Chapter One: INVENTORY

AIRPORT BACKGROUND

Portales Municipal Airport (PRZ) is located four nautical miles (nm) southwest of the central business district of Portales, New Mexico, in Roosevelt County, immediately adjacent to the west of Highway 70 E. Based on existing airport boundaries, the airport encompasses 390 acres of land and is situated at an elevation of 4,078 feet mean sea level (MSL). PRZ was initially opened to the public in August 1989. The city primarily relies on peanut and dairy industries, as well as a growing military presence, as economic drivers. Cannon Air Force Base, located 11 miles north of the city, operates a leased military-housing area in Portales. In 1934, Eastern New Mexico Junior College (currently known as Eastern New Mexico University) was opened in Portales and has since grown to become the third-largest university in the state. As of the 2020 Census, the City of Portales has a population of 12,354 people. The location is illustrated in its regional environment on **Exhibit 1A**.

The City of Portales, New Mexico, oversees the daily management, maintenance, and operation of Portales Municipal Airport.

CLIMATE

Climate plays a crucial role in airport planning. For example, runway length requirements are directly impacted by temperature, humidity, and elevation, while wind direction and speed determine the optimal orientation of runways. The frequency of cloud cover and inclement weather determine the need for navigational aids and lighting. Knowledge of these weather conditions during the planning phase allows the airport to better prepare for improvements that may be needed on the airfield.

The City of Portales enjoys a four-season climate. **Table 1A** shows the temperatures sourced from the National Oceanic and Atmospheric Administration (NOAA) weather station in Portales, New Mexico, located three nautical miles to the northeast of the airport.

TABLE 1A: Climate Data

Month	Maximum Temperature	Minimum Temperature	Average Temperature	Precipitation	Snow
January	55.0°F	25.5°F	40.2°F	0.50 inches	1.7 inches
February	60.6°F	28.7°F	44.6°F	0.37 inches	1.4 inches
March	68.7°F	35.1°F	51.9°F	0.74 inches	0.7 inches
April	76.9°F	42.6°F	59.7°F	0.68 inches	0.2 inches
May	84.8°F	52.6°F	68.7°F	1.51 inches	0.0 inches
June	92.9°F	62.3°F	77.6°F	2.14 inches	0.0 inches
July	93.3°F	66.3°F	79.8°F	2.29 inches	0.0 inches
August	91.3°F	64.9°F	78.1°F	2.91 inches	0.0 inches
September	85.2°F	57.4°F	71.3°F	1.92 inches	0.0 inches
October	75.8°F	45.0°F	60.4°F	1.82 inches	0.3 inches
November	63.4°F	33.3°F	48.3°F	0.56 inches	0.5 inches
December	54.6°F	26.0°F	40.3°F	0.66 inches	2.8 inches

Table 1A Sources: National Centers for Environmental Information, NOAA, Portales, New Mexico, 1991–2020

The data shown represent the total weather observations from 1991 through 2020. July is the hottest month, with an average maximum temperature of 93.3 degrees Fahrenheit (°F). The coldest time of the year occurs during the month of January, dipping to an average minimum temperature of 25.5°F. Most precipitation occurs in the summer months, with August leading the way with an average of 2.91 inches of rain. Most snow occurs in Portales in December, with an average 2.8 inches of snowfall.

There is an on-site automated weather observation system (AWOS) at PRZ, but the data collected from this AWOS are not published, so weather data were collected from the AWOS at Cannon Air Force Base.

There are three basic types of weather conditions recognized by the aviation community: visual meteorological conditions (VMC), instrument meteorological conditions (IMC), and poor visibility conditions (PVC). In VMC, a pilot may elect to fly under visual flight rules (VFR), which means they are responsible for their own separation from other aircraft traffic. If conditions are not favorable for VFR flight, such as conditions categorized as IMC, a pilot must fly under instrument flight rules (IFR) and file an instrument flight plan. Flying in IMC makes it necessary for the pilot to rely on instrumentation to safely conduct a flight under these conditions. IMC at an airport indicates that cloud ceilings are below 1,000 feet above the ground and visibility is less than three miles. Any weather conditions less than IMC are considered PVC. At PRZ, VFR weather conditions are observed 89.53 percent of the time, while IFR and PVC respectively account for the remainder of the time at 5.86 percent and 4.62 percent.

Wind data, including wind speeds and direction, were also collected from Portales Municipal Airport from the AWOS at Cannon Air Force Base. A total of 36,367 observations of wind direction were collected over a 10-year period beginning January 1, 2014, and ending December 31, 2023. For the operational safety and efficiency of an airport, it is desirable for the runway to be oriented as close as possible to the direction of the prevailing wind. This reduces the impact of wind components perpendicular to the direction of travel of an aircraft that is landing or taking off.

Exhibit 1B presents the wind coverage for the runway system at Portales Municipal Airport based on data from the AWOS at Cannon Air Force Base. In all weather conditions, Runway 1-19 provides 86.58 percent coverage at 10.5 knots, 92.10 percent coverage at 13 knots, 97.40 percent at 16 knots, and 99.41 percent at 20 knots. When combined with crosswind Runway 8-26, the wind coverage is 99.42 percent at 10.5 knots and increases to nearly 100 percent at 13, 16, and 20 knots. The facility requirements section presented later in this report includes additional information pertaining to wind coverage and runway orientation.

AIRPORT ROLE

Portales Municipal Airport is included in the FAA's *National Plan of Integrated Airport Systems* (NPIAS) as a general aviation (GA) airport. The NPIAS is a compilation of airports within the United States that are deemed important to the National Airspace System (NAS) by the FAA. Airports included within the NPIAS are eligible for federal funding for capital improvements through the Airport Improvement Program (AIP).

GA airports within the NPIAS must meet certain criteria to be included in the NPIAS. At a minimum, GA airports must have at least 10 based aircraft. GA airports are further classified as National, Regional, Local, and Basic. PRZ is classified as a Local GA airport. Local GA airports are located near large population centers, but not necessarily in metropolitan areas, and accommodate flight training and emergency services. Local GA airports account for 36 percent of all NPIAS airports.

At the state level, PRZ is included in the 2017 *New Mexico Airport System Plan Update* (NMASP). The purpose of the NMASP is to ensure the state has an adequate and efficient system of airports to serve its aviation needs. The NMASP defines a specific role for each airport in the state's aviation system and establishes their respective funding needs. Portales Municipal Airport is considered a Community General Aviation Airport in the NMASP. These airports serve a contributing role in the local economy and focus on providing aviation access for small business, recreational, and personal flying activities throughout the state.

GRANT HISTORY

Portales Municipal Airport has received several federal AIP development grants in the past, including grants for runway and apron rehabilitation and reconstruction, the installation of a vertical/visual guidance system, and the construction of a fuel farm and a snow removal equipment building. PRZ has received over $6.5 million for capital improvement projects over the last 20 years. **Table 1B** details all AIP grants received by PRZ since 2000.

TABLE 1B: FAA Grant History for Portales Municipal Airport

Fiscal Year	Project Number	Grant Amount	Project Description
2000	8	$105,094	• Install perimeter fencing • Install visual vertical guidance system (PLASI)
2001	9	$148,680	• Rehabilitate Runway 8-26 (sealcoat) • Rehabilitate Runway 1-19 • Rehabilitate parallel taxiways A and B
2002	10	$151,320	• Install weather reporting equipment
2003	11	$150,000	• Improve access road • Rehabilitate apron • Rehabilitate taxiway • Rehabilitate Runway 1-19 • Remove obstructions • Conduct environmental study
2006	12	$301,651	• Conduct environmental study • Modify access road
2009	13	$405,588	• Construct snow removal equipment building • Install Runway Vertical/Visual Guidance System [Design-only for airfield lighting, signage, Supplemental Wind Cones, and rotating beacon] • Rehabilitate Runway 8/26
2010	14	$482,574	• Rehabilitate Runway 1-19 lighting
2011	15	$144,558	• Rehabilitate apron
2012	16	$166,458	• Rehabilitate Runway 8-26
2013	17	$140,684	• Rehabilitate Runway 1-19
2014	18	$171,251	• Rehabilitate Runway 1-19 lighting • Rehabilitate Runway 8-26 lighting
2017	19	$484,848	• Fuel farm
2018	20	$75,000	• Reconstruction of Runway 1-19 (Design only)
2018	20	$79,757	• Reconstruction of Runway 8-26 (Design only)
2019	21	$1,215,000	• Reconstruction of Runway 1-19 (Construction)
2019	21	$1,757,597	• Reconstruction of Runway 8-26 (Construction)
2020	22	$140,495	• Seal runway pavement surface/pavement joints
2021	24	$154,983	• Seal taxiway pavement surface/pavement joints
2022	27	$186,384	• Seal apron pavement surface/pavement joints
2023	28	$89,092	• Install miscellaneous NAVAIDS • Install runway vertical/visual guidance system
–	**Total AIP Grants:**	**$6,551,014**	–

Table 1B Source: FAA Grant History

AIRPORT FACILITIES

Airport facilities can be functionally classified into two broad categories: airside and landside. The airside category includes those facilities directly associated with aircraft operations. The landside category includes those facilities necessary to provide a safe transition from air transportation to ground facilities. The ground facilities include aircraft aprons, terminal buildings, hangars, and ground transportation modes. The existing airside and landside facilities are illustrated on **Exhibit 1C**.

AIRSIDE FACILITIES

Airside facilities include runways, taxiways, airfield lighting, and navigational aids. The airport configuration at PRZ consists of two intersecting asphalt runways. Runway 1-19 serves as the primary runway, measures 5,700 feet long by 60 feet wide, and is oriented in a northeast-southwest manner. The crosswind runway, Runway 8-26, is oriented in a west-east direction and measures 4,560 feet long by 60 feet wide.

Primary Runway 1-19 is served by a full-length parallel Taxiway A and four taxiway connectors (labeled A1, A2, A3, and A4). The distance from the Taxiway A centerline to the Runway 1-19 centerline is 240 feet.

Crosswind Runway 8-26 is similarly served by a full-length parallel Taxiway B and has four taxiway connectors (labelled B1, B2, B3, and B4). The distance from the Taxiway B centerline to Runway 8-26 is 240 feet. The runway and taxiway structure are further detailed on **Exhibit 1C**.

PAVEMENT STRENGTH RATING

The strength rating for Runway 1-19 and Runway 8-26 is not reported; however, the previous Airport Action Plan and ALP rate both runways at 12,500 pounds single wheel load (SWL). This came from a pavement study conducted by NMDOT in 2015.

The FAA has recently moved to implementing the International Civil Aviation Organization (ICAO) pavement classification number (PCN) for identifying the strength of airport pavement. The PCN is a five-part code and is described as follows:

1. **PCN numerical value** indicates the load-carrying capacity of the pavement, expressed as a whole number. The value is calculated based on several engineering factors, such as aircraft geometry and pavement usage.

2. **Pavement type** is expressed as either R for rigid pavement (most typically concrete) or F for flexible pavement (most typically asphalt).

3. **Subgrade strength** is expressed as A (high), B (medium), C (low), or D (ultra-low). A subgrade of A would be considered very strong, like concrete-stabilized clay, and a subgrade of D would be very weak, like uncompacted soil.

4. **Maximum tire pressure** is expressed as W (unlimited/no pressure limit), X (high/254 pounds per square inch [psi]), Y (medium/181 psi), or Z (low/723 psi). This indicates the maximum tire pressure the pavement can support. Concrete surfaces are usually rated W.

5. **Process of determination** is expressed as either T (technical evaluation) or U (physical evaluation). This indicates the method of pavement testing.

The PCN for both runways at PRZ is as follows:

- Runway 1-19: 4/F/C/Y/T
- Runway 8-26: 4/F/C/Y/T

PAVEMENT CONDITION

In 2022, NMDOT conducted a statewide pavement condition assessment of 49 airports with paved surfaces. This study, the *Airport Pavement Condition Data Collection for 2022,* consisted of visual inspections and evaluation in accordance with FAA guidance. At Portales Municipal Airport, pavement surfaces including runway, apron, T-hangar, and taxiway areas were inspected and assigned pavement condition index (PCI) numbers. The PCI scale ranges from a value of 0 (representing a failed pavement condition) to a value of 100 (representing pavement in excellent condition). In general terms, pavements with a PCI above 70 that are not exhibiting significant load-related distress will benefit from preventative maintenance actions, such as crack sealing and surface treatments. Pavements with a PCI less than 70 and greater than 55 may be considered for rehabilitation. Pavements with a PCI less than 55 may be considered for reconstruction.

According to the New Mexico Aviation 2022 Technical Report, pavement conditions at PRZ widely vary. Runway 1-19 and Runway 8-26 have a reported PCI condition of 85-100, taxiways have a PCI of 55-69, and apron areas have a reported PCI of 40-54. **Exhibit 1D** illustrates the PCI conditions at PRZ.

PAVEMENT MARKINGS

Pavement markings aid in the movement of aircraft along airport surfaces. Runway 1-19 and Runway 8-26 are equipped with non-precision markings, which include the runway designations, threshold stripes, centerlines, and aiming points.

Yellow taxiway and apron markings are provided to assist pilots in maintaining proper clearance from pavement edges and objects near the taxiway/taxilane edges. Pavement markings also identify the aircraft tiedowns and aircraft holding position.

Each entrance to Taxiway A and Taxiway B is equipped with yellow centerlines and holding position markings. These markings identify the locations on a taxiway where aircraft must stop prior to entering the runway environment. Based on aerial imagery, holding positions at PRZ are located 130 feet from Taxiway A to Runway 1-19, 150 feet from Taxiway A to Runway 8-26, 125 from Taxiway B to Runway 8-26, and 140 feet from Taxiway B to Runway 1-19. At non-towered airports, like PRZ, pilots must visually confirm that no aircraft are in the runway environment prior to crossing the holding position marking.

AIRFIELD LIGHTING AND SIGNAGE

Airfield lighting systems extend an airport's usefulness into periods of darkness and/or poor visibility. A variety of lighting systems are installed at the airport for this purpose. These lighting systems, categorized by function, are summarized as follows:

Identification Lighting

The location of the airport at night is universally identified by a rotating beacon projecting two beams of light, one white and one green, 180 degrees apart. The rotating beacon at Portales Municipal Airport is located southeast of the terminal building.

Runway and Taxiway Lighting

The runways are outfitted with medium intensity runway lights (MIRL), which are lights set atop fixtures that are approximately one foot above the ground. These light fixtures are fragile; if one is struck by an object (for example, an aircraft wheel), it could easily break away. The parallel and connector taxiways are equipped with edge reflectors.

Pilot-Controlled Lighting

With the pilot-controlled lighting (PCL) system, a pilot can turn on the airfield lights from their aircraft through a series of clicks of their radio transmitter. The MIRL for both runways can be turned on through the Common Traffic Advisory Frequency (CTAF) 122.8 megahertz (MHz).

Airfield signage serves as a tool for pilots to safely navigate the airfield system. Airfield signage informs pilots of their location at the airport and directs them to major airport facilities. Currently, the airport is equipped with airfield signage at the taxiway and runway intersections.

WEATHER FACILITIES

PRZ is equipped with four lighted wind cones, which provide pilots with wind speed and direction information, and a segmented circle, which provides pilots traffic pattern information. There is a lighted wind cone located at the ends of Runway 1-19 and Runway 8-26. PRZ is also equipped with a segmented circle located west of Runway 19. The traffic pattern for both runways is to the left.

Many airports are equipped with an automated weather observation system (AWOS) or an automated surface observation system (ASOS) that automatically records weather conditions, such as wind speed, wind gusts, wind direction, temperature, dew point, altimeter setting, and density altitude. This information is then transferred at regular intervals and is accessible to pilots. Installed in 2002, PRZ has an on-site AWOS, located south of Runway 8-26 and east of Taxiway A. The AWOS can be accessed through WX AWOS-3 frequency 118.175 MHz or by phone at 575-478-2864. The data collected by the PRZ AWOS are not published. (Reference: City of Portales, Portales Municipal Airport) The airport also uses CTAF/UNICOM frequency 122.8 MHz.

NAVIGATIONAL AIDS

Navigational aids are electric devices that transmit radio frequencies that pilots of properly equipped aircraft can translate into point-to-point guidance and position information. The types of electric navigational aids available for aircraft operating near Portales Municipal Airport include an omnidirectional range/tactical air navigation (VORTAC).

A VOR, in general, provides azimuth readings to pilots of properly equipped aircraft by transmitting a radio signal at every degree to provide 360 individual navigational courses. Distance measuring equipment (DME) is frequently combined with a VOR facility (VOR/DME) to provide distance and directional information to pilots. Military tactical air navigation aids (TACANs) and civil VORs are commonly combined to form a VORTAC. The Texico VORTAC, located approximately 35 nautical miles of the airport, and the Tucumcari VORTAC, located approximately 63 miles of airport, can be utilized by pilots flying to and from Portales Municipal Airport.

Global positioning system (GPS) technology is an additional navigational aid for pilots operating to and from PRZ. GPS was initially developed by the United States Department of Defense (DoD) for military navigation around the world. GPS differs from VOR in that GPS does not require pilots to navigate using a specific ground-based facility. GPS uses satellites placed in orbit around the earth that transmit electric radio signals, which pilots of properly equipped aircraft use to determine altitude, speed, and other navigational information. With GPS, pilots can navigate directly to any airport in the country.

INSTRUMENT APPROACH PROCEDURES

Instrument approach procedures are a series of predetermined maneuvers established by the FAA that use electric navigational aids to assist pilots in locating and landing at an airport during low visibility and cloud ceiling conditions. The capability of an instrument approach is determined by the visibility and cloud ceiling minimums associated with that approach. Cloud ceilings define the lowest level a cloud layer (in terms of feet above the ground) can be situated for a pilot to complete the approach. If the observed visibility or cloud ceilings are below the minimums prescribed for the approach, the pilot cannot complete the instrument approach.

There is currently one published instrument approach procedure for Runway 1 at Portales Municipal Airport: the RNAV-GPS, with no lower than one-mile visibility minimums (shown on **Exhibit 1E**). The straight-in RNAV-GPS instrument approach procedure provides for visibility minimums as low as one-mile and cloud ceilings of 600 feet to Runway 1. This approach also has circling minimums, which allows for pilots to land on any active runway at the airport while providing flexibility for the pilot to land on the runway more closely aligned with the prevailing wind at the time. A circling approach may have higher visibility minimums than straight-in instrument approaches. This ensures that pilots have sufficient visibility and ground clearance to visually navigate from the approach to the desired runway end for landing.

LANDSIDE FACILITIES

Landside facilities are the ground-based facilities that support the aircraft and pilot/passenger handling functions. These facilities typically include aircraft storage hangars, aircraft parking aprons, support facilities, fuel storage, and roadway access. These facilities are further detailed on **Exhibit 1C**.

TERMINAL BUILDING AND AUTOMOBILE PARKING

The terminal building at Portales Municipal Airport encompasses 3,470 square feet and is located near the midpoint of the airport, northeast of the intersection of Runways 1-19 and 8-26. The terminal offers an airport manager's office, an operation manager's office, a pilots' lounge area, a conference room, and restrooms. The conference room serves as a multi-purpose room, often used as both a flight training classroom and an area where pilots and staff can meet to discuss airport-related subjects.

A small vehicle parking lot is located east of the terminal building. This parking lot is the only designated parking area at the airport and serves the general public, airport employees, and general aviation pilots.

AIRCRAFT PARKING APRON

The existing apron area totals approximately 24,788 square yards. Parking along this apron area consists of 38 aircraft tiedowns. The apron is located adjacent to Taxiway A to the west of the terminal building. East of the apron, one helicopter parking position is available.

AIRCRAFT STORAGE

General aviation hangars at Portales Municipal Airport have been constructed over time in the northeastern quadrant of the airport. At PRZ, there are two types of hangars available for aircraft storage: box hangars, which can provide single or multiple aircraft storage, and T-hangars, which provide individual aircraft storage. There are five hangar structures, providing approximately 43,050 square feet of storage space; the majority are city owned. Two of the T-hangar structures located northeast of the terminal building are partially open hangars with five covered tiedown spots in the open portions of these hangars.

FUEL STORAGE FACILITIES

Portales Municipal Airport currently accommodates two 12,000-gallon fuel storage tanks; one tank contains 100LL fuel and the other contains Jet A fuel. The fuel tanks are self-serve. These fuel tanks are located adjacent to the south side of the terminal apron. There is also a 1,800-gallon fuel truck that contains Jet A fuel; this truck is located south of the terminal building.

STORAGE FACILITY

An approximately 3,400-square-foot storage building is located adjacent to the northeast side of the terminal area and houses various equipment (i.e., snowplow, tractors, and landscaping equipment) to aid in the operation of the airport.

AIRCRAFT RESCUE AND FIREFIGHTING (ARFF) FACILITIES

As a GA airport, PRZ is not required to have on-site aircraft rescue and firefighting (ARFF) equipment/ facilities. The closest fire station is the Portales Fire Department, located approximately four miles northeast of the airport.

AIRSPACE CHARACTERISTICS

The National Airspace System (NAS) is divided into six different categories, or classes. The airspace classifications that comprise the NAS are presented on **Exhibit 1F**. These categories of airspace are Classes A, B, C, D, E, and G airspace. Each class of airspace contains its own criteria that must be met in terms of required aircraft equipment, operating flight rules (visual or instrument flight rules), and procedures. Classes A, B, C, D, and E are considered controlled airspace, which requires pilot communication with the controlling agency prior to airspace entry and throughout operation within the designated airspace. Pilot communication procedures, required pilot ratings, and required minimum aircraft equipment vary depending on the class of airspace and the type of flight rules in use.

As depicted on **Exhibit 1G**, Portales Municipal Airport is located under Class E airspace, with the floor level beginning at 700 feet above the surface. Other airspace features are depicted in the vicinity of the airport, including Victor airways, military operations areas (MOAs), military training routes (MTRs), and restricted airspace.

Several Victor airways are present near Portales Municipal Airport. Victor airways are corridors of airspace eight miles wide that extend upward from 1,200 feet above ground level (AGL) to 18,000 feet MSL and extend between VOR navigational facilities. The Victor airways in the vicinity of the airport emanate from the Tucumcari VORTAC and Texico VORTAC.

MOAs illustrate airspace where a high level of military activity is conducted and are intended to separate civil and military aircraft. Civilian air is not restricted in MOAs, but pilots of civil aircraft are advised to exercise extreme caution when flying within a MOA while military activity is being conducted. PRZ is east of the Pecos South MOA, which is also contiguous with the Pecos North High and Low MOA and the Pecos North High and Taiban MOA.

MTRs are designated airspaces that have been generally established for use by high-performance military aircraft to train below 10,000 feet AGL and at more than 250 knots. There are VR (visual) and IR (instrument) designated MTRs. MTRs with no segment above 1,500 feet AGL will be designated as VR or IR, followed by four-digit number. MTRs with one or more segments above 1,500 feet AGL are identified by the route designation, followed by a three-digit number (e.g., IR180). The arrows on the route show the direction of travel.

Restricted airspace contains areas in which the flight of aircraft – while not wholly prohibited – is subject to restrictions. Activities within these areas must be confined because of their nature, and limitations to aircraft operations may be imposed on aircraft that are not a part of these activities. Restricted airspace is off limits for public use unless permission is granted from the controlling agency. The restricted areas in the vicinity of the airport are used by the military and are located approximately 14 miles northwest of Portales Municipal Airport.

AIRPORT TRAFFIC CONTROL

There is no airport traffic control tower (ATCT) at Portales Municipal Airport; therefore, no formal terminal air traffic control services are available for aircraft landing at and departing from the airport. Aircraft operating in the vicinity of the airport are not required to file any type of flight plan or contact any air traffic control facility unless they are entering airspace in which contact is mandatory. The CTAF, which is available on the frequency 122.8 MHz, is used by pilots to obtain airport information and to advise other aircraft of their position in the traffic pattern and their intentions.

Portales Municipal Airport is located within the jurisdiction of the Albuquerque Air Route Traffic Control Center (ARTCC), which is accessible on frequency 113.2 MHz. The Albuquerque Flight Service Station (FSS) provides additional weather data and other pertinent information to pilots on the ground and enroute. The Albuquerque FSS is available on frequency 122.2 MHz.

LOCAL OPERATING PROCEDURES

Portales Municipal Airport is situated at 4,078 feet MSL. The standard traffic pattern altitude is 1,000 feet above the elevation of the airport surface (5,078 feet MSL). An altitude of 5,078 feet MSL should be maintained for standard light aircraft (the most common type of aircraft at a GA airport). The traffic pattern for heavy and turbine aircraft is 1,500 feet above the airport (5,578 feet MSL), while rotorcraft and ultralight aircraft should maintain an altitude of 4,578 feet MSL. A standard left-hand traffic pattern is published for all runway ends at the airport.

REGIONAL AIRPORTS

A review of other public-use airports located within approximately 40 nautical miles of Portales Municipal Airport has been made to identify and distinguish the types of air service provided in the region. It is important to consider the capabilities and limitations of these airports when planning for future changes or improvements at the airport. Public-use airports within approximately 40 nautical miles of the airport are illustrated on **Exhibit 1H**. Information pertaining to each airport was obtained from FAA Form 5010-1, *Airport Master Record*.

Regional airports include Clovis Municipal Airport (CVN) and Muleshoe Municipal Airport (2T1).

- CVN is a regional commercial service airport in Clovis, New Mexico, that provides a variety of services. This includes air service to Denver International Airport by Denver Air Connection. CVN also provides a 24-hour fueling service, aircraft parking, and hangars. The airport is served by two paved runways, the longest measuring 7,200 feet in length and 150 feet in width.

- 2T1 is a basic general aviation airport in Muleshoe, Texas. The airport is served by one asphalt runway that measures 5,100 feet long and 60 feet wide.

SOCIOECONOMIC CHARACTERISTICS

For an airport planning study, socioeconomic characteristics are collected and examined to derive an understanding of the dynamic of growth within the study area. Socioeconomic information related to the local service area is an important consideration in the planning process.

The historical trends in population, employment, income, and earnings provide insight into the long-term socioeconomic conditions of the region. This information is essential in determining aviation service level requirements and forecasting aviation demand for airports. Aviation forecasts are typically related to the population base and economic strength of the region, as well as the ability of the region to sustain a strong economic base over an extended period.

Historical and forecasted socioeconomic data for Roosevelt County were obtained from the Woods & Poole Economics *Complete Economic and Demographic Data Source* (2024). Woods & Poole Economics utilizes information from the United States (U.S.) Census Bureau, as well as other national and state organizations, for historical data to project future conditions. This information is presented on **Exhibit 1J**.

ENVIRONMENTAL INVENTORY

This environmental inventory identifies potential environmental sensitivities, based on the 14 environmental impact categories outlined in FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*. The following should be considered when planning future improvement projects at the airport.

- Air Quality
- Biological Resources (including fish, wildlife, and plants)
- Climate
- Coastal Resources
- *Department of Transportation Act*, Section 4(f) (now codified in Title 49 United States Code § 303)
- Farmlands
- Hazardous Materials, Solid Waste, and Pollution Prevention
- Historical, Architectural, Archaeological, and Cultural Resources
- Land Use
- Natural Resources and Energy Supply
- Noise and Noise-Compatible Land Use
- Socioeconomics, Environmental Justice, and Children's Environmental Health and Safety Risks
- Visual Effects (including light emissions)
- Water Resources (including wetlands, floodplains, surface waters, groundwater, and wild and scenic rivers)

Table 1C provides a summary of the existing environmental conditions at the airport and within its environs for these categories.

TABLE 1C: Summary of Existing Environmental Conditions

Category	Existing Environmental Conditions
Air Quality	Roosevelt County is currently in attainment for all federal criteria pollutants. *Source: U.S. EPA, Green Book, New Mexico Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants, data current as of June 30, 2024*
Biological Resources	Federally Protected Species According to the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) resources report, there is potential for one proposed threatened species within the vicinity of the airport: monarch butterfly (*Danaus plexippus*). Designated Critical Habitat There are no designated critical habitats within airport boundaries. Non-Listed Species Non-listed species of concern include those protected by the *Migratory Bird Treaty Act* (MBTA) and the *Bald and Golden Eagle Protection Act.* The following species are birds of concern that could be present within airport boundaries: broad-tailed hummingbird (*Selasphorus platycercus*), ferruginous hawk (*Buteo regalis*), long-billed curlew (*Numenius americanus*), and northern harrier (*Circus hudsonius*). *Source: USFWS, IPaC*
Climate	The State of New Mexico does not currently have a statewide climate action plan. The following activities may generate greenhouse gas emissions on the airport: • Vehicular traffic for airport vehicles and ground support equipment • Aircraft traffic • Burning fossil fuels for electricity and heat for landside facilities *Source: U.S. State Climate Action Plans, accessed July 2024*
Coastal Resources	The airport is not located within a coastal zone. The airport is approximately 600 miles inland from the coastline. The closest National Marine Sanctuary is the Flower Garden Banks National Marine Sanctuary, which is located 680 miles away.
Department of Transportation Act, Section 4(f)	There are no known Section 4(f) resources within one mile of the airport. The nearest historic feature listed on the National Register of Historic Places (NRHP) is an administration building located over three miles from the airport, on the south side of University Place and Campus Green. The nearest waterfowl and wildlife refuge, wilderness area, and national recreation area are: • Wildlife/waterfowl refuge: Grulla National Wildlife Refuge (17 miles from the airport) • Wilderness area: Salt Creek Wilderness (65 miles from the airport) • National recreation area: Lake Meredith National Recreation Area (125 miles from the airport) *Sources: NRHP, accessed July 2024; Google Earth Pro Aerial Imagery, accessed July 2024*
Farmlands	According to the Natural Resources Conservation Service (NRCS) Web Soil Survey (WSS), the airport is comprised of soils that have been identified as farmland of statewide importance and not prime farmland (**Exhibit 1K**). The airport is not located within a designated urban area. *Source: USDA-NRCS, Web Soil Survey, accessed July 2024*
Hazardous Materials, Solid Waste, and Pollution Prevention	There are no identified brownfields or Superfund sites located within a one-mile buffer of the airport. The closest landfill is the Clovis Regional Landfill, which is located 21 miles northeast of the airport. The airport offers both full service and self-service options for fueling purposes and has 100LL and Jet A fuel on airport property; the fuel farm is required to maintain spill response procedures (i.e., a spill prevention, control, and countermeasure plan) to minimize non-stormwater discharges contaminating waterways under federal regulations.

(Table continues)

TABLE 1C (continued): Summary of Existing Environmental Conditions

Category	Existing Environmental Conditions
Historical, Architectural, Archaeological, and Cultural Resources	There are no NRHP-listed resources within one mile of the airport. From the information available at the time this report was prepared, no systematic airport-wide cultural surveys have been conducted. Much of the airport has been developed or disturbed by construction practices; however, there is still a chance intact cultural resources may be present either on the ground surface or subsurface. The airport was initially opened in August 1989; based on historic aerials, there do not appear to be any historic-age structures (i.e., 50 years or older) on airport property. The nearest tribal land to Portales Municipal Airport is the Mescalero Reservation, located more than 100 miles southwest of the airport. *Sources: Historic Aerials Viewer, accessed July 2024; U.S. EPA, EJScreen, accessed July 2024*
Land Use	The airport is within the jurisdiction of the City of Portales and is primarily located within the city's municipal boundaries. A small portion south of the airport lies outside of this municipal boundary (see **Exhibit 1A**). The airport is surrounded by undeveloped land on all four borders of the property. To the east and south of the airport lies Highway 70.
Natural Resources and Energy Supply	Activities at the airport, such as aircraft operations and maintenance of airside and landside facilities, use consumable natural resources, like fossil fuels.
Noise and Noise-Compatible Land Use	Noise-sensitive land uses may include residential areas, schools, religious facilities, and healthcare units with overnight occupation. Within a one-mile radius, there are single-family homes 0.10 miles east of the airport along S Roosevelt Road U (**Exhibit 1K**).
Socioeconomics	The closest residential areas are 0.10 miles east of the airport, across from Highway 70. Please refer to **Exhibit 1J** for a more in-depth breakdown of the socioeconomic characteristics of Portales. *Source: U.S. EPA, EJScreen, accessed July 2024*
Environmental Justice	According to the five-year 2018–2022 American Community Survey (ACS) estimates, the population within one mile of the airport is 326 persons, of which 35 percent of the population is considered low-income and 58 percent are people of color. The nearest residential area areas are 0.10 miles east of the airport. *Source: U.S. EPA, EJScreen, accessed July 2024*
Children's Environmental Health and Safety Risks	According to the 2018–2022 ACS estimates, 22 percent of the population within one mile of the airport is between the ages of one and 18. There are no schools located within one mile of the airport, nor are there any parks or other recreational facilities. The airport is an access-controlled facility and children are not allowed on the airport without adult supervision. *Source: U.S. EPA, EJScreen, accessed July 2024*
Visual Effects: Light Emissions	Airfield lighting at the airport includes a rotating beacon, medium intensity runway lighting (MIRL) at Runway 1-19 and Runway 8-26. Taxiways on the airfield are lighted with edge reflectors. There are no light-sensitive land uses surrounding the airport. The closest residential neighborhoods are located 0.10 miles east of the airport and are developed along Highway 70. The residences are shielded from airport lighting due to the shrubbery and trees along Highway 70.
Visual Effects: Visual Resources/ Visual Character	Visually, the area surrounding the airport is characterized by empty parcels of land with scattered residential development Highway 70 to the east of the airport. Views of the airport along Highway 70 are readily accessible; however, long-range views are not readily available due to the relatively flat topography of the airport environs. There are nine national scenic byways in New Mexico. None of these byways are located near the airport. *Source: U.S. Department of Transportation, National Scenic Byways & All-American Roads, accessed July 2024*

(Table continues)

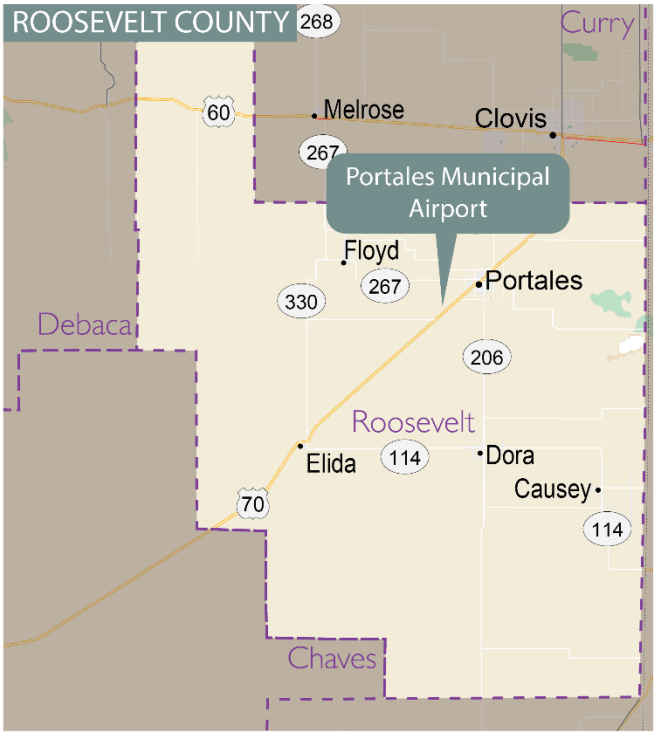
TABLE 1C (continued): Summary of Existing Environmental Conditions

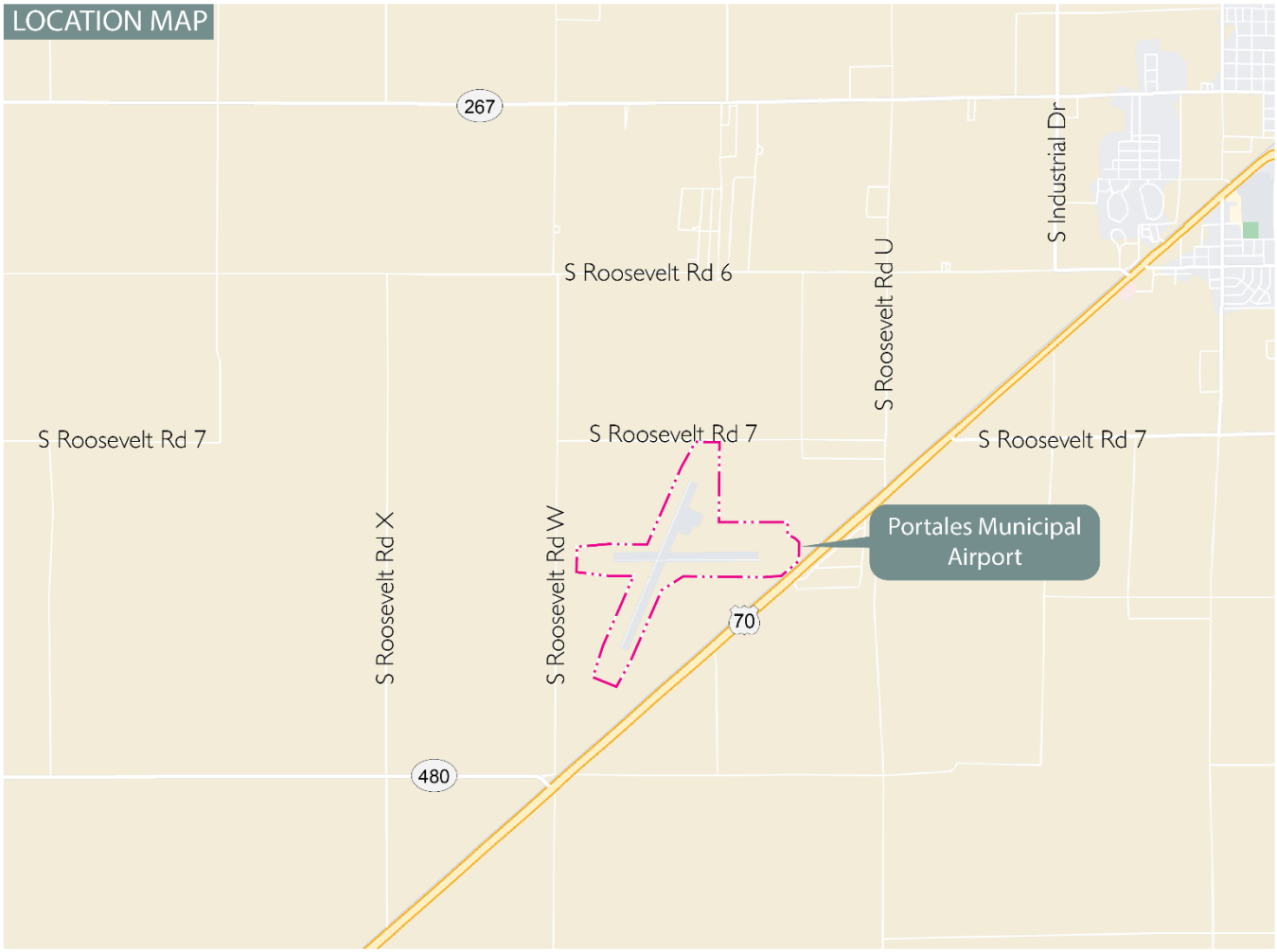
Category	Existing Environmental Conditions
Water Resources: Wetlands	The USFWS manages the National Wetlands Inventory on behalf of all federal agencies. The National Wetlands Inventory identifies surface waters and wetlands in the nation. There are no wetlands located at the airport (**Exhibit 1L**). *Source: National Wetlands Inventory, accessed July 2024*
Water Resources: Floodplains	A review of the Federal Emergency Management Agency (FEMA) *Flood Insurance Rate Map* (FIRM) panel 25041C0470F (effective June 20, 2024) denotes that the majority of the airport is located in Zone X, which is identified as an area of minimal flood hazard; however, a small portion of the airport located east of the T-hangars is within Zone A, a special flood hazard area, so a portion of the airport is located within the 100-year floodplain (**Exhibit 1L**). *Source: FEMA, Flood Map Service Center, accessed July 2024*
Water Resources: Surface Waters	Portales Municipal Airport is located in the Town of Yerba watershed. There are no waterbodies within this watershed assessed for water quality impairment by the U.S. Environmental Protection Agency (EPA). *Source: U.S. EPA, How's My Waterway, accessed July 2024*
Water Resources: Groundwater	The airport is not located near a sole source aquifer. The nearest sole source aquifer is the Espanola Basin Aquifer System SSA, which is located 165 miles northwest of the airport. *Source: U.S. EPA, Sole Source Aquifers, accessed July 2024*
Water Resources: Wild and Scenic Rivers	The closest designated National Wild and Scenic River identified is the Pecos River, which is located 160 miles from the airport. The nearest Nationwide Rivers Inventory feature is the Canadian River, which is located 105 miles from the airport. *Sources: National Wild and Scenic River System in the U.S.; Nationwide Rivers Inventory*

SUMMARY

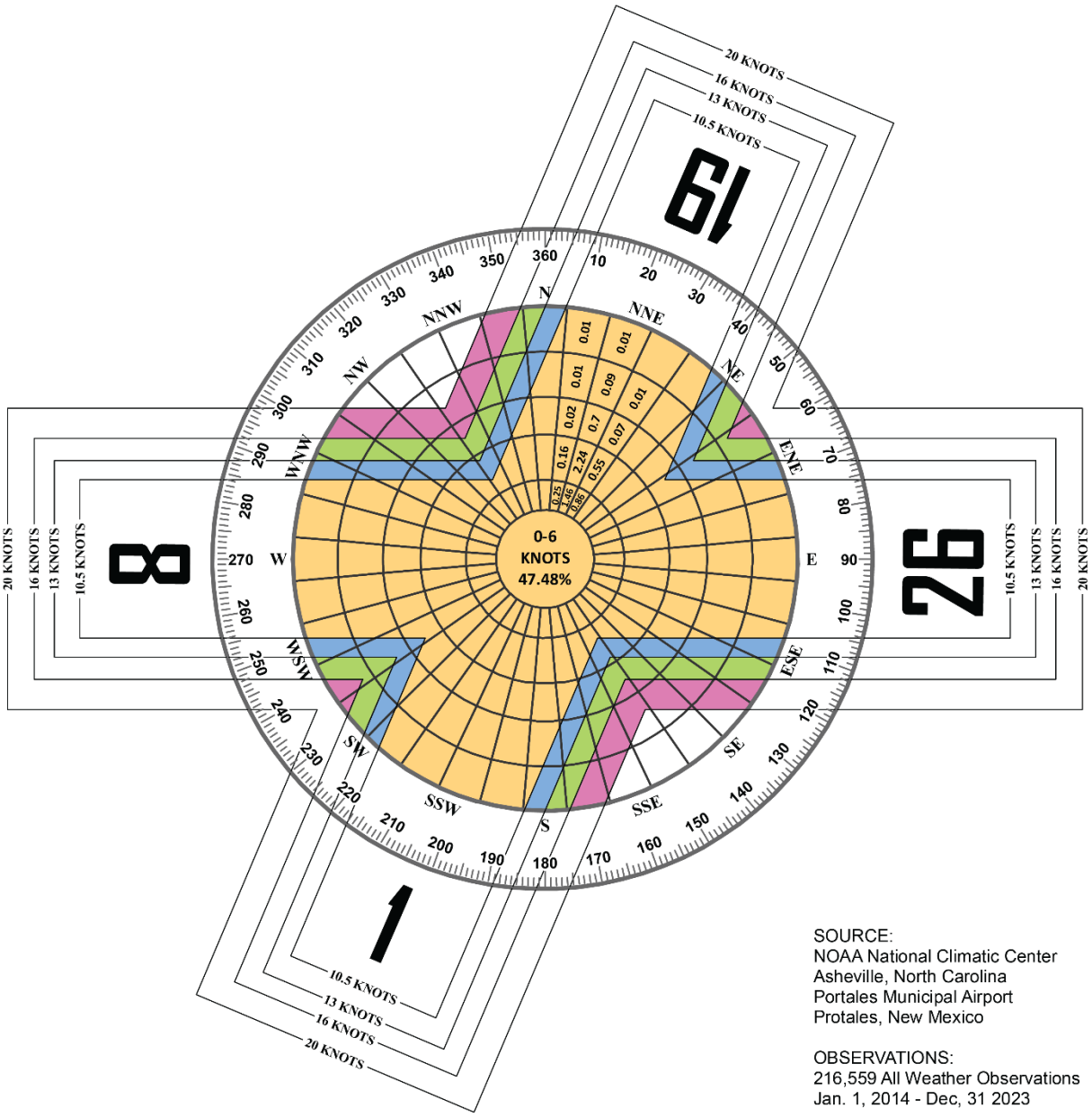
The intent of the inventory section has been to outline what facilities and equipment are currently available at PRZ. The next step will be to formulate forecasts that best meet the projected growth for both based aircraft and operations at PRZ for the long-term planning period.


NEW MEXICO
UTAH
COLORADO
Farmington
Los Alamos
Gallup
Santa Fe
Las Vegas
Albuquerque
Portales Municipal Airport
Portales
Roswell
Silver City
Artesia
Hobbs
Carlsbad
Deming
Las Cruces
TEXAS
ARIZONA
MEXICO


ROOSEVELT COUNTY
Curry
Melrose
Clovis
Portales Municipal Airport
Floyd
Portales
Debaca
Roosevelt
Elida
Dora
Causey
Chaves
268
60
267
330
206
70
114


LOCATION MAP
267
S Roosevelt Rd 6
S Industrial Dr
S Roosevelt Rd U
S Roosevelt Rd 7
S Roosevelt Rd 7
S Roosevelt Rd 7
S Roosevelt Rd X
S Roosevelt Rd W
Portales Municipal Airport
70
480

ALL-WEATHER WIND COVERAGE				
Runways	10.5 Knots	13 Knots	16 Knots	20 Knots
Runway 1-19	86.58%	92.10%	97.40%	99.41%
Runway 8-26	91.96%	95.50%	98.49%	99.70%
All Runways	99.42%	99.92%	99.99%	100.00%



SOURCE:
NOAA National Climatic Center
Asheville, North Carolina
Portales Municipal Airport
Protales, New Mexico

OBSERVATIONS:
216,559 All Weather Observations
Jan. 1, 2014 - Dec, 31 2023

LEGEND

Airport Property Line

A Taxiway Designator

KEY

AWOS: Automated Weather Observing System

Segmented Circle/ Lighted Wind Cone

Aircraft Parking Apron

Two 12,000-Gallon Fuel Storage Tanks

Rotating Beacon

Helicopter Parking

Lighted Wind Cone

Runway 1-19 (5,700' x 60')

Runway 8-26 (4,560' x 60')

Airport Road

Lighted Wind Cone

AWOS Critical Area

AWOS

Lighted Wind Cone

S Roosevelt Road W

S Roosevelt Road

Highlands Road

Highlands Road

BNSF Railroad

Bramseum

70

A1 A2 A3 A4 A B B1 B2 B3 B4

N

0 800

SCALE IN FEET

Photo: Google Earth 12/2023

Building No.	Building Type	Size (sf*)
1	Terminal Building	3,470
2	T-Hangar	12,420
3	T-Hangar	12,970
4	T-Hangar	11,600
5	Maintenance Facility	3,400
6	Residence	2,640
7	Box Hangar	2,080
8	Box Hangar	3,980

*square footage is approximate

INSET

1" = 300'

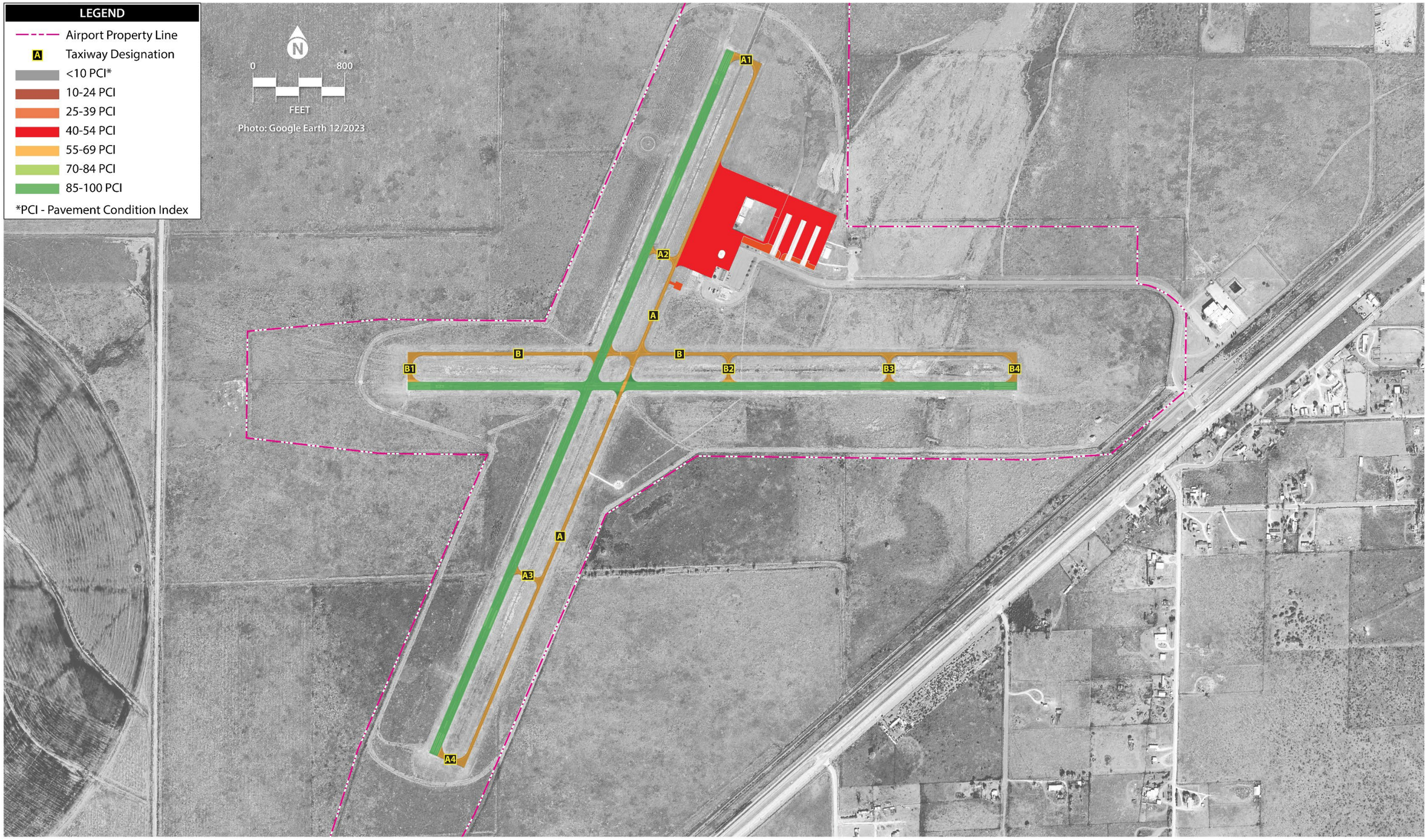


Exhibit 1D
PAVEMENT CONDITION

PORTALES, NEW MEXICO AL-5862 (FAA) 21224

RNAV (GPS) RWY 1

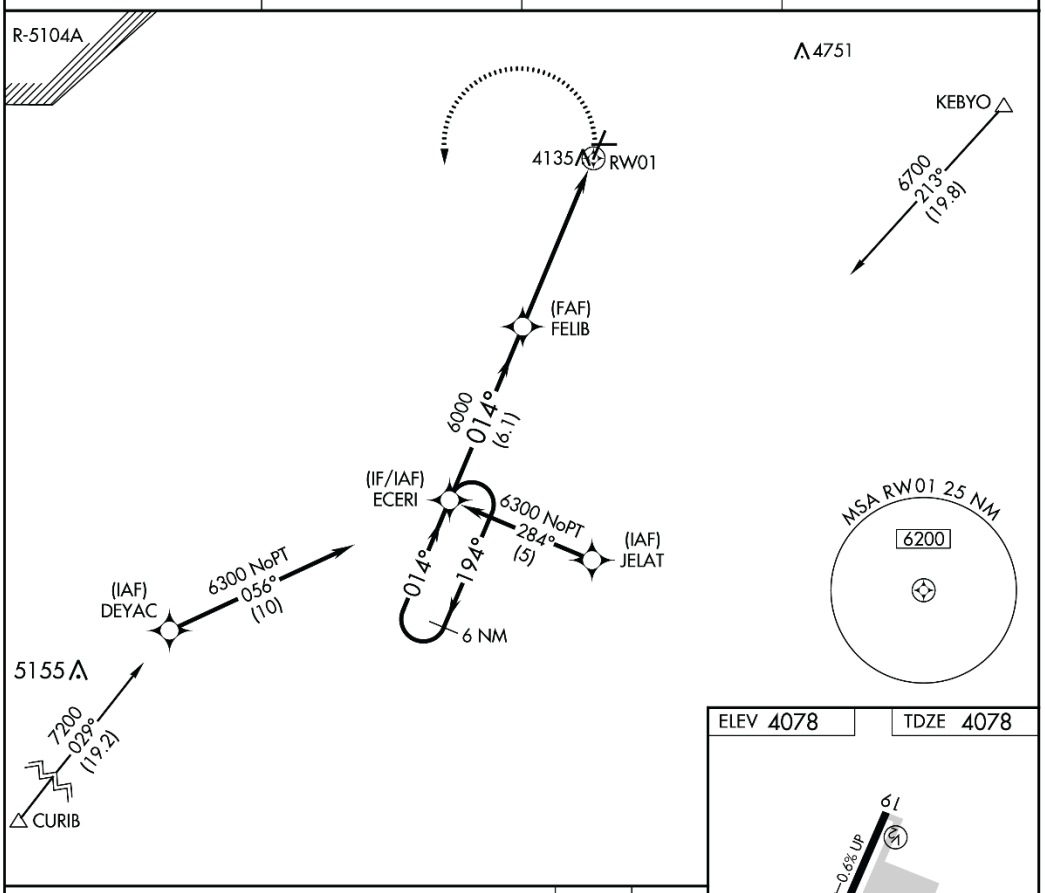
PORTALES MUNI (PRZ)

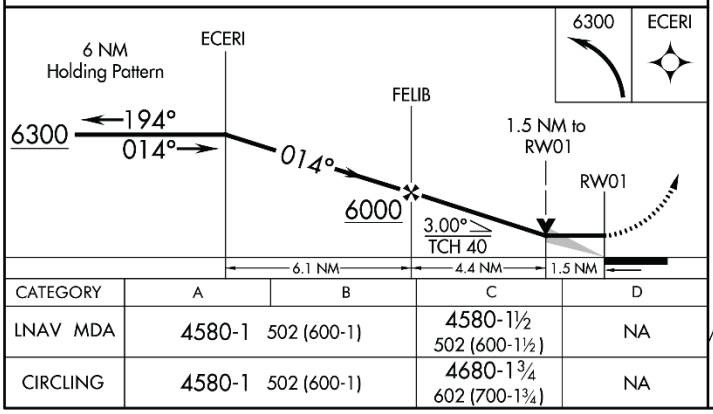
APP CRS	Rwy Idg	5700
014°	TDZE	4078
	Apt Elev	4078

DME/DME RNP- 0.3 NA. VDP NA when using Clovis Rgnl altimeter setting. When local altimeter setting not received, use Clovis Rgnl altimeter setting and increase all MDAs 80 feet; increase Circling Cat C visibility ¼ SM.

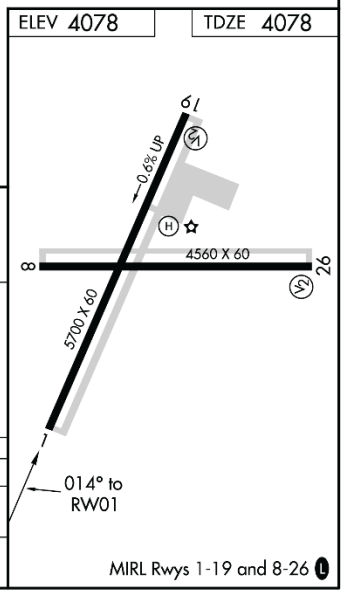
MISSED APPROACH: Climbing left turn to 6300 direct ECERI and hold.

AWOS-3	CANNON APP CON	CLNC DEL	UNICOM
118.175	118.425 352.1	119.0	122.8 (CTAF) L





CATEGORY	A	B	C	D
LNAV MDA	4580-1	502 (600-1)	4580-1½ 502 (600-1½)	NA
CIRCLING	4580-1	502 (600-1)	4680-1¾ 602 (700-1¾)	NA



PORTALES, NEW MEXICO
Orig-A 12AUG21

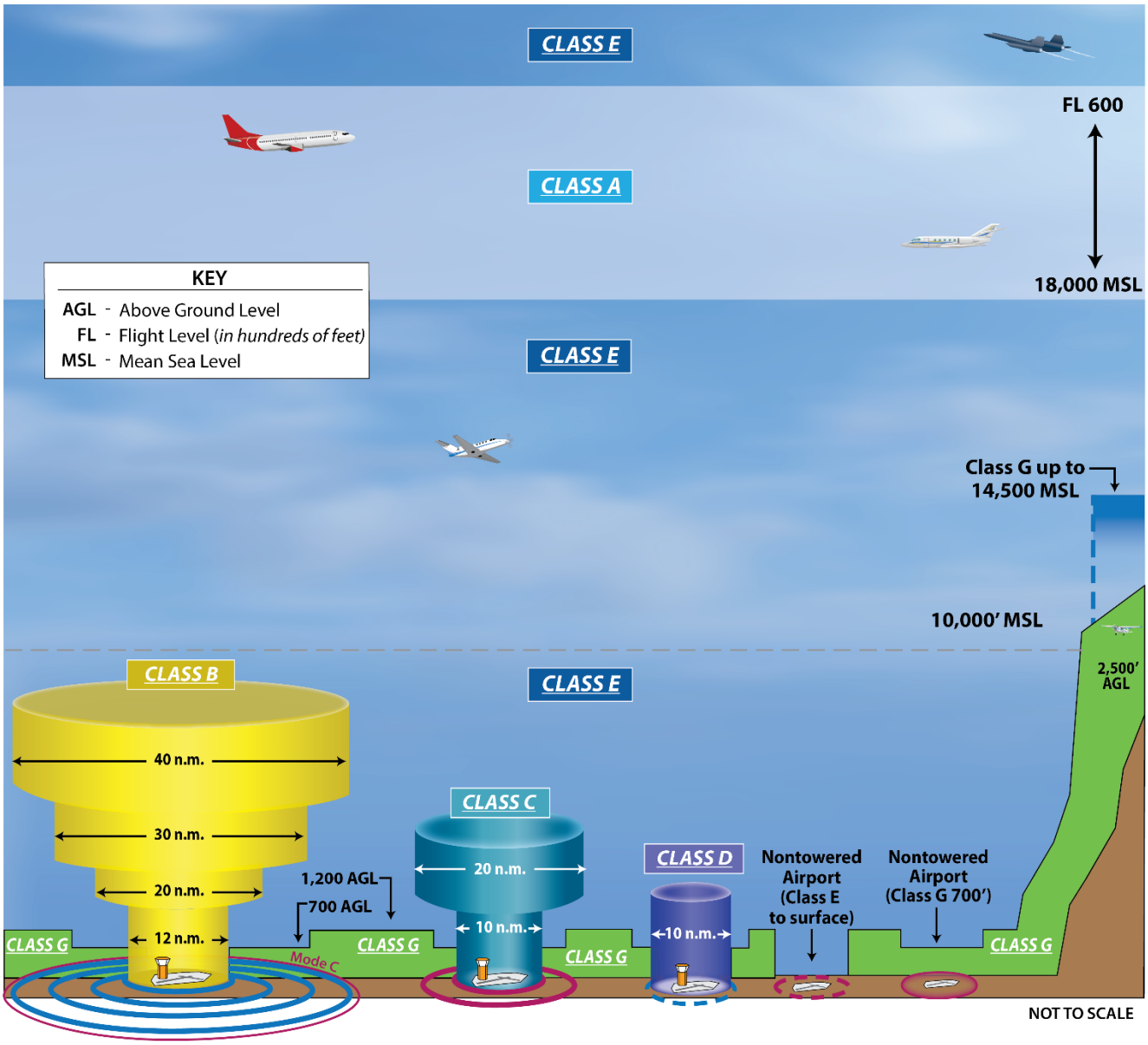
34°09'N-103°25'W

PORTALES MUNI (PRZ)

RNAV (GPS) RWY 1

SW-1, 16 MAY 2024 to 13 JUN 2024

SW-1, 16 MAY 2024 to 13 JUN 2024



DEFINITION OF AIRSPACE CLASSIFICATIONS

CLASS A Think A - Altitude. Airspace above 18,000 feet MSL up to and including FL 600. Instrument Flight Rule (IFR) flights only, ADS-B 1090 ES transponder required, ATC clearance required.

CLASS B Think B - Busy. Multi-layered airspace from the surface up to 10,000 feet MSL surrounding the nation's busiest airports. ADS-B 1090 ES transponder required, ATC clearance required.

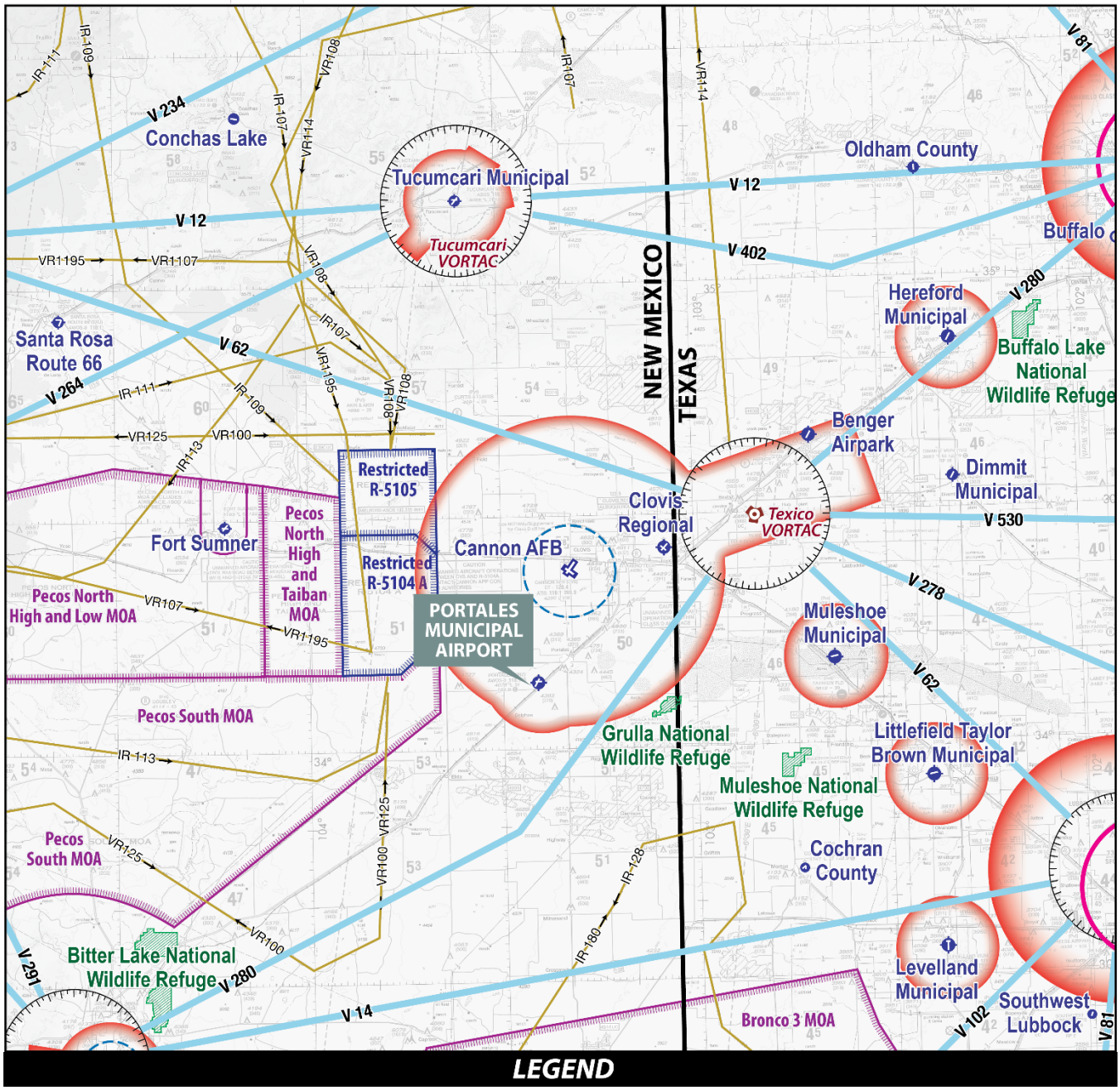
CLASS C Think C - Mode C. Mode C transponder required. ATC communication required. Generally airspace from the surface to 4,000 feet AGL surrounding towered airports with service by radar approach control.

CLASS D Think D - Dialogue. Pilot must establish dialogue with tower. Generally airspace from the surface to minimum 2,500 feet AGL surrounding towered airports.

CLASS E Think E - Everywhere. Controlled airspace that is not designated as any other Class of airspace.

CLASS G Think G - Ground. Uncontrolled airspace. From surface to a 1,200 AGL (in mountainous areas 2,500 AGL) Exceptions: near airports it lowers to 700' AGL; some airports have Class E to the surface. Visual Flight Rules (VFR) minimums apply.

Source: www.faa.gov/regulations_policies/handbooks_manuals/aviation/phak/media/15_phak_ch15.pdf



LEGEND

- Airport with other than hard-surfaced runway
- Airport with hard-surfaced runways 1,500' to 8,069' in length
- Airports with hard-surfaced runways greater than 8,069' or some multiple runways less than 8,069'
- Compass Rose
- VORTAC
- Prohibited, Warning, or Restricted Areas
- Military Operations Area (MOA)
- Class C Airspace
- Class E Airspace
- Class E (sfc) Airspace with floor 700 ft. above surface that laterally abuts 1200 ft. or higher Class E airspace
- Victor Airways
- Wildlife Refuge
- Millitary Training Routes

Source:
Albuquerque Sectional Chart, US Department of Commerce, National Oceanic and Atmospheric Administration, Jan 25, 2024

CLOVIS REGIONAL AIRPORT (CVN)

Distance from PRZ ..... 23.6 nm N
Airport NPIAS Designation ..... Regional
Based Aircraft 67
Elevation ..... 4,215.8 feet MSL
Weather Reporting..... Yes, AWOS
ATCT ..... None
Annual Operations 16,187

Primary Runway	Runway 4-22	Runway 8-26	Runway 12-30
Surface Type/Condition	Asphalt-Good	Turf-Fair	Asphalt-Good
Length	7,200'	2,442'	5,697′
Width	150'	75'	100′
Pavement Strength (pounds)			
SWL	45,000 lbs	N/A	42,000 lbs
DWL	57,000 lbs	N/A	50,000 lbs
Lighting	MIRL	None	MIRL
Marking	PIR/NPI	N/A	NPI/NPI
Approach Aids	PAPI-4/PAPI-4	None	None/VASI
Instrument Approach Procedures	ILS/GPS	None	GPS

Services Provided: Jet A and 100LL, Hangars, Tiedowns

MULESHOE MUNICIPAL AIRPORT (2T1)

Distance from PRZ ..... 38.3 nm E
Airport NPIAS Designation .....Basic
Based Aircraft 9
Elevation .....3,779 feet MSL
Weather Reporting..... None
ATCT ..... None
Annual Operations 3,000

Primary Runway	Runway 12-30
Surface Type/Condition	Asphalt-Good
Length	5,100′
Width	60′
Pavement Strength (pounds)	
SWL	12,500 lbs
DWL	N/A
Lighting	MIRL
Marking	NPI/NPI
Approach Aids	PAPI-2/PAPI-2
Instrument Approach Procedures	GPS

Services Provided: 100LL, Hangars, Tiedowns

KEY

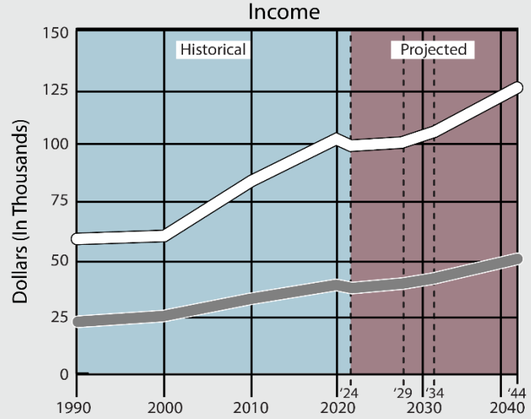
ATCT	|	Air Traffic Control Tower
AWOS	|	Automated Weather Observing System
DWL	|	Dual Wheel Loading
GPS	|	Global Positioning System
ILS	|	Instrument Landing System
MIRL	|	Medium Intensity Runway Lights
N/A	|	Not Applicable
NM	|	Nautical Mile
NPI	|	Non-Precision
NPIAS	|	National Plan of Integrated Airport Systems
PAPI	|	Precision Approach Path Indicators
PIR	|	Precision
SWL	|	Single Wheel Loading

	HISTORICAL				PROJECTED				
	1990	2000	2010	2020	2024	2029	2034	2044	CAGR
POPULATION									
Total Population	16,781	18,007	19,994	19,148	18,864	19,211	19,486	19,818	0.25%
Median Age	28	29	29	31	31	33	35	39	1.15%
Male Population	8,197	8,868	10,072	9,664	9,421	9,677	9,880	10,184	0.39%
Female Population	8,584	9,139	9,922	9,484	9,443	9,534	9,606	9,634	0.10%
Total Number of Households	6,027	6,658	7,371	7,160	7,230	7,426	7,505	7,503	0.19%
Persons Per Household	3	3	3	3	2	2	2	2	0.00%
EMPLOYMENT									
Total Employment (in thousands of jobs)	6,646	7,838	9,017	7,964	8,097	8,077	8,080	8,126	0.02%
Farm	1,068	1,331	1,115	1,073	950	930	914	885	-0.35%
Foresting, Fishing, and Related Activities (and other)	216	280	210	178	185	184	181	172	-0.36%
Mining	37	32	45	24	24	24	24	24	0.00%
Utilities	44	62	52	87	64	63	62	60	-0.32%
Construction	278	397	389	344	356	356	356	356	0.00%
Manufacturing	325	264	451	476	518	566	619	743	1.82%
Wholesale Trade	116	84	74	90	105	98	92	79	-1.41%
Retail Trade	595	819	1,004	751	777	768	758	739	-0.25%
Transportation and Warehousing	292	389	477	502	499	442	406	351	-1.74%
Information	78	87	105	51	51	52	52	48	-0.30%
Finance and Insurance	138	140	172	170	170	166	163	156	-0.43%
Real Estate and Rental and Lease	122	125	247	208	244	254	265	292	0.90%
Professional and Technical Services	129	134	181	114	166	162	158	151	-0.47%
Management of Companies and Enterprises	0	0	15	2	2	2	2	2	0.00%
Administrative and Waste Services	45	55	216	80	96	102	108	122	1.21%
Educational Services	15	15	53	32	47	50	54	63	1.48%
Health Care and Social Assistance	547	567	660	582	590	601	612	635	0.37%
Arts, Entertainment, and Recreation	65	87	76	89	113	109	105	97	-0.76%
Accommodation and Food Services	488	593	547	605	621	609	597	573	-0.40%
Other Services, Except Public Administration	308	316	393	335	332	340	346	359	0.39%
Federal Civilian Government	71	72	68	54	39	38	36	33	-0.83%
Federal Military	92	59	51	45	42	42	42	42	0.00%
State and Local Government	1,577	1,930	2,416	2,072	2,106	2,119	2,128	2,144	0.09%
INCOME AND SPENDING									
Total Earnings (in 2017 dollars)	230,168	269,551	406,673	382,572	367,030	387,493	409,448	456,153	1.09%
Total Personal Income Per Capita (in 2017 dollars)	22,589	25,570	34,590	41,972	40,325	42,735	45,404	51,257	1.21%
Mean Household Total Personal Income (in 2017 dollars)	59,225	60,805	89,760	107,402	100,568	105,550	112,418	128,894	1.25%
Gross Regional Product (in 2017 dollars)	321,446	444,090	634,985	629,184	789,570	825,075	863,063	944,111	0.90%
Total Retail Sales, including Food and Beverage (in 2017 dollars)	149,841	207,147	180,402	186,743	178,705	193,508	206,549	233,894	1.35%
Total Retail Sales Per Household (in 2017 dollars)	24,862	31,112	24,475	21,891	24,717	26,058	27,522	31,173	1.17%

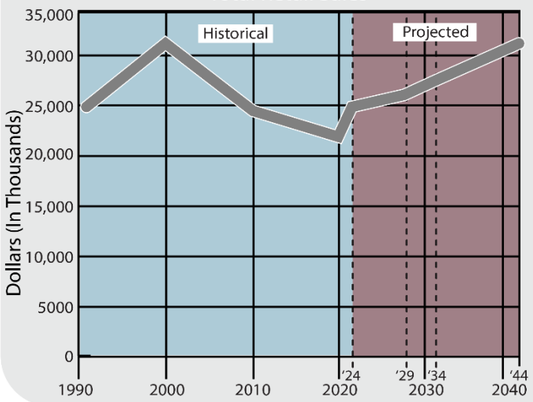
CAGR - Compound Annual Growth Rate

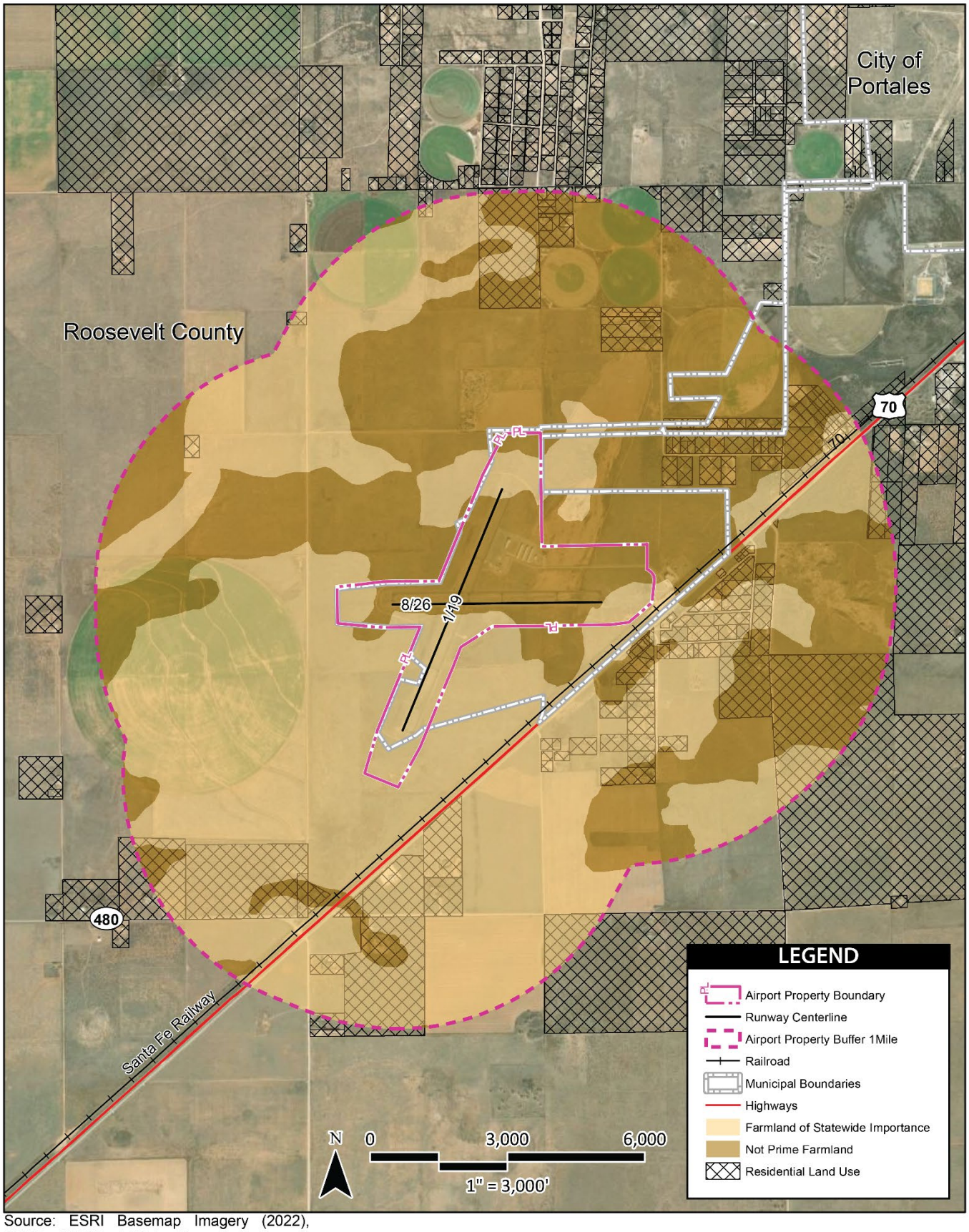
Population and Employment

Income



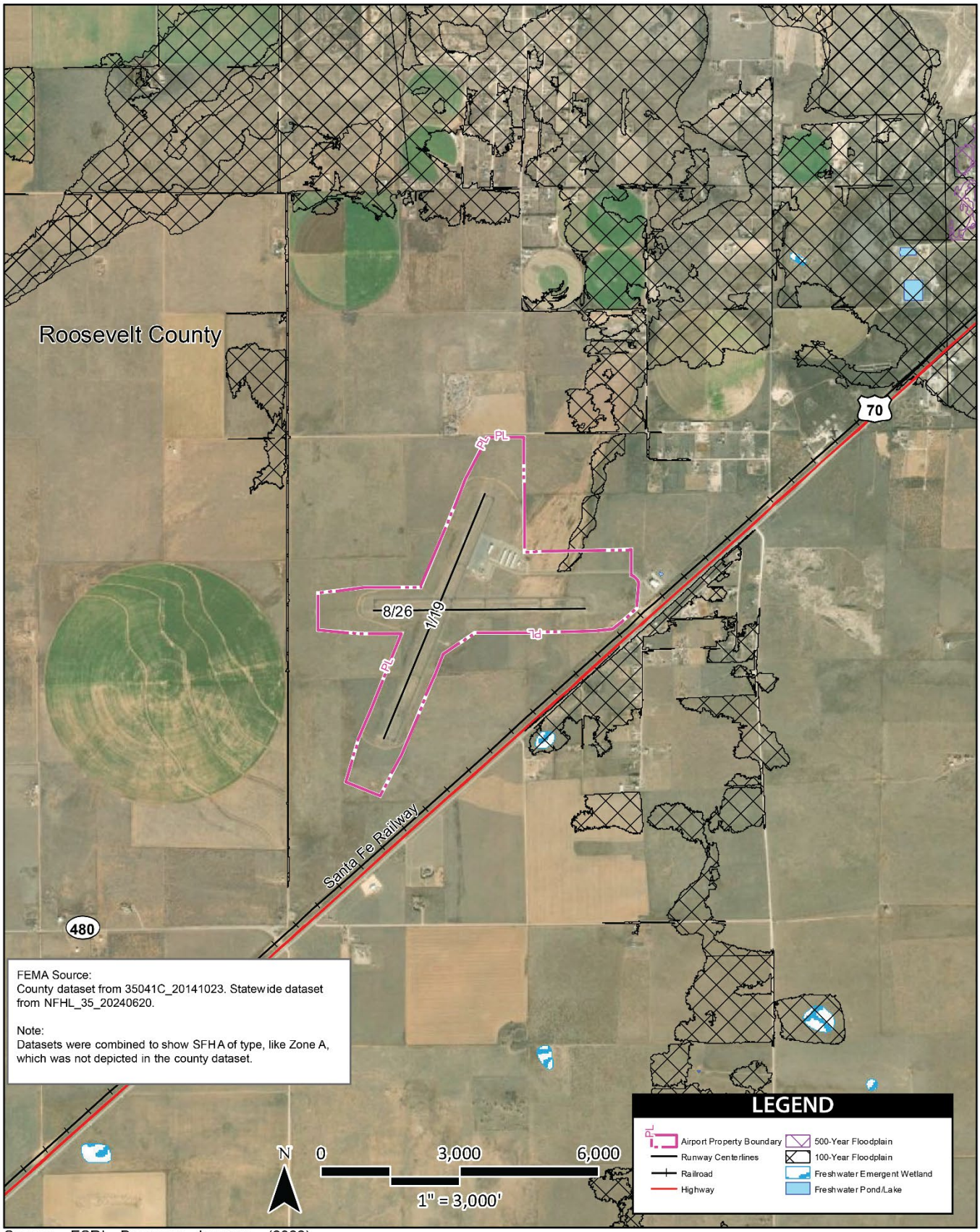
Total Retail Sales





Source: ESRI Basemap Imagery (2022), FEMA, USGS, USDA, Roosevelt County, City of Portales, Coffman Associates Analysis

Exhibit 1K: URBAN RESOURCES WITHIN ONE MILE OF THE AIRPORT



Source: ESRI Basemap Imagery (2022), FEMA, USGS, USDA, Roosevelt County, City of Portales, Coffman Associates Analysis