

Staff Report

AIRPORT PROTECTION PLANNING

August 23, 2011

Background:

One of the Council priorities that Planning staff was directed to work on were options for protecting the continued viability of the Ames Municipal Airport in its current location. This is commonly done through zoning controls, which restrict building heights and certain land uses in key areas, such as areas in direct alignment with runways.

Currently, the only reference to this issue in the Ames *Municipal Code* is Section 29.408 (6), which states:

***Height Near Airports.** Heights of buildings constructed within 750 feet of the property boundary of any airport shall be in compliance with height restrictions from the Federal Aviation Administration.*

This code section leaves a gap in necessary airport protection because navigable airspace can be impacted by many kinds of obstructions and by incompatible uses located in critical flight path areas that go well beyond the 750 feet defined in our code (see attached map).

Navigable airspace is defined by the FAA pursuant to Title 14 of the Code of *Federal Regulations Part 77, Imaginary Surfaces*, referred to herein as *Federal Aviation Regulations (FAR) Part 77 Surfaces*. FAR Part 77 surfaces are those air spaces above and around airports that required protection from potential obstructions that might interfere with airport traffic and potentially create a safety risk to aircraft occupants and citizens on the ground. An object or structure with an elevation higher than the FAR Part 77 surface elevation is considered to penetrate the FAR Part 77 Surface and constitute an obstruction to navigable airspace.

If development happens that conflicts with the Part 77 surfaces, then the FAA's response is to alter the pilot's flight path into the runway in order for it to be safe. These alterations could lead a pilot to choose a different airport because of personal preference or a certain aircraft's physical limitations. **Although the Ames Municipal Airport is not a commercial passenger airport, it is still very important to the viability of local businesses, recreational uses, and airport-based flight instruction.**

Current Review Process:

If a building permit or site development plan application is submitted for a property within an area on the Part 77 map, the City requests that a federal notice be filed. This notice is provided on "form 7460," which notifies the FAA of the height and location of

the building at least 30 days prior to commencement of construction. This is required by Federal law, but it does not give the City any police power to limit construction if a conflict is identified by the FAA. The FAA serves as the City's agency of expertise, but it does not have local control on development. The FAA's main role is to administer airport traffic and safety. Therefore, if the City allows development that conflicts with safe operation of the airport approaches, then runway access could be more difficult for pilots.

While the City does not have standards to directly regulate development within critical flight paths, through the subdivision process, it may have some ability to limit the intensity of development for any plats created within those flight paths and/or to acquire easements to limit structure height in those areas. The City's subdivision process allows the Council to consider the impacts of the subdivision on existing public improvements (Section 23.302(6)). However, this provision is primarily intended to help the Council determine if additional public improvements may be necessary to alleviate any burdens on existing infrastructure created by the subdivision.

Rezoning, LUPP amendments, and similar discretionary actions may also provide opportunity to address the impacts of development on airport flight paths. The City Council recently approved a rezoning on South Duff Avenue, south of Highway 30, for which an airport easement was acquired as a condition of the rezoning. Rezoning land is a discretionary action by the City Council, so the acquisition of an airport easement is legal and is supported by Goal 7 in the Land Use Policy Plan. However, such discretion cannot be applied to site plan or building permit approval, which is subject to specifically defined standards in the zoning and building codes.

Supporting Policies and Agencies:

The City has adopted comprehensive planning policies which state that there should be protection of the airport. These are found the Land Use Policy Plan (below) and in the Ames Urban Fringe Plan (later in report).

Land Use Policy Plan Goal No. 7 (E):

- 7. E. Ames seeks a development pattern that protects and supports the airport and its flight approach zones.

The Iowa DOT also supports airports through its Office of Aviation. State funding is set aside for a grant program to assist cities in writing codes and policies so that airports are protected from the incremental encroachment of urban development. The *Code of Iowa* Chapter 329 gives cities the police power to protect airports (*see attached code excerpt*). It also outlines a warning to airport operators that if a demand is made upon a municipal airport to adopt adequate airport zoning regulations and it is not done within 60 days of the demand, a court order can force the municipality to do so. So far that has not happened.

The Iowa DOT has responded to that warning more from an incentive and educational approach than a regulatory approach. In addition to the grant program, it provides workshops and website information pertaining to airport protection. One of the valuable tools which came as a result of Iowa DOT's educational approach has been the *Iowa Airport Land Use Guidebook*, published by the consultant, Mead & Hunt, in 2008. This book contains sample ordinances and policies. These tools are helping the DOT gear up for more aggressive incentives through the use of sanctions. **In fiscal year 2014, the Iowa DOT is planning to withhold airport funding to any municipalities that do not have airport zoning ordinances.**

Regulations Outside City Limits:

A portion of the protection area defined by the FAR Part 77 surfaces for our airport is outside the city limits (*see attached map*). City Planning staff have spoken with Story County Planning staff about the need for joint regulation. This could be implemented by the County adopting airport regulations similar to the City of Ames. This approach is supported by the Ames Urban Fringe Plan, which includes the following language: (see page 33 of Fringe Plan)

Airport Protection Area (APA)

This land use designation is intended to reduce risk, increase safety and promote land use compatibility between the airport and adjacent land uses. The Federal Aviation Administration (FAA) regulates operations of both airplanes and airports. The FAA, however, has no jurisdiction over land uses adjacent to the airport. Given that risk in this area cannot be completely eliminated, the goal of this designation is to reduce the consequences of accidents and the compatibility issues related to noise and pollution.

APA Policy 1: Land in this designation is adjacent to or in close proximity of the airport.

APA Policy 2: Limit or restrict intensity and density of land uses in order to protect life and maintain the integrity of aviation operations.

APA Policy 3: Analyze land uses within this designation in terms of aviation risk, noise attenuation, height, and by local, state, and federal regulations.

Joint regulation in the Fringe might also include a joint Board for reviewing requests for variances or appeals pertaining to the adopted standards. As with any type of dimensional standards, there is potential for a property owner to request relief from the ordinance. Because such requests would be rare, the City Attorney's Office has recommended that a joint City/County Airport Zoning Board be formed. The current City and County zoning boards could serve this purpose if they were properly trained.

Current Issues and Past Cases:

A master plan for the airport was completed by Snyder and Associates in 2008. The master plan identifies areas around the airport which need protection. Some of these

areas are already protected by the City through fee simple ownership or easements. The master plan also identified obstructions such as existing trees and buildings which are on private property. One of the current challenges of airport management is the maintenance of trees. If a tree grows into a slope surface where the City does not have an easement or zoning protection, then the City does not have a tool to remedy the situation. The only option in these cases is negotiation with the property owner, which is unpredictable.

Land uses can also pose conflicts with airport safety. It is not uncommon in airport zoning regulations to restrict higher assembly uses where occupants are more highly concentrated relative to a building's size, or where occupants may have a more difficult time evacuating because of the age or physical condition of the occupants. Restricted uses may include schools, hospitals, churches, day cares, and other similar facilities. These uses are particularly concerning in the event of an unfortunate airplane/building collision.

Another potential conflict is airport noise near residential living. While housing near airports is typically built after the airports were established, new-coming residents often still complain about airport light, noise, and operations, which places increased pressure on airport operators to limit or change their operational activities. There are examples of airports that have had to shut down and/or relocate because of residential encroachment. In response, some cities have opted to require that new residential subdivisions record documents with each lot so that owners are aware of airport operations and cannot contest them or request additional mitigation. This type of language was also included in the most recent airport easement on South Duff Avenue.

Other less obvious conflicting land uses may include those that attract birds and wildlife, like grain crops and ponds. Birds can accidentally enter airport engines during flight and large game such as deer can cross a runway and cause airplane accidents. High reflectivity surfaces, like detention ponds or glass buildings, can also affect a pilot's vision.

That these or similar affects are real even for the City of Ames is evident in the FAA's response to past development projects in Ames. In 1995, the City inadvertently approved a new Sam's Club site development located within the edge of a City of Ames Airport Easement. This resulted in the FAA raising the approach slope. This demonstrated how serious the FAA is about enforcing airport safety and regularly monitoring new construction, regardless of whether they receive a notice or not. Although the City's review process has improved to prevent these types of mistakes in the future, an Airport Overlay Zone could provide an additional layer of protection.

Such overlay zones do have legal backing. In 1996, the Iowa Supreme Court upheld Iowa City's airport zoning ordinance in a challenge brought by a landowner. The Court affirmed the City's denial of a building permit based on public safety issues for "underlying airport zoning based on federal runway regulations."

Existing Development:

One of the topics that City Council will need to address is existing development. To what degree will the City require that existing development or land uses be modified to comply with a new ordinance. Some jurisdictions have dealt with this by allowing existing uses as long as they do not expand. One positive aspect of the existing situation is that development around the airport is currently not very dense. Additionally, the City does own land beyond the runway areas. However, development intensity can increase over time. Putting an airport protection ordinance in place now would ensure consistent regulation in the future.

Policy Options:

The City Council could choose to adopt an ordinance which primarily focuses on preventing obstructions (structures, trees, etc.) from penetrating into the FAR Part 77 surfaces. As an alternative, the City Council could choose to go beyond regulating only obstructions and consider also regulating specified land uses within certain radii of runways. With either of these approaches, the City would need to consider if any nonconformities would be created as a result of the new ordinance. In any case, the existing *Municipal Code* requiring height compliance within 750 feet of airport property is insufficient to cover the full area of the mapped FAR Part 77 surfaces around the City's airport, and is inconsistent with *Code of Iowa* requirements.

It appears that cities in Iowa have approached this issue in different ways. Seventy-five percent of municipalities that have airports in Iowa have airport zoning ordinances. Less than half of those contain regulation on specific land uses. The majority only regulate building height. However, regulation of use is common in metropolitan areas, where development intensity is much higher than rural areas, and where impacts due to incompatible encroachments are more likely. Currently, some of the largest cities in Iowa all include land use restrictions in their airport zoning ordinances. This includes Des Moines, Cedar Rapids, Dubuque, Burlington, Ankeny, Sioux City, Council Bluffs and Iowa City. A handful of the smaller cities, such as Onawa, Osceola and Humboldt, also include land use restrictions. It is anticipated that the number of municipalities with airport zoning ordinances will likely increase sharply as the Iowa DOT begins to contact cities and notify them of plans to withhold funding.

Direction Needed:

The Ames Municipal Airport is an important part of the City's infrastructure. It provides a necessary means of air transportation for local businesses and recreational pilots. Many airplanes are also based at the Ames Airport. With other nearby airports so close, any undesirable changes to approach slopes as a result of uncontrolled development could reduce the attractiveness of the Ames airport. Therefore, it is important to move forward with a more comprehensive airport zoning ordinance than currently exists. **Before developing more detailed options for protecting the Airport, the staff is seeking City Council direction as to what level of regulation is desired.**

Attachment

Code of Iowa Excerpt from Chapter 329

Source:

[Iowa Code/2011 Iowa Code/Statutes \(Code Chapters & Sections\)/TITLE VIII TRANSPORTATION/SUBTITLE 4 AVIATION/CHAPTER 329 AIRPORT ZONING/329.2 Airport hazards contrary to public interest.](#)

329.2 Airport hazards contrary to public interest.

It is hereby found that an airport hazard endangers the lives and property of users of the airport and of occupants of land and other persons in its vicinity, and also, if of the obstruction type, in effect reduces the size of the area available for the landing, taking off and maneuvering of aircraft, thus tending to destroy or impair the utility of the airport and the public investment therein. Accordingly, it is hereby declared:

1. That the creation or establishment of an airport hazard is a public nuisance and an injury to the community served by the airport in question.
2. That it is necessary in the interest of the public health, safety, and general welfare that the creation or establishment of airport hazards be prevented.
3. That this should be accomplished, to the extent legally possible, by proper exercise of the police power.
4. That the prevention of the creation or establishment of airport hazards, and the elimination, removal, alteration, mitigation, or marking and lighting of existing airport hazards are public purposes for which municipalities may raise and expend public funds, as an incident to the operation of airports, to acquire land or property interests therein.

[C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, §329.2]
See §[657.2](#)(8)

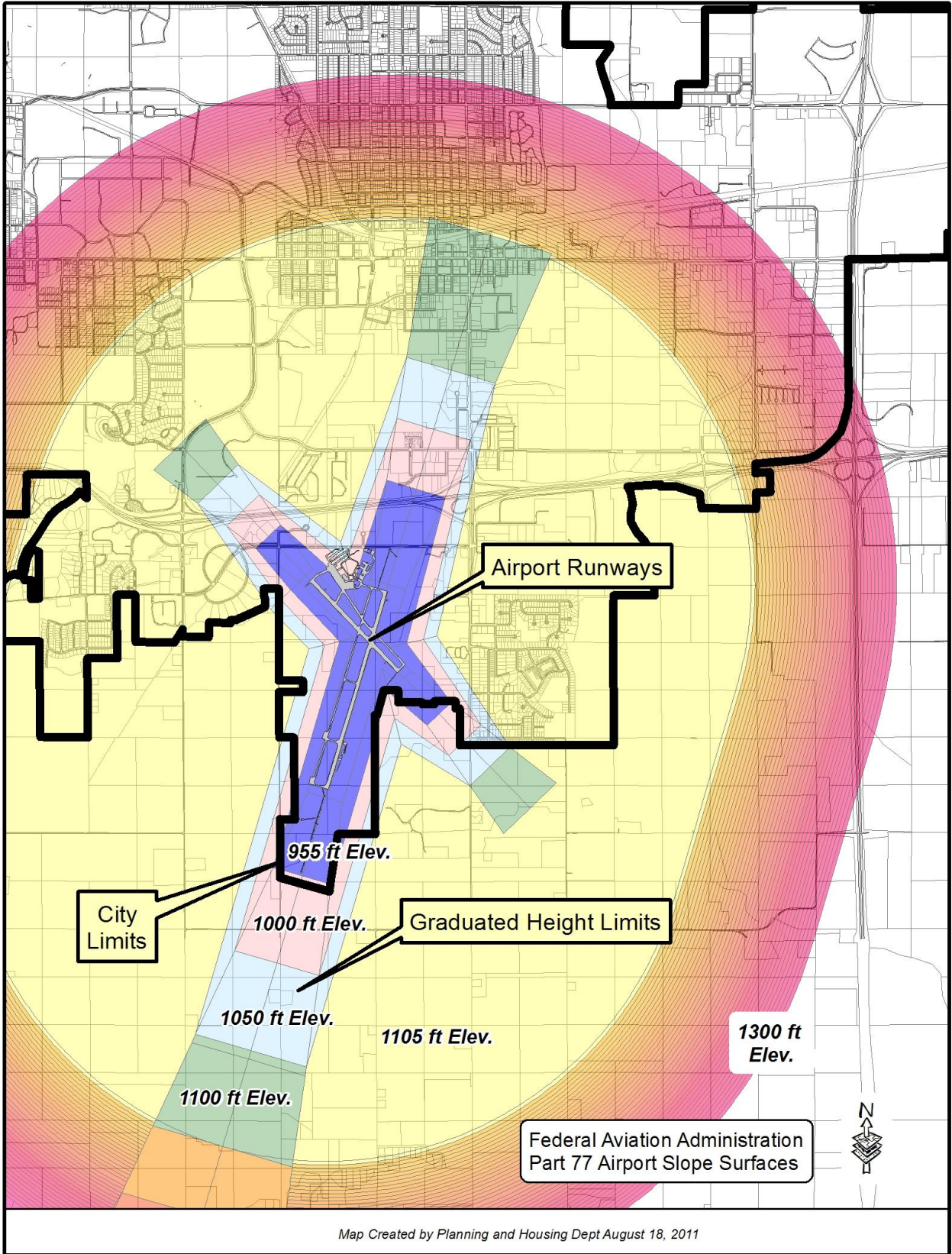
Source:

[Iowa Code/2011 Iowa Code/Statutes \(Code Chapters & Sections\)/TITLE VIII TRANSPORTATION/SUBTITLE 4 AVIATION/CHAPTER 329 AIRPORT ZONING/329.3 Zoning regulations — powers granted.](#)

329.3 Zoning regulations — powers granted.

Every municipality having an airport hazard area within its territorial limits may adopt, administer, and enforce in the manner and upon the conditions prescribed by [this chapter](#), zoning regulations for such airport hazard area, which regulations may divide such area into zones and, within such zones, specify the land uses permitted, and regulate and restrict, for the purpose of preventing airport hazards, the height to which structures and trees may be erected or permitted to grow. Regulations adopted under [this chapter](#) shall be made with consideration of the smart planning principles under [section 18B.1](#).

[C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, §329.3]
2010 Acts, ch [1184](#), §[20](#)
Section amended



Map Created by Planning and Housing Dept August 18, 2011

