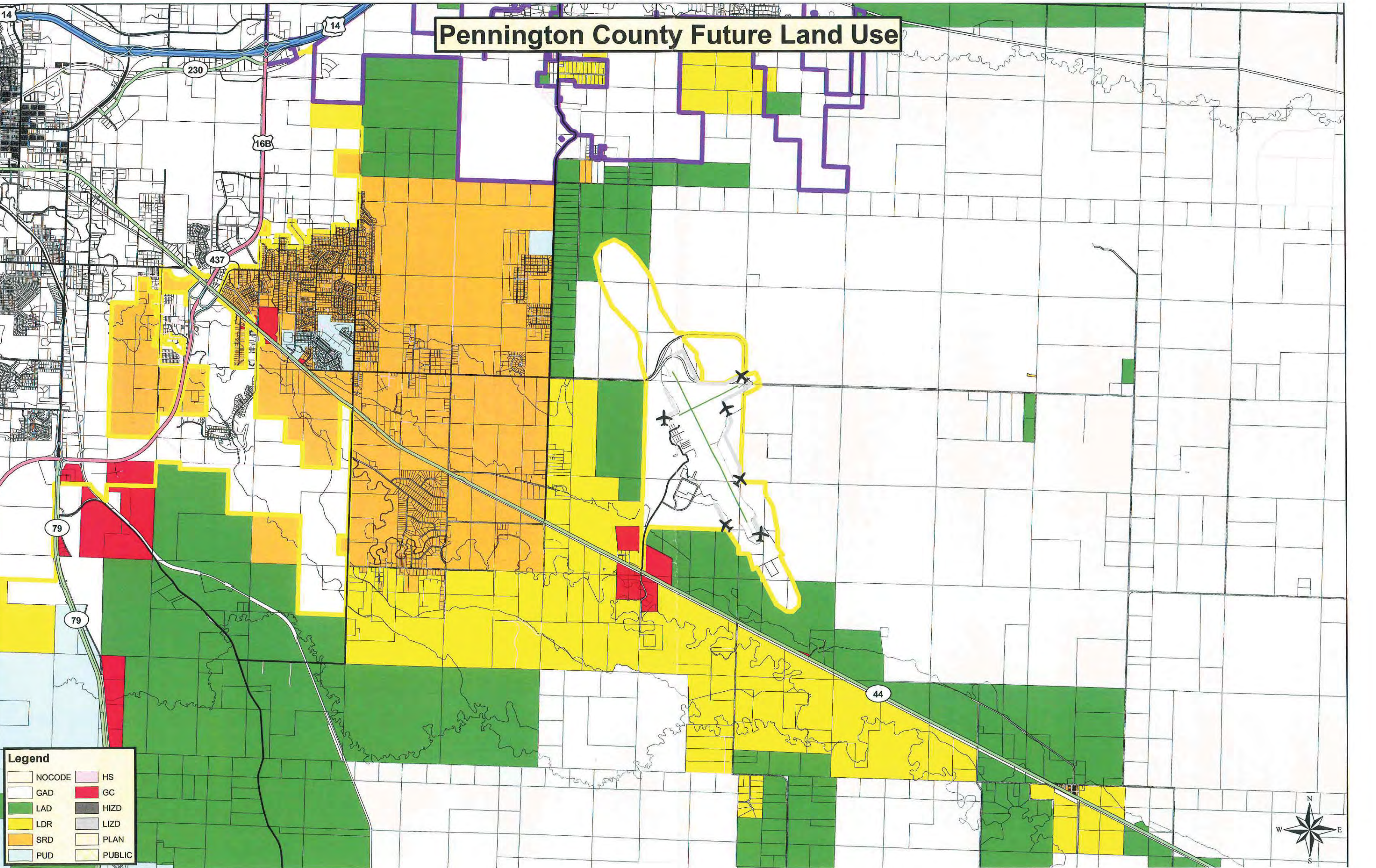
**Kadrmass  
Lee &  
Jackson**  
Engineers Surveyors  
Planners

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## **Pennington County Future Land Use**

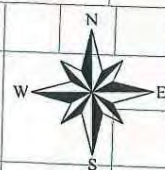


# Pennington County Future Land Use



**Legend**

NOCODE	HS
GAD	GC
LAD	HIZD
LDR	LIZD
SRD	PLAN
PUD	PUBLIC



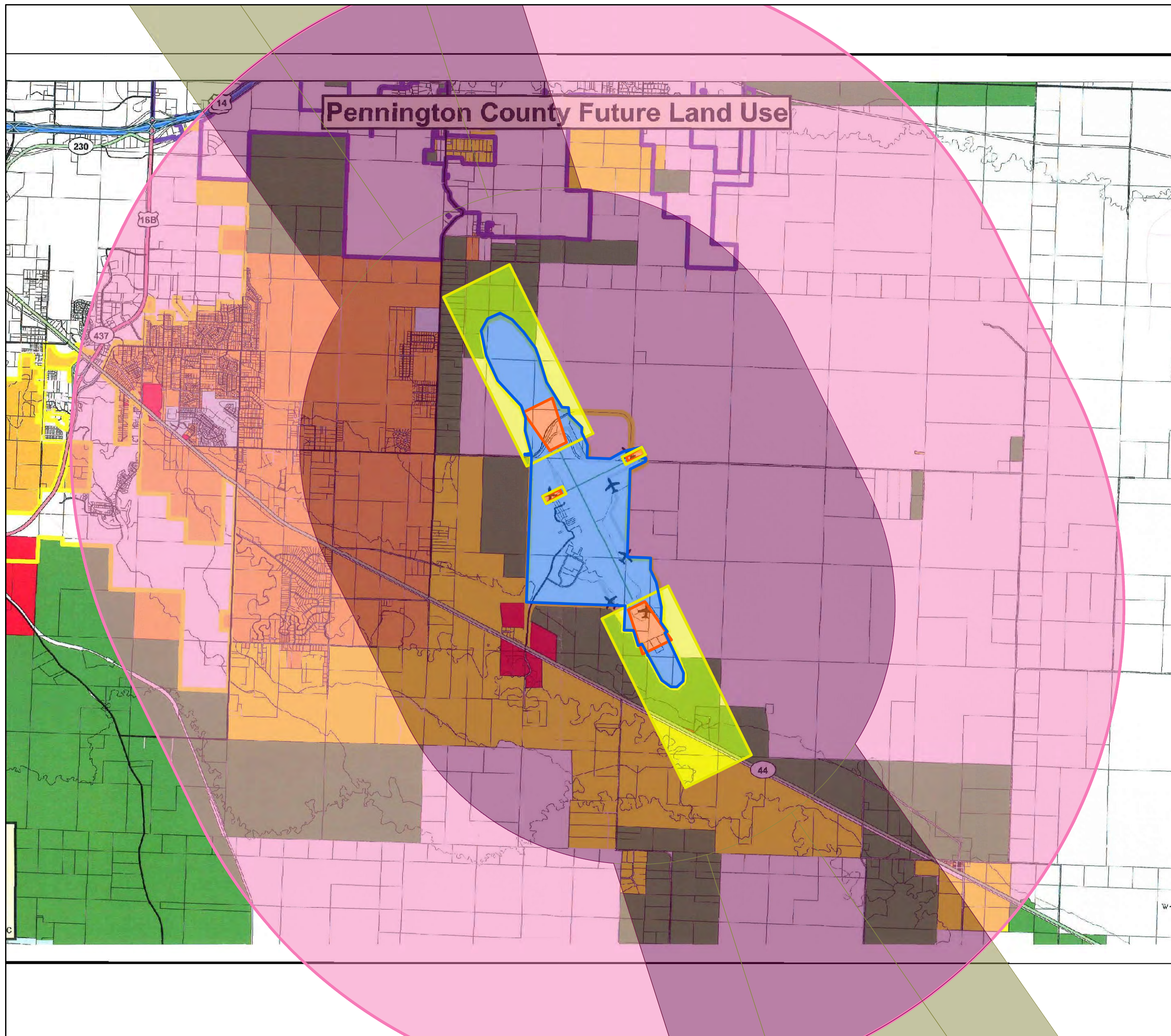
# Rapid City Regional Airport Rapid City, South Dakota

## Safety Compatibility Zones Overlaid on Pennington County's Future Land Use Map

### Legend

#### Proposed Airport Land Use Zoning

- ZONE 0 = Airport Property
- ZONE 1 = Runway Protection Zone
- ZONE 2 = Inner Approach/Departure
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- ZONE 5 = Aviation Hazards



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**Kadrmass  
Lee &  
Jackson**  
Engineers Surveyors  
Planners

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## **SECTION 205 - A-1 GENERAL AGRICULTURE DISTRICT**

### **A. Intent:**

The intent of the A-1 General Agriculture District is to provide a district that will support and encourage agriculture.

### **B. Permitted Uses:**

All agricultural uses shall be allowed in the A-1 General Agriculture District, including, but not limited to, the following:

1. General farming and harvesting
2. General ranching and grazing
3. Animal and poultry husbandry
4. Sod and tree farming
5. Apiculture
6. Forest preserves
7. Roadside stands exclusive for sale of products raised on the premises
8. Manufactured homes, modular homes, and site or stick-built homes in compliance with Section 204-I
9. Water treatment, purification, storage and pumping facilities
10. Transportation and utility easements and rights-of-way
11. Accessory uses and structures (as regulated in Section 204-General District Provisions)
12. Nurseries and greenhouses
13. Temporary quarries
14. Sawmills
15. Business and Community signs
16. Drilling for oil or natural gas or the extraction of sand, gravel, or minerals, provided that a Construction Permit is obtained in accordance with these Zoning Ordinances.
17. Mining provided a Construction Permit is obtained in accordance with these Zoning Ordinances.
18. Family Daycare Home
19. Isolated cabins and recreation residences, including groups of residences on National Forest Land.
20. Home Offices
21. Telecommunication Facilities in accordance with Section 316.

### **C. Conditional Uses:**

The following uses are illustrative of those which may be permitted upon review by the Board upon recommendation of the Commission according to the provisions contained in Section 510 - Conditional Use Permits:

1. Commercial feed lots
2. Kennels and catteries
3. Livestock auction yards
4. Fur farms
5. Fish hatcheries
6. Home occupations (as regulated in Section 204 - General District Provisions)

7. Organized group camps
8. Churches and other religious structures and cemeteries
9. Airports, schools, playgrounds, parks, fairgrounds, and community centers
10. Public service structures, such as fire stations, police stations, and post offices
11. Utility substations and electric generation facilities
12. Gun and archery ranges, riding stables and academies
13. Temporary uses as regulated by Section 204 - General District Provisions
14. Advertising signs
15. Lodge hall, etc.
16. Recreational resort area, provided all requirements of a Planned Unit Development are met (See Section 213)
17. Historical monuments and structures
18. Solid waste disposal sites
19. Child Care Center
20. Seasonal Cabin/Dwelling
21. Model Home and Sales Office
22. Manufactured homes, modular homes, and site or stick-built homes not in compliance with Section 204
23. Contractor's equipment storage yard
24. Multiple-family dwellings and housing for hired help.
25. Farmers Markets, Deli's and Bakery's
26. Recreational vehicle as temporary living quarters. (This ordinance shall not allow multiple recreational vehicles as temporary living quarters on the same parcel and shall not allow additional living quarters when living quarters already exist on the property). The site must have an approved wastewater disposal system including bathroom/shower facilities and an improved site area for the recreational vehicle. If the recreational vehicle is not equipped with a bathroom/shower facility, said facility must be provided on the premises and connected to the wastewater disposal system. The recreational vehicle shall not be used as temporary living quarters on premises for more than 180 days per calendar year.

D. Minimum Lot Requirements:

There are no lot dimensions required. The minimum area is forty (40) acres or a government lot when surrounded by public land. However, when the lot is to be occupied as a residence of someone directly engaged in the operation of a farm or ranch, the Commission may instruct the Planning Director to issue one additional permit.

E. Minimum Setback Requirements:

All structures shall have front, side, and rear setbacks of twenty-five (25) feet from the property lines.

F. Structure Placement and Lot Coverage:

No accessory structure exceeding 5,000 square feet in area and/or thirty-five (35) feet in height shall be located closer than five hundred (500) feet from any residential zoning district without a Variance.

## **SECTION 206 - A-2 LIMITED AGRICULTURE DISTRICT**

### **A. Intent:**

To establish areas for limited agricultural and low-density residential uses.

### **B. Permitted Uses:**

Property and buildings may include, but are not limited to the following purposes:

1. General farming and harvesting, not including fur farms
2. General ranching and grazing not including commercial feed lots or rendering plants
3. Animal and poultry husbandry
4. Sod and tree farming
5. Apiculture
6. Forest preserves
7. Roadside stands exclusively for the sale of produce raised on the premises
8. Manufactured homes, modular homes, and site or stick-built homes in compliance with Section 204 (I)
9. Water treatment, purification, storage, and pumping facilities
10. Transportation and utility easements and rights-of-way
11. Historical monuments and structures
12. Accessory uses and structures (as regulated in Section 204-General District Provisions)
13. Parks, playgrounds, play fields and community centers
14. Nurseries and greenhouses
15. Family Daycare Center
16. Home Offices
17. Community Signs
18. Telecommunication Facilities in accordance with Section 316.

### **C. Conditional Uses:**

The following uses may be permitted upon review by the Board upon recommendation of the Commission according to the provisions contained in Section 510 - Conditional Use Permits:

1. Fish hatcheries
2. Country clubs, driving ranges, and golf courses
3. Home occupations (as regulated in Section 204 - General District Provisions)
4. Organized group camps
5. Churches and other religious structures and cemeteries
6. Multiple-family dwellings and housing for hired help
7. Schools, playgrounds, and fairgrounds
8. Swimming pools and tennis courts
9. Public service structures, such as fire stations, police stations, and post offices
10. Community centers
11. Utility substations
12. Kennels, catteries, and animal hospitals
13. Gun and archery ranges, riding stables, and academies

14. Mobile homes (as regulated in Section 304 - Mobile Homes)
15. Neighborhood commercial uses (as regulated in Section 302 - Neighborhood Commercial)
16. Lodge hall, etc.
17. Sawmill
18. Child Care Center
19. Seasonal Cabin/Dwelling
20. Model Home and Sales Office
21. Manufactured homes, modular homes, and site or stick-built homes not in compliance with Section 204
22. Contractor's equipment storage yard
23. Recreational vehicle as temporary living quarters. (This ordinance shall not allow multiple recreational vehicles as temporary living quarters on the same parcel and shall not allow additional living quarters when living quarters already exist on the property). The site must have an approved wastewater disposal system, including bathroom/shower facilities, and an improved site area for the recreational vehicle. If the recreational vehicle is not equipped with a bathroom/shower facility, said facility must be provided on the premises and connected to the wastewater disposal system. The recreational vehicle shall not be used as temporary living quarters on premises for more than 180 days per calendar year.

D. Minimum Lot Requirements:

1. Lot Area

All permitted uses together with all accessory uses shall be located on a lot having a minimum of ten (10) acres, exclusive of dedicated public streets or platted private drives.

2. Lot Width

Lots shall abut a dedicated public street for a distance of not less than fifty (50) feet or shall have access to a public street by way of a platted private drive or an easement approved pursuant to the provisions of Section 313.

E. Minimum Setback Requirements:

All structures shall have front, side and rear setbacks of twenty-five feet from the property lines.

F. Maximum Height:

No structure shall exceed two and one-half stories or thirty-five (35) feet in height without a Variance.

G. Structure Placement and Lot Coverage:

All accessory structures exceeding 5,000 square feet in area and/or thirty-five (35) feet in height shall be located at least five hundred (500) feet from any residential district without a Variance.

## **SECTION 207 - LDR LOW DENSITY RESIDENTIAL DISTRICT**

### **A. Intent:**

To allow low density residential areas by design or to establish low density residential areas which may not be suited to higher density development by reason of topography, geology, drainage, or similar problems.

### **B. Permitted Uses:**

Property and buildings may include, but are not limited to the following purposes:

1. Manufactured homes, modular homes, and site or stick-built homes in compliance with Section 204-I
2. Transportation and utility easements and rights-of-way
3. Accessory uses and structures (as regulated in Section 204-General District Provisions)
4. Temporary buildings for uses incidental to construction work. These buildings shall be immediately adjacent to the construction work and shall be removed upon completion or abandonment of the construction work and shall require a temporary building permit. Temporary living quarters shall require an accessory building permit.
5. Family Daycare Home
6. Home Offices
7. Community Signs
8. Telecommunication Facilities in accordance with Section 316.

### **C. Conditional Uses:**

The following uses are illustrative of those which the Board may approve. Other uses may be allowed, provided they are not found to be contrary to intended uses of the district under consideration. (See Section 204F):

1. Home occupations (as regulated in Section 204 - General District Provisions)
2. Parks, play grounds, play fields, and community centers
3. Utility substations
4. Schools, including childcare centers and kindergartens
5. Churches or similar places of worship
6. Public service structures, such as fire stations, police stations, and post offices
7. Libraries, museums and historical monuments, and structures
8. Neighborhood commercial uses (as regulated in Section 302 - Neighborhood Commercial)
9. Multiple-family dwellings
10. Mobile homes (as regulated in Section 304 - Mobile Homes)
11. Wind generator
12. Lodge hall, Veterans organization, service organizations
13. Seasonal Cabin/Dwelling
14. Model Home and Sales Office
15. Manufactured homes, modular homes, and site or stick-built homes not in compliance with Section 204

16. Recreational vehicle as temporary living quarters. (This ordinance shall not allow multiple recreational vehicles as temporary living quarters on the same parcel and shall not allow additional living quarters when living quarters already exist on the property). The site must have an approved wastewater disposal system including bathroom/shower facilities and an improved site area for the recreational vehicle. If the recreational vehicle is not equipped with a bathroom/shower facility, said facility must be provided on the premises and connected to the wastewater disposal system. The recreational vehicle shall not be used as temporary living quarters on premises for more than 180 days per calendar year.

D. Minimum Lot Requirements:

1. All approved uses shall have a minimum lot size of three (3) acres, exclusive of dedicated public streets or platted private drives.
2. All lots shall have a minimum lot width of one hundred (100) feet at the front building line.
3. Lots shall abut a dedicated public street for a distance of not less than twenty-five (25) feet, or shall have access to a public street by way of a platted private drive, or an easement approved pursuant to the provisions of Section 313 of the Zoning Ordinance.

E. Minimum Setback Requirements:

All structures shall have front, side, and rear setbacks of twenty-five (25) feet from the property lines.

F. Maximum Height:

No structure shall exceed two and one-half stories or thirty-five (35) feet in height, without a Variance.

**SECTION 208 - SRD SUBURBAN RESIDENTIAL DISTRICT**

A. Intent:

To establish medium density residential areas where central water and/or sewer is provided, excluding uses which are not compatible with residential use but permitting certain nonresidential uses which are of particular convenience to the residents of the district.

B. Permitted Uses:

Property and buildings may include, but are not limited to the following purposes:

1. Manufactured homes, modular homes, and site or stick-built homes in compliance with Section 204-I
2. Transportation and utility easements and rights-of-way
3. Accessory uses and structures (as regulated in Section 204-General District Provisions)

4. Temporary buildings for uses incidental to construction work. These buildings shall be immediately adjacent to the construction work and shall be removed upon completion or abandonment of the construction work, and shall require a temporary building permit.
5. Family Daycare Home
6. Home Offices
7. Community Signs
8. Telecommunication Facilities in accordance with Section 316.

C. Conditional Uses:

The following uses are illustrative of those which the Board may approve. Other uses may be allowed, provided they are not found to be contrary to intended uses of the district under consideration.(See Section 204-F)

1. Multiple-family dwellings
2. Mobile home parks (as regulated in Section 305 - Mobile Home Parks)
3. Rooming and boarding houses
4. Convalescent and nursing homes
5. Family and group care facilities
6. Home occupations (as regulated in Section 204 - General District Provisions)
7. Parks, playgrounds, play fields, and community centers
8. Schools, including childcare centers and kindergartens
9. Churches or similar places of worship
10. Public service structures, such as fire stations, police stations, and post offices.
11. Libraries, museums and historical monuments and structures
12. Medical centers
13. Neighborhood commercial uses (as regulated in Section 302 - Neighborhood Commercial)
14. Mobile homes (as regulated in Section 304 - Mobile Homes)
15. Utility substations
16. Wind generator
17. Zero lot line or common wall dwellings
18. Model Home and Sales Office
19. Manufactured homes, modular homes, and site or stick-built homes not in compliance with Section 204.

D. Minimum Lot Requirements:

1. Lot Area
  - a. For each dwelling and its accessory buildings served by a central water system approved by the Pennington County Health Department and a private water carriage waste disposal system, the lot size shall be at least 20,000 square feet, exclusive of dedicated public streets or platted private drives.
  - b. For each dwelling and its accessory buildings served by a central water system approved by the Pennington County Health Department and a private well, the lot size shall be at least 20,000

square feet, exclusive of dedicated public streets or platted private drives.

- c. For each dwelling and its accessory buildings served by both an approved central water system and central sanitary sewer, the lot size shall be at least 6,500 square feet, exclusive of dedicated public streets or platted private drives.
- d. For all other uses and their accessory buildings, the lot area, exclusive of dedicated public streets or platted private drives, shall be adequate to provide the approved water and sewer systems, the yard area required in this district and the necessary off-street parking.

2. Lot Width

- a. All lots shall have a minimum lot width of sixty-five (65) feet at the front building line.
- b. Lots shall abut a dedicated public street for a distance of not less than twenty-five (25) feet or shall have access to a public street by way of a platted private drive, or an easement approved pursuant to the provisions of Section 313.

E. Density Bonus:

- 1. The Planning Commission may allow a density bonus of 500 square feet per lot if the subdivision is developed for cluster housing. Example: Under conventional development, a 10-acre site would yield a maximum of 67 home sites. If the density bonus were used, 73 home sites would be available.
- 2. Adequate provision must be made to ensure that common open space abuts the cluster housing and that no future subdivision of the common open space shall occur.
- 3. The Health Department shall approve sewer and water systems for cluster housing.

F. Minimum Setback Requirements:

1. Front Yard

- a. All structures shall have a front yard setback of twenty-five (25) feet.
- b. Decks (uncovered) shall be allowed to have a fifteen (15) foot setback.

2. Side Yard

- a. For a single-story dwelling located on interior lots, side yards shall be not less than eight (8) feet in width.

- b. For unattached buildings of accessory use, there shall be a side yard of not less than eight (8) feet, provided that unattached one-story buildings of accessory use shall not be required to be set back more than five (5) feet from an interior side lot line when all parts of the accessory building are located more than ninety (90) feet behind the front lot line.

3. Rear Yard

- a. For main buildings, there shall be a rear yard of not less than twenty-five (25) feet.
- b. Unattached accessory buildings shall not be located closer than five (5) feet from the rear lot line.

G. Maximum Height:

No structure shall exceed two and one-half stories or thirty-five (35) feet in height, without a Variance.

**SECTION 209 - GC GENERAL COMMERCIAL DISTRICT**

A. Intent:

To establish general commercial areas for the overall general retail, personal, and business services of the County.

B. Property and buildings may include, but are not limited to the following purposes:

- 1. Retail establishments, including incidental manufacturing of goods for sale at retail on the premises, when conducted entirely in an enclosed building.
- 2. The storage, display, and sale of new; used; repossessed and traded-in merchandise, when conducted entirely in an enclosed building.
- 3. Barber and beauty shops and schools.
- 4. Cleaning, dyeing, laundry, pressing, dressmaking, tailoring, and garment and shoe repair shops.
- 5. Medical and/or dental clinics or offices and hospitals.
- 6. Hotels, motels, rooming and boarding houses.
- 7. Clubs and lodges.
- 8. Eating and drinking establishments.
- 9. Offices, studios, clinics, and laboratories.
- 10. Financial and credit institutions.
- 11. Funeral homes.
- 12. Bakeries.
- 13. Auditoriums, libraries, art galleries, museums and other cultural structures, and activities and community centers.
- 14. Laboratories and establishments for production and repair of jewelry, eyeglasses, hearing aids, and prosthetic appliances.
- 15. Business and vocational schools not involving operations of an industrial character.

16. Commercial recreation and amusement structures and uses conducted entirely in an enclosed building, such as theaters, bowling alleys, and poolrooms.
17. Utility substations.
18. Public buildings and grounds other than elementary or high schools.
19. Churches or similar places of worship.
20. Bus stations.
21. Service and repair establishments, including automobile service and repair, but excluding airplane and railroad repair establishments.
22. Parking lots and garages.
23. New and used motor vehicle sales, rental and repair, including trailers; boat sales; motorcycle sales and service; and travel trailer sales.
24. Mobile home sales, including prefabricated and shell homes.
25. New and used farm implement and machinery sales.
26. Building material sales not to include central mix or transit mix concrete plants and asphalt plants.
27. Outdoor advertising and community signs (as regulated in Section 312 - Signs, Billboards and Other Advertising Structures).
28. Accessory uses and structures on the same premises and clearly incidental to permitted uses or structures, including a dwelling unit for occupancy only by owners or caretakers.
29. Vacation home rental.
30. Telecommunication Facilities in accordance with Section 316.

C. Conditional Uses:

The following uses are illustrative of those which the Board may approve. Other uses may be allowed, provided they are not found to be contrary to intended uses of the district under consideration. (See Section 204-F)

1. Golf driving ranges.
2. Drive-in theaters.
3. Racetracks.
4. Construction equipment sales.
5. Warehousing, wholesale, and distribution establishments.
6. Kennels, catteries, and animal hospitals.
7. Other general commercial uses, which, although they are not specified in this section due to omission or lack of technological development, in the opinion of the Commission, are not contrary to the intent of the general commercial district.
8. Adult Amusement or Entertainment establishments, Adult bookstores, Adult motion picture theaters or drive in theaters, Adult photo studios, Adult cabarets, Adult motels, Nude model studios, Adult video stores, and Adult novelty stores in conformance with Section 204.K.

D. Minimum Lot Requirements:

1. Lot Area
  - a. For each principal structure and its accessory buildings served by a central water system approved by the Pennington County Health Department and a private water carriage waste disposal system, the

lot size shall be 20,000 square feet, exclusive of dedicated public streets or platted private drives.

- b. For each principal structure and its accessory buildings served by a central sewer system approved by the Pennington County Health Department and a private well, the lot size shall be 20,000 square feet, exclusive of dedicated public streets or platted private drives.
- c. For each principal structure and its accessory buildings served by both an approved central water system and central sanitary sewer, the lot size shall be 7,500 square feet, exclusive of dedicated public streets or platted private drives.
- d. For all other uses and their accessory buildings, the lot area, exclusive of dedicated public streets or platted private drives, shall be adequate to provide the approved water and sewer system, the yard area required in this district and the necessary off-street parking.

2. Lot Width

Each lot shall have a width at the front building line of not less than seventy-five (75) feet and which abuts on a public right-of-way at least twenty-five (25) feet.

E. Minimum Yard Requirements:

1. Front Yard

All structures shall have a front yard setback of twenty-five (25) feet.

2. Side Yard

The minimum side yard shall be ten (10) feet except that the width of a side yard, which abuts a residential district, shall be not less than thirty (30) feet and screening may be required.

3. Rear Yard

Each lot shall have a rear yard setback of not less than ten (10) feet. Where a commercial building is serviced from the rear or abuts a street or a residential district, there shall be a rear yard setback of not less than thirty (30) feet.

F. Maximum Height of Structures:

No principal building or structure shall exceed three (3) stories or thirty-five (35) feet in height; whichever is the least, except as provided in Section 204 - General District Provisions. No accessory building or structure shall exceed one (1) story or twenty-five (25) feet in height. Variances may be granted from these height requirements.

G. Off-Street Parking:

As regulated in Section 310 - Minimum Off-Street Parking Requirements.

H. Screening:

When required, screening between residential and commercial zones shall be fencing or shrubbery, which is sufficiently opaque or resistant to penetration to alleviate the apparent nuisance.

**SECTION 210 - HS HIGHWAY SERVICE DISTRICT**

A. Intent:

To establish areas for highway-oriented businesses and to provide development standards that will not impair or obstruct the traffic carrying capabilities of abutting roads and highways.

B. Property and buildings may include, but are not limited to the following purposes:

1. Hotels and motels.
2. Eating and drinking establishments, including drive-in eating establishments.
3. Service stations and garages.
4. Souvenir, gift, jewelry, arts, and crafts shops.
5. Retail businesses.
6. Coin-operated laundry and dry cleaning establishments.
7. Commercial recreation and amusement structures and uses, including theaters, amusement parks, bowling alleys, ice and roller rinks, archery ranges, and miniature golf.
8. Public service structures, such as police and fire stations and post offices.
9. Bus stations.
10. Outdoor advertising and community signs (as regulated in Section 312 - Signs, Billboards and Other Advertising Structures).
11. Accessory uses and structures on the same premises and clearly incidental to permitted uses or structures, including a dwelling unit for occupancy only by owners or caretakers.
12. Auction house.
13. Model home and sales office.
14. Vacation home rental.
15. Telecommunication Facilities in accordance with Section 316.

C. Conditional Uses:

The following uses are illustrative of those which the Board may approve. Other uses may be allowed provided they are not found to be contrary to intended uses of the district under consideration. (See Section 204F)

1. Golf driving ranges.
2. Drive-in theaters.
3. Racetracks.
4. Other highway-oriented businesses which are not listed but which the Commission may determine meet the intent of the Highway Service

District. This shall not be construed to include general commercial activities which more appropriately fit the general commercial district.

5. Well drilling businesses and accessory exterior equipment and material storage.
6. Recreational vehicle parks as regulated in Section 306.
7. Adult Amusement or Entertainment establishments, Adult bookstores, Adult motion picture theaters or adult drive in theaters, Adult photo studios, Adult cabarets, Adult motels, Nude model studios, Adult video stores, and Adult novelty stores in conformance with Section 204.K.

D. Minimum Lot Requirements:

1. Lot Area

- a. For each principal structure and its accessory buildings served by a central water system approved by the Pennington County Health Department and a private water carriage waste disposal system, the lot size shall be 20,000 square feet, exclusive of dedicated public streets or platted private drives.
- b. For each principal structure and its accessory buildings served by a central sewer system approved by the Pennington County Health Department and a private water carriage waste disposal system, the lot size shall be 20,000 square feet, exclusive of dedicated public streets or platted private drives.
- c. For each principal structure and its accessory buildings served by both an approved central water system and central sanitary sewer, the lot size shall be 7,500 square feet, exclusive of dedicated public streets or platted private drives.
- d. For all other uses and their accessory buildings, the lot area, excluding dedicated public streets or platted private drives, shall be adequate to provide the approved water and sewer system, the yard area required in this district, and the necessary off-street parking.

2. Lot Width

Each lot shall have a width at the front building line of not less than seventy-five (75) feet of which fifty (50) feet must abut a public right-of-way.

E. Minimum Yard Requirements:

1. Front Yard

All structures shall have a front yard setback of twenty-five (25) feet.

2. Side Yard

Each side yard shall be not less than ten (10) feet. The depth of a side yard, which abuts a residential district or a street, shall be not less than thirty (30) feet.

3. Rear Yard

Each lot shall have a rear yard of not less than ten (10) feet. Where a commercial building is serviced from the rear, there shall be provided a rear yard of not less than thirty (30) feet. The depth of a rear yard, which abuts a street or a residential district, shall not be less than thirty (30) feet.

F. Maximum Height of Structures:

No principal building or structure shall exceed three (3) stories or thirty-five (35) feet in height except as otherwise provided. No accessory building or structure shall exceed one (1) story or twenty (20) feet in height. Variances may be granted from these height requirements.

G. Off-Street Parking:

As regulated in Section 310 - Minimum Off-Street Parking Requirements.

**SECTION 211 - LI LIGHT INDUSTRIAL DISTRICT**

A. Intent:

To establish areas for industrial and related uses of such a nature that they do not create serious problems of compatibility with other kinds of land uses, and to make provision for certain kinds of commercial uses which are most appropriately located as neighbors of industrial uses or which are necessary to service the immediate needs of people in these areas.

B. Property and buildings may include, but are not limited to the following purposes:

1. Manufacturing
2. Wholesaling
3. Distributing
4. Warehousing
5. Bulk storage
6. Building material sales yard and lumber yard, including the sale of rock, sand, gravel, and the like as an incidental art of the main business but not including a concrete batch plant or a transit mix plant or an asphalt plant
7. Contractor's equipment storage yard or plant or the rental of equipment commonly used by contractors
8. Freight or truck yard and terminal
9. Public utility service yard or electrical receiving or transferring station
10. Auction house, except for the sale of livestock
11. Tire recapping or retreading
12. Water treatment, purification, storage, and pumping facilities
13. Outdoor advertising and community signs (as regulated in Section 312 - Signs, Billboards, and Other Advertising Structures)
14. The following uses when conducted within a completely enclosed building:
  - a. The manufacture, compounding, assembling, or treatment or articles or merchandise from the following previously prepared

materials: aluminum; bone; cellophane; canvas; cloth; cork; feathers; felt; fiber; fur; glass; precious or semi-precious metals or stones; shell; rubber; textiles; tin; iron; steel; and wood.

- b. The manufacture of pottery and figurines or other similar ceramic products using only previously pulverized clay and kilns fired only by electricity or gas.
  - c. The manufacture and maintenance of electric and neon signs, commercial advertising structures, light sheet metal products, including heating and ventilating ducts and equipment, cornices, eaves and the like.
  - d. Blacksmith and machine shop.
- 15. Accessory uses and structures on the same premises which are clearly incidental to the permitted use, including sleeping facilities required by a caretaker or night watchman.
  - 16. A retail or service use only when it directly serves or is incidental to the needs of the industrial plants and the employees thereof.
  - 17. Telecommunication Facilities in accordance with Section 316.

C. Conditional Uses:

Those General Commercial District uses deemed compatible with the surrounding Light Industrial District may be permitted upon review by the Board upon recommendation from the Commission according to the provisions contained in Section 510 - Conditional Use Permits.

D. Special Provisions:

- 1. The foregoing use authorizations do not include any of such uses which emit any fumes, vibration, smoke or noise, except the noise of vehicles coming and going, which is detectable from off the premises by the senses of a normal human being and unless all operations, including the storage of anything except merchandise displayed for sale, are conducted in a fully enclosed building or entirely behind walls or fences which conceal them from visibility from off the lot.
- 2. No merchandise shall be displayed for sale in any required front yard.

E. Minimum Lot Requirements:

- 1. Lot Area
  - a. Any principal use together with all accessory uses shall be located on a lot having a minimum area of 20,000 square feet, exclusive of dedicated public streets or platted private drives, if served by a central water system or a central sewer system provided approval is obtained from the Pennington County Health Department.
  - b. The lot area, exclusive of dedicated public streets or platted private drives, shall be determined by the private water carriage waste

disposal system based on individual requirements and data required by the Pennington County Health Department. When an individual water system is also to be used, the lot size, exclusive of dedicated public streets or platted private drives, will be increased to accommodate both the water and waste systems as approved by the Pennington County Health Department.

2. Lot Width

Each lot shall have a width at the front building line of not less than one hundred (100) feet of which fifty (50) feet must abut a public right-of-way.

F. Minimum Yard Requirements:

1. Front Yard

All structures shall have a front yard setback of twenty-five (25) feet.

2. Side Yard

No building shall be located closer than fifteen (15) feet to side yard lot line, which must be maintained open as a fire lane. The width of a side yard, which abuts a residential district, shall be not less than fifty (50) feet and the Commission may require screening.

3. Rear Yard

No building shall be located closer than twenty-five (25) feet to the rear lot line. The depth of a rear yard, which abuts a residential district, shall be not less than fifty (50) feet.

G. Maximum Height of Structures:

No building or structure shall exceed four (4) stories or forty-five (45) feet in height except as hereinafter provided in Section 204 - General District Provisions, or with a Variance.

H. Minimum Off-Street Parking and Loading Requirements:

As regulated in Section 310 - Minimum Off-Street Parking Requirements or Section 311 - Off-Street Loading and Unloading Requirements.

**SECTION 212 - HI HEAVY INDUSTRIAL DISTRICT**

A. Intent:

To establish areas for necessary industrial and related uses of such a nature that they require isolation from many other kinds of land uses, and to make provision for commercial uses which are necessary to service the immediate needs of people in their areas.

B. Property and buildings may include, but are not limited to the following purposes:

1. Manufacturing, requiring yard storage and fabrication
2. Wholesaling, requiring yard storage and assembly
3. Warehousing, requiring yard storage
4. Bulk storage
5. Foundries
6. General repair and service of trucks and construction equipment
7. Railroad freight terminal and repair shop
8. Power plants
9. Stockyards, feeding pens, and auction houses for sale of livestock
10. Tannery or curing or storage of raw hides
11. Sawmills
12. Rock, sand, gravel, or earth excavation, crushing or distribution
13. Slaughter of animals, including poultry killing or dressing
14. Processing of junk, waste, discarded or salvaged materials, machinery or equipment, including automobile wrecking or dismantling
15. Outdoor advertising and community signs (as regulated in Section 312 - Signs, Billboards and Other Advertising Structures)
16. Accessory uses and structures on the same premises which are clearly incidental to the permitted use, including sleeping facilities required by a caretaker or night watchman
17. Concrete batch plant, transit mix plant, or asphalt plant
18. Concrete block, precast concrete and prestressed concrete fabrication and storage
19. Structural and reinforcing steel fabrication, welding and storage
20. A retail or service use only when it directly serves or is incidental to the needs of the industrial plants and the employees thereof
21. Grain elevators
22. Auction houses not for the sale of livestock
23. Telecommunication Facilities in accordance with Section 316.

C. Conditional Uses:

1. Solid waste disposal sites.

D. Prohibited Uses:

None, so long as uses are consistent with the above intent.

E. Minimum Lot Requirements:

The following requirements shall apply to all uses permitted in this district.

1. Lot Area

Any principal use, together with all accessory uses, shall have a front lot area of adequate size to serve the needs of the proposed use provided that lots of less than 20,000 square feet shall not be allowed.

2. Lot Width

Each lot shall have a width at the front building line of not less than one hundred (100) feet of which fifty (50) feet must abut a public right-of-way.

F. Minimum Yard Requirements:

1. Front Yard

All structures shall have a front yard setback of twenty-five (25) feet.

2. Side Yard

No building shall be located closer than twenty-five (25) feet to a side lot line. The width of a side yard, which abuts a residential district, shall be not less than seventy-five (75) feet.

3. Rear Yard

No building shall be located closer than twenty-five (25) feet to the rear lot line. The depth of any rear yard, which abuts a street or residential district, shall be not less than fifty (50) feet.

G. Minimum Off-Street Parking and Loading Requirements:

As regulated in Section 310 - Minimum Off-Street Parking Requirements and Section 311 - Off-Street Loading and Unloading Requirements.

**SECTION 213 - PUD PLANNED UNIT DEVELOPMENT DISTRICT**

A. General Description:

1. The intent of the Planned Unit Development is to allow districts in which ingenuity, imagination and design efforts on the part of the builders, architects, site planners, and developers can produce desirable residential developments.
2. Planned Unit Developments may be approved in areas designated Planned Unit Development Districts or such Planned Unit Developments may be approved for districts designated Suburban Residential District.

B. Permitted Uses:

1. Property and buildings in the Planned Unit Development are to be planned and organized as a single entity and as one complex land use unit rather than as a group of individual buildings located on separate lots.
2. Uses permitted in the Planned Unit Development may include single-family dwellings, duplexes, triplexes, four-plexes, apartments, townhouses, patio-houses, mobile homes, neighborhood commercial, school sites, parks, and open space uses as necessary and as part of a general plat and plan.

3. Permitted uses other than single-family dwellings must be located either within the interior of the Planned Unit development or in areas where the adjacent uses outside the boundaries of the Planned Unit Development are compatible.
4. Resort developments where there will be no sale of individual lots shall be considered as a Planned Unit Development. The Commission may waive any portion of this section which is not appropriate to resort development and may require any additional information necessary to determine compatibility of the proposal.

C. Area Regulations:

The following requirements shall apply to all uses permitted in a Planned Unit Development:

1. Yard, setback, lot size, type of dwelling unit, height, frontage requirements and use restrictions may be waived within the Planned Unit Development, provided that the intent of this section is complied with in total development plan as determined by the Commission. The Commission may determine that certain setbacks are required within all or a portion of the site and shall exercise ultimate discretion as to whether the total development plan does comply with the intent of this section.
  - a. Setback requirements of the district containing the Planned Unit Development will apply on all major county highways and on all boundaries of the Development.
2. Off-street parking must be provided in each Planned Unit Development and the following factors are to be taken into consideration for such approval:
  - a. Probable number of automobiles and vehicles owned by occupants of dwellings in the Planned Unit Development
  - b. Parking needs of any nondwelling uses
  - c. Varying time periods of use whenever joint use of common parking areas is proposed
3. Approval of a Planned Unit Development does not eliminate the requirements of subdividing. A preliminary plan and plat must be submitted and processed through procedures specified in the Subdivision Regulations.
4. The Commission must be satisfied that the site plan for the Planned Unit Development has met each of the following criteria or can demonstrate that one or more of them are not applicable and that a practicable solution consistent with public interest has been achieved for each of these elements:
  - a. That there is an appropriate relationship to the surrounding area.

- b. That provisions are made for an internal street system designed for the type of traffic generated, safety, separation from living areas, convenience, access, noise, and exhaust control. Private internal streets and walkways may be permitted if they may be used by police and fire department vehicles for emergency purposes. Bicycle traffic shall be considered when the site is used for an area for living purposes. Proper circulation in parking areas for safety, convenience, separation, and screening must be provided. Such streets shall be designed according to generally accepted specifications for residential streets and maintained in good condition.

Minimum right-of-way widths and roadway widths as required in the Subdivision Regulations may be waived by the Commission provided that adequate consideration is given to ingress and egress of emergency vehicles.

- c. That there is functional open space for optimum preservation of natural features, including trees and drainage areas, recreation, views, density, relief, and convenience in function.
- d. That privacy, in terms of the needs of individual families and neighbors, is provided.
- e. That there is provisions for pedestrian traffic for safety, separation, convenience, access to points in common areas and attractiveness.
- f. That building types are appropriate to the density and site relationship.
- g. That there are adequate provisions for sewer and water systems as approved by the Pennington County Health Department.

- 5. The Planned Unit Development may be subdivided or re-subdivided for purposes of sale or lease. An application for approval of a subdivision or re-subdivision will create a new plat line. The procedures applicable to the initial approval of the Planned Unit Development are also applicable to the approval of a subdivision or a re-subdivision.

A subdivision or a re-subdivision may be approved if it does not increase the dwelling unit density of the Planned Unit Development and if the subdivision or re-subdivisions are in compliance with the standards for Planned Unit Developments provided for in this district. At no time shall the common area be subdivided without the consent of the Board upon recommendation of the Commission after proper notice to the public and a hearing.

Any change in the use of any property, in an approved Development, will be subject to the procedures applicable to the initial approval of the Planned Unit Development.

6. Density (dwelling units per acre) may be increased if the character of the development and the advantages incorporated in the development warrant such increases.

D. Application:

A preliminary Planned Unit Development application shall be submitted for consideration by the Zoning Commission to allow for notice procedure set forth under Section 512 - Amendments. Upon submission of a preliminary plan of a sufficient scope to permit preliminary approval, a formal application for approval of a Planned Unit Development shall be filed. The application must include consent by the owners of all property to be included in the Planned Unit. The application must be accompanied by a site plan and a written statement containing:

1. A site plan showing the major details of the proposed Planned Unit Development, prepared to scale, shall be submitted in sufficient detail to evaluate the land planning, building design, and other features of the Planned Unit Development. The site plan must contain insofar as applicable the following minimum information:
  - a. The existing topographic character of the land
  - b. Proposed land uses
  - c. Location and size of existing and proposed buildings, structures and improvements, including an indication of the buildable area of each lot
  - d. The minimum height of all buildings
  - e. The density and type of dwellings
  - f. The internal traffic and circulation system, off-street parking areas, service areas, loading areas, and major points of access to public right-of-way
  - g. The location, height and size of proposed signs, lighting, and advertising devices
  - h. Areas which are to be conveyed, dedicated, or reserved as common areas, including parks and recreational areas and sites for schools and other public buildings
  - i. Drainage pattern and plan for disposing of runoff in such a manner as to protect adjacent property
2. A written statement to be submitted with the Planned Unit Development application must contain the following:
  - a. A statement of the present ownership and a legal description of the land included in the Planned Unit Development
  - b. An explanation of the objectives to be achieved by the Planned Unit Development, including building descriptions, sketches, or elevations as may be required to describe the objectives
  - c. A development schedule indicating the approximate date when the construction of the Planned Unit Development or stages of the Planned Unit Development can be expected to begin and to be completed

- d. Copies of any special agreements, conveyances, restrictions, or covenants which shall govern the use, maintenance, and continued protection of the Planned Unit Development and any of its common area
3. The developer and developers shall submit proof to the Planning Commission that all parks and open spaces shall be dedicated to the Homeowners Association and a performance bond equal to the cost of the improvements shall be posted prior to the final plat being filed.

#### **SECTION 214 - FP FLOODPLAIN ORDINANCE**

Floodplain considerations for any lands lying within the area of jurisdiction of the Pennington County Flood Damage Prevention Ordinance shall be regulated according to the provisions of said Ordinance.

#### **SECTION 300 - SUPPLEMENTARY REGULATIONS**

In order to accomplish the general purpose of these Zoning Ordinances, it is necessary to give special consideration to certain uses because they are unique in nature, require large land areas, are potentially incompatible with existing development, or because the effects of such uses cannot definitely be foreseen.

#### **SECTION 301 – AIRPORT HEIGHT AND HAZARD ZONING**

A. Intent:

To regulate and restrict the height of structures and objects of natural growth and otherwise regulate the use of property, in the vicinity of the Rapid City Regional Airport, by creating the appropriate zones and establishing the boundaries thereof.

B. General:

It is hereby found that an obstruction has the potential for endangering the lives and property of users of Rapid City Regional Airport and property or occupants of land in its vicinity; that an obstruction may affect existing and future instrument approach minimums of Rapid City Regional Airport; that an obstruction may reduce the size of areas available for the landing, takeoff, and maneuvering of aircraft, thus, tending to destroy or impair the utility of Rapid City Regional Airport and the public investment therein. Accordingly, it is declared:

1. That the creation or establishment of an obstruction has the potential of being a public nuisance and may injure the region served by Rapid City Airport;
2. That it is necessary in the interest of the public health, public safety, and general welfare that the creation or establishment of obstructions that are a hazard to air navigation be prevented; and
3. That the prevention of these obstructions should be accomplished, to the extent legally possible, by the exercise of the police power without compensation.

# Appendix I: Specific Recommendations

Pennington County Recommendation

Rapid City Recommendation

Box Elder Recommendation

Meade County Recommendation

Land Use Zoning Map



# Pennington County Recommendation

## Airspace

Airspace protection is provided for RCRA in Pennington County's Section 301 – Airport Height and Hazard Zoning. However, in order to better protect RCRA, changes to the ordinance should be made:

- ▶ Subsection D.10 should be removed. The subsection states:  
*"Nothing in this Ordinance shall be construed as prohibiting the construction or maintenance of any structure, or growth of any tree, to a height up to fifty (50) feet above the surface of the land."*  
It is possible that a structure less than 50 feet tall could present a hazard to air navigation. Furthermore, this subsection appears to contradict the language in subsection G.1.
- ▶ Subsection C refers to a Rapid City Airport Zoning Map consisting of two sheets dated October 15, 2003. That map should be updated to incorporate the Part 77 surfaces detailed in the most recent ALP. The Part 77 surface maps located in [Appendix D](#) could be utilized for that purpose.
- ▶ Subsection D.7 and D.8 incorrectly apply an airport elevation of 100 feet above mean sea level. Airport elevation is 3,202 above mean sea level.
- ▶ It is recommended that the ordinance contain a provision that reminds persons proposing construction or alteration near RCRA of their potential responsibility to notify the FAA and South Dakota Aeronautics Commission. It is also recommended that persons required to notify the FAA (through the 7460-1 process) present the decision of record to the Pennington County Planning Director prior to construction for project approval.

## Safety

It is recommended that the applicable Safety Compatibility Zones listed in Chapter 3 and the corresponding restrictions proposed for those zones are incorporated into Pennington County's Section 301 – Airport Height and Hazard Zoning.

The land use zoning map located at the end of this appendix or a similar map should be included in the zoning ordinance or its location referenced. In addition to referencing hardcopy documents, the land use restrictions could be incorporated into GIS systems.

## Wildlife

The wildlife recommendations detailed in the Land Use Compatibility Plan should be incorporated into Section 301. Hazardous wildlife attractants could be included in a list of non-permitted uses. Some of these non-permitted uses could include:

- ▶ Landfills
- ▶ Commercial Feed Lots
- ▶ Livestock Auction Yards
- ▶ Open Water Treatment Plants
- ▶ Golf Courses

# Rapid City Recommendation



## Airspace

Rapid City Municipal Code Chapter 17.58 - Airport Zoning District establishes zoning authority over the Airport Zoning District, which encompasses RCRA property. In Chapter 17.58, an Airport Encroachment Area and Height Regulations section are established in reference to Part 77.25, but do not adequately define the restrictions. In addition, the terminology used in RCMC Chapter 17.58 and Part 77.25 do not exactly match. Rapid City Municipal Code Chapter 17.58 does not adequately protect airspace surrounding the Airport. It is recommended that airspace protection language similar to Pennington County's Section 301 be adopted by Rapid City. It is important that the ordinance protects RCRA airspace beyond the Airport Zoning District as well.

The Part 77 Airspace Surface exhibits located in [Appendix D](#) or similar Part 77 surface maps could be created and either included in the zoning ordinance or its location referenced. In addition to referencing hardcopy documents, the airspace restrictions could be incorporated into GIS systems.

## Safety

Rapid City Municipal Code Chapter 17.58 provides appropriate land use restrictions for the Airport Zoning District; however, restrictions should also be adopted for areas outside the Airport Zoning District. For that reason, it is recommended that a new ordinance be adopted by Rapid City that includes the provisions of Chapter 17.58, but expands to incorporate the recommended land use zones detailed in Chapter 3.

Additionally, an "Airport Property Zone" could be included in the ordinance which incorporates the land use restrictions listed in Rapid City Municipal Code Chapter 17.58. Inclusion of the Runway Protection Zone (Zone 1) is unnecessary because the Airport currently owns the property and controls land uses within the existing RPZs. If Runway 14-32 is lengthened in the future, the Airport plans on purchasing the property needed to maintain control over land uses in the RPZs.

The land use zoning map located at the end of this appendix or a similar map should be included in the zoning ordinance or its location referenced. In addition to referencing hardcopy documents, the land use restrictions could be incorporated into GIS systems.

## Wildlife

The wildlife recommendations detailed in the Land Use Compatibility Plan should be incorporated into Rapid City Zoning. Hazardous wildlife attractants could be included in a list of non-permitted uses. Some of these non-permitted uses could include:

- ▶ Landfills
- ▶ Commercial Feed Lots
- ▶ Livestock Auction Yards
- ▶ Open Water Treatment Plants
- ▶ Golf Courses

# Box Elder Recommendation



## Airspace

At this time, the City of Box Elder has not adopted zoning that protects RCRA airspace. It is recommended that airspace protection language similar to Pennington County's Section 301 be adopted by Box Elder.

The Part 77 Airspace Surface exhibits located in [Appendix D](#) or similar Part 77 surface maps could be created and either included in the zoning ordinance or its location referenced. In addition to referencing hardcopy documents, the airspace restrictions could be incorporated into GIS systems.

## Safety

It is recommended that the applicable Safety Compatibility Zones listed in Chapter 3 and the corresponding restrictions proposed for those zones are incorporated into Box Elder zoning.

The land use zoning map located at the end of this appendix or a similar map should be included in the zoning ordinance or its location referenced. In addition to referencing hardcopy documents, the land use restrictions could be incorporated into GIS systems.

## Wildlife

The wildlife recommendations detailed in the Land Use Compatibility Plan should be incorporated into Box Elder Zoning. Hazardous wildlife attractants could be included in a list of non-permitted uses. Some of these non-permitted uses could include:

- ▶ Landfills
- ▶ Commercial Feed Lots
- ▶ Livestock Auction Yards
- ▶ Open Water Treatment Plants
- ▶ Golf Courses

# Meade County Recommendation



## Airspace

At this time, Meade County has not adopted zoning that protects RCRA airspace. It is recommended that airspace protection language similar to Pennington County's Section 301 be adopted by Meade County. Due to the Airport's distance from Meade County, the Precision Instrument Runway Approach Surface is the only Part 77 surface within Meade County Jurisdiction.

The Part 77 Airspace Surface exhibits located in [Appendix D](#) or similar Part 77 surface maps could be created and either included in the zoning ordinance or its location referenced. In addition to referencing hardcopy documents, the airspace restrictions could be incorporated into GIS systems.

## Safety

It is recommended that the applicable Safety Compatibility Zones listed in Chapter 3 and the corresponding restrictions proposed for those zones are incorporated into Meade County zoning. The only recommended land use zone within Meade County jurisdiction is the Precision Flight Corridor Zone.

The land use zoning map located at the end of this appendix or a similar map should be included in the zoning ordinance or its location referenced. In addition to referencing hardcopy documents, the land use restrictions could be incorporated into GIS systems.

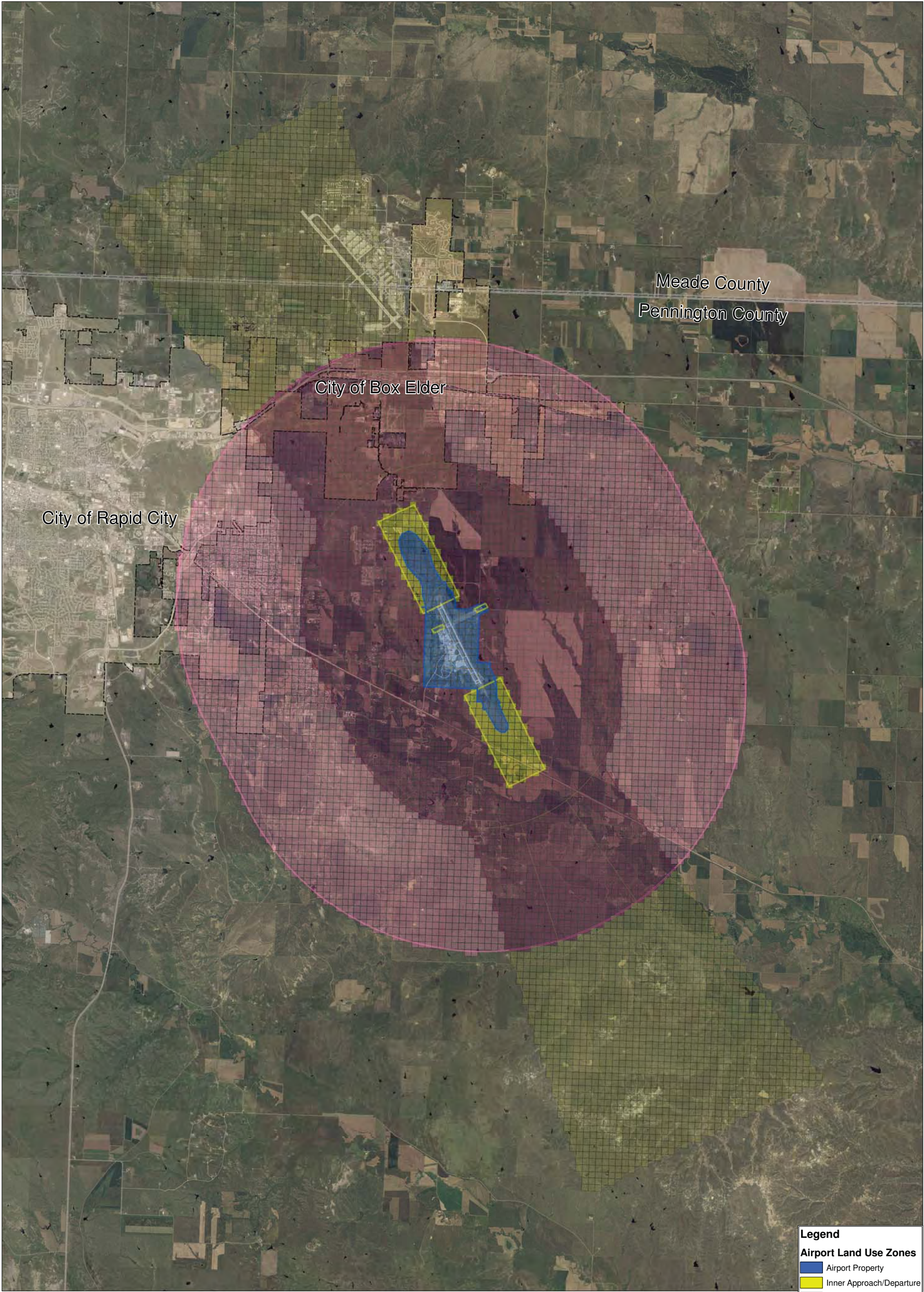
## Wildlife

Due to Meade County's distance from the Airport, the wildlife recommendations detailed in the Land Use Compatibility Plan are not applicable.

## Land Use Zoning Map



# Rapid City Regional Airport Land Use Zones



FOR PLANNING PURPOSES ONLY

Legend

Airport Land Use Zones

Airport Property

Inner Approach/Departure

Circling Traffic Patterns

Precision Flight Corridor

Aviation Hazards

Rapid City Jurisdiction

Box Elder Jurisdiction

County Lines




## Appendix J: Proposed Safety Compatibility Zones









# Rapid City Regional Airport Rapid City, South Dakota

## Proposed Safety Compatibility Zones

### Legend

-  Rapid City Jurisdiction
-  Box Elder Jurisdiction
-  County Lines

### Proposed Airport Land Use Zoning

-  ZONE 0 = Airport Property
-  ZONE 1 = Runway Protection Zone
-  ZONE 2 = Inner Approach/Departure
-  ZONE 3 = Circling Traffic Patterns
-  ZONE 4 = Precision Flight Corridor
-  ZONE 5 = Aviation Hazards



0 1 2 4 Miles

FOR PLANNING PURPOSES ONLY

**Kadmas  
Lee &  
Jackson**  
Engineers Surveyors  
Planners

\\airport\10509110\GIS\_2010\_Maps\RapidCity\_ParcelLandUseAerial4-1.mxd AES 09/07/2010