

Appendix A

Acronyms and Definitions

Acronyms

AC	Advisory Circular
ADG	Airplane Design Group
ADO	Airport District Office
AGL	Above Ground Level
AIM	Aeronautical Information Manual
AIP	Airport Improvement Program
ALP	Airport Layout Plan
ANM	Northwest Mountain Region
ARC	Airport Reference Code
ARFF	Airport Rescue and Fire Fighting
ARP	Airport Reference Point
ARTCC	Air Route Traffic Control Center
ASDA	Accelerate-Stop Distance Available
ASV	Annual Service Volume
ATC	Air Traffic Control
ATCT	Air Traffic Control Tower
AVGAS	Aviation Gasoline
AWOS	Automated Weather Observing System
CFR	Code of Federal Regulations
CIP	Capital Investment Plan
CWY	Clearway
dB	Decibel
dBA	A-weighted Decibels
DH	Decision Height
DME	Distance Measuring Equipment
DOT	Department of Transportation
EA	Environmental Assessment
EIS	Environmental Impact Statement
FAA	Federal Aviation Administration
Part 77	Objects Affecting Navigable Airspace
FAR	Federal Aviation Regulations
FBO	Fixed Based Operator
GA	General Aviation

GPS	Global Positioning System
IFR	Instrument Flight Rules
INM	Integrated Noise Model
LDA	Landing Distance Available
LL	Low Lead
MIRL	Medium Intensity Runway Lights
MITL	Medium Intensity Taxiway Lights
MSL	Mean Sea Level
NAVAIDS	Navigational Aids
NDB	Non-Directional Beacon
NEPA	National Environmental Policy Act
OFA	Object Free Area
OFZ	Obstacle Free Zone
RPZ	Runway Protection Zone
RSA	Runway Safety Area
RW	Runway
SEPA	State Environmental Protection Act
SY	Square Yards
SWY	Stopway
TH	Threshold
TL	Taxilane
TODA	Take-Off Distance Available
TORA	Take-Off Run Available
TSA	Taxiway Safety Area
TW	Taxiway
VASI	Visual Approach Slope Indicator
VFR	Visual Flight Rules
WSCASP	Washington State Continuous Airport System Plan
WSDOT	Washington State Department of Transportation

Definitions

- Aeronautical Activity Any activity commonly performed at airports involving, required for, or permitting the operation of aircraft, or required for or contributing to the safety of aircraft operations. Aeronautical activities include, but are not limited to: pilot training, aircraft rental, air taxi, charter operations, sightseeing, air carrier operations, aircraft repair and maintenance, sale of aircraft parts, sale of aviation fuels and petroleum products, air cargo, aerial crop applications, aerial photography, aerial surveying, aerial advertising, aircraft sales, aircraft storage, ultralight operations, skydiving, and power assisted hang gliding or parasailing.
- Aeronautical Service Any service involving, required for or permitting the operation of aircraft or required for or contributing to the safety of aircraft operations. These services are commonly conducted on the airport by persons or businesses who lease facilities or have permission from the airport operator to provide such services.
- Air Taxi An air carrier certificated in accordance with FAR Part 135 and authorized to provide, on demand, public transportation of persons and property by aircraft. Air taxi operators generally operate small aircraft “for hire” for specific trips.
- Aircraft Approach Category A grouping of aircraft based on a speed of 1.3 times the stall speed in the landing configuration at maximum gross landing weight. The aircraft approach categories are:
- Category A - Speed less than 91 knots;
 - Category B- Speed 91 knots or more but less than 121 knots;
 - Category C - Speed 121 knots or more but less than 141 knots;
 - Category D - Speed 141 knots or more but less than 166 knots; and
 - Category E - Speed 166 knots or more.
- Aircraft Mix The classification of aircraft into groups which are similar in size, noise, and operational characteristics. (Also see Fleet Mix.)

Aircraft Operations The airborne movement of aircraft. There are two types of operations: local and itinerant, defined as follows:

1. Local Operations are performed by aircraft which:
 - a... operate in the local traffic pattern or within sight of the airport;
 - b. . are known to be departing for or arriving from a local practice area.
2. Itinerant operations are all others.

Airfield A defined area on land or water including any buildings, installations, and equipment intended to be used either wholly or in part for the arrival, departure, or movement of aircraft.

Airplane Design Group A grouping of airplanes based on wingspan. The groups are as follows:

- Group I: Up to but not including 49 feet (15 m).
- Group II: 49 feet (15 m) up to but not including 79 feet (24 m).
- Group III: 79 feet (24 m) up to but not including 118 feet (36 m).
- Group IV: 118 feet (36 m) up to but not including 171 feet (52 m).
- Group V: 171 feet (52 m) up to but not including 214 feet (65 m).
- Group VI: 214 feet (65 m) up to but not including 262 feet (80 m).

Airport All of the property, buildings, facilities and improvements within the property boundaries of the airport as it now exists or will exist in the future. This area is defined on the Airport Layout Plan or Exhibit A.

Airport Elevation The highest point on an airport’s usable runway expressed in feet above mean sea level (MSL).

Airport Layout Plan (ALP) The plan of an airport showing the layout of existing and proposed airport facilities.

Airport Owner	The City of Auburn and/or its designee who is charged with the operation and administration of the airport.
Airport Reference Point (ARP) ...	The latitude and longitude of the approximate center of the airport.
Airside	The runways, taxiways, aprons, ramps, buildings and facilities located inside the security fencing.
Airspace	The area above the ground in which aircraft travel. It is divided into corridors, routes, and restricted zones for the control and safety of aircraft.
Ambient Noise Level	Background noise level, exclusive of the contribution made by aircraft.
Annual Service Volume	A reasonable estimate of an airport's annual capacity. It accounts for differences in runway use, aircraft mix, weather conditions, etc., that would be encountered over a year's time.
Approach End of Runway	The near end of the runway as viewed from the cockpit of a landing aircraft.
Approach Surface	An imaginary surface longitudinally centered on the extended runway centerline and extending outward and upward from each end of the primary surface. An approach surface is applied to each end of the runway based upon the planned approach. The inner edge of the approach surface is the same width as the primary surface and expands uniformly, depending upon the planned approach.
Approved Instrument Approach .	Instrument approach meeting the design requirement, equipment specifications, and accuracies, as determined by periodic FAA flight checks, and which are approved for general use and publication by the FAA.
Apron	A defined area where aircraft are maneuvered and parked, and where activities associated with the handling of flights can be carried out.

Automated Weather Observing System (AWOS)	An automatic recording instrument for measuring cloud height, visibility, wind speed and direction, temperature, and dew point.
Aviation Gasoline (AVGAS)	Fuel used in reciprocating (piston) aircraft engines. Avgas is manufactured in the following grades: 80/87; 100LL; 100/130; and 115/145.
Avigation Easement	A form of limited property right purchase that establishes legal land-use control prohibiting incompatible development of areas required for airports or aviation-related purposes.
Based Aircraft	Aircraft stationed at an airport on an annual basis.
Circling Approach	An instrument approach procedure in which an aircraft executes the published instrument approach to one runway, then maneuvers visually to land on a different runway. Circling approaches are also used at airports that have published instrument approaches with a final approach course that is not aligned within 30 degrees of any runway.
Clear Zone	See Runway Protection Zone.
Clearway	A clearway is an area available for the continuation of the take-off operation which is above as clearly defined area connected to and extending beyond the end of the runway. The area over which the clearway lies need not be suitable for stopping aircraft in the event of an aborted take-off. Clearways are applicable only in the take-off operations of turbine-engined aircraft.
Commercial Service or Activity ..	Any commerce, trade or business involved in the exchange of goods, property or services of any kind.
Conical Surface	A surface extending outward and upward from the horizontal surface at a slope of 20:1 for a horizontal distance of 4,000 feet.
Controlled Airspace	Airspace designated as continental control area, control area, control zone, or transition area within which some or all aircraft may be subject to air traffic control.

Critical Aircraft	The aircraft which controls one or more design items based on wingspan, approach speed and/or maximum certificated take-off weight. The same aircraft may not be critical to all design items.
Cross wind	When used concerning wind conditions, the word means a wind not parallel to the runway or the path of an aircraft.
dBA	Decibels measured on the A-weighted scale to factor out anomalies.
Decibel (dB)	The standard unit of noise measurement relating to a logarithm scale in which 10 units represents a doubling of acoustic energy.
Displaced Threshold	Actual touchdown point on specific runway designated due to obstructions which make it impossible to use the actual physical runway end.
Effective Runway Gradient	The maximum difference between runway centerline elevations divided by the runway length, expressed as a percentage.
Environmental Assessment (EA)	A report prepared under the National Environmental Policy Act (NEPA) analyzing the potential environmental impacts of a federally funded project.
Environmental Impact Statement (EIS)	A report prepared under NEPA fully analyzing the potential significant environmental impacts of a federally-funded project.
FAR Part 77	Federal Aviation Regulations which establish standards for determining obstructions in navigable airspace.
Federal Aviation Administration (FAA)	A branch of the US Department of Transportation responsible for the regulation of all civil aviation activities.
Final Approach	The flight path of an aircraft which is inbound to the airport on an approved final instrument approach course, beginning at the point of interception of that course and extending to the airport or the point where circling for landing or missed approach is executed.

Fixed Base Operation (FBO)	An individual or business property licensed and authorized by written agreement with the airport owner to provide specified aeronautical services at the airport, and who rents or leases facilities on the airport to conduct these services. These operators commonly occupy an office, hangar or shop on the airport, and are required to comply with the written agreements and referenced rules and regulations.
Fixed Wing	For the purposes of this report, any aircraft not considered rotorcraft.
Flying Club	A non-commercial organization established to promote flying. Activities include, but are not limited to, development of aeronautical skills such as pilotage, navigation, airmanship, and the awareness and appreciation of aviation requirements and techniques.
Fuel	Aviation gasoline, jet fuel, automotive fuel or diesel.
Full Service FBO	A fixed base operator who provides a full range of services. This range of services generally includes aircraft rental, flight instruction, aircraft maintenance and repair, and pilot supplies.
General Aviation	All civil aviation operations other than scheduled air services and non-scheduled air transport operations for remuneration or hire.
Global Positioning System (GPS)	A system of US satellites orbiting the earth which is used to instantly and accurately determine the navigational position of users on or above the earth's surface.
Hazard to Air Navigation	An object which, as a result of an aeronautical study, the FAA determines will have a substantial adverse effect upon the safe and efficient use of a navigable airspace by aircraft, operation of air navigation facilities, or existing or potential airport capacity.
Horizontal Surface	An elliptical surface at an elevation 150 feet above the established airport elevation created by swinging 5,000-foot radius arcs from the center of each end of the primary surface. Tangent lines then connect these arcs.

- Independent Flight Instructor A single individual, working alone and without employees, partners, or facilities on the airport who provides professional, licensed/certified flight instruction.
- Independent Mechanic A single individual, working alone and without employees, partners, or facilities on the airport who provides professional, certificated repair and/or maintenance services for aircraft or aeronautical components.
- Instrument Flight Rules (IFR) Instrument Flight Rules governing the procedures for conducting instrument flight. Pilots are required to follow these rules when operating in controlled airspace with visibility of less than three miles and/or ceiling lower than 1,000 feet.
- Itinerant Operation All aircraft operations at an airport other than local.
- Landside All buildings and surfaces on the airport used by pedestrian or surface vehicular traffic located outside the airport security fence. The entire Auburn airport is fenced, so this designation is not applicable here.
- Large Airplane An airplane of more than 12,500 pounds (5,700 kg) maximum certificated takeoff weight.
- Limited Service FBO A fixed base operator whose services are confined to less than full service. Examples of Limited Service include FBOs who provide specialty services such as aircraft sales, painting or upholstery, avionics repair, or other specialty services, or who provide only aviation fuel, or only aircraft maintenance and repair, or only aircraft rental and charter.
- Local Operation Aircraft operation in the traffic pattern or within sight of the tower, or aircraft known to be departing or arriving from flight in local practice areas, or aircraft executing practice instrument approaches at the airport.
- Minimum Standards Standards established by the airport owner as the minimum requirements to be met as a condition for the right to provide commercial services on the airport.

- Navigational Aid (NAVAID) Any visual or electronic device airborne or on the surface which provides point-to-point guidance information or position data to aircraft in flight.
- Non-Aeronautical Service Any service conducted on the airport that provides products or services that are not associated with aviation. These services are provided by persons or businesses who lease facilities or have permission from the airport operator to provide such services on the airport.
- Non-Directional Beacon (NDB) .. Non-Directional Beacon which transmits a signal on which a pilot may “home” using equipment installed in the aircraft.
- Object Includes, but is not limited to above ground structures, NAVAIDs, people, equipment, vehicles, natural growth, terrain, and parked aircraft.
- Object Free Area (OFA) An area on the ground centered on a runway, taxiway, or taxilane centerline provided to enhance the safety of aircraft operations by having the area free of objects, except for objects that need to be located in the OFA for air navigation or aircraft ground maneuvering purposes.
- Obstacle Free Zone (OFZ) The OFZ is the airspace below 150 feet (45 m) above the established airport elevation and along the runway and extended runway centerline that is required to be clear of all objects, except for frangible visual NAVAIDs that need to be located in the OFZ because of their function, in order to provide clearance protection for aircraft landing or taking off from the runway, and for missed approaches. The OFZ is subdivided as follows:
- Runway OFZ - The airspace above a surface centered on the runway centerline.
 - Inner-approach OFZ - The airspace above a surface centered on the extended runway centerline. It applies to runways with an approach lighting system.
 - Inner-transitional OPZ - The airspace above the surfaces located on the outer edges of the runway OFZ and the inner-approach OFZ. It applies to runways with approach visibility minimums lower than $\frac{3}{4}$ -statute mile (1,200 m).

Obstruction to Air Navigation	An object of greater height than any of the heights or surfaces presented in Subpart C of the Code of Federal Regulation (14 CFR), Part 77. (Obstructions to air navigation are presumed to be hazards to air navigation until an FAA study has determined otherwise).
Precision Approach Path Indicator (PAPI)	A lighting system located along side of a runway which provides the pilot with position information related to the desired glide path to the runway. PAPIs contain red and white light units which are configured in a single row.
Primary Surface	A rectangular surface with a width of 250 feet (centered on the runway centerline) and a length that extends 200 feet beyond each end of the runway. The elevation of the primary surface corresponds to the elevation of the nearest point of the runway centerline.
Rotorcraft (Helicopter)	A heavier-than-air aircraft supported in flight by the reactions of the air on one or more power-driven rotors on substantially vertical axis.
Runway (RW)	A defined rectangular surface on an airport prepared or suitable for the landing or takeoff of airplanes.
Runway Blast Pad	A surface adjacent to the ends of runways provided to reduce the erosive effect of jet blast and propeller wash.
Runway Protection Zone (RPZ) ..	An area off the runway end to enhance the protection of people and property on the ground.
Runway Safety Area (RSA)	A defined surface surrounding the runway prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway.
Segmented Circle	A system of visual indicators designed to provide traffic pattern information at airports without operating control towers.
Self-Fueling Operator	A person who dispenses aviation fuel to aircraft owned by that person, or leased from others and operated by that person.

Shoulder	An area adjacent to the edge of paved runways, taxiways, or aprons providing a transition between the pavement and the adjacent surface; support of aircraft running off the pavement; enhanced drainage; and blast protection.
Small Airplane	An airplane of 12,500 pounds (5,700 kg) or less maximum certificated takeoff weight.
Stopway (SWY)	A defined rectangular surface beyond the end of a runway prepared or suitable for use in lieu of runway to support an airplane, without causing structural damage to the airplane, during an aborted takeoff.
Taxilane (TL)	The portion of the aircraft parking area used for access between taxiways and aircraft parking positions.
Taxiway (TW)	A defined path established for the taxiing of aircraft from one part of an airport to another.
Taxiway Safety Area (TSA)	A defined surface alongside the taxiway prepared or suitable for reducing the risk of damage to an airplane unintentionally departing the taxiway.
Threshold (TH)	The beginning of that portion of the runway available for landing. In some instances, the landing threshold may be displaced.
Touch and Go Operation	Practice flight performed by a landing touch down and continuous take-off without stopping or exiting the runway.
Transitional Surface	A sloping 7:1 surface that extends outward and upward at right angles to the runway centerline from the sides of the primary surface and the approach surfaces.
Ultralight	An aeronautical vehicle operated for sport or recreational purposes which does not require FAA registration, an airworthiness certificate, nor pilot certification. They are primarily single occupant vehicles, although some two-place vehicles are authorized for training purposes.
Utility Runway	A runway that is constructed for, and intended to be used by, aircraft of 12,500 pounds maximum gross weight and less.

Visual Approach Slope Indicator (VASI)	A lighting system located along side of a runway which provides the pilot with position information related to the desired glide path to the runway. VASIs are configured in bars (versus a single row like PAPIs)
Visual Flight Rules (VFR)	Visual Flight Rules by which aircraft are operated by visual reference to the ground. Weather conditions for flying under these rules must include a ceiling greater than 1,000 feet, three miles visibility, and standard cloud clearance.
Visual Runway	A runway without an existing or planned straight-in instrument approach procedure.
Wind Coverage	Wind coverage is the percent of time for which aeronautical operations are considered safe due to acceptable crosswind components.
Wind Rose	A scaled graphical presentation of wind information.

Appendix B

Zoning Ordinances

19.21 AIRPORT COMMERCIAL DISTRICT (AC)

Chapter 19.21 – AIRPORT COMMERCIAL DISTRICT

Section 19.21.010 – Purpose and Intent

The purpose of the Airport Commercial District is to provide an area and minimum standards for commercial airport operations and aviation-related commercial uses.
(Revised 3/24/03, Ordinance # 060953)

Section 19.21.020 - Permitted Uses

1. All uses and accessory structures necessary for the storage, servicing and sales of aircraft and aviation supplies; control of air traffic; and the provision of facilities and services for aircraft passengers.
2. Eating establishments primarily serving air terminal passengers and personnel.
3. Any use permitted in Section 19.30.020 provided it is demonstrated such use requires access to air transportation.
4. Small-Antenna facilities and Antenna Support Structures up to 40 feet in height in conformance with the requirements of Chapter 19.51 - Airport Landing Zone Overlay District and Chapter 19.58 - Communication and Utility Facilities.
5. Vehicle parking. (Revised 3/24/03, Ordinance # 060953)

Section 19.21.030 - Lot Size Requirements

The minimum lot size for principal uses permitted in this district shall be the minimum necessary to comply with the provisions of this title and the minimum necessary to safely accommodate water supply and, if necessary, on-site sewage disposal systems as approved by the Whitman County Department of Environmental Health.

Section 19.21.040 - Yard Requirements

1. The minimum front yard setback for all principal and accessory uses from a public right-of-way shall be 15 feet. On corner lots, this setback shall apply to both streets.
2. The minimum side and rear-yard setbacks for all principal and accessory uses shall be 10 feet. (Revised 3/24/03, Ordinance # 060953)

Section 19.21.050 - Height of Buildings

Maximum height of buildings and structures shall be governed by the limits defined in the Airport Landing Hazard Overlay Zone.

Section 19.21.055 – General Provisions

1. Landing strips and helicopter-pads shall be surrounded by an area that is free from obstructions.
2. Noise levels resulting from airplane and helicopter activity may conflict with surrounding land uses. The County may require the operator to provide buffer zones or restrict operations in order to minimize conflicts, except during emergency conditions.
3. Airports and landing strips shall be appropriately located in agricultural and industrial zones.

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Section 19.21.060 – Approach Requirements (Revised 3/24/03, Ordinance # 060953)

1. All Airport Commercial uses shall have direct access to a Class I-IV road as defined in the Comprehensive Plan. Access may be shared with adjacent commercial uses.
2. Access shall be designed to Whitman County standards.
3. A complete Level of Service (LOS) traffic and heavy vehicle weight analysis shall be submitted to and approved by the County Engineer for each proposed development prior to issuance of any permit and/or approval. If a development will cause the LOS on a County road to fall below adopted standards, the development shall be denied unless and until improvements can be made to support the development. Anticipated damage shall be mitigated according to Whitman County Development Standards in effect on the date of the damage. If no Development Standards are in effect, the anticipated impact to the LOS shall be mitigated at the direction of the County Engineer.
4. No person shall create any access without first obtaining an approach permit and meeting the approach general provisions.
5. Compliance with Chapter 19.52 - Transportation shall be completed prior to issuance of permits. (This section was revised 10/15/01, Ordinance # 058775)

Section 19.21.070 – Screening and Maintenance Requirements

1. The purpose of this section is to establish landscape, screening and property maintenance standards to enhance the aesthetic appearance of property throughout the County.
2. Screening shall provide a filtered view and may be provided by existing vegetation, landscaped areas, including the use of berms, fencing, trees and shrubs or a combination thereof. The use of drought tolerant vegetation is encouraged.
3. Perimeter Screening shall be provided as follows:
 - a. At the front, side and rear of all commercial and industrial sites to provide an all season visual separation between adjacent land uses. Perimeter landscaping shall shield the views of industrial and commercial land uses, including outdoor storage, service, parking and loading areas, from roads and adjacent uses. If, however, the rear of the site is adjacent to an agricultural use, no rear yard perimeter screening is required.
 - b. Avoid obstructing views of crosswalks, intersections and streetlights.
 - c. In the case of conditional uses, these screening requirements shall be subject to the decision of the Board of Adjustment, which may adjust the requirements according to the needs of the specific locale.
 - d. All yards shall be maintained such that there will be no accumulation of silt, mud or standing water causing unsightly or hazardous conditions either within the yard or on adjacent properties.

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- e. All yards and buildings shall be maintained in a neat, tidy manner, including trimming and upkeep of all landscaped areas, and the removal of debris and unsightly objects.
- f. All undeveloped land areas shall be maintained in permanent vegetative cover, farmed, or be landscaped with an approved combination of materials to control runoff. (This section was revised 3/24/03, Ordinance # 060953)

Section 19.21.080 - Conditional Uses

1. Because of considerations of traffic, noise, lighting, hazards, health and environmental issues, the following uses shall not be permitted in the Airport Commercial District unless a Conditional Use Permit authorizing such use has been granted by the Board of Adjustment; provided, however, that in situations described herein where as Administrative Use Permit may be granted in lieu of a Conditional Use Permit, the use of the land shall not be permitted until such time as an Administrative Use Permit has been granted by the County Planning Office:

- a. One single-family dwelling unit or mobile home to be occupied only by an employee or owner of a permitted use.
 - b. Hotels, Motels, or RV parks. (Revised 3/24/03, Ordinance # 060953)
 - c. Any use permitted in Section 19.20.020 provided it is demonstrated that such use requires access to air transportation, and that the use will not create adverse impacts on existing or planned airport uses, nor create safety hazards.
 - d. Cemeteries. (Revised 3/24/03, Ordinance # 060953)
 - e. Antenna Support Structure facilities greater than 40 feet in height in conformance with the requirements of Chapter 19.58 - Communication and Utility Facilities. Antenna Support Structures greater than 130 feet are allowed in this District by Conditional Use as long as the site is located more than 1/2 mile from any incorporated city or town or Rural Community District, and in conformance with the requirements of Chapter 19.58 - Communication and Utility Facilities. (Revised 5/14/01, Ordinance # 058050)
 - f. Inert materials (earth, concrete and asphalt) of more than 2,000 cubic yards of material, excepting fill materials designed within reclamation plans of permitted quarries and/or mines. [For earth fills less than 2,000 cubic yards, see Section 19.05.020(4)];
2. An Administrative Use Permit shall be required for:
- a. Rock crushing and quarrying for the specific purpose of preparing a suitable site for construction of a specific building or buildings including access and parking lots, based upon a preliminary site and grading plan subject to the minimum standards of Section 19.05.015, Chapter 19.59 - Surface Mining and Rock Crushing and Chapter 19.60 - Blasting or Explosive Demolition. (Revised 3/24/03, Ordinance # 060953)

19.51 AIRPORT LANDING ZONE OVERLAY DISTRICT (ALO)

Chapter 19.51 – AIRPORT LANDING ZONE OVERLAY DISTRICT (ALO)

Section 19.51.010. - Declaration of Intent.

The Airport Landing Zone Overlay District is intended to restrict the height of structures and objects of natural growth and to require the marking and lighting of existing and new uses within the Airport Landing Hazard Zone as established herein, all to control the hazard aircraft as required by Part 77 (Objects Affecting Navigable Airspace) of the Federal Aviation Regulations.

In order to carry out the provisions of these overlay zones there are hereby created and established certain zones on and around both airports with and without instrument approaches which include all of the land lying beneath the Airport Imaginary Surfaces as they apply to each and every airport within Whitman County. Such zones are shown on the current airport approach and clear zone maps, as prepared for individual airport sites.

Further, these overlay zones are intended to prevent the establishment of air space obstructions in airport approaches and surrounding areas through height restrictions and other land use controls as deemed essential to protect the health, safety and welfare of nearby residents and Whitman County.

Section 19.51.020. - Compliance.

In addition to complying with the provisions of the primary zoning district, uses and activities shall comply with the provisions of the overlay zone. In the event of any conflict between any provisions of the overlay zone and the primary zoning districts, the more restrictive provisions shall apply.

Section 19.51.030. - Establishment of Airport Landing Hazard Zones.

The following zones and definitions are hereby established, and are to be displayed on any map for an established Airport Commercial (AC) District.

Section 19.51.040. - Special Definitions.

1. *Airport Approach Safety Zone.* A surface longitudinally centered on the extended runway centerline and extending outward and upward from each end of the Primary Surface. The inner edge of the approach surface is the same width as the Primary Surface and extends to a width of: 1,250 feet for Utility Runway having only visual approaches; 1,500 feet for a runway other than a Utility Runway having only visual approaches; 2,000 feet for a Utility Runway having a nonprecision instrument approach; 3,500 feet for a nonprecision instrument runway other than utility having visibility minimums greater than three-fourths of a statute mile; 4,000 feet for a nonprecision instrument runway having visibility minimums as low as three-fourths statute mile; and 16,000 feet for precision instrument runways. The Airport Approach Safety zone extends for a horizontal distance of 5,000 feet at a slope of 20 feet outward for each foot upward (20:1) for all utility and visual runways; 10,000 feet at a slope of 34 feet outward for each one foot upward (34:1) for all nonprecision instrument runways other than utility; and for all precision instrument runways extends for a horizontal distance of 10,000 feet

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at a slope of 50 feet outward for each foot upward (50:1); thence slopes upward 40 feet outward for each foot upward (40:1) an additional distance of 40,000 feet.

2. *Airport Hazard.* Any structure, tree or use of land that exceeds height limits established by the Airport Imaginary Surfaces.
3. *Airport Imaginary Surfaces.* Those imaginary areas in space which are defined by the Airport Approach Safety Zone, Transitional Zones, Horizontal Zone, Clear Zone and Conical Surface and in which any object extending above these imaginary surfaces is an obstruction.
4. *Clear Zone.* Extends from the primary surface to a point where the approach surface is 50 feet above the runway end elevation.
5. *Conical Surface.* Extends 20 feet outward for each one foot upward (20:1) for 4,000 feet beginning at the edge of the horizontal surface (5,000 feet from the center of each end of the Primary Surface of each visual and utility runway or 10,000 feet for all nonprecision instrument runways other than utility at 150 feet above the airport elevation) and upward extending to a height of 350 feet above the airport elevation.
6. *Horizontal Surface.* A horizontal plane 150 feet above the established airport elevation, the perimeter of which is constructed by swinging arcs of 5,000 feet from the center of each end of the Primary Surface of each visual or utility runway and 10,000 feet from the center of each end of the Primary Surface of all other runways and connecting the adjacent arcs by lines tangent to those arcs.
7. *Noise Impact.* Noise levels exceeding 65 Ldn.
8. *Place of Public Assembly.* Structure or place that the public may enter for such purposes as deliberation, education, worship, shopping, entertainment, amusement, waiting transportation or similar activity.
9. *Primary Surface.* A surface longitudinally centered on a runway. When the runway has a specially prepared hard surface, the Primary Surface extends 200 feet beyond each end of that runway. When the runway has no specially prepared hard surface, or planned hard surface, the Primary Surface ends at each end of that runway. The width of the Primary Surface is 250 feet for Utility Runways having only visual approaches, 500 feet for other than utility runways and 1,000 feet for nonprecision instrument runways with visibility minimums of three-fourths of a mile or less and for precision instrument runways.
10. *Transitional Zones.* Extend seven feet outward for each one foot upward (7:1) beginning on each side of the Primary Surface which point is the same elevation as the runway surface, and from the sides of the approach surfaces thence extending upward to a height of 150 feet above the airport elevation (Horizontal Surface.)
11. *Utility Runway.* A runway that is constructed and intended to be used by aircraft having less than 118 foot wing span or an approach speed of less than 121 knots.

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Section 19.51.050. - Permitted uses within the Airport Approach Safety Zone.

1. Airport facilities, including runways, hangars, service facilities such as for aviation fuel, passenger terminal buildings, and all other uses common or incidental to airport use.
2. Uses which are permitted in the respective zones which are overlaid by the Airport Landing Zone Overlay District.
3. Farm use, excluding the raising and feeding of animals which would be adversely affected by aircraft passing overhead.
4. Cemetery or recreation areas which do not include buildings or structures.
5. Roadways, parking areas and storage yards located in such a manner that vehicle lights will not make it difficult for pilots to distinguish between landing lights and vehicle lights or result in glare, or in any way impair visibility in the vicinity of the landing approach. Approach surfaces must clear these by a minimum of 15 feet.
6. Pipeline.
7. Underground utility wire.

Section 19.51.060. - Conditional uses within the Airport Approach Safety Zone.

1. A structure or building accessory to a permitted use.
2. Single family dwellings, mobile homes, duplexes and multi-family dwellings, when authorized in the primary zoning district, provided the landowner signs and records in the deed and mortgage records of Whitman County a Hold Harmless Agreement and Aviation and Hazard Easement and submits them to the airport sponsor and County Planning Department.
3. Commercial and industrial uses, when authorized in the primary zoning district, provided the use does not result in the following:
 - a. Creating electrical interference with navigational signals or radio communication between the airport and aircraft.
 - b. Making it difficult for pilots to distinguish between airport lights or others.
 - c. Impairing visibility.
 - d. Creating bird strike hazards.
 - e. Endangering or interfering with the landing, taking off or maneuvering of aircraft intending to use the airport.
 - f. Attracting large number of people.
4. Buildings and uses of a public works service or public utility nature.

19.51 AIRPORT LANDING ZONE OVERLAY DISTRICT (ALO)

Section 19.51.070. - Procedures.

An applicant seeking a conditional use under Section 19.51.060 above, shall follow procedures as set forth in Section 19.06 of the Whitman County Code.

Section 19.51.080. - Limitations.

1. To meet the standards and reporting requirements established in FAA Regulations, Part 77, no structure shall penetrate into the Airport Imaginary Surfaces as defined above under Section 19.51.040(3).
2. No place of public assembly shall be permitted in the Airport Approach Safety Zone.
3. No structure or building shall be allowed within the Clear Zone.
4. Whenever there is a conflict in height limitations prescribed by this overlay zone and the primary zoning district, the lowest height limitation fixed shall govern; provided, however, that the height limitations here imposed shall not apply to such structures customarily employed for aeronautical purposes.
5. No glare producing materials shall be used on the exterior of any structure located within the Airport Approach Safety Zone.
6. In noise sensitive areas (within 1,500 feet of an airport or within established noise contour boundaries of 65 Ldn and above for identified airports) where noise levels are a concern, a declaration of anticipated noise levels shall be attached to any building permit and land division appeal. In areas where the noise level is anticipated to be 65 Ldn and above, prior to issuance of a building permit for construction of noise sensitive land use (real property normally used for sleeping or normally used as schools, churches, hospitals, or public libraries) the permit applicant shall be incorporated into the building design which will achieve an indoor noise level equal to or less than 65 Ldn. The planning and building department will review building permits for noise sensitive developments.

Section 19.51.090. - Issuance of Building Permits.

No building permit shall be issued for erection of any new structure or alteration to or expansion of any existing structure that would create an airport hazard due to height or increase the height of an existing airport hazard.

Section 19.51.095. - Hazard Marking and Lighting.

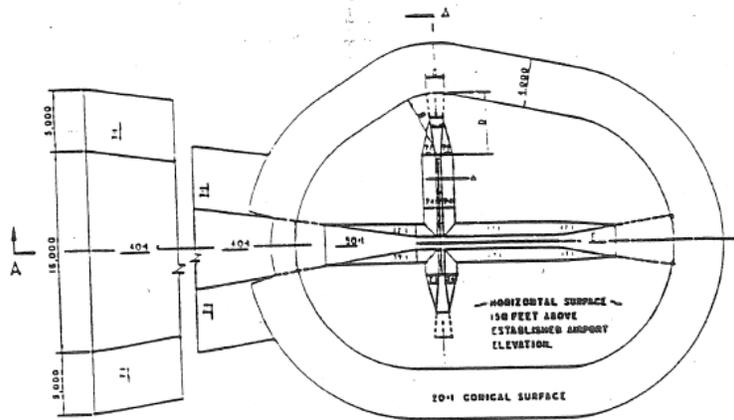
Any building permit may be conditioned, if deemed necessary by the Airport Manager to avoid an airport landing hazard, so as to require that the structure or tree in question is marked and/or lighted to indicate to pilots the presence of an airport hazard. Marking and lighting shall be installed, operated and maintained by the local airport authority.

19.51 AIRPORT LANDING ZONE OVERLAY DISTRICT (ALO)

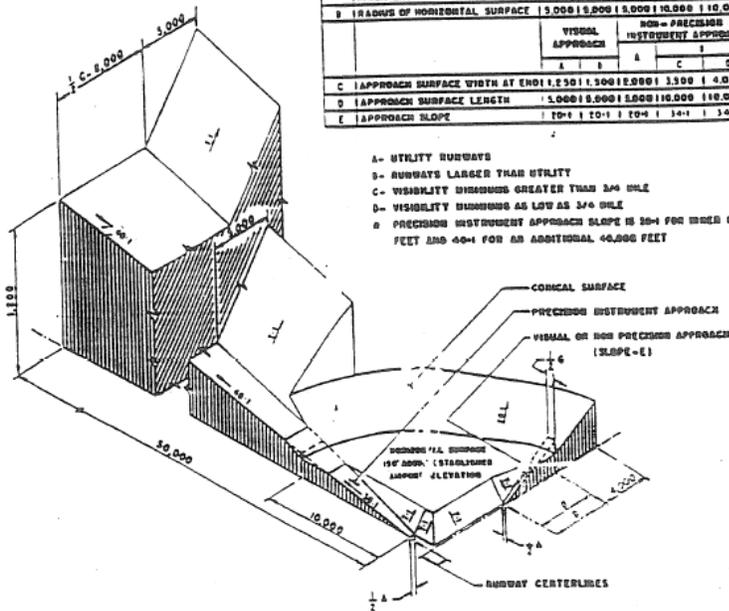
Any existing use not in conformance with the height limitations herein may be required to permit the installation, operation and maintenance of markers and lights if an airport hazard exists.

(Five pages of diagrams inserted in here)

OBJECTS AFFECTING NAVIGABLE AIRSPACE



DIM	ITEM	DIMENSIONAL STANDARDS (FEET)					
		VISUAL APPROACH		NON-PRECISION INSTRUMENT APPROACH		PRECISION INSTRUMENT APPROACH	
		A	B	A	C	D	E
A	WIDTH OF PRIMARY SURFACE AND APPROACH SURFACE WIDTH AT INNER END	150	500	500	500	1,000	1,000
B	RADIUS OF HORIZONTAL SURFACE	1,000	1,500	1,500	10,000	10,000	10,000
C	APPROACH SURFACE WIDTH AT END	120	1,300	1,500	1,300	4,000	15,000
D	APPROACH SURFACE LENGTH	1,000	1,500	1,500	10,000	10,000	10,000
E	APPROACH SLOPE	10:1	10:1	10:1	10:1	3:1	3:1



- A- UTILITY RUNWAYS
- B- RUNWAYS LARGER THAN UTILITY
- C- VISIBILITY MINIMUMS GREATER THAN 3/4 SMLE
- D- VISIBILITY MINIMUMS AS LOW AS 3/4 SMLE
- E- PRECISION INSTRUMENT APPROACH SLOPE IS 30:1 FOR INNER 10,000 FEET AND 40:1 FOR AN ADDITIONAL 40,000 FEET

ISOMETRIC VIEW OF SECTION A-A

§ 77.25 CIVIL AIRPORT IMAGINARY SURFACES

DIAGRAM 1

Appendix D

Instrument Designation Report

INSTRUMENT RUNWAY DESIGNATION REPORT

Rosalia Municipal Airport Rosalia, Washington October, 2005

INTRODUCTION

Rosalia Municipal Airport is a general aviation airport located in Rosalia, Washington. The Airport currently has one runway: Runway 2-20, which is 2,800 feet long and 40 feet wide. A vicinity map is shown in **Figure 1**, below.



Figure 1: Airport Vicinity Map

The purpose of this report is to evaluate the eligibility of Rosalia Municipal Airport to receive a Global Positioning System (GPS) approach procedure, and provide the information required for approval. The FAA Flight Procedures Office (FPO) has performed a feasibility test on both runway ends to determine if a straight-in, non precision approach with visibility minimums greater than or equal to one mile, would be possible at the Airport. The FPO concluded that this type of approach would be feasible on both runway ends. Based on the fact that a straight-in, non precision approach requires a 500' primary surface width, the Airport has decided that it does not want to pursue a straight-in approach as the increased primary surface width would have an adverse impact on the buildings and facilities around the runway. In order to preserve a 250'

primary surface width, the Airport is requesting a circling GPS approach to both runways with visibility minimums greater than or equal to one mile.

ELIGIBILITY

The general requirements for establishing eligibility for a GPS Approach Procedure are as follows:

- The airport must be open for public use.
- The sponsor must show a reasonable need for the instrument approach. A reasonable need can be established by showing that the airport is used by a certified air carrier, air taxi, or commercial operator. If the airport is not served by these groups, the sponsor should solicit letters from at least two aircraft operators whose aviation activities relate to the commerce of the community.
- The establishment of controlled airspace from 700 feet above ground level (AGL) for approximately 5 miles around the airport; and, acknowledging that the political subdivision is aware and concurs that if the Federal Aviation Administration (FAA) provides a GPS Approach Procedure for the airport, controlled airspace of approximately five nautical miles, 700 feet above the ground, will be established around the airport.

Rosalia Municipal Airport is open for public use. The Airport is not currently served by an air carrier, air taxi, or commercial operator. While there is no one particular aircraft operator whose activities have a direct impact on the local community, advances in technology have made implementing an approach procedure much more of a reality at smaller airports with lower traffic loads. According to the Washington State System Plan *all* public-use airports in the state of Washington were expected to have GPS approaches by 2005. Due to the tragedy of September 11, 2001, this goal was not met; however, the forecast chapter of the attached ALP Narrative Report anticipates that a GPS approach procedure will be in place at Rosalia Municipal Airport by 2010.

AIRPORT INFORMATION

This report is being submitted along with the current draft version of the Anderson Field Airport Layout Plan (ALP) and narrative report. Additional airport information pertinent to the application of a GPS approach system is included below.

Airport Landing Surface: The existing airport landing surface consists of bituminous surface treatment (BST) and an unknown pavement strength. As part of the proposed airport improvements, the runway will be reconstructed to obtain a pavement strength of 12,500 pounds.

Runway Gradient: Runway 2-20 has an approximate gradient of 0.43%.

Runway Safety Areas (RSA): The existing RSA is non-standard. It is 70' wide (versus 120' wide) and extends 60' beyond the Runway 2 end and 110' beyond the Runway 20

end (versus 240' beyond the ends). As part of a future Airport Improvement Program (AIP) project, the RSA will be brought to standard.

Runway Lighting: Runway 2-20 is currently lighted with a Low Intensity Runway Lighting (LIRL) system. A new Medium Intensity Runway Lighting (MIRL) system is proposed in the CIP.

Runway Markings: The existing runway markings consist of visual (basic) markings. The visual markings are adequate for a circling approach, which is expected at Rosalia Municipal Airport.

Hold Markings: Taxiway "A" has hold markings for Runway 20; however, they are not located in the correct location. There are no hold markings for the Runway 2 end. Future improvement projects will include standard hold markings.

Signage: There is no existing signage at the Airport. Installation of hold signs are included in the Airport's CIP.

Weather Information: A Super Unicom is proposed to be installed during the first phase of the Airport's Capital Improvement Projects.

Wind Coverage: Runway 2-20 provides at least 95% wind coverage in all weather and IFR conditions. Wind data was obtained from the National Climatic Data Center (NCDC) and is based on conditions in Spokane, WA.

Communications: There is no public phone available.

Obstacle Free Zone (OFZ): The existing OFZ is 250' wide and extends 200' beyond the runway ends. The existing wind cone is penetrating the OFZ and will be relocated outside of the OFZ as part of a future improvement project.

Obstructions: The approach end of Runways 2 and 20 are expected to support instrument night circling with visibility minimums greater than or equal to 1 statute mile. There are obstructions to the 20:1 approach surface on both runway ends. Plan and profile sheets depicting these obstructions, as well as the disposition of the obstructions, are included in the ALP.

Noise Analysis: A noise analysis has not been completed for Rosalia Municipal Airport; however the Airport is located in a non-populated area. There is one single-family home located in the approach path to Runway 20 and there are no homes located in the Runway 2 approach path.