

September 21, 2018

Mr. Charles A. Zelle
Commissioner of Transportation
Minnesota Department of Transportation
395 John Ireland Boulevard
Mailstop 100
St. Paul, MN 55155-1899

RE: SECOND SUBMITTAL OF DRAFT FLYING CLOUD AIRPORT ZONING ORDINANCE

Dear Commissioner Zelle:

In compliance with Minn. Stat. §360.065, subd. 2 the Flying Cloud Airport (FCM) Joint Airport Zoning Board (JAZB) is making its second submittal of the Draft FCM Zoning Ordinance for your review. This submittal includes the following documents:

1. FCM JAZB Meeting Record: Includes all agendas, presentations, and meeting minutes for JAZB meetings occurring from 2017 to the present.
2. Draft FCM JAZB Statement of Legal Authority, Findings of Fact, Conclusions of Law, and Order.
3. Second Submittal Draft FCM Airport Zoning Ordinance, including both redlined and clean versions.

On April 13, 2018, the FCM JAZB made its first submittal of the Draft FCM Zoning Ordinance for MnDOT review. **Attachment A** shows the area encompassed by the proposed JAZB Safety Zones A and B per the first submittal.

On June 11, 2018, the JAZB received notice of MnDOT's objection to the Draft FCM Zoning Ordinance due to departures from state standards (**Attachment B**). On August 1, 2018, MnDOT provided a memo with a list of items for the JAZB to consider in advance of making its next submittal of the Draft FCM Zoning Ordinance (**Attachment C**).

Supplemental Safety/Risk Analysis

The FCM JAZB does not concur with the assertions made by MnDOT in its August 1, 2018, memo. Nevertheless, the FCM JAZB diligently considered MnDOT's objections and input, and considered a supplemental safety/risk analysis ("Supplemental Safety/Risk Analysis"). (A memo summarizing the Supplemental Safety/Risk Analysis is provided in **Attachment D**.)

The 2017 Safety/Risk Study confirmed that the accident probability in existing or planned Occupant Areas (shown on Attachment A) was less than the targeted risk standard of one aircraft accident per 10,000,000 flight operations, or once every 185 years. This showed that a strict application of MnDOT's Model Standards to the Occupant Areas exceeds what is necessary to provide a reasonable level of safety at FCM.

The purpose of the Supplemental Safety/Risk Analysis was to test the technical conclusions supporting the First Submittal Draft FCM Zoning Ordinance in a manner that considered MnDOT's objections and input. The Supplemental Safety/Risk Analysis asked, in particular, whether there is empirical data that supports the application of MnDOT's Model Standards to the Occupant Areas. The Supplemental Safety/Risk Analysis found that the answer is "no".

The methodology employed in the Supplemental Safety/Risk Analysis includes consideration of generalized accident location data to avoid an implication of precision, normalized accident location

data to account for runway use patterns and the number of data points off each runway end to ensure each location is considered equally, calculation of accident probabilities using geo-spatial analysis, calculation of average accident probabilities in the Occupant Areas and in areas adjacent to Occupant Areas that are located just outside MnDOT's Model Zones A and B ("Occupant Areas Buffer"), application of statistical factors to develop a 95% confidence interval probability range, and comparison of the accident probability range (at 95% confident level intervals) for the Occupant Areas versus the accident probability range for the Occupant Areas Buffer.

The Occupant Areas were compared to the Occupant Areas Buffer because MnDOT's Model Standards do not prescribe site population and building density limitations in the Occupant Areas Buffer or in other areas outside of MnDOT's Model Safety Zones A and B. In other words, MnDOT's Model Standards do not prevent the uses in the Occupant Areas Buffer that are existing or planned in the Occupant Areas.

The Supplemental Safety/Risk Analysis found no evidence that the probability of an aircraft accident within the Occupant Areas is greater than in the Occupant Areas Buffer. Therefore, the FCM JAZB found that there is no safety benefit to restrict land uses within the Occupant Areas when compared to adjacent parcels in the Occupant Areas Buffer.

Both the 2017 Safety/Risk Study and the Supplemental Safety/Risk Analysis show that a strict application of MnDOT's Model Standards to the Occupant Areas exceeds what is necessary to provide a reasonable level of safety at FCM.

Second Submittal Draft FCM Zoning Ordinance

Based on MnDOT's objections and input, the Supplemental Safety/Risk Analysis, and the requirements of the Airport Zoning Statute, the following amendments have been made to the First Submittal Draft FCM Zoning Ordinance:

- Safety Zone A is expanded to include land within MnDOT Model Zone A, and is modified to exclude the Occupant Areas. **Attachment E** shows the area encompassed by revised JAZB Safety Zone A.
- Safety Zone A land use controls are modified to be consistent with those prescribed in MnDOT's Model Standards. Where Safety Zone A overlies the FAA RPZ, however, land uses within the FAA RPZ will be governed by applicable FAA Advisory Circulars, Orders, or other guidance.
- Safety Zone B is modified to include land within MnDOT's Model Zone B, and is modified to exclude the Occupant Areas. **Attachment F** shows the area encompassed by revised JAZB Safety Zone B.
- Safety Zone B land use controls are modified to be consistent with those prescribed in MnDOT's Model Standards, with additional restrictions placed on ponds or other uses that might attract waterfowl or other birds.
- References to "Permitted Residential Areas" are removed, as these residential parcels are part of the Occupant Areas that have been excluded from Safety Zones A and B. These areas are still subject to Safety Zone C airspace and general land use controls.
- A clarification has been added that a hazard determination under an FAA 7460 Obstruction Evaluation is a general restriction applicable to all zones.
- The provision allowing the results of an FAA 7460 Obstruction Evaluation to stand in lieu of a variance for proposed structures that exceed the height limitations has been removed.
- The exhibits and grid maps attached to the First Submittal Draft FCM Zoning Ordinance have been updated to reflect the changes described above, including:
 - Updates to Exhibits B and C to reflect changes to Safety Zones A and B; and
 - Updates to Safety Zones Within Zoning Limits Grid Maps to reflect changes made to Safety Zones A and B.
- Certain definitions have been removed to reflect the changes described above.

Economic Impact Analysis

The proposed amendments to the First Submittal Draft FCM Zoning Ordinance do not affect the 2017 Economic Impact Analysis because the proposed amendments do not add land use restrictions to the areas of potential development (i.e., the Occupant Areas).

The 2017 Economic Impact Analysis shows that implementation of MnDOT's Model Standards versus the FCM JAZB's Second Submittal Draft FCM Zoning Ordinance would result in an estimated loss of 13.4 acres and \$38,000,000 to \$58,000,000 in commercial development, 2.7 acres and \$6,000,000 to \$15,000,000 in residential development, and \$139,000 to \$257,000 in annual property taxes. The combined total development and 20-year aggregated property tax impact of implementing MnDOT's Model Standards versus the FCM JAZB's Second Submittal Draft FCM Zoning Ordinance is approximately \$56,000,000 to \$69,000,000.

The 2017 Economic Impact Analysis shows that implementation of MnDOT's Model Standards would result in a loss of employment generation potential of approximately 600 to 1,000 jobs.

Implementation of MnDOT's Model Standards could also result in substantial financial costs related to takings claims.

The social and economic costs resulting from a strict application of MnDOT's Model Standards are substantial and would have a substantial negative impact on the communities surrounding the Airport.

The Second Submittal

Minn. Stat. § 360.065, subd. 2 provides that if the Commissioner objects on the ground that the proposed zoning regulations do not conform to the standards prescribed by the Commissioner, a JAZB must make the necessary amendments to meet the objections unless the JAZB "demonstrates 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."

The Second Submittal Draft FCM Zoning Ordinance does not conform to MnDOT's Model Standards by excluding the Occupant Areas.

The social and economic costs of restricting land uses in accordance with MnDOT's Model Standards in the Occupant Areas exceed \$56,000,000 in combined total development and 20-year aggregated property tax impact and exceed a reduction in employment generation potential of 600 jobs, while a strict application of MnDOT's Model Standards in the Occupant Areas provides no safety benefit as shown in the Supplemental Safety/Risk Analysis.

Therefore, the social and economic costs of restricting land uses in accordance with MnDOT's Model Standards outweighs the benefits of a strict application of MnDOT's Model Standards.

The FCM JAZB has followed the statutory requirements in determining what airport zoning regulations to adopt by considering, among other things, "the character of flying operations expected to be conducted at the airport, the location of the airport, the nature of the terrain within the airport hazard area, the existing land uses and character of the neighborhood around the airport, the uses to which the property to be zoned are planned and adaptable, and the social and economic costs of restricting land uses versus the benefits derived from a strict application of the standards of the commissioner." See Minn. Stat. § 360.066, subd. 1.

The Draft Statement of Legal Authority, Findings of Fact, Conclusions of Law, and Order is submitted to explain and support the Second Submittal Draft FCM Zoning Ordinance and to demonstrate compliance with the Airport Zoning Statute. The Draft Statement of Legal Authority, Findings of Fact,

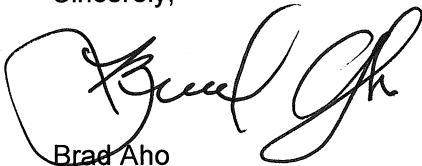
Conclusions of Law, and Order is provided as **Attachment G**.

The record demonstrates that the Second Submittal Draft FCM Zoning Ordinance achieves a reasonable level of safety and complies with the Airport Zoning Statute.

At the September 13, 2018, FCM JAZB meeting, the FCM JAZB approved this second submittal.

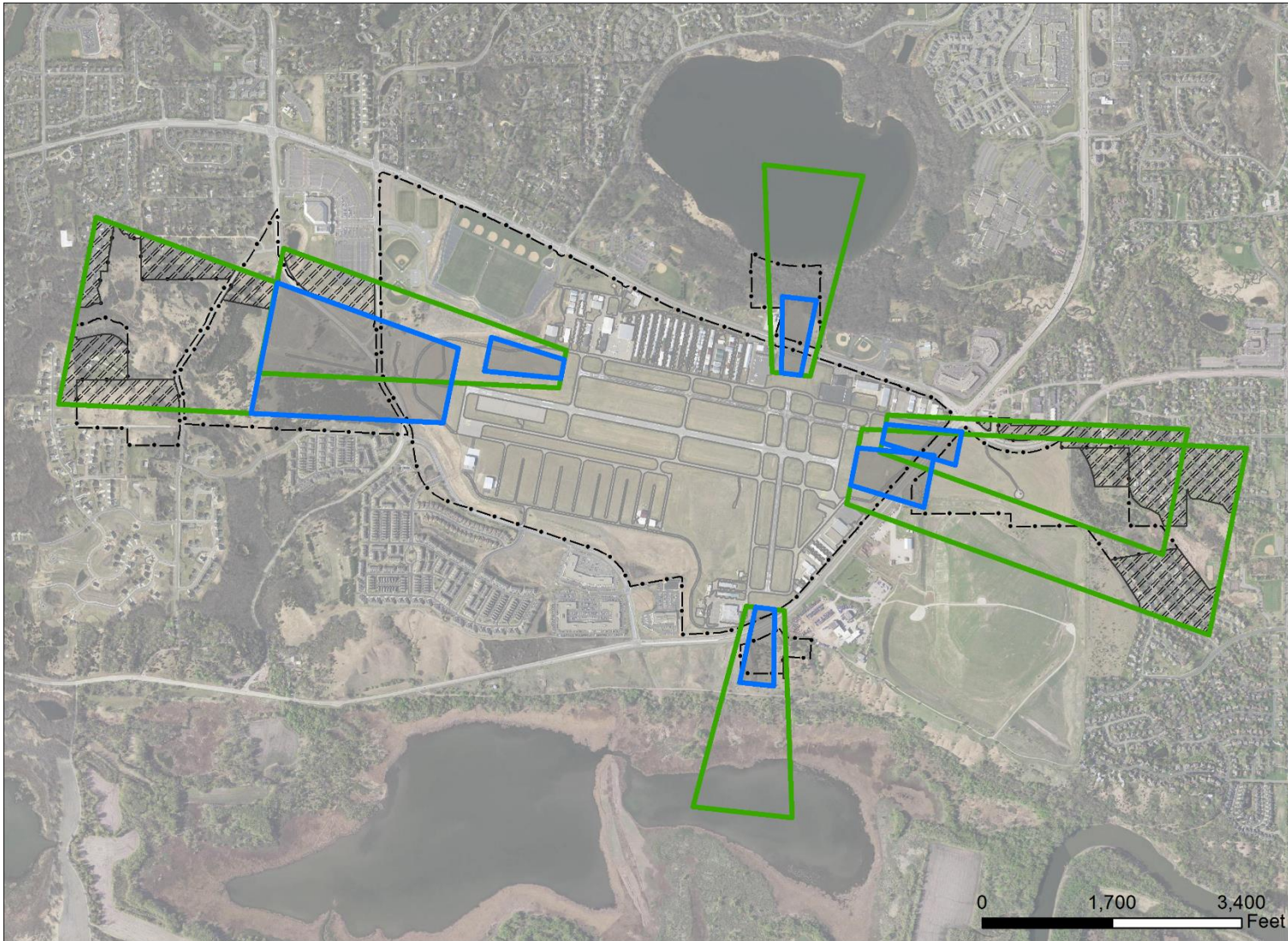
On behalf of the Metropolitan Airports Commission and the cities of Eden Prairie, Chanhassen, Shakopee, I submit this second submittal to you and commend it for your approval.






Sincerely,

A handwritten signature in black ink, appearing to read "Brad Aho". The signature is stylized and cursive, with a large initial "B" and "A".

Brad Aho
Chairman
Flying Cloud Airport Joint Airport Zoning Board

Attachment A
First Submittal JAZB Safety Zones A and B



 FCM Property Line  Runway Protection Zones (RPZ)  JAZB Zone A  JAZB Zone B  Occupant Area

Attachment B



Office of Aeronautics
222 E. Plato Blvd.
St. Paul, MN 55107

June 11, 2018

Brad Aho
Chairman
Flying Cloud Airport Joint Airport Zoning Board
6040 28th Ave. S.
Minneapolis, MN 55450

Re: FIRST SUBMITTAL OF UPDATED DRAFT FLYING CLOUD AIRPORT ZONING ORDINANCE

Dear Chairman Aho,

The Minnesota Department of Transportation (MnDOT) has reviewed the proposal for the Flying Cloud Airport Zoning Ordinance dated January 18, 2018. We acknowledge and appreciate the effort the Flying Cloud Airport Joint Airport Zoning Board (JAZB) put forth to prepare this zoning proposal.

Minnesota Statutes 360.065 Subdivision 2 requires the Commissioner of Transportation to determine whether the proposed zoning ordinance conforms to the minimum state standards as defined in the Minn. Rules Part 8800.2400. Promulgated for the purpose of preventing airport safety hazards, state zoning standards are intended to prevent incompatible land uses in runway safety zones to protect the lives and property of users of the airport and of occupants of land in the airport vicinity. MnDOT has determined that the proposed ordinance for the Flying Cloud Airport fails to meet the zoning standards for safety zone areas.

MnDOT objects to the proposed zoning ordinance for the following departures from state standards:

- Safety Zone A is reduced in size from the state standard.
- Safety Zone B does not restrict the density of populations or the ratio of site area to building plot areas described in state standards.
- Areas identified as "Permitted Residential Areas" in the ordinance are exempted from Zone A and B restrictions. This is a departure from standards. The analogous term within state standards is an "established residential neighborhood" that must have existed on January 1st, 1978.

To continue the airport zoning process, state statutes direct the JAZB to revise and resubmit the ordinance in response to this objection, or provide information that demonstrates that the social and economic costs of zoning to the standards outweigh the safety benefits of a strict application of the standards.

It is the goal of MnDOT to ultimately zone all airports in the state system that receive public funding as required by state statute. To that end, prior to the JAZB's next submittal I welcome the opportunity for in-person dialogue with the JAZB, or an appointed subset of the JAZB.

If the JAZB wishes to pursue dialogue, please contact me at 651-234-7210 to arrange for a mutually agreeable time and location to meet.

Sincerely,

A handwritten signature in black ink, appearing to read "Cassandra Isackson". The signature is fluid and cursive, with a long horizontal stroke at the end.

Cassandra Isackson
MnDOT Aeronautics Director

CC: Tim Henkel, Assistant Commissioner, Modal Planning and Program Management
Ryan Gaug, Aeronautics Director of Planning and Finance, MnDOT Aeronautics
Bridget Rief, Vice President, Planning and Development, Metropolitan Airports Commission

Equal Opportunity Employer

Attachment C



Date: 8/1/2018

To: Flying Cloud Airport Joint Airport Zoning Board

From: Cassandra Isackson, Aeronautics Director

RE: Draft Flying Cloud Airport Zoning Ordinance

Please review and consider the following items in advance of the JAZB's next draft ordinance submittal for Flying Cloud Airport.

1. The stated statutory purpose of airport zoning is to prevent the creation or establishment of airport hazards. The statutes are intended to protect the lives and property of users of the airport and occupants of land in the vicinity of the airport.
2. The goal of any JAZB should be to adopt the Commissioner's standards and, where necessary, justify departures from the standards for those areas where they cannot be met. The Minnesota Statutes do not allow for an alternate standard of reasonableness or a custom designed ordinance. The JAZB must begin with the Commissioner's standards and only where they cannot be met, and after its first submittal, demonstrate how the social and economic costs outweigh the benefits of a strict application of the standards.
3. It is possible for MnDOT to approve an ordinance that does not meet the Commissioner's standards. However, if no amendments are made to address the departures from the standards prior to the next submittal, MnDOT will not approve the draft ordinance.
4. Zoning the airport to the Commissioner's standards does not require the removal or alteration of any existing land uses. The statutes explicitly state that "no airport zoning regulations...shall require the removal, lowering, or other change or alteration of any structure or tree not conforming to the regulations when adopted or amended, or otherwise interfere with the continuance of any nonconforming use, except as provided in section 360.067."
5. The JAZB should carefully consider the following for its second submission:
 - a. The airport sponsor owns a majority of the land in state safety zones A and B. Therefore, these areas can and should be zoned to the Commissioner's standards. There is no social and economic cost to zoning airport-owned land as that land has already been obligated to an aeronautical purpose.
 - b. Undevelopable natural features such as lakes and wetlands should be zoned to the Commissioner's standards, as there is no cost to doing so.

- c. The ordinance contains provisions previously understood to be in violation of current state statute. (See section IX A. regarding FAA's 7460 Obstruction Evaluation). The variance process does not comply with the process detailed in Minn. Stat. § 360.067, subd. 2. Finally, MnDOT notes that the FAA, in its obstruction determinations, does not consider land use issues, which is the concern of the local board of adjustment in a variance determination.
 - d. An amendment addressing the factors above could bring the ordinance into, or near, compliance with the Commissioner's standards with little or no impact to the public.
6. Although not required for the first submittal, MnDOT has conducted an initial review of the technical information used to create the submitted ordinance to gain a greater understanding of the choices the JAZB is making. The JAZB should also consider the following:
- a. The methodology used to perform the analysis has led the JAZB to create a "custom ordinance." As stated above, the JAZB should make a bona fide attempt to adopt the Commissioner's standards and justify departures from the standards.
 - b. The Safety/Risk Study Update is not compelling:
 - i. Historical crash point data should be generalized to avoid an implication of precision. The precise location of historical crashes is less relevant than the general areas where crashes occur.
 - ii. The method by which crash point data is aggregated lends itself to logical errors. Similarly-sized zones in more crash prone areas could be labeled with less risk.
 - c. The safety study occupant areas do not match the controls put in place by the ordinance. Occupant areas are used to justify a departure from the standards but development is not limited to occupant areas. The ordinance only provides "20% contiguous open space." This leaves much of the developable land not contemplated within the safety study.

Attachment D

Memo

DATE: 11 September 2018

TO: FCM Joint Airport Zoning Board (JAZB) Members

FROM: Neil Ralston, MAC Airport Planner
Brad Juffer, MAC Assistant Manager – Noise, Environment & Planning

SUBJECT: Flying Cloud Airport (FCM) Draft Airport Zoning Ordinance
Supplemental JAZB Safety/Risk Study Analysis

The purpose of this supplemental JAZB safety/risk analysis is to test the technical conclusions supporting the Draft FCM Airport Zoning Ordinance. MnDOT Aeronautics (MnDOT) conducted an initial review of the Safety/Risk Study Update that accompanied the first submittal of the Draft FCM Airport Zoning Ordinance (April 2018) and concluded that it was not compelling.

MAC staff does not concur with MnDOT's assessment that the 2017 Safety/Risk Study Update supporting the Draft FCM Airport Zoning Ordinance is not compelling based on the technical items raised. Nevertheless, MAC staff diligently considered MnDOT's objections and input, and considered a supplemental safety/risk analysis to test the conclusions of the original findings.

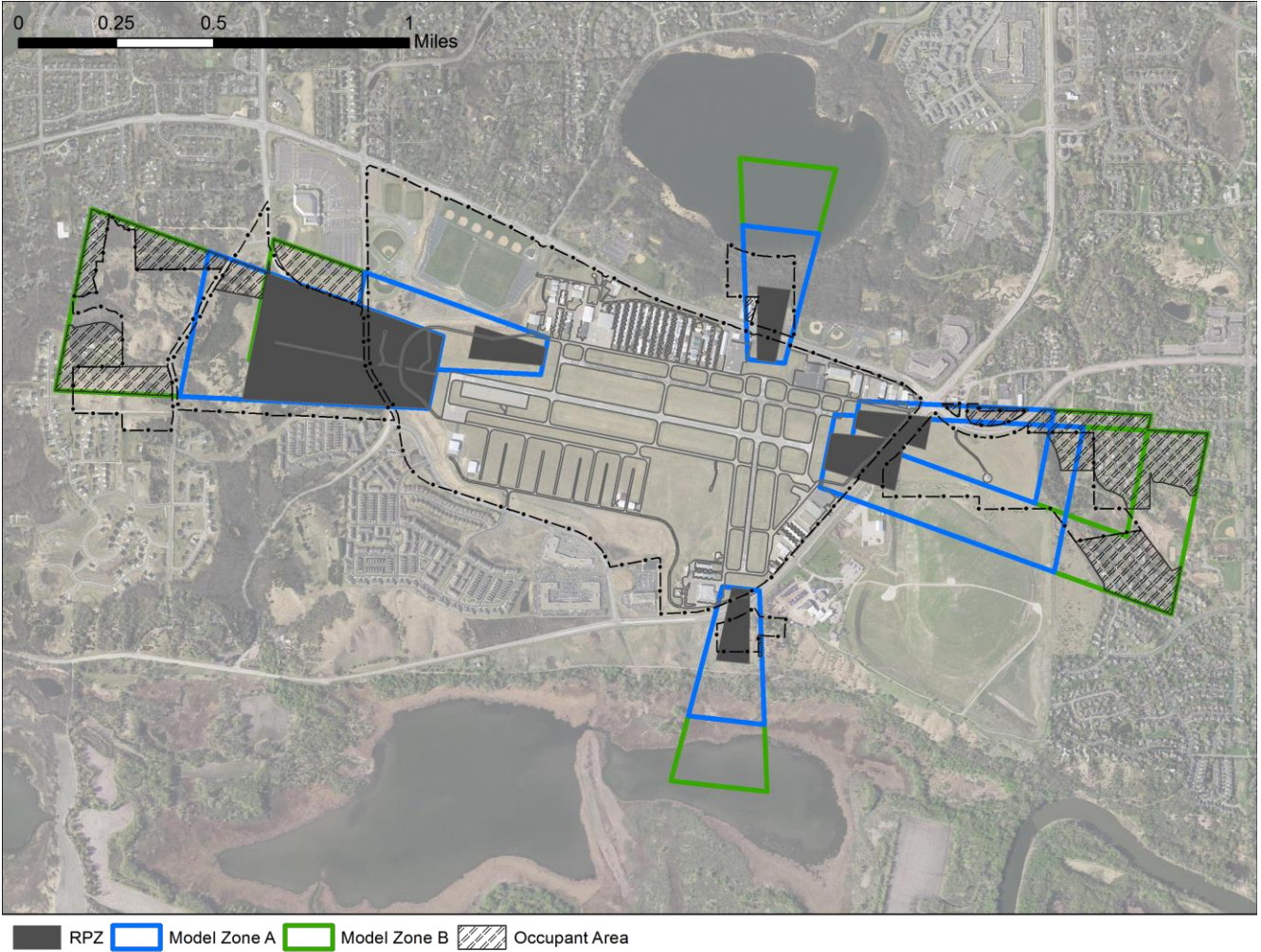
In summary, the 2017 Safety/Risk Study Update concluded that the risk probability of an aircraft accident in an existing or future Occupant Area (land that is or could likely be developed to accommodate congregations of people in designated safety zones) was less than the targeted risk standard of one aircraft accident per 10,000,000 flight operations, or once every 185 years. This showed that a strict application of MnDOT's Model Standards to the Occupant Areas exceeds what is necessary to provide a reasonable level of safety at FCM. Thus, the Draft FCM Zoning Ordinance did not include site/acre/structure limitations, site area to building plot area ratios, and population density restrictions in the designated Occupant Areas. Instead, the draft ordinance contains a provision requiring the preservation of contiguous open space within JAZB Safety Zone B adjacent to the Occupant Area parcels.

A supplemental safety/risk analysis methodology has been developed to respond to specific MnDOT requests for consideration and to test the conclusions of the 2017 Safety/Risk Study Update pertaining to the designated Occupant Areas in the vicinity of FCM. The location of Occupant Area parcels, along with the MnDOT State Model Safety Zones, are illustrated in **Figure 1**.

This supplemental analysis seeks to define aircraft accident probability in multiple areas surrounding the runways at FCM, specifically within the designated Occupant Areas as well as the adjacent land parcels with similar uses that are located *just outside* the boundary of the designated State Safety Zones ("Occupant Areas Buffer").

The Occupant Areas were compared to the Occupant Areas Buffer because MnDOT's Model Standards do not prescribe site population and building density limitations in the Occupant Areas Buffer or in other areas outside of MnDOT's Model Safety Zones A and B. In other words, MnDOT's Model Standards do not prevent the uses in the Occupant Areas Buffer that are existing or planned in the Occupant Areas.

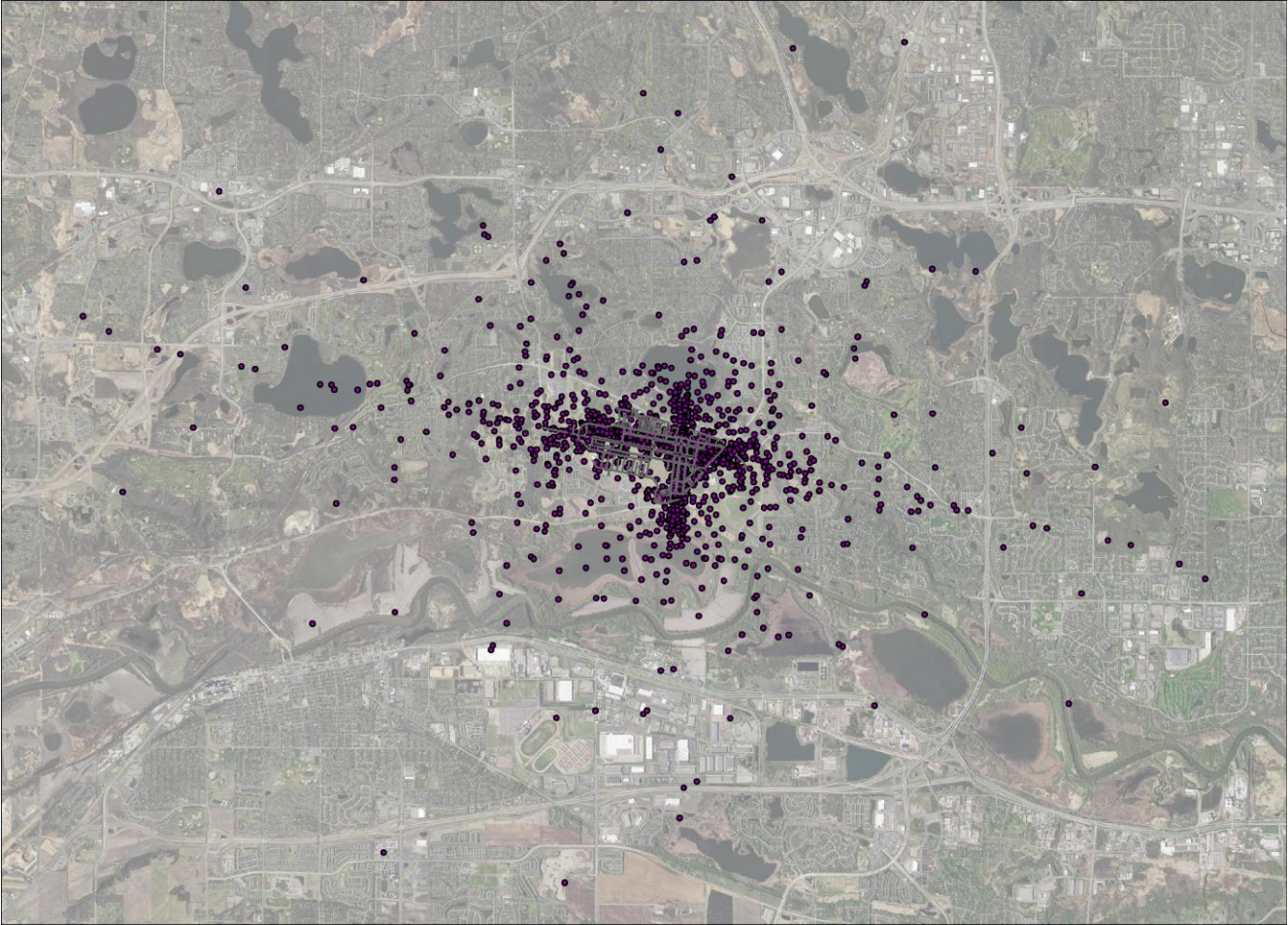
Figure 1: Model State Safety Zones with Occupant Areas



The supplemental safety/risk analysis employs the following methodology:

- 1. Select accident location data set to use for analysis
 - The general aviation accident location distribution research conducted by the University of California at Berkeley for the *California Airport Land Use Planning Handbook* (California Study) remains the most complete data set available for this analysis. This is the same data set used for the 2017 Safety/Risk Study Update. The accident location data is shown in **Figure 2**.

Figure 2: Accident Location Data



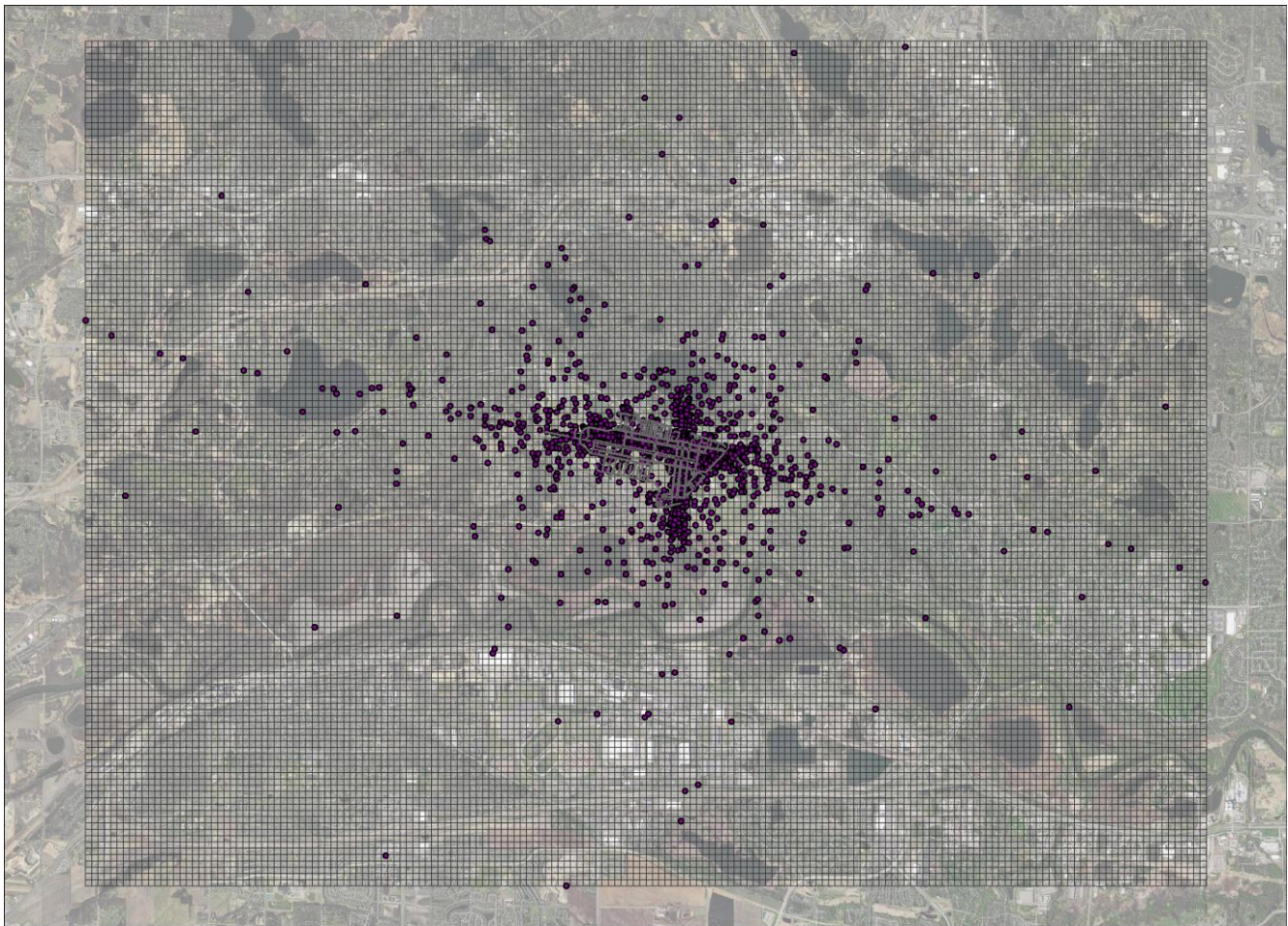
• California Study Accident Locations Overlaid onto FCM

0 0.5 1 2 Miles

2. Generalize accident locations to avoid an implication of precision

- The California Study developed a grid spacing system of 300 feet by 300 feet to group accident data points according to relative degrees of geographic concentration. For consistency purposes, a 300 foot by 300-foot grid system will be employed in this analysis as well. For the supplemental analysis, aircraft accident locations will not be expressed as individual point locations, but as accident probabilities per grid region. The grid regions are shown in **Figure 3**.

Figure 3: Grid Regions



- California Study Accident Locations Overlaid onto FCM

0 0.5 1 2
Miles

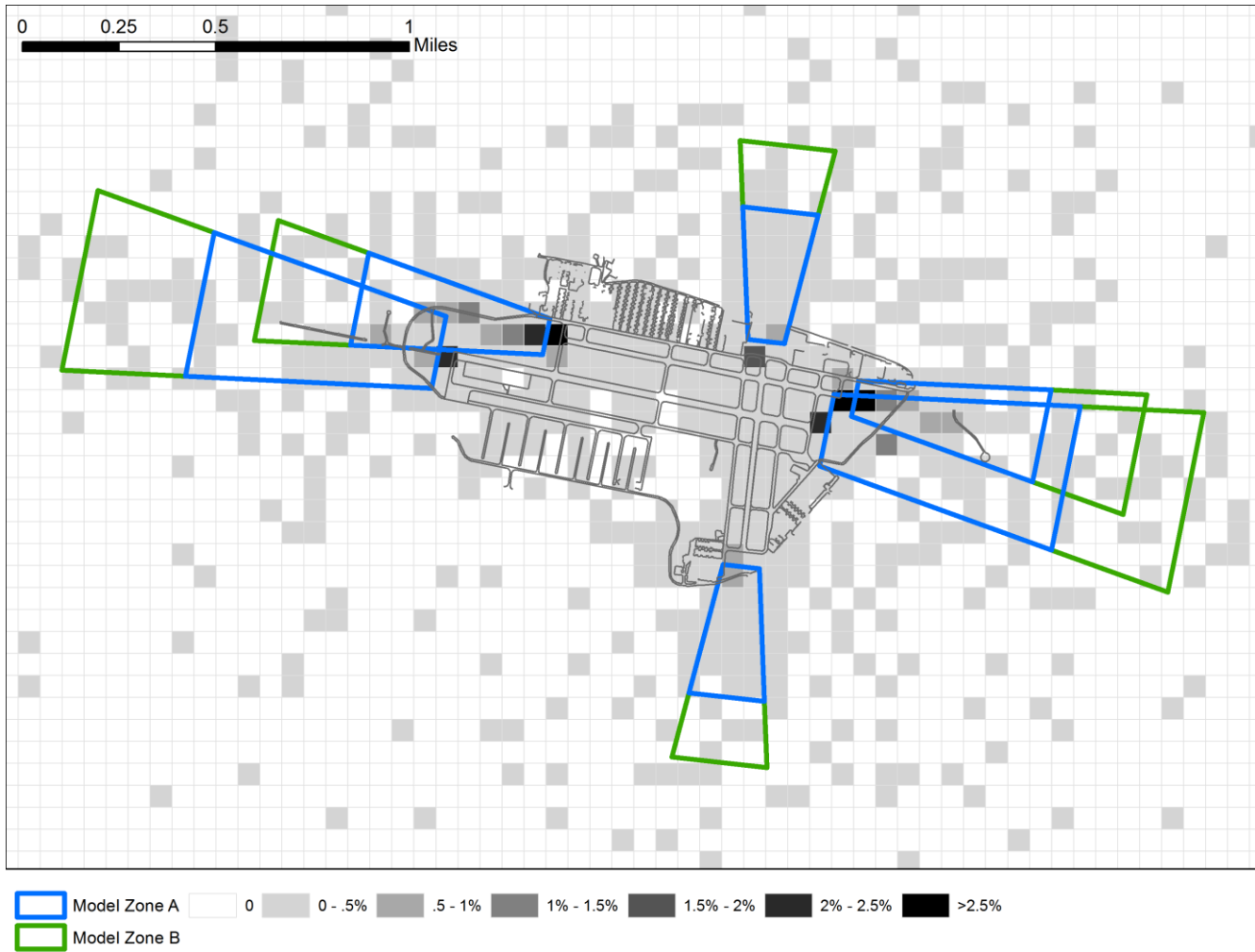
3. Normalize accident location data to account for FCM runway use patterns and the number of data points off each runway end
 - This process effectively weights the accident location data to account for the difference in runway operational volumes (2040 forecast) and the number of accident location data points off each runway end to ensure that each location is considered equally. For example, Runway 28L has far more operations than crosswind Runway 36, but the accident data set contains fewer accident locations for Runway 28L than Runway 36. Thus, to consider the data equally when determining accident probabilities, each accident location associated with Runway 28L should be weighted more heavily than those associated with Runway 36. The results of the weighting process are shown in **Figure 4**.

Figure 4: Normalized Accident Data Factors by Runway End

Runway	2040 Forecast Operations		Accident Data Set		Final Weighting	
	Arrivals	Departures	Arrival Points	Departure Points	Arrivals	Departures
10R	10,024	7,457	150	131	1.2817	1.0918
28L	11,919	9,707	150	131	1.5240	1.4212
10L	8,643	7,509	153	191	1.0835	0.7540
28R	13,309	15,795	153	191	1.6684	1.5861
18	5,134	7,068	153	191	0.6436	0.7098
36	2,094	2,384	153	191	0.2625	0.2394
Total	51,123	49,920	912	1,026	---	---

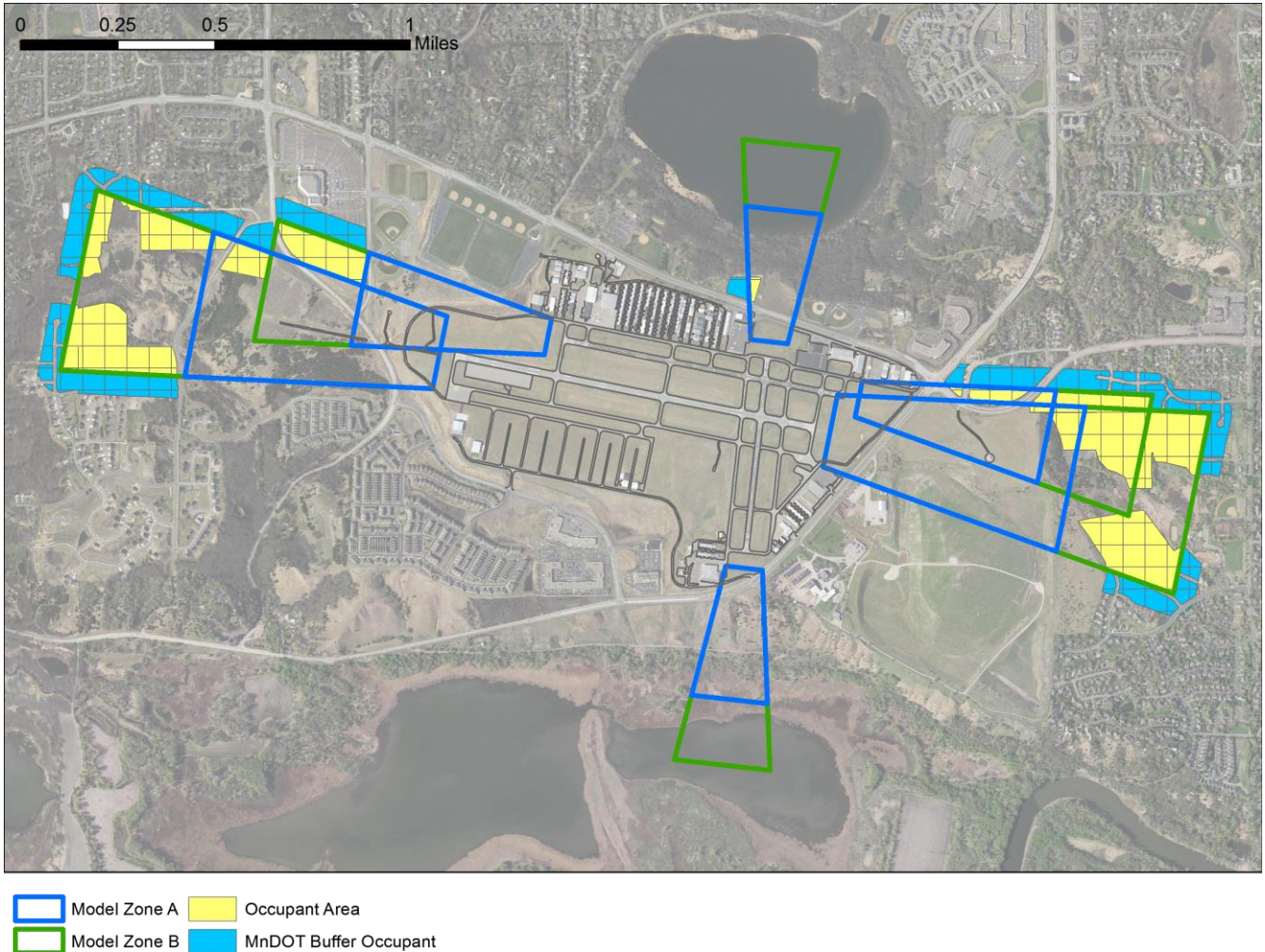
4. Calculate the probability of an accident occurring within each grid region
- The average probability of an accident occurring within each grid region was calculated using GIS geo-spatial analysis.
 - The sum total of the probability for the extent of the entire grid region is 100%. A “heat map” symbolizing the accident probability in each grid square is shown in **Figure 5**.

Figure 5: Accident Probability per Grid Region



5. Calculate average accident probabilities in specific geographic areas for comparison purposes
- For this analysis, the relevant geographic areas are the designated Occupant Areas identified in the 2017 Safety/Risk Study Update and the Occupant Areas Buffer -- adjacent land available for use as occupant areas that are located just outside and within a 300-foot buffer from the outside edge of the designated State Safety Zones.
 - For each of these geographic areas, the average accident probability was calculated based on the proportion of grid regions encompassed within the specific area. This is shown in **Figure 6**.

Figure 6: Occupant Areas and Occupant Areas Buffer



6. Apply statistical factors to develop a 95% confidence interval probability range
- Using statistical factors, the deviation of the calculated accident probability for each grid cell was determined. This standard deviation was then used to develop a 95% confidence level factor that was applied to the average accident probabilities calculated for the Occupant Areas and Occupant Areas Buffer. Applying this factor yields a 95% confidence interval range that can be used for comparative purposes. These tabular results are shown in **Figure 7**.

Figure 7: Accident Probability Range (95% Confidence Interval)

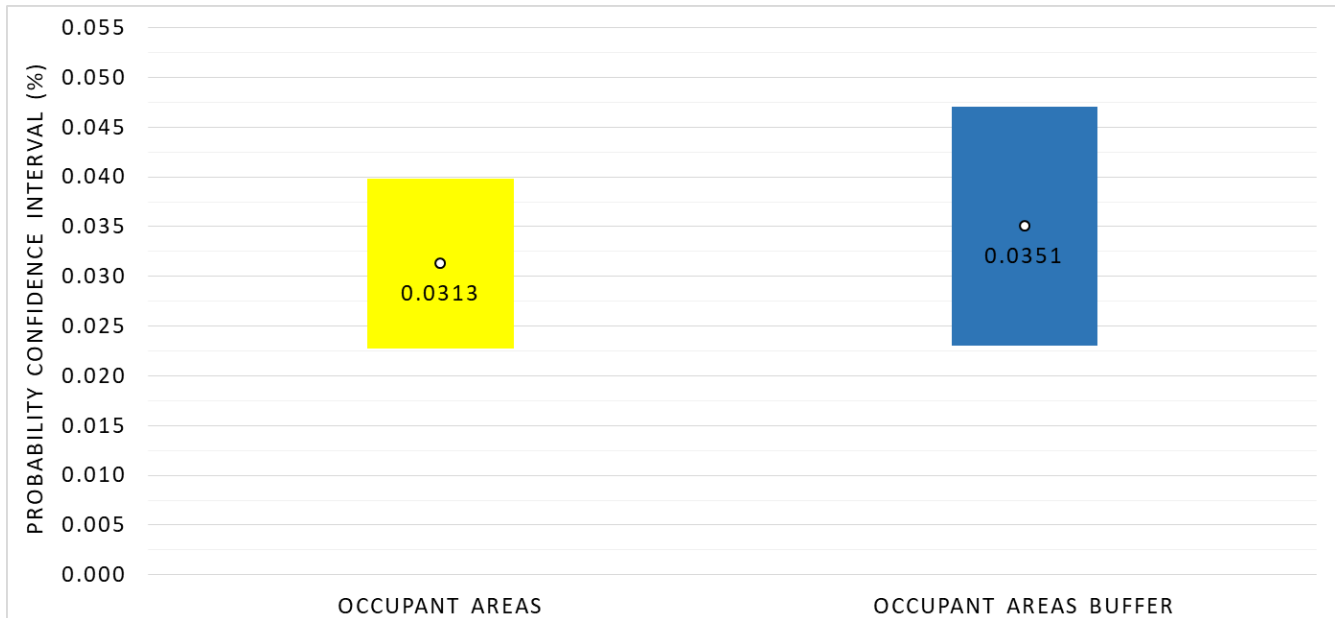
Area	Area Probability	Average Probability (%)	Low Probability Range (%)	High Probability Range (%)
Occupant Areas	0.0194	0.0313	0.0228	0.0399
Occupant Areas Buffer	0.0151	0.0351	0.0231	0.0471

Notes:

Range represents 95% confidence interval

7. Compare the accident probability range (at 95% confidence level intervals) for the designated Occupant Areas versus the accident probability range for the Occupant Areas Buffer
 - As illustrated in **Figure 8**, there is no evidence that the probability of an aircraft accident within the designated Occupant Areas is greater than in the adjacent parcels located in the Occupant Areas Buffer.
 - Based on this result, there is no safety benefit to restrict land uses within the designated Occupant Areas when compared to adjacent parcels in the Occupant Areas Buffer.

Figure 8: Accident Probability Range Comparison (95% Confidence Interval)



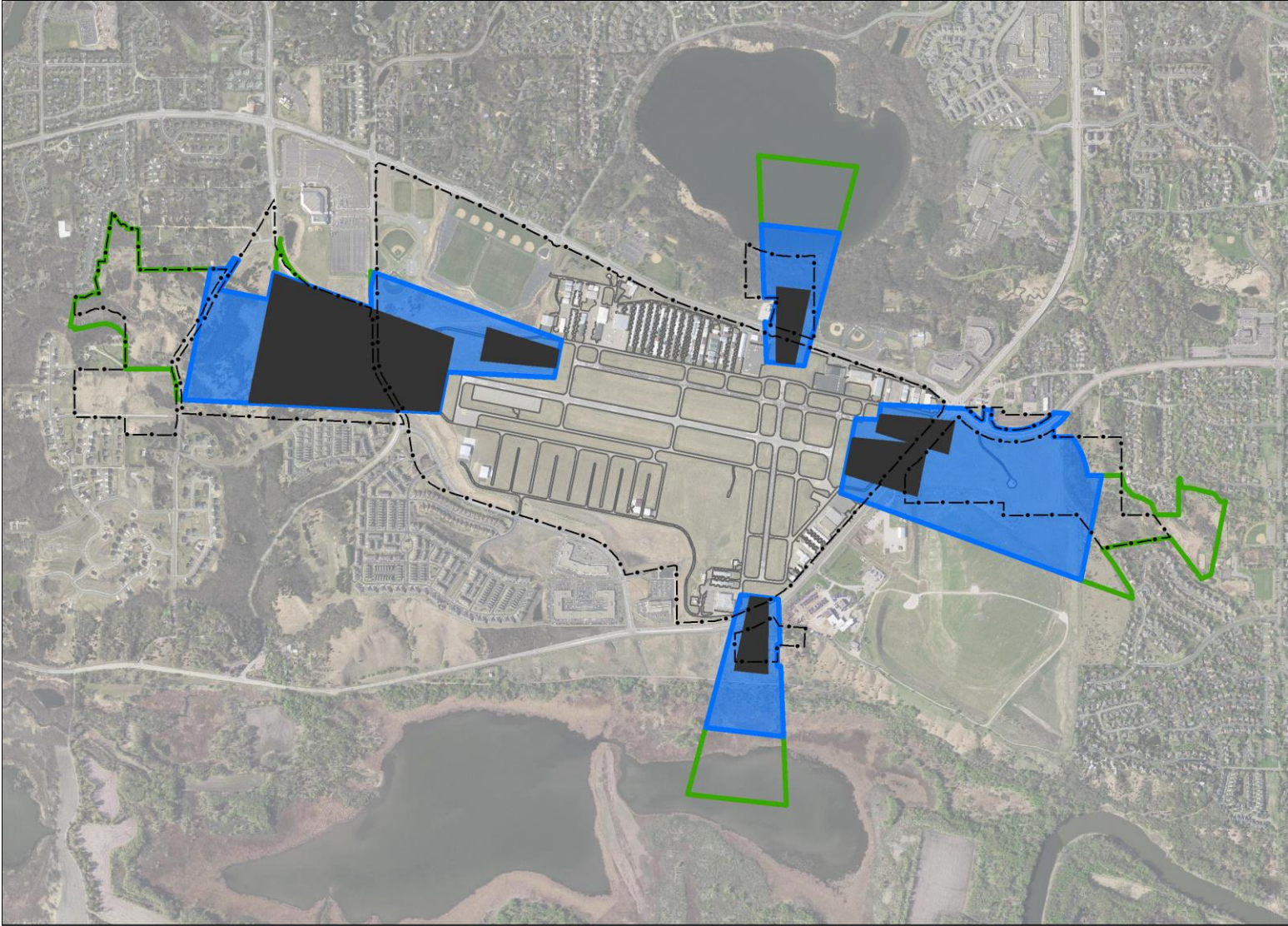
Finally, the supplemental analysis calculated the average accident probability per acre within both the Occupant Areas and Occupant Areas Buffer to account for the difference in size between these areas. **Figure 9** provides the results, indicating that there is no evidence to suggest that the probability of an aircraft accident on any given acre within the designated Occupant Areas is greater than in the adjacent parcels located in the Occupant Areas Buffer.

Figure 9: Accident Probability Per Acre

Area	Area Probability	Acres	Accident Probability Per Acre
Occupant Areas	0.0194	127.7	0.00015
Occupant Areas Buffer	0.0151	88.9	0.00017

The Supplemental Safety/Risk Analysis asked, in particular, whether there is empirical data that supports the application of MnDOT’s Model Standards to the Occupant Areas. The Supplemental Safety/Risk Analysis found that the answer is “no”. It affirms the conclusions of the 2017 Safety/Risk Study Update that a strict application of the land use controls prescribed in the MnDOT Model Zoning Ordinance exceeds what is necessary to provide a reasonable level of safety at FCM.

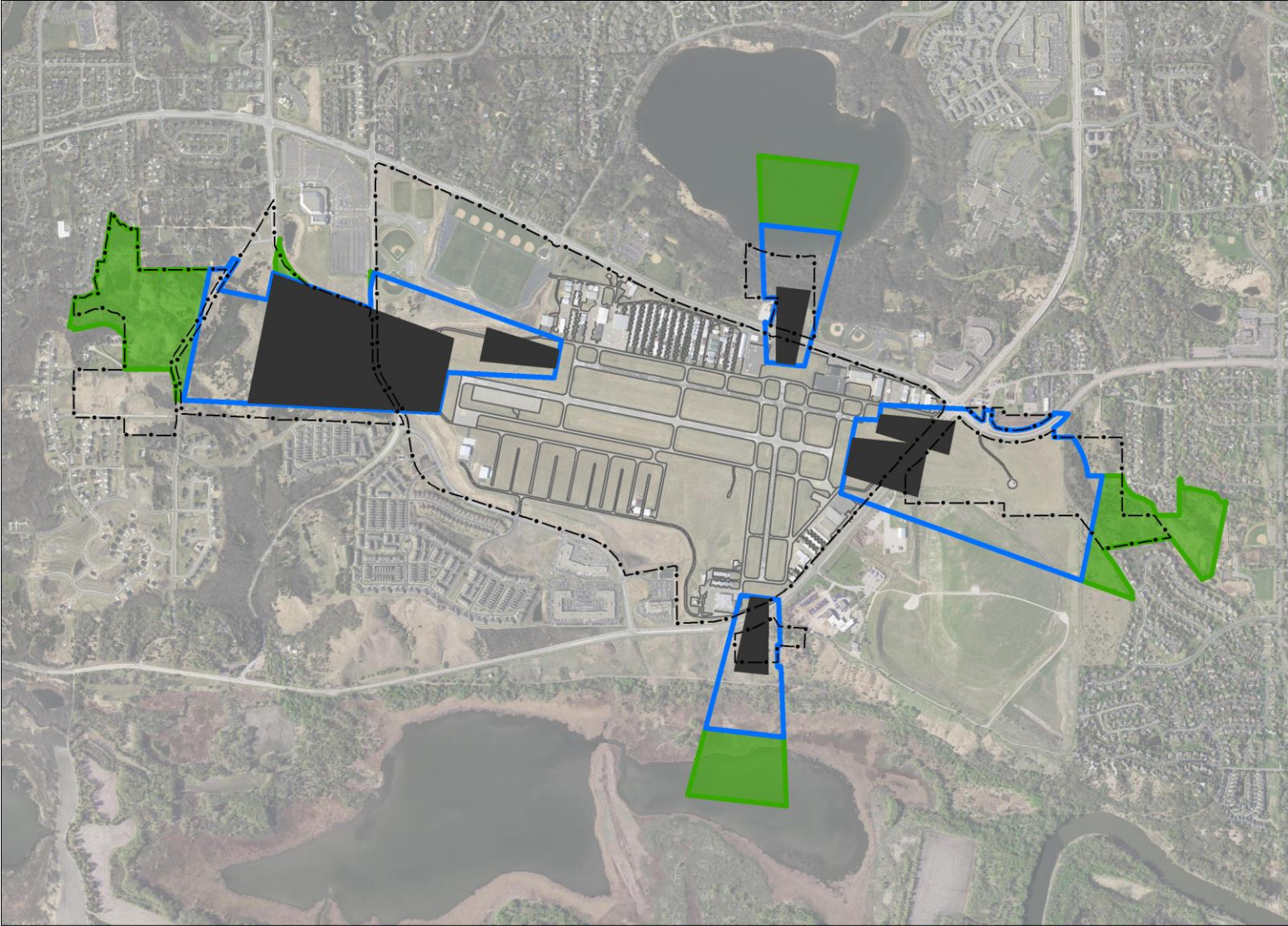
Attachment E
Second Submittal JAZB Safety Zone A



--- FCM Property Line ■ RPZ □ Zone A □ Zone B

0 700 1,400 2,800
Feet

Attachment F
Second Submittal JAZB Safety Zone B



--- FCM Property Line ■ RPZ □ Zone A □ Zone B

0 700 1,400 2,800
Feet

Attachment G

FLYING CLOUD AIRPORT JOINT AIRPORT ZONING BOARD

**In the Matter of Adopting a
Flying Cloud Airport
Zoning Ordinance**

**DRAFT STATEMENT OF LEGAL
AUTHORITY, FINDINGS OF FACT,
CONCLUSIONS OF LAW, AND ORDER**

The Flying Cloud Airport Joint Airport Zoning Board (the “**FCM JAZB**”) convened to consider adoption of a Flying Cloud Airport Zoning Ordinance (“**FCM Zoning Ordinance**”), which will regulate the use of property and the height of structures and objects of natural growth in the vicinity of the Flying Cloud Airport (“**FCM**” or “**Airport**”).

The FCM JAZB, having reviewed and considered the public record before it, intends to adopt the FCM Zoning Ordinance. In support of its action, the FCM JAZB hereby summarizes its legal authority in this Final Statement of Legal Authority, Findings of Fact, Conclusions of Law, and Order; and finds, concludes and orders as follows.

I. LEGAL AUTHORITY

A. State Law: Authority and Purpose of Airport Zoning

1. The general authority to zone around the Airport is established in Minnesota Statutes §§ 360.061 – 360.074 (“**Airport Zoning Statute**”).
2. The Minnesota Legislature (“**Legislature**”) found that airport hazards endanger lives and property of users of an airport and of occupants of land in its vicinity and may reduce the size of the area available for the landing, taking-off, and maneuvering of aircraft, thereby impairing the utility of an airport. See Minn. Stat. § 360.062.
3. The Legislature also found that the social and financial costs of disrupting existing land uses around airports in built-up urban areas often outweigh the safety benefits of a reduction in airport hazards. See Minn. Stat. § 360.062.
4. The Legislature then declared that the creation of airport hazards is a public nuisance and an injury to the community served by the airport, and that the creation of airport hazards should be prevented. See Minn. Stat. § 360.062.
5. The Legislature also declared that the elimination or removal of existing land uses is not in the public interest and should be avoided whenever possible consistent with reasonable standards of safety. See Minn. Stat. § 360.062.
6. Zoning authority within the Airport approach zones extends two miles from the Airport boundary for location, size and use of buildings and for population density. Zoning authority outside the Airport approach zones extends one and one-half miles for height restrictions and one mile for land use. See Minn. Stat. § 360.063, subd. 1.(b).

B. State Law: Joint Airport Zoning Boards

7. Joint airport zoning boards (“**JAZB**”) are authorized where “an airport is owned or controlled by a municipality and an airport hazard area appertaining to the airport is located within the territorial limits of another county or municipality.” Minn. Stat. § 360.063, subd. 3.
8. JAZBs have the authority to adopt, administer, and enforce airport zoning regulations. See Minn. Stat. § 360.063, subd. 3.
9. The Metropolitan Airports Commission (“**MAC**”) is recognized as an “owning or controlling municipality” for purposes of the Airport Zoning Statute, and is specifically required to request creation of a JAZB for the Airport. See Minn. Stat. § 363.063, subd. 3.
10. If a JAZB fails to adopt airport zoning regulations, or adopts regulations which do not conform to the standard prescribed by the Minnesota Commissioner of Transportation (“**Commissioner**”), the Commissioner may adopt airport zoning regulations for the airport. See Minn. Stat. § 360.063, subd. 6.

C. State Law: Requirements and Considerations for Airport Zoning Regulations

11. Standards of the Commissioner defining airport hazard areas and categories of permitted uses must be reasonable, and none can impose a requirement or restriction that is not reasonably necessary to effectuate the purposes of the Airport Zoning Statute. See Minn. Stat. § 360.066, subd. 1.
12. Likewise, a JAZB’s airport zoning regulations must be reasonable, and none can impose a requirement or restriction that is not reasonably necessary to effectuate the purposes of the Airport Zoning Statute. See Minn. Stat. § 360.066, subd. 1.
13. In determining what airport zoning regulations to adopt, both the Commissioner and the JAZB must consider, among other things, “the character of flying operations expected to be conducted at the airport, the location of the airport, the nature of the terrain within the airport hazard area, the existing land uses and character of the neighborhood around the airport, the uses to which the property to be zoned are planned and adaptable, and the social and economic costs of restricting land uses versus the benefits derived from a strict application of the standards of the commissioner.” See Minn. Stat. § 360.066, subd. 1.
14. To ensure the minimum disruption of existing land uses, the JAZB’s zoning regulations must distinguish between the creation or establishment of a use and the elimination of an existing use. The JAZB must avoid the elimination, removal, or reclassification of existing uses to the extent consistent with reasonable standards of safety. See Minn. Stat. § 360.066, subd. 1a.(a).
15. The JAZB’s zoning regulations cannot require that any structure or tree that does not conform to the regulations when adopted be removed, lowered, altered, or interfered

with except as specifically permitted in other sections of the Airport Zoning Statute. See Minn. Stat. § 360.066, subd. 2.

D. State Law: Process for Adopting Airport Zoning Regulations

16. The JAZB must hold a public hearing on its proposed zoning regulations before they are submitted to the Commissioner for approval. Notice of the public hearing must be provided as described in the Airport Zoning Statute. See Minn. Stat. § 360.065, subd. 1.
17. After the public hearing, the JAZB must submit its proposed zoning regulations to the Commissioner, so the Commissioner can determine whether the regulations conform to the standards prescribed by the Commissioner. The Commissioner must immediately review the proposed regulations and report to the JAZB the Commissioner's approval or objections. See Minn. Stat. § 360.065, subd. 2.
18. If the Commissioner objects on the ground that the proposed zoning regulations do not conform to the standards prescribed by the Commissioner, the JAZB must make the necessary amendments to meet the objections unless the JAZB "demonstrates 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." See Minn. Stat. § 360.065, subd. 2.
19. The JAZB cannot adopt the proposed zoning regulations until they are approved by the Commissioner. See Minn. Stat. § 360.065, subd. 2.
20. A second public hearing must be held on the proposed zoning regulations after approval by the Commissioner, but before final adoption by the JAZB. See Minn. Stat. § 360.065, subd. 1.
21. After the second public hearing, the JAZB may adopt the proposed zoning regulations. See Minn. Stat. § 360.065.
22. If a JAZB fails to adopt airport zoning regulations, or adopts regulations which do not conform to the standard prescribed by the Commissioner, the Commissioner may adopt airport zoning regulations for the airport. See Minn. Stat. § 360.063, subd. 6.

E. MnDOT's Model Standards

23. The Commissioner has promulgated standards for the adoption of airport zoning regulations for public airports, which may be found at Minnesota Rules 8800.2400 ("**MnDOT's Model Standards**" or "**standards of the Commissioner**").

F. Federal Standards

24. The Federal Aviation Administration ("**FAA**") has established airspace safety standards in Federal Aviation Regulation Part 77.
25. FAA has also established standards for the establishment of runway protection zones ("**FAA RPZ**"). See FAA Advisory Circular 150/5300-13A.
26. There are no federal airport safety land use zoning standards beyond the FAA RPZs.

II. FINDINGS OF FACT

A. *The Original FCM JAZB (2009-2010)*

27. Pursuant to Minn. Stat. §360.063, subd. 3, MAC requested formation of the FCM JAZB in 2009.
28. The FCM JAZB consisted of two members each from the cities of Eden Prairie, Chanhassen, Shakopee, and Bloomington, as well as two members from MAC. In addition, a chair was elected and appointed by the FCM JAZB members.
29. The FCM JAZB conducted its first meeting on July 16, 2009, and began by reviewing the following major considerations in drafting the FCM Zoning Ordinance:
 - a. MnDOT's Model Standards;
 - b. FCM's unique characteristics in the context of existing and planned land uses around it; and
 - c. The goal to ensure a reasonable level of safety, while considering the social and economic costs of regulating land use.
30. The guiding principle employed throughout the process was that of reasonableness as defined in Minn. Stat. § 360.066, subd. 1, which provides that airport zoning regulations must be reasonable and must not impose a restriction which is not reasonably necessary to effectuate the purposes of sections 360.011 to 360.076.
31. Minn. Stat. § 360.066, subd. 1 also provides a list of considerations that the Commissioner and a JAZB must consider in determining what airport zoning regulations may be adopted. These considerations include "the character of the flying operations expected to be conducted at the airport, the location of the airport, the nature of the terrain within the airport hazard area, the existing land uses and character of the neighborhood around the airport, the uses to which the property to be zoned are planned and adaptable, and the social and economic costs of restricting land uses versus the benefits derived from a strict application of the standards of the Commissioner."
32. Consistent with the provisions of Minn. Stat. §360.066, subd. 1, and with prior Minneapolis-St. Paul International Airport zoning efforts, the FCM JAZB focused on identifying land use controls necessary to ensure a reasonable level of safety while considering the social and economic costs associated with implementing the proposed land use controls.
33. MnDOT's Model Standards include the following zones:
 - a. "**MnDOT Model Zone A**", which restricts all buildings and uses that bring together an assembly of persons and extends for a distance that is 2/3 of the runway length. At FCM, MnDOT Model Zone A extends beyond the FAA RPZ off each runway end.
 - b. "**MnDOT Model Zone B**", which limits density and site population to 15 times that of the site acreage. MnDOT Model Zone B extends beyond Zone A for a distance that is 1/3 of the runway length.

- c. **“MnDOT Model Zone C”**, which is defined by a set radius from the runway ends, has general land use restrictions against interfering with airport operations, and is established at an elevation of 150 feet above an airport.
34. The FCM JAZB considered a land use analysis examining the existing land uses, the character of the neighborhoods around the Airport, and the planned land uses around the Airport that would be impacted by application of MnDOT’s Model Standards. The FCM JAZB found that substantial property development and structural modification restrictions would result from application of MnDOT’s Model Standards.
35. Consequently, the FCM JAZB directed preparation of a Safety/Risk Study (**“2009 Safety/Risk Study”**) to evaluate the reasonableness of potential land use restrictions pertaining to areas off the runway ends at FCM based upon the probability of an accident occurring in MnDOT Model Zone A beyond the FAA RPZ and MnDOT Model Zone B, the character of flying operations expected to be conducted at the Airport, the location of the Airport, and the nature of the terrain in the Airport vicinity. The 2009 Safety/Risk Study used the same target risk standard and overall methodology that had previously been developed for the Minneapolis/St. Paul International Airport zoning process of one accident per 10,000,000 flight operations. The 2009 Safety/Risk Study found that the accident probability exceeded the targeted risk standard in certain areas outside the FAA RPZ at FCM; however, the accident probability in areas that are or could likely be developed to accommodate congregations of people within MnDOT’s Model Zones A and B (outside the FAA RPZ) (**“Occupant Areas”**) was less than the targeted risk standard.
36. The FCM JAZB also considered the social and economic impact to the surrounding communities of strictly implementing MnDOT’s Model Standards (**“2010 Economic Impact Analysis”**). For this task, Eden Prairie’s planning and economic development team identified the impacts related to lost private property development potential, property taxes, and employment. The FCM JAZB found that implementation of MnDOT’s Model Standards would result in an estimated loss of \$150,000,000 in commercial development, \$12,000,000 in residential development, and \$600,000 in annual property taxes.
37. Based on these considerations, the requirements of Minn. Stat. § 360.066, subd. 1, and the information reviewed and analyzed as part of the FCM JAZB’s meeting process, the FCM JAZB decided to propose a draft FCM Zoning Ordinance that departed from MnDOT’s Model Standards in the following areas:
 - a. Safety Zone A was co-terminus with the FAA RPZ.
 - b. Safety Zone B use restrictions (1) did not include site acre/structure limitations and site area to building plot area ratios and population criteria, (2) allowed ponding below an elevation of eight hundred sixty-five (865) feet above mean sea level along any bluff of the Minnesota River, and (3) added continuous open acreage requirements such that a minimum of 20% of the total Safety Zone B

- acreage or 20 acres, whichever is greater, be contiguous open space as an added margin of safety.
- c. Leveraged the FAA 7460 Review Process as the initial screening process for the approval of structures in the vicinity of the Airport that meet FAA's 7460 review criteria, with a separate process for addressing tree heights.
 - d. Allowed for the improvement, expansion and development of new residential uses in existing and planned residential land use areas in Safety Zone B. These residential uses were to be treated as conforming uses.
38. The draft FCM Zoning Ordinance also established airspace surfaces, airspace zones and height limitations in the vicinity of the Airport; provided for nonconforming uses, zoning permits, and variances; and addressed administration, enforcement, and appeals.
39. On April 29, 2010, the FCM JAZB held a public hearing on the draft FCM Zoning Ordinance. A public comment period was also open from April 8 to May 7, 2010.
40. On December 27, 2010, the FCM JAZB submitted the draft FCM Zoning Ordinance to the Commissioner for review, pursuant to Minn. Stat. § 360.065, subd. 2. The FCM JAZB also submitted the FCM JAZB's meeting record and documentation related to the public comment and hearing process.
41. Shortly thereafter, MAC made a request to the Commissioner on behalf of the FCM JAZB to temporarily suspend review of the draft FCM Zoning Ordinance due to legal uncertainties surrounding airport zoning resulting from pending litigation in the state.

B. The Reconvened FCM JAZB (2017-Present)

42. The FCM JAZB reconvened in September 2017 and consists of two members each from the cities of Eden Prairie, Chanhassen, and Shakopee, as well as two members from MAC. In addition, a chair was elected and appointed by the FCM JAZB members. The city of Bloomington is not participating in the FCM JAZB because the proposed zoning surfaces do not extend into Bloomington's municipal boundaries.
43. The reconvened FCM JAZB conducted its first meeting on September 21, 2017, and conducted four meetings between September 2017 and April 2018.
44. The FCM JAZB considered an update to the 2009 Safety/Risk Study ("**2017 Safety/Risk Study**").
- a. The 2017 Safety/Risk Study included consideration of changes in airfield configuration since 2009, as well as updated analysis areas, updated accident frequency data, refined location and distribution of aircraft accident data, updated operations forecast data, and updated calculation of accident probabilities.
 - b. The 2017 Safety/Risk Study confirmed that the conclusions of the 2009 Safety/Risk Study remain valid in terms of the risk of an aircraft accident in the vicinity of FCM. Specifically, the accident probability in existing or planned Occupant Areas is less than the targeted risk standard of one accident per 10,000,000 flight operations, or once every 185 years.

- c. Therefore, the 2017 Safety/Risk Study confirmed that a strict application of MnDOT’s Model Standards exceeds what is necessary to provide a reasonable level of safety at FCM.
45. The FCM JAZB also considered an update to the 2010 Economic Impact Analysis (“**2017 Economic Impact Analysis**”).
- a. In determining what zoning regulations may be adopted, state law requires both the Commissioner and a JAZB to consider “the uses to which the property to be zoned are planned and adaptable, and the social and economic costs of restricting land uses versus the benefits derived from a strict application of the standards of the Commissioner.” Minn. Stat. § 360.066, subd. 1.
 - b. The City of Eden Prairie’s planning and economic development team updated the impacts related to lost private property development potential, property taxes, and employment in the 2017 Economic Impact Analysis.
 - c. The 2017 Economic Impact Analysis found that implementation of MnDOT’s Model Standards versus the FCM JAZB’s draft FCM Zoning Ordinance would result in an estimated loss of 13.4 acres and \$38,000,000 to \$58,000,000 in commercial development, 2.7 acres and \$6,000,000 to \$15,000,000 in residential development, and \$139,000 to \$257,000 in annual property taxes. The combined total development and 20-year aggregated property tax impact of implementing MnDOT’s Model Standards versus the FCM JAZB’s draft FCM Zoning Ordinance would be approximately \$56,000,000 to \$69,000,000. In addition, implementation of MnDOT’s Model Standards would result in a reduction in employment generation potential of approximately 600 to 1,000 jobs.
 - d. The 2017 Economic Impact Analysis did not consider the financial cost of takings claims that may arise from implementation of MnDOT’s Model Standards.
46. Finally, the FCM JAZB considered updates to the proposed FCM Zoning Ordinance. The draft FCM Zoning Ordinance was updated to reflect current conditions and trends, including airfield configuration, and to clarify certain provisions. These updates are described and shown in full in the Airport Zoning Ordinance Update Technical Report.

C. The First Public Hearing

- 47. On January 18, 2018, the FCM JAZB approved an updated draft FCM Zoning Ordinance for the first public hearing required by Minn. Stat. § 360.065, subd. 1.
- 48. The public comment period for the draft FCM Zoning Ordinance was open from February 12, 2018 to March 14, 2018. A public hearing was held on February 27, 2018.
- 49. Notice of the public hearing was provided as required by Minn. Stat. § 360.065, subd. 1.
- 50. Twelve people signed in on the attendance sheets. All persons in attendance and wishing to do so were given an opportunity to testify or provide written comments. No members of the public provided verbal testimony at the public hearing.

51. Four written comments were received and written responses provided.
52. A full record of the public hearing process is set forth in Appendix 11 of the Airport Zoning Ordinance Update Technical Report.

D. The First Submittal

53. Minn. Stat. Section 360.065, subd. 2 requires a JAZB to submit its proposed zoning regulations to the Commissioner in order that the Commissioner may determine whether the regulations conform to the standards prescribed by the Commissioner.
54. On April 5, 2018, the FCM JAZB accepted a report on the public hearing and approved submission of the following materials to the Commissioner:
 - a. Submittal letter;
 - b. FCM JAZB meeting record;
 - c. Public Hearing Report;
 - d. Airport Zoning Ordinance Update Technical Report; and
 - e. Draft FCM Zoning Ordinance dated January 18, 2018 (“**First Submittal Draft FCM Zoning Ordinance**”).
55. On April 13, 2018, FCM JAZB chair Brad Aho transmitted the above-listed materials to the Commissioner.
56. Under Minn. Stat. Section 360.065, subd. 2, the Commissioner must immediately examine the proposed regulations and report to a JAZB the Commissioner’s approval or objections.
57. On June 11, 2018, MnDOT responded to the FCM JAZB and objected to the First Submittal Draft FCM Zoning Ordinance for the following departures from MnDOT’s Model Standards:
 - a. “Safety Zone A is reduced in size from the state standard.”
 - b. “Safety Zone B does not restrict the density of populations or the ratio of site area to building plot areas described in state standards.”
 - c. “Areas identified as “Permitted Residential Areas” in the ordinance are exempted from Zone A and B restrictions. This is a departure from standards. The analogous term within state standards is an ‘established residential neighborhood’ that must have existed on January 1, 1978.”
58. On August 1, 2018, MnDOT and FCM JAZB representatives met for dialogue. At that meeting, MnDOT stated that the FCM JAZB should consider the following points prior to its second submission of the draft FCM Zoning Ordinance:
 - a. “The airport sponsor owns a majority of the land in state safety zones A and B. Therefore, these areas can and should be zoned to the Commissioner’s standards. There is no social and economic cost to zoning airport-owned land as that land has already been obligated to an aeronautical purpose.”
 - b. “Undevelopable natural features such as lakes and wetlands should be zoned to the Commissioner’s standards, as there is no cost to doing so.”

- c. “The ordinance contains provisions previously understood to be in violation of current state statute. (See section IX A. regarding FAA’s 7460 Obstruction Evaluation). The variance process does not comply with the process detailed in Minn. Stat. § 360.067, subd. 2. Finally, MnDOT notes that the FAA, in its obstruction determinations, does not consider land use issues, which is the concern of the local board of adjustment in a variance determination.”
- d. “The methodology used to perform the analysis has led the [FCM] JAZB to create a ‘custom ordinance.’ . . . [T]he [FCM] JAZB should make a bona fide attempt to adopt the Commissioner’s standard and justify departures from the standards.”
- e. “The Safety/Risk Study Update is not compelling:
 - i. Historical crash point data should be generalized to avoid an implication of precision. The precise location of historical crashes is less relevant than the general areas where crashes occur.
 - ii. The method by which crash point data is aggregated lends itself to logical errors. Similarly -sized zones and more crash prone areas could be labeled with less risk.”
- f. “The safety study occupant areas do not match the controls put in place by the ordinance. Occupant areas are used to justify a departure from the standards but development is not limited to occupant areas. The ordinance only provides ‘20% contiguous open space’. This leaves much of the developable land not contemplated within the safety study.”

E The FCM JAZB’s Supplemental Analysis

- 59. The FCM JAZB representatives did not concur with the assertions MnDOT made at the August 1, 2018, meeting.
- 60. Nevertheless, the FCM JAZB considered MnDOT’s objections and input, and considered a supplemental safety/risk analysis (“**Supplemental Safety/Risk Analysis**”).
 - a. The 2017 Safety/Risk Study confirmed that the accident probability in existing or planned Occupant Areas (shown in Figure 1 of the Supplemental Safety/Risk Analysis) was less than the targeted risk standard of one aircraft accident per 10,000,000 flight operations, or once every 185 years. This showed that a strict application of MnDOT’s Model Standards to the Occupant Areas exceeds what is necessary to provide a reasonable level of safety at FCM.
 - b. The purpose of the Supplemental Safety/Risk Analysis was to test the technical conclusions supporting the First Submittal Draft FCM Zoning Ordinance in a manner that considered MnDOT’s objections and input.
 - c. The Supplemental Safety/Risk Analysis asked, in particular, whether there is empirical data that supports the application of MnDOT’s Model Standards to

the Occupant Areas. The Supplemental Safety/Risk Analysis found that the answer is “no”.

- d. The methodology employed in the Supplemental Safety/Risk Analysis includes consideration of generalized accident location data to avoid an implication of precision, normalized accident location data to account for runway use patterns and the number of data points off each runway end to ensure each location is considered equally, calculation of accident probabilities using geo-spatial analysis, calculation of average accident probabilities in the Occupant Areas and in areas adjacent to Occupant Areas that are located just outside MnDOT’s Model Zones A and B (“**Occupant Areas Buffer**”), application of statistical factors to develop a 95% confidence interval probability range, and comparison of the accident probability range (at 95% confident level intervals) for the Occupant Areas versus the accident probability range for the Occupant Areas Buffer.
 - e. The Occupant Areas were compared to the Occupant Areas Buffer because MnDOT’s Model Standards do not prescribe site population and building density limitations in the Occupant Areas Buffer or in other areas outside of MnDOT’s Model Safety Zones A and B. In other words, MnDOT’s Model Standards do not prevent the uses in the Occupant Areas Buffer that are existing or planned in the Occupant Areas.
 - f. The Supplemental Safety/Risk Analysis found no evidence that the probability of an aircraft accident within the Occupant Areas is greater than in the Occupant Areas Buffer.
 - g. Therefore, the FCM JAZB found that there is no safety benefit to restrict land uses within the Occupant Areas when compared to adjacent parcels in the Occupant Areas Buffer.
61. Both the 2017 Safety/Risk Study and the Supplemental Safety/Risk Analysis show that a strict application of MnDOT’s Model Standards to the Occupant Areas exceeds what is necessary to provide a reasonable level of safety at FCM.
 62. Since there is no empirical data that supports the imposition of MnDOT’s Model Standards in the Occupant Areas, application of MnDOT’s Model Standards in the Occupant Areas is “not reasonably necessary to effectuate the purposes” of the Airport Zoning Statute. See Minn. Stat. § 360.066, subd. 1 (requiring airport zoning regulations to be reasonable and not “impose a requirement or restriction which is not reasonably necessary to effectuate the purposes of sections 360.011 to 360.076”).
 63. Based on MnDOT’s objections and input, the Supplemental Safety/Risk Analysis, and the requirements of the Airport Zoning Statute, the following amendments have been made to the First Submittal Draft FCM Zoning Ordinance (“**Second Submittal Draft FCM Zoning Ordinance**”):

- a. Safety Zone A is expanded to include land within MnDOT Model Zone A, and is modified to exclude the Occupant Areas.
 - b. Safety Zone A land use controls are modified to be consistent with those prescribed in MnDOT's Model Standards. Where Safety Zone A overlies the FAA RPZ, however, land uses within the FAA RPZ will be governed by applicable FAA Advisory Circulars, Orders, or other guidance.
 - c. Safety Zone B is modified to include land within MnDOT's Model Zone B, and is modified to exclude the Occupant Areas.
 - d. Safety Zone B land use controls are modified to be consistent with those prescribed in MnDOT's Model Standards, with additional restrictions placed on ponds or other uses that might attract waterfowl or other birds.
 - e. References to "Permitted Residential Areas" are removed, as these residential parcels are part of the Occupant Areas that have been excluded from Safety Zones A and B. These areas are still subject to Safety Zone C airspace and general land use controls.
 - f. A clarification has been added that a hazard determination under an FAA 7460 Obstruction Evaluation is a general restriction applicable to all zones.
 - g. The provision allowing the results of an FAA 7460 Obstruction Evaluation to stand in lieu of a variance for proposed structures that exceed the height limitations has been removed.
 - h. Certain definitions have been removed to reflect the changes described above.
 - i. The exhibits and grid maps attached to the First Submittal Draft FCM Zoning Ordinance have been updated to reflect the changes described above, including:
 - i. Updates to Exhibits B and C to reflect changes to Safety Zones A and B; and
 - ii. Updates to Safety Zones Within Zoning Limits Grid Maps to reflect changes made to Safety Zones A and B.
64. The FCM JAZB also reviewed its consideration of "the uses to which the property to be zoned are planned and adaptable, and the social and economic costs of restricting land uses versus the benefits derived from a strict application of the standards of the Commissioner" as required by Minn. Stat. § 360.066, subd. 1.
- a. The proposed amendments to the First Submittal Draft FCM Zoning Ordinance do not affect the 2017 Economic Impact Analysis because the proposed amendments do not add land use restrictions to the areas of potential development (i.e., the Occupant Areas).
 - b. The 2017 Economic Impact Analysis shows that implementation of MnDOT's Model Standards versus the FCM JAZB's Second Submittal Draft FCM Zoning Ordinance would result in an estimated loss of 13.4 acres and \$38,000,000 to \$58,000,000 in commercial development, 2.7 acres and \$6,000,000 to \$15,000,000 in residential development, and \$139,000 to \$257,000 in annual

property taxes. The combined total development and 20-year aggregated property tax impact of implementing MnDOT's Model Standards versus the FCM JAZB's Second Submittal Draft FCM Zoning Ordinance is approximately \$56,000,000 to \$69,000,000.

- c. The 2017 Economic Impact Analysis shows that implementation of MnDOT's Model Standards would result in a loss of employment generation potential of approximately 600 to 1,000 jobs.
- d. Implementation of MnDOT's Model Standards could also result in substantial financial costs related to takings claims.
- e. The social and economic costs resulting from a strict application of MnDOT's Model Standards are substantial and would have a substantial negative impact on the communities surrounding the Airport.

G. The Second Submittal

65. Minn. Stat. § 360.065, subd. 2 provides that if the Commissioner objects on the ground that the proposed zoning regulations do not conform to the standards prescribed by the Commissioner, a JAZB must make the necessary amendments to meet the objections unless the JAZB "demonstrates 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."
66. The Second Submittal Draft FCM Zoning Ordinance does not conform to MnDOT's Model Standards by excluding the Occupant Areas.
67. The social and economic costs of restricting land uses in accordance with MnDOT's Model Standards in the Occupant Areas exceed \$56,000,000 in combined total development and 20-year aggregated property tax impact and exceed a reduction in employment generation potential of 600 jobs, while a strict application of MnDOT's Model Standards in the Occupant Areas provides no safety benefit as shown in the Supplemental Safety/Risk Analysis.
68. Therefore, the social and economic costs of restricting land uses in accordance with MnDOT's Model Standards outweighs the benefits of a strict application of MnDOT's Model Standards.
69. The Second Submittal Draft FCM Zoning Ordinance exceeds FAA standards for the establishment of safety zones.
70. On September 13, 2018, the FCM JAZB approved submission of the following materials to the Commissioner:
 - a. Submittal letter
 - b. FCM JAZB Meeting Record
 - c. Draft FCM JAZB Statement of Legal Authority, Findings of Fact, Conclusions of Law, and Order
 - d. Second Submittal Draft FCM Zoning Ordinance dated _____, 2018.

71. On _____, 2018, FCM JAZB chair Brad Aho transmitted the above-listed materials to the Commissioner.

H. Commissioner’s Approval of the Second Submittal Draft FCM Zoning Ordinance

72. [This section will be updated prior to adoption by the FCM JAZB.]

I. The Second Public Hearing

73. [This section will be updated prior to adoption by the FCM JAZB.]

J. Final Adoption by the FCM JAZB

74. [This section will be updated prior to adoption by the FCM JAZB.]

III. CONCLUSIONS OF LAW

- 75. The FCM JAZB was properly constituted as required by Minn. Stat. § 360.063, subd. 3.
- 76. All meetings of the FCM JAZB were open to the public.
- 77. The FCM JAZB followed the statutory requirements in determining what airport zoning regulations to adopt by considering, among other things, “the character of flying operations expected to be conducted at the airport, the location of the airport, the nature of the terrain within the airport hazard area, the existing land uses and character of the neighborhood around the airport, the uses to which the property to be zoned are planned and adaptable, and the social and economic costs of restricting land uses versus the benefits derived from a strict application of the standards of the commissioner.” See Minn. Stat. § 360.066, subd. 1.
- 78. The Second Submittal Draft FCM Zoning Ordinance achieves a reasonable level of safety in accordance with the Airport Zoning Statute.
- 79. A strict application of MnDOT’s Model Standards exceeds what is necessary to provide a reasonable level of safety at FCM.
- 80. There is no statutory threshold that must be met to demonstrate that the social and economic costs of restricting land uses in accordance with MnDOT’s Model Standards outweigh the benefits of a strict application of MnDOT’s Model Standards.
- 81. The FCM JAZB has demonstrated that the social and economic costs of restricting land uses in accordance with MnDOT’s Model Standards outweigh the benefits of a strict application of MnDOT’s Model Standards, as required by Minn. Stat. § 360.065, subd. 2.
- 82. The Second Submittal Draft FCM Zoning Ordinance is reasonable, and does not impose a requirement or restriction that is not reasonably necessary to effectuate the purposes of the Airport Zoning Statute, as required by Minn. Stat. § 360.066, subd. 1.
- 83. The Second Submittal Draft FCM Zoning Ordinance distinguishes between the creation or establishment of a use and the elimination of an existing use, and avoids the elimination, removal, or reclassification of existing uses to the extent consistent with reasonable standards of safety, as required by Minn. Stat. § 360.066, subd. 1a.(a).

- 84. The Second Submittal Draft FCM Zoning Ordinance does not require that any structure or tree that does not conform to the regulations when adopted be removed, lowered, altered, or interfered with except as specifically permitted by other sections of the Airport Zoning Statute, as required by Minn. Stat § 360.066, subd. 2.
- 85. The FCM JAZB held public hearings and provided notice, as required by Minn. Stat. § 360.065, subd. 1.
- 86. The FCM JAZB submitted the First Submittal Draft FCM Zoning Ordinance and the Second Submittal Draft FCM Zoning Ordinance to the Commissioner, as required by Minn. Stat. § 360.065, subd. 2.
- 87. The FCM JAZB and MAC have made a good-faith showing that they are in the process of and will complete with due diligence an airport zoning ordinance in accordance with the Airport Zoning Statute, as required by Minn. Stat. § 360.021, subd. 1.
- 88. Any findings that might properly be termed conclusions and any conclusions that might properly be termed findings are hereby adopted as such.

IV. ORDER

After reviewing and considering the entire public record, including all information received by the FCM JAZB, public testimony and written comments, and the Commissioner’s input, the FCM JAZB concludes that the Final Flying Cloud Airport Zoning Ordinance, dated _____, should be adopted for the reasons stated in this Final Statement of Legal Authority, Findings of Fact, Conclusions of Law, and Order.

Adopted on _____, 2018.

I hereby certify that this is a complete, true, and correct copy of the Final Statement Of Legal Authority, Findings Of Fact, Conclusions of Law, and Order as adopted by the Flying Cloud Airport Joint Airport Zoning Board on _____.

Brad Aho, Chair

FCM Joint Airport Zoning Board

Date: _____

_____, Secretary

FCM Joint Airport Zoning Board

Date: _____

State of Minnesota

County of _____

Subscribed and sworn to before me this ____ day of _____, 2018, by Brad Aho and _____, Chair and Secretary, respectively, of the Flying Cloud Airport Joint Airport Zoning Board.

Notary Public