



# CHAPTER 6: MODEL AIRPORT SAFETY ZONING ORDINANCE AND PROCEDURAL GUIDE



## *Introduction*<sup>43</sup>

Since 1946, Mn/DOT has provided local governments with a model airport safety ordinance that suggested one approach toward codifying Chapter 360's minimum, mandated airport safety requirements. The vast majority of Minnesota's public airports have airport safety zoning in place consistent with the most recent Mn/DOT model ordinance (last comprehensively revised in 1990). In fact, most affected jurisdictions simply adopted the text of the model ordinance verbatim or with very minor changes. However, most Minnesota public airports are protected by airport safety ordinances that are more than 25 years old, and may need to be revised or updated.

This chapter presents a revamped model airport safety ordinance for Minnesota local governments that reflects modern zoning practices as well as minimum requirements under Minnesota law. Mn/DOT encourages all affected public airports and local governments to review their current airport zoning regulations in light of this new model ordinance and update the regulations accordingly. However, the intent of the model ordinance in this new manual is to also provide more choices and options for local governments to tailor an airport safety zoning ordinance to their own unique circumstances. Circumstances of note that often affect local application and choice of airport safety zoning approaches include:

- The type of airport and type/intensity of aircraft use, taking into consideration future prospects for airport growth and runway expansion;
- The nature of the existing built environment, ranging from urban-

<sup>43</sup> If this chapter is read in full, we recognize its contents may overlap with other discussions presented in other chapters. We believe most users will read specific chapters of this manual as needed and, therefore, we feel it is better to include some discussions that may be repetitive. Where possible, however, we have eliminated duplicate text and included cross references.

## CHAPTER 6 OVERVIEW

- Introduction
- Legal Status of the Model Zoning Ordinance
- Summary of Model Ordinance Contents
- Procedural Requirements and Guidelines for Adopting Zoning Regulations
- Procedure and Criteria for Requests for Modification of Safety Zone Boundaries
- Procedures for Specific Development Project Approval
- Procedures for Zoning Variance Requests
- Model Airport Safety Zoning Ordinance
- Procedural Forms



airport to no growth pressures of concern;

- Special geographical conditions, such as rough, steep, or uneven topography in close proximity to a runway; and
- Available administrative resources—i.e., the current and anticipated staffing and administrative capacity of a local government to effectively apply and enforce an airport safety zoning ordinance.

The remainder of this chapter presents first an explanation of the model ordinance's legal status under Minnesota law and an overview of the 2006 model ordinance's contents, including key differences from the previous 1990 model ordinance's substance or approach. Following this, the next sections of this Chapter summarize the key procedural requirements derived from Chapter 360 of the Minnesota Statutes, including the procedures for formation of a joint airport zoning board, procedures for adoption and amendment of an airport zoning ordinance, and procedures for approval of a variance. Finally, the new 2006 model airport safety zoning ordinance can be found at the end of this chapter, complete with annotations and commentary discussing the purpose of the zoning provisions and offering, where appropriate, choices in approach or substance tailored to some of the differing circumstances described above.

## ***Legal Status of the Model Zoning Ordinance***

As described in more detail in Chapters 2 and 5 of this manual, Chapter 360 (Airports and Aeronautics) of the Minnesota Statutes contains the state's aviation laws, including enabling authority for local governments to adopt airport safety zoning. The zoning enabling authority is found in Sections 360.061 through 360.074 of Chapter 360. Local jurisdictions who adopt airport zoning regulations must comply with Chapter 360's minimum airport zoning mandates (including provisions addressing treatment of nonconforming uses and existing residential uses in established residential neighborhoods). Further, to implement Chapter 360, the Minnesota Department of Transportation adopted administrative rules and regulations, which are found primarily in Rule 8800.2400 ("Airport Zoning Standards") of the Minnesota Rules.<sup>44</sup> Again, local jurisdictions who adopt airport zoning regulations must comply with the minimum standards stated in Minnesota Rule 8800.2400.

What, then, is the legal status of the model zoning ordinance? The short answer is that adoption of Mn/DOT's model zoning ordinance is not mandatory. Mn/DOT's publication and promulgation of the model zoning ordinance has always been a service intended to aid the state's public airports and local decision-makers. There is no legal penalty if a local jurisdiction does not adopt the model zoning ordinance, or any other

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<sup>44</sup> For jurisdictions that have adopted Mn/DOT's model zoning ordinance for Minnesota airports, the contents and minimum standards in Rule 8800.2400 should look very familiar. The Airport Zoning Standards set forth in Rule 8800.2400, together with several of Chapter 360's key provisions, were incorporated, verbatim, into the 1990 Mn/DOT model zoning ordinance.



airport zoning approach. **However, while there may not be legal penalties for failure to adopt the model ordinance (i.e., an airport would not be violating Chapter 360 or other Minnesota laws), there may be significant *financial* penalties for failure to adopt airport zoning regulations.**

Mn/DOT will not grant monies to a public airport for construction projects unless the public airport has in place airport zoning regulations, such as the model ordinance, that comply with Minnesota Statutes Chapter 360 and Minnesota Rules. Similarly, one of the grant assurances for receipt of federal airport funding is affirmative action taken to preclude incompatible land uses around the airport. In all cases, once a local government invokes its airport zoning authority under Chapter 360, the governing body **must** comply with the minimum airport zoning regulations in Chapter 360 and the minimum standards in Rule 8800.2400. Over time, most Minnesota jurisdictions who considered adoption of airport zoning regulations found it easiest to simply adopt the model ordinance wholesale, since the model ordinance includes the exact same minimum standards found in Chapter 360 and Rule 8800.2400.

This manual takes a different approach with the new, revised model ordinance. Those portions of the 2006 model ordinance that simply repeat, verbatim, the minimum airport zoning standards required by Chapter 360 and Rule 8800.2400, are specially highlighted in **bold text** so the manual user can easily recognize and acknowledge them. A local government referring to the model ordinance will recognize those bolded provisions as minimum standards that it must include in its local airport zoning regulations.

However, a local jurisdiction having airport zoning authority under Minnesota law is free to adopt airport zoning ordinances and regulations ***more restrictive*** than the minimum standards set forth in the statutes or rules. Minn. Stat. 360.065(2) and Minn. R. 8800.2400(2). Accordingly, the new model ordinance suggests a variety of zoning standards and approaches that are different from, or may be more restrictive than, the minimum Chapter 360 statutes and implementing rules, but which are based on national “best practices” for ensuring optimal protection for persons and property on the ground and in the air. Those standards recommended as “best practices” are specially noted in the new model ordinance by the “**BP**” symbol. Mn/DOT recommends that local jurisdictions consider implementing the best practice zoning standards whenever practicable, recognizing that such standards may not be appropriate or even possible to implement in every case.

## Summary Of Model Ordinance Contents

The content of the new 2006 model ordinance is based closely on the previous 1990 model ordinance and uses a similar organization. The 2006 model ordinance’s contents, in order, are:



## 2006 Model Airport Safety Zoning Ordinance for Minnesota Airports

1. How to Use this Ordinance
  2. Title and Introduction
  3. Authority
  4. Statement of Purpose and Finding
  5. Short Title
  6. Applicability
  7. Definitions
  8. Airspace Obstruction Zoning
  9. Land Use Safety Zoning
  10. Official Airport Zoning Map
  11. Administration—Board of Adjustment and Airport Zoning Administrator
  12. Treatment of Nonconforming Uses and Structures
  13. Airport Zoning Permits
  14. Variances
  15. Allowance for Hazard Markings and Lighting
  16. Avigation Easements and Real Estate Disclosures
  17. Appeals
  18. Judicial Review
  19. Penalties
  20. Conflicting Regulations
  21. Severability
  22. Effective Date
- Exhibits to Model Ordinance

The significant changes and additions found in the 2006 model ordinance, versus the previous 1990 model, are summarized below.

### ***Land Use Compatibility Regulations***

The 2006 model ordinance suggests, as one option, that local governments consider using a more detailed, modern listing of compatible and incompatible land uses for each of the three safety zones. This detailed use list is based on extensive national research, including third-party risk research from California and Europe, and reflects current best national practices in airport zoning to ensure compatible land uses. While the compatible use regulations found in Section 9 of the model ordinance carry forward and clarify the statutorily required list of incompatible uses that a local jurisdiction **must** prohibit, the more extensive list of potentially compatible uses is offered as advisory only. Mn/DOT strongly encourages local governments to consider the detailed use list approach. See Chapter 3 of this manual for additional discussion about compatible land uses.

### ***Use Regulations in Safety Zone C***

The 2006 model ordinance goes beyond the previous model by encouraging local governments to consider restricting specific incompatible land uses in Safety Zone C. These regulations are based on a survey of other states' approaches to zoning for land use safety in areas comparable to



Minnesota's Safety Zone C. In the nine states that were researched as part of the preparation of this manual, the majority included specific use limitations for properties under an airport runway's horizontal approach surface that correspond to areas contained within Minnesota's Zone C. The 2006 model ordinance's suggested Zone C use restrictions, including restrictions on certain residential uses located nearest the runway centerline extended, stem primarily from the desire to ensure maximum protection to persons on the ground from possible aircraft accidents. Where the local context allows it, targeted Zone C use restrictions, particularly in areas located closest to the extended runway centerline, can also provide additional buffer to accommodate possible future airport growth.

### ***Address Wildlife Attractant Hazards***

The 2006 model ordinance incorporates best practices and Minnesota's minimum standards for avoiding wildlife attractants, especially bird attractants, near airport runways. Wildlife attractants include sanitary landfills, water impoundments, garbage dumps, sewage treatment plants, and certain species of flora and fauna. The dangers associated with bird strikes are real and potentially devastating, as recognized by the FAA.<sup>45</sup>

### ***Recommendations for Revised Procedures Regarding Adoption of Airport Zoning Ordinances***

One gap identified during the preparation of this manual concerned the obligation of participating jurisdictions to take follow-up action on an airport zoning ordinance after its adoption by a joint airport zoning board. Minnesota statutes and rules do not create an obligation for the local, participating jurisdictions to take any action to individually acknowledge the joint board's zoning ordinance or even formally incorporate it by reference in the community's official land use controls. Accordingly, in the Procedural Guidelines portion of this manual, Mn/DOT recommends, as best practice, that each jurisdiction with representation on a joint airport zoning board formally acknowledge (e.g., by resolution) their participation on the joint airport zoning board and the binding effect of the adopted airport zoning ordinance. In addition, the Procedural Guidelines suggest that each member jurisdiction formally incorporate the joint airport zoning board's ordinance into the jurisdiction's own zoning and subdivision controls. Both these local actions should occur within a specified time

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<sup>45</sup> See FAA Order 5200.5, *Guidance Concerning Sanitary Landfills On or Near Airports*, which states that sanitary landfills, because of their bird attractive qualities, are considered to be an incompatible land use if located within specified distances as cited by the FAA. FAA Advisory Circular 150/5200-33, *Hazardous Wildlife Attractants on or Near Airports*, discusses the various incompatible land uses, and bird attractants are included in this list. It is stated in FAA Order 5050.4A, *Airport Environmental Handbook*, that the FAA advises against locating such facilities within 5,000 feet of all runways accommodating or planned to accommodate piston-type aircraft, and within 10,000 feet of all runways accommodating or planned to accommodate turbine (jet) powered aircraft. Minnesota State solid waste management rules dictate specific operating criteria for solid waste landfill sites that encourage compatible land uses around airports. For example, the State's rules on landfill site location requirements relative to airports coincide with the requirements set forth in FAA Order 5050.4A. See Minnesota Rule 7035.2815.



frame, for example 90 or 180 days, from the joint airport zoning board's final adoption action.

### ***Criteria for Variances and Referral to Mn/DOT***

The 2006 model ordinance provides a new definition of the important term “practical difficulty or unnecessary hardship,” which under Minnesota statutes is the threshold for justifying a variance from a zoning regulation. The 2006 model ordinance also encourages, again as a best practice based on other states' experiences, the referral of all or some subset of “major” variances to Mn/DOT staff for comment and recommendation prior to the local government's final decision on the variance requests. Suggestions for what might be considered a “major” variance include variances from structure height standards, variances from use restrictions, or variances from the density limitations in the ordinance. Note, however, that a local government may **not** grant a variance from any prohibition or limitation specified in Minnesota Statutes Chapter 360 or state rules and regulations.

In addition, the 2006 model ordinance makes clear that a jurisdiction always has the option to more specifically limit or prohibit other types of variances. For example, the ordinance may expressly prohibit all variances for new structures that seek to exceed the height limits created by the adopted airspace (height) zones.

### ***Encourage Use of Avigation Easements and Property Disclosure Mechanisms***

#### ***AVIGATION EASEMENTS***

The 2006 model ordinance encourages, as a best practice, giving the local decision-making body the authority to require avigation easements on certain properties seeking residential development approval, use variances, or other land use approvals in an area subject to the airport zoning ordinance.

Avigation easements come in a variety of forms. One of the most common in an airport context is an avigation easement that typically gives the easement holder (usually the airport sponsor) the right to fly airplanes in the airspace above the subject property. This right of flight includes the right to make noise over the property and may include an easement to prevent the property owner from using his land or building structures that are incompatible with flight (e.g., tall structures, noise-sensitive uses, uses at risk from plane crashes). See Chapter 4 of this manual for a more detailed discussion of avigation easements in the section on Preventive Strategies and Tools.

One major advantage of easements is that they are usually permanent agreements, whereas restrictive zoning regulations (e.g., Zone A and B use lists) can be changed and relaxed. However, the easement holder must be vigilant and consistently enforce the terms of the easement over time, even as the affected property changes ownership.



### **PROPERTY DISCLOSURE MECHANISMS**

The 2006 model ordinance, implementing recently adopted Minnesota law, requires plain language disclosures in certain real estate transactions involving properties located in an airport safety zone.

Property disclosure mechanisms are used in a variety of circumstances to alert real estate buyers of potentially dangerous situations, or other situations that might affect the value or usability of their property. Disclosure mechanisms include recorded deed notices or, more commonly, real estate disclosure statements. Deed notices are recorded at the same time as the approved subdivision map, and might describe possible airport-related impacts, including noise, aircraft overflights, or the applicability of airport zoning restrictions. Because the recorded notice becomes part of the deed to each lot, it should show up in a title search prepared when the lot is sold. Often, local decision-makers require recorded deed notices as a condition of approval for residential uses near an airport where noise and safety concerns are not major, but frequent aircraft overflights might annoy some residents. New Jersey, for example, requires each municipality that has adopted airport safety zones to record notice of the zone boundaries for each property located in the zone.

Real estate law often requires seller disclosure statements about the possible impacts from a nearby airport. Such mechanisms have been used in several other states (Arizona, Hawaii, California, New Jersey) in an airport context to alert purchasers in airport influence areas of noise and other potential impacts. Minnesota statutes were revised in 2006 to require sellers of all real property in Safety Zones A, B, or C to disclose to prospective buyers the fact that the property is located in such safety zone and may be subject to restrictive airport zoning regulations.<sup>46</sup>

In addition, disclosure mechanisms have been used to notify buyers if the property is encumbered by an existing aviation easement that allows low overflights. These disclosure mechanisms have proven valuable in helping to avoid situations where a purchaser finds after-the-fact that his or her property is located in airport noise or safety zones.

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<sup>46</sup> Minn. Statutes, section 360.365, subd. 3. The disclosure requirement is **not** required for sellers of real property located in a safety zone associated with an airport owned or operated by the Metropolitan Airports Commission (MAC).



## Procedural Requirements And Guidelines

### ADOPTING AN AIRPORT ZONING ORDINANCE FOR PUBLICLY-OWNED AIRPORTS

#### General Rule—Single Jurisdiction

Under Minnesota Statutes, Chapter 360, when a municipality owns or operates a public airport, and that same municipality has jurisdiction over all lands included with the airport hazard area, the owning or operating municipality may adopt airport zoning regulations. Minnesota Statutes, Section 360.063, Subd. 1(a).

#### Choices in Adopting an Airport Zoning Ordinance—Multiple Jurisdictions

Under Minnesota Statutes, Chapter 360, when an airport is owned or controlled by one municipality, but where all or part of the airport hazard area is located within the territorial limits of a different county or municipality, the public airport owner, except for the Metropolitan Airport Commission (“MAC”)<sup>47</sup>, has two options for adopting airport zoning. Minnesota Statutes, Section 360.063, Subd. 3.

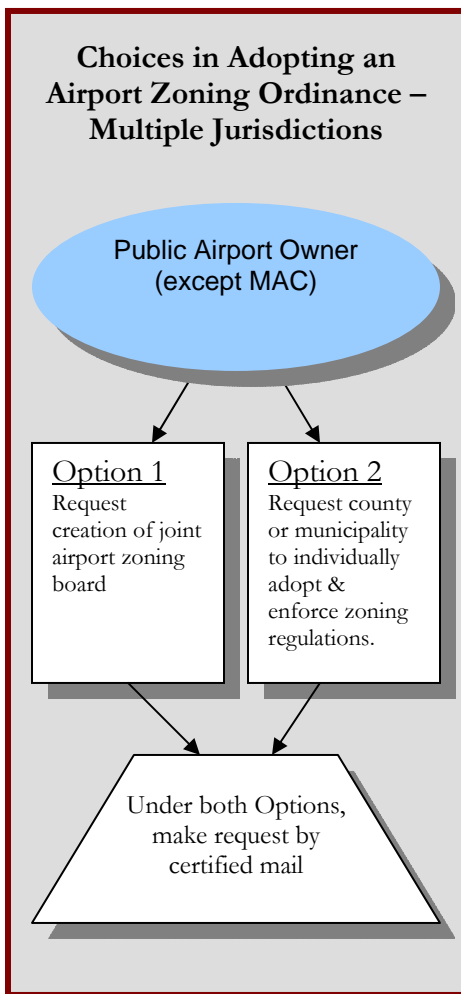
**OPTION 1:** Request creation of a joint airport zoning board. See **Form No. 2**.

**OPTION 2:** Request an affected county or other municipality<sup>48</sup> to individually adopt and enforce airport zoning regulations for the areas in question that comply with the minimum standards prescribed by the Commissioner in Minnesota Statutes, Chapter 360, and Minnesota Rule 8800.2400. See **Form No. 2**.

- Requests under either option shall be made by **CERTIFIED MAIL** to the governing body of each county and municipality affected by the area to be zoned, as per Minnesota Statutes, Section 360.063, Subd. 3(a)(2).
- If, **within 60 days**, a county board, town board, or city council **FAILS** to adopt airport zoning regulations under Option 1, or fails to join in creating a joint airport zoning board under Option 2, then the airport owner may zone and enforce an airport zoning ordinance

<sup>47</sup> The MAC (Metropolitan Airports Commission) has one option only. The MAC must request creation of one joint airport zoning board for each airport operated under its authority, as stated in Minnesota Statutes, Section 473.608, Subd. 21.

<sup>48</sup> A “municipality,” for airport zoning purposes under Minnesota Statutes, Section 360.063, Subd. 3, is defined as: (1) Cities, big and small, which are incorporated; (2) Towns, including townships; (3) the Metropolitan Airports Commission; and (4) the State of Minnesota, when it owns an airport. The term “municipality” may, specifically for airport zoning purposes, include a county **ONLY** when the county owns or controls an airport (in which case the county may exercise all the powers granted by Minn. Statutes, Section 360.61 through Section 360.74 to other municipalities).





for the airport hazard area in question, according to Minnesota Statutes 360.063, Subd. 3(c). See **Form No. 2** and **Form No. 4**.

**PROCEDURES FOR LOCAL ADOPTION OF AIRPORT ZONING ORDINANCE**

**Joint Zoning Board Procedures for Ordinance Adoption**

When a public airport is owned or controlled by one municipality, but where all or part of the airport hazard area is located within the territorial limits of a different county or municipality, the public airport owner may request the establishment of a joint airport zoning board to adopt airport zoning regulations. Minnesota Statute 360.063, Subd. 3. The following describes the steps the airport owner must take under Minnesota law<sup>49</sup> to first establish the joint airport zoning board, and then to adopt an airport zoning ordinance.

**MANDATORY STEPS:**

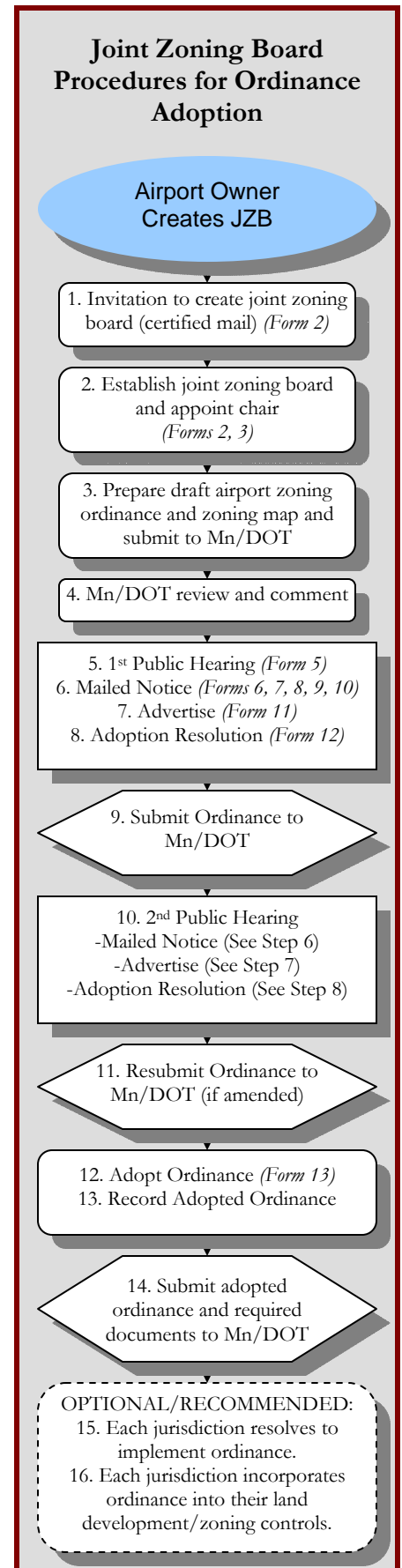
1. **Airport Owner Resolves to Create Joint Zoning Board.** Airport owner passes resolution to create a joint airport zoning board and to authorize invitations to join. See **Form 1**.
2. **Invitation to create joint zoning board.** Airport owner invites all affected counties and municipalities to join in creating a joint airport zoning board. Requests must be sent in writing, by Certified Mail. See **Form No. 2**.
3. **Affected jurisdictions agree to join board.** The municipalities and counties who accept the invitation each pass a resolution to join the joint zoning board. See **Form 3**.

**NOTES:** If a municipality or county refuses to join the joint airport zoning board, the airport owner (or the board created without the participation of the refusing municipality or county) may adopt, administer and enforce airport zoning regulations for the airport hazard area located in the refusing municipality or county.

If *all* of the invited municipalities and counties refuse to join the airport zoning board, the airport owner should dissolve the board and proceed on its own to adopt airport zoning regulations. In such instance, the airport owner may also administer and enforce the regulations in the airport hazard areas located in the non-participating jurisdictions. See **Form 4**.

4. **Convene board and elect chair.** After the participating jurisdictions create the joint zoning board, each appoints a maximum of two members to the board to serve until they are replaced by their appointing authority. The appointed members

<sup>49</sup> See Minn. Stat., Chapter 360, Section 360.065.





elect an additional person who is to serve as chairperson. Rules of procedure should also be adopted.

**NOTE:** Cities of the first class (population 100,000 or more, such as Duluth) that own or control an airport shall appoint four members (instead of two) to the joint zoning board.

5. **Prepare draft airport zoning ordinance and zoning map.** The joint zoning board, which may choose to work with an attorney, engineer, or other qualified professional, submits a draft ordinance and zoning map to the Minnesota Department of Transportation, Office of Aeronautics (Mn/DOT will furnish a model ordinance and zoning map to be used as guidance).
6. **Mn/DOT review and comment.** Mn/DOT will review and advise the joint zoning board on the draft proposal before the first public hearing.

**NOTE:** Unlike the process for adoption of other types of municipal or county zoning ordinances, a minimum of **two** public hearings must be held to consider adoption of the draft airport zoning ordinance.

7. **Resolution setting 1st public hearing.** Joint zoning board passes a resolution declaring this ordinance to be their proposed ordinance, setting a date and place for the first public hearing. **See Form No. 5.**

**NOTE:** If an Established Residential Neighborhood (ERN) in a Built Up Urban Area exists, the airport zoning board must note the requirement of Minnesota Statutes 360.066, Subd. 1 a (a) and (d) (1978) that certain prohibited land uses must be acquired, altered, or removed at public expense. (See Model Ordinance, Section 9-3(b), "Exemptions.")

In the event that a prohibited land use exists in an Established Residential Neighborhood, the joint zoning board shall so notify the airport owner at least sixty (60) days prior to the first hearing on adoption of the ordinance. The airport owner shall then consider the alternatives of closing a runway, runway realignment or relocation, runway extension or shortening and displaced thresholds, and shall then promptly notify the local zoning authority in writing, if it proposes to take any of such alternative actions.

8. **Give mailed notice of 1st public hearing.** The zoning board shall give mailed notice of the 1st public hearing as follows:
  - o At least 15 days before the hearing to any persons in municipalities who own land proposed to be included in Safety Zones A and B, and to any persons who own property in an identified Established Residential Neighborhood (See **Forms 6, 7, and 8**), and



- To the governing body of each political subdivision whose territory is affected by the area to be zoned, (See **Form 9**), and
- At least 15 days before the hearing, to persons or municipalities that previously requested such notice from the authority. (Send interested parties a copy of the published notice).

For the purpose of giving mailed notice, the zoning authority may use appropriate records to determine the names and addresses of owners. The failure to give mailed notice to individual property owners or defects in the notice shall not invalidate the proceedings, provided a *bona fide* attempt to comply with this subdivision has been made.

A copy of the notice and a list of the owners and addresses to which the notice was sent shall be attested to in an affidavit by the responsible person and shall be made a part of the records of the proceedings. See **Form No. 10 and 14**.

9. **Advertise 1st public hearing.** The notice of hearing shall be published at least **three** times during the period between 15 days and 5 days before the hearing in:
- An official newspaper, and
  - A second newspaper designated by the zoning authority that has a wide general circulation in the area affected by the proposed regulations.

The notice shall not be published in the legal section of a newspaper. See **Form No. 11**.

10. **Adoption resolution.** After the 1st public hearing, the joint airport zoning board will pass one of the following resolutions:
- If no changes are necessary, a resolution is passed stating that a public hearing was held, that no changes are necessary, and that this proposed ordinance will be submitted to the Minnesota Department of Transportation, Office of Aeronautics, for approval. See **Form No. 12**.
  - If changes are desired, the proposed ordinance is amended and a resolution is passed declaring the amended ordinance to be the newly proposed ordinance, and that this proposed ordinance will be submitted to the Minnesota Department of Transportation, Office of Aeronautics, for approval. See **Form No. 12**.

11. **Submit Ordinance to Mn/DOT—Commissioner's Order.** The joint airport zoning board shall submit the ordinance to the Minnesota Department of Transportation, Office of Aeronautics, for approval.

- Upon review for approval, the Commissioner will determine whether the proposal conforms to the minimum standards. If



no objections are made, the proposed ordinance is issued a “Commissioner's Order of Approval.”

- If the Commissioner objects on the grounds that such regulations do not conform to the minimum standards, the joint zoning board shall make such amendments as are necessary to meet such objections.
12. **Notice 2nd public hearing and hold hearing.** Repeat steps 7, 8, and 9, and hold the second public hearing.
  13. **Resubmit ordinance to Mn/DOT** (only if ordinance is amended). Resubmit ordinance proposal to the Minnesota Department of Transportation, Office of Aeronautics if, at the second public hearing, it was decided to amend the proposed ordinance.
    - Repeat steps 10 and 11 above, as necessary.
    - If the changes were not substantial, a new Commissioner's Order need not be issued.
    - If substantial changes have been made, then final adoption shall not take place until after final approval by the Commissioner according to Minnesota Statutes 360.065, subdivision 2.
  14. **Adopt ordinance.** Upon completion of Steps 11 through 13, adopt ordinance. See **Form No. 13**.
  15. **Record adopted ordinance.** The adopted ordinance must be filed with the County Recorder in each county in which an airspace or safety zoned area is located.
  16. **Submit adopted ordinance and required documents to Mn/DOT.** Submit documents to the Minnesota Department of Transportation, Office of Aeronautics. See “List of Documents to be Submitted to Mn/DOT,” below.

**OPTIONAL BEST PRACTICE STEPS:**

**BP**

17. **Each jurisdiction formally resolves to implement ordinance.** Each jurisdiction represented on the joint airport zoning board adopts a resolution or ordinance formally acknowledging their participation on the joint airport zoning board and the binding effect of the adopted airport zoning ordinance on local land use decisions. This step must be completed within ninety (90) days from the joint airport zoning board’s final action to adopt the ordinance (Step 14 above).

**BP**

18. **Each jurisdiction incorporates ordinance into their land development/zoning controls.** Each jurisdiction represented on the joint airport zoning board shall take the necessary actions to formally incorporate the adopted airport zoning ordinance into the jurisdiction’s zoning and subdivision controls. This step must be completed within one hundred eighty

(180) days from the joint airport zoning board’s final action to adopt the ordinance (Step 14 above).

### Individual Municipality Procedures For Ordinance Adoption

This subsection describes the steps that Minnesota law<sup>50</sup> requires for a municipality to adopt an airport zoning ordinance when one of the following circumstances exist:

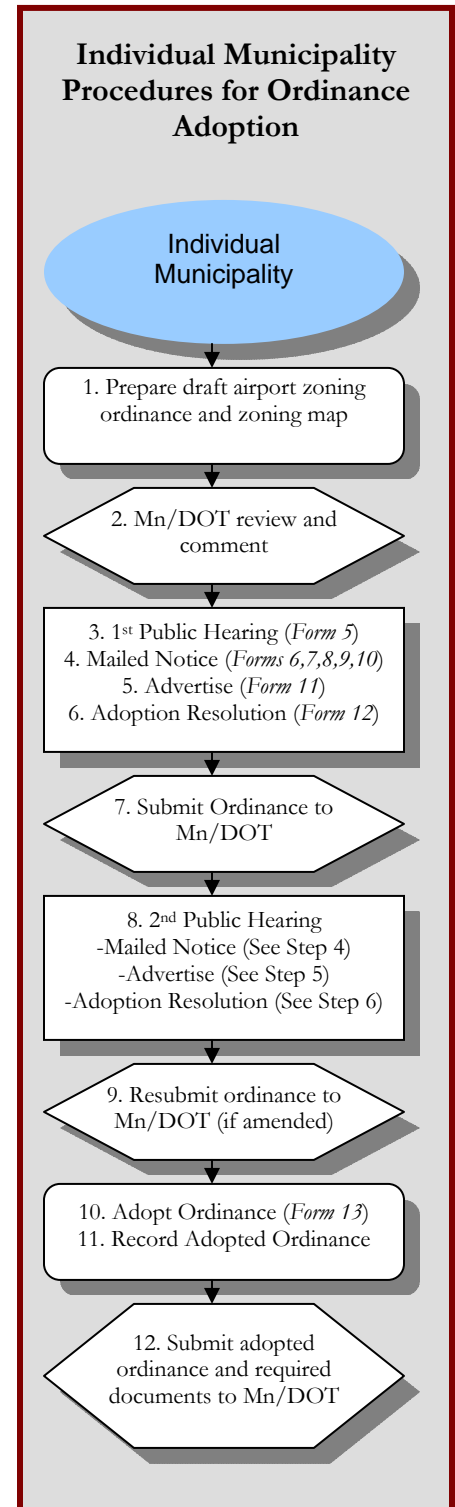
- A public airport is owned or controlled by one municipality, and the same municipality owns and controls the entire airport hazard area.
- A public airport is owned or controlled by one municipality, and all or part of the airport hazard area is located within a different county or municipality, but the other municipalities and counties all decline to participate in the establishment of a joint airport zoning board. In this case, Steps 1 and 2 in the procedures outlined above were followed, but all invitees responded and declined participation in the joint airport zoning board. See **Form No. 4**.

In all the cases stated above, the owning or controlling municipality<sup>51</sup> may, on its own, adopt airport zoning regulations.

1. **Prepare draft airport zoning ordinance and zoning map.** The owning or controlling municipality, who may work with an attorney, engineer, or other qualified professional, submits a draft ordinance and map to the Minnesota Department of Transportation, Office of Aeronautics (Mn/DOT will furnish a model ordinance and map to be used as guidance).
2. **Mn/DOT review and comment.** Mn/DOT will review and advise the municipality on the draft proposal before the first public hearing.
 

**NOTE:** Unlike the process for adoption of other types of municipal or county zoning ordinances, a minimum of **two** public hearings must be held to consider adoption of the draft airport zoning ordinance.
3. **Resolution setting 1st public hearing.** The owning or controlling municipality passes a resolution declaring this ordinance to be their proposed ordinance, setting a date and place for the first public hearing. See **Form No. 5**.
 

**NOTE:** If an Established Residential Neighborhood (ERN) in a Built Up Urban Area exists, the municipality must note the requirement of Minnesota Statutes 360.066, Subd. 1 a (a) and (d) (1978) that certain prohibited land uses must be acquired, altered,



<sup>50</sup> See Minn. Stat., Chapter 360, Section 360.065.

<sup>51</sup> In this instance, “owning and controlling municipality” is defined consistent with Minnesota Statutes to include a joint airport operating board under certain circumstances (See Minn. Stat., Chap. 360, Subd. 3(d)) and “municipality” is defined consistent with Section 360.061 to include a county that owns or controls a public airport.



or removed at public expense. (See Model Ordinance, Section 9-3(b), “Exemptions.”)

In the event that a prohibited land use exists in an Established Residential Neighborhood, the owning or controlling municipality shall so notify the airport owner at least sixty (60) days prior to the first hearing on adoption of the ordinance. The airport owner shall then consider the alternatives of closing a runway, runway realignment or relocation, runway extension or shortening and displaced thresholds, and shall then promptly notify the local zoning authority in writing, if it proposes to take any of such alternative actions.

4. **Give mailed notice of 1st public hearing.** The municipality shall give mailed notice of the first public adoption hearing as follows:
  - At least 15 days before the hearing to any persons in municipalities who own land proposed to be included in Safety Zones A and B, or in an identified Established Residential Neighborhood (See **Form Nos. 6, 7, and 8**) and
  - To the governing body of each political subdivision whose territory is affected by the area to be zoned, (See **Form 9**), and
  - At least 15 days before the hearing, to persons or municipalities that previously requested such notice from the authority. (Send interested parties a copy of the published notice).

For the purpose of giving mailed notice, the municipality may use appropriate records to determine the names and addresses of owners. The failure to give mailed notice to individual property owners or defects in the notice shall not invalidate the proceedings, provided a bona fide attempt to comply with this subdivision has been made.

A copy of the notice and a list of the owners and addresses to which the notice was sent shall be attested to in an affidavit by the responsible person and shall be made a part of the records of the proceedings. See **Form Nos. 10 and 14**.

5. **Advertise 1st public hearing.** The notice of hearing shall be published at least **three** times during the period between 15 days and 5 days before the hearing in:
  - An official newspaper, and
  - A second newspaper designated by the municipality that has a wide general circulation in the area affected by the proposed regulations.

The notice shall not be published in the legal section of a newspaper. (See **Form No. 11**.)

6. **Adoption resolution.** After the hearing, the municipality will pass one of the following resolutions:



- If no changes are necessary, a resolution is passed stating that a public hearing was held, that no changes are necessary, and that this proposed ordinance will be submitted to the Minnesota Department of Transportation, Office of Aeronautics, for approval. See **Form No. 12**.
  - If changes are desired, the proposed ordinance is amended and a resolution is passed declaring the amended ordinance to be the newly proposed ordinance, and that this proposed ordinance will be submitted to the Minnesota Department of Transportation, Office of Aeronautics, for approval. See **Form No. 12**.
7. **Submit Ordinance to Mn/DOT—Commissioner’s Order.** The municipality shall submit the ordinance to the Minnesota Department of Transportation, Office of Aeronautics, for approval.
- Upon review for approval, the Commissioner will determine whether the proposal conforms to the minimum standards. If no objections are made, the proposed ordinance is issued a “Commissioner's Order of Approval.”
  - If the Commissioner objects on the grounds that such regulations do not conform to the minimum standards, the municipality shall make such amendments as are necessary to meet such objections.
8. **Notice 2nd public hearing and hold hearing.** Repeat steps 3, 4, and 5, and hold the second public hearing.
9. **Resubmit ordinance to Mn/DOT** (only if ordinance is amended). Resubmit ordinance proposal to the Minnesota Department of Transportation, Office of Aeronautics if, at the public hearing, it was decided to amend the proposed ordinance.
- Repeat steps 6 and 7 above, as necessary.
  - If the changes were not substantial, a new Commissioner's Order need not be issued.
  - If substantial changes have been made, then final adoption shall not take place until after final approval by the Commissioner according to Minnesota Statutes 360.065, subdivision 2.
10. **Adopt ordinance.** Upon completion of Steps 7 through 9, adopt ordinance. See **Form No. 13**.
11. **Record adopted ordinance.** The adopted ordinance must be filed with the County Recorder in each county in which an airspace or safety zoned area is located.
12. **Submit adopted ordinance and required documents to Mn/DOT.** Submit documents to the Minnesota Department of Transportation, Office of Aeronautics. See “List of Documents to be Submitted to Mn/DOT,” below.



**TABLE 6-1: ADOPTION OF AIRPORT ZONING ORDINANCE – LIST OF DOCUMENTS TO BE SUBMITTED TO MN/DOT**

**Submit the following documents to the Minnesota Department of Transportation, Office of Aeronautics, as soon as they are drafted:**

1. Letter from the airport owner to the county(s), township(s), and/or city(s) requesting the establishment of a joint airport zoning board. **Form No. 2.**
2. Certified resolutions of the airport owner, the county(s), township(s), and/or city(s) establishing the joint airport zoning board. **Form Nos. 1, 3, and 4.**
3. A draft of the proposed ordinance and map prior to presentation at public hearing.  
**NOTE: TWO NOTICED PUBLIC HEARINGS MUST BE HELD.**
4. Certified resolution of the zoning board for each hearing held, declaring a proposed ordinance and arranging a time and place for a public hearing. **Form No. 5.**
5. Affidavit of publication from TWO newspapers of the notice of public hearing for each hearing held.
6. Affidavit that mailed notice was given for each hearing held. **Form No. 10**, and additional “mailed notice” documents. **Form Nos. 6, 7, 8, 9, and 14.**
7. Certified minutes of each public hearing.
8. Certified zoning board resolution as to a proposed zoning ordinance to be submitted for Commissioner's Order of Approval. **Form No. 12.**
9. Certified zoning board resolution adopting the proposed ordinance. **Form No. 13.**
10. Two certified copies of the adopted ordinance with accompanying map sets.
11. Certification as to the filing of the ordinance with the County Register of Deeds and the filing numbers.





## Requests For Modification Of Safety Zones

Prior to adopting airport zoning regulations, Minnesota law requires the municipality, county, or joint airport zoning board to submit the proposed regulations to the Mn/DOT Commissioner for certification. The Commissioner must determine whether the proposed regulations conform to Minnesota law, including the minimum standards stated in Minnesota Rule 8800.2400. If the Commissioner objects to the proposed regulations on the ground that the regulations do not conform with the minimum standards, the municipality, county, or joint zoning board must either amend the regulations to address the Commissioner's objections or demonstrate that "the social and economic costs of restricting land uses in accordance with the standards outweigh the benefits of a strict application of the standards." Minnesota Statutes 360.065, Subd. 2.

This section focuses on the situation where a municipality, county, or joint airport zoning board requests the Commissioner to *modify airport safety zone boundaries* and certify the regulations in compliance on the ground that the "social and economic costs...outweigh the benefits of a strict application of the standards" Because state law is currently based on the fundamental premise that airport zoning regulations should minimize impacts from accidents when (and not if) such accidents occur, such requests must make a reasoned showing that the safety risk to people living and working in the vicinity of an airport will not be unreasonably compromised by such modification. It is generally recognized that the risk to people living and working in the vicinity of an airport ("third party risk") varies with several factors. Guided by the general intent stated in Minnesota Statutes, Chapter 360, and based on an extensive review of third party risk research and literature, Mn/DOT acknowledges the following conclusions about third party risk.

### CONCLUSIONS ABOUT THIRD PARTY RISK<sup>52</sup>

- Most research agrees that Third Party Risk is primarily affected by three factors:
  - Probability of a crash occurring near a specific airport.
  - The probable distribution of crashes with respect to the location.
  - Size of the probable crash area.
- General Aviation flying has more accidents per operation by a factor of approximately eight when compared to Scheduled and Unscheduled Commercial Service Part 121 operations, and a factor of five when compared to Scheduled Commercial Service Part 135 operations.

<sup>52</sup> A more detailed analysis and summary of available third party risk research and literature may be found in Appendix 7 to this Manual.



- Accidents by aircraft on approach are tightly concentrated along the extended runway centerline.
- Accidents by departing aircraft are more spread out than for arriving aircraft. The shape is a fan starting at the liftoff point on the runway.
- Arrival accidents exceed departure accidents by almost 3:1.
- Population density is a major factor in estimating a crash consequence. A pilot who has some control capability of a small aircraft can usually avoid human habitations in low density developments. As population density or aircraft size increases, the destruction of property and possible loss of life on the ground becomes a greater risk. High density development greatly increases the risk for a catastrophic accident involving people on the ground.
- Occupants in developments such as hospitals, schools, and sports stadiums are more vulnerable in an accident because of mobility problems and probable panic.
- Europeans primarily use “Individual Risk Contours” to analytically display Third Party Risk. They express risk in exposure per year if a person were in a location 24 hours per day, 365 days a year. The desired level of risk exposure for a new development proposal is a risk of death in 10,000 years from an aircraft accident. Individual Risk Contours generally resemble elongated isosceles triangles centered on the extended runway centerline with the base at the runway end. This shape is almost a mirror of the approach shape used to protect aircraft in flight.
- The public is less accepting of a catastrophic event than a larger number of events affecting one person each. Individual risk is not a complete picture of public acceptance.

### **EVIDENCE REQUIRED IN SUPPORT OF AIRPORT SAFETY ZONE MODIFICATIONS**

It is important to note that the above third party risk conclusions were closely considered during revisions to Mn/DOT’s model airport zoning ordinance. In particular, these third party risk elements are reflected in the revised compatible land use standards in the 2006 model ordinance. Thus, the Commissioner’s starting point for reviewing a request to modify airport safety zone boundaries should be determining how significantly different the modified regulations are from the 2006 model zoning ordinance.

In addition, to demonstrate that the benefits associated with strict compliance with the State’s minimum safety zone requirements are outweighed by the social or economic costs of strict compliance, the municipality or joint zoning board should present, at a minimum, the following evidence to the Commissioner:

- Historical and forecast operational data by type and runway end.
- Accident data about the airport.



- Airport Design Aircraft information to include weight and approach category.
- Development plan information including:
  - Population density.
  - Mobility of proposed occupants.
  - Occupancy time estimates.
  - Information necessary for aviation safety determinations like height, electronic or visual hazards to aircraft, bird attractants, etc.

## CONSIDERATIONS FOR DETERMINING MODIFICATION REQUESTS

When considering airport safety zone regulations not in conformance with the model zoning ordinance or other minimum state standards or regulations, the Commissioner should consider, at a minimum, the following seven factors. Tables 6-2 through 6-8 below (excerpted from Appendix 7 of this manual) show ranges for the seven factors. **These factors are not equally weighted and should not be added or multiplied for “scores.”** The tables are designed to show the relative range of third party safety risk for each factor in the context of a specific request for airport safety zone modification. The factors are:

- Number of Aircraft Operations
- Type of Aircraft Operations
- Development Location
- Aircraft Size and Speed
- Development Density
- Occupant Mobility
- Occupancy Time

Again, all of the above risk factors have generally been taken into account in drafting the compatible land use standards, and in particular the detailed summary use table, in the 2006 model zoning ordinance.



<b>TABLE 6-2: AIRCRAFT OPERATIONS FACTOR</b>	
<b>Aircraft Operations per Runway End</b>	<b>Factor</b>
More than 90,000 per year	10
80,001 to 90,000	9
70,001 to 80,000	8
60,001 to 70,000	7
50,001 to 60,000	6
40,001 to 50,000	5
30,001 to 40,000	4
20,001 to 30,000	3
10,001 to 20,000	2
1 to 10,000	1

A factor of 1 is the least risk and a factor of 10 is the greatest risk.

<b>TABLE 6-3: AIRCRAFT SIZE AND SPEED FACTOR</b>			
<b>Design Aircraft Weight</b>	<b>Weight Factor</b>	<b>Design Aircraft Approach Category</b>	<b>Speed Factor</b>
120,001 lb. and greater	20	D	4
60,001 to 120,000 lb.	10	C	3
12,501 to 60,000 lb.	5	B	2
Less than or equal to 12,500 lb.	1	A	1

To obtain the relative aircraft size and speed factor, multiply the Weight Factor times the Speed Factor. A factor of 1 is the least risk and a factor of 80 is the greatest risk.

<b>TABLE 6-4: TYPE OF OPERATION FACTOR</b>	
<b>Type of Operations</b>	<b>Factor</b>
General Aviation	8
Part 135 Scheduled	2
Part 121 Scheduled and Nonscheduled	1

A factor of 1 is the least risk and a factor of 8 is the greatest risk.

**TABLE 6-5: DEVELOPMENT LOCATION FACTOR**

Distance from Runway End	Longitudinal Factor	Distance from Runway Centerline Extended	Transverse Factor
Equal to or less than RWY Length	4	500' or less	4
1.01 to 1.5 times the RWY Length	3	501' to 1000'	3
1.51 to 2.0 times RWY Length	2	1001' to 2000'	2
Greater than twice the RWY length	1	Greater than 2000'	1

To obtain the relative weight of a proposed development's location, multiply the Longitudinal Factor times the Transverse Factor. A factor of 1 is the least risk and a factor of 16 is the greatest risk.

**TABLE 6-6: DEVELOPMENT DENSITY FACTOR**

Density of the Development	Factor
High Rise Developments	40
Greater than 100 persons per acre	20
51-100 persons per acre	15
21-50 persons per acre	8
5-20 person per acre	3
Less than five persons per acre	1

A factor of 1 is the least risk and a factor of 40 is the greatest risk.

**TABLE 6-7: DEVELOPMENT MOBILITY\* FACTOR**

Type of Development	Factor
Hospitals	10
Schools, Churches, Sport Stadiums	5
General Public, i.e. shoppers, tourists, etc.	2
Working Population	1

\* Mobility includes familiarity with the facility, confined space, age and physical impairment

A factor of 1 is the least risk and a factor of 10 is the greatest risk.



TABLE 6-8: DEVELOPMENT OCCUPANCY FACTOR	
Type of Development	Factor
Residential, Hospitals, Hotels	12
Retail, Leisure	6
Warehouses	6
Offices	4
Schools	3
Churches, Sports Stadiums	1
A factor of one is the least risk and a factor of 12 is the greatest risk.	

After considering all the evidence, and using the above tables as a tool in weighing the risk of modifying the airport safety zone regulations, the Commissioner will make a determination whether to allow the modification based on a specific finding that “the social and economic costs of restricting land uses in accordance with the standards outweigh the benefits of a strict application of the standards.” Minnesota Statutes 360.065, Subd. 2.

## *Permitting Process*

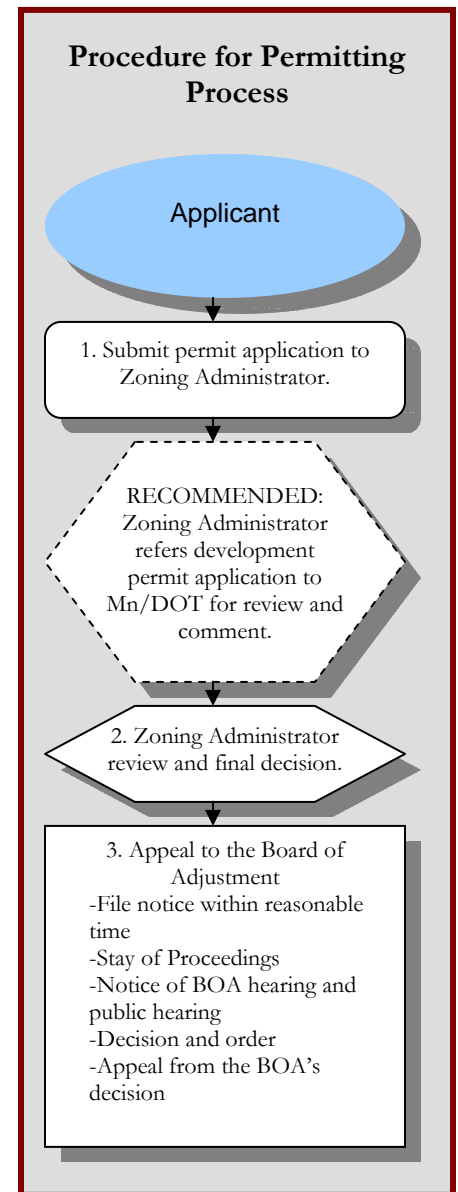
Chapter 360 of the Minnesota Statutes authorizes airport zoning regulations to require a development permit prior to the construction or establishment of a new structure or use, or prior to a substantial change, alteration, or repair to an existing use or structure, in any of the three safety zones. Minnesota Statutes, Section 360.067, Subd. 1(a). The same law requires airport zoning regulations to require a development permit before a nonconforming structure or tree may be replaced, substantially altered or repaired, rebuilt, or allowed to grow higher or replanted. The following steps are the minimum procedural requirements for an airport zoning development permit.

1. **Submit permit application to Zoning Administrator.**  
Applicants for a development permit shall submit an application, including all documents required by the applicable airport zoning regulations, to the Zoning Administrator authorized to administer and enforce the regulations.
2. **Zoning Administrator review and final decision.** The Zoning Administrator shall review the permit application and make a final decision, based on the application’s compliance with the airport zoning regulations.
  - o Minnesota law prohibits the Zoning Administrator from approving a development permit if the permit would allow the establishment or creation of an airport hazard, or would allow a nonconforming structure, tree, or use to be made or become higher or become a greater hazard to air navigation than it was when the applicable regulation was adopted or when the



permit application was submitted. Minnesota Statutes, Section 360-067, Subd. 1(a).

- Minnesota law prohibits the Zoning Administrator from approving a development permit to reestablish an abandoned nonconforming use or structure, or to rebuild a nonconforming use or structure that has been more than 80 percent torn down, deteriorated, or decayed, if the structure or tree will exceed the applicable height limit or otherwise deviate from the applicable airport zoning regulations.
  - **BP Optional Best Practice Step:** The Zoning Administrator may refer a development permit application to Mn/DOT for the Department's review and comment prior to the Administrator's final decision. Mn/DOT staff should use best efforts to complete its review and transmit its recommendation to the Zoning Administrator in a timely manner, and in no instance more than twenty-one (21) days after receipt of the permit application for review.
3. **Appeal to the Board of Adjustment.** An applicant, other aggrieved party, or affected taxpayer may appeal the Zoning Administrator's final decision on a development permit application to the Board of Adjustment ("BOA") authorized to hear and decide appeals related to the airport zoning regulations. Minnesota Statutes, Section 360-068.
- **Appellant must file notice of appeal within a reasonable time.** The appealing party must file a notice of appeal with the Zoning Administrator and with the Board of Adjustment within a reasonable time after the final permit decision and no later than the time specified in the applicable airport zoning regulations. The Zoning Administrator must then forward the record of the permit proceedings to the Board of Adjustment.
  - **Stay of proceedings.** An appeal timely filed shall stay all proceedings in furtherance of the action appealed from, unless the Zoning Administrator certifies to the Board of Adjustment that a stay would, in the Administrator's opinion, cause imminent peril to life or property.
  - **Notice of BOA hearing and public hearing.** The Board of Adjustment shall provide public notice of a hearing on the appeal. The hearing shall be held, and a decision on an appeal made, within a reasonable time and no later than the time specified in the applicable airport zoning regulations.
  - **Decision and order.** The Board of Adjustment shall make a decision to grant or deny the appeal, in whole or in part, based on the appealing party's compliance with the applicable airport zoning regulations.
  - **Appeal from the Board of Adjustment's decision.** Any person aggrieved, or taxpayer affected, by the Board of

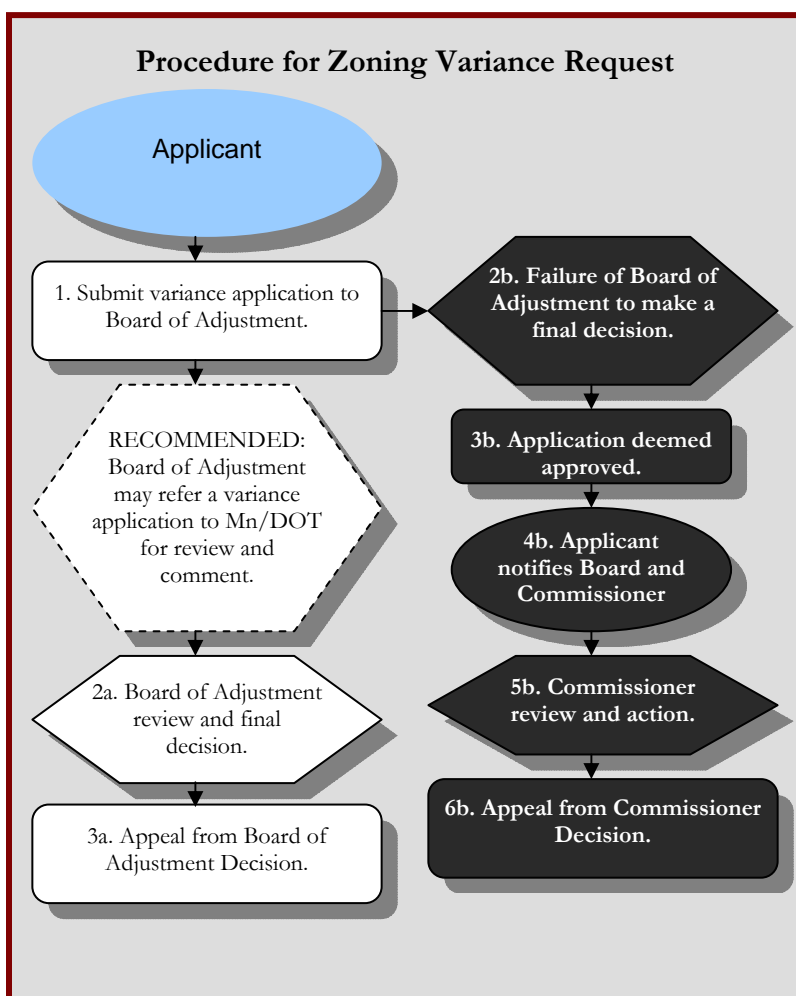




Adjustment's decision may appeal in accordance with Minnesota Statutes, Chapter 14., Administrative Procedure.

## Procedures For Zoning Variance Requests

Chapter 360 of the Minnesota Statutes authorizes any person desiring to erect any structure, or increase the height of any structure, or permit the growth of any tree, or otherwise use the person's property in violation of airport zoning regulations to apply to the Board of Adjustment for a variance from the zoning regulations in question. Minn. Stat., Section 360.067, Subd. 2. The following summarizes the minimum procedural requirements for variance applications.



1. **Submit variance application to Board of Adjustment.** Applicants must transmit their variance application **BY CERTIFIED MAIL** to the Board of Adjustment, including all required documents.
2. **Board of Adjustment review and final decision.** The Board of Adjustment shall review the variance application and make a final decision. The Board of Adjustment may approve a variance only if it finds:
  - o A literal application or enforcement of the regulations would result in practical difficulty or unnecessary hardship; and
  - o The relief granted would not be contrary to the public interest but do substantial justice and be in accordance with the spirit of the airport zoning regulations and Minnesota Statutes, Chapter 360.

### BP Optional Best Practice Step:

The Board of Adjustment may refer a variance request to Mn/DOT for the Department's review and comment prior to the Board's final decision. Mn/DOT staff should use best efforts to complete its review and transmit its recommendation to the Board of Adjustment in a timely manner, and in no instance more than twenty-one (21) days after receipt of the permit application for review.





The Board of Adjustment may allow a variance subject to any reasonable conditions that the Board deems necessary to effectuate the purposes of the applicable airport zoning regulations and Minnesota Statutes, Chapter 360.

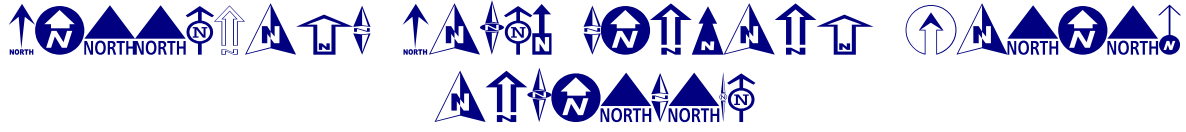
3. **Failure of Board of Adjustment to make a final decision.** If the Board of Adjustment fails to grant or deny the variance within four (4) months<sup>53</sup> after the last Board of Adjustment member receives the application, the variance shall be deemed to be granted by the Board.
  - When the variance is granted by reason of the failure of the Board of Adjustment to act on the variance, the person receiving the variance must notify the Board of Adjustment and the Commissioner by certified mail that the variance has been granted. The applicant shall include a copy of the original variance application with the notice to the Commissioner.
  - The variance shall be effective 60 days after the Commissioner receives the notice, subject to any action taken by the Commissioner pursuant to Minnesota Statutes, Section 360.063, Subd. 6a.
  - The Commissioner must review the application, and may amend or rescind the variance on finding that the action is required to protect the public interest.
  - If the Commissioner takes action to amend or rescind the variance, the Commissioner must notify the applicant within 60 days after receiving the notice that the variance was granted.
4. **Appeal from Board of Adjustment or Commissioner Decision.** Any person aggrieved, taxpayer affected, or municipality aggrieved by the Board of Adjustment's decision on the variance application, or the Commissioner's action on a "deemed approved" variance application, may appeal according to Minnesota Statutes, Chapter 14, Administrative Procedure.

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<sup>53</sup> Minnesota Statutes, Section 360.067, Subd. 2, allows the Board of Adjustment to take up to four (4) months to make a final decision on a variance application. However, since Section 360.067, Subd. 2, was drafted, a new state law became effective. Known as the "Sixty-Day Rule," Minnesota requires all state and local decision-making agencies to take action on a "zoning application" within 60 days of receipt of a complete application. Minnesota Statutes Sec. 15.99. If the agency fails to comply with the 60-day rule, the zoning application is deemed approved. It is unclear whether Section 15.99 applies to airport zoning permit or variance applications, and the question has not yet been adjudicated. Accordingly, Mn/DOT continues to assert that the airport zoning procedures under Chapter 360 are distinct from and different than the types of zoning applications that trigger the Sixty-Day Rule in Section 15.99. Municipalities are urged to check with their own legal counsel prior to adopting the model ordinance language.



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