

## Chapter 20.38

## AIRPORT PROTECTION DISTRICT

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20.38.010 Purpose.

- (a) The purpose of the Airport Protection (AP) district is to protect the viability of the Arlington Municipal Airport as a significant resource to the community by encouraging compatible land uses and densities, reducing hazards to lives and properties, and ensuring a safe and secure flying environment.
- (b) The AP District and subdistricts therein are based on aircraft accident data from the National Transportation Safety Board (NTSB) as depicted in the Airport Master Plan Safety Zones and, the Federal Aviation Regulation (FAR) Part 77 Imaginary Surfaces and FAA AC 150/5200-33A, Hazardous Wildlife Attractants on or near Airports.
- (c) As the name implies, this district is laid over the existing zoning districts. It is shown outside of the current City limits as advisory to adjacent jurisdictions.
- (d) The AP district modifies the density and land use requirements of the underlying zoning districts. These modifications are based on the guidelines within the WSDOT Aviation Division's "Airports and Compatible Land Use, Volume 1" and provide for maximum protection to the public, health, safety and general welfare of the community, airport users, and citizens working and residing within the Airport Protection District.

20.38.020 Statutory Authority.

This chapter is adopted pursuant to RCW 35.63, 35A.63, 36.70 and 36.70A, which requires a city to enact development regulations within its jurisdiction to discourage the siting of incompatible land uses adjacent to general aviation airports for the purposes of promoting the public health, safety, and general welfare of City residents and aviation users.

20.38.030 Definitions.

*High Intensity Uses* are any use that is characterized by a potential to attract dense concentrations of people to an indoor or outdoor area, even for a limited time. A "dense concentration" varies with the subdistricts and zones, and is defined in Table 20.38-1.

*Special Function Uses* are land uses for which the significant common element is the relative inability of the persons occupying the space to move out of harm's way, including, but not limited to, uses such as schools K-12, hospitals and large clinics, nursing homes, convalescent facilities, and sports stadiums.

#### 20.38.040 Applicability.

The provisions of this Chapter shall apply to all lands, buildings, structures, natural features or uses located within those areas that are defined by the AP District designated on the Official Zoning Map unless otherwise exempted pursuant to [§20.38.050 \(Exemptions\)](#).

#### 20.38.050 Exemptions.

The following structures, uses or other activities are exempt from the provisions of the AP district when permitted in the underlying zoning district, provided that the use will not penetrate the FAR Part 77 surfaces, attract wildlife that is hazardous to aviation, impact airport operations, or create a safety impact as determined by the Airport Manager.

- (1) Necessary Aviation Facilities. Any air navigation facility, airport visual approach or aircraft arresting device, meteorological device, or a type of device approved by the FAA, the location and height of which is fixed by its functional purpose.
- (2) Agricultural Uses. Non-residential agricultural uses, structures, and/or buildings
- (3) Any aeronautical business or event.
- (4) Nonconforming Uses. Any use, situation, lot, building or structure that legally existed prior to the effective date of this chapter is considered nonconforming. Nonconforming uses and situations are governed by [Chapter 20.32](#), Nonconforming Uses. Such nonconforming uses are generally exempt from this chapter, except as may be compelled by state or federal regulations or it loses its nonconforming status pursuant to the regulations of [Chapter 20.32](#). Nonconforming uses may be maintained, repaired, or reconstructed in accordance with the provisions of [Chapter 20.32](#).
- (5) Other Uses. Other uses may be exempt when determined by the Airport Manager and/or Airport Commission to be minor or incidental in nature and consistent with the intent of this chapter.

#### 20.38.060 Airport Protection District Boundaries.

In order to carry out the purposes and intent of the AP district as set forth herein, and also to restrict those uses that may be hazardous to the operational safety of aircraft operating within the Airport Protection District, there are hereby created and established the following Airport Protection District and subdistricts, based on the air space and land use safety surfaces for Arlington Municipal Airport. These subdistricts comprise the AP District and are shown on the Official Zoning Map.

- (1) Airport Protection Subdistrict A is comprised of the following Airport Safety Zones:
  - (a) Runway Protection Zone (RPZ) Zone 1: The RPZ boundary is trapezoidal in shape and centered about the extended runway centerline. It begins 200 feet beyond the future end of the area usable for takeoff or landing (i.e. runway threshold). The RPZ dimensions are a function of the type of aircraft operating at the airport and the approach visibility minimums associated with each runway end. Based on the potential instrument approach improvements that are recommended in the Airport Layout Plan Update, larger future RPZ boundaries have been identified. The future

Runway 16 RPZ may be described as being 1,000 feet at the inner width, 1,510 feet at the outer width, and 1,700 feet in length, with the Runway 34 RPZ boundary being 1,000 x 1,750 x 2,500 respectively. In addition, both Runways 11/29 and 8/26 RPZ boundaries may be described as 250 feet at the inner width, 450 feet at the outer width, and 1,000 feet in length.

- (b) Inner Safety Zone (ISZ) Zone 2: a rectangular area that is positioned on the extended runway centerline, and adjacent to the RPZ boundary defines the ISZ boundary. For Runway 16 the ISZ is 1,500 feet wide overall (extending 750 feet laterally from the runway centerline) and extends approximately 2,100 feet beyond the RPZ boundary. For Runway 34 the ISZ is 1,500 feet wide overall (extending 750 feet laterally from the runway centerline) and extends approximately 3,300 feet beyond the RPZ boundary. For Runway 11/29, the ISZ is 1,000 feet wide overall (extending 500 feet laterally from the runway centerline) and the ISZ outer boundary is defined by swinging an arc with a radius of 3,000 feet that is on the runway centerline 1,000 feet inward from the runway threshold.
  - (c) Inner Turning Zone (ITZ) Zone 3: The ITZ boundary is defined by a triangular shaped area that is positioned along each side of the RPZ and ISZ boundaries. For Runway 16, the ITZ extends approximately 5,000 feet from a point that is on the runway centerline 1,500 feet inward from the future runway threshold, within a 30-degree sector of the extended runway centerline. For Runway 34 the ITZ extends approximately 6,000 feet from a point that is on the runway centerline 2,000 feet inward from the runway threshold, within a 20-degree sector of the extended runway centerline. For Runway 11/29, the ITZ extends approximately 3,000 feet from a point that is on the runway centerline 1,000 feet inward from the runway threshold, within a 30-degree sector of the extended runway centerline.
  - (d) Outer Safety Zone (OSZ) Zone 4: A rectangular area that is also centered on the runway defines the OSZ boundary. For Runway 16 the OSZ is 1,000 feet wide overall (extending 500 feet laterally from the runway centerline) and extends approximately 3,000 feet beyond the ISZ. For Runway 34 the OSZ is 1,000 feet wide overall (extending 500 feet laterally from the runway centerline) and extends approximately 4,000 feet beyond the ISZ. For Runway 11/29, the OSZ is 1,000 feet wide overall (extending 500 feet laterally from the runway centerline) and extends approximately 1,500 feet beyond the ISZ.
  - (e) Sideline Safety Zone (SSZ) Zone 5: For Runway 16/34, the SSZ boundary is defined by a 1,000 foot centerline offset on each side of the runway that connects the ITZs on each end of the runway. For Runway 11/29, the SSZ boundary is defined by a 500-foot centerline offset on each side of the runway that connects the ITZs on each end of the runway. For the Ultralight/Sport Runway 8/26, the SSZ boundary is defined by a 400-foot centerline offset on each side of the runway that connects the ITZs on each end of the runway.
- (2) Airport Protection Subdistrict B is based on the Arlington Municipal Airport's traffic pattern. The area on the west side of the airport is defined by connecting the outermost and western points of Runway 16/34 Inner Turning Zones 3 with an arc that is tangent to a line centered on Smokey Point Boulevard. The area on the east side of the airport is defined by continuing the arcs of Inner Turning Zones 3 east of Runway 16/34 to a point where they meet a line

centered on 63<sup>rd</sup> Avenue NE. A line centered on 63<sup>rd</sup> Avenue NE then connects the ends of the two arcs.

- (3) Airport Protection Subdistrict C is based on the FAA AC 150/5200-33A guidelines for the type of aircraft operating at Arlington Municipal Airport. The distance recommended by the AC for an airport that serves turbine aircraft is 10,000 feet from Aircraft Operation Areas (AOA). This boundary coincides with the outer boundary of the transitional surface and the inner boundary of the conical surface.
- (4) Airport Protection Subdistrict D is comprised of the following Federal Aviation Regulations (FAR) Parts 77 Imaginary Surfaces:
  - (a) Primary Surfaces: A surface that is longitudinally centered on the runway, extending 200 feet beyond the paved threshold in each direction. Runway 16-34's ultimate primary surface measures 1,000 feet across because it is to become a precision instrument runway. Runway 11-29's ultimate primary surface measures 250 feet across since it is to remain a utility runway with only visual approaches.
  - (b) Approach Surface: Inclined planes extending upward and outward from the ends of the primary surfaces. The approach for Runway 16 has been established in support of a future non-precision instrument approach with visibility minimums greater than  $\frac{3}{4}$  of a mile. The approach for Runway 34 has been established in support of a future precision instrument approach with visibility minimums lower than  $\frac{3}{4}$  of a mile. As specified in FAR Part 77, Runway 16's future approach surface will be 1000 feet wide at the intersection with the primary surface, will extend outward for a distance of 10,000 feet at a slope of 34:1, and will reach an outer width of 3,500 feet. The future approach surface for Runway 34 will extend outward for a distance of 10,000 feet at a slope of 50:1 and another 40,000 feet at a slope of 40:1. The approach surface will reach an outer width of 16,000 feet wide at 50,000 feet. Runway 11-29's approach surfaces are the same at both runway ends. The approach surfaces are 250 feet across at the primary surface and extend outward for a distance of 5,000 feet at a 20:1 slope to an outer width of 1,250 feet.
  - (c) 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 radii from the center of each Primary Surface of Runway 16/34. Tangents then connect the adjacent arcs.
  - (d) Transitional Surfaces: An inclined plane with a slope of 7:1 extending upward and outward from the primary and approach surfaces, terminating at the point where they intersect with the horizontal surface or any surface with more critical restriction.
  - (e) Conical Surfaces: A surface extending outward and upward from the periphery of the horizontal surface at a slope of 20 to 1 for a horizontal distance of 4,000 feet.

#### 20.38.070 Restrictions on Certain Use Classifications on Arlington Airport Property.

Certain uses, though allowed in particular zoning districts as identified in [§20.40, Permissible Uses](#), are herein deemed non-permissible within that zoning district where applied to property owned by the Arlington Airport, even when leased to private parties. These use classifications are denoted by footnote conditions.

20.38.080 Performance Standards and Miscellaneous Restrictions.

- (a) Subdistrict A – The following rules shall be applied within the boundaries of the AP Subdistrict A:
- (1) No structures, devices or other objects shall be placed or erected that makes it difficult for pilots to distinguish between airport lights and other lights, results in glare in the eyes of pilots using the airport, impair visibility in the vicinity of the airport, or otherwise endanger the landing, take off, or maneuvering of aircraft.
  - (2) No bulk above ground storage greater than 6,000 gallons of flammable or hazardous substance will be permitted unless it is associated with an aviation business.
  - (3) Except for aeronautical events such as the Arlington Fly-In, the public assembly of people and other uses or activities, whether permanent (such as multi-family, hospitals, schools, churches, etc.) or temporary (such as circuses, carnivals or other outdoor entertainment events or religious assembly not exceeding five days in duration), that allow public concentrations of people shall be prohibited within Subdistrict A, but allowed in all other parts of the AP District so long as such uses do not adversely affect airport operations, safety in air navigation or penetrate the FAR Part 77 Surfaces.
  - (4) No use, building, or structure shall be permitted or constructed within the Runway Protection Zone 1, except accessory activities such as off-street parking facilities, low growing landscaping or agricultural crops, mini-storage, agricultural storage buildings and/or other similar activities as approved by the Airport Manager and if they are allowed by the underlying zone.
  - (5) Densities, both residential and non-residential, shall not exceed those listed in Table 20.38-1: Density Limits within the APD,
  - (6) The following uses shall be prohibited in the referenced Zones:
    - (i) High Intensity Uses within Subdistrict A RPZ Zone 1, ISZ Zone 2 and ITZ Zone 3. The densities in in Table 20.38-1: Density Limits within the APD shall not be exceeded. If the density is averaged over a large parcel the structures shall be located outside the restricted zones.
    - (ii) Emergency services such as police stations, fire stations, emergency services operations and other similar uses within the RPZ Zone 1 and ISZ Zone 2.
- (b) Subdistrict B – The following rules shall be applied within the boundaries of the AP Subdistrict A and B:
- (1) Special function uses shall be prohibited under the airport traffic pattern.
- (c) Subdistricts A, B, and C – The following rules shall be applied within the boundaries of the AP Subdistricts A, B, and C:
- (1) No use shall be permitted that would foster an increase in bird population and thereby increase the likelihood of a bird impact problem.
- (d) Subdistricts A, B, C, and D – The following rules shall be applied within the boundaries of the entire AP District:
- (1) No use shall be made of any land that will cause electrical interference with navigational signals or radio communications at the airport or with radio or electronic communications between the airport and aircraft or aircraft to aircraft.
  - (2) No use, building or structure shall emit emissions of fly ash, dust, vapor, gases, or other forms of emissions that may conflict with any planned operations of the airport.
  - (3) Except as necessary and incidental to airport operations and as listed in Subsection 4, no buildings, structures or objects of natural growth shall be constructed, altered,

maintained, or allowed to grow so as to project or otherwise penetrate the airspace surfaces.

- (4) In the areas to the east, southeast and southwest of the airport where the natural terrain rises, the acceptable height and avigation easement will be based on the height of tallest tree native to the area as depicted in USDA, Soil Conservation Service, Soil Survey of Snohomish County Area, Washington, July 1983. The native tree identified is Douglas Fir with a maximum height of 166 feet.
- (5) No structure or other object shall penetrate the FAR Part 77 Surfaces unless such structure or object would be shielded by existing structures of a permanent and substantial character or by natural terrain or topographic features of equal or greater height and would be located in an area of established development where it is evident beyond all reasonable doubt that the structure so shielded will not adversely affect safety in air navigation or penetrate the FAR Part 77 Surfaces.
- (6) Other uses or activities determined to be incompatible with aviation, aviation safety, or any activity that has a potential or would require a Temporary Flight Restriction (TFR) or interfere with airport traffic patterns and operations shall be prohibited.

**Table 20.38-1: Density Limits within the APD**

Land Use <sup>1</sup>	Zone 1 RPZ	Zone 2 ISZ <sup>1, 2</sup>	Zone 3 ITZ <sup>2</sup>	Zone 4 OSZ <sup>2</sup>	Zone 5 SSZ <sup>1</sup>	Rest of influence area
Maximum Residential Density (average number of dwelling units per gross acre)	0	1 du per 10 acres	1 du per 5 acres	1 du per 5 acres	1 du per 5 acres	No limit
Maximum Nonresidential Intensity (average number of people per gross acre)	0 <sup>1</sup>	25	60	60	80	No limit

<sup>1</sup> Exceptions can be permitted for agricultural activities, roads, and automobile parking provided that FAA criteria are satisfied.

<sup>2</sup> Clustering of buildings to either side of the extended runway centerlines is encouraged to preserve open space in the event of an emergency aircraft landing.

#### 20.38.090 Notice to Future Owners.

In order to mitigate impacts to the Arlington Airport, and to provide notice to future property owners, all property owners within the Airport Protection Subdistricts A, B and C seeking a land use or building permit or under taking substantial reconstruction shall dedicate an avigation easement over their property to the City of Arlington. All property owners within the Airport Protection Subdistrict D seeking a land use or building permit or conditional use permit or undertaking substantial reconstruction shall sign a disclosure notice. In addition, language shall be placed on the face of all residential subdivisions within the Airport Protection District notifying owners of possible affects from aviation activities. The language of the easement and notice shall be as provided by the Airport, as approved by the City Attorney and recorded with Snohomish County.

20.38.100 Supplemental Permit Review Requirements.

- (a) No use, building, structure, or development activity within the AP District shall be established, altered or relocated by any person, firm or corporation, except as otherwise authorized by this chapter. Permits for such activities shall be processed in accordance with applicable provisions of the underlying zone, and the permit issuing authority may require the applicant to submit the following information in addition to that required of a standard permit:
- (1) A certificate from an engineer or land surveyor that clearly states that no airspace obstruction will result from the proposed use.
  - (2) The maximum elevation of proposed buildings or structures based on the established airport elevation.
  - (3) All construction on airport property and any construction that penetrates Federal Regulation Part 77 surfaces shall prepare and submit FAA form 7460.
  - (4) The site plan shall clearly show:
    - (A) The location of the project in relation to the Arlington Municipal Airport Protection District.
    - (B) The location and height of all proposed buildings, structures, and natural vegetation as measured from the airport surface.
    - (C) Within Subdistricts A, B and C, the location and type of storm drainage facilities.