

Zoning makes space for airports to operate safely

In the current climate of rapidly expanding development, open space is a hot commodity. But for airports, it's more than that—it's essential for their continued operation.

The airspace and land surrounding an airport must be kept free of obstructions, and the best way to ensure that is through a land use and airspace zoning plan. Airport zoning addresses airspace and land use controls that protect the airport environment as well as the property adjacent to the airport.

Although many airports have had zoning requirements at one time or another, the requirements often become outdated or are not kept in place. In the past 30 years, a substantial amount of development has occurred at and around airports. A lack of zoning in many areas throughout the country has led to residential and industrial development crowding out airports, causing many to close each year. To help keep airports open and people safe, airport owners need to make good zoning decisions and plan for future land use around an airport.

Each state has its own zoning and land use regulations. In Minnesota, statute 360.015 allows for the commissioner of

transportation to put rules into effect consistent with federal regulations for airports and to establish rules and minimum standards in order to protect airports from uses that may be hazardous to the operational safety of aircraft using the airport.

The State of Minnesota has developed a model airport zoning ordinance (available from the Mn/DOT Office of

adopted, or is in the process of being adopted, by the airport owner.

Airspace Obstruction Zoning

Airspace zones are established to maintain the safety of aircraft by limiting the height of structures that can be constructed close to an airport. Structure height is more critical on or close to the airport and less restrictive farther away. Airspace obstruction-height zoning restrictions are in effect for one and one-half miles beyond the airport property except for in the approach area, where the distance extends for two miles.

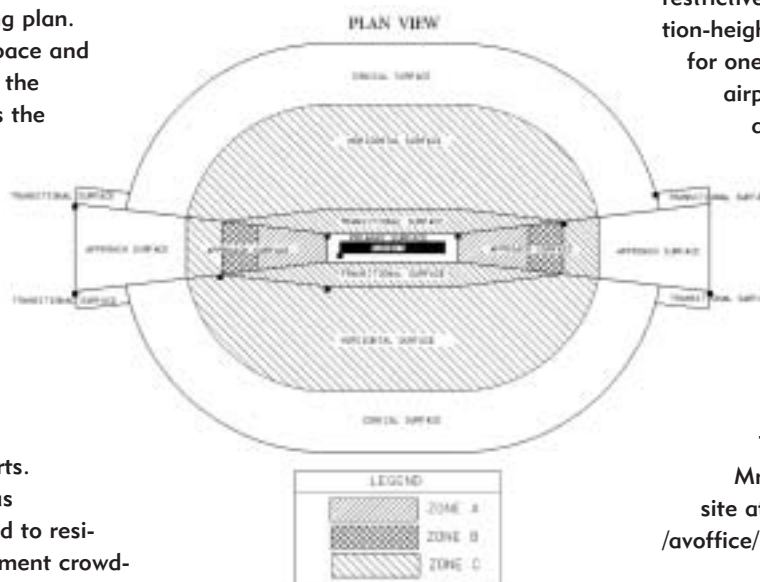
Each airspace zone (e.g., primary, horizontal, approach) is defined in the previously mentioned model airport zoning ordinance and in Minnesota Rules 8800.2400; obstructions are discussed in Minnesota Rules 8800.1200.

The rules can be viewed on the Mn/DOT Office of Aeronautics Web site at www.dot.state.mn.us/aero/avoffice/rules.html.

Land Use Safety Zoning

Land use safety zones restrict uses that may be hazardous to aircraft flying to and from an airport. Minnesota identifies three land use safety zones: A, B, and C.

Safety zone A is located in the approach zone of a runway and extends outward from the end of the primary sur-



Aeronautics) that provides guidance to airport owners who want to zone their publicly owned airport. Any public airport in Minnesota seeking federal or state funds for airport development or improvements needs to have an ordinance that has been approved by the state and has been

New resources available from AirTAP

The Airport Technical Assistance Program has recently published the *Capital Improvement Program Guide* to help public airport personnel complete their CIP information in order to receive state and federal funding for improvements. The guide can

also help airport owners plan for the short- and long-term needs of their airports.

If you did not receive a copy of the CIP Guide in the mail and would like one, please contact Mindy Jones at 612-626-1813 or jones154@cts.umn.edu. The guide is

also available at <http://airtap.umn.edu/pubs.html>.

Another new addition to the AirTAP Web site is a collection of "current practices." Culled from airport personnel throughout the state, these are methods, processes, or innovative uses of resources that

save time, reduce costs, or improve performance in airport operations. Check out what's working for your colleagues—or submit your own ideas. Current practices can be viewed at www.airtap.umn.edu/currentpra.html. ✈

face a distance equal to two-thirds the length of the existing or planned runway.

Zone A shall contain no buildings, temporary structures, exposed transmission lines, or other similar land use structural hazards, and shall be restricted to those uses which will not create, attract, or bring together an assembly of persons thereon.

Permitted uses may include, but are not limited to, such uses as agriculture (seasonal crops), horticulture, raising of livestock, animal husbandry, wildlife habitat, light outdoor recreation (non-spectator), cemeteries, and auto parking. (Minnesota Rule 8800.2400, Airport Zoning Standards)

Zone B is also located in the approach zone of a runway and extends outward from safety zone A a distance equal to one-third the existing or planned runway length:

Zone B shall be restricted in use as follows. Each use shall be on a site whose area shall not be less than three acres. Each use shall not create, attract, or bring together a site population that would exceed 15 times that of the site acreage. Each site shall have no more than one building plot upon which any number of structures may be erected. The following uses are specifically prohibited in zone B: churches, hospitals, schools, theaters, stadiums, hotels and motels, trailer courts, camp grounds, and other places of public or semipublic assembly. (Minn. Rule 8800.2400)

Zone C includes the land that is enclosed within the perimeter of the horizontal zone, which is not included in safety zone A or safety zone B. The horizontal zone is part of the airspace zones and is defined in the Minnesota model ordinance as "all the land which lies directly under an imaginary horizontal surface 150 feet above the established airport elevation. The perimeter is constructed by swinging arcs of specified radii from the center of each end of the primary surface of each runway and connecting the adjacent arcs by lines tangent to those arcs." The radius depends on the type of runway

existing or planned for the airport.

Zone C is subject to the height restrictions defined for the airspace zones, and is subject to general restrictions only (which also apply to safety zones A and B). The general restrictions specify:

No use shall be made of any land in any of the safety zones which creates or causes interference with the operation of radio or electronic facilities on the airport or with radio or electronic communications between the airport and aircraft, makes it difficult for pilots to distinguish between airport lights and other lights, results in glare in the eyes of pilots using the airport, impairs visibility in the vicinity of the airport, or otherwise endangers the landing, taking off, or maneuvering of aircraft. (Minn. Rule 8800.2400)

A key point to remember when creating a zoning ordinance is to allow for periodic reviews of the ordinance so that future improvements at the airport are covered.

The land use restrictions for all three land use safety zones must not exceed one mile beyond the perimeter of the airport boundary and in that portion of an airport hazard area under the approach zones for a distance not exceeding two miles from the airport boundary.

Information about the land use zones can be found in Minnesota Rules Chapter 8800, section 2400.

Permits and variances

The Minnesota model ordinance details a process for acting on issues that relate to

nonconforming uses, permits, variances, appeals, conflicts, and action required if the courts are needed to settle an issue.

The process

A procedural guide has been prepared by the Mn/DOT Office of Aeronautics to guide an airport owner through the zoning process, from creating an airport zoning board through the actual adoption of the ordinance. The guide also identifies the documents that need to be submitted to Mn/DOT and provides sample resolutions and letters for the airport owner to use during the process. You can obtain a copy of this guide from your regional engineer.

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Resources

- Aircraft Owners and Pilots Association (AOPA), "Airport Compatible Land Use": www.aopa.org/members/files/guides/land_use/part2.pdf
- Mn/DOT Office of Aeronautics, Minnesota aeronautical rules and statutes: www.dot.state.mn.us/aero/avoffice/rules.html
- Minnesota Rule 8800.1200, "Determining Air Navigation Obstructions": www.revisor.leg.state.mn.us/arule/8800/1200.html
- Minnesota Rule 8800.2400, "Airport Zoning Standards": www.revisor.leg.state.mn.us/arule/8800/2400.html
- Minnesota Statute 360.063 to 360.067 "Airports and Aeronautics": www.revisor.leg.state.mn.us ✈

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