

ARTICLE II. - DEFINITIONS

30-28. - Definitions

Aviation Facility, general: Runway, Runway Safety Area, Runway Object Free Area, Runway Protection Zone, aircraft parking, navigational aids and service facilities, and related facilities for operation, service, fueling, repair, storage, charter, sales and rental of aircraft, and including activities directly associated with flight training as well as the operation and maintenance of airport facilities and the provision of safety and security.

Design Aircraft: Aircraft model that has largest wingspan, tail-height, and approach speed as well as presently or is anticipated to have at least 500 operations (250 take-offs and 250 landings) each year at a runway. If no single aircraft model exceeds the operational threshold, the Zoning Administrator can assign a representative aircraft for a group of aircraft with similar design and performance as the Design Aircraft.

Runway: a rectangular surface area that may be turf, paved, or water course; that is designed specifically for the purpose of approaching and landing and taking-off and departing of aircraft.

Runway Design Code: As specified in FAA AC 150/5300-13a (as amended periodically) is based on the design aircraft. It represents a grouping of aircraft based on aircraft approach speed, wingspan, and tail height that is used to recommend runway design standards.

Runway Object Free Area (ROFA): an imaginary area centered on the runway centerline that is clear of aboveground objects protruding above the runway centerline, except for allowable objects necessary for air navigation or aircraft ground maneuvering purposes. Structures and public roads are typically not permitted in this area.

Runway Protection Zones (RPZ): a trapezoidal area located off the end of the runway that serves to enhance the protection of people and property on the ground in the event an aircraft lands or crashes beyond the runway end. This area does not permit uses that encourage people to congregate. The size of the RPZ depends on the Runway Design Code.

Runway Safety Area (RSA): a rectangular area symmetrical about the runway centerline, which includes the runway and runway shoulders. The portion abutting the edge of the runway shoulders and runway ends is cleared, drained, graded, and usually turfed. Under normal conditions, the runway safety area is capable of supporting snow removal, firefighting, and rescue equipment and of accommodating the occasional passage of aircraft without causing major damage to the aircraft.

Snackbar: defined as an accessory use that is subordinate and incidental to an otherwise approved use, is limited to a maximum of one thousand (1,000) square feet or twenty-five percent (25%) of the square footage of the principal structure which contains said accessory use, whichever is less. Such size limitation applies to that area of the snack bar use which includes food and beverage preparation, storage, serving and seating area directly associated with the snack bar use.

ARTICLE III. - DISTRICT REGULATIONS

30-77-7. Airport

Purpose

The purpose of the Airport District is to designate areas which are suitable for by-right aviation facilities that will be for public use. As land with suitable characteristics for aviation facilities is limited in the County, a high degree of protection is promoted to minimize the development of adjacent uses that are not compatible. The district also serves to acknowledge existing aviation facilities and allow them to operate as a by-right use within the Airport district, subject to certain accessory uses in Sec. 30-79, Permitted Uses By District. This district establishes minimum standards for future expansion of public use aviation facilities as well as potential new aviation facilities in the County to promote economic development and to provide for an additional means of transportation. An aviation facility, runway or other air transportation facility (General or Private Aviation Facilities) may be approved for a rezoning to the Airport district if the proposed facility meets the following standards:

- (a) The aviation facility shall be a public use aviation facility, ownership of the facility may be either a public or a private entity.
- (b) The aviation facility owner or operator shall submit to the Zoning Administrator **a forecast of annual aircraft operations for a 20-year period and, based on this forecast, submit the aviation facility** design aircraft for concurrence. This design aircraft will determine the Runway Design Code for the aviation facility and identify the RSA, ROFA, RPZ standards listed in FAA AC 150/5300-13a. These standards will be utilized to evaluate the aviation facilities conformance to this section.
- (c) A site plan of the aviation facility will be submitted that, at a minimum, illustrates the aviation facility property line, runway, RSA, ROFA, RPZ with dimensions, areas where aircraft are anticipated to operate under their own power, ancillary facilities to the aviation facility, as well as the location and type of structures on property directly adjacent to the aviation facility property. An Airport Layout Plan that adheres to FAA AC 150/5070-B may also be submitted to meet this requirement. **Said plan shall include a map detailing the airport impact zones and a diagram^[d1] indicating Airport Impact Zone Dimensions as described in FAA's *Land Use Compatibility and Airports*. Please see Attachment 1**
- (d) The aviation facility will meet the standards and requirements of the Federal Aviation Administration (FAA) or the Virginia Department of Aviation (DOAV) as applicable to the facility type, and the Code of Bedford County Sec. Sec. 30-72. - AO Airport overlay district. In addition, runway **width, runway grade**, RSA, ROFA, and RPZ standards listed in AC 150/5300-13a (or its successor) for the design aircraft are to be utilized for the aviation facility regardless of its inclusion in the National Plan of Integrated Airport Systems (NPIAS) as well as standards listed in the Code of Virginia 24VAC5-20-140 A.
- (e) 24VAC5-20-140 A #5 & #6 provides a minimum standard for an airspace approach surface. This is a 15:1 horizontal to vertical slope at each end of the runway. This approach is centered along the runway centerline and begins at the runway end at a width of 250 feet, expands uniformly for a distance of 2,250 feet to a width of 700 feet, and continues at the width of 700 feet for a distance of 2,750 feet. For new runways or extensions to existing runways, the aviation facility owner shall

provide information that documents the runway will not have penetrations to this airspace approach surface and that the owner has the ability to maintain a clear approach to the runway ends. Aviation facility owners are encouraged to control in fee or easement the land necessary to maintain a clear approach to a runway end.

- (f) The airport is of such size, with the runways so located, that the operation thereof will not require limitation on structure heights of adjacent land to be less than the height prescribed for the district it is contained within, in accordance with the standards and requirements of the FAA and/or DOAV (as applicable to the facility type), and the Code of Bedford County, Sec. 30-72. - AO Airport overlay district.
- (g) All Runway, Runway Safety Areas, Runway Object Free Areas, and the Runway Protection Zone areas are controlled by the owner of the aviation facility in fee ownership or recorded deed of easement.
- (h) Every land area used by any aircraft under its own power shall be provided with a dustless surface.
- (i) No area used by any aircraft under its own power shall be located within a distance of two hundred (200) feet from any property line; one thousand (1,000) feet from any public or private institution, including schools, hospitals, sanatoriums, and churches; or one thousand (1,000) feet from any residential or commercial zones on the approach and departure ends of the runway. Buildings, hangars, or other structures shall be at least two hundred (200) feet from the property line and no parking of vehicles shall be allowed within one hundred (100) feet of any property line.
- (j) A security fence will control access to the aviation facility, specifically where aircraft operate under their own power. The security fence shall be eight (8) feet in height, with three (3) strand barbed wire fencing and suitable gates. At the Zoning Administrator's discretion, the security fence height may be reduced within the approach to a runway end if information demonstrates that providing an 8-ft fence would create a hazard to approaching aircraft.
- (k) Appropriate accessory uses may be permitted, such as aviation fuel sales, a snackbar, aviation facility offices, aircraft storage, aircraft rental, aircraft service and maintenance facilities and other services and facilities as typically found at a similarly-sized general aviation facility, as determined by the Zoning Administrator. A special use permit is required for additional accessory uses normally not associated with a typical rural aviation facility.
- (l) The application shall be referred to the FAA and/or VDOA as applicable to determine if operations relating to the aviation facility will interfere with those of other existing or proposed aviation facilities in the vicinity.
- (m) An aviation facility that has or is expected to have more than 700 operations per year (350 take-offs and 350 landings) by jet and/or turboprop aircraft, as determined by the Zoning Administrator, shall conduct a noise analysis to determine the extent of the 65dnl contour using the current version of the FAA's Aviation Environmental Design Tool (AEDT) or its successor. The 65dnl noise contour shall be contained within the Aviation Facility property.
- (n) Adequate off-street parking and loading spaces shall be provided to serve airport activities and accessory uses. The number of parking and loading spaces to be required shall be determined by the Zoning Administrator, based on using acceptable industry publications (i.e Institute of Transportation Engineers, Urban Land Institute, American Planning Association, etc.) or from a study prepared by a

traffic engineering firm. Once the study is submitted, the findings are reviewed by the Zoning Administrator to set a minimum parking requirement for a use(s) based on the information provided.

- (o) An airport approved as such under this Section shall be exempt from Section 30-87-9 (Broadcasting towers, radio), but only with regard to communication, radar, and microwave towers for ground control, flight control, air traffic control, and other communications ancillary and necessary to the operation of a general aviation facility.
- (p) An airport approved as such under this Section shall be exempt from Section 30-91 (Off-street parking, stacking, and loading), but only to the extent that adequate parking is provided to accommodate the principle use and to accommodate the disabled, per Section 30-91-3. Notwithstanding the foregoing, all other provided parking shall comply with Section 30-91.
- (q) An airport approved as such under this Section shall be exempt from Section 30-93 (Signs) with regard to signs that (i) are ancillary and necessary to ground or traffic control operations of the airport or (ii) are not visible from, or cannot be read without enhanced aid to vision from, any public right of way or adjacent residential district. Electronic message signs are prohibited in this district.
- (r) An airport approved as such under Section 30-77-7 shall be exempt from Section 30-94 (Exterior lighting). Notwithstanding the foregoing, all buildings, structures, and parking facilities within one hundred (100) feet of any adjacent property not within the Airport district shall comply with Section 30-94 except to the extent that such lighting is required for runways, taxiways, or other flight related purposes or otherwise required by federal or state governmental authority, law, rule, or regulation for the operation of a general aviation airport.
- (s) “Educational Facilities, College/University”, " Business or Trade Schools", and “Industry, Type I” uses shall require public water and sewer.
- (t) Owners/ applicants shall submit a facility needs analysis based on the design aircraft and 20 year aircraft operations forecast. This analysis shall at a minimum address runway length, runway width, RSA, ROFA, RPZ, runway airspace approach and obstacle clearance, aircraft parking, aircraft hangar storage, automobile access, and automobile parking. Material may be submitted to FAA and DOAV as determined by the Zoning Administrator. The applicant shall submit with the application An analysis of at least one airport development alternatives that addresses to meet the design aircraft needs, forecasted aviation demand, and other facility needs. The applicant shall provide a comparative analysis of the potential environmental impacts of the alternative against the application’s aviation facility site plans shall be submitted with the application.
- (s)

Sec. 30-79. - Permitted uses by district.

Sec. 30-79-1. Purpose.

The purpose of this table is to show the uses permitted in each of the zoning districts. Specific requirements for districts and uses are found in article III and article IV herein.

Sec. 30-79-2. Permitted use table.

Permitted uses by district shall be as shown in the following table where:

"R" Indicates a use by right

"S" Indicates a special use

"*" Indicates more stringent standards as specified in article IV

USES	A P	A R	A V	R - 1	R -2	R -3	R -4	PR D	RM H	C -1	C -2	N C	P C D	I - 1	I - 2	P I D	E P	A
Civic Uses																		
Educational Facilities, College/University			R *					R *		R *	R *	R *	R *			R *		<u>S</u> *
Utility Services, Minor	R	R	R	R	R	R	R	R		R	R	R	R	R	R	R	R	<u>R</u> *
Office Uses																		
General Office			R *					R *		R *	R *	R *	R *	R *	R *	R *	R *	<u>R</u> *
Commercial Uses																		
Automobile Rental/Leasing			S								R *	S *	R *		R *	R *		<u>S</u> *
Business or Trade Schools				R*				R*		R*	R *		R*	R*	R *	R *		<u>S</u> *
Business Support Services			R					R							S			<u>S</u> *
Food Truck			R *					R*		R *	R *	R *	R *	R *	R *	R *	R*	<u>R</u> *
Industrial Uses																		
Industry, Type I			R					S			S		S	R	R	R		<u>S</u> *

USES	A P	A R	A V	R -1	R -2	R -3	R -4	P R D	RM H	C -1	C -2	N C	P C D	I- 1	I- 2	P I D	E P	A
Miscellaneous Uses																		
Aviation Facilities, General									S*	S*	S*	S*	S*	S*	S*	S*		R *
Aviation Facilities, Private	S*	S*	S*					S*			S		S	R	R	S		S *
Outdoor Gatherings	S*	S*	S*	S*	S*	S*	S*	S*					R	R	R	R		R *

(Ord. of 7-9-2001; Ord. of 2-26-2001, App. A; Ord. of 2-11-2002; Ord. of 3-7-2005; Ord. No. O-0307-64, 3-26-2007; Ord. No. O-0707-169, 7-23-2007; Ord. No. O-0508-111(R), 5-27-2008; Ord. No. O-0508-112(R), 5-27-2008; Ord. No. O-1108-241, 11-12-2008; Ord. No. O-1108-242, 11-12-2008; Ord. No. O-0211-32(R), 2-28-2011; Ord. No. O-0911-139, 9-26-2011; Ord. No. O-0312-28, 5-26-2012; Ord. No. O-0213-024, pt. II, 2-25-2013; Ord. No. O-0413-042, pts. I—VII, 4-22-2013; Ord. of 6-10-2013, pts. III, V; Ord. No. O0713-087, pt. III, 7-22-2013; Ord. No. O-120814-02, pt. II, 12-8-2014; Ord. No. O-051115-05, pt. I, 5-11-2015; Ord. No. O-071315-08, pt. II, 7-13-2015; Ord. No. O-032816-03, pt. I, 3-28-2016; Ord. No. O-061316-09, 6-13-2016; Ord. No. O-032717-05, pt. II, 3/27/2017; Ord. No. O07231808, pt. II, 7-23- 2018)

Sec. 30-7. - Establishment of districts.

(a) The following are established as Bedford County zoning districts:

Agricultural Districts:	
AP	Agricultural/Rural Preserve District
AR	Agricultural/Residential District
AV	Agricultural Village Center District
Residential Districts:	
R-1	Low Density Residential District

R-2	Medium Density Residential District
R-3	Medium Density Multifamily Residential District
R-4	High Density Multifamily Residential District
PRD	Planned Residential Development District
R-MH	Manufactured Home Overlay District
RC O	Residential Cluster Overlay District (Reserved)
<u>Civic Districts</u>	
<u>A</u>	<u>Airport</u>
Commercial Districts:	
NC	Neighborhood Commercial District
C-1	Office District
C-2	General Commercial District
PCD	Planned Commercial Development District

Industrial Districts:	
I-1	Low-Intensity Industrial District
I-2	Higher-Intensity Industrial District
PID	Planned Industrial Development District
Special Purpose Districts:	
HO	Historic Overlay District
PO	Park Overlay District
AO	Airport Overlay District
EC O	Emergency Communications Overlay District
RR CO	Roanoke River Conservation Overlay District
WH P	Well-head Protection Overlay District
CO	Corridor Overlay District

The location and boundaries of these zoning districts are shown on the official zoning map.
(Ord. No. O120913-10, 12-9-2013)

APPENDIX A. - BEDFORD COUNTY ZONING ORDINANCE SITE DEVELOPMENT REGULATIONS

Zone	Description	Min Lot Requirements			Min Setback Requirements			Max Height	Max Coverage		Units / Acre
		Area	Front	Width	Front	Side	Rear		Bldg.	Lot	
AP	Agricultural/Rural Preserve	1.5 Ac.	150'	150'	35'	10'	25'	45'	N/A	N/A	<1
AR	Agricultural/Residential	1 Ac.	100'	100'	35'	10'	25'	45'	N/A	N/A	<1
AV	Agricultural Village Center	1 Ac.	100'	100'	35'	10'	25'	35'	N/A	N/A	1 - 3
		20,000 SF	75'	75'	35'	10'	25'	35'	N/A	N/A	
R1	Low Density Residential	1 Ac.	100'	100'	30'	10'	25'	35'	N/A	N/A	1 - 3
		20,000 SF	75'	75'	30'	10'	25'	35'	N/A	N/A	
		10,000 SF	60'	60'	30'	10'	25'	35'	N/A	N/A	
R2	Medium Density Residential	1 Ac.	100'	100'	30'	10'	25'	35'	N/A	N/A	1 - 6
		20,000 SF	75'	75'	30'	10'	25'	35'	N/A	N/A	
		10,000 SF	60'	60'	30'	10'	25'	35'	N/A	N/A	

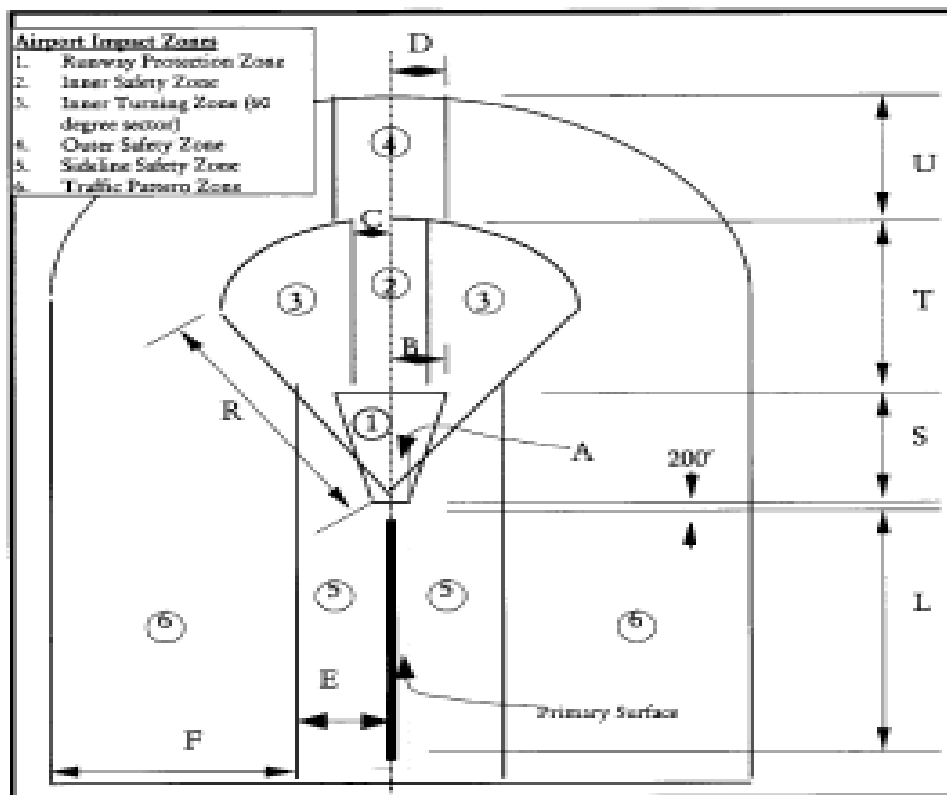
R 3	Medium Density Multifamily Residential	1 Ac.	10 0'	100'	30'	10 '	25'	3 5 '	N/ A	N / A	6 - 12
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		20,000 SF	75'	75'	30'	10'	25'	35'	N/A	N/A	
		10,000 SF	60'	60'	30'	10'	25'	35'	N/A	N/A	
R4	High Density MultiFamily Residential	1 Ac.	100'	100'	30'	10'	10'	45'/U L	N/A	N/A	12 - 24
		20,000 SF	75'	75'	30'	10'	10'	45'/U L	N/A	N/A	
		10,000 SF	60'	60'	30'	10'	10'	45'/U L	N/A	N/A	
PRD	Planned Residential Development	10 Ac. Contiguous			According to Approved Site Plan						5 Excluding Bonus
RMH	Manufactured Housing Overlay	Based on Underlying Zone									
NC	Neighborhood Commercial	20,000 SF	100'	100'	30'	15'	25'/35'R	30'	35%	65%	
C1	Office	1 Ac.	100'	100'	30'/20'P	10'/25'	15'	45'/U L	50%	80%	
		15,000 SF	75'	75'	30'/20'P	10'/25'	15'	45'/U L	50%	80%	
C2	General Commercial	1 Ac.	100'	100'	30'/20'P	None	15'	45'/U L	50%	90%	
		15,000 SF	75'	75'	30'/20'P	None	15'	45'/U L	50%	90%	
PCD	Planned Commercial Development	5 Ac. Contiguous			30'	Adjacent Use		45'		75%	
A	<u>Airport</u>	Per Sec. 30-72 & Sec. 30-77-7									
I1	Low Intensity Industrial	1 Ac.	100'	100'	30'/20'P	10'	15'	45'/U L	50%	90%	

Exhibit V-6, Airport Impact Zones, defines the dimensions and locations of each zone. Airport Impact Zones would be added or modified based on individual airport conditions and future development projections. Typical Airport Impact Zones include:

- Airport Impact Zone 1 – Runway Protection Zone
- Airport Impact Zone 2 – Inner Safety Zone
- Airport Impact Zone 3 – Inner Turning Zone (60-degree sector)
- Airport Impact Zone 4 – Outer Safety Zone
- Airport Impact Zone 5 – Sideline Safety Zone
- Airport Impact Zone 6 – Traffic Pattern Zone

Airport Impact Zones



Airport Impact Zone Dimension (in Feet)

Dimension	Runway Length Category (L)		
	Runway less than 4,000	Runway 4,000 to 5,999	Runway 6,000 or more
A	125	250	500
B	225	505	875
C	225	500	500
D	225	500	500
E	500	1,000	1,000
F	4,000	5,000	5,000
R (60° Sector)	2,500	4,500	5,000
S	1,000	1,700	2,500
T	1,500	2,800	2,500
U	2,500	3,000	5,000

Data Source: NTSB accident investigations 1984-1991.
 Illustration Source: Hodges and Shurt, Institute of Transportation Studies,