

STATE OF MICHIGAN
IN THE SUPREME COURT

PEGASUS WIND, LLC,

Appellee,

v

TUSCOLA COUNTY,

Appellee,

and

TUSCOLA COUNTY AREA AIRPORT
ZONING BOARD OF APPEALS,

Appellant.

Supreme Court Case No. 164261

Court of Appeals Case No. 355715

Tuscola County Circuit Court
Case No. 20-31066-AA

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APPELLEE PEGASUS WIND, LLC'S APPENDIX
VOLUME 1

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P 001 PEGASUS WIND LLC,,
ATY:LAUDERBACH,JONA
P-51313 989-698-3701

VS D 001 TUSCOLA COUNTY,,
ATY:NISIDIS,JAMIE H
P-48969 989-498-2100
DISPOSITION 09/11/20 ORD MAJ
SERVICE/ANS 02/18/20 APP

D 002 TUSCOLA AREA AZBA,,
NOT PROVIDED
UNKNOWN
ATY:HOMIER,MICHAEL 05/15/20
P-60318 616-726-2200
DISPOSITION 09/11/20 ORD MAJ

Actions, Judgments, Case Notes

Num	Date	Judge	Chg/Pty	Event Description/Comments	
1	01/31/20	GIERHART		SUMMONS AND COMPLAINT	CLK CML
				RECEIPT# 00358098 AMT \$175.00	
2				VERIFIED CLAIM OF APPEAL	CLK SEW
5			D 001	RETURN OF SERVICE	CLK SEW
				RETURN OF SERVICE	CLK
3	02/04/20			SET NEXT DATE FOR: 02/24/20 9:00 AM	CLK KP
				MOTION HEARING	
				Motion to Expedite Briefing	CLK
				Schedule & Oral Arguments	CLK
4				MOTION FEES	CLK CML
				RECEIPT# 00358207 AMT \$20.00	
6				MOTION TO EXPEDITE BRIEFING	CLK SEW
				SCHEDULE AND ORAL ARGUMENT	CLK
7				NOTICE OF HEARING	CLK SEW
8	02/10/20			PROOF OF SERVICE	CLK SEW
9	02/18/20			PROOF OF SERVICE	CLK SEW
10				PROOF OF SERVICE	CLK SEW
11			D 001	APPEARANCE	CLK SEW
				ATTORNEY: P-48969 NISIDIS	CLK
				APPEARANCE	CLK
12	02/19/20			PROOF OF SERVICE	CLK SEW
13				NOTICE OF FILING RECORD ON	CLK SEW
				APPEAL	CLK
14	02/20/20			REMOVE NEXT EVENT: 02/24/20 9:00 AM	CLK KP
				MOTION HEARING	
15	02/21/20			NOTICE SENT FOR: 04/09/20 1:30 PM	CLK KP
				MISCELLANEOUS HEARING	
				Oral Arguments on Appeal	CLK
16	02/24/20			PROOF OF SERVICE	CLK SEW
17				NOTICE OF FILING SUPPLEMENT TO	CLK SEW
				RECORD ON APPEAL	CLK
18				PROOF OF SERVICE AND NOTICE TO	CLK SEW
				APPEAR	CLK
19	02/25/20			STIPULATION AND ORDER TO	CLK SEW
				EXPEDITE BRIEFING SCHEDULE	CLK
				AND ORAL ARGUMENT	CLK
20				STIPULATION AND ORDER	CLK SEW
				REGARDING E-MAIL SERVICE	CLK
21	02/28/20			PEGASUS WIND,LLC'S BRIEF ON	CLK SEW

	APPEAL	CLK
22 03/02/20	PROOF OF SERVICE	CLK SEW
23 03/03/20	MOTION FEES	CLK SEW
	RECEIPT# 00359059 AMT \$20.00	
24	PROOF OF SERVICE	CLK SEW
25	TUSCOLA AREA AIRPORT ZONING	CLK SEW
	BOARD OF APPEALS MOTION TO	CLK
	INTERVENE	CLK
26	APPEARANCE	CLK SEW
27	NOTICE OF HEARING	CLK SEW
28	TUSCOLA AREA AIRPORT ZONING	CLK SEW
	BOARD OF APPEALS' BRIEF IN	CLK
	SUPPORT OF MOTION TO	CLK
	INTERVENE	CLK
29 03/17/20	SET NEXT DATE FOR: 03/30/20 9:00 AM	CLK KP
	MOTION HEARING	
	Motion to Intervene	CLK
30 03/18/20	MOTION FEES	CLK SEW
	RECEIPT# 00359554 AMT \$20.00	
31	BRIEF ON APPEAL OF APPELLEE	CLK SEW
	TUSCOLA COUNTY	CLK
32	PROOF OF SERVICE	CLK SEW
33	PROOF OF SERVICE	CLK SEW
34	TUSCOLA AREA AIRPORT	CLK SEW
	AUTHORITY'S MOTION FOR LEAVE	CLK
	TO INTERVENE	CLK
35	NOTICE OF HEARING	CLK SEW
36 03/20/20	REMOVE NEXT EVENT: 03/30/20 9:00 AM	CLK KP
	MOTION HEARING	
37 03/23/20	NOTICE SENT FOR: 05/15/20 9:00 AM	CLK KP
	MOTION HEARING	
	Motion to Intervene (2 Mtn's)	CLK
38	NOTICE SENT FOR: 06/12/20 1:00 PM	CLK KP
	MISCELLANEOUS HEARING	
	Oral Arguments on Appeal	CLK
39	PROOF OF SERVICE AND NOTICE TO	CLK SEW
	APPEAR	CLK
40	REMOVE NEXT EVENT: 04/09/20 1:30 PM	CLK KP
	MISCELLANEOUS HEARING	
41 03/25/20	PEGASUS WIND, LLC'S REPLY	CLK SEW
	BRIEF ON APPEAL	CLK
42	PROOF OF SERVICE	CLK SEW
43 05/08/20	NOTICE OF HEARING WITH REMOTE	CLK SEW
	PARTICIPATION	CLK
44 05/12/20	PROOF OF SERVICE	CLK JS
45	PEGASUS WIND LLC BRIEF IN	CLK JS
	OPPOSITION TO THE TUSCOLA	CLK
	AREA AIRPORT AUTHORITY	CLK
	MOTION FOR LEAVE TO	CLK
	INTERVENE	CLK
46	PEGASUS WIND LLC'S BRIEF IN	CLK JS
	OPPOSITION TO TUSCOLA AREA	CLK
	AIRPORT ZONING BOARD OF	CLK
	APPEALS MOTION TO INTERVENE	CLK
47 05/15/20	MOTION HEARING	CRT SEW
	L FINI, #3278 CSR	CRT
	AZBA MOTION TO INTERVENE	CRT

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	GRANTED, ORDER TO ENTER.	CRT
	TUSCOLA COUNTY AIRPORT	CRT
	AUTHORITY MOTION TO INTERVENE	CRT
	DENIED, ORDER TO ENTER.	CRT
48	OPINION AND ORDER	CLK SEW
49 05/18/20	PROOF OF MAILING	CLK SEW
50 05/22/20	TRANSCRIPT FILED PROCEEDINGS	CLK SEW
	HAD ON 5/15/2020	CLK
53	REPORTER/RECORDER CERTIFICATE	CLK SEW
	OF ORDERING OF TRANSCRIPT ON	CLK
	APPEAL	CLK
54	NOTICE OF FILING OF TRANSCRIPT	CLK SEW
	AND AFFIDAVIT OF MAILING	CLK
51 05/26/20	REMOVE NEXT EVENT: 06/12/20 1:00 PM	CLK K
	MISCELLANEOUS HEARING	
52	SET NEXT DATE FOR: 06/12/20 9:00 AM	CLK KP
	MISCELLANEOUS HEARING	
	Oral Arguments on Appeal	CLK
	TIME CHANGE	CLK
55 05/29/20	TUSCOLA AREA AIRPORT ZONING	CLK RAP
	BOARD OF APPEALS' BRIEF ON	CLK
	APPEAL	CLK
56	PROOF OF SERVICE	CLK RAP
57 06/04/20	ORDER - COURT OF APPEALS	CLK SEW
58 06/05/20	PROOF OF SERVICE	CLK SEW
59	PEGASUS WIND, LLC'S REPLY TO	CLK SEW
	TUSCOLA AREA AIRPORT ZONING	CLK
	BOARD OF APPEALS' BRIEF ON	CLK
	APPEAL	CLK
60 06/12/20	MISCELLANEOUS HEARING HELD	CRT SEW
	L FINI, #3278 CSR	CRT
	ORAL ARGUMENTS ON APPEAL -	CRT
	MATTER TAKEN UNDER ADVISEMENT,	CRT
	COURT TO ISSUE A WRITTEN	CRT
	OPINION.	CRT
61 07/10/20	TRANSCRIPT FILED PROCEEDINGS	CLK SEW
	HAD ON 6/12/20	CLK
62 09/11/20	FINAL ORDER OR JUDGMENT FILED	CLK SEW
	OPINION AND ORDER	CLK
63	999 MISCELLANEOUS ACTION BY JUDGE	CRT SEW
	ORDERED / GRANTED	CRT
64 09/14/20	PROOF OF MAILING	CLK SEW
65 10/02/20	PROOF OF SERVICE	CLK SEW
66	PEGASUS WIND, LLC'S MOTION	CLK SEW
	FOR RECONSIDERATION	CLK
67	PEGASUS WIND, LLC'S BRIEF IN	CLK SEW
	SUPPORT OF MOTION FOR	CLK
	RECONSIDERATION	CLK
69 10/05/20	ORDER REGARDING APPELLANT,	CLK JSH
	PEGASUS WIND LLC MOTION FOR	CLK
	RECONSIDERATION	CLK
68 10/06/20	PROOF OF MAILING	CLK JSH
70 10/14/20	MOTION FEES	CLK VLM
	RECEIPT# 00364114 AMT \$20.00	
71 11/02/20	APPELLEE TUSCOLA COUNTY'S	CLK SEW
	BRIEF IN RESPONSE TO PEGASUS	CLK
	WIND, LLC'S MOTION FOR	CLK

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	RECONSIDERATION	CLK
72	PROOF OF SERVICE	CLK SFW
73	TUSCOLA AREA AIRPORT ZONING	CLK SFW
	BOARD OF APPEALS' BRIEF IN	CLK
	RESPONSE TO PEGASUS WIND,	CLK
	LLC'S MOTION FOR	CLK
	RECONSIDERATION	CLK
74	PROOF OF SERVICE	CLK SFW
75 11/18/20	OPINION AND ORDER REGARDING	CLK SFW
	APPELLANT'S MOTION FOR	CLK
	RECONSIDERATION	CLK
76	PROOF OF MAILING	CLK SFW
.....	END OF SUMMARY

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STATE OF MICHIGAN
IN THE 54TH CIRCUIT COURT FOR THE COUNTY OF TUSCOLA

PEGAGUS WIND, LLC,
a Delaware limited liability company,
Appellant,

Vs.

File No: 20-31066-AA
HON. AMY GRACE GIERHART

TUSCOLA COUNTY,
Appellee,

And

AIRPORT ZONING BOARD
OF APPEALS,
Intervening-Appellee.

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**OPINION & ORDER REGARDING APPELLANT'S MOTION FOR
RECONSIDERATION**

This matter is before the Court on the Appellant's Motion for Reconsideration of the Court's September 11, 2020 Opinion affirming the AZBA's denial of the eight variance requests and dismissing the Appellant's claim of appeal from that decision; the Court having required and reviewed responses from the Appellees and the Intervening Appellees; and the Court being otherwise fully informed in the premises; NOW THEREFORE

IT IS HEREBY ORDERED AND ADJUDGED that pursuant to MCR 7.114(D) and MCR 2.119(F)(3), the Court finds that the Appellant's arguments set forth in the Motion for Reconsideration present the same issues already ruled on by the Court, whether expressly or by reasonable implication.

IT IS FURTHER ORDERED AND ADJUDGED that the Appellant's Motion for Reconsideration is considered and **denied**.

Dated: 11-18-20



HONORABLE AMY GRACE GIERHART
54TH CIRCUIT COURT JUDGE

United States Court of Appeals
FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 19-1153**September Term, 2020**

FILED ON: NOVEMBER 20, 2020

TUSCOLA AREA AIRPORT AUTHORITY, ET AL.,
PETITIONERS

v.

STEPHEN DICKSON,
RESPONDENT

Consolidated with 19-1258

On Petitions for Review of a Final Order
of the Federal Aviation Administration

Before: TATEL and MILLETT, *Circuit Judges*, and SENTELLE, *Senior Circuit Judge*.

J U D G M E N T

These cases were considered on the record from the Federal Aviation Administration and the briefs and arguments of the parties. The Court has accorded the issues full consideration and has determined that they do not warrant a published opinion. *See* D.C. Cir. R. 36(d). It is

ORDERED AND ADJUDGED that for the reasons set forth in the attached memorandum, the petitions for review be denied.

Pursuant to Rule 36 of this Court, this disposition will not be published. The Clerk is directed to withhold issuance of the mandate herein until seven days after the disposition of any timely petition for rehearing or petition for rehearing *en banc*. *See* Fed R. App. P. 41(b); D.C. Cir. R. 41.

Per Curiam

FOR THE COURT:
Mark J. Langer, Clerk

BY: /s/
Daniel J. Reidy
Deputy Clerk

No. 19-1153**September Term, 2020****MEMORANDUM**

A local airport authority and others (“the Authority”) petition for review of an FAA determination that several proposed wind turbines near the Tuscola Area Airport would not be a hazard to aeronautical safety. The area already contains numerous other turbines. Because the proposed turbines exceeded the height the FAA presumes to be safe near airports, the FAA issued a notice of presumed hazard. *See* 14 C.F.R. § 77.17(a). The FAA then performed a full aeronautical study and determined that the turbines would generate clutter on the primary radar used by the airport for air traffic control but that the aggregate impact on air safety would be negligible.

The Authority now petitions us to vacate the FAA’s no-hazard determination. They raise several arguments that allege the FAA’s no-hazard determination was arbitrary and capricious in violation of the Administrative Procedure Act, 5 U.S.C. § 706(2)(A). They argue that the FAA lacked substantial evidence for its determination, and that the FAA failed to consider relevant factors including the turbines’ local economic impacts and the turbines’ impacts on the airport’s ability to meet its grant assurances. Finally, they argue that the FAA provided insufficient notice to permit adequate public comment on the turbines’ safety because the FAA’s notice provided the wrong aeronautical study number twice.

The petitioners’ arguments are unpersuasive. Their arguments concerning the evidence essentially just disagree with the agency’s weighing of the evidence. Their disagreement does not render the FAA’s decision arbitrary or capricious. *See Town of Barnstable v. FAA*, 740 F.3d 681, 690 (D.C. Cir. 2014). The FAA reasonably concluded that the turbines would not have a substantial adverse effect on aeronautical safety due to the low quantity of flights that the turbines would affect and the distance of the turbines from the regular traffic pattern of the airport. Moreover, the FAA solicited the views of air traffic controllers at the affected air traffic control facility in Saginaw, and, in their expert view, the additional wind turbines would not create a safety issue. As for the petitioners’ argument that the FAA failed to consider relevant factors, the FAA is not required to consider local economic impacts or grant assurances when determining whether a structure will affect aeronautical safety. *See* 49 U.S.C. § 44718(b)(1). Finally, as to the petitioners’ final argument, the FAA’s typographical errors did not prejudice the petitioners. The notice issued by the FAA provided the correct study number numerous times. Petitioners do not provide a single public comment that the FAA actually failed to consider due to the typos. As for the additional comments submitted when the Authority petitioned the agency to review its determination, the FAA acknowledged those comments and stated that they would not have changed its determination.

STATE OF MICHIGAN

SUPREME COURT

PEGASUS WIND, LLC,
a Delaware limited liability company,

Appellee,

vs.

TUSCOLA AREA AIRPORT ZONING BOARD
OF APPEALS,

Appellant,

Supreme Court No. 161290

COA Case No. 353661

Tuscola County Circuit Court
Case No.: 19-30829-AA

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**TUSCOLA AREA AIRPORT ZONING BOARD OF APPEALS' SUPPLEMENTAL
BRIEF IN SUPPORT OF APPLICATION FOR LEAVE TO APPEAL**

Supplemental Brief

Appellant, the Tuscola Area Airport Zoning Board of Appeal (“AZBA”), submits this supplemental brief for the purpose of advising this Court of a new decision from the Tuscola County Circuit Court in a related matter pending between the same parties.

The AZBA has filed an Application for Leave to Appeal in this Court challenging the Tuscola County Circuit Court’s November 27, 2019 Order, which reversed the AZBA’s denial of Appellee Pegasus Wind, LLC’s (“Pegasus”) request for 33 variances to construct wind turbines near the Tuscola Area Airport. The Application remains pending.

In addition to the original 33 variances requested, Pegasus subsequently sought eight more variances from the AZBA for the same wind energy project. The AZBA denied those variances in a resolution dated January 17, 2020, for essentially the same reasons that it denied the original 33 variances. Among other things, the AZBA concluded that Pegasus failed to establish (1) a practical difficulty, (2) that the variances would not be against public interest and approach protection, and (3) that the variances would be in accordance with the spirit of the ordinance.

On September 11, 2020, the circuit court **affirmed** the AZBA’s denial of the eight additional variances, even though it previously **reversed** the AZBA’s denial of the original 33 variances. The Order is attached as **Exhibit A**. The AZBA wishes to bring this decision to the Court’s attention in connection with the Application. The circuit court reached two different conclusions regarding the same wind turbine project and on nearly identical facts. This Court should rectify this error by reversing the circuit court’s November 27, 2019 Order and find the AZBA properly denied the original 33 variances.

The evidentiary basis supporting the AZBA's denial of the eight additional variances is nearly identical to the AZBA's basis for denying the original 33 variances – the only difference being how that evidentiary basis was worded in the two resolutions. In each instance, the AZBA found the variances for the proposed turbines did not meet the requirements of the Airport Zoning Act or the Airport Zoning Ordinance, especially in regard to protecting flight approaches. If the circuit court found the AZBA's reasoning unclear the first time, it should have remanded the case for further fact finding and development of the record on appeal, rather than reversing the decision. Instead, the circuit court ordered the AZBA to issue the variances without conditions, in contravention of the AZBA's statutory authority to impose conditions on permitted variances. The circuit court erred in reversing the denial, and this error is particularly clear in light of the circuit court's more recent decision concerning the additional eight turbines.

The AZBA therefore requests that this Court consider the Tuscola County Circuit Court's September 11, 2020 Order in connection with its review of the AZBA's Application for Leave to Appeal.

Respectfully submitted,

FOSTER, SWIFT, COLLINS & SMITH, PC
*Appellant Tuscola Area Airport Zoning
Board of Appeals*

Dated: September 23, 2020

By: _____
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STATE OF MICHIGAN
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OPINION & ORDER
Statement of Facts

In 2017, Appellant Pegasus Wind, LLC (Pegasus) proposed construction of the Pegasus Wind Energy Center Project in Tuscola County, Michigan. The proposed location was in the

agricultural areas of Juniata, Fairgrove, and Gilford Townships. Pegasus submitted applications for special land use permits to construct and operate the wind project in the townships.

The townships each granted valid special land use permits (SLUPs) in 2018. Pegasus then obtained township zoning permits and County building inspector permits and then began construction of the wind turbine foundations and infrastructure for the Wind Project.

After the SLUP approvals, Pegasus submitted applications to the Federal Aviation Administration (FAA) for determinations of no hazard (DNHs) for the applicable proposed turbines in the Wind Project. On February 12, 2018, FAA issued preliminary notices of presumed hazard for the wind turbines, meaning that further study was necessary before the FAA would issue final determinations.

The FAA completed an aeronautical study and issued DNHs for the turbines in the Wind Project on April 3, 2019. After this study, the FAA concluded that “the described structure[s] would have no substantial adverse effect on air navigation.”¹ The FAA additionally concluded that “the proposed construction would not have a substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on any navigation facility and would not be a hazard to air navigation providing the conditions set forth in this determination are met.”²

On June 11, 2019, Pegasus filed applications for variances with the AZBA for 33 proposed wind turbines. After public hearing, the AZBA denied the variance applications. Pegasus appealed the AZBA’s denial of the variances to this Court, and this Court reversed the AZBA’s denial of the variances in Tuscola County Circuit Court File Number 19-30829-AA on November 27, 2019.

On October 22, 2019, Pegasus submitted eight additional variance applications with the AZBA for eight wind turbines that were denied permits by the Airport Zoning Administrator. Along with these applications, Pegasus Wind submitted the FAA’s DNH and a letter from Michigan Department of Transportation (MDOT) confirming that MDOT “concurs with the FAA’s determination of no hazard,” and that MDOT Tall Structure permits would be issued for the turbines after the variances were granted.

¹ Determination of No Hazard to Air Navigation, Aero. Study No. 2018-WTE-21-OE, 1 - 12 (2019).

² *Id.*

The AZBA held public hearings regarding these eight variance applications on January 13 and 17, 2020. The January 13 meeting ended without any deliberations from the AZBA.

At the January 17, 2020 meeting, Mr. Campbell of the AZBA moved to adopt a resolution denying the eight variance applications. The AZBA voted 3-1 adopting the resolution denying the variance applications for the reasons stated in the resolution.

STANDARD OF REVIEW

The Constitution of the State of Michigan specifically grants authority to the Courts to review “all final decisions, findings, rulings and orders of any administrative officer or agency existing under the Constitution or by law, which are judicial or quasi-judicial and affect private rights or licenses.” Further, this provision states that when reviewing a decision from an administrative officer or agency, the “review shall include, as a minimum, the determination whether such final decisions, findings, rulings and orders are authorized by law; and in cases in which a hearing is required, whether the same are supported by competent, material and substantial evidence on the whole record.”³

The Airport Zoning Act, MCL 259.431 *et seq.*, provides that the Circuit Court shall have exclusive jurisdiction to affirm, modify, or set aside the decision brought up for review, in whole or in part, and if need be, to order further proceedings by the Board of Appeals.⁴ “The findings of fact of the board if supported by substantial evidence, shall be accepted by the court as conclusive.” MCL 259.461.

“Evidence is competent, material and substantial if a reasoning mind would accept it as sufficient to support a conclusion.” The supporting evidence needs to be more “than a mere scintilla, but less than a preponderance of the evidence.”⁵

The substantial evidence standard is a “thorough judicial review of administrative decision, a review which considers the whole record—that is, both sides of the record—not just those portions of the record supporting the findings of the administrative agency. Although such

³ Mich. Const. Art. VI, § 28

⁴ MCL 259.461

⁵ *Lawrence v. Mich. Unemployment Ins. Agency*, 320 Mich App 422, 431 (2017)

review does not attain the status of de novo review, it necessarily entails a degree of qualitative and quantitative evaluation of evidence considered by an agency.”⁶

When reviewing evidence, “Under the substantial-evidence test, the Circuit Court’s review is not de novo and the court is not permitted to draw its own conclusions from the evidence presented to the administrative body.”⁷ The reviewing court “must give deference to an agency’s findings of fact. When there is substantial evidence, a reviewing court must not substitute its discretion for that of the administrative tribunal even if the court might have reached a different result. A court may not set aside findings merely because alternative findings also could have been supported by substantial evidence on the record.”⁸

ANALYSIS

The Tuscola Airport Zoning Ordinance was promulgated pursuant to the Airport Zoning Act, 2006 PA 110. Section 1.2 of the Ordinance provides:

An Ordinance establishing airport zoning regulations for the purpose of promoting the health safety, and general welfare of the inhabitants of the County of Tuscola by preventing the establishment of airport hazards, restricting the height of structures and objects of natural growth and otherwise regulating the use of property in the vicinity of the Tuscola Area Airport; providing for the allowance of variances from such regulations; designating the Airport Zoning Administrative Agency/Zoning Administrator charged with administration and enforcement of such regulations; establishing an airport zoning board of appeals; providing for enforcement; and imposing penalties for violation of this Ordinance.⁹

The Ordinance created an Airport Zoning Area consisting of an area between the conical zone and the circumference created by a circle within a radius of 10 miles and the center being the reference point of the airport.¹⁰

Section 3.3 of the Ordinance provides that “no structure shall be constructed in the Airport Zoning Area that exceeds certain clearance requirements set forth in that section unless a Determination of No Hazard has been issued by the Federal Aviation Administration (FAA) and

⁶ *Michigan Emp Rel Com’n. V. Detroit Symphony Orchestra, Inc.*, 393 Mich 116, 124 (1974)

⁷ *Edw. C. Levy Co. V. Marine City Zoning Bd. Of Appeals*, 293 Mich App 333, 341 (2011)

⁸ *Id.*

⁹ ZBA004358

¹⁰ ZBA004363; ZBA004375

a variance has been issued by the Airport's Zoning Board of Appeals under the Ordinance.¹¹ Pegasus applied for eight variances, only one of the turbines would exceed the height restrictions of the Ordinance, requiring a variance.

Section 3.6(G) provides that "notwithstanding any other provisions of the Ordinance, no person may use any lands within the Airport Zoning Area which would raise the descent minimums of any instrument approach procedure to the airport, or otherwise limit operations at the airport, as determined by an airspace study conducted by the Federal Aviation Administration."¹² All eight turbines would violate Section 3.6.G. of the Ordinance by raising the descent minimums of any instrument approach to the Airport, requiring the issuance of variances.

The Airport Zoning Act, MCL 259.454, provides that a person intending to erect a structure in violation of airport zoning regulations adopted under the Act, may apply to the Board of Appeals for a variance if (1) a literal application or enforcement of the regulations would result in practical difficulty or unnecessary hardship and (2) the relief granted would not be contrary to the public interest¹³, (3) but would do substantial justice and (4) be in accordance with the spirit of the regulations. *All* four criteria need to be met before the AZBA can grant a variance, hence failure to establish just one of the criteria would justify an AZBA decision to deny the variance.

The party requesting a variance, in this case Pegasus, bears the burden of establishing on the record the facts necessary to demonstrate that the required findings should be made.¹⁴

Pegasus relies heavily on this Court's prior ruling in 19-30829-AA, which was an appeal by Pegasus against the AZBA based on the AZBA's denial of 33 variance applications. The record from that proceeding has been incorporated into this record by agreement of the parties. The Court finds that the most important distinction between the AZBA's resolution denying the 33 variances (which this Court reversed) and the AZBA's resolution in this case as to these 8 variance applications is that the AZBA's findings in this case are much clearer, more detailed and very specific. The evidentiary basis for their decision in this case is easily discernible.

¹¹ ZBA004363

¹² ZBA004365

¹³ The Ordinance language is distinguished from the statute in that the Ordinance inserts additional criteria by requiring that, "relief granted would not be contrary to the public interest and **approach protection.**" (ZBA004372).

¹⁴ *Lafayette Market & Sales Co v. Detroit*, 43 Mich App 129, 133 (1972)

I. Whether the AZBA's finding that Pegasus Wind failed to establish a practical difficulty is supported by substantial and competent evidence on the record?

There is no distinction between nonuse variances and use variances detailed in the Airport Zoning Act (AZA). Practical difficulty is decided by considering, "whether the denial [of the variance] deprives an owner of the use of the property, compliance would be unnecessarily burdensome, or granting a variance would do substantial justice to the owner."¹⁵ The practical difficulty or unnecessary hardship must not be of self-created nature, which means that the party seeking the variance must not have created the hardship.¹⁶

For nonuse variances, a showing of practical difficulty is the correct standard for approval.¹⁷ Though there is no specific standard for determining practical difficulty, Courts have considered whether denial of the nonuse variance would deprive the owner of the use of the property, or whether compliance with the ordinance would be unnecessarily burdensome.¹⁸ "The concept of 'practical difficulty' in zoning law relates to problems inherent in the property itself, not to the personal conditions of its occupants."¹⁹

The AZBA made a determination that Pegasus Wind did not show that a literal enforcement of the Ordinance's requirements would result in practical difficulty. Pegasus argues that this determination is unfounded.

Pegasus asserts that the listed reasons for denial are exactly the same reasons for denial as were utilized by the AZBA on the previous denial of the 33 other turbines. For this reason, Pegasus alleges that the AZBA's basis for denial of the eight variance applications is insufficient.

First, Pegasus argues that the AZBA's conclusion that Pegasus did not convincingly establish that shorter turbines or other potential alternative locations are not viable options is not authorized by law. Pegasus states that because it is seeking nonuse variances, there is no need to establish that the use of alternative turbines or locations is impossible. *Laurence Wolf Capital Mgt. Tr. v. City of Ferndale*, 61 Fed Appx 204, 216 (2003), states "a nonuse variance applicant does not need to show...that no other suitable location exists."

¹⁵ *Norman Corp. v. City of E. Tawas*, 263 Mich App 194, 203 (2004).

¹⁶ *Id.*

¹⁷ *Heritage Hill Assoc. v. Grand Rapids*, 48 Mich App 765, 769 (1973).

¹⁸ *Norman Corp. v. City of E. Tawas*, 263 Mich App 194, 203 (2004).

¹⁹ *Davenport v. City of Grosse Pointe Farms Bd. of Zoning Appeals*, 210 Mich App 400, 403 n1 (1995).

Pegasus argues that to comply with the Ordinance by using shorter turbines “would be unnecessarily burdensome and possibly detrimental to the Wind Project’s economic viability.” Pegasus explained that it could not use shorter turbines because “virtually all commercial wind turbines sold on the market and used by developers like Pegasus Wind today are in excess of 400 feet” and would be in violation of the height limitations in the Ordinance.²⁰ Pegasus is purchasing turbines from GE and the shortest commercial turbine actively produced by GE has a height of 486 feet at the tip. Further, the shorter “special purpose” turbines are taller than 400 feet.

Pegasus also notes that the turbines that are shorter than 400 feet would be less efficient than the taller counterparts, which would require Pegasus to site more turbines to produce the megawatt total needed for compliance with its Power Purchase Agreements (PPAs). The township zoning ordinance limits the distances between turbines and turbines being in proximity to homes and property lines. For Pegasus to be in compliance with the Ordinance in this manner would be unnecessarily burdensome, and at most, detrimental to the Project’s overall economic viability.

Further, using fewer turbines is not a viable option because “Pegasus Wind cannot comply with its Power Purchase Agreements (PPAs) and its Interconnect Agreement if these variances are not granted.” This means that Pegasus Wind would not be able to meet its output requirements. If Pegasus Wind cannot meet the output requirements of these PPAs, Pegasus Wind customers have the right to unilaterally and completely cancel the PPAs.

It is Appellees contention that Pegasus’ arguments relate solely to their financial bottom line, when Pegasus argued that using shorter turbines would be “less efficient” and requiring Pegasus to “site more turbines” would be “at the very least, unnecessarily burdensome, and at the most, detrimental to the Project’s overall economic vitality.” AZBA states that these arguments are not related to any practical difficulty with the property.

Pegasus Wind explains that the AZBA concluded that Pegasus Wind’s practical difficulty is not inherent to the land or the result of a unique characteristic of the land. Pegasus Wind cites to case law which states: “The uniqueness inquiry should not in all cases be limited to an examination of whether there is a uniqueness that inheres in the land itself.”²¹

²⁰ Tuscola Airport Zoning Applications Aeronautical Study, September 21, 2019, p. 7.

²¹ *Janssen v. Holland Charter Twp*, 252 Mich App 197, 204-205 (2002).

Appellees insist that Pegasus does not identify anything unique about the parcels for which the variances are being requested. The properties are currently used for agricultural purposes and there is nothing unique about the properties that would prohibit that continued use. The record shows that the “region” is generally the best suited for wind developments and has unique siting requirements.

The Appellees cite to case law which states “The concept of ‘practical difficulty’ in zoning law relates to problems inherent in the property itself, not to the personal conditions of its occupants.”²² “The hardship must be unique or peculiar to the property for which the variance is sought.”²³ *Johnson v. Robinson Township*, 420 Mich 115, 126 (1984), held that “there is “no sound reason” why the principle that “plight of the landowner be due to the unique circumstances of the property should not be considered by a board of appeals in deciding an area variance, as well as use variances.”

The Appellees refute the *Janssen* case by stating that *Johnson v. Robinson*, *supra*, specifically stated that the uniqueness requirement applies to establishing practical difficulty in non-use variances.²⁴ AZBA further argues that “[t]he courts have repeatedly emphasized that the hardship to be unique is ‘not shared by all others.’”²⁵ The AZBA points out that the height and descent minimum requirements are applicable to all landowners in the Airport Zoning Area and thus, there is no hardship unique to the specific properties at issue.

Appellees argue that, in this case, Pegasus complains that it cannot use these parcels of land in the manner that it chooses, and that use is driven by the Power Purchase Agreements that it chose to enter into before it sought the necessary variance. The Power Purchase Agreements are unrelated to the subject parcels. The AZBA found that if the agreements create a hardship, that hardship was created by Pegasus.

It is the AZBA’s conclusion that Pegasus Wind’s hardship was self-created. A hardship can be defined as self-created “when a landowner or predecessor in title partitions, subdivides, or somehow physically alters the land after the enactment of the applicable zoning ordinance, so as to render it unfit for the uses for which it is zoned.”²⁶ Pegasus Wind has explained this project

²² *Davenport v. City of Grosse Pointe Farms Bd of Zoning Appeals*, 210 Mich App 400, 403 (1995).

²³ *Puritan-Greenfield Improvement Ass’n v. Leo*, 7 Mich App 659, 671 (1967).

²⁴ *Id.* at 126.

²⁵ *Janssen*, *supra*, 204-205.

²⁶ *City of Detroit v. City of Detroit Zoning Board of Appeals*, 326 Mich App 248, 269 (2018)

requires that a developer enter into agreements at the outset of the project to ensure financial viability, and requires the local zoning requirements be met, which requires a developer to have a site plan based on finalized lease agreements before obtaining permits.

Appellees present case law which states that a hardship is deemed self-created, and an applicant is not entitled to a variance, if the property in question has a reasonable use under the ordinance but the acts of the applicant render the property unfit for the desired use.²⁷ It further states that to determine if a hardship is self-created, one should examine if the hardship which the variance is seeking to remedy is created by the applicant, or by the current zoning ordinance, if the property can “reasonably be used in a manner consistent with existing zoning,” then the hardship is created by the applicant.²⁸

Appellees conclude that there is no question that the property has an economically viable use as it is currently zoned for agricultural use. Therefore, any hardship that Pegasus alleges in its variance applications is self-created by Pegasus’ desire to use the property in a different manner.

This Court concludes that AZBA’s denial of the variances based on Pegasus failure to establish that there is a practical difficulty in the literal enforcement of the Ordinance is supported by competent, material, and substantial evidence on this record.

II. Whether the AZBA’s determination that Pegasus failed to show that granting the variance applications for the eight (8) turbines would not be contrary to the public interest and approach protection is supported by substantial evidence on the record?

Pegasus presented evidence that the FAA conducted a study involving technicians from more than 10 different government offices who each reviewed the project to ensure that it will not interfere with their specific area of air navigation and safety. The FAA conducted an additional aeronautical study over a period of more than 1 year and considered and analyzed the impact on “existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules, the impact on all existing and planned public-use airports, military airports, and aeronautical facilities, and the cumulative impact resulting from the studied structure when combined with the impact of other existing or

²⁷ *Id.* at 263.

²⁸ *Id.* at 264-265.

proposed structures.” The FAA concluded that “the structures would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities,” and issued DNHs for the project.

The DNHs state “Therefore, it is determined that the proposed construction would not have a substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or an any navigation facility and would not be a hazard to air navigation providing the conditions set forth in the determination are met.”²⁹

The AZBA’s resolution found these turbines would be contrary to the public interest and approach protection, as follows:

Although approach protection was part of the consideration undertaken by the FAA’s study of the turbines at issue, the FAA Determinations of No Hazard are not dispositive. The FAA looks only at substantial impacts taking into account the frequency of certain flights and approaches Risks and flight limitations not deemed substantial or significant by the FAA will result from the proposed wind turbines, including:

- a. The wind turbines pose a danger to pilots during in-flight emergencies which are by nature unpredictable.
- b. VFR pilots will be unable to comply with 14 CFR 91.155 VFR visibility and cloud clearance criteria in the vicinity of the wind turbines when the flight visibility is less than 3 statute miles or the cloud ceiling is less than 1400 feet, while remaining in compliance with the minimum flight altitudes specified in 14 CFR 91.119. This would require VFR pilots flying in those conditions to circumnavigate the wind turbines and approach the airport from another direction, resulting in a choke point, as well as causing a conflict with IFR pilots conducting a published RNAV instrument approach procedure to the airport for landing This adversely affects VFR operations and is a safety issue.
- c. The wind turbines require a 300-foot increase in minimum descent altitude for the VOR/DME-A approach and landing, requiring pilots using the approach to visualize the runway from a greater distance and creating additional risk. While the VOR/DME-A approach is not frequently used, not all IFR certified aircraft are equipped to conduct the more precise approaches preferred by the FAA.
- d. Primary radar transmitted from an air traffic control facility is impacted by wind turbines. Since many VFR general aviation aircraft are not equipped with a transponder or ADS-B surveillance technology, air traffic control must rely on primary radar to locate these VFR aircraft. The wind turbines’ interference with primary radar will impact air traffic control’s ability to determine if these non-equipped VFR aircraft are airborne near the Tuscola Area Airport. (ZBA007307-7308)

²⁹ Determination of No Hazard to Air navigation, Aero. Study No. 2018-WTE-21-OE, 1 -12 (2019).

The determination by the FAA was that the proposed turbines would have “no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities” if certain criteria are met. Appellees allege that a Pegasus expert explained that the term “hazard” is a term of art, which is used by the FAA to differentiate between what the FAA deems to be acceptable and unacceptable risks. The FAA will not find a “hazard” unless the “adverse effect” exceeds one operation per day, or 365 operations in a year.

With regards to the VOR/DME-A approach and landing, the FAA found that the turbines would require a 300-foot increase in circling minimum descent altitude. The Appellees point out that the FAA did not consider this “significant” because other more precise instrument procedures are preferred by the FAA. The Appellees argue that the higher minimum descent altitude makes it much more difficult to see the runway in reduced visibility conditions and that the turbines will limit when pilots can fly, as pilots will not be able to land in lower visibility conditions.

The Appellees cite a concern regarding VFR pilots being forced to circumnavigate the turbines in reduced visibility conditions, and that this will create a “choke point” near the airport that will cause a conflict with IFR pilots and create a safety issue. This conclusion is based on public comment. During the public hearing, Josh Heinlein, a commercial pilot and a pilot who frequently uses the Caro Airport for a private plane, presented evidence regarding the difficulties that these turbines would present to a pilot utilizing VFR. (Visual Flight Rules).³⁰ It should also be noted that 85% of the flights in and out of the Caro Airport are under VFR.

The Appellees were also concerned that primary radar would be impacted by the turbines, which would in turn affect air traffic control’s ability to determine if VFR aircraft that are not equipped with transponders flying near the airport. Richard Koerner, a local pilot, had expressed these concerns.³¹

A zoning board of appeals may consider public comments as relevant evidence, but public comments that are unsubstantiated, speculative, or unauthoritative do not provide competent evidence to deny the variance.³²

³⁰ ZBA 006870-6874; 007021; 007173-007182.

³¹ ZBA 007095-007113

³² *Polkton Charter Twp v. Pellegrum*, 265 Mich App 88, 94 (2005).

Pegasus also refutes the conclusion that the turbines would jeopardize the Tuscola Area Airport's ability to meet current or future grant assurances. Pegasus explained that because the federal grant money comes from FAA and the turbines are determined by the FAA to not be hazardous to the airport, "it stands to reason that the FAA would not claim a violation of the assurances because the airport allowed turbines that were deemed to not be a hazard by the FAA itself." Even with this argument, Pegasus agreed to indemnify the airport if the grants were affected for up to 5 years for the \$2.6 million in grant money that the airport receives from FAA.

This Court concludes that the AZBA's denial of the variances based on Pegasus' failure to establish that the variances would not be against the public interest and approach protection is supported by competent, material, and substantial evidence on this record.

III. Whether the AZBA's conclusion that granting the requested variances would not do substantial justice is supported by substantial evidence on the record?

Pegasus Wind presented evidence that without the variances, Pegasus could not move forward with the Wind Project and would not be able to meet its obligations under its various agreements. Pegasus Wind's development could not occur without the variances, and therefore, substantial justice would be done by granting the variances to Pegasus Wind.

Pegasus argued that granting the variances would do substantial justice to the public, because there would be no adverse effect on the airport, as FAA and MDOT determined. Appellees assert that the FAA is concerned only with "substantial" impacts based on the scale for determining whether an "adverse effect" is a "hazard." The Wind Project would also bring substantial benefits to the community, including nearly \$36 million in tax benefits to Tuscola County, community schools, and surrounding townships and supplemental income to its landowners.

The AZBA determined that Pegasus did not show that granting the variances would do substantial justice. There is no evidence that the subject parcels will be stripped of all economically viable use or that no development will be able to occur on said parcels. Denying the variance means that Pegasus will not be able to develop the properties in the way that they choose. The owner of the land can still utilize the land in an economically viable way.

The fact that a property owner purchases property with the prior knowledge of an applicable restriction does not preclude the owner from later receiving a variance.³³ Pegasus knew that obtaining variances would be necessary, but that does not mean that it could not obtain use of the property and seek the variances. That Pegasus had the knowledge that variances would eventually be needed is not a violation of the Ordinance. The AZA allows for variances when the actions of a landowner would violate the applicable ordinance: “A person desiring to erect a structure, or increase the height of a structure, or permit the growth of a tree, or otherwise use property in violation of the airport zoning regulations adopted under this act, may apply to the board of appeals, for a variance from the zoning regulations in question.”³⁴ Pegasus would be in violation of the Ordinance if the turbines were erected, but Pegasus sought variances to ensure that it was not in violation of the Ordinance, prior to the construction of the turbines at issue.

This Court concludes that granting the variances would do substantial justice to the public. There will be no adverse impact to the airport, and there will be substantial benefit to the County. The record does not contain evidence that the granting of the variances would not do substantial justice.

IV. Whether the AZBA’s conclusion that Pegasus Wind had not shown that granting the variance would be in accordance with the spirit of the Ordinance was supported on the record and by Michigan law?

Pegasus Wind argued that the AZBA incorrectly concluded that Pegasus did not show that granting the variances would be in accordance with the spirit of the Ordinance. The purpose of the Ordinance is to promote the health, safety, and welfare of Tuscola County residents by “preventing the establishment of airport hazards, restricting the height of structures and objects of natural growth and otherwise regulating the use of property in the vicinity of Tuscola Area Airport; [and] providing for the allowance of variances from such regulations.”³⁵ Pegasus argued that the only reliable evidence produced on the record suggests that the Wind Project will have no adverse effect on the air navigation or safety.

Appellees assert that the AZBA determination to deny the variances was in accordance with the spirit of the ordinance. The AZBA concluded that in light of the aviation limitation and

³³ *City of Detroit, supra* at 269.

³⁴ *MCLS* § 259.454(1).

³⁵ Resolution Denying Pegasus Wind, LLC’s Application for Variances, 4:a, January 17, 2020.

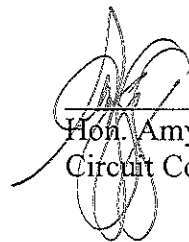
the risks that would be posed by the wind turbines, denial of the variance would be most consistent with the spirit of the ordinance. Though the ordinance also allows variances, the spirit of the Ordinance is to restrict the size of structures and “prevent” hazards around the Airport.

The AZBA considered the evidence and concluded that the spirit and intent of the ordinance was not met. The limitations and risks posed by the proximity of wind turbines did not “promote the health, safety, and welfare” of the County’s inhabitants in the way that the Ordinance identifies for promoting those values: “by preventing the establishment of airport hazards” and by “restricting the height of structures” in the vicinity of the Tuscola Area Airport.

This Court concludes that AZBA’s denial of the variances based on the AZBA’s finding that granting the variances would not be in accordance with the spirit of the Ordinance was supported by substantial evidence on the record.

NOW WHEREFORE the Court affirms the January 17, 2020 resolution of the AZBA denying the eight variance applications for the reasons set forth herein.

Dated: 09.11.20



Hon. Amy Grace Gierhart (P51305)
Circuit Court Judge

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STATE OF MICHIGAN
54TH JUDICIAL CIRCUIT COURT (TUSCOLA COUNTY)

PEGASUS WIND, LLC, a Delaware
limited liability company,

Appellant,

vs. File No. 20-031066-AA

TUSCOLA COUNTY,

Appellee,

and

TUSCOLA AREA AIRPORT ZONING
BOARD OF APPEALS,

Intervening Appellee.

_____ /

ORAL ARGUMENTS ON APPEAL

BEFORE THE HONORABLE AMY GRACE GIERHART, CIRCUIT JUDGE,
VIA ZOOM

Caro, Michigan - Friday, June 12, 2020

Reported by: MS. LINDA L. FINI, CSR-3278
Official Court Reporter
(989) 672-3722

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1 Caro, Michigan

2 Friday, June 12, 2020

3 (Proceedings commenced at 9:01 a.m.)

4 THE COURT: Pegasus Wind versus Tuscola
5 County and Tuscola Area Airport Zoning Board, File
6 Number 20-31066-AA.

7 Can I have appearances of counsel for the
8 record, please?

9 MR. LAUDERBACH: Good morning, Your Honor.
10 Jon Lauderbach on behalf of Pegasus Wind.

11 MS. NISIDIS: Good morning. Jamie Nisidis on
12 behalf of the appellee, Tuscola County.

13 MR. HOMIER: Good morning, Your Honor. Mike
14 Homier on behalf of Intervening Tuscola County [sic]
15 Airport Zoning Board of Appeals.

16 THE COURT: All right. Good morning to all
17 of you. Today's the date and time set for oral
18 arguments in this matter. Mr. Lauderbach, if you'd
19 like to proceed.

20 MR. LAUDERBACH: Thank you, Your Honor. Good
21 morning.

22 Your Honor, I feel like I'm -- I'm arguing a
23 motion for reconsideration. In November of 2019, this
24 Court reversed the AZBA's denial of variances for 33 of
25 the turbines in the Pegasus -- Pegasus Project. The

1 Court did so through a written Opinion that made
2 specific conclusions based on the record and the law.
3 But just two months later they did it again. They
4 denied variances for eight turbines that are in many
5 instances further away than the thirty-three turbines.

6 And we have a map. You probably can't see it
7 here on my screen, but it's on Page 14 of our brief.
8 And the black dots on that map are the 33 turbines, the
9 blue hash marks are the 200 wind turbines that are
10 already in the northwest quadrant of the airport zoning
11 area, and the 8 green dots that are even further away
12 from the airport than many of the 33 are the 8 turbines
13 that are the -- the subject of this -- of this case.

14 When the AZBA denied these eight variances,
15 they misapplied the same legal standards, they required
16 us to prove the same things that the law does not
17 require us to prove and was again based not on any
18 competent, material and substantial evidence, and they
19 did so with largely the same record as had been
20 developed before. They cite the same cases, and
21 they're advancing the same arguments on this appeal
22 that have already been rejected by this Court and found
23 to be meritless by the Michigan Court of Appeals. The
24 decision must be reversed.

25 First, Pegasus established that literal

1 enforcement of the Ordinance would result in practical
2 difficulty. The Court found in its November 27th
3 Opinion that Pegasus Wind did establish practical
4 difficulty and that the AZBA's conclusion to the
5 contrary was not supported by competent, material or
6 substantial evidence.

7 Nothing's changed. The practical difficulty
8 is the same in this case as it was in that case. They
9 still argue that the difficulty is not unique to the
10 land and that it's self-created, but it's still
11 impossible to reconfigure the Wind Project, it is still
12 impossible to move the turbines, it is still impossible
13 to use shorter turbines just like this Court already
14 found.

15 So what's new? Well, in one respect, the
16 PPAs argument. They -- you may recall that the AZBA
17 complained the last time around that we hadn't given
18 them copies of the Power Purchase Agreements. So we
19 did. Now they argue that we didn't present any
20 evidence of how much energy we expect to generate from
21 each turbine. They say that we provide -- failed to
22 provide information to the AZBA about why we need all
23 the turbines.

24 Well, it's right here. It's Exhibit C to
25 each of the Power Purchase Agreements. Each Exhibit C

1 which is entitled "Description of the Wind Project"
2 lists the number of turbines and the megawatts to be
3 generated by each turbine. When you do the math and
4 add those numbers up, it comes to 151.1 megawatts just
5 like we've been saying all along.

6 So they complained we didn't give them the
7 information. We give them the information, and then
8 they don't bother to read it. And that's not right.

9 Self-creation. They've put a new twist on
10 this argument that the property can still be used for
11 agriculture so the harm is self-created. But that's
12 not the correct standard. They're citing the City of
13 Detroit case, but they're not citing it correctly.
14 That case holds that the hardship has to be created by
15 the applicant's own actions. Here it is not. The
16 leases that Pegasus has entered into allow it only to
17 use the property for the construction and operation of
18 the Wind Project. So denial of the variances would
19 deprive Pegasus of the use of its interest in the
20 property.

21 The fact that the landowners might continue
22 to use the property for other purposes has -- is
23 irrelevant to Pegasus Wind because Pegasus Wind could
24 not use the property for any other purposes, so just
25 like the last time, the Court should find that we

1 established practical difficulty.

2 Second, the variances would not be contrary
3 to the public interest and approach protection. Now,
4 the Court may recall the detail that we provided in the
5 33-turbine appeal which is part of the record in this
6 case about the FAA aeronautical study process. In
7 fact, the Court's Opinion from November 27th recounts a
8 lot of these facts: The ten government agencies that
9 were involved in the study process with the FAA and
10 MDOT, the rigor of the study, the role of Capitol
11 Airspace in that process.

12 Now, we acknowledge and still acknowledge
13 that the aeronautical study process and the issuance of
14 determinations of no hazard is not in and of itself
15 dispositive. We've never said that. What we've said
16 is because that process is so exhaustive, it is so
17 comprehensive, that if you're gonna disagree with it,
18 you better have your own expert, you better have some
19 evidence, something more than unsubstantiated concerns.

20 And the Court agreed with us. The Court
21 found -- and I'm quoting from the -- the November 27th
22 Opinion. "No evidence was presented by an expert to
23 substantiate the contention that the turbines would
24 negatively affect airport operations, nor did the
25 members of the public cite any reliable authority which

1 would contradict Pegasus' evidence."

2 "...The record does not contain any competent
3 evidence that contradicts Pegasus' evidence that the
4 turbines would be in the public interest."

5 The Court found that approach protection was
6 a specific category of the FAA study, and the Court
7 even cited Linn Smith from MDOT and his testimony at
8 the July 19 hearing and his conclusion that the
9 turbines would still allow the airport to maintain
10 appropriate approach protection procedures. And these
11 eight turbines were part of that exact same
12 aeronautical study process, and, again, some of these
13 turbines are farther away from the airport than the 33
14 turbines and they're sprinkled in among the 200
15 turbines that are already there.

16 We've also presented evidence that 188
17 similar airports around the country have tall
18 structures at either similar or closer distances.
19 Pilots routinely have to account for tall structures
20 when planning for emergencies.

21 So when it comes to approach protection,
22 there's absolutely no evidence that these eight
23 turbines pose any greater impact on the airport than is
24 already there today.

25 What's new? Nothing. Nothing's changed.

1 There were two new concerns raised at the
2 January hearing, both of which are totally
3 unsubstantiated and contradicted by the evidence. The
4 first is this choke point concern. Two pilots spoke at
5 public comment, one of whom expressed a concern that
6 circumnavigation of the turbines in reduced visibility
7 conditions will create a choke point and force traffic
8 into the same spot. In other words, because pilots
9 can't fly through the northwest quadrant of the airport
10 zoning area in reduced visibility conditions, it's --
11 it's gonna force all the traffic down into these --
12 into these other approaches.

13 Well, Capitol Airspace looked at that.
14 Capitol Airspace as part of the FAA study process
15 looked at the flight data. Years' worth. There's a --
16 there's a drawing in -- in the record that shows
17 with -- with a graph, linear graph, the -- these lines
18 that show all the flights in and out of the airport.
19 When you review the actual flight data, VFR pilots
20 aren't flying in reduced visibility conditions.

21 There's no change in operations that would
22 create this alleged choke point. The eight turbines
23 have no impact whatsoever. And, more importantly,
24 because of the turbines that are already there, pilots
25 already have to circumnavigate this exact same area, so

1 the eight turbines have absolutely no impact
2 whatsoever.

3 The second concern that was raised was radar.
4 The AZBA found that primary radar would be impacted by
5 the turbines and that that in turn would affect the
6 ability of Air Traffic Control to determine if VFR
7 aircraft without transponders are flying near the
8 airport.

9 This concern was based on speculation from --
10 from Richard Koerner. Now, he's a retired pilot. He
11 told a story about clutter on the radars. As he's
12 taking off from MBS in his corporate jet, he talks
13 about clutter on the radar from a wind farm 30 miles
14 from the airport.

15 Now, he also admitted he's not an expert in
16 radar. He actually said -- and you can't see this in
17 the transcript, but as he's being asked questions by
18 the AZBA, he actually turns and looks at Ben Doyle from
19 Capitol Airspace and says, well, ask him, he's the
20 expert.

21 He -- Ben Doyle is the expert. He's an air
22 traffic controller. He's a retired tower chief from
23 the United States Air Force. Following his retirement
24 from the Air Force, he's one of a handful of
25 consultants in the country that do obstruction

1 evaluation for the FAA. He's participated over -- in
2 over 50,000 obstruction evaluation matters for the FAA
3 in his career. So let's look at what the expert,
4 Mr. Doyle, said.

5 Even if the turbines create clutter on the
6 radar, that does not impact airport operations for VFR
7 aircrafts -- aircraft because VFR pilots are required
8 to see and avoid.

9 Now, I know what they're gonna say. I know
10 what Mr. Homier and Miss Nisidis are gonna say.
11 They're gonna say, well, now you're blaming the pilot.
12 We're not blaming the pilot. We're saying that's what
13 the law requires of a pilot. A pilot has a legal
14 obligation to see and avoid obstructions, and that --
15 that duty is imposed on the pilot whether it's a tall
16 building, a wind turbine or a grain bin.

17 Mr. Doyle also said VFR aircraft rely on
18 radio, not radar. And even more importantly -- this
19 is -- this is the most important thing in my view. He
20 said the clutter exists right over the object. So
21 since pilots are already circumnavigating this area
22 again because of the 200 wind turbines that are already
23 there, because of the 33 that the Court's already ruled
24 we're entitled to variances for, these 8 turbines have
25 absolutely no effect. They create no more clutter that

1 will be problematic to -- to pilots.

2 So the only competent evidence in this record
3 is that these eight turbines don't create any choke
4 point and have no impact whatsoever on radar. Here
5 again all the AZBA relied on was unsubstantiated
6 concerns.

7 Now, I -- I get it. An AZBA can base a
8 decision on what they hear in public comment. But just
9 like the Court concluded in its ruling on the 33
10 variances, it has to be substantiated. You don't just
11 get to stand up and say, boy, I'm worried about this.
12 Because facts still matter.

13 Being a pilot does not make Mr. Koerner or
14 Mr. Heinlein experts on air traffic control or
15 obstruction evaluation any more than driving a lot
16 makes me a traffic engineer. I put a lot of miles on
17 my car. That doesn't mean I'm qualified as an expert
18 to talk about the design of an off-ramp or whether a
19 roundabout down at M-81 and 75 is better than a traffic
20 signal. That's not my expertise. I'm a user of the
21 road. That doesn't mean I know how to engineer it.

22 Here no fewer than three different experts
23 all looked at this Project and have no problem at all
24 with it, the FAA, MDOT, Capitol Airspace, not to
25 mention Air Traffic Control at MBS and Flint and the

1 ten government agencies that were part of the
2 aeronautical study process.

3 Pilots are not experts in air traffic control
4 or obstruction evaluation. That's why even Mr. Koerner
5 said ask Ben Doyle, he's the expert. Even he
6 recognizes his expertise.

7 The public interest. The evidence we
8 supported -- in support of our assertion that the
9 variances are in the public interest are -- are the
10 same. We submitted evidence of the \$36 million in tax
11 revenue to the community, to the municipalities, to the
12 school districts. We talked about the renewable
13 portfolio standard in Michigan. We talked about -- we
14 talked about how the Court has to balance that against
15 the lack of any safety issue identified by the FAA or
16 MDOT. And the Court agreed. The Court concluded that
17 we did establish that the variances -- the 33 variances
18 would not be contrary to the public interest.

19 What's new? Nothing.

20 Let's talk about grant assurances for a
21 moment. The AZBA concluded that these eight turbines
22 would jeopardize the Tuscola Area Airport's ability to
23 meet current or future federal grant assurances because
24 the grants require the airport to not allow airport
25 hazards. This makes absolutely no sense. The FAA has

1 already said these eight turbines are not hazardous.
2 So the AZBA is concerned that the FAA will revoke
3 grants -- and they identify \$2.6 million in grants over
4 the next five years -- because of hazards that the FAA
5 has already concluded are not hazards. Not one actual
6 fact was ever cited in support of this concern.

7 So we said, okay, that if that's really your
8 concern, we will indemnify you. We will make you whole
9 for every dollar up to the \$2.6 million that you've
10 identified that the airport loses because the FAA finds
11 these are hazards even though the FAA has already said
12 they're not hazards. If you so much as lose \$1, we're
13 gonna make you whole. And we said you know what? You
14 can make it a condition of the variances. They never
15 responded to it because it's not really a concern. It
16 was a red herring all along.

17 The AZBA also now claims that the turbines
18 are not in the public interest because electricity --
19 because the electricity generated by these turbines
20 will not be used in Tuscola County. That's not how it
21 works in Michigan. Communities do not self-generate
22 their own electricity. Electricity comes from power
23 generation facilities built in other communities.
24 There's not some magical electricity fairy that flies
25 around with a magic wand and just creates electricity.

1 If every community in Michigan said we don't
2 want power generated here because it won't be used
3 here, then nobody could afford to build a power plant.
4 If -- I mean how would the residents in Tuscola County
5 feel if the folks in Bay City said we don't -- we just
6 don't want the Karn-Weadock Plant which generates like
7 4 gigawatts of electricity? How about if the citizens
8 in Midland decided we just don't want Midland
9 Cogeneration Venture, which is a 1.5 gigawatt facility?
10 Those facilities generate electricity. They sell the
11 electricity to utilities that in turn sell it to
12 customers. That's how electricity works in Michigan.
13 Michigan, including Tuscola County, needs electricity.
14 This Project and these eight turbines serve the public
15 interest.

16 Third, the variances would do substantial
17 justice. In the 33-turbine appeal, the Court found
18 that the variances would do substantial justice, among
19 other reasons, because a significant portion of the
20 community supports the Project. Well, that's even more
21 true here. These eight turbines are all in Gilford and
22 Fairgrove Townships. There has never been any
23 opposition from Gilford or Fairgrove Townships to
24 these -- to this Project or to these turbines. Those
25 townships actually wrote to the FAA, calling out the

1 Airport Authority and Juniata Township for their
2 anti-wind animus.

3 And in this decision, the AZBA never
4 undertook any independent analysis of this factor.
5 They just said that we failed to show the variances
6 would do substantial justice for all of the reasons
7 that they stated previously. But all of the things
8 they stated previously have already been found to be
9 insufficient bases to deny the variances.

10 And in the 33-turbine appeal, the AZBA held
11 that the variances would not do substantial justice
12 because we began construction without getting the
13 variances first. You may recall the -- the
14 pronouncement by Mr. Campbell about his views on that
15 subject. Well, not only did the Court find that the
16 record was absent of any evidence that the granting of
17 the variances would not do substantial justice, the
18 Court found that that statement by Mr. Campbell
19 evidenced failure to exercise objective reasoning.

20 So when we came back in January, we asked
21 Mr. Campbell to recuse himself. Not only did he refuse
22 to recuse himself. He doubled down. He said that he
23 wouldn't. And then another member of the AZBA said
24 that this Court owed Mr. Campbell an apology for
25 finding that he had impermissible bias. Then still

1 another member of the AZ -- AZBA said wind turbines
2 were something that needed to be combated. So much for
3 objective reasoning.

4 The AZBA has made no attempt to read this
5 Court's Opinion or the finding of the Michigan Court of
6 Appeals that the prior appeal was without merit and
7 actually apply the law in this case.

8 Fourth, granting the variances would be in
9 accordance with the spirit of the Ordinance. In the
10 33-turbine appeal, the AZBA based its conclusion that
11 the variance violated the spirit of the Ordinance on,
12 quote, "Significant potential risk of airport hazard
13 ... posed by the... " turbines. The only basis cited
14 by the AZBA in this decision is the same thing:
15 Aviation limitations and risks posed by the wind
16 turbines.

17 Our response both then and now is that
18 granting the variances is consistent with the spirit of
19 the Ordinance because the Ordinance provides for the
20 granting of variances. As long as there's no hazard to
21 air navigation, the Ordinance says we get variances,
22 and because the evidence shows there's no hazard to air
23 navigation, the evidence likewise shows that granting
24 the variances is consistent with the spirit of the
25 Ordinance. We think the same result should obtain

1 here.

2 So, Judge, if it seems like it's Ground Hog
3 Day, it's because it is. The record in the 33-turbine
4 appeal is part of the record here. The arguments that
5 they're making, the cases they're citing have already
6 been rejected by this Court and found to be without
7 merit by the Court of Appeals. We ask that you reverse
8 denial of the variances.

9 And you might also recall after your
10 November 27th ruling the monkey business that we had
11 with the conditions and the stay pending appeal. We're
12 gonna ask that you -- you know, they -- they don't like
13 what this Court has done in the past, and they've been
14 called out on it. But this time we need -- we're
15 asking for more specific relief. We ask that you order
16 the variance certificates be immediately effective
17 without conditions and without any stay pending appeal.
18 They've tried everything to slow this Project down.
19 They can appeal if they want to, but we need to be able
20 to move ahead with the Project.

21 Thank you, Your Honor.

22 THE COURT: All right. Thank you,
23 Mr. Lauderbach.

24 Ms. Nisidis, you may proceed.

25 MS. NISIDIS: Yes, Your Honor.

1 I wanted just I guess to highlight again the
2 standard of review that is applicable here. Pursuant
3 to the Airport Zoning Act, the AZBA's findings of fact
4 must be accepted by the Court as conclusive if
5 supported by substantial evidence, and that is evidence
6 which a reasonable mind would accept as adequate.
7 While it has to be more than a scintilla, it may not be
8 less -- it may be substantially less than a
9 preponderance. So this is not similar to what you
10 would see in a normal civil action. It may be evidence
11 that is substantially less than a preponderance of the
12 evidence.

13 Additionally, the Court may not set aside the
14 AZBA's findings merely because alternative findings
15 could also be supported by substantial evidence. So
16 you could have a situation where the AZBA had made the
17 opposite decision on the same evidence and that would
18 still be supported by substantial evidence.

19 Additionally, the Court may not set aside the
20 AZBA's findings simply because the Court would have
21 reached a different conclusion on the same evidence.

22 Now I want to focus a little bit on the issue
23 of the prior decision on the 33 variances which Pegasus
24 relies heavily on.

25 I want it to be very clear this is a

1 different case, this is a different appeal. There is a
2 different record that was created before the AZBA.
3 That record has additional evidence on some of the same
4 issues that were addressed in the prior proceedings and
5 also has entirely new evidence on new issues. The AZBA
6 also made more detailed factual findings in connection
7 with its decision on these eight variance applications.
8 And, most importantly, Pegasus hasn't offered any legal
9 support whatsoever, not a single case citation, for its
10 contention that this Court must reach the same decision
11 it did in the prior case. This Court is not
12 constrained by its prior decision, not even on the
13 legal issues, quite frankly, or on the factual issues
14 where the evidence may be similar, although that is not
15 the case with all of the factual issues.

16 So we would ask the Court consider all of the
17 evidence and the legal arguments which do include some
18 case law that's not previously cited in the prior
19 appeal and ask the Court to reach a conclusion
20 independent of the Court's decision in the prior case.

21 Now, Pegasus had the burden of proof before
22 the AZBA. They had the burden of establishing on the
23 record the facts which would demonstrate that the
24 required findings should be made.

25 And it is permissible for a zoning board as

1 the AZBA did in this case to make a negative finding
2 that the party seeking the variance has not met its
3 burden. The AZBA was not an adverse party in the
4 proceeding and did not have the burden to prove
5 anything. It was not required to retain an expert. It
6 was not required to accept Pegasus's evidence as
7 sufficient simply because there was no evidence to the
8 contrary that was put in.

9 Pegasus had the burden of establishing the
10 four criteria necessary for issuance of the variances
11 requested. If Pegasus failed to establish any one of
12 the criteria or if the AZBA's findings on any one of
13 the four criteria meet the substantial evidence
14 standard, then the decision must be affirmed.

15 I want to speak just a little bit about the
16 record. I know we'll talk about that in detail with
17 regard to the fourth criteria, but to be very clear,
18 the FAA's determination of no hazard and the expert
19 evidence that was presented by Pegasus are not the only
20 competent evidence in the AZBA record. Just because
21 pilots aren't experts in air traffic control doesn't
22 mean that they have not provided competent evidence in
23 this case, and we do have evidence presented by
24 experienced pilots both commercial and private who
25 understand the federal regulations that are applicable

1 to them as VFR pilots and as IFR pilots.

2 We also have evidence presented through
3 studies that were conducted by experts and evidence
4 presented by members of the public, particularly by
5 pilots who actually use the airport and are familiar
6 with how this particular airport works in their own
7 flying, and those are the people who will be impacted
8 by the navigation and flight changes that will be
9 required by the existence of these turbines. And as
10 Mr. Lauderbach acknowledged, the Court -- and speaking
11 of the Zoning Board of Appeals, may properly consider
12 relevant public comment and evidence, including
13 anecdotal evidence.

14 So, first of all, with regard to the
15 practical difficulty issue, we do continue to contend
16 that practical difficulty has to be based on a problem
17 that is inherent in the property and not to the
18 personal condition of its occupant. It also be -- must
19 be something that results from a unique or peculiar
20 characteristic to the property. So there has to be
21 something unique about the property, something inherent
22 in the property that creates a practical difficulty
23 from the Zoning of [sic] Board's perspective.

24 In this case, there is nothing unique or
25 peculiar about these properties that create the

1 practical difficulty that Pegasus is claiming. Pegasus
2 doesn't even really try to argue that there is. At
3 most, they say the properties are well suited for wind
4 energy. But that's not what creates the practical
5 difficulty that Pegasus relies on. All of the evidence
6 that Pegasus relies on for the practical difficulty
7 argument are problems that inher- -- are inherent to
8 the production of wind energy in general or to Pegasus
9 in particular in terms of the legal obligations that it
10 has under contract that it's chosen to enter into.

11 And I'd also like to note that the fact that
12 these properties are near the airport and that they're
13 within the airport zoning area does not render them
14 unique or make -- or create a practical difficulty
15 based on something inherent to the property. If that
16 were the case, then every parcel subject to the same
17 zoning rules would be considered unique, and that is
18 simply not the case.

19 And I want to speak again about the Janssen
20 case. I know Mr. Lauderbach did not mention it in his
21 argument here, but it is discussed in the briefing.
22 That is the case that they rely on to say that, well,
23 you don't always have to have a unique characteristic
24 of the property. And -- and Janssen does say that to
25 some degree, but to the extent that it is actually

1 going to mean it never has to have unique
2 characteristics or there doesn't always have to be,
3 that would be inconsistent with the Supreme Court's
4 decision in Johnson versus Robinson Township which does
5 say that even in a non-use variance situation which has
6 the same practical difficulty requirement that the
7 unique characteristic is a required part of that
8 analysis.

9 But, more importantly, in the Janssen case,
10 ultimately regardless of what the court said, they did
11 find that in that case there was a unique cir- --
12 circumstance that related to the land and not the
13 landowner, and that unique circumstance was the fact
14 that the area was changing from agricultural to
15 residential. So although the property was still zoned
16 as agricultural, there was no longer an economically
17 viable use based on agriculture, and that was proven by
18 the landowner based on the cost of his property taxes
19 and compared to the amount of land that he could obtain
20 by using the property for agricultural use.

21 So this case is not at all analogous to
22 Janssen because there is nothing in the land -- or
23 nothing unique about the land that creates a practical
24 difficulty for Pegasus in this case.

25 But even more so, Pegasus simply hasn't

1 proven the practical difficulty based on evidence.
2 What Pegasus has done has made bald assertions without
3 documentary support in support of its argument. It
4 hasn't provided any documentary evidence, not the first
5 time and not this time, in support of its assertion
6 that shorter wind turbines are unavailable or
7 impractical. It's that the -- GE only makes certain
8 types of turbines but never explained why it has to buy
9 its turbines from GE or provide evidence of what
10 turbines are actually available on the market.

11 Pegasus has also made nothing but conclusory
12 statements about why it is impractical to site the
13 turbines in other locations.

14 And Pegasus never provided the ZBA with any
15 evidence of how these turbines fit into the overall
16 scheme of the Project. Now, Mr. Lauderbach said in his
17 argument, oh, well, that was on exhibit whatever it was
18 to the Power Purchase Agreement. Those Power Purchase
19 Agreements are lengthy. It was handed to the AZBA in
20 the course of one of the proceedings, and Pegasus never
21 pointed out that particular attachment or anything to
22 show how much energy production it anticipated from
23 these eight turbines. And that was even after Tim
24 Kinney had specifically asked at the prior meeting for
25 Pegasus to explain what would happen without these

1 eight turbines.

2 It's much like in a summary disposition
3 motion, Your Honor, you can't attach a transcript to a
4 deposition and then not cite the testimony and then
5 later say, oh, Judge, the testimony is in there, you
6 should have found it and located it. That's not the
7 job of the AZBA to, you know, pour through everything
8 to find what Pegasus thinks is important. We asked
9 them to provide that information. They provided a
10 lengthy document without pointing to anything. And so
11 I don't -- I don't think it's fair to now say, well, it
12 was buried in there, you should have located it.

13 So really they never showed how much energy
14 production would be changed by these smaller turbines,
15 whether they could meet their standards without these
16 eight turbines based specifically on how much
17 production they expected from these eight turbines, and
18 really most importantly they never talked about, never
19 provided any evidence of what Pegasus considers to be a
20 reasonable rate on -- of return on investment. They
21 simply said, well, we can't get a reasonable rate of
22 return without these eight. We don't know what that
23 is. They've never said it. Again, they can say
24 anything, but without evidence, there's really no
25 evidence in support of those bald assertions.

1 And as I pointed out in the Janssen case,
2 unlike in this situation, they actually came forward to
3 the ZBA in that case and said here's how much I can get
4 if I use this property for agricultural use, here's how
5 much my taxes are and actually demonstrated why they
6 couldn't get a reasonable rate of return. That has not
7 been done in this case by Pegasus.

8 Similarly, with regard to some of the other
9 arguments that they've made, they've never provided
10 evidence of the costs they've actually incurred. They
11 just said we've incurred costs or we have an obligation
12 to expend a certain amount of money under one of our
13 Agreements, but they haven't provided that evidence
14 either.

15 We also continue to argue, Your Honor, that
16 the practical difficulty standard -- difficulty
17 standard cannot be met if the problem is self-created.
18 And Pegasus acknowledges that. We just have a
19 different view of what it means to be a self-created
20 problem.

21 And the City of Detroit case was limited
22 simply to the issue of whether or not it was a
23 self-created problem for the landowner in that case to
24 have purchased the property knowing that he needed a
25 variance. And we understand that that in and of itself

1 is not a self-created problem, and the AZBA did not
2 make that determine in this -- determination in this
3 case. In this case, granted, the AZBA found that the
4 problem was self-created because Pegasus entered into
5 Agreements -- other Agreements, not the lease
6 agreement -- that created legal obligations and now
7 he's using those Agreements as the basis to claim
8 practical difficulty.

9 We also point out that under the Power
10 Purchase Agreement that Pegasus did provide we now know
11 that they could have terminated those Agreements if
12 they didn't have zoning approvals by July 31st. But
13 Pegasus chose to forge on even though they hadn't even
14 applied for variances back in July of 2018, and they're
15 now using the legal obligations under those Agreements
16 to establish the practical difficulty in this case.

17 They've also now asserted for the first time
18 that their use of the property is limited by the lease
19 agreement they entered into in that they could only use
20 the property for wind energy and not agricultural use
21 because that's what they agreed to in the lease. Well,
22 you can't agree to only use property for one purpose
23 and then use that to assert that this self-imposed
24 lease restriction creates a practical difficulty.
25 That's simply not gonna be the basis for a practical

1 difficulty. That is clearly a self-created problem no
2 different than if a landowner changes land in such a
3 way or divides land in such a way that makes it
4 unusable. They entered into an agreement limiting
5 their use. That's self-created.

6 So let me jump to the public interest
7 argument. This really goes back to the issues of
8 changing the navigation and safety.

9 So I think it's very clear now -- even though
10 it really was not acknowledged during the 33, even
11 Pegasus seems to acknowledge now that the turbines will
12 change the way pilots fly in and out of the airport and
13 change when they fly. They've acknowledged that there
14 are changes with regard to VFR and IFR.

15 And what's also clear from even Pegasus's
16 expert's testimony, that the determination of no hazard
17 doesn't mean that there's no adverse effects on air
18 navigation. It simply means that the FAA determined
19 that there's no substantial impact. The FAA uses the
20 term "hazard" as a term of art to differentiate between
21 what the FAA considers to be an acceptable risk and
22 what the FAA considers to be an unacceptable risk. And
23 Mr. Doyle even explained that under the FAA's
24 determination of what a hazard is, it's only a hazard
25 if the change impacts one or more than one aircraft per

1 day. In other words, the FAA wouldn't find there to be
2 a hazard unless more than 365 flights per year were
3 impacted.

4 Now, the AZBA is clearly not required to
5 utilize the same criteria to differentiate between what
6 it thinks are acceptable risks and what it thinks are
7 unacceptable risks, (inaudible) indicates in his public
8 interest analysis.

9 And while it's not binding on the Court, I
10 did cite to the Court an Iowa Supreme Court case that
11 really clarifies what the FAA's role is vis-a-vis a
12 zoning board, and that case is clear that the FAA
13 doesn't make those determinations. The zoning board
14 may make determinations that are different than the FAA
15 in terms of what they think are acceptable risks near
16 the airport.

17 So the first issue is the change with regard
18 to IFR or instrument flight rule. So there's no
19 question that these turbines are going to increase the
20 minimum descent altitude, the MDA, for a particular
21 instrument procedure that it used at this airport, and
22 that minimum descent altitude will have to be raised by
23 300 feet. And that is something that the FAA would
24 even require. It's part of the determination no
25 hazard.

1 So really what that means is that an IFR
2 pilot using this particular instrument procedure would
3 have to be 300 feet higher in the air at the time they
4 begin their descent and would have to be able to
5 visualize the runway at that point before they can
6 land. If they're unable to visualize the runway from
7 that point now 300 feet higher, then they won't be able
8 to land. So this reduces the time period when an IFR
9 pilot using that particular instrument procedure will
10 be able to fly because they will not be able to land if
11 there are reduced visibility conditions different from
12 maybe what they couldn't do now when they would have a
13 300-foot lower minimum descent altitude.

14 Now, the FAA and Pegasus both dismiss this
15 significantly adverse effect because this is not a
16 preferred instrument approach by the FAA and because
17 it's not used often enough at this airport for the FAA
18 to deem it substantial, but some pilots have no choice
19 but to use this particular instrument approach because
20 they don't have the equipment required for the more
21 preferred instrument approach. And, again, the AZBA's
22 not bound by the FAA's determination of what is a
23 substantial impact and what creates an acceptable risk
24 versus an unacceptable risk.

25 The other issue is with regard to visual

1 flight rules. And we know that 85 percent of the
2 flights in and out of the airport are under VFR, and
3 this was discussed in detail -- in much more detail in
4 these proceedings than in the prior proceedings
5 primarily based on evidence submitted by Josh Heinlein,
6 who is a commercial pilot and also a pilot who uses the
7 airport for a private plane that he rents and uses with
8 his family on a regular basis.

9 So this really goes to this question of the
10 6.6-mile radius around the airport that creates a
11 Class G uncontrolled airspace up to 700 feet. And I
12 would note that although Mr. Lauderbach says there are
13 200 turbines in the airport zoning area, first of all,
14 not all of them violate the height requirements, not
15 all of them violate the minimum descent altitude
16 requirement, they don't all need a variance. So those
17 are irrelevant, number one. If they were taller or if
18 they were in a different location, they would be more
19 relevant, and they're not.

20 So we're really dealing with the 33 at issue
21 here which is still on appeal currently before the
22 Supreme Court and then the -- the 8 in this case, 6 of
23 which are located within this 6.6-mile radius, 2 of
24 which are outside that radius at about 8 miles. But a
25 couple of them are at 3 miles. So I guess I would

1 disagree with Mr. Lauderbach's contention that these --
2 these are all further out because they are not.

3 So we also know that VFR pilots then have a
4 one-mile visibility and being-clear-of-clouds
5 requirement when they're in this 6.6-mile radius up to
6 700 feet in Class G uncontrolled airspace. They also
7 have to stay 500 feet away from any structure. Because
8 of the 500-feet away from any structure, even Pegasus's
9 expert agrees that the pilots would have to fly at a
10 thousand feet now in order to be compliant with these
11 FAA regulations. That pushes the pilots then into
12 Class E controlled airspace where there is a greater
13 visibility requirement. Now they have to be at 3 miles
14 of visibility and be 500 feet below the clouds. So
15 this significantly decreases the time during which a
16 VFR pilot can fly if the turbines are in the flight
17 path. If the pilot wants to fly in those three-mile --
18 less than three-mile visibility conditions, they will
19 have to circum- -- circumnavigate the turbines.

20 And the point about -- the point that
21 Mr. Heinlein made about the choke point is that pilots
22 because of the cost of fuel for their aircraft are
23 going to take the closest route they possibly can, and
24 that means they're gonna tightly cut outside the
25 turbines and that means all of the pilots are gonna be

1 taking that same route as they circumnavigate the
2 turbines, creating a choke point both in and out of the
3 airport during those weather conditions that would not
4 allow them to fly above a thousand feet.

5 Mr. Heinlein again is an experienced
6 commercial pilot who regularly flies out of the airport
7 and understands how this is gonna impact this
8 particular airport and the pilots who fly there.

9 So, again, this is dismissed by Pegasus and I
10 guess by the FAA because of the number of flights in
11 and out of the airport, but, again, the AZBA is free to
12 make a different assessment of what it considers
13 significant. And -- and the fact that it impacts
14 pilots at all is sufficient for the AZBA to find that
15 it's not in the public interest.

16 Now, an entirely new issue that was addressed
17 at these proceedings was the impact of turbines on
18 primary surveillance radar. So there are various types
19 of radar. Primary surveillance radar is one type that
20 uses a transmitter to send out a pulse and then listens
21 for a return of that pulse off the object such as off
22 an airplane.

23 There's no question that wind turbines create
24 clutter and a severe target. That is again not even in
25 dispute. And, therefore, it decreases the probability

1 of detection.

2 Importantly, many of the FR [sic] planes can
3 only be detected through primary surveillance radar
4 because they don't have the equipment necessary for
5 other types of radar detection. And, again, that's not
6 in dispute.

7 So while the VFR pilots themselves don't rely
8 on Air Traffic Control, the IFR pilots do rely on Air
9 Traffic Control and its use of primary radar to locate
10 where the VFR pilots are and to then have the IFR
11 pilots avoid the VFR pilots.

12 So it is our contention again that there is
13 sufficient evidence in the record to support the AZBA's
14 finding that the turbines' impact on primary
15 surveillance radar does create a risk to pilots because
16 it will be difficult to locate where the VFR pilots
17 are, those who do not have other types of radar due to
18 the clutter created by the turbines. And, again, the
19 AZBA is not required to accept the same level of risk
20 that the FAA finds to be acceptable.

21 So let me talk about in-flight emergencies.
22 This evidence was largely the same in both proceedings.
23 Again, a number of pilots who actually use the airport
24 provided testimony regarding their belief about what
25 will occur in an in-flight emergency situation.

1 The FAA does not even consider emergency
2 situations simply because they are by nature
3 unpredictable and, therefore, they can't plan for them,
4 but without question a couple of different pilots
5 provided personal stories explaining that had the
6 turbines been present at this airport when they had
7 particular emergency situations in the past, they would
8 have had a different outcome and a negative outcome in
9 their emergency situation. And that again is something
10 that the AZBA is free to consider even though the FAA
11 does not.

12 I just want to mention a bit about this issue
13 of other tall structures near airports. Number one,
14 this is a general aviation airport, it's a smaller
15 airport, so it has different types of flights coming in
16 and out than you would see at MBS or at the Detroit
17 Metro Airport, different types of pilots, different
18 types of procedures being used, different types of
19 equipment on an airplane. And there are really --
20 they -- Pegasus provided information indicating that
21 there are tall structures near other airports even in
22 Michigan but nothing close to the 41 tall structures
23 that are requiring variances in this airport zoning
24 area. And those were really maybe two or three by
25 Bad Axe. And I don't recall off the top of my head

1 what the others were, but they were insignificant in
2 comparison to what's being requested here.

3 A couple of issues that came up in the
4 evidence before the AZBA. There are problems with
5 visibility of the turbines. Evidence was presented in
6 that regard depending on the weather conditions. There
7 was photographic evidence that was put into evidence
8 showing what the turbines look like in certain weather
9 conditions and -- and that they are obscured.

10 There was evidence of a fatal aviation
11 accident involving -- multiple fatal aviation accidents
12 involving turbines and the worst of which involved a
13 visibility issue because the lights were not working
14 and a notice to airmen was not issued in that case.
15 And that's what the FAA requires in this case, that --
16 that there be lighting and that a notice to airmen be
17 issued when the light is not working for more than 30
18 minutes. But obviously that doesn't happen in every
19 case, and that was one of the reasons for the
20 fatalities in that particular instance that we cited in
21 our brief.

22 There was also evidence regarding creation of
23 turbulence by wind farms and that that adversely
24 impacts general aviation aircraft, and a most recent
25 study basically found that further studies of these

1 impacts was required. So there's still some
2 uncertainty about how those -- how that turbulence will
3 impact general aviation air [sic].

4 Evidence was presented this time regarding
5 federal grant moneys tied to the Airport Authority
6 providing assurances that it will prevent the
7 establishment or creation of future airport hazards,
8 and these assurances remain in effect for the life of
9 the Project that is funded or up to 30 [sic] years.

10 Now, Pegasus stated its belief at the
11 hearings that the risk would really only be for five
12 years but offered no evidence as to why it believed
13 there was only a five-year risk and offered to
14 indemnify the Authority up to the amount of grants they
15 would receive over that five-year period. Certainly
16 the AZBA was free to find that that was not sufficient
17 given that the assurances provide that the risk will be
18 in place for 20 -- or up to 20 years.

19 With regard to the needs of the community
20 analysis, we did point out that the electricity will
21 not be used in Tuscola County. Importantly, the
22 customers are not supplying the electricity to Tuscola
23 County.

24 So we certainly understand that electricity
25 is produced in a variety of communities and then it's

1 sold and used in other communities. In this case, it's
2 being produced in Tuscola County to be sold to the
3 Lansing Board of Water & Light and the Michigan
4 Power -- Public Power Agency. And we cited in a
5 footnote who's a member of that, and it's none of the
6 communities that are located in Tuscola County.

7 So the only point there, Your Honor, is that
8 there's no evidence that this community needs this Wind
9 Project in order for electricity to be produced here.

10 We also submit, Your Honor, that the evidence
11 does support the AZBA's finding that Pegasus failed to
12 show that granting the variances would do substantial
13 justice.

14 One of the cases that Pegasus relied on is
15 the Laurence Wolf case. They contend that basically
16 it's enough that it costs them more to, you know, move
17 the -- either move the turbines or that they would lose
18 money, that that's enough on its own to establish
19 substantial justice. That's a much more nuanced
20 (inaudible) than that, and substantial justice is not
21 evaluated only from the standpoint of the landowner.
22 It is also evaluated from the needs of the community.

23 And that was what happened in Laurence Wolf.
24 In that case, the increased cost was only one factor
25 that the court balanced with the needs of the

1 community. In that particular case, the court found
2 that the structure for which the landowner was actually
3 seeking a variance would be less intrusive and reduce
4 the need for other cell towers, and that's part of the
5 reason that they found substantial justice in that
6 case, not simply because it would cost more for the
7 landowner to have to put up a cell tower somewhere
8 else. So I think the Laurence Wolf case does not
9 really support Pegasus's position.

10 We also would submit, Your Honor, that it was
11 very appropriate for the AZBA to consider
12 substantial -- the substantial justice question both
13 from the standpoint of Pegasus and from the standpoint
14 of the community based on that and that it was
15 appropriate to consider the evidence that was in the
16 public interest factor and the practical difficulty
17 factor because that's really all -- it all kind of
18 wraps together. To some -- to some degree, criteria
19 overlap.

20 In this particular instance, the AZBA found
21 that the expenditures that Pegasus has already made and
22 the legal obligations created -- were self-created
23 problems and, therefore, substantial justice would not
24 require the issuance of the variances here and,
25 further, that there was no evidence to specifically

1 support this idea that they wouldn't be able to obtain
2 a reasonable rate of return.

3 The substantial justice factor also takes
4 into account whether or not there are any economically
5 viable uses of the land, and in this case, there's no
6 question it's common knowledge that these properties
7 are agricultural in nature. So certainly there's still
8 economically viable use of the land. And that they
9 indicated the mere fact that Pegasus had agreed with
10 the landowners to only use it for a particular purpose
11 doesn't change the fact that the property itself has
12 economically viable uses.

13 So finally we come to the spirit of the
14 Ordinance. The spirit of the Ordinance is to promote
15 the health, safety and welfare of the residents of the
16 county by preventing airport hazards, by restricting
17 the height of structures and otherwise regulating the
18 use of the property near the airport. Allowance of
19 variances is clearly not the primary purpose of the
20 Ordinance, and the spirit of the Ordinance is certainly
21 to consider the proposed construction in light of the
22 welfare of those who use and benefit from the airport.

23 This is an airport zoning Ordinance. It
24 relates to the airport. The spirit of the Ordinance is
25 not to consider the welfare of a large, out-of-state

1 entity.

2 And as we pointed out, they are going to be
3 without question changing the navigation and use of the
4 airport required, both the VFR and IFR, if these
5 variances are issued. There are going to be ongoing
6 safety concerns particularly as it relates to in-flight
7 emergencies that cannot be mitigated because of the
8 very nature of those. And -- and, yes, as
9 Mr. Lauderbach indicated, it is left to the pilot, but
10 that doesn't change the fact that it creates additional
11 risk to the pilot.

12 As we noted, there are also problems
13 regarding the impact on primary surveillance radar, so
14 it is our position that the AZBA correctly determined
15 that the spirit of the Ordinance is not served by the
16 granting of the total of now 41 variances from the
17 Ordinance's requirement, which basically means that the
18 exception becomes the rule.

19 So for all these reasons, Your Honor, we
20 believe that the AZBA's findings in this case should be
21 conclusive because -- considered conclusive because
22 they are, in fact, supported by the record under the
23 differential substantial evidence standard of review,
24 and for that reason, we ask that the AZBA's Resolution
25 denying the variances be affirmed.

1 THE COURT: All right. Thank you.

2 Mr. Homier, you may proceed, sir.

3 MR. HOMIER: Thank you, Your Honor.

4 Your Honor, I want to take a little different
5 direction because I think Mr. Lauderbach and Miss --
6 and Miss Nisidis has gone over the record and it seems
7 to me that both of their interpretations of the
8 evidence seem entirely reasonable, but it's not their
9 job, it's not my job, it's not the Court's job to
10 determine whether or not a different alternative, a
11 reasonable alternative -- alternative could be made
12 from the same evidence. And that's exactly what
13 Pegasus now is asking you to do. They're asking you to
14 look at this case as if the Court is sitting in an
15 original jurisdiction claim and render an opinion,
16 comparing and weighing evidence that the parties had or
17 heard and then make a decision, one that the Court
18 might agree with but which might have been contrary to
19 what the AZBA found, and that's not the standard of
20 review here.

21 I think we've gone over the standard of
22 review, and the standard of review requires more than a
23 scintilla and less than a preponderance of the
24 evidence. So just for my own satisfaction, I looked up
25 synonyms for scintilla, which would be iota, shred or

1 smidge. So the Court's going to have to reach a
2 conclusion that there was not an iota of evidence, a
3 shred of evidence or a smidge of evidence. And given
4 the characterization of the evidence by both parties in
5 this case, I don't know how the Court ever reaches --
6 reaches that conclusion.

7 It is the job of the AZBA to hear and weigh
8 the evidence that it receives. Mr. Lauderbach doesn't
9 want to count any public hearing testimony. Apparently
10 that doesn't matter. Well, then what's the point of a
11 public hearing? Might as well just submit an
12 application, waive the public hearing and get on with
13 approving it. That's I suppose what Pegasus's position
14 would be on that.

15 The standard of review is very specific here,
16 and that is if there is substantial evidence on the
17 record, that is, if there's more than an iota, more
18 than a shred, more than a smidge, then those facts are
19 conclusive. The ZBA heard and considered that.

20 Now, for instance, Mr. Lauderbach wants to
21 take the record and say things like, well, "...you..."
22 won't "...see this in the transcript, but... ." Well,
23 that's a dangerous statement because if it's not in the
24 record, it's not in the record. I don't get to
25 construe what the record says and Mr. Lauderbach

1 doesn't get to do it and Miss Nisidis doesn't get to do
2 it. The record speaks for itself.

3 Moreover, that record, the facts and evidence
4 were determined by the AZBA. They weighed all of that
5 information including testimony from actual pilots who
6 use the airport. I think that's relevant, I think
7 that's competent, and the AZBA determined that it was
8 substantial in those instances.

9 Now, Pegasus might want to discount it, but
10 that's not their role either. Their role is to submit
11 substantial, competent evidence on the record in order
12 for the AZBA then to conclude one way or another.

13 But the AZBA considered all of that evidence
14 that it received. It weighed the testimony of the
15 public because it's required to do so. These weren't
16 just lay people giving some lay opinion. These are
17 actual pilots who actually use the airport. And when
18 anybody says to you, well, you can't see this in the
19 record but, believe me, it happened, you should be wary
20 of that.

21 This Court cannot and should not substitute
22 its own opinion for the AZBA even if the Court may have
23 reached a different opinion on the same evidence if
24 it's reasonable the AZBA reached one decision and me or
25 Miss Nisidis or Mr. Lauderbach would have reached a

1 different decision. We all have our various views of
2 the evidence presented, but it's not any of our jobs to
3 weigh that and make a determination. That lies
4 exclusively with the AZBA.

5 I want to touch on another issue that
6 Mr. Lauderbach touched on, and that was the
7 self-created hardship issue, only because he sort of
8 got the self-created hardship issue turned on its head
9 where he refers to the Power Purchase Agreement and
10 says, well, the Power Purchase Agreement says we've got
11 to produce this much electricity and, therefore, it's
12 not a self-created hardship. That's exactly what a
13 self-created hardship is. They entered into a contract
14 without having the necessary permits to do so, to bind
15 themselves to a third party over which the AZBA
16 obviously had no input, and then they use that in front
17 of the AB -- AZBA to say now you have to grant us a
18 variance because we're contractually obligated to do
19 these things.

20 That's precisely what a self-created hardship
21 is intended to do away with. You can't very well use
22 the -- the Power Purchase Agreement as a sword to say
23 we deserve a variance now. Under that scenario,
24 everybody would be entitled to a variance. You just go
25 out, contract with a third party, produce a contract

1 and say, see, we got to do these things. That's not
2 what the law says.

3 And I just want to touch on a couple of
4 things with respect to practical difficulty. The AZBA
5 determined that Pegasus did not establish that
6 practical difficulty because it wasn't unique or
7 peculiar to the property. And I think Pegasus spends a
8 lot of time trying to show that the case law is such
9 where it doesn't have to be unique or peculiar to the
10 property, but the case law that they've cited amounts
11 to, generally speaking, statements from the courts
12 saying, well, the courts haven't always followed that.

13 Well, that's not the state of the law now as
14 Miss Nisidis has told you because those cases were
15 followed up. In fact, I would submit that those -- the
16 cases submitted by Pegasus represents mere dicta in
17 terms of reaching an opinion on those cases and not
18 establish holdings of law at all.

19 And so I think it does have to be unique to
20 the property. And even if it's not unique to the
21 individualized parcels, unique more to the community at
22 large. And Pegasus has failed to show that it is.

23 With respect to this argument about the
24 impossibility, I think Mr. Lauderbach said it's
25 "impossible" to reconfigure, it's "impossible" to do

1 these things, there's no evidence of impossibility.
2 None whatsoever. I mean is it difficult? I don't
3 know. They didn't present that. Is it impossible?
4 They didn't present that either. So when we talk about
5 substituting different turbines, would it be more
6 costly? Maybe. We don't know because they never
7 presented any of the evidence.

8 They knew that those questions were going to
9 come up because they've come up before, and yet they
10 continue to say that we get to build what we want where
11 we want because we're bound by this third-party
12 contract. And that's simply not the standard of
13 review, that's not the state of the law in terms of
14 variances, and they've failed to -- to convince the
15 AZBA based on material, substantial evidence on the
16 whole record that they should be granted these
17 variances.

18 And they want to now discount all of the
19 evidence that the AZBA received because it was not
20 their expert, as if producing an expert despite the
21 fact that you have testimony from other sources like
22 experienced pilots should always win the day. Well,
23 that might for some people, but these are people who
24 actually use the airport. And so you would have to
25 then -- the Court would have to conclude that the AZBA

1 is precluded under the statute, under the law from
2 giving any weight or credibility to that evidence.

3 If there is weight and credibility to that
4 evidence as the AZBA determined, I would submit that it
5 is more than a scintilla, more than an iota, more than
6 a smidge and more than a shred of evidence. And we've
7 all looked at the record. We've all interpreted
8 different things differently. I think all reasonable
9 approaches. But it's not our determination that
10 matters. It was really the AZBA because that's their
11 role. That's the job that they are to do. And they
12 are experienced. They have particular expertise. And
13 the case law is such where the Court should defer to
14 their expertise and opinion on the matters over which
15 they govern. That -- that is the law.

16 So, Judge, I -- given all of the arguments
17 here, I'm not gonna add to the record, I'm not going to
18 misconstrue it or try and interpret it for you. I
19 think it speaks for itself. I think the evidence
20 amounts to more than that scintilla. I think the AZBA
21 did its job. They weighed that evidence as they did in
22 the prior case and they reached a conclusion, and we
23 would ask you to affirm the denial.

24 Thank you.

25 THE COURT: All right. Thank you.

1 Mr. Lauderbach, your response?

2 MR. LAUDERBACH: Thank you, Your Honor.

3 Your Honor, we're not saying it's automatic
4 because of what the Court ruled on November 27th. We
5 did, however, read your Opinion and the conclusions
6 that you reached in that Opinion, and we're asking how
7 did they move the needle? Why should the Court reach a
8 different conclusion? The Court made very specific
9 findings in that Opinion that are equally applicable
10 here, and none of the evidence that's been relied on by
11 the -- by the AZBA has moved the needle at all.

12 First of all, on practical difficulty, the
13 Janssen case was cited the last time. By the way,
14 that's a use variance case. That doesn't even apply in
15 this case. We explained in the last record how the
16 property, the Project, is an interconnected series of
17 easements, leases and contract rights, including the
18 Power Purchase Agreements, and -- and we described at
19 length the process that a developer goes through to get
20 all of these approvals in place and, therefore, how
21 difficult it is to change them once we've gotten to
22 this stage. And, yes, the contracts are really long.
23 They're more than a smidge. And when you read them,
24 they describe exactly what the Project is.

25 The word "impossible" was not my word. It

1 was the Court's word. It's on Page 5 of the Opinion
2 where the Court said, "Pegasus established ... that it
3 would be impossible for them to reconfigure the Wind
4 Project and move the turbines." Not my word. The
5 Court's word. The same result should obtain here.

6 With respect to the in-flight emergencies,
7 VFR, Class E versus Class G air -- airspace, these are
8 all arguments that were made the last time, and the
9 Court found they were unsubstantiated concerns and they
10 were not substantial -- substantial evidence. Yes,
11 you -- you have a public hearing. Yes, you look at it
12 all. But the things that people say, the public
13 comment, have to be substantiated.

14 The he's the expert, that is part of the
15 record. What isn't is the fact that he turned his
16 body. Okay, so I -- I -- I apologize for
17 editorializing on the fact he turned his body. But
18 what's at Page 74 of the January 13th transcript is
19 that Mr. Kinney asked Mr. Koerner about radar
20 degradation and Mr. Koerner says, "I would defer to the
21 expert on that one," I'm not sure on that. That shows
22 that Koerner's testimony about radar degradation is not
23 competent, material or substantial.

24 The other expert that we haven't heard
25 anything about today is -- is P. Stuckey McIntosh whose

1 affidavit got waved around at the hearing, this
2 affidavit that he wrote in a different case about a
3 different project involving different turbines. Why
4 didn't they ask him to come to the hearing and have him
5 talk about this Project and these turbines? Just like
6 you've said in your November opinion, they didn't hire
7 an expert. They could have, but they didn't.

8 The grant assurances. If these were so
9 all-fired important to the airport, why haven't we
10 heard about them before? Why didn't we hear about
11 \$2.6 million of grant assurances in the 33-turbine
12 appeal? Mr. Greene never said anything about it.
13 Mr. Tussey never said anything about it. The Airport
14 Authority never said anything about it. The AZBA never
15 said anything about it.

16 When we called their bluff on these grant
17 assurances, they backed right down because their
18 position was ridiculous. They knew it was ridiculous.
19 And if that's not the best evidence of the lengths that
20 they'll go to and the games that they will play to kill
21 this Project, I don't know what is.

22 Thank you, Your Honor.

23 THE COURT: All right. Thank you.

24 The Court will take the matter under
25 advisement, issue a written opinion. Anything else

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that you wish for the record?

MR. LAUDERBACH: No. Thank you.

MS. NISIDIS: No, Your Honor.

MR. HOMIER: No, Your Honor.

THE COURT: All right. Thank you.

(Proceedings concluded at 10:05 a.m.)

1 STATE OF MICHIGAN)
2) SS
3 COUNTY OF TUSCOLA)
4
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6
7

8 I certify that this transcript is a complete, true
9 and correct transcript of the proceedings and testimony
10 taken in this case via Zoom before the Honorable Amy Grace
11 Gierhart, Circuit Judge, in Caro, Michigan.
12
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14
15

16 
17

18 Linda L. Fini, CSR-3278
19 Official Court Reporter
20 440 N. State Street
21 Caro, MI 48723
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Resolution
2020-01TUSCOLA AREA AIRPORT
ZONING BOARD OF APPEALSRESOLUTION DENYING PEGASUS WIND, LLC'S
VARIANCE APPLICATIONS FOR EIGHT (8) WIND TURBINES

At a meeting of the Tuscola Area Airport Zoning Board of Appeals ("ZBA"), held on the 17th day of January, 2020, at 3:00 p.m. at the Saginaw Valley Research & Extension Center, 3775 S. Reese Road, Frankenmuth, Michigan

PRESENT: Kinney, Campbell, Hoose, Cline-Smith

ABSENT: Kosik

The following preamble and resolution was offered by Campbell and seconded by Cline-Smith.

WHEREAS, the Airport Zoning Act, MCL 259.454(1), provides: "The board of appeals shall allow a variance if a literal application or enforcement of the regulations would result in practical difficulty or unnecessary hardship and the relief granted would not be contrary to the public interest, but would do substantial justice and be in accordance with the spirit of the regulations."

WHEREAS, Section 5.2G(2) of the Tuscola Area Airport Zoning Ordinance (the "Ordinance") provides that variances shall be allowed for the following reasons:

- (a) A literal application or enforcement of the regulations would result in practical difficulty or unnecessary hardship.
- (b) Relief granted would not be contrary to the public interest and approach protection.
- (c) Relief granted would do substantial justice.

(d) Relief granted would be in accordance with the spirit of the regulations of this Ordinance; and

WHEREAS, Section 1.2 of the Ordinance states that it was established “for the purpose of promoting the health, safety, and general welfare of the inhabitants of the County of Tuscola by preventing the establishment of airport hazards, restricting the height of structures and objects of natural growth and otherwise regulating the use of property in the vicinity of the Tuscola Area Airport; providing the allowance of variances from such regulations; designating the Airport Zoning Administrative Agency/Zoning Administrator charged with the administration and enforcement of such regulations; establishing an airport zoning board of appeals; providing for enforcement; and imposing penalties for violation of this Ordinance.”

WHEREAS, on or about October 22, 2019, Pegasus Wind, LLC (“Pegasus Wind”) submitted variance applications under the Ordinance for eight (8) proposed wind turbines that are part of the proposed Pegasus Wind Energy Center (the “Project”) in Tuscola County, Michigan; and

WHEREAS, the variance applications are for eight (8) proposed wind turbines identified as follows:

2019-WTE-4534-OE; structure ID 15
 2019-WTE-4535-OE; structure ID 16
 2019-WTE-4536-OE; structure ID 17
 2019-WTE-4537-OE; structure ID 18
 2019-WTE-4538-OE; structure ID 19
 2019-WTE-4539-OE; structure ID 23
 2019-WTE-80-OE; structure ID 62-Alt
 2019-WTE-81-OE; structure ID 63-Alt

WHEREAS three (3) of the proposed wind turbines are located in Zone E of the Tuscola Area Airport Permit Thresholds map and five (5) of the proposed wind turbines are located in Zone B.

WHEREAS the eight (8) proposed wind turbines all raise the descent minimums of an instrument approach procedure to the airport as determined by the FAA and therefore would violate Section 3.6G of the Ordinance; and

WHEREAS, one (1) of the proposed wind turbines located in Zone B would also exceed the Legal Height Limitations of Section 3.3 of the Ordinance; and

WHEREAS, Pegasus Wind has provided evidence of valid Special Land Use Permits for all eight (8) proposed wind turbines which are to be located in Fairgrove and Gilford Township; and

WHEREAS, on April 3, 2019 and August 11, 2019 the FAA issued Determinations of No Hazard to Pegasus Wind for all eight (8) proposed turbines; and

WHEREAS, Pegasus Wind has provided the ZBA with a letter from the Michigan Aeronautics Commission indicating that it concurs with the FAA's Determinations of No Hazard and opining that a Michigan Tall Structure Act permit could be issued to Pegasus Wind for the eight (8) turbines after Pegasus Wind receives local airport zoning variance permit approval; and

WHEREAS, the ZBA held a public meeting regarding Pegasus Wind's variance applications on January 13, 2020 and provided Pegasus Wind an opportunity to present and provided members of the public with an opportunity to comment on the variance applications; and

WHEREAS, the ZBA held a second public meeting regarding Pegasus Wind's variance applications on January 17, 2020 in order to provide the public and Pegasus Wind with additional opportunity to comment and present and to provide the ZBA with additional time to review and carefully consider the information provided to it; and

WHEREAS, the ZBA agreed that the entire record created in June and July 2019 regarding Pegasus Wind's variance applications for thirty-three (33) proposed wind turbines would be considered and become part of the record with respect to these eight (8) variance applications; and

WHEREAS, upon consideration of Pegasus Wind's eight (8) variance applications and supporting materials, the presentation made by Pegasus Wind, public comments at the public meetings, and all other information and materials provided to the ZBA, the ZBA finds that Pegasus Wind's variance applications for all eight (8) wind turbines shall be denied for the reasons stated at the January 13, 2020 and January 17, 2020 meetings and as discussed further below.

NOW, THEREFORE, IT IS RESOLVED AND THE ZBA FINDS AS FOLLOWS:

1. Pegasus Wind has not shown that a literal application or enforcement of the height requirements in Section 3.3 and the requirements of Section 3.6G would result in practical difficulty for Pegasus Wind with respect to the eight (8) proposed wind turbines.

In particular, Pegasus Wind has not provided sufficient evidence to establish that the wind project is not financially viable if shorter wind turbines are used or if fewer wind turbines are used and has not established the unavailability of shorter turbines with anything more than conclusory statements. Pegasus Wind has also failed to provide sufficient evidence that potential, alternate locations are not viable options for these eight (8) proposed turbines. Pegasus Wind has also failed to show that denial of the variances would deprive it of use of the property. The property at issue has other uses, particularly agricultural uses.

Any practical difficulty to Pegasus Wind from its claimed inability to meet its obligations under a Power Purchase Agreement without the variances and/or based on expenditures made by Pegasus Wind on wind turbine construction is self-created and not a proper basis to grant a variance.

Finally, the practical difficulty on which Pegasus Wind bases its application for variances is not inherent in the land and not the result of a unique characteristic of the land.

2. Granting Pegasus Wind variances for the eight (8) proposed wind turbines would be contrary to the public interest and approach protection.

Although approach protection was part of the consideration undertaken by the FAA's study of the turbines at issue, the FAA Determinations of No Hazard are not dispositive. The FAA looks only at substantial impacts taking into account the frequency of certain flights and approaches. Risks and flight limitations not deemed substantial or significant by the FAA will result from the proposed wind turbines, including:

- a. The wind turbines pose a danger to pilots during in-flight emergencies which are by nature unpredictable.
- b. VFR pilots will be unable to comply with 14 CFR 91.155 VFR visibility and cloud clearance criteria in the vicinity of the wind turbines when the flight visibility is less than 3 statute miles or the cloud ceiling is less than 1400 feet, while remaining in compliance with the minimum flight altitudes specified in 14 CFR 91.119. This would require VFR pilots flying in those conditions to circumnavigate the wind turbines and approach the airport from another direction,

resulting in a choke point, as well as causing a conflict with IFR pilots conducting a published RNAV instrument approach procedure to the airport for landing. This adversely affects VFR operations and is a safety issue.

c. The wind turbines require a 300-foot increase in minimum descent altitude for the VOR/DME-A approach and landing, requiring pilots using this approach to visualize the runway from a greater distance and creating additional risk. While the VOR/DME-A approach is not frequently used, not all IFR certified aircraft are equipped to conduct the more precise approaches preferred by the FAA.

d. Primary radar transmitted from an air traffic control facility is impacted by wind turbines. Since many VFR general aviation aircraft are not equipped with a transponder or ADS-B surveillance technology, air traffic control must rely on primary radar to locate these VFR aircraft. The wind turbines' interference with primary radar will impact air traffic control's ability to determine if these non-equipped VFR aircraft are airborne near the Tuscola Area Airport.

Additionally, the variances are not in the public interest because they jeopardize the Tuscola Area Airport's ability to meet current or future federal grant assurances. Grants issued pursuant to the National Plan of Integrated Airport Systems and the Airport Improvement Plan require grant recipients to provide certain assurances when accepting a grant, including that the airport will take the actions necessary to protect instrument and visual operations, to protect approaches and prevent the establishment of future airport hazards. The Tuscola

Area Airport has received federal grants requiring these assurances and plans to seek additional grants in the future.

There is also no evidence that the energy that will be generated by the Project is needed or would be utilized in the surrounding community.

3. For all the reasons stated previously, Pegasus Wind has not shown that granting it variances for the eight (8) proposed wind turbines would do substantial justice.
4. Pegasus Wind has not shown that granting it variances for the eight (8) proposed wind turbines would be in accordance with the spirit of the Ordinance.
 - a. The spirit and intent of this Ordinance is reflected in the stated purpose in Section 1.2, which is “to promote the health, safety, and welfare of the inhabitants of the County of Tuscola by preventing the establishment of airport hazards, restricting the height of structures and objects of natural growth and otherwise regulating the use of property in the vicinity of the Tuscola Area Airport; providing for the allowance of variances from such regulations...”
 - b. In light of the aviation limitations and risks posed by the wind turbines, denial of the eight (8) variance applications is most consistent with the spirit of the Ordinance.
5. Pegasus Wind’s applications for a height variance under Section 3.3 for one (1) of the proposed wind turbines and for variances under Section 3.6.G for all eight (8) proposed wind turbines do not meet the requirements for a variance under the Airport Zoning Act and the Ordinance; therefore, Pegasus Wind’s variance applications are denied.
6. All resolutions in conflict in whole or in part are revoked to the extent of such conflict.
7. This resolution may be appealed in conformity with the Airport Zoning Act.

A vote on the above Resolution was taken and was as follows:

ADOPTED:

YEAS: Cline Smith, Campbell, Kinney

NAYS: Hoose,

Jodi Settegger
Innocent County Club
acting on behalf of
William Campbell
AZBA Secretary.

1 TUSCOLA COUNTY
2 AIRPORT ZONING BOARD OF APPEALS MEETING
3
4
5
6 The Meeting of the Tuscola County
7 Airport Zoning Board of Appeals,
8 3775 S. Reese Road,
9 Frankenmuth, Michigan,
10 Commencing at 3:00 p.m.,
11 Friday, January 17, 2020,
12 Before Laura T. Ambro, CSR-5882.
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1 MS. FETTING: I'll need a copy of that when
2 you're done, if you have an extra copy. Thank you very
3 much. And if you can state your name before you start.

4 MR. HEINLEIN: I will.

5 MR. KINNEY: And before you start, can you
6 state your name and also I don't know if too many
7 people know who you are. Tell us a little bit about
8 yourself and your qualifications and all that.

9 MR. HEINLEIN: Okay. My name is Josh
10 Heinlein. I'm a resident of Juniata Township. I live
11 within a few miles of the airport there. But I've been
12 fortunate enough to make my career as an airline pilot
13 for the past 12 years. Piedmont Airlines at first, and
14 I've been with American Airlines for the past six
15 years. But I get to utilize the airport on a number of
16 occasions throughout the year to take the family up for
17 flights around the area. We rent an aircraft. I don't
18 own one personally.

19 But I want to talk to you a little bit today
20 about VFR flying and what these windmills actually does
21 to our air space. So, there's a lot of moving parts.
22 So, if I get out of -- I get ahead of myself, just stop
23 me and we'll figure it out.

24 But first of all, if you look at that first
25 sheet, the Caro airport there, that's a copy of the

1 Michigan sectional chart. It's a VFR flying chart. If
2 I had a color printer, you'd see that the circle around
3 that is magenta, a purple color. There is a meaning
4 for that, and I'll get to that in a second. But in the
5 center of that is the airport. And from there out 6.6
6 miles it makes a ring around the airport. And that's
7 considered the airport's air space. So, from the
8 ground level -- well, let me back up. Our airport is
9 defined by two different classes of air space. There
10 is actually six total, but we're only concerned about
11 the two that affect Caro. So, we have class G and
12 class E air space. Class G goes from ground level to
13 700 feet. And for 700 feet on up, class E air space.
14 But with those air spaces, there's different
15 restrictions, different needs that the pilots need to
16 meet to fly in.

17 So, I got a chart here. I wish everybody
18 could see it. But it kind of shows you how this 6.6
19 miles out. It goes up to class E air space. But for
20 class G air space, the air space that goes from the
21 ground to 700 feet, all we need to fly in that as a
22 pilot is one mile of visibility and to remain clear of
23 clouds. Remain clear of clouds is understood as I
24 could personally fly as close as I want to that cloud,
25 as long as I don't penetrate it. So, you can get as

1 close as comfortably as possible as you want. Once you
2 get into class E air space, we have a different set of
3 rules. Three miles of visibility. And now with
4 clouds, we either got to stay 500 feet below them, or
5 1,000 feet above and 2,000 feet. So, here's where
6 potential issues come in. When you have a turbine
7 within the 6.6 mile radius of its airport, which there
8 are. There are going to be a number of them. Those
9 turbines stand, from what I'm told, 499, 500 feet.
10 We'll say 500 feet roughly. Now, we got one more rule
11 before we get into that. A minimum safe altitude. It,
12 again, varies going over top of cities and congested
13 areas. But right here, the minimum safe altitude,
14 which is a federal air regulation, states over other
15 than congested areas, an altitude of 500 feet above
16 surface, except over open water or sparsely populated
17 areas, in those cases, the aircraft may not be
18 operating closer than 500 feet to any person, vehicle,
19 vessel, or structure. A turbine obviously is a
20 structure.

21 So, what that means is we can't get any
22 closer. Imagine a bubble around these turbines 500
23 feet. A 500-foot bubble surrounding the center of
24 these turbines. And we got to clear that by another
25 500 feet. So, here's where the problem comes in. You

1 take off. We're able to fly in class G air space 700
2 feet. All we need is one mile of visibility. You go
3 and take off. You get to these turbines. Now you've
4 got to clear that turbine by 500 feet. Well, if you
5 clear a 500-foot turbine by 500 feet, you got 1,000
6 feet minimum. Now you're in class E air space. So, if
7 you took off with one and a half, two miles, now you
8 need three miles to get up here in class E air space
9 legally, or we're illegal to do that. So, you don't
10 have the clearance to get over top of those -- to get
11 over top of those.

12 Now, the same thing happens with -- say it's
13 1,400 feet overcast. Well, we can get over top of
14 those clearance, or those turbines. Because you get
15 1,000 feet -- we're still 400 feet away from the
16 clouds. But in the class E air space, again, you got
17 to stay 500 feet below those clouds. So, now we're
18 busting a federal air regulation going into class E air
19 space again. So, what happens here, now you fly out
20 and take off out of the airport. Say you want to go to
21 Bay City. There's a lot of flights that go between
22 Caro and Bay City for some reason. So, if it's 1,400
23 feet overcast, you can't legally go that way. You're
24 going to have to go around. To go around, you're
25 probably going have to head out towards Vassar and loop

1 your way around up towards Bay City. But any time you
2 do that, when aviation gas is 5.50 a gallon, you're not
3 going to go too far out of your way.

4 So, if you're hugging these turbines,
5 everyone has got that same idea. You have a number of
6 aircrafts. And all you need is two or three having the
7 same idea, either leaving the air space or coming in.
8 Now you create like a choke point where you're going to
9 have close contact with these other aircraft.

10 But just, like I said, when gas is that kind
11 of money, you don't want to be going 20, 30 miles out
12 of your direction just to get around something that
13 doesn't exist up until now they're poaching our air
14 space. That's just what I want to bring to you guys.
15 We live in an area that's unfortunately -- it's
16 beautiful, but our weather is awful, as far as coming
17 off -- the stuff that comes off the Lake Huron there.
18 We live in an area where it's ever changing. So, we're
19 already limited on EFR flying dates. Now we're really
20 limited, unless you fly south. But if you want to fly
21 north or to the west, you're kind of at the will of
22 these turbines.

23 I know it's a lot of moving parts, and I'm
24 not a very good public speaker. So, it's hard for me
25 to put it all in place, but do you have any questions?

1 MR. KINNEY: We appreciate your input, but
2 let me see if I got it straight. If you're in reduced
3 visibility three miles, you can use the class G air
4 space up to 700 feet?

5 MR. HEINLEIN: Correct.

6 MR. KINNEY: But if you go above 700 feet,
7 that doesn't apply anywhere. You're in class E air
8 space?

9 MR. HEINLEIN: Correct.

10 MR. KINNEY: The three miles of visibility.
11 And then the cloud clearances, you have to stay away
12 from the cloud if you're below it 500 feet, above it
13 1,000 feet, and sideways 2,000 feet from the cloud?

14 MR. HEINLEIN: Yes.

15 MR. KINNEY: So, it changes there at 700
16 feet. But this thing about if you have a 1,400 foot
17 ceiling and unlimited visibility underneath?

18 MR. HEINLEIN: Same thing. It's still got --
19 it's not an and/or. You got to maintain the visibility
20 and the cloud clearance.

21 MR. KINNEY: But if you had 1,400 feet and 10
22 miles of visibility, can you get over the wind farm
23 legally?

24 MR. HEINLEIN: Not legally, no. Because you
25 would be in class E air space with less than 500 feet

1 below the clouds.

2 MR. KINNEY: So, you got to stay 500 feet
3 blow the clouds?

4 MR. HEINLEIN: Right.

5 MR. KINNEY: That puts you at 900 feet?

6 MR. HEINLEIN: Correct.

7 MR. KINNEY: But you can't get over the
8 turbines unless you have 1,000 feet. So, in general,
9 would you say that these turbines affect the VFR?

10 MR. HEINLEIN: Oh, absolutely. You're not
11 talking about one or two turbines. You're talking
12 about a number of turbines. And they're closely -- you
13 get the 500-foot bubble. But if you've got the
14 turbines that are a mile apart, that 500-foot bubble
15 quickly condenses. As a pilot, I don't want to go in
16 and out, weaving in and out of these things. That's
17 not a safe way to navigate.

18 MR. KINNEY: On Monday we heard that a crop
19 sprayer was trying to do that and it wasn't working out
20 very good for him either.

21 So, my understanding is there's two types of
22 rule. One is a VFR rule and the other is IFR. VFR,
23 you pretty well explained it to us. IFR, you can take
24 off out of the Tuscola area airport and not have to
25 worry about this?

1 MR. HEINLEIN: Well, it depends, I guess,
2 what you're -- I've never taken off IFR out of -- I've
3 never flown an aircraft that's equipped IFR, I should
4 say, out of there. But yeah, I mean, there is always
5 going to be an issue. Sure, you can do it, but it's
6 going to have to -- there might be a special procedure
7 that's made up by the FDA that says you have to climb
8 at this kind of climb gradient.

9 MR. KINNEY: What are the qualifications?
10 Does the airplane need to be qualified IFR?

11 MR. HEINLEIN: Yes.

12 MR. KINNEY: Does the pilot have to be
13 qualified IFR?

14 MR. HEINLEIN: Absolutely.

15 MR. KINNEY: Thank you. Is there anybody out
16 at the Caro airport qualified IFR?

17 MR. HEINLEIN: Oh, gosh. I would say I am
18 and there might be one or two other people. This
19 airport, for the most part -- I shouldn't say that.
20 Any corporate pilot that flies in there, any sort of
21 professional pilot is IFR equipped and has to be IFR
22 rated. But this airport is more general aviation. And
23 general aviation guys, for the most part, are just guys
24 that are weekend warriors that want to go out and fly
25 on days that they're able to fly. Getting the

1 instrument rating is the hardest rating to get. It's
2 difficult.

3 MR. KINNEY: Do you fly IFR with American?

4 MR. HEINLEIN: Oh, yeah.

5 MR. KINNEY: We talked about a step-down fix.
6 Can you add anything for us that we need to know about
7 a step-down fix?

8 MR. CAMPBELL: A step-down fix, we do them in
9 the airplane. I fly an air bus. And it's -- we got to
10 manually do them. But they're not fun approaches to do
11 because once you get down to that altitude, you can't
12 descend until you hit that point. So, we call it like
13 a dive and drive. You dive down. You get to that
14 point. I'm sorry. You level off until you get a
15 certain distance from the airport, whatever that
16 defined point is. And then it gives you another
17 altitude that you can descend to. And the air bus is
18 tricky because you're not allowed to descend until you
19 get to that point. You're almost always in an
20 automated situation. So, we have the auto pilot on.
21 But when you go to pull the altitude to get that thing
22 to descend, it takes five to six seconds for that thing
23 to spool its engines back and then start to descend.
24 So, by that point, you start over shooting your missed
25 approach point. Because once you get down, you either

1 see the runway or you don't. And you got to get out of
2 it. But it's -- a dive and drive is not something
3 that's -- it's not something we look forward to.

4 MR. KINNEY: Okay. We talked about it more
5 than once. And I'm a little bit skeptical.

6 MR. HEINLEIN: You don't see them. If you do
7 see them, they're on like an R nav approach or a VOR
8 approach. For the most part we do ILSs. But you get
9 to some of the farther west airports out there and they
10 have some of these step-down fixes. San Diego is a
11 good one. And I don't know if I've ever been stable
12 there yet.

13 MR. KINNEY: Any other questions for Josh?
14 Thank you very much.

15 MR. HEINLEIN: Do you want to keep this?

16 MR. KINNEY: I think we're good. There is a
17 few people that were trying to take a picture of it.
18 So, if you want to leave it --

19 MR. HEINLEIN: I can just leave it up here.

20 MS. FETTING: Josh, you can just bring that
21 up here. We'll need that as part of the record.

22 MR. KINNEY: Okay. Anybody else on this side
23 that has new information? Anybody else back here?
24 Mr. Greene, right? Mr. Joe Greene, right?

25 MR. GREENE: Yes. I've got a couple

1 comments. I'm Joe Greene, the Caro Airport manager.

2 Number one, the consultants that they're
3 using never contacted me or anybody on the board of the
4 airport about anything about the airport. The one
5 thing I handed out to you is turbines around the GA
6 airports in Michigan. Bad Axe, greater than five
7 miles. Alma, greater than five miles. Ludington,
8 greater than five miles. Cadillac. There has not been
9 any record of 41 variances applied for in the state of
10 Michigan for turbines anyplace.

11 Then I got a letter from Lynne Smith. He's
12 supervisor for MDOT aeronautical. He basically said
13 boards that had variances requests for wind turbines,
14 that I can think of, like Alma, Ionia, and Bad Axe.
15 And many boards have declined variance requests at one
16 point or another. Typically cell towers are denied.
17 They have a tough time proving hardship, you know.
18 Gratiot county, airport in Alma, had numerous variance
19 requests for wind turbines over the years. He's not
20 sure of the numbers. Limitations are set by the
21 Michigan Aeronautic Commission on airports that have
22 the highest limit of 500 feet without a variance.

23 And then we did a spreadsheet of basically
24 all of the airports in Michigan. And the only ones we
25 can find out is that the Tuscola area airport is being

1 encroached within five miles. They're somewhat outside
2 of the five miles. I already gave the spreadsheet to
3 Jodi. Any questions?

4 MR. KINNEY: So, how did we get forty-one?

5 MR. GREENE: The thirty-three that were
6 denied and these eight.

7 MR. KINNEY: But nobody else out there is
8 even close in the whole state of Michigan?

9 MR. GREENE: As far as we can find out, yes.

10 MR. KINNEY: Okay. So, if this happens,
11 we'll be used as a precedent.

12 MR. GREENE: Yes.

13 MR. KINNEY: I got another question. We
14 talked a little bit last time about the airport taking
15 money, federal grants. And as a result, there are
16 assurances that the airport has to provide for
17 different things. One of them being encroach
18 protection. So, how does the airport and the airport
19 authority go about insuring that the approaches are
20 protected?

21 MR. GREENE: Basically by the zoning that was
22 in place. And some of the approaches we have, for tree
23 height and stuff, we can go and we have easements on
24 property to cut the trees and stuff on their
25 approaches.

1 MR. KINNEY: So, you write this ordinance.

2 You establish this ordinance. Who approved that thing?

3 MR. GREENE: The county board of

4 commissioners.

5 MR. KINNEY: The county and the state of

6 Michigan?

7 MR. GREENE: Yes. They helped write

8 ordinances. Lynne Smith was on the panel that helped

9 write it.

10 MR. KINNEY: The federal government, FAA, did

11 they have anything to do with that?

12 MR. GREENE: It was before my time. I don't

13 know.

14 MR. KINNEY: And then after that ordinance is

15 established and approved, then I guess it's up to the

16 airport authority to enforce the thing?

17 MR. GREENE: Yes. Airport and the county.

18 MR. KINNEY: Okay. Any other questions

19 for --

20 MR. CAMPBELL: I have a couple questions for

21 Mr. Greene. Why was the original hanger removed at the

22 airport?

23 MR. GREENE: I'm not positive. I think it

24 was too close to the runway.

25 MR. CAMPBELL: That's my understanding. The

1 FAA required it to be removed because it was too close
2 to the airport -- I mean to the runway, not the
3 airport.

4 Why was Mr. McCarl's trees topped at the end
5 of the runway?

6 MR. GREENE: Because of the height
7 restriction. And we need to top them again right now.

8 MR. CAMPBELL: And why do RSD model airplanes
9 no longer fly at the airport on a Sunday afternoon?

10 MR. GREENE: Because of the hazards to
11 another aircraft, I think.

12 MR. CAMPBELL: Flying model airplanes at the
13 airport on a Sunday afternoon is a hazard to flight; is
14 that correct?

15 MR. GREENE: Yes.

16 MR. CAMPBELL: Thank you.

17 MR. KINNEY: Anything else for Mr. Greene?

18 MR. GREENE: Okay. Thank you.

19 MR. KINNEY: Thank you. Back over on this
20 side. Go ahead.

21 MR. CHILDS: Carl Childs, Fairgrove.

22 First off, I want to thank you all for
23 working on trying to protect the airport. But in the
24 long run, I think you guys can make it so that
25 everybody will come vote on this thing. As this pilot

1 MR. KINNEY: Next.

2 MR. HEINLEIN: Can I say one more thing.

3 Just to clarify some things, from what I'm hearing
4 here, I'm not talking about not able to clear over top
5 of these because of performance issues. We're talking
6 about a protected air space. It's a 6.6 mile ring.
7 The air space changes once you get outside of that. It
8 goes -- the class G goes to 1,200 feet. So, at that
9 point, to even get off the ground, you're going to have
10 to have the requirements for class G air space and
11 you're going to have to be able to clear those. That's
12 not what I'm talking about. I'm talking about inside
13 that ring you cannot clear those obstacles if you're
14 within a certain visibility or the cloud requirement.

15 And that other comment that Mr. Russell made
16 about that aircraft flying high, again, that's an
17 instrument rated flyer. He's not flying VFR. He's
18 under instrument flight rules. A completely different
19 set of rules. So, that doesn't buy in this argument.
20 I get the impression that we're talking about clearing
21 these things performance wise. That's not what I'm
22 talking about. It has to -- we're clearing them within
23 a certain visibility in cloud cover in order to meet
24 the federal air regulations in that air space.

25 Hang on. I just had one other thing that I

1 wrote down here. Oh, the other comment about them
2 being six miles away and we sit in a hole. Again,
3 we're not driving a car. We're flying airplanes.
4 We're going twice the speed of a car. And that's a
5 general aviation airplane. If you come in in a Lear or
6 something like that, you're coming in at 200 knots,
7 slowing down to approach speed. So, six miles is
8 covered within a minute. It's not I get six minutes to
9 figure out what I'm doing here. It comes quick. I
10 just wanted to clarify. I'm sure you guys knew that.
11 But, again, it sounded like people were confusing the
12 air space with performance getting over top of these
13 turbines. That's not what I was trying to portray.

14 MR. KINNEY: And as far as clearability and
15 no clouds and unrestricted visibility, then it's not
16 even an issue, is it?

17 MR. HEINLEIN: Correct, no.

18 MR. KINNEY: And you just climb up and go
19 where you want to go.

20 MR. HEINLEIN: And, again, that's I don't
21 want to say biased, but an air space is protected air
22 space. We're at 6.6 miles. It's not that much to make
23 a radius. Why would you want to compromise that by
24 putting in that many structures. That's like putting
25 concrete blocks on a highway to go in and out. I just

1 don't understand it, but I don't understand a whole lot
2 of things in this life. But, no, VFR you're fine.
3 We're talking about within a -- Nancy gave you that
4 data. Within a certain visibility we're unable to fly.
5 We're unable to get over those turbines and remain
6 legal.

7 MR. KINNEY: Okay. Thanks. Next. Go ahead.

8 MS. ATKERSON: Maureen Atkerson, Indianfield
9 Township.

10 I'm handing you two different reports,
11 synopsis. And Jodi has received both of these. The
12 first item I'm not going to take a long time in
13 covering. It's insight to evidence of wakes in the far
14 field behind offshore winds. It's the first insight
15 evidence. This was published on line on 2/1/18. Now,
16 know that we're not off shore. We're on land. But --
17 and this was published by the National center for
18 Biotechnology Information U.S. National Library of
19 Medicine in Bethesda. And it says while in most
20 weather situations the wakes of wind turbines are only
21 a local affect within the wind farm, the satellite
22 imagery reveals wind farming wakes to be several tens o
23 kilometers in length under certain conditions. And
24 this is the study that shows what these conditions and
25 how it affects them. So, like I said, I know it says

1 someone else said, I believe, I didn't have a chance to
2 count them. Within your ten-mile circle there's how
3 many wind turbines are already up. And I didn't know
4 if any of them ever applied for a variance before.

5 MR. KINNEY: Those are outside the authority,
6 airport zoning ordinance.

7 MR. HESS: Some of them are inside that inner
8 circle. And I guess I'd have to look at the map. And
9 I'll let a professional do that. But I guess --

10 MR. KINNEY: All right. I think your three
11 minutes are --

12 MR. HESS: Oh, I'm up. All right.

13 MR. KINNEY: We appreciate your comments
14 though.

15 MR. HESS: I appreciate it too. Thank you.

16 MR. KINNEY: Next.

17 MR. GREENE: I'm Joe Greene. Just one more
18 statement. The airport's attorney submitted a document
19 to Jodi that I would like you to consider. Scott had
20 submitted it.

21 MR. KINNEY: Okay. Thank you. We do have
22 that before us here. Thank you. Anybody else?
23 Straight back there. Did you already talk?

24 MR. RUCKLE: Well, we had another guy that
25 talked before.

1 enough time left. Thanks.

2 MR. PUMFORD: So, we'll get through a couple
3 of the concerns that we've heard here. Starting with
4 where we left off last time. You asked us what happens
5 if the variances are denied by the AZBA. If they are
6 denied, then Pegasus Wind's entire project will be
7 jeopardized.

8 As stated in our power purchase agreements
9 with our customers, the customers have the absolute and
10 unconditional right to terminate the agreement if
11 Pegasus Wind fails to commence commercial operations by
12 the end of June 2020. And we actually have the power
13 purchase agreements that we'll hand to Jodi. After I'm
14 done with this, there are a couple documents that we'll
15 hand in. So, if that happens, then Pegasus Wind's
16 project is not viable and they'll have no customer to
17 deliver the energy to. Without the Pegasus Wind energy
18 center, the project, there is a significant risk that
19 Pegasus Wind, the business, will cease to exist.

20 It was asked what is the closest turbine to
21 the airport. And for reference, I put the map back up.
22 So, again, the circled dots are the various turbines.
23 The closest of those eight various turbines is 3.66
24 miles away. And I think the turbine that is directly
25 west of the airport, the closest one there, that's the

1 closest one to the whole Pegasus project is 3.2 miles
2 away. But, again, the closest of the eight various
3 turbines is 3.6.

4 I also wanted to follow up to Don
5 Clinesmith's question about whether there had been any
6 aircraft incidents around the airport. Mr. Clinesmith
7 asked whether NextEra had any aircraft incidents around
8 the airports as a result of its projects. And we
9 don't. We think that Mr. Clinesmith may have been
10 referring to a plane accident that did not occur near
11 an airport, but did involve one of NextEra's wind
12 turbines in South Dakota.

13 MR. CLINESMITH: I wasn't referring to
14 anything. But yes, I do know about that, yes.

15 MR. PUMFORD: Okay. Well, I can respond a
16 little bit to that as well. That accident was
17 discussed during review of our 33 variances before.

18 MR. CLINESMITH: Right.

19 MR. PUMFORD: The entire record for that
20 would be presented as part of the proceeding. But in
21 addition to that, we're going to submit the National
22 Transportation Safety Board report of that accident and
23 it's got the details in it.

24 I also wanted to address the claim that
25 turbines are putting the airport at risk of being

1 liable to pay back federal grant money for violating
2 the national plan of integrated airport systems in the
3 airport's capital improvement plan by allowing airport
4 hazards.

5 So, the bottom line, the airport is not at
6 risk of losing its federal grant money or having to pay
7 it back because of these eight turbines at issue. The
8 airport's federal grant money comes from the FAA. The
9 FAA has determined that these eight turbines are not
10 airport hazards as all eight have received
11 determinations of no hazard. So, it stands to reason
12 that the FAA would not claim a violation of the
13 assurances because the airport allowed turbines that
14 were deemed not to be a hazard by the FAA itself. That
15 would make no sense.

16 By the same token, the DNHS indicate the
17 FAA's view that the turbines are compatible with normal
18 airport operations. There are plenty of other turbines
19 in the airport zoning area that have never given rise
20 to these concerns from the airport authority in the
21 past.

22 We've researched this issue and concluded
23 that the FAA has never required an airport to repay a
24 capital improvement grant because of a failure to
25 comply with the assurances referenced during public

1 comment at the January 13th meeting. Also, it's not
2 clear from the hand-outs or public information that
3 what the term is for these grants. But we believe the
4 airport authorities grant money is going to be at risk
5 of revocation. It would only be for five years from
6 the date of the grant. So, even though there is no
7 risk of the authority having its grant money revoked,
8 Pegasus Wind is willing to indemnify the airport
9 authority for up to, I think, 2.6 million was the
10 number that was given as the amount of grants the
11 airport has received so far. We're willing to
12 indemnify the airport authority for the next five
13 years. So, in the event that the FAA comes back and
14 asks for that money, as a result of Pegasus Win's
15 variance turbines, then we will make the airport
16 authority whole for whatever amount of money the FAA is
17 asking for. So, if that's something that you guys want
18 to pursue, then this indemnity obligation can be made a
19 condition of the certificates of variance.

20 There was a lot of talk last time, a question
21 does the FAA issuance of a notice of presumed hazard
22 indicate that a structure will be hazardous. The
23 answer is no. A notice of presumed hazard is just a
24 step in the overall process. It merely indicates the
25 project did not meet the FAA's criteria for automatic

1 approval and that further study is necessary in order
2 to make its final determination one way or the other.
3 This is clearly described in FAA order 7400.2M as in
4 Mike. And the FAA provided the following explanation
5 that's in response to condition for discretionary
6 review. This is a quote. "The issuance of the notice
7 of presumed hazard is the FAA's initial action that
8 advises the structure's proponent that the wind
9 turbines exceed the FAA's obstruction criteria in
10 14CFR77.17. This preliminary notice is not the FAA's
11 final agency determination and does not predict a
12 certain result in the aeronautical study process. When
13 a structure exceeds the obstruction standards as
14 outlined in 14CFR, part 77, it does not mean the
15 structure is a hazard during navigation. Rather, it's
16 an indication that the structure must be studied
17 further to determine any adverse affect on operation in
18 the natural air space and whether or not the adverse
19 affect is substantial. I just wanted to clarify that.

20 So, the FAA, after gathering all the facts,
21 made a final and binding determination that the Pegasus
22 Wind turbines pose no threat to air navigation.

23 One other thing I wanted to address before
24 turning over the microphone is a comment about the
25 Juniata. But I just wanted to clarify, the 2.2 million

1 that's going to Juniata Township, and the millions
2 going to the others, is representative of the turbines
3 that are going to be placed in that township. So, that
4 was for the 19 turbines in Juniata. Not the 33 or full
5 60 turbines. And yes, if you break down the 2.2
6 million, it does turn out to be about 70k a year. That
7 70k a year is a 35 percent increase to the general fund
8 of Juniata Township, which is not insignificant.

9 For some of the more technical questions, Ben
10 Doyle is going to come and respond to some of those as
11 well.

12 MR. DOYLE: Good afternoon. Again, Ben
13 Doyle. Thank you for the opportunity to get up and
14 speak today. I really appreciate it. We heard a lot
15 on Monday and we've heard a lot tonight. And I'm going
16 to do my best to try and address some of the comments
17 that have been made to the best of my ability.

18 So, it strikes me that a lot of the comments
19 that have come out today and last week address
20 restrictions of air space, visual flight, impacts to
21 the efficiency of operations, where can I fly, when can
22 I fly, do I have to circumnavigate a wind farm to do
23 that, does that create increased cost for me and fuel
24 burned. Those are all really, really relevant
25 questions, and I think that they need to be addressed.

1 I want to talk a little bit about change and impacts.
2 If you -- the map behind you, you've looked at it a few
3 times now. It has those green and purple rings around
4 the eight turbines in question. And the blue and the
5 red icons represent all of the turbines and tall
6 structures, non turbine tall structures that are
7 existing today. And as you can see, the turbines in
8 question are adjacent to or amongst those existing
9 turbines. So, when we start talking about assessing
10 tall structures, and when the FAA conducts its
11 aeronautical studies, the very first thing -- I talked
12 about this on Monday, but I want to reiterate. The
13 very first thing that the FAA is looking at is actual
14 real impact based on the safety standards that the FAA
15 has established. The rules and regulations, if I
16 brought them all here, I could fill that table with
17 binders of rules and math and everything else. So, if
18 there is an actual impact on the air space, and it
19 requires a pilot to have to fly a higher altitude, or
20 in a different direction, that's an actual impact
21 that's in effect. And I think, Mr. Kinney, you were
22 driving in that direction in some of the questions you
23 asked me on Monday. But the question then -- so,
24 that's the first thing that the FAA is looking at. The
25 second thing that the FAA is looking at is what that

1 impact or that effect is going to have on the air
2 space. And I gave that kind of silly example of
3 putting a turbine on the end of the runway and what
4 that would do to an airport. So, when I talked about
5 efficiency versus safety. There is no question it's
6 safety. I will contend that all day long. The
7 question is efficiency.

8 So, when we start looking at efficiency
9 impacts, we look at what will the pilot tomorrow, the
10 pilot of tomorrow, not be able to do that the pilot of
11 today can do. And when I look at these turbines, these
12 eight turbines in question, and I look at their
13 locations, and I think about VFR flight, I know a
14 couple of things. I know that the VFR drive patterns,
15 that critical time when the pilot is landing and taking
16 off, are unaffected for the existing and the future
17 state of the airport, including that 1129 new runway.

18 When I look at outside of those VFR drive
19 patterns, and I look at the en-route environment, and I
20 ask myself is that affected, I can't help but come up
21 with the answer no. And what I mean by a fact is how
22 is the pilot going to operate his aircraft, or her
23 aircraft, different in the future.

24 A lot of credence was given to concerns
25 regarding protections of aircraft operations when the

1 weather minimums are reduced. So, when that pilot is
2 flying in marginal VFR or VMC or IMC conditions, if
3 they're forced to be in, and I say forced, forced to be
4 in class G air space with that 700-foot ceiling, do you
5 have a compression of air space. And the answer is you
6 could. And the FAA takes that into consideration.

7 In this case though, I don't see it. Because
8 a pilot that is going to come in and land at this
9 airport, a pilot that may have taken off during better
10 weather conditions and got caught in a situation where
11 now he's forced to fly into the airport when the
12 weather is less than what you would hope it to be to
13 land, is not going to be able to get across the wind
14 farm to the northwest, the existing wind farm. That
15 pilot is going to have to circumnavigate. So, I don't
16 see a change occurring there.

17 We talked about what -- I heard somebody say
18 today what if a pilot takes off during these weather
19 conditions when they only have to have a mile of
20 visibility and clear clouds. We know statistically
21 that that's not happening. We know that pilots are
22 making the smart decision and saying this is not the
23 type of weather that I want to fly in. We know that
24 because we looked at the weather and we looked at the
25 flight tracks. And that's part of training pilots and

1 good decision making, compliance with part 81. So, we
2 know it's not happening. But beyond that, if a pilot
3 decides to take off and fly in that weather -- I'm not
4 saying it will never happen. A pilot can be forced to
5 take off. Maybe he's flying, you know, a med vac
6 flight. There are those safety procedures that protect
7 that pilot and decision making goes into that. So, I
8 don't see a change here. I don't see a change in the
9 operations. I'm sorry, I don't see an impact to the
10 operations or do I see a change to the operations.

11 We talked about choke points and VFR pilots
12 being forced around the wind farm and onto 624. Again,
13 in any weather condition that is VMC, it's not an
14 issue. We're really talking about IMC forcing flight
15 into class G when that ceiling is at 1,000 feet. I'm
16 sorry. When that visibility is down to a mile and that
17 pilot is trying to get in.

18 So, the question came up what do we do about
19 aircraft making an approach to that airport, circling
20 around from the northwest to the southwest, shooting an
21 approach, and maybe going up to the northeast and
22 coming in from the northeast. And how do we separate
23 those airplanes from pilots or from those visual pilots
24 that are operating in a strenuous environment from the
25 instrument pilot sitting back here shooting his

1 approach into Tuscola. Well, we have processes for
2 that. We know that those pilots that are operating
3 under instrument flight rules, and as testified to
4 today, are under positive control, air traffic control.
5 We know that those pilots, as they're coming in, are
6 going to announce their presence on common traffic
7 advisory frequency. That those VFR pilots within ten
8 nautical miles of the airport are obligated to do the
9 same thing, recommended to do the same thing.

10 So, there is a method for air traffic control
11 when you have an instrument operations mixing with
12 visual operations. So, I don't see an issue there. I
13 know that there's nothing particularly unique in this
14 situation at this airport. I've seen this happen at
15 airports all over the United States. We have a set of
16 processes and procedures, air traffic processes and
17 procedures and address these issues. Nothing unique
18 here.

19 There was a question raised earlier about how
20 many tall structures are within five nautical miles of
21 the airport. And I'll tell you that there are about
22 156 that I could find, tall structures that's in excess
23 of 450 feet within 6.6 nautical miles, so within the
24 class G air space, in the state of Michigan. So,
25 again, it's not unique. It's not uncommon.

1 I want to talk about hazards and non hazards.
2 Because that word hazards has been thrown out. People
3 have made statements that it is a hazard. Hazard is a
4 term of art. It has a definition of it. It is the
5 result of measured study by experts in the field based
6 upon regulatory guidelines and mathematics that have
7 been developed over generations. And I think that's an
8 important point. That we have a method for
9 differentiating acceptable from unacceptable in the
10 United States. That process, if you look at it
11 nationally, has created this national air space system
12 in which we operate and we operate safely. Does that
13 mean that accidents never happen. No, it doesn't.
14 They do. Accidents do occur. It is not a risk-free
15 environment to fly. Every time a pilot gets in a
16 cockpit, he is taking on a risk. We know that. So, we
17 assess that risk when we look at aviation safety and we
18 classify that risk. We studied it and we classified
19 it. The class of air space that you fly in defines how
20 you fly in that. So, if you're flying in class G,
21 you're not required to have a transponder. You're not
22 required to have a radio. You're not required to do
23 anything. You're not required to talk to air traffic
24 control. It's a different environment if you're
25 operating in a Class E air space where you have all of

1 those requirements. As such, the pilot knows that he
2 or she is receiving a different level of support from
3 the air traffic system. There is air traffic
4 controllers utilizing radars. And I'll talk about that
5 in just a second. So, hazard has a very specific
6 meaning, as does effect and adverse effect and the
7 like.

8 Now, I want to say something. I was thinking
9 about saving this for the last, but I want to say it
10 now, because I think it's important. I believe that
11 the role of this board is probably the most important
12 role in the United States when it comes to aviation
13 safety. Because, as you know, the FAA, when they make
14 their decisions, they make those decisions based on all
15 of this knowledge and rules and regulations. They say
16 this structure is going to be a hazard or this
17 structure is not going to be a hazard. But that
18 decision by the FAA is simply a decision. It has no
19 weight of law behind it. The policing of zoning in
20 this country is done by boards just like this one. And
21 I speak to boards like this one all the time. The FAA
22 appeals to zoning boards like this to be the
23 enforcement arm of the FAA. To police developers like
24 the ones that are sitting here to make sure that they
25 don't build turbines where they're going to be

1 hazardous. To make sure that the airport manager that
2 was up here earlier goes out and cuts those trees.
3 That is the role of the policing arm of the -- or that
4 is the policing role of boards like yours.

5 The FAA doesn't ask that you decide what is
6 hazardous and what is not hazardous. The FAA doesn't
7 expect that every zoning board, the tens of thousands
8 of zoning boards across the United States that have
9 pilots and non sitting on them, all be experts in the
10 area of tall structures and aviation safety. The
11 expectation that zoning boards would have that level of
12 expertise is ridiculous. That is the role that the FAA
13 takes. They have that expertise.

14 Now, do I believe the FAA did a good job in
15 this situation, I do. Because there is a number of
16 turbines that we identified as problematic, the FAA
17 identified as problematic. They're gone. They're not
18 being proposed any longer. We also know that some of
19 the turbines that were proposed were going to have some
20 impacts. We studied those. We understood what those
21 impacts were. The FAA studied those. And we concur
22 with their findings that while there was an effect,
23 that effect was not significant, which means it was not
24 substantial, which means it's not a hazard.

25 So, and I appreciate you giving me the time

1 to go through all of this, because there was a lot
2 covered and I'm trying to hit all the points.

3 UNIDENTIFIED SPEAKER: What is the point?

4 MS. FETTING: I am sorry. We are in
5 discussion and he's addressing the Board. We are no
6 longer in public comment. Thank you.

7 MR. DOYLE: So, one of the questions was
8 asked does interference with surveillance radar systems
9 result in operational impact to either the air traffic
10 controllers or pilots. And Chairman Kinney, you raised
11 this just a few minutes before break. My answer is no,
12 that it does not. I'll tell you why. So, pilots --
13 well, first of all, I'll tell you why the FAA studied
14 it. And the FAA said that it was not going to be an
15 impact. The petition that was filed against this
16 project to the FAA received a response. The FAA looked
17 it and they came back. And I'll read the quote from
18 what they wrote. You reference the initial notice of
19 presumed hazard and claim that the proposed wind
20 turbines would have an actual radar effect on Saginaw
21 airport surveillance radar. We do not agree. The FAA
22 continued. In this case, the FAA's technical operation
23 office conducted an analysis of the proposed turbines
24 and found that any impacts did not reach the threshold
25 of a substantial adverse effect. This analysis

1 included potential radar impacts and cumulative effects
2 of this impact.

3 So, let's shed a little light on what
4 happened inside the FAA. I heard some people say well,
5 if we have a -- if there's clutter on the radar scope,
6 then the controllers won't be able to control the
7 airplanes and there will be a loss of potentially
8 situational awareness for the pilot. And I'll tell you
9 that a lot went into the engineering of this. And I'm
10 not privy to all of it. But I will tell you that when
11 the FAA looked at this, they just didn't look at one
12 radar. They looked at multiple radars that were
13 providing overlapping coverage and feeding air traffic
14 controllers. So, air traffic controllers don't rely on
15 one radar. They rely on multiple radars. Sometimes
16 those other radars can't see the turbines and therefore
17 you don't get the clutter.

18 Pilots operating an IFR are already provided
19 positive control by ATC. And they're relying upon that
20 radar. And the FAA says that that radar is going to
21 function properly and was not going to be affected to
22 the point where they believe that they could not
23 provide, they being the air traffic controllers, could
24 not provide positive control to those aircrafts, or to
25 those pilots.

1 Pilots operating under visual conditions,
2 VFR, may be provided services on an as-needed basis or
3 as work will allow for the controller. They will
4 receive flight follow-up. But, Mr. Kinney, as you said
5 the other day, when we talked on Monday, we talked
6 about three aspects of surveillance coverage in the
7 United States. And I'm going to hit two of them. And
8 that's primary and secondary radar coverage. Keep in
9 mind that the primary tool for providing air traffic
10 services in the United States is secondary radar. The
11 use of a transponder in the aircraft and a beacon
12 interrogator on the ground. Primary radar, that
13 return, bouncing that energy off the skin of the
14 aircraft, even though it's called primary, is truly
15 secondary. It is a backup.

16 Now, when a VFR pilot is operating an air
17 space and receives flight following services, those are
18 secondary, not primary radar, but secondary radar.
19 Which means that that pilot is going to be operating
20 with a transponder. For pilots that are not operating
21 with a transponder, they're not going to get flight
22 following services.

23 So, this situational awareness is that a
24 pilot that's operating without a transponder, VFR,
25 flying into that airport, the situational awareness is

1 not based on radar. It's based on two things. It's
2 based on the pilot's requirement to see and avoid other
3 aircraft. To look out the cockpit and avoid running
4 into somebody. And the second thing that is C-tap
5 frequency. That counter traffic advisory frequency.
6 They're relying on radio, not radar, for the safe
7 separation from themselves from other VFR aircraft and
8 IFR aircraft.

9 So, as someone who has been doing this for
10 the last 20 years and looking at this critically,
11 knowing that all of those things were considered, when
12 the tech ops organization at FAA, the engineers that
13 sat down and determined yes there will be clutter --
14 and by the way, there has been a lot of reports that
15 have been submitted. There is no surprise, it's no
16 secret that wind turbines create a doppler shift on a
17 radar. That primary radar is going to see that the
18 turbines create clutter. We know that. We've been
19 talking about that for the last ten, twelve years. We
20 have conferences at the FAA, the Department of Defense
21 on that. Actively -- we have engineers who are
22 actively working to solve that problem. So, there is
23 no question that they're going to be seen. The
24 question is is there operational impact. The same
25 thing, back to the original logic that the FAA applies.

1 If we've got an impact, what does that impact do. What
2 is the nature of it. How severe is it. And the FAA,
3 in its own right, has said that that is not going to
4 impact our operations. So, ultimately in confidence
5 saying that I have no concerns at all about these eight
6 turbines. I think that may be all on the comments.

7 Thank you for your time this evening.

8 I guess it's not all. There was a question
9 that came up about why we didn't speak to the local
10 airport authority. And we were -- my company was
11 studying this for NextEra. Understand that when we sit
12 down and we study an airport, we study it in phases.
13 Just like the FAA does. The first phase of that
14 analysis, on the FAA side, that first phase leads to a
15 notice of presumed hazard. That preliminary notice for
16 the FAA says to the developer we've identified these
17 impacts. Raise the VORA minimum descent altitude,
18 changing departure decline ratings, whatever it might
19 be. When we conduct our initial analysis, we go
20 through the very same analysis that the FAA does. We
21 use the exact same math. We use very similar models,
22 modeling tools to do that. Ultimately, we help these
23 wind developers understand what those height
24 constraints, those initial set of impacts are going to
25 be so that they can start planning their wind farm.

1 Sometimes years in advance of flying with FAA.

2 Once we identify those, what we typically say
3 to a developer is we've identified these impacts in
4 these areas. These are impacts that the FAA is
5 probably never going to mitigate. They're just going
6 to say the impact is significant. You're going to get
7 a hazard. It's time to move those turbines out of
8 there.

9 However, in other cases, we'll look at it and
10 say we think that we might be able to mitigate that.
11 We don't know. And in order to figure that out, we've
12 got to study the actual traffic. We've got to look at
13 how those airplanes are operating through that air
14 space. That map that I showed you with all the
15 spaghetti, that's a result of one of those studies.

16 The FAA doesn't call the airport authority in
17 their analysis. They never called you guys. They
18 never called the airport as part that initial analysis.
19 As part of this second part of the FAA's analysis, once
20 that notice of presumed hazard has been issued, then
21 the FAA issues a circulization notice for public
22 comment. It's at that point that they're asking the
23 public -- in this case the public includes the airport
24 authority, the airport management, and potentially
25 zoning boards like this, to write in comments to say

1 hey FAA, here's what I know about this air space that
2 you might not know. Here's how we're using it that may
3 be somewhat unique.

4 Now, in reality, we look at these things all
5 over the United States and they're very rarely ever
6 really truly unique. I've seen some places that had
7 really odd operations. But in most cases, most general
8 aviation airports are similar. So, really what it
9 comes down to is how many airplanes are operating. So,
10 if you look at this airport, there is the recording of
11 X number of aircraft, based on the airport, X number of
12 aircraft flights per year. But the FAA doesn't have
13 any data that they can look at. So, they're asking you
14 guys hey, what's going to happen if we raise the
15 minimums on this VOR.

16 Now, the FAA then will go out and conduct its
17 own analysis. They'll look at, again, all that
18 spaghetti as part of it. So, that's about the point
19 where we stop in our analysis. We'll look at all the
20 spaghetti and say NextEra, here is what our take is on
21 this and it's time to file with FAA because FAA is
22 going to solicit information from the public.

23 So, I hope that answers the question. We
24 don't make it a part of our aeronautical study because
25 generally, by the time that information comes out, it's

1 going to come up as part of the circulization process.

2 MR. ETTINGER: Good evening. Dan Ettinger.

3 I have four quick points. I promise they'll be brief.

4 The first point, Mr. Kinney, you made a statement

5 earlier, and I just wanted to clarify. The statement

6 was, I guess, a concern that these variances, if

7 granted, are going to be precedent. And from both a

8 legal and practical standpoint, these will not be

9 precedent. The charge of this group, of this board, is

10 to consider these eight variance applications based on

11 what's been presented and apply the variance criteria

12 to them. And they apply to nothing else other than

13 Pegasus Wind as it relates to this board and this

14 airport.

15 The second, there was a comment made about

16 the airport authority and its duty in enforcing the

17 zoning ordinance. The airport authority's charge is to

18 manage the airport. It does not enforce the zoning

19 ordinance.

20 The third comment, there was a suggestion

21 that Pegasus Wind was somehow derelict in its duty by

22 not seeking I guess what we call an advisory opinion

23 several years ago, before it even applied for special

24 land use permits in the three townships that it plans

25 to operate to find out whether this board, or whoever

1 was on this board at the time, would or would not grant
2 variances. Not only is there no requirement to do
3 that, it doesn't make any sense. We don't seek
4 advisory opinions on variances before we even have our
5 special land use permits, before we have our FAA
6 approvals. All things which are required before we can
7 even go and seek a permit. And then if it's denied,
8 seek a variance. At that point, there is nothing to
9 seek a variance from. We haven't applied for a permit
10 from the zoning administrator. That permit has not
11 been granted or denied. So, from a practical
12 standpoint and from a legal standpoint, that just
13 doesn't make any sense.

14 And then finally, somebody referred to it
15 briefly last time, and I really think it's important.
16 So, I want to raise it again. And this time I actually
17 have the document in my hand. I think it's part of the
18 record, Jamie. But just in case, I'm going to submit
19 it again anyway. And it's a document from the Michigan
20 Department of Transportation dated October 22nd, 2019.
21 And it's from Lynne Smith with the Michigan Department
22 of Transportation. And we received a similar document
23 with respect to the 33 variance turbines. And there's
24 been a statement made that all Mr. Smith said was that
25 we could get tall structures permits -- variances. And

1 I want to make two points. The first point is the
2 reason it says that is because that is what is asked
3 for in your ordinance in this sort of situation. So,
4 he's parroting the language in the airport zoning
5 ordinance. And the reason he's saying that, rather
6 than just granting a tall structure permit for
7 structures right now, is that because under the airport
8 zoning act, he can't. MDOT cannot issue those tall
9 structure permits until variances are granted by this
10 body.

11 The second thing is he did go further than
12 just saying the tall structure permits could be issued
13 if we get our variances. And I just want to quote to
14 it so there is no misunderstanding. It says, the
15 Office of Aeronautics Air Space has reviewed Pegasus
16 Wind LLC's Caro wind turbine project. After
17 consideration of the existing and future runway
18 configuration, as shown on Tuscola area airport layout
19 plan, the review term concurs with the FAA's
20 determination of no hazard. So, that is the conclusion
21 of Michigan Department of Transportation. And so, I'm
22 going to submit that, Jodi, to you, along with the
23 other documents that Ryan referred to earlier. Thank
24 you.

25 MR. PUMFORD: So, that's all we had. So,

1 we're happy to take questions or go onto deliberations.

2 MR. KINNEY: Okay. We just have a couple
3 things that we want to address, and then we're going to
4 move on in closed session.

5 MR. CAMPBELL: Well, I have several
6 questions, but I'm going to limit them because of the
7 time constraints. But I have a copy here of the zoning
8 administrator's, Tuscola county airports zoning
9 administrator, the 2017 annual report, which was given
10 to the county commissioners on the first meeting in
11 December of 2017. And in this report, the zoning
12 administrator says this year there were no applications
13 for tower permits. It is expected that in the coming
14 year, several applications will be made for wind
15 turbine towers in the zone. These, however, are
16 expected to be made directly to the airport zoning
17 board of appeals for variance. And she goes on further
18 to state the companies are working on permits, et
19 cetera. The wind farms continued to be cooperative
20 with me and are complying with the airport zoning
21 ordinance. And my question is this was submitted for
22 2017. You did not submit the request for permits for
23 almost a year and a half later in April of 2019. Why
24 the delay?

25 MR. ETTINGER: As I indicated, we were

1 getting our special land use permits and our FAA
2 approvals. Because those are necessary for requisites
3 under your -- and the time line, you know, it was what
4 it was. They gave DNHs in April of 3rd of 2019. And
5 once we received those, we promptly applied for permits
6 with the zoning administrator.

7 MR. CAMPBELL: I have one other question.

8 MR. ETTINGER: Excuse me, Mr. Campbell. I
9 just wanted to clarify. We also had to get a
10 preliminary injunction first on Juniata Township's
11 attempted revocation of our Juniata special land use
12 permit. So, there was a few-week delay in there before
13 we could submit.

14 MR. CAMPBELL: My question is the permits
15 should have been the first thing you tried to
16 accomplish rather than the last thing. Why did you
17 reverse the order?

18 MR. ETTINGER: That's not how your ordinance
19 works, Mr. Campbell. Your ordinance requires us to
20 have a special land use permit and the FAA approval and
21 the language from MDOT that says that we could obtain a
22 tall structures act permit before we seek variances.

23 MR. CAMPBELL: One other thing. Pegasus
24 project manager, Eric Lopez, spoke at the board in the
25 April 30th, 2018 meeting and said that NextEra is

1 proposed wind turbines located in zone B would also
2 exceed the height limitations of section 3.3 of the
3 ordinance. And whereas Pegasus Wind has provided
4 evidence of valid special land use permits for all
5 eight proposed wind turbines which are to be located in
6 Fairgrove and Gilford Township. Whereas on April 3rd,
7 2019 and August 19th, 2019 -- excuse me -- 11th, 2019,
8 the FAA issued determinations of no hazard to Pegasus
9 Wind for all eight proposed turbines. And whereas
10 Pegasus Wind has provided the ZBA with a letter from
11 the Michigan Aeronautics Commission indicating that it
12 concurs with the FAA's determination of no hazard and
13 opining that a Michigan tall structure permit could be
14 issued to Pegasus Wind for the eight turbines after
15 Pegasus Wind receives local airport zoning variance
16 permit approval. And whereas the ZBA held a public
17 meeting regarding Pegasus Wind's various applications
18 on January 13, 2020 and provided Pegasus Wind an
19 opportunity to present and provide members of the
20 public with an opportunity to comment on the variance
21 applications. And whereas the ZBA held a second public
22 meeting regarding Pegasus Wind's variance applications
23 on January 17th, 2020 in order to provide the public
24 and Pegasus Wind with additional opportunity to comment
25 and present and to provide the ZBA with addition time

1 applications is most consistent with the spirit of the
2 ordinance.

3 Number 5, Pegasus Wind's applications for
4 height variance under section 3.1, for one of the
5 proposed wind turbines, and for variances under 3.6G
6 for all eight proposed wind turbines, do not meet the
7 requirements of a variance under the airport zoning act
8 and the ordinance. Therefore, Pegasus Wind's variance
9 applications are denied.

10 Number 6, all resolutions in conflict, in
11 whole or in part, are revoked to the extent of such
12 conflict.

13 Number 7, this resolution may be appealed in
14 conformity with the Airport Zoning Act.

15 MR. KINNEY: Okay. We have a resolution
16 2020-01 denying Pegasus Wind, LLC variance applications
17 for eight wind turbines. Do we have support?

18 MR. CLINESMITH: Support.

19 MR. KINNEY: And we have support. And we
20 need a roll call vote. First, can we open it up for
21 discussion. Do we have any discussion at this point?

22 We're ready for the roll call vote.

23 MS. FETTING: Hoose?

24 MR. HOOSE: No.

25 MS. FETTING: Clinesmith?

1 MR. CLINESMITH: Yes.

2 MS. FETTING: Campbell?

3 MR. CAMPBELL: Yes.

4 MS. FETTING: Kinney?

5 MR. KINNEY: Yes.

6 MS. FETTING: That motion will carry with

7 three yes's.

8 MR. KINNEY: Okay. The motion carried. Is

9 there any other business we need to discuss tonight?

10 MS. FETTING: I have none, Chairman.

11 MR. KINNEY: We'll entertain a motion to

12 adjourn the meeting.

13 MR. CLINESMITH: So moved.

14 MR. HOOSE: I'll second.

15 MR. KINNEY: We have a motion to adjourn and

16 a second. All in favor say aye.

17 MR. CLINESMITH: Aye.

18 MR. KINNEY: Aye.

19 MR. CAMPBELL: Aye.

20 MR. HOOSE: Aye.

21 MR. KINNEY: Opposed?

22 Motion carries.

23 (The meeting was adjourned at 6:30 p.m.)

24

25

1 TUSCOLA COUNTY
2 AIRPORT ZONING BOARD OF APPEALS
3
4
5
6 TUSCOLA COUNTY
7 MEETING OF THE AIRPORT ZONING BOARD OF APPEALS,
8 Taken at 3775 South Reese Road,
9 Frankenmuth, Michigan,
10 Commencing at 4:03 p.m.,
11 Monday, January 13, 2020,
12 Before Melynda C. Jardine, CER 7536.

1 MR. KOSIK: Abstain. Okay. So the approval
2 of the minutes has been adopted. At this time, I'll be
3 recusing myself because of a potential conflict of
4 interest. Vice-Chairman will take over at this point.

5 MR. KINNEY: Okay. Thank you, Keith. Before
6 we go any further, there's been an issue brought up,
7 the question whether all of the Board has a conflict of
8 interest, and is qualified to serve on this Board in a
9 voluntary capacity. And so what I'd like to do at this
10 point is poll the Board members, and ask them if they
11 have a conflict of interest, make sure that everybody's
12 qualified to serve on the Board. So without further
13 adieu, Mr. Hoose, do you have a conflict of interest?

14 MR. HOOSE: No conflict.

15 MR. KINNEY: Mr. Campbell?

16 MR. CAMPBELL: No conflict.

17 MR. KINNEY: Mr. Clinesmith?

18 MR. CLINESMITH: No conflict.

19 MR. KINNEY: And for the record, I have no
20 conflict as well. Next thing on the agenda is new
21 business. We have 8 new variances that need to be
22 considered. And without further adieu, we'll ask the
23 Pegasus team to present the 8 new variances
24 applications.

25 RYAN PUMFORD: My name is Ryan Pumford. As

1 you know, we were here last June to seek variances for
2 33 turbines. The intent today is not to rehash
3 everything that we covered over the last presentation,
4 but just to highlight some of the more important
5 things. So just to reintroduce myself, I was born and
6 raised in Saginaw, Michigan, just down the road. I did
7 my private pilot's training at James Clements Airport
8 and went to Michigan State, so I'm feeling pretty at
9 home where we are here. After that, joined the Air
10 Force, was an F-16 instructor/pilot in the Air Force
11 for 11 years. Got out a few years ago, and working for
12 NextEra continued GA flying. My wife and I own an
13 airplane, and fly pretty regularly. And so it's with
14 that perspective that I'm in front of you talking about
15 this topic. So I apologize. The screen is behind you,
16 gentleman. Like I said, a lot of the slides are merely
17 review from our last presentation. I just want to hit
18 the highlights. So the bottom line up front is the FAA
19 determined the project is safe for air navigation.
20 Pegasus Wind protects the future use and expansion of
21 the airport. We removed 19 of our originally planned
22 turbines in order to protect for the ability of the
23 airport to implement the future runway that's currently
24 on file, and not only to protect for that runway, the
25 VFR traffic patterns associated with that, but also to

1 protect for -- we went as far as to design RNAV
2 approaches -- that's a satellite-based GPS approach for
3 pilots to fly into that proposed runway -- and ended up
4 removing 19 turbines to ensure that that -- those
5 approaches to the proposed runway would be able to be
6 as efficient as possible. So some concerns raised
7 about reduced economic viability of the airport are not
8 supportable. Thirdly, the zoning ordinance seeks to
9 strike a balance by allowing for variances that don't
10 create airport hazards, and as Pegasus Wind meets all
11 the variance criteria and does not represent airport
12 hazards, the variances must be granted. So purpose why
13 we're here today, to decide that 8 Pegasus Wind
14 turbines meet the criteria. So as a refresher, the
15 Tuscola Airport zoning ordinance is derived from the
16 Michigan Airport Zoning Act, and the ordinance says
17 specifically variances shall be allowed for any of the
18 following reasons, a practical difficulty or hardship,
19 that the variance would not be contrary to public
20 interest, would do substantial justice, and meets the
21 spirit of the ordinance. And we're just going to
22 highlight today how the 8 Pegasus variance turbines
23 meet all these criteria. So a refresher on the project
24 itself, it's a proposed 151 megawatt 60-turbine wind
25 project that is in Fairgrove, Juniata, and Gilford

1 Township. On top of generating enough power, provide
2 power for 70,000 homes, the project's going to generate
3 over 36 million in property tax revenue, and that's
4 going to go to the County, your schools, and the
5 Township. And this, in addition to the other operating
6 projects that NextEra has in Tuscola County, the
7 Tuscola Bay and the Tuscola II Wind Energy Center. So
8 I want to stop and just take a minute to touch on the
9 development process. It takes many years to develop a
10 project, and in order to get to where we are right now,
11 we start with the wind resource, and this is something
12 we presented last time. As you know, because you live
13 here, it can get pretty windy. And as the State of
14 Michigan affirms, this area out to the thumb is the
15 highest wind speed area in the State of Michigan, and
16 most conducive to an economic wind project. So we
17 start with where the wind is good. The next thing we
18 need is land so we go and start signing land owners.
19 Pegasus has over 400 land owners. It's important to
20 sign the land first so that we can start to weave
21 together a fabric of what a project might look like.
22 Once we have this fabric kind of woven together and
23 connected, then we can start placing turbines in
24 accordance with the local zoning ordinance restrictions
25 to see if we have a project that can be viable in this

1 area. In addition to that, the project needs to be
2 proximate to uncongested transmission. And lastly,
3 once all of those things are put together, the
4 viability materializes, then we get a customer. And
5 the customer is really the most important factor to
6 whether a project goes forward, goes forward through
7 the permitting process -- that's the special land use
8 permitting process -- and going through the variances
9 requests here. By the time we're ready to get the
10 municipalities engaged, ask people to hold meetings for
11 the project, we need a customer to provide some
12 certainty that if we get our approvals on the other
13 end, there's somebody that's willing to buy power at
14 the economic price we're offering. So it's our Power
15 Purchase Agreement with the customer that dictates all
16 of the deadlines and when they expect to get power.
17 This is important because the customer -- the customers
18 have certain obligations to deliver clean, renewable
19 energy to their customers, to their rate payers. In
20 order to meet those obligations, they're relying on
21 this project to be commercial. And it's those
22 deadlines that required us to begin construction
23 earlier on the parts of the project for which we had
24 approval. But I think the bottom line to take away is
25 this area and the turbines that we have presented here

1 is a -- is the unique intersection where the wind is
2 strong, we have a good fabric of willing land owners,
3 transmission is uncongested and free, and we have a
4 customer that wants the power and wants it this year.
5 So today specifically, we're requesting approval of 8
6 variances. So what you see on the right -- I'll
7 explain the map a little bit -- all of the dots
8 represent wind turbines. The blue circles represent
9 the 19 turbines that are already up and running.
10 That's 48 megawatts that are spinning today. Maybe not
11 today. The wind wasn't all that strong. But we're
12 here to seek approval for 8 turbines, and those are the
13 ones circled in green -- and I'll see if -- this laser
14 doesn't really work -- but there's a purple one in the
15 eastern side. So the -- all of the turbines, all of
16 these 8 turbines require a variance, because they would
17 raise the view or alpha circling approach, minimum
18 descent altitude by about 300 feet. By raising the
19 descent altitude, it actually protects the safety and
20 utility of the approach. So as you recall from the
21 last presentation, this approach is typically used for
22 training in visual meteorological conditions. Over the
23 past year, it's been flown only 8 times in relatively
24 good weather. In addition to that, the airport has
25 more efficient satellite-based area navigation or RNAV

1 approaches each runway that are more conveniently
2 aligned along the center line. You asked before -- we
3 had the 33 variance requests, and you said hey, are
4 there going to be any more, and the answer is yes. We
5 are coming back to you for these final 8. And as I
6 said, we removed 19 of our originally planned
7 locations. Working with the townships, trying to find
8 enough locations to get back up to our 151 megawatts,
9 and we did so by using turbines that were tall and
10 higher megawatts. So what we have now is less total
11 turbines than what we had originally planned on, but
12 those turbines have a higher megawatt nameplate
13 capacity, which means we need less of them to get to
14 the 151 megawatts. So we scrounged and found 8 more
15 locations that were permittable with supportive land
16 owners that had good wind that we in that unique inner
17 connection that worked for this project in order to get
18 us up to our nameplate capacity. All right. So the
19 purple turbine that's on the eastern side, that one
20 requires a variance for the MDA increase, and also a
21 variance, height variance as it exceeds the 51 conical
22 surface as we discussed in our June presentation. So
23 the FAA confirmed that these turbines are not a hazard
24 to air navigation, and the airport will continue to
25 operate efficiently and safety. I think it's important

1 to point out there are dozens of existing wind turbines
2 built inside of the 10-mile airport zoning area. These
3 variance turbines are in the same quadrant, and I have
4 a map in a second to show this. So the bottom line is
5 these 8 variance turbines have no additional impact to
6 visual flight rules, VFR, or instrument flight rules,
7 IFR, airspace, and do not pose an airport hazard. So
8 this is a very busy map. I'll explain it the best I
9 can. So in the center of it is the Tuscola Area
10 Airport. The red ring is the 10-mile airport zoning
11 area. The yellow donut in the middle represents the
12 conical 50:1 surface or zone B from the zoning
13 ordinance. In terms of all of the dots and tower on
14 there, the blue tower are all existing wind turbines.
15 The black dots, as in the previous graphics, are the
16 proposed Pegasus Wind project. And you'll see. Some
17 of those black dots have the blue towers on top of
18 them. Those represent the 19 Pegasus turbines that are
19 already built. What you'll also notice in there is
20 inside the airport zoning area, there are at least 15
21 other tall structures that exceed 200 feet. They
22 exceed the FAA's threshold, so they must be filed with
23 the FAA, all within the airport zoning area. So you
24 can also see the green and purple-ringed black dots up
25 in the northwest quadrant. Those are the 8 turbines

1 for which we're requesting variance. So as you can
2 see, based on the preponderance of turbines, there are
3 dozens of existing turbines within the 10-mile airport
4 zoning area. We're not changing the landscape and
5 we're not changing the flight environment in this area.
6 So the concerns with VFR operations, Ben Doyle from
7 Capitol Airspace is going to discuss this in a little
8 bit more detail, but he'll share with you why the
9 variances won't impact VFR or IFR operations. So as
10 you can see, the 8 turbines for which we're requesting
11 variances are in an area that already has dozens of
12 other turbines and tall -- and other tall structures,
13 and that is why these 8 turbines are not changing the
14 landscape for aviation. As we discussed last time,
15 it's a prerequisite for seeking a variation, which
16 is -- I'm sorry -- a variance, which is that all of the
17 turbines have received determinations of no hazard.
18 These determinations have been deemed final by the FAA,
19 and again, Ben will expand on that a little bit. The
20 bottom line here is the FAA issuing the determinations
21 of no hazard confirms that the Pegasus Wind turbines do
22 not create an airport hazard. So as I've covered, FAA
23 determined the project is safe. Michigan Aeronautics
24 Commission agrees. We changed our project layout to
25 accommodate the future use and expansion of the

1 airport, which is why we had to split it up between 33
2 and 8 turbines. The Airport Zoning Ordinance seeks to
3 strike the balance by allowing variances that don't
4 create airport hazards, and we meet all of the
5 criteria. So therefore, the variances should be
6 granted. To get into a little more of the technical
7 detail, I'm going to hand it over to Ben Doyle from
8 Capitol Airspace.

9 BEN DOYLE: Vice-Chairman Kinney, members of
10 the Board, I want to thank you for giving me the time
11 this afternoon to speak with you. Hopefully you can
12 hear me all right.

13 MR. KINNEY: You're good.

14 BEN DOYLE: All right. Perfect. So as Ryan
15 introduced, my name is Ben Doyle. I own a company
16 called Capital Airspace Group. We're based out of
17 Virginia. Joe Anderson, who was here back in June and
18 spoke to you guys, is one of my -- one of my project
19 managers, and he actually manages about half of my
20 company, my big old company of 16 people. My
21 background, I'm an air traffic controller. 25 years
22 ago, I started out as a young kid working traffic,
23 military traffic, F-16s and A-10s, and had a great time
24 doing that. It was like going to an air show every
25 day. Finished up as a tower chief in 5 short years. I

1 made it from developmental controller to tower chief in
2 Germany. 1999, I got out of the service. I came back
3 to the United States, went to work for a small company
4 doing air procedures work specific to obstacle
5 evaluation. At the time, I didn't realize it, but I
6 was getting into something that almost nobody in the
7 United States does. Today there are only three
8 companies in the United States that do what my company
9 does, and that is that we consult and we focus on air
10 traffic control procedures, specific to instrument and
11 visual flight as it applies to tall structures. So if
12 you ask me what my expertise is in, it's really in tall
13 things that can affect aviation safety and efficiency.
14 And so that's what I'm going to talk about today. I'm
15 going to talk about FAA process a little bit. I know
16 all four of you have heard this before, so I'm going to
17 try not to beat a dead horse and go over the same
18 issues twice. But I'm going to talk a little bit about
19 why the FAA does what it does, and how it goes about
20 doing it. I put some statistics up here. My little
21 company is the second largest filer with the FAA.
22 We've filed over 50,000 cases in the last 20 years that
23 I've been doing this, worked on over 1500 projects.
24 And by the way, not all of those are for wind
25 companies. Sometimes they're for cell phone companies,

1 and I've done bridge work here in Michigan. Also work
2 for airports. We do design work for instrument
3 approach procedures for airports, doing CIAT procedure
4 design. So over the last 25 years, I've built a very
5 healthy understanding of air traffic, and a
6 relationship with the FAA, and we work with those folks
7 on a day to day basis. In addition to that, I've been
8 working with Mr. Lynn Smith of the Michigan Department
9 of Transportation for -- I don't know -- 10 or 15
10 years. I can't remember when I met him the first time.
11 So I'm not going to bore you today hopefully. I'm
12 going to talk a little bit about the FAA aeronautical
13 study process. There's been a lot of -- I've been --
14 in the last week or so, I've been reading up through a
15 lot of documents in preparation for coming here today,
16 and I've read a lot of pilots' comments and testimony
17 that was submitted that talked about the FAA review
18 process, and talked about -- they use terms like
19 adverse effect and significant adverse effect and
20 hazard, and I'm going to talk a little bit about that
21 today. As you probably know, when the FAA -- or the
22 FAA is the Federal authority to ensure safety within
23 the national, the Federal national airspace system in
24 the United States. That is mandated by the United
25 States Congress that FAA ensure aviation safety, and

1 promote air commerce in the United States. And it does
2 that in many ways. It does that by certifying pilots,
3 and establishing regulatory guidelines. It does that
4 be inspecting airports, and regulating aircraft
5 manufacturers, establishing air traffic procedures, and
6 running the air traffic system with the various air
7 traffic facilities around the United States, and their
8 supporting equipment, NAV aids, and radars, and radios.
9 All of that combined, those procedures, those safety
10 standards, those Federal aviation regulations create
11 this very safe model for aviation around the world. So
12 when it comes to air traffic control specific to -- or
13 airspace rather specific to tall structures, the FAA
14 has what's called their OE/AAA process. This OE/AAA
15 process involves an -- or relies upon an aeronautical
16 study of tall structures. Companies like NextEra are
17 legally obligated to submit notice to the FAA
18 administrator of proposed structures that exceed
19 Federally mandated height -- heights established under
20 the code of Federal regulation Title 14 Part 77.
21 Basically what that means is if you're going to build
22 something tall, you've got to let the FAA know about it
23 so the FAA can study it, and determine whether it's
24 going to have -- it's going to be a hazard to air
25 navigation. You submit that notice for each one of

1 these turbines, the FAA conducts its study, and it
2 comes out with a decision. What I want to talk about
3 today is what happened behind those closed doors at
4 FAA, how the FAA conducts their studies, because it's
5 important that I think that you understand that, what
6 goes -- what's involved in it. And one of the key
7 points that I'm going to make here is that this is an
8 objective analysis. It's not subjective. There are a
9 set of metrics that the FAA follows to differentiate
10 acceptable from unacceptable impact. It follows a set
11 of rules, stringent rules to determine whether or not a
12 proposed structure is going to pose a hazard. And it
13 does that based on some very simple premises. Number
14 one, the FAA is obligated legally to ensure safety.
15 The FAA is not allowed to -- or the FAA is not legally
16 allowed to allow a hazard to exist in the national
17 airspace. It must protect the flying public. So
18 safety -- and we're going to talk -- I'm going to talk
19 a little bit more about that -- safety is a foregone
20 conclusion. If these turbines get built, they will be
21 safe. There's no question about that. The reason I
22 say that is because the demarcation between something
23 that is safe and is unsafe is established by the FAA.
24 The FAA is the only organization in the United States
25 that can decide what is safe and what is not safe.

1 That's done by a group of engineers and air traffic
2 controllers and pilots that work within the Flight
3 Standards Organization that develop the regulatory
4 guidelines that we use for establishing safety -- the
5 safety limits here in the United States. Those safety
6 standards are based on literally decades and
7 generations that goes back long before most of us here
8 or all of us here were born. Those regulations and
9 regulatory guidelines are based on safety case studies.
10 The role of NASA and the NTSB in investigating
11 accidents are -- the role of those two organizations
12 feeds information back to the FAA that the FAA then
13 uses to revise its own regulations when it gets it
14 wrong. So we know today statistically that this system
15 is very safe. So safety is a foregone conclusion. The
16 second thing that the FAA looks at is efficiency, and
17 that's key. The question is is whether these turbines
18 are going to affect the efficiency of operations, air
19 traffic operations in the area. I spend a lot of time
20 going around the country talking to boards, just like
21 this one. And I use this same silly example, but it's
22 rooted in -- the basis for this example is spot on.
23 And that is, if I wanted to propose to build a 500-foot
24 turbine one foot off the runway of Detroit
25 International, would that be safe? I'm sure everybody

1 here's saying heck, no, that wouldn't be safe, because
2 every aircraft would encounter that turbine. You'd fly
3 right into it; right? But the reality is that is
4 absolutely would be safe, because what the FAA would
5 have to do in a case of that turbine being constructed
6 one foot off the end of that runway of that
7 international airport is they would have to shut that
8 airport down. It would cease to exist as an airport.
9 And when they shut that airport down, it would become
10 safe. Now, so the question isn't safety. The question
11 is efficiency. Is it efficient? Well, in that silly
12 scenario that I just gave you, shutting down an
13 international airport would cause havoc throughout the
14 United States. It would destroy the air traffic system
15 in this region. So that's not an acceptable efficiency
16 impact. And that's the second piece of what FAA does,
17 is they determine whether or not the efficiency impact
18 is acceptable or not, and there are a set of metrics
19 that the FAA uses to do that, and they use those
20 metrics in this case. When the FAA looks at these
21 projects, it's not a single person looking at them.
22 There's somewhere between anywhere from 10 to 20
23 different engineers, air traffic controllers, military
24 folks that are all looking at these projects to
25 determine whether or not they're going to have the

1 safety impact or whether they're going to have an
2 efficiency impact. So what I want to leave you with is
3 this isn't just a quick rubber stamp decision. It
4 takes months and months and months of study for the FAA
5 to come to these conclusions. So I guess I -- I got
6 ahead of myself. This was my safety versus efficiency
7 slide here. When I hear and I read statements from
8 pilots that come out and say, you know, I'm concerned
9 about this or I'm worried that people won't want to fly
10 to Tuscola Area Airport because of these turbines, or
11 airplanes are not going to be able to fly over these
12 turbines, it's going to have a safety impact, I get
13 concerned, because those comments are subjective.
14 They're opinions. They're not based in any sort of
15 objective statistical analysis. They're not based on a
16 safety case. I think that -- you know, I work with
17 pilots all day long. I have pilots that work for me,
18 and I don't doubt that many or all of these pilots are
19 highly skilled veteran pilots. What I can tell you
20 though is that those folks don't do what I do every day
21 and have done for the last 20 years, which is work a
22 very specific niche of aviation, and that is obstacle
23 evaluation in airspace. My analogy for that is I
24 probably have 20- or 30,000 hours behind the wheel of a
25 car, but that doesn't make me a civil engineer. It

1 doesn't mean that I can go out and design a highway.
2 So being a pilot gives you skills, it gives you the
3 ability to understand safety in the cockpit, but not
4 necessarily airspace. And what I would challenge your
5 members of the Board is when you're looking at this,
6 ask yourself what is the measurable impact and what are
7 the metrics that are being used to deny or approve the
8 variance. Can you look at it and say this is the
9 impact that is going to occur, or don't -- maybe this
10 might happen? There's a key difference here --
11 difference there. I understand that there are -- yes,
12 sir? -- so I understand that there's been some concerns
13 regarding the impacts of the wind turbines as proposed,
14 these 8 wind turbines, on pilots flying under visual
15 flight rules, particularly when they're flying in
16 reduced weather minimums. There have been some
17 comments that assume that the FAA didn't consider that,
18 and they absolutely did. As part of the aeronautical
19 study process, the FAA looks at and actually has an
20 organization called the All Weather Office within
21 flight standards, that assesses specifically for
22 impacts to visual flight operations. Now, that -- so
23 when the FAA looks at VFR operations, they're looking
24 at primarily two things. They're looking at the VFR
25 traffic patterns around the airport and the terminal

1 environment, and then they're looking at VFR operations
2 outside of the terminal environment or the en route
3 environment. They're looking at low level operations.
4 They're looking at operations at all altitudes. So
5 what I read in a couple of comments or I understand
6 that people have expressed concern and pilots have
7 expressed concern is that these turbines would limit a
8 pilot's ability to operate in Class G airspace at or
9 below 700 feet. Obviously you put a turbine up and you
10 have a 700-foot gap on the uncontrolled airspace out
11 there, and if the clouds start rolling in, then that
12 pilot would be compressed down. I can tell you that
13 looking at the traffic -- and if you turn behind you
14 and you look at that -- we pulled all of the radar
15 track data going in and out for a year around the
16 airport. And looking at it, we can tell, we know that
17 if you're coming in and you're scud running or
18 essentially trying to make it into that airport when
19 the weather's rolling in on you, and you're in a really
20 bad situation, you're not coming in from the northwest
21 over top of that wind farm for the very reason that I'm
22 talking about. You're got to be -- if you're trying to
23 stay in uncontrolled airspace, Class G airspace out
24 there to the northwest up to 1200 feet, you're now
25 having to descend down to 700 feet to get in, you're

1 not going to make it across that wind farm. You've got
2 to circumnavigate it. So there were claims that pilots
3 weren't flying over top of the wind farm. This clearly
4 shows that they are. So my point here is we went back
5 and we looked at all of that traffic. And what we did
6 was we pulled that radar track data, and then we pulled
7 weather data from NOAA, and we compared to -- each one
8 of those flight tracks to each -- to the weather,
9 prevailing visibility and ceilings. And what we found
10 is that during IFR conditions, less than 1,000-foot
11 ceilings, 3-mile visibility, aircraft operating in that
12 Class G airspace, there were only six operations over
13 the course of the entire year. So as an anecdote,
14 people -- we're not saying that scud running isn't
15 happening, but it's happening very infrequently, based
16 on the data that we're seeing. Even if it is
17 happening, the FAA takes that into consideration in
18 their analysis, and considered it in their decision
19 making. Last point I'll make, and we're going to be
20 coming here to -- or in this -- on this slide here is
21 we went and we were kind of curious, because we
22 understood that the -- that Class G airspace with a
23 700-foot shelf, that there was concern about turbines
24 being built inside that. And as Ryan testified
25 earlier, that there are -- there are numbers, dozens

1 and dozens of turbines that are inside that area
2 already. We went out and we looked at obstacles
3 throughout the State of Michigan. Everywhere you see
4 one of those little purple circles, that's a Class G
5 airspace with a 700-foot shelf. And all of those
6 little dots inside of those are obstacles, obstacles
7 that range anywhere from 450 feet to 500, which is
8 roughly that of a wind turbine, to something in excess
9 of 700 feet. So it's certainly not an anomaly. It's
10 more of a standard. We see it all -- at airports all
11 over the country -- or all over the state. So the last
12 issue I'm going to address today -- and I'm certainly
13 open for questions after I'm done -- are those of
14 emergency operations. I know that there was concern
15 that was expressed that pilots taking off or landing at
16 the airport might get into a bad situation and lose an
17 engine. They ice up. They declare an emergency,
18 whatever it might be, and these turbines might create a
19 situation where that pilot without those turbines might
20 have been able to get into the airport, and might have
21 been able to safely land, and now all of a sudden, they
22 can't because of the existence of the turbines. I
23 understand that's a concern, and I don't think it's --
24 I don't think it's rooted in any sort of -- it doesn't
25 have any real basis to it. And the reason I say that

1 is that these turbines are going to be in amongst -- in
2 and amongst an existing wind farm, first of all. The
3 routes that pilots are going to take in and out of that
4 airport, you know, for a pilot coming off the 624, the
5 likelihood that that pilot's going to make a right turn
6 toward the wind farm in trying to get back to the
7 airport is not -- it's not -- it's not considered
8 viable in my mind. There is a requirement to see and
9 avoid. When we start talking about emergency
10 operations in air traffic, the reliance really, the
11 biggest factor that's going to separate -- and for
12 those of you that are pilots, will understand this --
13 the thing that's going to separate a pilot -- the thing
14 that's going to separate a live pilot from a dead pilot
15 in an emergency really comes down to pilot training.
16 It's the number one requirement. The FAA does not
17 protect for emergencies for the very reason that
18 they're unpredictable. You don't know where they're
19 going to happen. Going back to my analogy of highways
20 and driving cars, we have telephone poles that run
21 right down the street here. We don't move the
22 telephone poles, you know, 100 feet back or 200 feet
23 back because some car might hit a patch of black ice
24 one night and slide off the road. It's not reasonable.
25 You can't predict where it's going to happen, and the

1 FAA has concluded that. There's been published papers
2 on it and others coming out of FAA flight standards.
3 So it's -- so to me, the safety argument here, there is
4 no safety argument, because the FAA has addressed that.
5 This emergency argument is not rooted in any kind of
6 real factual evidence. So that's my position on that.
7 And with that, I think that's the end of my
8 presentation. And unless you have questions for me,
9 I'll turn it over to Dan.

10 MR. KINNEY: Thank you.

11 BEN DOYLE: Sure.

12 RYAN PUMFORD: And I think we'll get through
13 Dan's part, and then we all take questions at the end
14 of the presentation, if that works.

15 MR. KINNEY: That works.

16 RYAN PUMFORD: Okay.

17 DAN ETTINGER: So I don't know if you
18 remember me from last time, Dan Ettinger. I'm attorney
19 for Pegasus Wind with Warner, Norcross & Judd. And so
20 a lot of this will look familiar, and I'm going to try
21 and go pretty quickly through this, because you'll be
22 familiar with it. And I think the one primary thing
23 that has happened since the last time I spoke is we
24 have your decision on the initial 33 variances, and on
25 November 27th, we got the decision from the Tuscola

1 County Circuit Court, which indicated that Pegasus Wind
2 met the variance criteria and was entitled to variances
3 for those 33 turbines. So we'll discuss that a little
4 bit today in the context of the four criteria and the
5 law that she applied in coming to that decision.
6 Airport Zoning Act, again, we emphasized last time and
7 Judge Gierhart mentioned in her decision, that the
8 Airport Zoning Act is different than the Zoning
9 Enabling Act, because unlike the Zoning Enabling Act,
10 it has mandatory language. If Pegasus Wind meets the
11 criteria, the four criteria for granting a variance,
12 the AZBA has the duty to grant those variances, and we
13 believe that's why they have a duty to do so here
14 today, because these 8 variance applications meet the
15 four criteria. We've gone through the requirements
16 before. They're laid out in the AZA as well as your
17 ordinance. I'm not going to spend any time going
18 through those again today. The first standard is
19 practical difficulty, a literal application or
20 enforcement of the regulations would result in
21 practical difficulty or unnecessary hardship. And
22 again, both parties agree, the AZBA and Pegasus Wind,
23 that what we're dealing with here, because this is more
24 of a non-use variance is practical difficulty. That's
25 the standard. And as Judge Gierhart stated in her

1 decision, in terms of the State of Michigan law when
2 you're dealing with practical difficulty and what that
3 means, she said that you consider whether denial of a
4 non-use variance would deprive the owner of the use of
5 the property, or whether compliance with the ordinance
6 would be unnecessarily burdensome. So that's what
7 we're looking at here today. And we meet that
8 standard. Pegasus Wind meets that standard. As Ryan
9 talked about, the requirements for wind energy are
10 truly unique, and he listed the various requirements
11 that are unique when you're looking at a wind
12 development, the strong wind resource that we have
13 here, the land owners, the leases that we've been able
14 to enter into, the transmission, the customer willing
15 to buy the power, and then the local land use approval
16 that Pegasus Wind has. And so this is the intersection
17 This is a unique location, these pieces of property.
18 It's the unique location where all of these things are
19 met, and makes it suitable for a project. And as the
20 judge mentioned in her decision, it's all
21 interconnected. There's been statements in the past
22 that Pegasus Wind's practical difficulty here is
23 self-created, and it's not. If you look at the legal
24 definition of being self-created under Michigan law,
25 it's to physically alter the land to make it unfit for

1 zone uses. And Pegasus Wind clearly did not do that
2 here. As we stated in our papers, you know, the
3 question might be asked, well, why can't you move
4 farther away? Pegasus Wind or NextEra was forced to
5 reconfigure its Tuscola III project, which was
6 initially planned for Ellington and Almer Townships,
7 because those townships adopted -- recently adopted
8 ordinances that would preclude wind energy development,
9 a single turbine being developed in those townships.
10 And so again, this is where we are able to intersect
11 all of the necessary components, including local land
12 use approvals. In this case, we got unanimous approval
13 in all three townships for our special land use
14 permits. I think it's important to emphasize in terms
15 of looking at whether the denial of these variances
16 would be unnecessarily burdensome, is that this project
17 will be jeopardized without the 8 variance turbines.
18 And that's because Pegasus Wind can't comply with its
19 Power Purchase Agreement and its Interconnect Agreement
20 if these 8 variances are not granted. If these are not
21 built and we cannot meet the megawatt requirement, the
22 output requirement, then at the end of the day, Pegasus
23 Wind's customer we have the PPA with can terminate that
24 agreement, which would be an existential threat to
25 Pegasus Wind and its project. We've talked in our

1 papers, and I'm not going to belabor here today the
2 fact that we can't just use shorter turbines, and we
3 can't just move them further away and start, you know,
4 shifting things around. We talked about that last time
5 as well. Again, Judge Gierhart's decision, Pegasus
6 Wind is not required to show the potential alternative
7 locations were not viable options, quote, because a
8 non-use variance applicant does not need to show that
9 no other suitable location exists. That's Michigan
10 law, and she quoted the cases or cited to the cases
11 that hold that. She talked about the geography
12 requirements when determining location for the
13 turbines. Again, she talks about how it's all
14 interconnected. She talks about, oh, this is not
15 necessarily required that the practical difficulty here
16 is inherent to the property, because the uniqueness of
17 the wind project in these locations is allowing this
18 project to move forward. And she concluded that
19 complying with the ordinance would be unnecessarily
20 burdensome and possibly detrimental to the wind
21 project's economic viability, and concluded that
22 Pegasus Wind did establish that there was practical
23 difficulty. That applied to the 33 variances, and we
24 believe that it applies to these 8 as well. The next
25 standard -- excuse me -- the next criteria is the

1 public interest and approach protection. Again, I
2 think Ryan covered why this is in the public interest
3 from three townships determining that SLUPs were
4 appropriate and that the project will protect the
5 health, safety, and welfare to the significant income
6 that would be injected into the community from the
7 project. Both Ryan and Ben talked about how this
8 project will assure approach protection. And that was
9 studied by FAA. That was studied by MDOT. That was
10 studied by Capitol Airspace. All have concluded that,
11 and that's in our papers as well. So while the airport
12 will not be adversely impacted, the community will
13 derive the significant benefits from the project.
14 Again, Judge Gierhart, in her decision, we're looking
15 at the 33 variances concurred. She said that Pegasus
16 Wind established that a grant of the variances would
17 not be contrary to the public interest and approach
18 protection. She talked about the aeronautical study of
19 FAA and MDOT. She also talked specifically about
20 emergency operations in this regard, and mentioned that
21 Pegasus Wind, with the help of Capitol Airspace,
22 submitted documentation explaining why the turbines
23 would not increase the risk associated with emergency
24 aircraft operations, and I think Ben Did a good job of
25 elaborating on that here today. Substantial justice,

1 third standard, that relief granted would do
2 substantial justice. Again, the Townships have
3 approved the SLUPs. We've already talked about how
4 this project will be jeopardized without the variances,
5 and that we're not going to create airport hazards. I
6 want to emphasize two other things that have come up
7 recently. Pegasus Wind did not violate the ordinance
8 by planning a project knowing that it would need
9 airport variances. It's allowed to do that. And as
10 Ryan talked about, Pegasus Wind did not create its own
11 harm by beginning construction, permitted construction,
12 and entering into a PPA and leases with participating
13 land owners. And I think Ryan talked about how it's
14 unique -- the sequencing of these projects is unique to
15 wind development, and it's absolutely necessary to
16 enter into those leases and the PPA early on in the
17 process. Then you get your special land use permits,
18 and you stage your construction. In fact, we can't
19 even seek variances from this body or seek airport
20 permits from this body until we have our local land use
21 approval. So there is a sequencing, and in this case,
22 it's fairly unique to wind development. Judge Gierhart
23 again concurred. She found that with respect to the 33
24 turbines, we established substantial justice, and that
25 our -- Pegasus Wind's problem was not self-created, and

1 that Pegasus Wind would not be able to meet its
2 obligations under the agreements without the variances.
3 She points out what we just talked about, which is the
4 fact that we knew we would need to obtain variances was
5 not improper in any way. Finally, the relief granted
6 would be in accordance with the spirit of the
7 regulations of this ordinance. That's the fourth
8 criteria. And, again, that's something Ryan alluded to
9 in his part of the presentation. The purpose of this
10 ordinance -- and you look at Section 1.2 -- is to
11 seek -- strike a balance between protecting utility of
12 the Tuscola Area Airport and allowing variances for
13 structures that don't adversely impact air navigation.
14 And it specifically contemplates the granting of
15 variances when an airport hazard is not going to be
16 created. The purpose of the ordinance is not to
17 prevent tall structures in the airport zoning area. I
18 think if you look at the maps that have been presented
19 here today, that's clear. Again, FAA has confirmed
20 that the turbines will not constitute airport hazards.
21 The number of variance applications that are being
22 applied for here is not relevant. Either Pegasus Wind
23 meets the criteria or it doesn't. We believe that we
24 do meet the criteria, and we are entitled to the
25 variances as a result. Again, Judge Gierhart concurred

1 with respect to the fourth criteria and found that the
2 granting of variances would be within the spirit of the
3 ordinance. And so for that reason, we respectfully
4 request that this body grant the variances for these 8
5 turbines. And with that, I guess one just kind of a
6 point of order, and then we're certainly happy to take
7 questions here today. My understanding is from Ms.
8 Nisidis is that we'll have an opportunity at the next
9 meeting to do as we did with the initial 33 variances
10 to more formally respond to public comments and other
11 concerns that are raised. But we're certainly happy to
12 address any questions that the Board may have at this
13 time. Thank you.

14 MR. KINNEY: Okay. Good. Who'd like to
15 start? Mr. Hoose, any questions for Pegasus?

16 MR. HOOSE: No, not really at this time.

17 MR. KINNEY: Okay. Mr. Campbell, any
18 questions?

19 MR. CAMPBELL: I have a couple questions.
20 It's my understanding under current present FAA
21 requirements that these turbines were determined to be
22 a presumed hazard; is that correct?

23 BEN DOYLE: Yes.

24 MR. CAMPBELL: And it would require changes
25 to be determined a non-hazard; is that correct?

1 In the document I have here that apparently came from
2 Pegasus, it says the requested variances would not be
3 contrary to, and it says any voting -- I'm sorry -- any
4 zoning ordinance or regulation of any political
5 subdivision applicable to the same area. Are you aware
6 that Indianfields Township has a zoning ordinance that
7 covers the airport, covers the same area as the County
8 does, and have you applied to them for permits?

9 DAN ETTINGER: We're not operating in
10 Indianfields Township. We're operating in Gilford
11 Township, Juniata Township, and Fairgrove Township.

12 MR. CAMPBELL: I understand that, but the
13 Indianfields Township, their zoning ordinance covers
14 the 10-mile area. That's the same area that the
15 County's area covers.

16 DAN ETTINGER: But we're not subject to their
17 zoning laws, because we are not in their Township, Mr.
18 Campbell.

19 MR. KINNEY: Okay. Any other questions?
20 I've got just a couple for Capitol Air as well. I'm
21 still a little bit hung up on this VFR thing.

22 BEN DOYLE: Yes, sir.

23 MR. KINNEY: And so maybe you can help me out
24 with that. VFR and Class G airspace, can you tell me
25 about that?

1 BEN DOYLE: What's the question? In regard
2 to how the FAA protects for VFR flights, or how
3 aircraft operate in Class G airspace?

4 MR. KINNEY: What is VFR and Class G
5 airspace?

6 BEN DOYLE: So the -- for a pilot operating
7 in Class G, they've got to remain clear clouds --

8 MR. KINNEY: Clear clouds.

9 BEN DOYLE: -- with a one-mile visibility;
10 right?

11 MR. KINNEY: And one-mile visibility?

12 BEN DOYLE: Correct.

13 MR. KINNEY: Right.

14 BEN DOYLE: Which is lower than the IMC
15 standard for controlled airspace.

16 MR. KINNEY: Okay. But 85 percent --
17 according to your application here, 85 percent of the
18 operations at this airport is VFR?

19 BEN DOYLE: Yes, sir.

20 MR. KINNEY: And it is operating in Class G
21 airspace?

22 BEN DOYLE: Correct.

23 MR. KINNEY: All right. And Class G airspace
24 extends out how far?

25 BEN DOYLE: Class G is -- there's a 700-foot

1 Class G shelf out to 6.2 miles, and then outside of
2 that, it's up to 1200 feet.

3 MR. KINNEY: Right. It's 6.6 miles. Then
4 outside of that is up to 1200 feet.

5 BEN DOYLE: Correct.

6 MR. KINNEY: Okay. And so does the wind farm
7 have an effect on VFR operations at this airport?

8 BEN DOYLE: No. And let me qualify why I say
9 no.

10 MR. KINNEY: Okay.

11 BEN DOYLE: So when the FAA -- so as you
12 know -- I believe you're a pilot; correct?

13 MR. KINNEY: Yup.

14 BEN DOYLE: So as you know, you're
15 required -- in uncontrolled airspace, the pilot's
16 responsible -- well, it -- uncontrolled or controlled
17 airspace, the pilot's ultimately responsible to see and
18 avoid man-made obstacles and terrain and other
19 aircraft.

20 MR. KINNEY: Correct.

21 BEN DOYLE: So that obligation is there.
22 You're not aided by air traffic control to ensure that
23 that occurs if you're operating as a VFR pilot without
24 assistance from ATC. If you're in uncontrolled
25 airspace -- well, so regardless of whether it's

1 controlled or it's uncontrolled airspace, if you're
2 operating VFR, the obligation is on you to ensure that
3 clearance. When you get in the traffic pattern, the
4 FAA provides you by -- procedurally provides you
5 certain protections to ensure that you don't have
6 obstacles that are going to cause you difficulty,
7 particularly during critical phases of flight. And so
8 the FAA establishes three zones within the visual
9 flight rules traffic patterns based on the approach
10 speed of the aircraft, categories A through D. So
11 those traffic pattern dimensions --

12 MR. KINNEY: Those categories, there's -- are
13 you talking about the circling categories?

14 BEN DOYLE: No, sir. I'm talking VFR traffic
15 patterns. Circling, that's on the IFR side.

16 MR. KINNEY: It is?

17 BEN DOYLE: Yeah. So those VFR traffic
18 patterns, those box patterns that define -- that are
19 defined to protect your downwind base leg, upwind,
20 crosswind components of those -- of that traffic
21 pattern, those are protected and assessed, and those
22 are actually tied to the height of the Park 77
23 imaginary surfaces.

24 MR. KINNEY: All right. I'm not really
25 concerned about the VFR traffic pattern, but what I am

1 concerned about is VFR operations underneath the
2 Class E punch down into the Class G airspace --

3 BEN DOYLE: Right.

4 MR. KINNEY: -- and how the wind farm that is
5 500 feet above ground interacts with that 700-foot
6 ceiling of the Class G airspace, and whether or not
7 that affects VFR operations in that airspace. Let me
8 go a little further.

9 BEN DOYLE: Okay.

10 MR. KINNEY: As you know, the minimum
11 altitudes -- there are minimum altitudes established --
12 one of which is in sparsely populated areas or over
13 open water, you need to stay 500 feet away from any
14 person, structure, or obstacle, okay, which in the
15 vicinity of the wind farm, then restricts you to a
16 minimum altitude of 1,000 feet. And in a reduced
17 visibility environment, you wouldn't be flying through
18 that wind farm below 1,000 feet lateral to one wind
19 turbine, and then dodging the next wind turbine.

20 BEN DOYLE: Right.

21 MR. KINNEY: I mean, this would be in the
22 realm of ludicrous. I don't think --

23 BEN DOYLE: Yeah, nobody would do that.

24 MR. KINNEY: -- right. Nobody would do that.
25 Okay. So can't fly below 1,000 feet, but you can't fly

1 above 700 feet.

2 BEN DOYLE: So you can fly above 700 feet in
3 a VFR environment, if we're talking about --

4 MR. KINNEY: In visibility below 3 miles,
5 reduced visibility?

6 BEN DOYLE: So what you're talking about is
7 you're talking about scud running --

8 MR. KINNEY: No.

9 BEN DOYLE: -- during instrument
10 meteorological conditions.

11 MR. KINNEY: No, it's completely VFR legal.
12 You're legal to fly VFR, one-mile visibility, clear
13 clouds in Class G airspace.

14 BEN DOYLE: Correct.

15 MR. KINNEY: Okay.

16 BEN DOYLE: But even though the weather is
17 classified as instrument meteorological conditions.

18 MR. KINNEY: This is VFR. This is legal VFR.

19 BEN DOYLE: It's a VFR operation, yes, sir --

20 MR. KINNEY: Yes, sir. It's legal VFR
21 flying.

22 BEN DOYLE: -- in instrument meteorological
23 conditions. Yes. So I'm differentiating between
24 instrument flight rules that --

25 MR. KINNEY: We're not talking about

1 instrument flight rules.

2 BEN DOYLE: Right. I'm differentiating
3 between --

4 MR. KINNEY: We're talking about visual
5 flight rules --

6 BEN DOYLE: -- visual flight rules on the
7 instrument --

8 MR. KINNEY: -- in Class G airspace with
9 visibility below 3 miles. That's what we're talking
10 about.

11 BEN DOYLE: Right.

12 MR. KINNEY: Okay? So my question is does
13 this or does this not affect the VFR Operations in --
14 within 6.6 miles of the Caro Airport below 700 feet?

15 BEN DOYLE: If you're asking me does it
16 require aircraft to circumnavigate --

17 MR. KINNEY: No, the statement was --

18 BEN DOYLE: -- these wind turbines?

19 MR. KINNEY: -- the statement was made that
20 it doesn't affect VFR operations. And so that's what
21 I'm asking you. Does it affect --

22 BEN DOYLE: Based on the -- based on the
23 Federal standard, it does not.

24 MR. KINNEY: It does.

25 BEN DOYLE: Based on the Federal standard, it

1 does not.

2 MR. KINNEY: It does.

3 BEN DOYLE: Okay.

4 MR. KINNEY: I'm sorry, but it does, because
5 of the logic that you and I just went through.

6 BEN DOYLE: And I understand that, and --

7 MR. KINNEY: You can't fly within 500 feet of
8 the wind turbine; true? And you can't --

9 BEN DOYLE: Part 91.119 --

10 MR. KINNEY: -- yup --

11 BEN DOYLE: -- requires that you --

12 MR. KINNEY: -- 91.119, and you can't fly
13 above 700 feet if the visibility is below 3 miles.

14 BEN DOYLE: Right.

15 MR. KINNEY: So it does affect VFR operations
16 within 6.6 miles of the Caro Airport?

17 BEN DOYLE: I'd like to answer your question.

18 MR. KINNEY: Go ahead.

19 BEN DOYLE: Okay. Because I've been trying.

20 MR. KINNEY: Okay. Go ahead.

21 BEN DOYLE: All right. So what you're
22 describing is you're describing pilots that are flying
23 during instrument meteorological conditions.

24 MR. KINNEY: No. That is legal VFR.

25 BEN DOYLE: Sir, I disagree. What you're

1 talking about is visual flight rules.

2 MR. KINNEY: That's true.

3 BEN DOYLE: That's not visual meteorological
4 conditions. For controlled airspace, instrument --

5 MR. KINNEY: It's not controlled airspace.

6 BEN DOYLE: -- can I finish?

7 MR. KINNEY: Sure. go ahead.

8 BEN DOYLE: For controlled airspace, so Class
9 E airspace above that Class G --

10 MR. KINNEY: Sure.

11 BEN DOYLE: -- you have a requirement of 1000
12 and 3 --

13 MR. KINNEY: Right.

14 BEN DOYLE: -- 1000 foot ceiling, 3 miles
15 visibility.

16 MR. KINNEY: Right.

17 BEN DOYLE: That's the demarcation between
18 instrument meteorological conditions and visual
19 meteorological conditions.

20 MR. KINNEY: Okay. But that's for the
21 airport in controlled airspace. This is not an airport
22 in controlled airspace. This is an airport in
23 non-controlled airspace.

24 BEN DOYLE: Okay. I'm going to finish.

25 MR. KINNEY: Okay. Go ahead.

1 BEN DOYLE: So you have category -- you had
2 cat G -- or Class G airspace up to 700 foot, that Class
3 G shelf up to 700 feet. Outside of that, you have the
4 1200 feet.

5 MR. KINNEY: Right.

6 BEN DOYLE: So a pilot that is not instrument
7 rated can fly into that Class G airspace when the
8 weather is under instrument meteorological conditions,
9 as long as that pilot stays in Class G airspace where
10 remains clear clouds and has a minimum of 1,000 foot --
11 I'm sorry -- a minimum of one-mile visibility.

12 MR. KINNEY: True.

13 BEN DOYLE: Okay. So all of that is true.
14 That pilot -- what you're saying is true. You can fly
15 under visual flight rules --

16 MR. KINNEY: Yes.

17 BEN DOYLE: -- in that very defined
18 environment. Okay?

19 MR. KINNEY: Sure.

20 BEN DOYLE: Now, when the FAA assesses for
21 impacts to visual flight rules operations, they're
22 assessing for airspace above 500 feet, which is why if
23 this proposal was in excess of 500 feet, there are
24 certain standards and setbacks from airways, and from
25 roads, and railroads, and things that pilots might use

1 when they're operating again in instrument
2 meteorological conditions, in uncontrolled airspace,
3 Class G at those altitudes. Those pilots would have to
4 circumnavigate in order -- and we both agree on this --
5 in order to maintain an altitude below 700 feet, they'd
6 have to circumnavigate those turbines. That effect is
7 not deemed significant. It's not deemed substantial.
8 It's not deemed a hazard by the FAA. It just means
9 that you have to fly in a different direction. The FAA
10 has a process where they stipulate adverse effect. One
11 of the stipulations for adverse effect is whether a VFR
12 operation changes course, which is what we're talking
13 about in this case. In order for the FAA to determine
14 that adverse effect is a hazard, is that the FAA would
15 then count the number of aircraft operations that would
16 be impacted. And if that exceeded one operation per
17 day, or 365 over the course of the year -- that's the
18 metric they use -- then the FAA would say that was a
19 hazard, and they would write a determination of hazard.

20 MR. KINNEY: Okay. We've kind of --

21 BEN DOYLE: In this case, the FAA hasn't done
22 that.

23 MR. KINNEY: -- we've diverged here from the
24 issue. And the issue is does it affect VFR operations
25 at the Caro Airport, and -- you want to add to this?

1 RYAN PUMFORD: I think maybe if we talk about
2 the study that we did over the past year, looking at
3 how often this happens.

4 BEN DOYLE: Yeah, I can talk about that.

5 MR. KINNEY: Go ahead.

6 BEN DOYLE: So what Ryan was just speaking to
7 is we conducted -- as I talked about earlier, we
8 talked -- we conducted a traffic floor study. We
9 essentially took all the radar tracks from the FAA's
10 radar system, their national off load program. We put
11 them in -- that that's big thing of spaghetti up there.
12 We looked at the altitudes of all these operations. We
13 then bounced those against the weather.

14 MR. KINNEY: You brought this up last time
15 for the 33 variances; right? This is the same thing we
16 talked about for the --

17 BEN DOYLE: No. I don't think so, no. No, I
18 don't think we brought this up.

19 MR. KINNEY: Oh, it's not?

20 BEN DOYLE: No.

21 MR. KINNEY: Okay. Go ahead.

22 BEN DOYLE: So we took this -- we wanted to
23 look at all of the flight operations, so we had a
24 better understanding of what that traffic looks like
25 going in and out of the airport and in proximity. And

1 that's the graphic that you see behind you. We looked
2 at the altitudes of those aircraft, because we
3 basically blocked it off. We didn't want to look at
4 stuff at 20,000 feet; right?

5 MR. KINNEY: Right.

6 BEN DOYLE: And so what we found is that as
7 we started parsing through all of these flight tracks,
8 what we found is -- and then we applied the weather
9 minimum at that moment of that date and time stamp for
10 that radar return, we were able to differentiate those
11 that were operated during instrument meteorological
12 conditions from those that were operating under visual
13 meteorological conditions. So we only looked at those
14 under instrument meteorological conditions. Those were
15 occurring that with -- during a time period where the
16 ceiling was less than 1,000 feet and visibility was
17 fewer than 3. From that, we then took a look and
18 parsed it down. And when you look at these tracks, not
19 all of these are distinct individual flights. Some of
20 them can be the same flight, some of them going out and
21 circling and coming back, and that sort of thing. So
22 what we were able to narrow it down to is we realized
23 that there were 10 flights in total that operated out
24 of the data set. We found that 4 of those flights were
25 actually operating in Class G when the visibility was

1 less than 1,000 feet, which means those pilots were
2 violating the VFRs --

3 RYAN PUMFORD: Less than a mile.

4 BEN DOYLE: -- I'm sorry -- less than a mile.
5 Those aircraft -- those pilots were violating -- were
6 violating the VFRs. So we threw those out. We're not
7 going to talk about people violating things. That left
8 us with 6 actual flight tracks. That could have been 6
9 flights. It could have been 4 flights, or 3, or 2. I
10 don't know from looking at it, but I -- because it
11 doesn't have a call sign associated with that. But I
12 can look at it. So what I know from this is that
13 pilots operating in -- at this airport are not
14 operating more than a maximum of six times a year when
15 the weather is down below that one-mile visibility.
16 Does that make sense?

17 MR. KINNEY: Well, yeah. Yeah, it does.

18 BEN DOYLE: And that speaks to the frequency
19 of operations. That is the metric used to determine
20 whether there's significant adverse effect.

21 MR. KINNEY: Okay.

22 BEN DOYLE: If you're asking me -- if you're
23 asking me does a turbine out there potentially change
24 how a pilot might fly in the air? Yeah. Potentially,
25 yes.

1 MR. KINNEY: I'm just asking if it affects
2 VFR operations at this airport.

3 BEN DOYLE: I think I've answered that.

4 MR. KINNEY: Okay. Let me ask you this then:
5 One of the things you mentioned was that they're
6 probably not going to fly over that wind farm. Okay?
7 They're going to go around the wind farm. And so my
8 position is that with everybody going around the wind
9 farm, where are they going to end up? They're going to
10 end up right on the final for runway 6 for the
11 instrument approach. And so it does build a conflict,
12 a traffic conflict when you've got everybody
13 circumventing the wind farm, and entering the airport
14 or departing from the airport on the final approach
15 course or the departure, IFR departure course.

16 BEN DOYLE: We're only talking about a
17 handful of flights per year that would have to
18 navigate -- based on the weather that would have to
19 circumnavigate. The rest of them, as we -- I don't
20 know where the other --

21 RYAN PUMFORD: Do you want to go back to the
22 graphic?

23 BEN DOYLE: -- yeah go back to the graphic.
24 The rest of those flights can come over top as long as
25 they come over top at 1,000 feet. So you're not

1 And then if we have time at the end -- we've got
2 another one coming up on Friday, so we should have an
3 opportunity then as well. But we want to give a first
4 chance to folks that either haven't spoken before, or
5 have something new to say. For the most part, we're
6 going to limit it to 3 minutes, like we have in the
7 past, and we'll take comments from this side of the
8 room as well as this side of the room. But there are a
9 couple of folks that have some documented information
10 that may take longer than the 3 minutes. So without
11 further adieu, why don't we move into public comment?
12 And the first one I'd like to call up is Mr. Koerner.
13 Now, he did speak last time, but he's got some
14 information that I think is important to hear. So if
15 you'd come on up, Rick?

16 RICHARD KOERNER: Good evening, everybody.
17 We'll just do some quick homework here. I'm going to
18 first pass out these packets of information. They've
19 already been passed out to the -- to attorneys.

20 MR. KINNEY: Okay.

21 RICHARD KOERNER: So bear with me, please.

22 MR. KINNEY: Sure. And, Rick, so that we
23 know who you are, can you give us sort of a little bit
24 of rundown on your education, your experience, kind of
25 a resume on why we ought to listen to you?

1 RICHARD KOERNER: Is my wife here? She may
2 have a disagreement with my opinion. Folks, good
3 evening. My name is Richard Koerner. I am a recently
4 retired pilot from the Dow Chemical Company. I was
5 with those folks for just shy of 40 years. I was
6 employed prior to that with the Aeroquip Corporation in
7 Jackson, Michigan, which is a wholly-owned subsidiary
8 of Libbey-Owens-Ford. Both organizations operated
9 corporate aircraft primarily domestically, although
10 Dow, with their international business operation, had
11 flight operations that were global. And I was
12 fortunate enough to participate in their global flight
13 operations and domestic flight operations for that
14 period of time. I have accumulated approximately
15 21,000 hours of log book time. I'm type-rated in --
16 that's -- type rating means specific operational
17 certification by the government, FAA, for a specific
18 type of jet aircraft. I have 10 of those, so that
19 means 10 different jet aircraft, experience in all of
20 those over that 40 years. So my intention here today
21 is simply to speak to some specific items that Mr.

22 Boyle -- is it Doyle or Boyle? --

23 BEN DOYLE: D, Delta, Doyle.

24 RICHARD KOERNER: -- Doyle -- Mr. Doyle. He
25 was an excellent presenter and addressed some of the

1 air traffic issues very specifically. I have some
2 questions, and then some material that I'd like to
3 reference to. In your packet, the number one document
4 is labeled number 1. It's entitled United States of
5 America FAA, Federal Aviation Administration,
6 Washington, D.C. It's essentially an affidavit from a
7 very qualified gentleman that did a study. And again,
8 this was directed by the Tuscola Area Airport Authority
9 and Friends of the Tuscola Area Airport Authority here
10 in Michigan. And this study was primarily directed to
11 study the effects of the air traffic control radar.
12 And in the back on page -- well, let's see -- it
13 starts -- I'm going to reference to this particular
14 document. And so in the about, oh, a third or so,
15 there's a page that's marked Exhibit 47, I believe it
16 is, 47 -- one second -- it's 49. I apologize. And
17 this is the wind turbine generator large scale
18 development summary or abstract of his analysis. And
19 this is a very technical analysis, and I would like to
20 point out several of the points the gentleman makes.
21 And I'm just going to quote quickly. I'm not going to
22 read to you thoroughly through this entire document.
23 It's quite extensive, speaks for itself. His
24 credentials also speak for itself. The abstract states
25 in the opening paragraph -- this is referencing to the

1 FAA -- by issuing a determination of no hazard, the
2 DNH, for the proposed grouping of X number of wind
3 turbine generators that are the subject of the
4 technical exhibits, parentheses, without first
5 obtaining an all clear from its technical operations
6 services group, the FAA has acted arbitrarily and is
7 out of its order not according to the law. If allowed,
8 the construction of WTGLSD, which is the wind turbine
9 generator large scale development, near the airport
10 will likely result in irreparable harm to the precious
11 resource of navigable airspace that the FAA is charged
12 to protect and to nurture. That's in the first
13 paragraph of the abstract. And through this entire
14 summary, he goes through the wind turbine generator
15 effects on air traffic control radar, and certainly Mr.
16 Doyle will be able to address some of these issues.
17 But just to review some of the particulars of the
18 subject matter, radar is subject to the following
19 anomalies. One is clutter -- and these are
20 specifically delineated in this report -- shadowing,
21 false target, range and azimuth errors, target
22 divergence, processing overload, and an increased
23 CFR -- CFAR thresholds, ADSB in and out, two variance
24 of that particular system, national defense, and, of
25 course, let's see, the weather radar, and possibly even

1 as far as cell, mobile cellular distractions from -- or
2 a degradation of a cellular signal. In the conclusions
3 paragraph on page 6 toward the end of the document,
4 down around the last -- let's see -- it's the third
5 paragraph, fourth paragraph, down toward the end,
6 there's an FAA standing order, and they designate that
7 specifically as JO7400.2M as in Mike. To proceed
8 without thorough investigation of the effects
9 identified herein will likely result in irreparable
10 harm to the affected airports, to the navigable
11 airspace, to the regional airspace, and to the commerce
12 that is dependent upon all of these being in a high
13 state of readiness and in good working order. That's
14 the FAA's own order. So it would appear that the FAA
15 in some reason -- for some reason has chosen to counter
16 their own order. They're operating outside of their
17 own regulatory guidance. Again, this is something for
18 Mr. Doyle, who is an expert on, to comment on.

19 MR. KINNEY: Could I ask a question --

20 RICHARD KOERNER: Please.

21 MR. KINNEY: -- right in the middle of this?
22 It talks about false targets. It talks about azimuth
23 errors, target divergent, a few other clutters, and a
24 few other things. And can you tell me? I think there
25 are three separate systems that air traffic control

1 uses to control traffic. One is raw data radar, where
2 the radar sends -- transmitter sends out a pulse, and
3 the transmitter turns off, and it listens for the
4 return off an airplane, okay, and then turns the
5 transmitter back on, sends another pulse. And in that
6 system, there's errors. There's pulse width errors.
7 There's day width errors. There's elevations errors.
8 Okay? But that's the raw data type of system to
9 control traffic. Another system is interrogating a
10 transponder, where the radar site sends out an
11 interrogation. And if the equipment is installed in
12 the airplane, the airplane sends back a response. And
13 that's more accurate. And some of these things aren't
14 quite as pronounced on that system as far as degrading
15 the system from wind turbines. And the new system is
16 ADSV and that has an in and out system. And it's
17 mandated on July -- or January 1st that all airplanes
18 that are flying in a certain class airspace have to
19 have an ADSV out. Okay? They transmit by their GPS
20 position where they are, what their altitude is, and
21 other things such as the aircraft call sign, the type
22 aircraft it is, the pilot's first born son. Whatever
23 is associated with that airplane, it transmits that
24 out. And then whoever has a receiver can receive that
25 information, whether it's -- where it can -- an ATC

1 control facility on the ground, another airplane.

2 Okay. So correct me if I'm wrong. Are those basically
3 the three basic systems that air traffic control uses,
4 from your knowledge, to control traffic?

5 RICHARD KOERNER: The primary system today is
6 a digital, what they call NextGen system. NextGen has
7 been implemented or it has -- was implemented --
8 correct me if I'm wrong -- two years? Three years now?
9 It takes awhile to implement these systems.

10 BEN DOYLE: The primary systems still the FAA
11 is relying on --

12 RICHARD KOERNER: It's primary.

13 BEN DOYLE: -- is primary and secondary
14 radar, almost entirely relying on secondary radar.

15 RICHARD KOERNER: Yeah.

16 BEN DOYLE: NextGen speaks to the
17 modernization of the national airspace system and
18 changing how we fly in the airspace --

19 RICHARD KOERNER: Which is much more complex.

20 BEN DOYLE: -- which is much more complex.
21 We could talk all night about that.

22 RICHARD KOERNER: Right.

23 BEN DOYLE: And ADSV, yes, is the future --

24 RICHARD KOERNER: It's kind of phase one of
25 NextGen.

1 BEN DOYLE: -- and it's -- yeah, it's going
2 to go for decades and decades --

3 RICHARD KOERNER: Decades.

4 BEN DOYLE: -- before we get to that point,
5 but we still rely on radar.

6 RICHARD KOERNER: So NextGen is in a
7 completely developmental process. So primary and
8 secondary radars today and digital, which was the
9 standard since -- well, since we got rid of tubes.

10 MR. KINNEY: Right.

11 RICHARD KOERNER: So it's the primary system
12 across the ATC system today.

13 MR. KINNEY: Okay. And just to set the stage
14 here, when you were flying, you were flying mostly IFR?

15 RICHARD KOERNER: Correct.

16 MR. KINNEY: Okay. And you had on your
17 airplanes a transponder that could be interrogated, and
18 it would respond. Did you have ADSV?

19 RICHARD KOERNER: Our aircraft at that time
20 did not have ADSV.

21 MR. KINNEY: Did not have ADSV?

22 RICHARD KOERNER: Correct. That was not
23 required at that time.

24 MR. KINNEY: Okay. Good. The VFR airplanes
25 at the Tuscola County Area Airport, the enthusiasts

1 that fly out there, are they required to have a
2 transponder? And let me help you with that. The
3 answer is no.

4 RICHARD KOERNER: They are not.

5 MR. KINNEY: Right. Okay. Are they required
6 to have ADSV out as of January 1st, 2020?

7 RICHARD KOERNER: If they are intending to
8 fly in a specific airspace.

9 MR. KINNEY: And that specific airspace is
10 controlled airspace, Class E airspace, above 10,000
11 feet --

12 RICHARD KOERNER: That is correct.

13 MR. KINNEY: -- and they have to stay out of
14 Class B and they have to stay out of Class C
15 airspace --

16 RICHARD KOERNER: If they're not so equipped.

17 MR. KINNEY: -- if they're not so equipped.
18 Okay. So these airplanes that are at this airport are
19 not required to have any of the air traffic control
20 enhanced equipment on board?

21 RICHARD KOERNER: That is correct.

22 MR. KINNEY: Okay. So the only way that the
23 radar controller is going to see them is if their raw
24 radar will send this pulse out, and they will receive a
25 return from that?

1 RICHARD KOERNER: I would say that's
2 generally correct.

3 MR. KINNEY: Okay. I'm sorry to interrupt
4 you.

5 RICHARD KOERNER: No; no. Sir, that's fine.

6 MR. KINNEY: So why don't you proceed with
7 your -- what you wanted to say?

8 RICHARD KOERNER: Okay. Let me see where --
9 if I can collect my thoughts here. The point I think
10 from this particular affidavit in example 1 here, we
11 can -- I would encourage the Board to read through this
12 material. It provides a tremendous background in how
13 the FAA determines what is -- what is a -- an anomaly
14 in a radar system. It's very important to understand
15 what those variables are, because they're -- it's a
16 multi-faceted subject. We can probably talk about this
17 until everybody's bored to death. I mean, seriously.
18 It's very complex. This is an excellent document. The
19 conclusion does it justice for you, for you guys, but
20 it's important to note that operationally, the wind
21 turbine, the tip velocities of the wind turbine blades
22 affect the way the radar returns to and what
23 information comes back to the radar itself. So there
24 is a masking effect. It depends on the azimuth, in
25 other words, the relative position of the aircraft

1 through the wind turbines farm as a straight line
2 distance to the radar site. There's tremendous
3 variables involved here. But the bottom line is there
4 is an effect, a degradation of signal integrity, if you
5 will, and strength created by the wind turbines and the
6 large scale developments, meaning the farm.

7 MR. KINNEY: Okay.

8 RICHARD KOERNER: And LSD is a farm.

9 MR. KINNEY: Right. Just one more question
10 here.

11 RICHARD KOERNER: Certainly.

12 MR. KINNEY: Where is the most degradation?
13 Is it in the primary radar, is it in the transponder,
14 or is it in the ADSV?

15 RICHARD KOERNER: I would defer to the expert
16 on that one. I'm not sure on that.

17 MR. KINNEY: Well, it says it in this report
18 of yours. It's almost non-existent in transponder
19 equipped airplanes.

20 RICHARD KOERNER: That's correct.

21 MR. KINNEY: And it's almost non-existent in
22 ADSV airplanes, but is this significant --

23 RICHARD KOERNER: Particularly in the ASDV
24 airplanes.

25 MR. KINNEY: Pardon me?

1 RICHARD KOERNER: Particularly not -- no
2 effect in ADSV because of the way the data is
3 transmitted.

4 MR. KINNEY: Yes. But is significantly
5 degradation -- degrading in the primary radar
6 airplanes?

7 RICHARD KOERNER: That is correct.

8 MR. KINNEY: Okay.

9 RICHARD KOERNER: Yes.

10 MR. KINNEY: Okay.

11 RICHARD KOERNER: From my own -- from my
12 experience, and I must just quick relate a story --
13 when the LSD down southwest of MBS was first
14 constructed, the Cleveland Center -- Cleveland Air
15 Route Traffic Control Center is located in an area near
16 Cleveland. They're based there. That's where their
17 computers and radar site is located, and that facility
18 controls airspace above a certain altitude around the
19 Great Lakes, along with Chicago and Indianapolis and
20 even Minneapolis centers. But they all -- they all
21 function primarily the same way. Cleveland Center
22 happens to dominate this particular area. They're
23 responsible for air traffic control. When that LSD
24 came into effect, Cleveland was required to recalibrate
25 their air traffic control en route radar, which was --

1 we could loosely describe as a primary radar, because
2 the -- with the top of the wind turbine blades moving
3 at 186 miles an hour and whatever, 12 or 13, 14 RPM,
4 whatever they do. At that distance from the hub, the
5 tip is actually moving somewhere in the neighborhood of
6 186 miles an hour. Well, that's about the speed of an
7 general aviation aircraft. So there was -- all of the
8 effects that were listed in this first example 1
9 affidavit from Mr. McIntosh, I believe his name is,
10 came into effect southwest of MBS about 27 nautical
11 miles-ish, which would be the northeast boundary of
12 that particular LSD. How that related to us is that on
13 a beautiful clear day on an instrument departure,
14 Cleveland Center called to us with a -- we had an
15 air -- extensive, what his -- I'm quoting his
16 transmission now -- controller called us and said we
17 are -- at our 12:00 o'clock position, meaning off the
18 nose of the aircraft, in approximately 20 miles, there
19 was an extensive area of weather, and would we like to
20 avoid -- turn one way or the other to avoid that
21 weather. Well, the weather on that particular morning
22 was as we would like to refer to it as severely clear.
23 There wasn't a cloud in the sky for probably 50
24 nautical miles. Flight visibility was at least 100
25 miles. There was nothing in front of us that could

1 possibly have created a weather phenomenon that his
2 primary radar would have had a return from. So it took
3 us a few sorties to go back and forth across this
4 particular large scale development for the air traffic
5 controllers and the pilots to figure out what they were
6 actually seeing. So once we figured that out, they
7 sent their technicians. I'm not sure where that site,
8 particular remote site for their radar antenna is
9 located -- perhaps Mr. Doyle can elaborate on that --
10 but they had to recalibrate their computers and their
11 radar to eliminate the return that they were receiving
12 off the top of those rotating turbine blades. It
13 created almost every phenomenon listed in this report
14 for that particular site, for the LSD site, and it did
15 interrupt and degrade the air traffic control
16 surface -- surfaces from Cleveland Center. Didn't
17 affect us, because we're a high altitude operation.
18 But should we -- were we required to fly an instrument
19 approach at low altitude below, say, 3,000 feet, the
20 masking effect of the radar at that time prior to
21 recalibration would have eliminated our signal from
22 their antenna. In other words, we would have become
23 invisible below a certain altitude. Subsequent to
24 that, when the -- through the Tri-City Airport approach
25 control, their local approach control, the minimum

1 radar vectoring altitude was raised from 2600 feet to
2 3,000 feet. So at night, when our local tower and
3 radar approach control facility closed after 11:00
4 p.m., Cleveland Center was responsible for vectoring
5 the aircraft for an instrument approach into Tri-City.
6 The minimum altitude we enjoyed prior to the change was
7 2600 feet. Often times, that would allow us to proceed
8 in visual flight conditions to the airport and allow us
9 not to fly in complete full instrument approach in
10 order to find the airport and land; save fuel, save
11 time. When the minimum was raised for the Cleveland
12 Center for their minimum vectoring altitude of -- from
13 up to 3,000 feet, that would often times put us in the
14 clouds in instrument conditions, in actual instrument
15 conditions where we could not find the airport until we
16 descended on a published segment of the approach. So
17 it resulted in inefficiencies. The safety factor
18 wasn't really -- not compromised, but it was simply a
19 degradation of efficiency.

20 MR. KINNEY: Let me ask you one more
21 question, and this Sandia report that you have here?

22 RICHARD KOERNER: Yes, sir. Uh-huh.

23 MR. KINNEY: First of all, Sandia is an
24 national lab work -- in this report, it looks like they
25 worked with the Massachusetts Institute of Technology

1 to do --

2 RICHARD KOERNER: They did.

3 MR. KINNEY: -- to do this report, which
4 includes a type testing of some of the stuff that we've
5 just been talking about, the different radar systems,
6 and let me build a scenario. Okay? You're in a Hawker
7 800XP, and you've just been down to Florida to pick up
8 seven NextEra employees to bring them up to Caro to
9 visit their wind turbine farm that they have up here.
10 Okay? When you get to Caro, the visibility is down a
11 little bit, and so you've elected to fly an instrument
12 approach. Okay? And the way that you're being
13 controlled is using your transponder. Your airplane's
14 replying this quoted message back to the air traffic
15 controller, and so they can see you just fine. Okay?
16 But as you get closer and closer to the Caro Airport,
17 you're concerned about somebody down there, one of the
18 enthusiasts down there flying around in a pattern, and
19 let's say there's two of them right down there right
20 now, and there's another one that's entering the
21 pattern, and he's flying around this wind farm that he
22 can't fly over because of the conditions. Okay? So
23 he's flying around the wind farm. How are you going to
24 know, without those airplanes having either ADSV out or
25 a coded transponder beacon, how are you going to know

1 where those airplanes are? Who's going to tell you
2 where those airplanes are? How does that normally
3 happen?

4 RICHARD KOERNER: I'd say that's a question
5 that requires several answers.

6 MR. KINNEY: Okay.

7 RICHARD KOERNER: Bear with me. The primary
8 way that we would derive that information would be
9 through the ATC system, through the approach control
10 system.

11 MR. KINNEY: Right.

12 MR. KOERNER: Approach control would provide
13 that information as a function of their separation, air
14 traffic control traffic separation criteria if they
15 could see a target.

16 MR. KINNEY: Okay. Well, based on what you
17 just told me about the radar, the primary radar and
18 these airplanes not having a transponder or ADSV out,
19 and in the vicinity of this wind farm, where there's a
20 shadow effect or over the wind farm, that system that
21 they're going to look and find those airplanes for you
22 is significantly degraded.

23 RICHARD KOERNER: It would be significantly
24 degraded, and I would reference to in the paragraph 5
25 of the Sandia report on page 32, in the conclusion

1 section, second paragraph, the paragraph reads, the
2 data shows that the existing POR, which is primary
3 surveillance radar, were severely impacted by wind
4 turbines, while the beacon transponder based secondary
5 surveillance radars were not affected by wind turbines.
6 In addition, eight mitigation systems representing --
7 well, they did a number of tests here. While all
8 systems tested were impacted by turbines, the
9 replacement radar and most of the infield performed
10 better than the existing POR radars within or above
11 turbine LSDs. The radar upgrades that tested did not
12 significantly improve the surveillance capability over
13 the wind farms. So the -- to answer your question, as
14 an operator and a user of the air traffic control
15 system and our national airspace system, there are
16 situations where the turbines will mask the proprietary
17 effects of the surveillance radars, the primary radars
18 that are available for air traffic control and
19 separation. So one does extrapolate that possibly into
20 a safety issue. It's very easy to see where that would
21 be a problem. I personally have flown the instrument
22 approaches into uncontrolled airports on numerous
23 occasions all around this great country, and have --
24 I've been very surprised to find small aircraft,
25 general aviation aircraft meandering about under the

1 clouds that the air traffic controllers have no idea
2 about. And it does cause a problem. The jet is a
3 maneuverable aircraft. The safety of that aircraft is
4 predicated on the stabilized approach concept, so a
5 final approach for a jet is very critical in
6 maintaining that safety equation all the way to the
7 runway. Once that stabilized approach is destabilized
8 by whatever influences the outside, then the whole
9 equation changes. So safety being the number one
10 priority of the ATC system, as Mr. Doyle mentioned, FAA
11 is -- their entire thing is based on safety. The
12 degradation of airport surveillance radar by wind
13 turbines is an issue. It varies with airport to
14 airport, situation to situation.

15 MR. KINNEY: We're going to cut you off
16 there. You're over 3 minutes.

17 RICHARD KOERNER: Thank you very much.

18 MR. KINNEY: Thank you very much.

19 RICHARD KOERNER: I appreciate your time and
20 your consideration, and thank you for being patient
21 with me.

22 MR. KINNEY: We appreciate you being here.

23 RICHARD KOERNER: Thank you.

24 MR. KINNEY: Okay. Anybody on this side over
25 here? Anybody else? Mr. Green, you look like you need

1 to talk.

2 JOE GREEN: Good afternoon.

3 MR. KINNEY: Good afternoon. Can you tell us
4 a little bit about yourself, so we know why we need to
5 listen to you, Mr. Green?

6 JOE GREEN: Yes. I'm Joe Green. I'm the
7 airport manager of the Tuscola Area Airport Authority.
8 What I have here to present today is a national plan
9 for integrated airport systems and the airport capital
10 improvement plan, ACIP. These orders establishes the
11 guidelines for managing and maintaining the airports,
12 Federal plans that are essential to the airport. The
13 NPIAS is the inventory of all aviation infrastructures.
14 It was developed and now maintained by the Federal
15 Aviation Administration, FAA. It identifies existing
16 and proposed airports that are significant to our
17 national air transportation system. Airport
18 improvement plans, the money comes from your -- raised
19 through the taxes on your airplane tickets. Caro
20 Airport is a general aviation airport. There's 1,121
21 general aviation airport shares, \$831,717,000 averaging
22 \$74241 (sic) per airport per year. On the next page,
23 it shows from 2017 through 2021, this airport is
24 scheduled to receive about \$4,245,556. Our major
25 obligations are to protect the airport approaches, keep

1 the title to airport property, to have the comparable
2 land uses around the airport, preserve rights and the
3 powers of the airport. And then next page is the
4 assurances that we have to give to the FAA. This is
5 assurances that FAA puts out. These assurances shall
6 be complied with in the performance of the grant
7 agreements. Whenever we get money from FAA, these are
8 grant agreements we have to sign, our airport
9 development, airport planning, and noise and compatible
10 program grants. The duration of these assurances, the
11 terms and conditions are for 20 years after the date of
12 acceptance of grant from -- of the Federal funds for
13 the project. The terms and conditions and assurances
14 shall remain in full force and effect during the life
15 of the project, and there shall be no limit to the --
16 on the duration of the assurances regarding airport
17 revenue, so long as the airport is used as an airport.
18 Then on page 5, reserving rights and powers. We have
19 to agree that we will not take or permit any action
20 which would operate to deprive it of any of the rights
21 and powers necessary to perform any of the terms and
22 conditions of these grant agreements for the airport.
23 And touching on page 15, these are all FAA
24 requirements. If a change or an alteration in the
25 airport or the facilities are made for which the

1 secretary determines adversely affects the safety,
2 utility, or efficiency of any Federally owned lease or
3 funded property on or off the airport -- I'll stress
4 off the airport -- and which is not in conformity with
5 the airport plan as approved by the secretary, the
6 owner or operator will be, if requested, have to
7 eliminate the adverse effect or bear all the costs of
8 relocation such -- relocating such property or
9 replacement thereof to a site acceptable to the
10 secretary. So we're liable for these monies forever,
11 or we have to pay for it. Duration, as we said, these
12 are FAA requirements. The sponsor agrees that it is
13 obligated for the assurance created with the Federal
14 assistance extends. There's more operations in here.
15 Just read it over. So it's very important to protect
16 the airspace, and that's why the zoning ordinance was
17 put in place. Thank you.

18 MR. KINNEY: Can I ask you a couple
19 questions?

20 JOE GREEN: Yes.

21 MR. KINNEY: Has this airport received
22 Federal money in the past?

23 JOE GREEN: Yes, it has.

24 MR. KINNEY: And is it programmed to receive
25 Federal money in the future?

1 JOE GREEN: Yes, it is.

2 MR. KINNEY: Okay. Well, why does -- what's
3 the purpose of this national airport system? Why is
4 the Federal government spending this money on these
5 airports out there? Do they expect to be able to come
6 here and do stuff like firefighting, emergency
7 response? State police? FBI investigations?

8 JOE GREEN: Yes. All of them.

9 MR. KINNEY: Okay. And so when they hand out
10 this money, do they expect the airport to be maintained
11 to certain levels?

12 MR. GREEN: Yes, they do.

13 MR. KINNEY: Okay. And some of those levels,
14 I think you -- I heard you say --

15 MR. GREEN: Like on page 14, it says we will
16 make the use by government aircraft or safety. It will
17 be made available for all facilities of the airport
18 developed for Federal financial assistance, and all
19 those usable for landing and take-offs of aircraft for
20 the United States or to use a government aircraft in
21 common with other aircraft at all times recall a charge
22 and use.

23 MR. KINNEY: Okay. And when you listed those
24 things that the sponsor is required to do, who told you
25 that they -- that comes -- that guidance comes from the

1 FAA?

2 MR. GREEN: Yes. This guidance is by the

3 FAA. These pages are right from the FAA.

4 MR. KINNEY: Okay. So the FAA's not going to

5 do it?

6 MR. GREEN: No, it's designated to us to --

7 MR. KINNEY: You're going to do it?

8 MR. GREEN: -- uphold their requirements.

9 MR. KINNEY: Right; right. Okay.

10 JOE GREEN: Any other questions? Okay.

11 Thank you. Please read over this.

12 MR. KINNEY: Thank you. Anybody else over

13 here? Anybody else -- yes, ma'am.

14 MAUREEN ATKERSON: I have two reports I want

15 to submit. You people get the condensed version.

16 MR. KINNEY: Okay.

17 MAUREEN ATKERSON: Oh, and one for me.

18 MR. KINNEY: Thank you.

19 MAUREEN ATKERSON: These are reports that

20 have to do with --

21 MR. KINNEY: A little closer.

22 MR. HOOSE: A little closer.

23 MAUREEN ATKERSON: Okay.

24 REPORTER: What was your name?

25 MAUREEN ATKERSON: I hate these things. Can

1 you hear me?

2 MR. KINNEY: Yes.

3 REPORTER: What is your name? Your name?

4 MAUREEN ATKERSON: My name is Maureen,

5 M-a-u-r-e-e-n, Atkerson, A-t-k-e-r-s-o-n. These

6 reports that I just submitted, one is dated January

7 2014. Both of these reports are from the Kansas

8 Department of Transportation, and they were obtained

9 with cooperation between the Kansas Department of

10 Transportation and the Kansas State University and the

11 University of Kansas. The report dated January 2014

12 was subsequently entered into the United States

13 Department of Commerce National Technical Reports

14 Laboratory. The purpose of the first report, which is

15 entitled Wind Farm Turbulence Impacts on General

16 Aviation Airports in Kansas, the three objectives of

17 this report, were to determine the amount and pattern

18 of the turbulence from a single wind turbine, determine

19 the amount and pattern of wind turbulence from a wind

20 farm in a horizontal direction and in a vertical

21 direction. This information will result in a

22 recommendation -- in recommendations concerning the

23 locations of wind farms and their impacts on the safe

24 operation of airports and other air -- aviation

25 activities. For this January 2014 report, I have

1 attached the copy of the conclusion from this report,
2 and the clerk has a copy of both the complete reports.
3 The conclusion from this report says conclusions and
4 recommendations. The literature review shows that wind
5 farms may have an adverse impact on general aviation in
6 general, and more specifically with aircraft operating
7 at or near an airport. The impacts of wind turbines on
8 aviation include physical penetration of airspace,
9 communication system interference, and rotor blade
10 induced turbulence. The results of this project study
11 support the findings in the literature that the
12 turbulence from a wind turbine can impact operations of
13 a general aviation airport, and illustrates the impact
14 of general aviation airport. Two case studies were
15 used to illustrate the impact of turbulence from a wind
16 turbine on the general aviation airport. This project
17 analyzed the road hazard and the crosswind hazard
18 resulting from a wind farm located near a general
19 aviation airport. The wind turbine weight model is
20 based on a theoretical helical vortex model, and the
21 decay rate is calculated following the aircraft weight
22 decay rate in the atmosphere. The road hazard analysis
23 showed that the Brooks County Regional Airport, the
24 potential hazard index is in the high range as far out
25 as 2.84 miles. For the Pratt Regional Airport, the



Warner Norcross + Judd LLP

January 13, 2020

Via Email

Jamie Nisidis, Esq.
Clayton Johnson, Esq.
Braun Kendrick Finkbeiner, PLC
4301 Fashion Square Boulevard
Saginaw, Michigan 48603

Tuscola Area Airport Zoning Board of Appeals
c/o Jodi Fetting, Tuscola County Clerk
440 N. State Street
Caro, Michigan 48723

Re: Consideration of Pegasus Wind's 8 New Variance Applications – Conflicts of Interest/Prejudgment Bias

Dear Mses. Nisidis and Fetting and Mr. Johnson:

As you know, Pegasus Wind is entitled to a hearing before a fair and impartial tribunal with no prejudgment bias. The purpose of this letter is to reiterate Pegasus Wind's concern that any Tuscola Area Airport Zoning Board of Appeals ("ZBA") members who have a prejudgment bias or conflict of interest with respect to Pegasus Wind, its project, or the pending eight variance applications not participate in any deliberations or vote on Pegasus Wind's applications. We have expressed this concern in the past with respect to ZBA Member Bill Campbell and refer you to our July 16, 2019 letter in this regard.

As discussed further below, we continue to believe that Mr. Campbell has prejudged Pegasus Wind and its project and cannot fairly adjudicate Pegasus Wind's pending variance applications. In fact, in reversing the ZBA's decision on Pegasus Wind's initial 33 variance applications, Judge Gierhart concluded that Mr. Campbell is predisposed against Pegasus Wind and its project. In light of recent statements by ZBA Member Tim Kinney, we believe that he, too, has prejudged Pegasus Wind's variance applications and cannot adjudicate the pending eight variance applications in a fair and unbiased manner.

Moreover, the ZBA's decision to act as an advocate and unilaterally appeal Judge Gierhart's reversal of the ZBA's decision on Pegasus Wind's initial 33 variance applications, and accept funding from the anti-wind Friends of the Tuscola Area Airport ("Friends") indicates that the ZBA cannot impartially adjudicate the pending applications. As before, we believe that it is imperative that the ZBA poll its members for conflicts of interest or bias before proceeding with

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 Ms. Jodi Fetting
 January 13, 2020
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its deliberations to ensure compliance with Michigan law. It is also imperative that the members acknowledge such conflicts or bias and recuse themselves if any exist.

We have previously discussed the ZBA's legal obligations with respect to conflicts of interest and prejudgment bias in our July 16, 2019 letter and will not restate those obligations here. To summarize, due process principles dictate that any ZBA members who oppose wind energy, Pegasus Wind, or its project should declare a conflict of interest and recuse themselves on the basis of prejudgment bias. Similarly, ZBA members who otherwise do not have an open mind with respect to Pegasus Wind's variance applications and have already prejudged them should recuse themselves. ZBA members have a responsibility to be fair and objective as they consider Pegasus Wind's variance applications. Pegasus Wind simply wishes to ensure the legitimacy and fairness of the variance application process. We are concerned that recent actions of the ZBA and statements of certain ZBA members jeopardize Pegasus Wind's ability to receive a fair hearing.

First, the ZBA's decision to abandon its adjudicative role in hearing and deciding airport zoning appeals and variances, and to act as an advocate against Pegasus Wind's variances in the Michigan Court of Appeals shows that it cannot act fairly and objectively with respect to the pending applications. As discussed in Pegasus Wind's Motion to Dismiss the ZBA's pending appeal for lack of standing, a ZBA is an adjudicative body that is supposed to remain impartial at all times. That impartiality is compromised when the ZBA acts as an advocate for a particular outcome, as it has done by appealing Judge Gierhart's reversal of the ZBA's denial of Pegasus Wind's initial 33 variance applications. Indeed, neither the Airport Zoning Act nor the Airport Zoning Ordinance gives the ZBA the authority to appeal reversals of its own decisions. So the ZBA is intentionally acting outside the scope of its statutorily-defined role to pursue an agenda against Pegasus Wind's variances. Worse yet, the ZBA is doing so despite the decision of Tuscola County, which represents the public interest, not to appeal Judge Gierhart's judgment and not to fund any appeal.

Instead of remaining neutral and unbiased, the ZBA is working in concert with the Friends of the Tuscola Area Airport, which is an anti-wind non-profit corporation that was formed by attorney Joshua Nolan, the co-founder and a member of an anti-wind organization based in Toledo, Ohio, called the Interstate Informed Citizens Coalition. He has represented Jim Tussey, Garret Tetil, and Mike Pattullo in their efforts to block wind projects in Tuscola County, both individually and as members of two local anti-wind organizations, the Ellington-Almer Concerned Citizens Group and the Concerned Citizens of Juniata Township.¹ Those individuals are also part of the Friends group that is now trying to block Pegasus Wind's project by preventing Pegasus Wind from obtaining its airport approvals. In fact, at the December 13, 2019 meeting where the ZBA voted to appeal Judge Gierhart's judgment and take private funds from the Friends group, Mr. Pattullo spoke on behalf of the Friends group and committed the necessary funds to support an

¹ Mr. Nolan is also representing the Friends group and other anti-wind groups and individuals in their challenges to the FAA's Determinations of No Hazard ("DNH"), first before the FAA and more recently in the U.S. Court of Appeals for the D.C. Circuit.

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appeal by the ZBA of Judge Gierhart's reversal of the ZBA's denial of Pegasus Wind's initial 33 variance applications. Mr. Pattullo has spent the last four years campaigning against Pegasus Wind and its parent company, NextEra Energy Resources, including at recent ZBA meetings. Worse yet, given the private interests driving the Friends group's funding of the ZBA's appeal, it is not at all clear that the donations are even legal under Michigan law.

Just as troubling, Messrs. Campbell and Kinney have made public statements that show they cannot be impartial and fairly adjudicate Pegasus Wind's variance applications. We have already chronicled Mr. Campbell's past statements in letters to the ZBA. And Mr. Campbell clearly does not like the fact that Pegasus Wind has exposed his bias. At the December 4, 2019 meeting of the ZBA, where the board first discussed appealing Judge Gierhart's judgment, Mr. Campbell said that "[i]n regards to the [most recent] letter [from Pegasus Wind regarding Mr. Campbell's bias] I felt that was an attempt to intimidate myself and the board. Obviously they don't know me." (12/4/19 Tr at 21.) Pegasus Wind has never tried to intimidate Mr. Campbell. Pegasus Wind has simply requested—repeatedly—that he follow the law.

Now, an unbiased judge has ruled that Mr. Campbell has a predisposition against Pegasus Wind's project and variance applications. In Judge Gierhart's November 27, 2019 judgment reversing the ZBA's denial of Pegasus Wind's 33 variance applications, she specifically found that Mr. Campbell "had previously expressed belief that Pegasus Wind should not be rewarded with variances, the predisposed belief that variances should not be granted shows a failure to exercise objective reasoning." (11/27/19 Judgment at 7-8.) Mr. Campbell has a duty to recuse himself. His refusal to do so, even in the face of a judicial determination that he is in fact biased, continues to cause Pegasus Wind grave concern for the integrity of this process.

While Mr. Kinney does not appear to be ideologically opposed to wind energy in principle, he unfortunately also made statements at the December 4, 2019 ZBA meeting that show a lack of impartiality and a predisposition against Pegasus Wind's variance applications. Mr. Kinney stated:

the [explosion] of the wind turbine developments in the vicinity of the Tuscola County Airport it just does not bode well for the continued viability of this public use facility. And the aviation community and the airport authority must appreciate the legal and regulatory milieu in front of them and garner the resources to combat this proliferation of wind turbine generators in and around the airport air space, otherwise the Tuscola Area Airport may face extinction in my mind.

(12/4/19 Tr at 21.) Even though the Federal Aviation Administration ("FAA") is a federal agency charged with protecting national airspace, Mr. Kinney added: "The FAA Obstacle Evaluation Group abrogated its responsibility by claiming that penetrations to the airport protected airspace should be resolved through a negotiation between the wind farm developer and the airport authority." (*Id.* at 24.) He concluded: "Reversing the AZBA's decision and granting the 33

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 Page 4

variances to the Airport Zoning Ordinance harms the community's ability to enforce the Airport Zoning Ordinance."

Mr. Kinney is clearly vested in preventing "wind turbine developments in the vicinity of the Tuscola County Airport" and believes that it is something that must be "combatted." His statements are inconsistent with the Ordinance, which contemplates the granting of variances for structures that are not airport hazards, and suggests that he cannot fairly administer the Ordinance with respect to Pegasus Wind's pending variance applications. And perhaps even worse, some of his statements come almost verbatim from an opinion piece on the website of Alan Armstrong, an attorney from Georgia who is philosophically opposed to wind energy developments in the vicinity of airports. In fact, the article from which Mr. Kinney derived his statements is posted under the link "stop wind farms near airports" on Mr. Armstrong's website. Beyond that, Mr. Armstrong is Mr. Nolan's co-counsel in the litigation challenging Pegasus Wind's DNHs on behalf of the Friends group and other anti-wind groups and individuals. Because Mr. Kinney's statements show a predisposition against Pegasus Wind's variance applications, he must recuse himself from this proceeding as well.

To comply with the law, we expect the ZBA to canvas its members for potential conflicts before further deliberating on Pegasus Wind's variance applications and ensure that any members who have prejudged Pegasus Wind's applications recuse themselves. If a ZBA member is uncertain about whether to declare a potential conflict of interest, the Michigan Municipal League's *Zoning Board of Appeals Handbook* cautions: "If you are in doubt about whether or not you have a conflict, it is often advisable to take a conservative approach and declare a conflict." Michigan Municipal League, *Zoning Board of Appeals Handbook* (2015), http://www.mml.org/pdf/ZBA_Handbook_2015.pdf. This duty should not be taken lightly because the failure of a member to disqualify himself or herself when the member has a conflict of interest could constitute malfeasance in office.

We appreciate the ZBA's consideration of this important issue.

Very truly yours,



Daniel P. Ettinger
 Attorney for Pegasus Wind, LLC

DPE/jmb
 19497506

1 TUSCOLA COUNTY
2 AIRPORT ZONING BOARD OF APPEALS MEETING
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6 The Meeting of the Tuscola County
7 Airport Zoning Board of Appeals,
8 125 W. Lincoln Street,
9 Caro, Michigan,
10 Commencing at 12:00 p.m.,
11 Friday, December 13, 2019,
12 Before Laura T. Ambro, CSR-5882.
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1 that an issue? I'm not trying to put you on the spot.

2 MS. NISIDIS: If they decide to proceed with
3 the appeal, I will begin work on it even if I don't
4 have the funds in my account.

5 MR. KOERNER: Thank you.

6 MR. KINNEY: So, I guess it's down to the
7 point where the Board needs to -- we're done
8 deliberating. We're done listening to public comment.
9 We're down to the point where we need to decide our
10 plan here for the appeal we're planning for the circuit
11 court. Anybody on the Board, any of the board members
12 have the desire to put forward a motion?

13 MR. CAMPBELL: I have a motion prepared.

14 MR. KINNEY: Okay. Let's hear it.

15 MR. CAMPBELL: I move to accept funds from
16 The Friends of the Tuscola Area Airport, Incorporated
17 to retain Braun Kendrick for the appeal subject to the
18 following conditions: One, the AZBA and its attorneys
19 retain full authority to make all decisions regarding
20 an appeal. Two, the source of funding shall have no
21 say in any decisions made by the AZBA and its attorneys
22 related to the appeal, and shall have no say in any
23 future actions of the AZBA. The AZBA's acceptance of
24 this money does not bring with it any expressed or
25 implied obligation to take any action or make any

1 decision in this case or any other business of the
2 AZBA. Four, the AZBA shall retain, at all times, its
3 independence as a neutral decision.

4 MR. KINNEY: Okay. We have a motion before
5 us to accept private funds from Braun Kendrick for the
6 appeal.

7 MS. NISIDIS: Not from Braun Kendrick.

8 MR. KINNEY: Oh, for.

9 MR. KOERNER: It didn't take you long to
10 answer that one.

11 MR. KINNEY: Do we have support?

12 MR. CLINESMITH: Support.

13 MR. KINNEY: And we have support. I think we
14 need a roll call vote.

15 MR. CLINESMITH: I think there's -- this here
16 motion kind of -- I'm thinking about whether it
17 includes both parts on the motion. We need to accept
18 the private funds, and do we need a separate motion to
19 appeal? Or we've already done that?

20 MS. NISIDIS: Yep.

21 MS. FETTING: And any other motions would
22 maybe be subsequent to this, unless you're looking to
23 amend this motion.

24 MR. CLINESMITH: No.

25 MR. KINNEY: Any more discussion on the

1 motion that's before us? Mr. Hoose, anything?

2 MR. HOOSE: Pardon me.

3 MR. KINNEY: Do you have any comments or
4 deliberation?

5 MR. HOOSE: Nothing.

6 MR. KINNEY: Are we ready for a roll call
7 vote.

8 MS. FETTING: Clinesmith?

9 MR. CLINESMITH: Yes.

10 MS. FETTING: Campbell?

11 MR. CAMPBELL: Yes.

12 MS. FETTING: Hoose?

13 MR. HOOSE: Yes.

14 MS. FETTING: Kinney?

15 MR. KINNEY: Yes.

16 MS. FETTING: And Kosik is absent. So, with
17 four yes's, that motion carries.

18 MR. CAMPBELL: I have one more.

19 MR. KINNEY: Okay.

20 MR. CAMPBELL: I move to authorize Tim Kinney
21 to sign an engagement letter with Braun Kendrick for
22 the legal services necessary to file and pursue an
23 appeal.

24 MR. CLINESMITH: Can you explain that a
25 little bit more.

, MEETING
12/11/2019

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1 STATE OF MICHIGAN
2 TUSCOLA COUNTY BOARD OF COMMISSIONERS
3 SPECIAL BOARD MEETING
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9 TUSCOLA COUNTY SPECIAL BOARD MEETING:
10 Taken at 301 North Hooper,
11 Caro, Michigan,
12 Commencing at 4:00 p.m.,
13 Wednesday, December 11, 2019,
14 Before Valerie Jo Lohr, CSR-6212.
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1 CHAIRMAN BARDWELL: Commissioner Jensen?
2 COMMISSIONER JENSEN: No.
3 CHAIRMAN BARDWELL: Commissioner Grimshaw?
4 COMMISSIONER GRIMSHAW: I'm fine.
5 CHAIRMAN BARDWELL: Okay. I thought maybe
6 you had a little bit more to go.
7 COMMISSIONER GRIMSHAW: Not yet.
8 CHAIRMAN BARDWELL: All right. So with that
9 said, is there a motion?
10 CLERK JODI FETTING: Whoever's going to make
11 it, please grab a microphone, if there is one to be
12 made.
13 CHAIRMAN BARDWELL: Is there a motion?
14 COMMISSIONER GRIMSHAW: Yes. I'll make the
15 motion. I move that the Tuscola County Board of
16 Commissioners does not appeal the judge's decision.
17 COMMISSIONER JENSEN: Support.
18 CHAIRMAN BARDWELL: It's been moved and
19 supported that Tuscola County does not support an
20 appeal of the circuit court judge's decision.
21 Any further discussion?
22 Commission Vaughan, I can't see you, so any
23 further discussion?
24 COMMISSIONER VAUGHAN: No.
25 CHAIRMAN BARDWELL: Okay. Thank you.

, MEETING
12/11/2019

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1 We'll have a roll call vote, please.

2 CLERK JODI FETTING: Commissioner Grimshaw?

3 COMMISSIONER GRIMSHAW: Yes.

4 CLERK JODI FETTING: Commissioner Young?

5 COMMISSIONER YOUNG: Yes.

6 CLERK JODI FETTING: Commissioner Vaughan?

7 COMMISSIONER VAUGHAN: Yes.

8 CLERK JODI FETTING: Commissioner Jensen?

9 COMMISSIONER JENSEN: Yes.

10 CLERK JODI FETTING: Commissioner Bardwell?

11 CHAIRMAN BARDWELL: No.

12 CLERK JODI FETTING: With four yeses, that

13 motion carries.

14 CHAIRMAN BARDWELL: The decision has been

15 made by a majority of the Board that the decision not

16 to appeal the circuit court's decision is not

17 (inaudible).

18 COMMISSIONER GRAMSHAW: (Inaudible)

19 To explain what that process is, one of the

20 things we talked about in -- with counsel, was the

21 conflict that currently exists because the AZBA and the

22 county both are represented by the same law firm.

23 Under the rules of representation, we could bar them

24 from representing the AZBA in any kind of appeal if

25 they so choose to pursue it without our funding.

MEETING,
12/04/2019

Page 1

1 COUNTY OF TUSCOLA
2 AIRPORT ZONING BOARD OF APPEALS
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6 The Tuscola County Airport Zoning Board of Appeals,
7 Taken at 1401 Cleaver Road,
8 Caro, Michigan,
9 Commencing at 4:02 p.m.,
10 Wednesday, December 4, 2019,
11 Before Sheila H. Raymond, CER 6932.
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MEETING,
12/04/2019

Page 21

1 would have been a good idea for the judge, I don't know
2 if she could even do this but maybe she should have
3 recused herself from this case and sent it to another
4 judge.

5 MR. CAMPBELL: Just one further comment for
6 myself. In regards to the letter I felt that that was
7 an attempt to intimidate myself and the board.
8 Obviously they don't know me. But I personally feel we
9 have two different opinions here, certainly getting a
10 third opinion would be appropriate.

11 MR. KINNEY: Mr. Hoose, any comment?

12 MR. HOOSE: No.

13 MR. KINNEY: I've just got a couple of
14 comments. One has been expressed, and that is that the
15 exposure of the wind turbine developments in the
16 vicinity of the Tuscola County Airport it just does not
17 bode well for the continued viability of this public
18 use facility. And the aviation community and the
19 airport authority must appreciate the legal and
20 regulatory milieu in front of them and garner the
21 resources to combat this proliferation of wind turbine
22 generators in and around the airport air space,
23 otherwise the Tuscola Area Airport may face extinction
24 in my mind. The Tuscola County court decision against
25 the Pegasus Wind project as the decision is in my

1 opinion most likely due to the court's lack of
2 knowledge about the Federal Aviation regulatory
3 guidance and the national airspace system. For
4 example, with flight visibilities of 2 and a 1/2
5 statute miles, and we have talked about the visibility
6 thing in the past, under the visual flight rules one
7 would not be able to legally operate an aircraft within
8 6.6 miles, nautical miles of the area airport in the
9 vicinity of a wind farm either above or below 700 feet,
10 and when conducting a circling instrument approach
11 procedures pilots are not permitted to descend below
12 the published minimum descent altitude, the MDA, until
13 the touchdown environment is in sight, and it's highly
14 improbable that the touchdown environment will be in
15 sight with a 300 foot higher circling approach MDA and
16 flight visibility at the published minimum of 1 statute
17 mile. And you have to get into some basic trigonometry
18 to understand this but on a 3 degree glide slope every
19 300 feet equals a mile on flying with the visibility
20 requirements are 1 statute mile and you're at 600 feet
21 because of the increased 300 feet you're going to be at
22 2 miles from the airport and you're not allowed to
23 descend out of the MDA until you got the airport
24 environment in sight. This is all in the federal
25 aviation regulations which is evidenced that I feel

STATE OF MICHIGAN
IN THE 54TH CIRCUIT COURT FOR THE COUNTY OF TUSCOLA

PEGASUS WIND, LLC,
a Delaware limited liability company,

Appellant,

Vs.

Case No: 19-30829-AA
Hon. Amy Grace Gierhart

TUSCOLA COUNTY and TUSCOLA AREA
AIRPORT ZONING BOARD OF APPEALS,

Appellees.

TRUE COPY
JODI FETTING

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OPINION AND ORDER

This Claim of Appeal comes before the Court, by Pegasus Wind, LLC (Pegasus) against Tuscola County and the Tuscola Area Airport Zoning Board of Appeals (AZBA), requesting an order reversing the AZBA's decision denying 33 variance applications for construction of wind turbines.

STATEMENT OF FACTS

In 2017, Pegasus Wind, LLC proposed construction of the Pegasus Wind Energy Center Project in Tuscola County, Michigan. The proposal sought to be located in agricultural areas of Juniata, Fairgrove, and Gilford Townships, which is east and south of the Tuscola Bay Wind and Tuscola Wind II Wind Energy Centers. Pegasus submitted applications for special land use permits to construct and operate the Wind Project in the Townships.

Each township granted valid special land use permits (SLUPs), in 2018. Zoning permits were obtained from the townships and building permits from the County building inspector and Pegasus subsequently began construction of the wind turbine foundations and infrastructure for the Wind Project.

After the SLUP approvals, Pegasus submitted applications to the Federal Aviation Administration (FAA) for determinations of no hazard (DNHs) for the applicable proposed turbines in the Wind Project. On February 12, 2018, FAA issued preliminary notices of presumed hazard for the wind turbines, meaning that further study was necessary before the FAA would issue final determinations. Pegasus requested further aeronautical study and circularization for public comment. During this process, Pegasus eliminated 8 proposed turbines, as well as an additional 11, in order to remove potential for impacting future operations of the airport, if the airport's proposed runway was built sometime in the future.

The FAA completed an aeronautical study and issued DNHs for the turbines in the Wind Project, on April 3, 2019. After this study, FAA concluded that "the described structure[s] would have no substantial adverse effect on air navigation."¹ The FAA additionally concluded that "the proposed construction would not have a substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on any navigation facility and would not be a hazard to air navigation providing the conditions set forth in this determination are met,"²

This Court issued an order, on April 18, 2019, which granted Pegasus Wind's motion for a preliminary injunction and ordered the Juniata SLUP to be restored. Pegasus filed its variance applications with the Airport Zoning Administrator (ZA) for 23 turbines in Zone E of the Tuscola Area Airport Permit Threshold map and 17 turbines in Zone B of the Tuscola Area Airport Permit Threshold Map.

Opponents of the Wind Project, petitioned FAA, on May 2, 2019, for discretionary review of the DNHs, and claimed that the proposed turbines are a hazard to air navigation and that the proposed turbines pose an "existential threat" to the safety of Tuscola Area Airport and its economic and operational viability. On June 19, 2019, FAA denied the petition by stating, "the structures would not have an adverse effect on the safe and efficient use of the navigable airspace by aircraft and would not be a hazard to air navigation." The FAA also determined that the structures would not have a substantial adverse effect on visual flight rules (VFR) flight operations. It was further noted that the petition denial meant that the DNHs were final.

The ZA conditionally approved permits for 7 turbines in the Wind Project, on June 10, 2019, subject to the receipt of the written confirmation from MDOT that a Michigan Tall Structures permit would be issued. The ZA denied permits for the remaining 33 variance applications stating that the turbines at issue would raise descent minimums contrary to Section 3.6G of the Tuscola Area Airport Zoning Ordinance (TAAZO). Additionally, 7 of those same 33 turbines were also determined to exceed the legal height limitations set forth in Section 3.3 of the TAAZO.

MDOT granted Tall Structure Act Permits on June 18, 2019 for the 7 turbines which were the subject of the variance applications which were conditionally approved by the ZA. Although MDOT could not fully process the Tall Structure Act Permits for the 33 turbines where the ZA had denied the variances, on June 20, 2019 MDOT stated in writing that it

¹ Determination of No Hazard to Air Navigation, Aero. Study No. 2018-WTE-21-OE, 1, 3 (2019).

² *Id.* at 10

concurred with FAA's DNHs and that a Tall Structure Act Permit could be issued for each of those turbines, in the event variances were granted by the AZBA.

On June 11, 2019, Pegasus filed applications with the AZBA for variances for the 33 proposed turbines which had been denied by the ZA. Ordinance.

A public meeting was scheduled, by the AZBA on June 25, 2019, to consider Pegasus Wind's variance application. Pegasus Wind, its legal counsel, and its aeronautical experts from Capital Airspace gave a presentation explaining why Pegasus Wind met the requirements for obtaining the requested variances and further explained why the Wind Project would not create a hazard for the airport. Before the presentation was finished, AZBA Secretary Bill Campbell stated that he believed that this presentation was just "fluff" and alleged further that Pegasus was in violation of the Ordinance as it had planned the Wind Project knowing that it would need to obtain variances.³

The meeting reconvened on July 9, 2019. The Tuscola Area Airport Authority attorney gave a lengthy argument and spoke out against the Wind Project and described the Authority's belief that "[t]all stuff by the airport is bad." Mr. Campbell moved to adopt a resolution denying all 33 of Pegasus Wind's variance applications. This motion was seconded and after a 3-1 vote, the AZBA adopted denying Pegasus Wind's variance applications.

STANDARD OF REVIEW

The Michigan Constitution grants authority to the Courts to review "all final decisions, findings, rulings and orders of any administrative officer or agency existing under the constitution or by law, which are judicial or quasi-judicial and affect private rights or licenses."⁴ The Michigan Constitution, Article VI, Section 28 states that, when reviewing a decision from an administrative officer or agency, the "review shall include, as a minimum, the determination whether such final decisions, findings, rulings and orders are authorized by law; and, in cases in which a hearing is required, whether the same are supported by competent, material, and substantial evidence on the whole record."

Lawrence v. Mich. Unemployment Ins. Agency, 320 Mich App 422, 431 (2017), states, "Evidence is competent, material, and substantial if a reasoning mind would accept it as sufficient to support a conclusion." The supporting evidence needs to be more "than a mere scintilla, but less than a preponderance of the evidence."⁵

The substantial evidence standard is a "thorough judicial review of administrative decision, a review which considers the whole record – that is, both sides of the record – not just those portions of the record supporting the findings of the administrative agency. Although such

³ AZBA Hr'g Tr. 35:5, June 25, 2019.

⁴ *Mich. Const. Art. VI, § 28*

⁵ *Lawrence v. Mich. Unemployment Ins. Agency*, 320 Mich App 422, 431 (2017)

review does not attain the status of de novo review, it necessarily entails a degree of qualitative and quantitative evaluation of evidence considered by an agency.”⁶

When reviewing evidence, “Under the substantial-evidence test, the circuit court’s review is not de novo and the court is not permitted to draw its own conclusions from the evidence presented to the administrative body.”⁷ The reviewing court “must give deference to an agency’s findings of fact.”⁸ “When there is substantial evidence, a reviewing court must not substitute its discretion for that of the administrative tribunal even if the court might have reached a different result. A court may not set aside findings merely because alternative findings also could have been supported by substantial evidence on the record.”⁹

ANALYSIS

The TAAZO sets forth certain height limitations for the established zones around Tuscola Area Airport. This Ordinance precludes any use of the lands within the Airport Zoning Area which “[w]ould raise the descent minimums of any instrument approach procedure to the airport, or otherwise limit operations at the airport, as determined by an airspace study conducted by the Federal Aviation Administration.” The 33 turbines proposed by Pegasus would violate the Ordinance and could not be built without a variance.

“A person desiring to erect a structure . . . in violation of the airport zoning regulations adopted under this act, may apply to the board of appeals, for a variance from the zoning regulations in question.”¹⁰ “The board of appeals shall allow a variance if a literal application or enforcement of the regulations would result in practical difficulty or unnecessary hardship and the relief granted would not be contrary to the public interest, but would do substantial justice and be in accordance with the spirit of the regulations.”¹¹ This Airport Zoning Act (AZA) provides a standard that the zoning board of appeals “shall allow a variance” if the variance standard is met.¹²

I. Whether the AZBA’s finding that Pegasus Wind failed to establish a practical difficulty is supported by the record and Michigan law?

There is no distinction between nonuse variances and use variances detailed in the Airport Zoning Act (AZA). Practical difficulty is decided by considering, “whether the denial [of the variance] deprives an owner of the use of the property, compliance would be unnecessarily burdensome, or granting a variance would do substantial justice to the owner.”¹³ The practical

⁶ *Michigan Employment Relations Com. v. Detroit Symphony Orchestra Inc.*, 393 Mich 116, 124 (1974).

⁷ *Edw. C. Levy Co. v. Marine City Zoning Bd. of Appeals*, 293 Mich App 333, 341 (2011).

⁸ *Id.*

⁹ *Id.*

¹⁰ MCL § 259.454(1).

¹¹ *Id.*

¹² MCL § 259.454(1).

¹³ *Norman Corp. v. City of E. Tawas*, 263 Mich App 194, 203 (2004).

difficulty or unnecessary hardship must not be of self-created nature, which means that the party seeking the variance must not have created the hardship.¹⁴

Appellant argues that Pegasus Wind's variance application met every standard that was required in the AZA and the Ordinance,

The AZBA determined that Pegasus Wind did not show that the literal interpretation of the Ordinance would result in a practical difficulty. For nonuse variances, a showing of practical difficulty is the correct standard for approval.¹⁵ Though there is no specific standard for determining practical difficulty, Courts have considered whether denial of the nonuse variance would deprive the owner of the use of the property, or whether compliance with the ordinance would be unnecessarily burdensome.¹⁶ "The concept of 'practical difficulty' in zoning law relates to problems inherent in the property itself, not to the personal conditions of its occupants."¹⁷

Pegasus argues that the conclusion by the AZBA is not proper, because Pegasus did make a showing that shorter turbines and other potential alternative locations would not be viable options. Pegasus explained in its initial application, and presentation that it could not use shorter turbines because "virtually all commercial wind turbines sold on the market and used by developers like Pegasus Wind today are in excess of 400 feet," and would therefore, violate the height limitations of the Ordinance.¹⁸ The height requirements of the wind turbines are inherent to the property, as they are carried with the property through the Ordinance. As the township zoning restrictions have restricted the distances between turbines and turbines proximity to property lines and homes, Pegasus Wind explained that being additionally forced to comply with the TAAZO would be unnecessarily burdensome and possibly detrimental to the Wind Project's economic viability.

Pegasus established during the public hearing that it would be impossible for them to reconfigure the Wind Project and move the turbines. The current array for the turbines has been carefully considered to comply with FAA and MDOT regulations, and all of the local zoning requirements. Pegasus points out that the turbines are interconnected, and that to move turbines does not affect just those turbines, but affects the entire array. To go through this process would mean that Pegasus could not move forward with the project, because it would be too unnecessarily burdensome.

Nevertheless, Appellee argues that Pegasus has failed to provide evidence establishing that Pegasus was unable to relocate the turbines to another location. Again, Pegasus had stated that they were unable to relocate the 33 turbines at issue, as it would be virtually impossible to achieve a reasonable rate of return and such a requirement would hinder their ability to comply with the terms of its Power Purchase Agreement. Pegasus counters that the AZBA did not provide evidence that suggests that Pegasus Wind could use shorter turbines that would not

¹⁴ *Norman Corp. v. City of E. Tawas*, 263 Mich App 194, 203 (2004).

¹⁵ *Heritage Hill Assoc. v. Grand Rapids*, 48 Mich App 765, 769 (1973).

¹⁶ *Norman Corp. v. City of Tawas*, 263 Mich App 194, 203 (2004).

¹⁷ *Davenport v. City of Grosse Pointe Farms Bd of Zoning Appeals*, 210 Mich App 400, 403 n1 (1995).

¹⁸ AZBA Hr'g Tr. 40:20-25; 41:1-9, June 25, 2019.

violate the Ordinance or could reconfigure the array without unnecessarily burdening Pegasus Wind.

The AZBA concluded that Pegasus Wind did not “convincingly establish” that shorter turbines or other potential alternative locations were not viable options, and therefore, no practical difficulty had been shown. However, this finding was in error, as Pegasus did not need to show that alternatives would be more suitable because “a nonuse variance applicant does not need to show . . . that no other suitable location exists.”¹⁹ It was further established by Pegasus that when determining location for the turbines, there are geography requirements. These requirements are local zoning requirements and municipality setbacks, along with shadow flicker and sound output. The wind array is interconnected. If one turbine is moved the regulatory approvals must be done again.

This Court concludes that Pegasus Wind did establish that there is a practical difficulty in the literal enforcement of the Ordinance and that there is not competent, material, or substantial evidence to support the AZBA’s denial of the variances on this basis.

II. Whether the conclusion by the AZBA that the variances sought by Pegasus, would be contrary to the public interest and approach protection was supported by any evidence on the record and whether Pegasus’ evidence from the FAA, MDOT, and Capital Airspace directly contradicted the AZBA’s conclusion?

Pegasus argues that the AZBA’s determination denying the variances is contrary to the public interest and that their concern about approach protection is not supported by the experts and the evidence on the record. Pegasus presented evidence at the public hearing that the FAA conducted an aeronautical study and concluded that “the structure[s] would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities,” and thus, issued favorable DNHs for the Wind Project. This study involved technicians from more than ten different government offices. The technicians reviewed the proposed Wind Project to determine that the Wind Project would not interfere with their specific expertise area of air navigation and safety. It was concluded that an increase in the minimum descent altitude for the VOR-A would maintain the “appropriate obstacle clearance, negating any concern for safety created by the proposals on the procedure.”²⁰ MDOT concurred with FAA’s determination. MDOT’s Linn Smith stated at the public hearing that the FAA’s study was a “tough study by all means,” and made note that FAA had determined that the Wind Project would still allow the airport to maintain appropriate approach protection procedures.²¹

It is the Appellee’s contention that Pegasus is relying on the FAA’s Determinations of No Hazard in error, and that the DNHs are not dispositive of whether variances should be issued. The AZBA determined that even though approach protection was considered in the FAA study, , additional risks would remain as a result of the siting of the proposed turbines which are contrary to the public interest and the safety of approaches at the Tuscola Area Airport. The

¹⁹ *Laurence Wolf Capital Mgmt Trust v. City of Ferndale*, 61 Fed Appx 204, 216 (2003).

²⁰ Determination of No Hazard to Air Navigation, Aero. Study No. 2018-WTE-21-OE, 1, 10 (2019).

²¹ AZBA Hr’g Tr. 11:13-20, July 25, 2019.

Determination of No Hazard is not a determination that the locations of the proposed turbines are safe or that there is no hazard to be associated with the proposed turbines, but rather is a determination that the proposed turbines have no “substantial” adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities if certain conditions are met. It is asserted that the FAA determination is only one of the two requirements, and that a variance is a separate requirement. It is further asserted that the Determination of No Hazard is not one of the criteria for a variance to be issued.

After viewing the produced evidence by Pegasus’ various aeronautical experts, the AZBA found that “[a]lthough approach protection was part of the consideration undertaken by FAA’s study of the turbines at issue, certain additional risks would remain as a result of the siting of approaches at the Tuscola Area Airport.” The AZBA expressed concerns at the first public hearing that the Wind Project would pose a potential risk to emergency operations, and Pegasus Wind, with help from its experts Capital Airspace, submitted written documentation explaining why the turbines would not increase the risk associated with emergency aircraft operations. The AZBA failed to provide explanation as to what additional risks the variances would pose.

While the AZBA determined that the turbines appeared contrary to the public interest, the record does not contain any competent evidence that contradicts Pegasus’ evidence that the turbines would be in the public interest. No evidence was presented by an expert to substantiate the contention that the turbines would negatively affect airport operations, nor did the members of the public cite any reliable authority which would contradict Pegasus’ evidence. Case law provides that the phrase “contrary to public interest,” is defined as “[t]he need for the proposed nonconforming use in the community would be relevant on the issue whether the proposed variance is ‘contrary to the public interest.’”²² It further states, “convenience or inconvenience to the general public is not a ground for the grant or denial of a hardship or variance.”²³

The Appellant has established that a grant of the variances would not be contrary to the public interest and the airport’s approach protection. The FAA aeronautical study determined that there would be no substantial adverse effect on the air navigation. Though the AZBA argues that FAA only stated that there would be no “substantial” adverse effect, it did not cover all situations. Approach protection was a specific category of the FAA study, it was found that the turbines would increase the minimum descent angle for one of the circling approaches. The MDOT representative concluded that the FAA study was a tough study and the Wind Project would still allow the airport to maintain appropriate approach protection procedures. Therefore, the conclusions of the AZBA are contradicted by the evidence of the FAA study, and the MDOT representative.

The AZBA did not cite any specific evidence to support the conclusion that the turbines are contrary to the public interest. The FAA and MDOT have already determined that the Wind Project would not be injurious to the safety of the airport. Juniata, Gilford, and Fairgrove Townships have already made the determination that the Pegasus Wind Energy Center meets the requirements of a special land use permit. Pegasus has explained that the Wind Project would

²² *Farah v. Sachs*, 10 Mich App 198, 204 (1968).

²³ *Id.*

provide significant benefits to the community. Pegasus has further taken significant measures to ensure the preservation of the public interest by withdrawing 19 turbines that FAA determined would have an impact on future airport operations. Pegasus argued that the Wind Project would bring significant benefits to the community, including generating approximately \$36 million in property tax revenue for Tuscola County. It is further argued by Pegasus that Michigan has a renewable energy standard, which requires that Michigan electric providers achieve a retail supply portfolio with an increase from 10% in 2015 to 15% in 2012.

The Appellee asserts that emergency flights and helicopter aviation would be impacted by the Wind Project, but it was concluded that there is no impact on helicopter safety and there is no evidence to support that conclusion. Pegasus, with help from its expert, Capital Airspace, submitted documentation which showed that the risk associated with emergency aircraft would not be increased by the turbines.

This Court concludes that Pegasus Wind did establish that the granting of the variances would not be against the public interest and that there is not competent, material, or substantial evidence to support the AZBA's denial of the variances on this basis.

III. Whether the AZBA's conclusion that granting the requested variances would not do substantial justice is authorized, when such conclusion is unsupported by substantial evidence on the record or by Michigan law?

Pegasus Wind argues that the conclusion, by the AZBA, that granting the variances would not do substantial justice is not authorized by Michigan law or supported by substantial evidence. Substantial justice is yet undefined by the AZA. It is argued that granting the variances would do substantial justice to the public, because there would be no substantial adverse effect on the airport and the Wind Project would bring benefits to the community. Case law provides that substantial justice can be found when compliance with an ordinance would result in practical difficulty and would amount in unnecessary hardship; thus, granting the variance would result in substantial justice.²⁴

Pegasus Wind presented evidence that without the variances, Pegasus could not move forward with the Wind Project and would not be able to meet its obligations under its various agreements. Pegasus Wind's development could not occur without the variances, and therefore, substantial justice would be done by granting the variances to Pegasus Wind.

Appellee argues that even if Pegasus is unable to meet its obligations under the Power Purchase Agreements without the variances, the land is still economically viable and development can still occur on the land. The denial of the variances means that Pegasus cannot build the turbine structures that exceed the height requirements of the ordinance or that raise descent minimums of any instrument approach procedure to the airport.

AZBA determined that to grant the variances would not do substantial justice, because Pegasus was aware that variances would be necessary before it began construction. AZBA Member Campbell expressed an opinion that Pegasus Wind should not be rewarded by obtaining

²⁴ *Laurence Wolf Capital Management Trust v. City of Ferndale*, 61 Fed Appx 204, 217 (2003).

variances. Michigan case law has provided that the ZBA cannot hold a predisposed decision regarding the grant of the variance, but must exercise objective reasoning.²⁵ *Polkton Charter Township v. Pellegrum*, affirms the Circuit Court's decision to reverse ZBA's SLUP denial in part, because "there appeared to be an attitude or predisposition to reach a particular decision" because the applicant began the work before obtaining permits.²⁶ In the case at bar, as Campbell had previously expressed belief that Pegasus Wind should not be rewarded with variances, the predisposed belief that variances should not be granted shows a failure to exercise objective reasoning.

It is further known that the mere fact that a property owner purchases property with the prior knowledge of an applicable restriction does not preclude the owner from later receiving a variance.²⁷ Pegasus knew it would need to obtain variances, but that does not mean that it could not obtain use of the property and seek the variances. That Pegasus had the knowledge that variances would eventually be needed is not a violation of the Ordinance. The AZA allows for variances when the actions of a landowner would violate the applicable ordinance: "A person desiring to erect a structure, or increase the height of a structure, or permit the growth of a tree, or otherwise use property in violation of the airport zoning regulations adopted under this act, may apply to the board of appeals, for a variance from the zoning regulations in question."²⁸ Pegasus would be in violation of the Ordinance if the turbines were erected, but Pegasus sought variances to ensure that it was not in violation of the Ordinance, prior to the construction of the turbines at issue.

Appellee argues that Pegasus has a self-created problem. It is argued that Pegasus entered into contracts and made construction expenditures creating legal obligations for the production of electricity, which it utilized to establish that substantial justice existed to grant the variances. Appellee asserts that Pegasus created this problem and cannot now claim that "substantial justice" requires the issuance of variances to remedy the problems it created.

It is the contention of Pegasus Wind that ample evidence has been provided to show that granting the variances would in furtherance of substantial justice to Pegasus Wind and the surrounding community. Some members of the public are opposed to the project, but this does not mean that substantial justice would be done by denying the variances, especially since a significant portion of the community supports the Wind Project. Pegasus argues that Michigan law does not support the AZBA's conclusions and said conclusions are not supported by competent, material and substantial evidence.

Pegasus Wind has established that substantial justice would be done by granting the variance for the wind turbines. Substantial justice is not a defined standard, but case law it is done when granting a variance would prevent the owner an economically viable use of the land. In this case, Pegasus Wind would not be able to meet its obligations under their agreements.

²⁵ *Polkton Charter Twp v. Pellegrum*, 265 Mich App 88, 93-94 (2005).

²⁶ *Id.*

²⁷ *City of Detroit v. Detroit Board of Zoning Appeals*, 326 Mich App 248, 269 (2018).

²⁸ *MCLS* § 259.454(1).

This Court concludes that granting the variances would do substantial justice to the public. There will be no adverse impact to the airport, and there will be substantial benefit to the county. The record is absent of any evidence that the granting of the variances would not do substantial justice.

IV. Whether the AZBA's conclusion that Pegasus Wind had not shown that granting the variance would be in accordance with the spirit of the Ordinance was supported on the record and by Michigan law?

Pegasus Wind argues that the AZBA incorrectly concluded that Pegasus did not show that granting the variances would be in accordance with the spirit of the Ordinance. The purpose of the Ordinance is to promote the health, safety, and welfare of Tuscola County residents by "preventing the establishment of airport hazards, restricting the height of structures and objects of natural growth and otherwise regulating the use of property in the vicinity of Tuscola Area Airport; [and] providing for the allowance of variances from such regulations."²⁹ The AZBA based its decision to deny the variances by finding that "significant potential risk of airport hazard is posed by the turbines."³⁰ Pegasus argued that the only reliable evidence produced on the record suggests that the Wind Project will have no adverse effect on the air navigation or safety.

Appellee argues that the purpose of the Ordinance is to restrict the height of structures on property around the airport. Therefore, denying the variances is accomplishing the purpose of the Ordinance. Restricting the size of the structures is argued to be the spirit of the ordinance.

Appellant argues that the requirements for the variance were met and therefore, the variances shall be issued. As the Ordinance specifically speaks to granting variances in situations in which the project meets the prerequisite requirements for the variance, the spirit of the ordinance requires granting variances in which the requirements have been met.

This Court finds that though granting variances is only part of the Ordinance, it is contained within the Ordinance and therefore, it is in the spirit of the Ordinance to grant a variance if the requirements of the Ordinance are met.

CONCLUSION

NOW THEREFORE, for the foregoing reasons, the Court finds that the Tuscola Area Airport Zoning Board of Appeals erred in denying the 33 variance applications. The Court further finds that the decision to deny the variance applications violates the Airport Zoning Act and the Airport Zoning Ordinance.

It is **ORDERED** that the Tuscola Area Airport Zoning Board of Appeals conclusion denying the variances is hereby **REVERSED**.

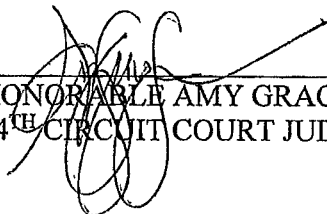
²⁹ Tuscola Cnty., Or., Title Purpose § 1.2 (2011).

³⁰ Resolution Denying Pegasus Wind, LLC's Application for Variances, 5:b, July 25, 2019,

This opinion and order is a final judgment disposing of all matters relating to this claim of appeal.

It is so **ORDERED**.

Dated: 11.21.19


HONORABLE AMY GRACE GIERHART
54TH CIRCUIT COURT JUDGE

AERONAUTICS COMMISSION

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October 22, 2019

Michigan's Tall Structure Act (Act 259, P.S. 1959, as amended by Act 28 P.A. 2016), places authority for review of construction proposals which may affect Michigan airspace with the Michigan Aeronautics Commission. The Michigan Aeronautics Commission has delegated its authority for airspace reviews and approvals to the Michigan Department of Transportation's Office of Aeronautics.

The Michigan Department of Transportation has conducted a review of the following proposal:

Structure Type: Wind Turbine
 Associated Airport: Caro

ASN	Str. Name	AGL	AMSL	Latitude	Longitude
2019-WTE-80-OE	62-Alt	499	1127	43-30-14.42N	83-36-59.05W
2019-WTE-81-OE	63-Alt	499	1125	43-30-11.78N	83-36-39.61W
2019-WTE-4534-OE	15	499	1146	43-30-01.09N	83-33-08.83W
2019-WTE-4535-OE	16	499	1157	43-30-14.70N	83-32-02.12W
2019-WTE-4536-OE	17	499	1163	43-30-08.44N	83-31-43.20W
2019-WTE-4537-OE	18	499	1165	43-30-11.00N	83-31-06.36W
2019-WTE-4538-OE	19	499	1167	43-29-53.09N	83-30-56.62W
2019-WTE-4539-OE	23	499	1176	43-29-23.65N	83-30-20.35W

The Office of Aeronautics' Airspace Review Team has reviewed the Pegasus Wind LLC – Caro wind turbine project. After consideration of the existing and future runway configuration as shown on Tuscola Area Airport's layout Plan, the review team concurs with the FAA's determination of no hazard.

It is the opinion of the Airspace Review Team that a Michigan Tall Structure Permit could be issued to Pegasus Wind for the above listed eight wind turbines after local airport zoning variance permit approval. Prior to tall structure permit issuance, the Airspace Review Team will review the local airport zoning and airport zoning board of appeals' determination and the FAA's discretionary review findings.

I can be contacted at 517-335-9949 or MDOT_Tall_Structures@Michigan.gov if you have any questions or comments.

Linn Smith

Linn Smith

Project Support Unit Supervisor
 Office of Aeronautics

STATE OF MICHIGAN
IN THE SUPREME COURT

PEGASUS WIND, LLC,

Appellee,

v

TUSCOLA COUNTY,

Appellee,

and

TUSCOLA COUNTY AREA AIRPORT
ZONING BOARD OF APPEALS,

Appellant.

Supreme Court Case No. 164261

Court of Appeals Case No. 355715

Tuscola County Circuit Court
Case No. 20-31066-AA

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APPELLEE PEGASUS WIND, LLC'S APPENDIX
VOLUME 2

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Pegasus Wind, LLC (Pegasus Wind) proposes to construct a utility grid wind energy conversion system, called the “*Pegasus Wind Energy Center*,” in Tuscola County, Michigan. The Pegasus Wind Energy Center will be located in Fairgrove, Juniata, and Gilford Townships, and is just east of the Tuscola Wind II Energy Center, which was built by Pegasus Wind’s parent company in 2013. In April 2019, Pegasus Wind submitted applications for airport zoning permits for 40 turbines that are part of the Pegasus Wind Energy Center. The airport zoning administrator (ZA) granted permits for 7 turbines, but denied permits for 33 turbines that Pegasus Wind recognized required variances from the airport zoning board of appeals (AZBA). In June 2019, Pegasus Wind applied for variances for those 33 turbines with the AZBA. On July 25, 2019, the AZBA denied Pegasus Wind’s variance applications for all 33 turbines. The AZBA’s decision has been appealed by Pegasus Wind to the Tuscola County Circuit Court, and that appeal remains pending.

On August 26, 2019, Pegasus Wind submitted airport zoning permit applications for an additional 20 turbines in Fairgrove and Gilford Townships that are part of the Pegasus Wind Energy Center. On September 21, 2019, the airport ZA granted permits for 12 of these turbines. On September 24, 2019, the airport ZA denied Pegasus Wind’s permit applications for the remaining 8 turbines (Variance Turbines). The applications for the Variance Turbines were denied for being in violation of Section 3.6G of the Tuscola Area Airport Zoning Ordinance (Ordinance), while 1 was also denied for being in violation of the height requirement in Section 3.3 of the Ordinance.

On April 3, 2019 and August 11, 2019, Pegasus Wind received favorable Determinations of No Hazard (DNHs) from the Federal Aviation Administration (FAA) for the 8 Variance Turbines. The FAA DNHs are attached to the individual variance applications. This narrative is intended to support Pegasus Wind’s request for variances for the 8 Variance Turbines because they either raise the descent minimums for an instrument approach procedure to the airport or they exceed the zoning ordinance height limitation, or both.

MCL 259.454(1) of the Airport Zoning Act states that a “person desiring to erect a structure . . . in violation of the airport zoning regulations adopted under this act, may apply to the board of appeals, for a variance from the zoning regulations in question.” That section provides the following standard for granting a variance: “The board of appeals shall allow a variance if a literal application or enforcement of the regulations would result in practical difficulty or unnecessary hardship and the relief granted would not be contrary to the public interest, but would do substantial justice and be in accordance with the spirit of the regulations.” Thus, if the identified criteria are met, the AZBA **must** grant a variance from the zoning regulations. The variance standards in the Ordinance mimic those in the Airport Zoning Act.

Pegasus Wind seeks approval of a height variance for 1 turbine in Fairgrove Township that is located in Zone B of the Tuscola Area Airport Permit Thresholds Map of the Ordinance. Pegasus Wind also seeks approval of variances for 5 turbines in Zone B (including the 1 turbine that requires a height variance) and 3 turbines in Zone E that raise the CFS VOR/DME-A Circling Minimum Descent Altitude (CMDA). After extensive study, the FAA determined that “[i]ncreasing the MDA for the VOR-A maintains the appropriate obstacle clearance, negating any concern for safety created by the proposals on the procedure.” (DNH at 6.) As a result, the FAA ultimately concluded that “the structure[s] would not have a substantial adverse

effect on the safe and efficient utilization of the navigable airspace by aircraft or on any air navigation facility and would not be a hazard to air navigation.” (DNH at 7.)

A more detailed listing of the specific variances being requested (and the respective turbine numbers) is attached as **Exhibit 5**. The below discussion illustrates how each of the 8 Variance Turbines meets the variance standards under MCL 259.454(1) of the Airport Zoning Act, as well as the standards for a variance in the Ordinance.¹

Additionally, Pegasus Wind has retained Capitol Airspace Group to analyze, understand, and mitigate impacts on aviation. Capitol Airspace Group is an aviation consulting firm that provides analytical, strategic, and advocacy services to airports, communities, and commercial developers. The company’s core competencies are in air traffic control operations, airspace, terminal instrument procedures (TERPS), and obstacle assessment. Capitol Airspace has assisted in preparing this narrative.² The resumes for the key consultants who have supported this project are attached as **Exhibit 1**.

Background on FAA process and Determinations of No Hazard

The United States Congress has tasked the FAA with ensuring air safety and preserving the National Airspace System. It is through this mandate that the FAA draws its authority to conduct aeronautical studies of proposed wind turbines.³

The FAA undertook an extensive process to review the safety implications of the Variance Turbines. That process – as well as the process for reviewing the initial 33 variance turbines (which is relevant to this analysis)⁴ – and its conclusions are summarized below.

Step One: Filing

Developers intending to build structures in excess of 200 feet above ground level (AGL), or in excess of established notification standards (lower, closer to airports), must submit a notice to the FAA at least 45 days prior to the start of construction.⁵ Primarily, this is conducted via an online submittal process through the FAA’s OE/AAA website.⁶ Prior to the FAA’s establishment of the FAA OE/AAA automation system, notice was provided to the FAA by submitting FAA Form

¹ The variance criteria in the Tuscola Area Airport Variance Application, while stated differently, are substantially similar to the standards under the Airport Zoning Act and the Ordinance. Pegasus Wind meets those criteria as well.

² Pegasus Wind has also retained Kevin Nelson of Nelson Aerodynamics, who is an expert in helicopter operations, and Anthony Rock, who recently retired from the U.S. Air Force, after 35 years, as a Lieutenant General, and now advises NextEra on airspace, airport, and Department of Defense initiatives.

³ 14 CFR Part 77 – Safe, Efficient Use, and Preservation of the Navigable Airspace

⁴ Given the significant similarities between the initial 33 variances turbines and the 8 Variance Turbines, Pegasus Wind requests that the AZBA consider the information Pegasus Wind submitted in support of those variances as part of this application.

⁵ 14 CFR §77.7 – Form and time of notice; and §77.9 – Construction or alteration requiring notice

⁶ <https://oeaaa.faa.gov>

7460-1, *Notice of Proposed Construction or Alteration*. The FAA, as well as the wind industry, continues to refer to these filings as “7460-1” filings.

On January 3, 2018, Pegasus Wind submitted FAA 7460-1 filings for proposed wind turbines that are part of the Pegasus Wind Energy Center. When the FAA received and verified these filings, an aeronautical study number was assigned for each location (2018-WTE-16-OE through 2018-WTE-77-OE).

Step Two: Initial Review

For most projects, ten different government offices take part in the study process, including: Airports, Instrument Flight Procedures Impact Team, Flight Standards, Technical Operations, Frequency Management, United States Air Force, United States Navy, United States Army, Department of Homeland Security (DHS), and the Department of Defense (DoD) Siting Clearinghouse. Technicians in each of these offices will review each point to ensure that the planned structures do not interfere with their areas of responsibility. For example, the Instrument Flight Procedures Impact Team will assess for impacts on current or future instrument procedures at the Tuscola Area Airport.

Once each office has assessed the proposed project, they submit a response of either “objection” or “no-objection” via the FAA OE/AAA system. During this preliminary review period, the project is considered to be in “work status” by the FAA. After all offices have responded, the project is moved from “work status” into “evaluation status.” It is at this point that the FAA Obstruction Evaluation Specialist will assess all of the responses and determine whether to issue a Notice of Presumed Hazard (NPH) or a favorable DNH.

Step Three: Preliminary Results in a Notice of Presumed Hazard (NPH)

A NPH letter is the method that the FAA uses to notify the developer that they have identified something that will require further aeronautical study in order to determine whether or not the structure will pose a hazard to air navigation.

On February 12, 2018, the FAA issued NPHs for the proposed wind turbines. These notices identified an impact on Category C and D visual flight rules (VFR) traffic pattern airspace, current instrument departure and approach procedures, and the potential for interference with an FAA air traffic control surveillance radar system.

Capitol Airspace conducted and submitted a detailed review of the identified airspace impacts to the FAA (**Exhibit 2**). This document described feasible mitigation options such as restricting VFR traffic pattern airspace for future runway operations, increasing “climb-to” altitudes in lieu of increasing departure procedure climb gradient minimums, and implementing the usage of a stepdown-fix in lieu of increasing instrument approach procedure descent minimums.

Additionally, Capitol Airspace analyzed historical air traffic data (obtained from the FAA National Offload Program) to determine whether or not the proposed wind turbines would have a significant effect on air traffic operations at Tuscola Area Airport (**Exhibit 3**). This data included

radar returns for aircraft operating in proximity to the airport between June 1, 2016 and May 31, 2017; analysis of this data showed the following:

- At least 85% of the airport operations were operating under visual flight rules (VFR).
- All operations appeared to be Category A or B aircraft. Aircraft categories are defined by the final approach speed of the aircraft. For reference:
 - Category A aircraft have a final approach speed of less than 90 nautical miles per hour or less (e.g., propeller driven aircraft such as a Cessna 172 or a Beechcraft Baron).
 - Category B aircraft have a final approach speed between 90 and 121 nautical miles per hour (e.g., jet aircraft such as a Cessna Citation or a Bombardier Challenger).
- This air traffic analysis determined that the greatest frequency of all instrument arrivals (utilizing any of the published instrument approach procedures) was an average of 0.37 operations per week. This frequency is well below the FAA's threshold for determining a significant volume of operations (as few as one per week).

Step Four: Responding to a Notice of Presumed Hazard (NPH) and Issuance of Public Notice

In response to the NPHs, Pegasus Wind requested further aeronautical study and circularization for public comment. The FAA issued this notice on March 29, 2018. The FAA typically distributes public notices via e-mail or postcard to any party that can provide information relevant to the FAA's aeronautical study. The distribution list typically includes the following:⁷

- All public-use airports within 13 nautical miles (NM) of the proposed structures
- All private-use airports within 5 NM of the proposed structures
- Any affected airport
- The air traffic facility that provides radar vectoring services in the vicinity of the proposed structures
- FAA Flight Standards
- All known aviation interested persons such as the Michigan Department of Transportation or other local aviation authorities
- Flying clubs and organizations

Once the comment period has closed, the FAA reviews each comment to determine whether it is of a valid aeronautical nature and relevant to the federal aeronautical study process. Multiple comments were submitted during this 37-day period.

Some comments initiated an additional review by the FAA, which resulted in revised NPHs for eight turbines. These revised notices were issued on February 11, 2019 and indicated additional impact on "plan-on-file" procedures which would support a future runway. Pegasus Wind

⁷ As described in FAA Order 7400.2M Paragraph 6-3-17, "Circularization"

terminated the eight turbines to remove the potential for impacting future operations if the runway was built.

Step Five: Final Determinations

At the end of the further aeronautical study⁸ and public comment period, the FAA makes a final decision and issues either a favorable DNH or a Determination of Hazard. On April 3, 2019, the FAA issued favorable DNHs for the proposed turbines in the Pegasus Wind Energy Center. Specifically, the FAA stated in its DNHs that it conducted an aeronautical study that “revealed that the structure[s] would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities.” (DNH at 1.) The FAA further stated: “This aeronautical study considered and analyzed the impact on existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules; the impact on all existing and planned public-use airports, military airports and aeronautical facilities; and the cumulative impact resulting from the studied structure when combined with the impact of other existing or proposed structures. The study disclosed that the described structure[s] would have no substantial adverse effect on air navigation.” (DNH at 3.)

On May 2, 2019, several opponents of the Pegasus Wind Energy Center petitioned the FAA for discretionary review of the DNHs, claiming that the proposed turbines are a hazard to air navigation. On June 19, 2019, the FAA denied the petition. Specifically, the FAA stated that “the structures would not have an adverse effect on the safe and efficient use of the navigable airspace by aircraft and would not be a hazard to air navigation.” (**Exhibit 6.**)

Also this year, Pegasus Wind submitted FAA 7460-1 filings with the FAA for the 8 Variance Turbines. For 2 of the turbines, the filings were submitted on January 30, 2019, and the FAA issued favorable DNHs on April 3, 2019. For the other 6 turbines, Pegasus Wind submitted FAA 7460-1 filings on May 2, 2019, and the FAA issued favorable DNHs for those turbines on August 11, 2019. In the DNHs, the FAA stated that the aeronautical studies were not circularized to the public for comment as part of the process because the previous studies circularized on March 29, 2018 were essentially the same. (DNH at 5.) As with the DNHs issued to Pegasus Wind for the original variance turbines, the FAA stated in its DNHs for the Variance Turbines that it conducted an aeronautical study that “revealed that the structure[s] would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation

⁸ The FAA’s aeronautical study includes proximity to airports by evaluating visual flight rules (VFR) and instrument flight rules (IFR) operations. Obstacles, such as wind turbines, can coexist with airports; this is evident throughout the United States National Airspace System. There are 188 public-use airports that have obstacles taller than 450 feet above ground level located within three nautical miles of the runway. Examples include: Mojave Air and Space Port (MHV), Byron Airport (C83), Port Isabel-Cameron County Airport (PIL), Reagan County Airport (E41), and Monticello Airport (U64). Of these airports, the closest wind turbine is located 2.1 nautical miles from the closest runway end. Of the Variance Turbines, the closest wind turbine would be 2.6 nautical miles from the closest existing or potential future runway end. Since the FAA has issued favorable DNHs, it is clear that the location of the Pegasus Wind project would not affect the safety or efficiency of the Tuscola Area Airport.

of air navigation facilities.” (DNH at 1.) The FAA further stated: “This aeronautical study considered and analyzed the impact on existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules; the impact on all existing and planned public-use airports, military airports and aeronautical facilities; and the cumulative impact resulting from the studied structure when combined with the impact of other existing or proposed structures. The study disclosed that the described structure[s] would have no substantial adverse effect on air navigation.” (DNH at 3.)

Section 5.2.G(2) Certificates of Variances, Tuscola Area Airport Zoning Ordinance:

As discussed further below, Pegasus Wind meets all of the requirements for a variance under the Tuscola Area Airport Zoning Ordinance. Under the Ordinance, variances shall be allowed for any of the following reasons:

(a) A literal application or enforcement of the regulations would result in practical difficulty or unnecessary hardship;

A literal application or enforcement of the regulations would result in practical difficulty. Under Michigan law, the unnecessary hardship criteria only applies to use variances, while the practical difficulty criteria applies to nonuse variances. Because Pegasus Wind is seeking nonuse variances from the Ordinance’s height restrictions and restrictions related to raising the minimum descent altitude, it need only establish a practical difficulty in complying with the Ordinance.

On December 21, 2016, Public Act 342, known as the Clean Renewable and Efficient Energy Act, was signed into law. This Renewable Portfolio Standard requires Michigan electric providers to achieve a retail supply portfolio that increases from 10% in 2015 to 15% in 2021. In addition, DTE Energy and Consumers Energy recently agreed to generate 25% of their power from renewable sources by 2030. This means that Michigan electric providers must, in order to comply with the Renewable Portfolio Standard, build new renewable energy projects.

Siting a wind energy development requires, among other things, a strong wind resource, suitable land available for lease, nearby transmission, a purchaser of the electricity, and compliance with local wind ordinances. The Pegasus Wind Energy Center meets all of these requirements. Wind data indicates that the Thumb region of Michigan has the best wind resource in the State, making it a prime location for the lowest-cost development of wind farms. NextEra Energy Resources originally intended to develop a wind farm called the Tuscola III Wind Energy Center in Ellington, Almer, and Fairgrove Townships through its subsidiary, Tuscola Wind III. Subsequent to Tuscola Wind III’s application for special land use permits, Ellington and Almer Townships adopted highly restrictive wind ordinances that make siting wind turbines in those townships virtually impossible at this time.

As a result, NextEra Energy Resources has been forced to reconfigure its project under Pegasus Wind to include the siting of turbines in Juniata and Gilford Townships and additional turbines in Fairgrove Township that are in closer proximity to the Tuscola Area Airport. Pegasus Wind has already invested substantial resources and committed capital to the project. Specifically, Pegasus Wind has entered into transmission easements and leases with landowners, and has entered into a Power Purchase Agreement with the Michigan Public Power Agency and the Lansing Board of Water and Light for the Pegasus Wind Energy Center. Pegasus Wind has also become obligated under a Generator Interconnection Agreement under which it is committed to spend \$10 million in energy infrastructure improvements. Without the ability to build the Variance Turbines within Zones B and E, Pegasus Wind will be unable to meet its obligations under these agreements, resulting in practical difficulty.

A literal application of the height limitation in Section 3.5 and Section 3.3 would create a practical difficulty as to the 1 turbine in Zone B that exceeds the height limitation. Virtually all commercial wind turbines sold on the market and used by developers like Pegasus Wind today are in excess of 400 feet (total tip height) and would, therefore, violate the height limitations in the Ordinance. NextEra purchases its wind turbines from General Electric (GE). The shortest commercial wind turbine that GE actively markets in the United States is the 2.x MW 116-90 model, which has a 486 foot tip height. GE has a few shorter “special purpose” or “niche” turbines that can be purchased, but they are not economically viable for a commercial project like this one, and even those are taller than 400 feet.

This creates a practical difficulty in complying with the height restrictions. Any wind turbine that Pegasus Wind would be forced to use to comply with the height regulations would be less efficient and less technologically advanced, and would certainly require Pegasus Wind to site more turbines in order to maximize the wind velocity and account for the limitations of those smaller turbines. The increased height reduces the number of turbines required to produce the desired megawatt total needed to sell the energy to Pegasus Wind’s power provider. This, in turn, allows Pegasus Wind to stay farther away from inhabited structures, which is required under township zoning ordinances.

Nor can Pegasus Wind simply move the turbine further away from the Airport to comply with the regulations.⁹ The siting of turbines in a wind energy development is a very complicated process. A proper turbine site requires four things: a strong wind resource,

⁹ Beyond that, under Michigan law, Pegasus Wind does not need to establish that alternative placement of its turbines is impossible to show practical difficulty. *Engel v Monitor Tp Zoning Bd of Appeals*, No. 327701, 2016 WL 4770183, at *4 (Mich Ct App, September 13, 2016) (“[P]ractical difficulty” is the relevant standard for the [applicants’] nonuse variance, not whether . . . alternative placement of the arena was impossible.”); *Laurence Wolf Capital Mgt Tr. v City of Ferndale*, 61 Fed Appx 204, 218 (CA 6, 2003) (“A nonuse variance applicant does not need to show . . . that no other suitable location exists.”).

nearby transmission, ability to comply with zoning requirements, and an available lease. Very few locations meet all 4 of these requirements. Because of their location and zoning requirements, Fairgrove, Gilford and Juniata Townships do. But because of their proximity to the Airport, the proposed turbine locations in those townships are subject to the applicable height restrictions. And because the turbines must be sited a certain distance from people's homes and from each other in order to comply with local zoning restrictions, any configuration of turbines in those townships would require variances. All of these factors create a practical difficulty in complying with Section 3.3.

A literal application of the requirements in Section 3.6.G would also create a practical difficulty as to the 5 turbines in Zone B and 3 turbines in Zone E. After extensive study, the FAA determined that increasing the CMDA for the VOR/DME-A Circling Approach is necessary because it "maintains the appropriate obstacle clearance, negating any concern for safety created by the proposals on the procedure." (DNH at 6.) Again, Pegasus Wind cannot simply use smaller turbines or move the turbines further away from the Airport to comply with the regulations. In fact, Pegasus Wind has already agreed to terminate a portion of the original filings that would have significantly increased the approach minimums; however, terminating or moving additional turbines would make it virtually impossible for Pegasus Wind to achieve a reasonable rate of return or comply with the terms of its Power Purchase Agreement.¹⁰

A denial of the proposed variances would also deprive the adjacent communities and up to 400 landowners of the ability to participate in and benefit from a wind farm, and undermine the Renewable Portfolio Standard. In granting these variances for turbines for which the FAA has already reviewed, studied, and determined "non-hazardous," the AZBA will allow for the combined use of the region by aviation enthusiasts and businesses and the participating wind farm communities and landowners.

¹⁰ Further, Pegasus Wind's need for these variances is not self-created. The mere fact that a property owner purchases property with knowledge of applicable restrictions or hardships does not make the problem self-created. *City of Detroit v City of Detroit Bd of Zoning Appeals*, 326 Mich App 248; 926 NW2d 311, 317 (2018). Instead, a hardship is self-created "when a landowner or predecessor in title partitions, subdivides, or somehow physically alters the land after the enactment of the applicable zoning ordinance, so as to render it unfit for the uses for which it is zoned." *Id.* For instance, if after a zoning ordinance is adopted, a property owner divides a parcel of property so that the resulting lots do not meet the zoning ordinance's minimum width requirements for building a home, a variance would not be appropriate because the only hardship would be caused by the actions of the property owner. *Johnson v Robinson*, 420 Mich 115, 126; 359 NW2d 526 (1984). But here, Pegasus Wind has not physically altered the land in any way to make it unfit for the uses for which it is zoned. Rather, Pegasus Wind's practical difficulty in complying with the strict requirements of the Ordinance arises from the unusual constraints on wind energy development (*i.e.* a strong wind resource, willing landowners, nearby transmission, willing customers, and available turbine designs) as well as where and how Pegasus Wind can comply with the local zoning requirements. Because Pegasus Wind has made no physical alterations to the land that resulted in the practical difficulties described above, its harm is not self-created under Michigan law.

(b) Relief granted would not be contrary to the public interest and approach protection;

Granting Pegasus Wind variances is appropriate and would not be contrary to the public interest and approach protection. Juniata, Gilford, and Fairgrove Townships have already determined that the Pegasus Wind Energy Center meets their respective special land use permit requirements, including protection of health, safety, and welfare. Further, approach protection was part of the consideration undertaken by the FAA's study of the Variance Turbines. Specifically, after a thorough aeronautical study, the FAA determined that "the proposed construction would not have a substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on any navigation facility and would not be a hazard to air navigation providing the conditions set forth in this determination are met." (DNH at 7.) Further, the Airport Manager has stated: "We are confident that the FAA will review all the information needed to make a decision in the matter of the wind turbines that will be in the airspace of the [Tuscola Area Airport Authority] and we will support your finding in this matter." (Exhibit 4.)

The public interest is served in the preservation of the safety and efficiencies of the Airport. The FAA and Pegasus Wind's aviation consultants have gone to great lengths to analyze the nature of air traffic operations at the airport. Both have concluded that there will be no impact to the safety of air traffic operations as a result of the Variance Turbines.

The aeronautical studies concluded that the Variance Turbines will increase the CMDA for the VOR/DME-A Circling Approach at the airport. But this instrument approach procedure was determined by the FAA, and in concurrence with an analysis of historical air traffic data by Capitol Airspace, to be the least efficient of the three instrument approach procedures currently available to pilots operating into, and out of, the Airport. Should there be a need to actually fly an instrument approach into the Airport during inclement weather, the more efficient and straight-in instrument approach procedures will be flown. This was affirmed in FAA's favorable DNHs, which also concluded that the VOR/DME-A Circling Approach is only flown every 22.5 days (an average of 0.31 operations per week); this is well below FAA's threshold for significance, defined as an average of one or more flights per week (FAA Order 7400.2M Paragraph 6-3-4). (DNH at 6.)

In addition, the FAA determined that as many as 19 wind turbines could have an impact on a future runway at the Airport. In response, Pegasus Wind opted to withdraw the impacting turbines. Therefore, there is no impact on the safety or efficiency of the current or planned procedures at the airport.¹¹ These actions demonstrate that Pegasus Wind has

¹¹ The FAA found that, other than increasing the CMDA for the VOR/DME-A Circling Approach at the airport, the "proposed structures would have no other effect on any existing or proposed arrival, departure, or en route IFR [instrument flight rules] operations or procedures." (DNH at 6.) The FAA also found that "[s]tudy for possible VFR effect disclosed that the proposals would have no effect on existing or proposed VFR arrival or departure operations." (DNH at 6.) The FAA noted that its study considered construction of the proposed runway.

taken significant measures to ensure the preservation of the public interest to the Airport, users of the Airport, and supporting businesses.

Approval of the variances will serve to accommodate both the aviation community and the surrounding landowners and communities that have opted to participate and will benefit from the Pegasus Wind Energy Center. Furthermore, and as stated above, the ability to locate and develop the proposed wind farm in this location advances the renewable energy goals of the State of Michigan.

(c) Relief granted would do substantial justice;

The grant of the variances will result in substantial justice to Pegasus Wind, the Airport, and the local communities that have approved special land use permits for the Pegasus Wind Energy Center. As discussed above, if Pegasus Wind is unable to obtain the requested variances for the 5 turbines in Zone B and 3 turbines in Zone E, it will be unable to meet its obligations under the various agreements discussed above. Approval of the requested variances would have a minimal, if any, impact on the Airport and will provide substantial benefits for the surrounding community. Specifically, the Pegasus Wind Energy Center will generate enough electricity to power approximately 70,200 homes. It will also generate approximately \$36 million in property tax revenue for Tuscola County, Juniata, Gilford, and Fairgrove Townships, and the community schools. Additionally, the Townships participating in the Project unanimously approved Pegasus Wind's SLUPs, showing that substantial justice to the public would be done by granting the variances.

(d) Relief granted would be in accordance with the spirit of the regulations of this Ordinance.

*The spirit and intent of this Ordinance is reflected in the stated purpose in Section 1.2, which is "to promote the health, safety, and welfare of the inhabitants of the County of Tuscola by preventing the establishment of airport hazards, restricting the height of structures and objects of natural growth and otherwise regulating the use of property in the vicinity of the Tuscola Area Airport; **providing for the allowance of variances** from such regulations..." Thus, the Ordinance, like the Airport Zoning Act itself, seeks to strike a balance between protecting the health, safety, and welfare and allowing variances for structures that do not create airport hazards. The FAA's analysis and recommendations along with the issuance of the favorable determinations for the Variance Turbines, indicate the FAA's concurrence that the Variance Turbines that are part of the Pegasus Wind Energy Center are sufficiently protective of the health, safety, and welfare of the inhabitants of Tuscola County and will not create airport hazards. The design and layout of the array considers the airport's current and adopted master plan. Pegasus Wind's removal of 19 turbines from its array will further ensure that the Tuscola Area Airport will not be impacted by the Pegasus Wind Energy Center. Because the project will not create an airport hazard or otherwise jeopardize health, safety, and welfare, the Ordinance's purpose of "providing for the allowance of variances" should control. The fact that the*

Airport has permitted other tall structures, including wind turbines, within the airport area shows that granting the variances is “most consistent” with the spirit of the Ordinance.

Section V. Variance Application Criteria

In addition to criteria established in Section 5.2.G(2) of the Ordinance, the Application has identified criteria for those applicants seeking variance requests. While the standards in the Airport Zoning Act and the Ordinance ultimately control whether a variance should be granted, Pegasus Wind’s responds to the Application criteria as follows:

Applicants for a Variance must demonstrate that:

1. The proposed variance involves practical difficulties or would result in unnecessary hardship;

A literal application or enforcement of the regulations would result in practical difficulty. Under Michigan law, the unnecessary hardship criteria only applies to use variances, while the practical difficulty criteria applies to nonuse variances. Because Pegasus Wind is seeking nonuse variances from the Ordinance’s height restrictions and restrictions related to raising the minimum descent altitude, it need only establish a practical difficulty in complying with the Ordinance.

On December 21, 2016, Public Act 342, known as the Clean Renewable and Efficient Energy Act, was signed into law. This Renewable Portfolio Standard requires Michigan electric providers to achieve a retail supply portfolio that increases from 10% in 2015 to 15% in 2021. In addition, DTE Energy and Consumers Energy recently agreed to generate 25% of their power from renewable sources by 2030. This means that Michigan electric providers must, in order to comply with the Renewable Portfolio Standard, build new renewable energy projects.

Siting a wind energy development requires, among other things, a strong wind resource, suitable land available for lease, nearby transmission, a purchaser of the electricity, and compliance with local wind ordinances. Pegasus Wind meets all of these requirements. Wind data indicates that the Thumb region of Michigan has the best wind resource in the State, making it a prime location for the development of wind farms. NextEra Energy Resources originally intended to develop a wind farm called the Tuscola III Wind Energy Center in Ellington, Almer, and Fairgrove Townships through its subsidiary, Tuscola Wind III. Subsequent to Tuscola Wind III’s application for special land use permits, Ellington and Almer Townships adopted highly restrictive wind ordinances that make siting wind turbines in those townships virtually impossible at this time.

As a result, NextEra Energy Resources has been forced to reconfigure its project under Pegasus Wind to include the siting of turbines in Juniata and Gilford Townships and additional turbines in Fairgrove Township that are in closer proximity to the Tuscola Area Airport. Pegasus Wind has already invested substantial resources and committed capital

to the project. Specifically, Pegasus Wind has entered into transmission easements and leases with landowners, and has entered into a Power Purchase Agreement with Michigan Public Power Agency and the Lansing Board of Water and Light for the Pegasus Wind Energy Center. Pegasus Wind has also become obligated under a Generator Interconnection Agreement under which it is committed to spend \$10 million in energy infrastructure improvements. Without the ability to build the Variance Turbines within Zones B and E, Pegasus Wind will be unable to meet its obligations under these agreements, resulting in practical difficulty.

A literal application of the height limitation in Section 3.5 and Section 3.3 would create a practical difficulty as to the 1 turbine in Zone B that exceeds the height limitation. Virtually all commercial wind turbines sold on the market and used by developers like Pegasus Wind today are in excess of 400 feet (total tip height) and would, therefore, violate the height limitations in the Airport Zoning Ordinance. NextEra purchases its wind turbines from General Electric (GE). The shortest commercial wind turbine that GE actively markets in the United States is the 2.x MW 116-90 model, which has a 486 foot tip height. GE has a few shorter “special purpose” or “niche” turbines that can be purchased, but they are not economically viable for a commercial project like this one, and even those are taller than 400 feet.

This creates a practical difficulty in complying with the height restrictions. Any wind turbine that Pegasus Wind would be forced to use to comply with the height regulations would be less efficient and less technologically advanced, and would almost certainly require Pegasus Wind to site more turbines in order to maximize the wind velocity and account for the limitations of those smaller turbines. The increased height reduces the number of turbines required to produce the desired megawatt total needed to sell the energy to Pegasus Wind’s power provider. This, in turn, allows Pegasus Wind to stay farther away from inhabited structures, which is required under township zoning ordinances.

Nor can Pegasus Wind simply move the turbine further away from the Airport to comply with the regulations.¹² The siting of turbines in a wind energy development is a very complicated process. A proper turbine site requires four things: a strong wind resource, nearby transmission, ability to comply with zoning requirements, and an available lease. Very few locations meet all 4 of these requirements. Because of their location and zoning

¹² Beyond that, under Michigan law, Pegasus Wind does not need to establish that alternative placement of its turbines is impossible to show practical difficulty. *Engel v Monitor Tp Zoning Bd of Appeals*, No. 327701, 2016 WL 4770183, at *4 (Mich Ct App, September 13, 2016) (“[P]ractical difficulty” is the relevant standard for the [applicants’] nonuse variance, not whether . . . alternative placement of the arena was impossible.”); *Laurence Wolf Capital Mgt Tr. v City of Ferndale*, 61 Fed Appx 204, 218 (CA 6, 2003) (“A nonuse variance applicant does not need to show . . . that no other suitable location exists.”).

requirements, Fairgrove, Gilford and Juniata Townships do. But because of their proximity to the Airport, the proposed turbine locations in those townships are subject to the applicable height restrictions. And because the turbines must be sited a certain distance from people's homes and from each other in order to comply with local zoning restrictions, any configuration of turbines in those townships would require variances. All of these factors create a practical difficulty in complying with Section 3.3.

A literal application of the requirements in Section 3.6.G would also create a practical difficulty as to the 5 turbines in Zone B and 3 turbines in Zone E. After extensive study, the FAA determined that increasing the CMDA for the VOR/DME-A Circling is necessary because it "maintains the appropriate obstacle clearance, negating any concern for safety created by the proposals on the procedure." (DNH at 6.) Again, Pegasus Wind cannot simply use smaller turbines or move the turbines further away from the Airport to comply with the regulations. In fact, Pegasus Wind has already agreed to terminate a portion of the original filings that would have significantly increased the approach minimums; however, terminating or moving additional turbines would make it virtually impossible for Pegasus Wind to achieve a reasonable rate of return or comply with the terms of its Power Purchase Agreement.

A denial of the proposed variances would also deprive the adjacent communities and up to 400 landowners of the ability to participate in and benefit from a wind farm, and undermine the Renewable Portfolio Standard. In granting these variances for turbines for which the FAA has already reviewed, studied, and determined "non-hazardous," the AZBA will allow for the combined use of the region by aviation enthusiasts and businesses and the participating wind farm communities and landowners.

2. The proposed variance would protect the aerial approaches of the Tuscola Area Airport;

Granting Pegasus Wind variances will protect aerial approaches. The FAA and Pegasus Wind's aviation consultants have gone to great lengths to analyze the nature of air traffic operations at the Airport. Both have concluded that there will be no impact to the safety of air traffic operations as a result of the Variance Turbines, and that the Variance Turbines will ensure safe approaches at the Airport. Further, the Airport Manager has stated: "We are confident that the FAA will review all the information needed to make a decision in the matter of the wind turbines that will be in the airspace of the [Tuscola Area Airport Authority] and we will support your finding in this matter." (**Exhibit 4.**)

The aeronautical studies concluded that the Variance Turbines will increase the CMDA for the VOR/DME-A Circling Approach at the airport. But this instrument approach procedure was determined by the FAA, and in concurrence with an analysis of historical air traffic data by Capitol Airspace, to be the least efficient of the three instrument approach procedures currently available to pilots operating into, and out of, the Airport. Should there be a need to actually fly an instrument approach into the Airport during inclement

weather, the more efficient and straight-in instrument approach procedures will be flown. This was affirmed in FAA's favorable DNHs which also concluded that the VOR/DME-A Circling Approach is only flown every 22.5 days (an average of 0.31 operations per week); this is well below FAA's threshold for significance, defined as an average of one or more flights per week (FAA Order 7400.2M Paragraph 6-3-4). (DNH at 6.)

In addition, the FAA determined that as many as 19 wind turbines could have an impact on a future runway at the Airport. In response, Pegasus Wind opted to withdraw the impacting turbines. Therefore, there is no impact on the safety nor efficiency of the current or planned procedures at the airport.¹³ These actions demonstrate that Pegasus Wind has taken significant actions to ensure the preservation of the public interest to the Airport, users of the Airport, and supporting businesses.

3. The proposed variance would not destroy or impair the utility of the Tuscola Area Airport;

Significant time has been spent studying the Airport. The studies done by the FAA and Capitol Airspace show that the Pegasus Wind Energy Center will not destroy or impair the utility of the Airport for the following reasons. First, historical air traffic data and the FAA's favorable DNHs clearly show that the affected instrument approach procedure is rarely used. Second, traffic data and climatological data show that pilots only fly the VOR/DME-A Circling Approach during visual meteorological conditions. Third, as mentioned above, pilots approaching the Airport during instrument meteorological conditions will prefer the more efficient and precise straight-in procedures. Fourth, the Variance Turbines have been sited to remove impact on current and planned visual flight rules (VFR) operations. As a result, zero air traffic operations will be affected by the construction of the Variance Turbines. Therefore, the Variance Turbines will not destroy or degrade the utility of the Airport.¹⁴

¹³ The FAA found that, other than increasing the CMDA for the VOR/DME-A Circling Approach at the airport, the "proposed structures would have no other effect on any existing or proposed arrival, departure, or en route IFR [instrument flight rules] operations or procedures." (DNH at 6.) The FAA also found that "[s]tudy for possible VFR effect disclosed that the proposals would have no effect on existing or proposed VFR arrival or departure operations." (DNH at 6.) The FAA noted that its study considered construction of the proposed runway.

¹⁴ Further, the turbines will not affect a helicopter's ability to operate at Tuscola Area Airport. The Pegasus Wind project is located outside of the airport's VFR traffic pattern airspace. As a result, helicopters can continue to fly into, and out of, Tuscola Area Airport unimpeded. The FAA does not consider structures under 500 feet to be potential hazards to helicopter operations. If Pegasus Wind were considering turbines higher than 499 feet above ground, the FAA would evaluate the potential for impacting a helicopter's ability to fly along recognizable landmarks, such as highways, railroads, or transmission lines. Since the Pegasus Wind project is below 500 feet above ground, it will not impact a helicopter's ability to follow recognizable landmarks, such as highways that traverse through, or near, the Pegasus Wind project. Additionally, historical air traffic data indicates that helicopter operations already transit at higher altitudes over existing wind turbines without an impact on routing. This indicates that helicopters would not have to alter their operations after the Pegasus Wind project is built.

4. The proposed variance would do substantial justice and be in accordance with the Tuscola Area Airport Zoning Ordinance;

As illustrated in the permit applications, all of the Variance Turbines are in accordance with the Ordinance with the exception of the height requirement and the minimum descent altitude. The grant of the variances will result in substantial justice to Pegasus Wind, the Airport, and the local communities that have approved special land use permits for the Pegasus Wind Energy Center. As discussed above, if Pegasus Wind is unable to obtain the requested variances for the 5 turbines in Zone B and 3 turbines in Zone E, it will be unable to meet its obligations under the various agreements discussed above. Approval of the requested variances would have a minimal impact, if any, on the Airport and will provide substantial benefits for the surrounding community. Specifically, the project will generate enough electricity to power approximately 70,200 homes. It will also generate approximately \$36 million in property tax revenue for Tuscola County, Juniata and Fairgrove Townships, and the community schools. Additionally, the Townships participating in the project unanimously approved Pegasus Wind's SLUPs, showing that substantial justice to the public would be done by granting the variances.

5. The requested variances would not be contrary to:

- A. The public interest and safety of the public; nor to**
- B. The public interest and safety of the users of the Tuscola Area Airport; nor to**
- C. The public interest and safety of occupants of land in the vicinity of the Tuscola Area Airport; nor to**
- D. Any zoning ordinance or regulation of any political subdivision applicable to the same area.**

Juniata, Gilford, and Fairgrove Townships have already determined that the Pegasus Wind Energy Center meets their respective special land use permit requirements, including protection of health, safety, and welfare. The FAA ultimately concluded that the Variance Turbines will ensure safe approaches at the Airport. Approval of the variances will serve to accommodate both the aviation community and the surrounding landowners and communities that have opted to participate and will benefit from the Pegasus Wind Energy Center. Furthermore, and as stated above, the ability to locate and develop the proposed wind farm in this location advances the renewable energy goals of the State of Michigan and will benefit both participating landowners and the local community.

Conclusion

Because Pegasus Wind's application for a height variance under Section 3.3 for 1 turbine that is located in Zone B of the Tuscola Area Airport Permit Thresholds Map of the Ordinance meets the requirements of

the Airport Zoning Act and the Ordinance, as well as the criteria set forth in the Airport Zoning Board of Appeals Variance Application, Pegasus Wind respectfully requests that the AZBA grant a height variance for the 1 turbine in Zone B listed on the spreadsheet attached as **Exhibit 5**.

Similarly, because Pegasus Wind's applications for variances under Section 3.6.G for the 5 turbines located in Zone B and the 3 turbines located in Zone E of the Tuscola Area Airport Permit Thresholds Map of the Ordinance meet the requirements of the Airport Zoning Act and the Ordinance, as well as the criteria set forth in the Airport Zoning Board of Appeals Variance Application, Pegasus Wind respectfully requests that the AZBA grant variances for the 5 turbines in Zone B and the 3 turbines in Zone E listed on **Exhibit 5** that raise the CFS VOR/DME-A CMDA.

**VARIANCE APPLICATION
TO THE TUSCOLA AREA AIRPORT ZONING BOARD OF APPEALS**

Tuscola Area Airport Zoning Board of Appeals
C/O: Jodi Fetting, Tuscola County Clerk
440 N. State Street
Caro, MI 48723
989-672-3780

ALL INFORMATION REQUESTED BELOW MUST BE PROVIDED, ALONG WITH AN APPLICATION FEE OF \$250 FOR THE FIRST STRUCTURE, AND \$50 FOR ANY ADDITIONAL LIKE STRUCTURE REVIEWED AT THE SAME BOARD OF APPEALS MEETING

- I. Petitioner: Pegasus Wind, LLC
Address: 700 Universe Blvd. Juno Beach 33408
Represented by: Erico Lopez Phone: 561-691-3010
Property owner: Allen Sims, LLC
Address: 3290 Patterson Rd, Bay City MI 48706
- II. Address of Property for variance Deckerville Rd & Garner Rd
Township: Gilford Section: 26
- III. A. Article(s) and Section(s) of the Ordinance from which variance relief is sought:
Please see attached narrative
- B. State the reason for the variance (What are you trying to do and why?):
Please see attached narrative

(Attach additional sheets as necessary)

C. Please state the revised conditions you are seeking or to which you would agree to replace the standards from which you are seeking a variance:

Please see attached narrative

IV. An airspace determination issued pursuant to 14 CFR PART 77 and the Michigan Tall Structure Act, a copy of FAA Form 7460-1, and a sketch of the property, must be included with this application. Applications without this information will not be accepted.

V. APPLICANTS FOR A VARIANCE MUST DEMONSTRATE THAT:

1. The proposed variance involves practical difficulties or would result in unnecessary hardship;
- AND
2. The proposed variance would protect the aerial approaches of the Tuscola Area Airport; and
3. The proposed variance would not destroy or impair the utility of the Tuscola Area Airport; and
4. The proposed variance would do substantial justice and be in accordance with The Tuscola Area Airport Zoning Ordinance.
5. The requested variance would not be contrary to:
 - A. The public interest and safety of the public; nor to
 - B. The public interest and safety of the users of the Tuscola Area Airport; nor to
 - C. The public interest and safety of occupants of land in the vicinity of the Tuscola Area Airport; nor to
 - D. Any zoning ordinance or regulation of any political subdivision applicable to the same area.

Indicate your response to the items stated above:

1. Please see attached narrative

2. Please see attached narrative

3. Please see attached narrative

4. Please see attached narrative

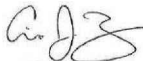
5. Please see attached narrative

(Attach additional sheets as necessary)

I understand that additional information or studies may be required and if so, the acquisition and provisions of this information will be at my expense.

I also attest that all information stated is true to the best of my knowledge, information and belief.

Finally, I recognize that any variance approved by the Board of Appeals is not effective for a thirty (30) day period following the date of issuance.



Applicant's signature

10-18-19

Date

For internal use only

Variance denied _____

Variance granted under conditions below _____

Conditions imposed: _____

Vote results: Ayes _____ Nays _____

Date of Decision: _____

Chairperson, Tuscola Area Airport Zoning Board of Appeals

Secretary, Tuscola Area Airport Zoning Board of Appeals

Copies of this form, in its entirety, to be filed with the applicant, the Tuscola County Planning Commission, the township of record, and the Michigan Aeronautics Commission.

APPLICATION FOR AIRPORT ZONING PERMIT
Tuscola County Airport Zoning Ordinance

Sections 1-6 To Be Completed by Applicant

Failure to provide complete information may result in a delay of review or denial of a permit.

If an FAA for 7460-1, Notice of Proposed Construction or Alteration, has been submitted for review, include a copy of that application and/or response letter from the FAA with this application along with any other supporting documentation.

1. Contact Information

Applicant Information

Name Pegasus Wind, LLC

Contact Erico Lopez

Address 700 Universe Blvd.

City/State/ Zip Juno Beach, FL 33408

Phone 561-690-3010

Engineer/Architect Information

Name Atwell

Contact Tim Jones

Address Two Towne Sq Suite 700

City/State/Zip Southfield, MI 48076

Phone 248-447-2000

2. Structure Information

Type of Construction

☒ New Construction

☐ Alteration

☐ Permanents

☐ Temporary

Elevations

Ground Elevation 626 ft (MSL)

Height of Structure + 499 ft (AGL)

Top Elevation 1,125 ft (MSL)

Description & Use of Structure (dimensions, type of construction, purpose, etc)

3. Site Information

Site Address: Deckerville Rd & Garner Rd

Township Gilford Section 26

City/State/Zip Fairgrove MI 48733

Latitude 43-30-11.78 N

Nearest Road Intersection Deckerville Rd & Garner Rd

Longitude 83-36-39.61 W

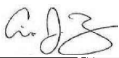
4. DRAWING INFORMATION

Request will not be considered without an engineered drawing/site plan set which illustrates the following:

_____ Drawing identification (file name or # and date) _____ Engineers Seal
 _____ Scale _____ Contact Information
 _____ Site Map _____ Profile view of Structure

5. REMARKS (Information which might have value in making determination)**6. Certification**

I hereby certify that all statements on this application are true and correct.

Signature:  Date 8.20.19Name and Title of Person Filing Application: Erico Lopez - Project Manager PH 561-691-3010**FOR INTERNAL USE ONLY**

Airport Ordinance Administrator Review

Date Received _____ Site Location: Zone _____ Amount of Fee Attached \$ _____

Elevation Information Ground elevation at site _____
 Height of Structure _____
 Top Elevation _____
 Allowable Elevation _____

FAA Form 7460-1 Form Required _____ Yes _____ No
 Date Submitted to FAA _____
 Date of Response from FAA _____
 Response from FAA _____ Approved _____ Denied
 FAA Comments _____

Permit No: _____ Date Approved _____ Date Denied _____
 Comments or restrictions: _____

Tuscola Airport Ordinance Administrator - Signature

Tuscola Airport Ordinance Administrator - Print or Type



Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2019-WTE-4539-OE
Prior Study No.
2018-WTE-38-OE

RECEIVED by MSC 8/30/2023 9:43:16 AM

Issued Date: 08/11/2019

Erico J. Lopez
Pegasus Wind LLC
700 Universe Blvd FEW/JB
Juno Beach, FL 33408

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Wind Turbine 23
Location:	Caro, MI
Latitude:	43-29-23.65N NAD 83
Longitude:	83-30-20.35W
Heights:	677 feet site elevation (SE)
	499 feet above ground level (AGL)
	1176 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. Therefore, pursuant to the authority delegated to me, it is hereby determined that the structure would not be a hazard to air navigation provided the following condition(s) is(are) met:

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 2, Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- ☒ At least 10 days prior to start of construction (7460-2, Part 1)
☒ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

See attachment for additional condition(s) or information.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is not approved. See attached for additional condition(s) or information.

This determination expires on 02/11/2021 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is subject to review if an interested party files a petition that is received by the FAA on or before September 10, 2019. In the event a petition for review is filed, it must contain a full statement of the basis upon which it is made and be submitted to the Manager of the Airspace Policy Group. Petitions can be submitted via mail to Federal Aviation Administration, 800 Independence Ave, SW, Room 423, Washington, DC 20591, via email at OEPetitions@faa.gov, or via facsimile (202) 267-9328.

This determination becomes final on September 20, 2019 unless a petition is timely filed. In which case, this determination will not become final pending disposition of the petition. Interested parties will be notified of the grant of any review. For any questions regarding your petition, please contact Airspace Policy Group via telephone – 202-267-8783.

This determination is based, in part, on the foregoing description which includes specific coordinates and heights. This determination is valid for coordinates within one (1) second latitude/longitude and up to the approved AMSL height listed above (provided the AGL height does not exceed 499 feet). If a certified 1A or 2C accuracy survey was required to mitigate an adverse effect, any change in coordinates or increase in height will require a new certified accuracy survey and may require a new aeronautical study.

If construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

Additional wind turbines or met towers proposed in the future may cause a cumulative effect on the national airspace system. All information from submission of Supplemental Notice (7460-2 Part 2) will be considered the final data (including heights) for this structure. Any future construction or alteration, including but not limited to changes in heights, requires separate notice to the FAA.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when

they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

This aeronautical study considered and analyzed the impact on existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules; the impact on all existing and planned public-use airports, military airports and aeronautical facilities; and the cumulative impact resulting from the studied structure when combined with the impact of other existing or proposed structures. The study disclosed that the described structure would have no substantial adverse effect on air navigation.

An account of the study findings, aeronautical objections received by the FAA during the study (if any), and the basis for the FAA's decision in this matter can be found on the following page(s).

This determination cancels and supersedes prior determinations issued for this structure.

If we can be of further assistance, please contact Steve Phillips, at (816) 329-2523, or steve.phillips@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2019-WTE-4539-OE.

Signature Control No: 404496493-414002677

(DNH -WT)

Mike Helvey

Manager, Obstruction Evaluation Group

Attachment(s)

Additional Information

Map(s)

Abbreviations:

AGL, Above Ground Level
 AMSL, Above Mean Sea Level
 ASN, Aeronautical Study Number
 ASR, Airport Surveillance Radar
 ATC, Air Traffic Control
 CFR, Code of Federal Regulations
 DME, Distance Measuring Equipment
 GPS, Global Positioning System
 IAP, Instrument Approach Procedure
 IFR, Instrument Flight Rules
 MDA, Minimum Descent Altitude
 NM, Nautical Mile
 RNAV, Area Navigation
 RWY, Runway
 VFR, Visual Flight Rules
 VHF, Very High Frequency
 VOR, VHF Omnidirectional Radio Range System

The proposed structures would be located approximately 3.22 - 5.17 NM northwest of the Airport Reference Point for the Tuscola Area Airport (CFS), Caro, MI. The six turbines described in this narrative are part of a larger proposed wind turbine farm that was studied previously. These six were filed due to slight modifications in coordinates and/or heights. The prior study for each, which is listed on page one, received a determination of no hazard. The ASNs with coordinates, AGL heights, and AMSL heights for these 6 are as follows:

ASN	/	Latitude	/	Longitude	/	AGL	/	AMSL
2019-WTE-4534-OE	/	43-30-01.09N	/	83-33-08.83W	/	499	/	1146
2019-WTE-4535-OE	/	43-30-14.70N	/	83-32-02.12W	/	499	/	1157
2019-WTE-4536-OE	/	43-30-08.44N	/	83-31-43.20W	/	499	/	1163
2019-WTE-4537-OE	/	43-30-11.00N	/	83-31-06.36W	/	499	/	1165
2019-WTE-4538-OE	/	43-29-53.09N	/	83-30-56.62W	/	499	/	1167
2019-WTE-4539-OE	/	43-29-23.65N	/	83-30-20.35W	/	499	/	1176

They would exceed the obstruction standards of 14 CFR Part 77 as follows:

Section 77.17(a)(2): A height that is 200 feet AGL, or above the established airport elevation, whichever is higher, within 3 NM miles of the established reference point of CFS and that height increases in the proportion of 100 feet for each additional NM from the airport up to a maximum of 499 feet. The following would exceed:

2019-WTE-4534-OE by 13 feet
 2019-WTE-4535-OE by 81 feet
 2019-WTE-4536-OE by 112 feet
 2019-WTE-4537-OE by 147 feet
 2019-WTE-4538-OE by 176 feet
 2019-WTE-4539-OE by 250 feet

Section 77.17(a)(3): A height that increases a minimum instrument flight altitude within a terminal area;

The following would increase the CFS VOR/DME-A Circling MDA from 1,240 feet AMSL to _____ feet AMSL.

ASN	/ MDA
2019-WTE-4535-OE	/ 1,460
2019-WTE-4536-OE	/ 1,480
2019-WTE-4537-OE	/ 1,480
2019-WTE-4538-OE	/ 1,480
2019-WTE-4539-OE	/ 1,480

ASN 2019-WTE-4534-OE would be located in an area which would not increase minima, but would require additional notations (7:1 relief applies) on the CFS VOR-A and the (PROPOSED) RNAV (GPS) RWY 11 IAPs.

The turbines would be within the line of sight of the Saginaw, MI (MBS) ASR-11 facility. They could cause unwanted primary-only returns (clutter) in the immediate area of the turbines, primary-only target drops in the general area of the turbines. Also, tracked primary-only targets could diverge from the aircraft path and follow wind turbines, when the aircraft is over or near the turbines.

The studies were not circularized to the public for comment. As noted above these 6 studies as due to slight changes from the prior studies. Those changes are not considered significant and the results of previous studies, including the circularization have been appropriately applied to these 6 studies. Those prior studies were circularized under ASN 2018-WTE-16-OE on March 29, 2018, to all known aviation interests and to non-aeronautical interests that may be affected by the proposal. Seven letters of objection were received as a result of the circularization. Although the comments and basis of the determinations for the prior studies are still available within the determinations for any of the ASNs that are still valid, they have been repeated here:

One letter from the Tuscola Area Airport Authority was not an objection, but rather a simple statement of support for the FAA process.

A pilot and flight instructor stated a belief that these would be a hazard, although no specific information was given to substantiate that claim. This letter also stated concern for training flights and impact upon IFR approaches. Also stated was concern for aircraft being forced to use other airfields, which the commenter stated would damage local businesses.

Another pilot stated that the turbines would be within a height restricted area as defined by the CFS Zoning Board. The commenter also described situations such as emergency and student pilot training. Statements concerning the previous mentioned zoning seem to imply the belief these zoning restrictions are relevant to the FAA aeronautical study. The commenter also quoted from a document not distributed to the public, which includes some information about radar.

The Mayor of Caro objected based on economic concerns and a CFS zoning ordinance.

Another commenter and pilot objected stating a navigational hazard and reduced utility of the airport because of the VOR-A MDA increase. A concern for surrounding communities and economy were also expressed.

The Aircraft Owners and Pilots Association (AOPA) objected based on a stated threat to safety and efficiency. They stated the impact to the VOR procedure would limit access to the airport and decrease efficiency. Concerns for the planned RWY and growth limitations were stated.

The CFS zoning administrator objected by stating local zoning ordinances. He also characterized the initial FAA findings that were circularized as "violate(ing) Aeronautical safety procedures ... as outlined in the Code of Federal Regulation".

Local land use authority, including, but not limited to, the CFS Zoning Board Ordinances, are not considered a factor for determining the extent of the aeronautical effect as defined by U.S. Law/Regulations. The Regulations contained within 14 CFR Part 77 are not, as some appear to believe, safety procedures or a reason to call a proposed structure a "hazard". The FAA's determination of whether a proposal would or would not be a hazard to air navigation is based on the findings of the completed aeronautical study and not simply whether or not they exceed the obstruction standards. All of the impacts are considered. Some of these are not circularized to the public, such as the radar impact. The FAA is the sole user of the radar system for navigation and therefore public comment is irrelevant. The FAA determines whether the radar presentation is acceptable for the designated purpose (ATC). Economic considerations are not germane to studies conducted in accordance with Part 77. Consideration is not given to operations such as emergencies because they are not considered regular and continuing. The concern expressed by comments about student pilots possibly deviating from/violating the established procedures and rules, is also not considered a factor, as the FAA cannot condone such violations.

As stated within the original determinations, a portion of the original filings would have significantly increased the CFS (PROPOSED) RNAV (GPS) RWY 11 minimums. Those were withdrawn. An additional 10 studies further from the area of concern were filed. In the interest of efficiency for the process, 6 of those with similar impacts were included in the original determinations. The 6 ASNs included in this narrative (2019-WTE-4534 through 4539-OE) are not significantly different than their prior ASN that is listed on page one. They have no greater impact than the circularized ASNs. The results of the circularization is being appropriately applied to these ASNs.

The aeronautical study disclosed that the proposed structures would have the adverse effect as described above on IFR procedures. The ASN that is listed as affecting the proposed RWY 11 IAP would not affect the minimums and only require a notation on the IAP. There are currently IAPs to both ends of the current primary runway, RWY 06/24. These are more precise procedures, and the FAA considers them to be preferred over the VOR IAP. This is in keeping with efforts to modernize the National Airspace System and favor IAPs that are based upon newer technology than the VOR. Despite this fact, a deeper analysis of the IFR traffic into CFS was performed. This analysis revealed that although there were a number of what appeared to be "practice" VOR approaches conducted, the volume of actual IFR aircraft executing the VOR approach amounted to only one every 22.5 days on average. This is not considered significant. Increasing the MDA for the VOR-A maintains the appropriate obstacle clearance, negating any concern for safety created by the proposals on the procedure. The proposed structures would have no other effect on any existing or proposed arrival, departure, or en route IFR operations or procedures.

The turbines would be within the line of sight of the Saginaw, MI (MBS) ASR-11 facility. However, this would not cause an unacceptable adverse impact on ATC operations at this time.

Study for possible VFR effect disclosed that the proposals would have no effect on existing or proposed VFR arrival or departure operations. The proposals are beyond normal traffic pattern airspace. The proposed new RWY construction, as listed by the plans on file with the FAA, will not change that status. Therefore, the

proposal would not have an adverse effect on VFR traffic pattern operations at CFS, or any other known public use or military airports. At 499 feet AGL, the structures would not have a substantial adverse effect on en route VFR flight operations.

The proposed structures would be appropriately obstruction marked/lighted to make them more conspicuous to airmen should circumnavigation be necessary.

The cumulative impact of the proposed structures, when combined with other proposed and existing structures, is not considered to be significant. Study did not disclose any significant adverse effect on existing or proposed public-use or military airports or navigational facilities, nor would the proposals affect the capacity of any known existing or planned public-use or military airport.

Therefore, it is determined that the proposed construction would not have a substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on any air navigation facility and would not be a hazard to air navigation providing the conditions set forth in this determination are met.

Additional conditions:

As a condition of this determination it is required that Notice of Actual Construction or Alteration (7460-2 Part 1) be E-filed at least 10 full days prior to the start of construction so that appropriate action can be taken to amend the effected procedure(s) and/or altitude(s).

NOTE: A recommendation for white paint/synchronized red lights will be made for all turbines until such time as the proponent confirms that the layout is final (no changes, no additions, no removals) and all turbines can and will be built at their determined location and height. At that time, the proponent may contact this office and request a re-evaluation of the marking and lighting recommendations for the turbines within this project and a portion of the turbines may qualify for the removal of the lighting recommendation.

Due to the proximity of this turbine to CFS the lights for this turbine cannot be controlled by the Aircraft Detection Lighting System.



1 STATE OF MICHIGAN
2 COUNTY OF TUSCOLA
3 AIRPORT ZONING BOARD OF APPEALS MEETING
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9 AIRPORT ZONING BOARD OF APPEALS MEETING:
10 Taken at 1401 Cleaver Road,
11 Caro, Michigan,
12 Commencing at 4:30 p.m.,
13 Thursday, July 25, 2019,
14 Before Valerie Jo Lohr, CSR-6212.
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1 input and discussion, and the last item on the agenda
2 was the board decision.

3 MR. KOSIK: Okay. Hearing that, Bill, let's
4 not open it up for discussion yet. I have an
5 announcement to make on my behalf. At this time I will
6 be recusing myself based on a professional conflict of
7 interest in the future. I'm a successor trustee for
8 Tuscola Bay Wind I for my dad. I have no action on it
9 right now. I don't believe I'm in conflict, but I will
10 recuse myself from this. Sorry.

11 MR. KINNEY: Next order of business is to
12 approve the minutes for the July 9th, 2019 meeting.
13 Everybody on the board has had a chance to read them.
14 I think they were -- earlier.

15 Roll call vote then to approve the minutes.

16 MR. CLINESMITH: Second.

17 MR. KINNEY: Do we have a motion? Do we have
18 a second?

19 MR. CLINESMITH: Yes.

20 MR. KINNEY: We have a second.

21 And a roll call vote.

22 MS. FETTING: Campbell?

23 MR. CAMPBELL: Yes.

24 MS. FETTING: Hoose?

25 MR. CAMPBELL: Yes.

1 MS. FETTING: Clinesmith?

2 MR. CLINESMITH: Yes.

3 MS. FETTING: Kinney?

4 MR. KINNEY: Yes.

5 The minutes from July 9th are accepted as
6 written.

7 There's no new business, and so we'll proceed
8 with where we were last week. And as Bill mentioned,
9 we're at the point where we will open it up to
10 deliberations and make a decision on the variances.

11 So without further ado --

12 MR. CAMPBELL: Tim, before we get started,
13 I'd like to make a point to -- or clarify something
14 with the board, not only the board but the people.

15 MR. KINNEY: Okay.

16 MR. CAMPBELL: If the board will bear with
17 me -- if the board will bear with me a minute, I have
18 been the subject of a letter from a gentleman, Mr.
19 Lauderbach is it, and questioning my -- my position on
20 the board and a possible conflict of interest. And I'd
21 like to address a couple of things that are in his
22 letter that I find misleading and misinterpreted.

23 One item he says, even the meetings before
24 Pegasus Wind Energy filed its variance application,
25 that he has prejudged Pegasus Wind's application and

1 cannot fairly judge them.

2 So meetings means more than one. I attended
3 one meeting three years ago where I sat in the back
4 room, never discussed anything with anyone, never spoke
5 about wind energy or everything else. I have never
6 attended another meeting in regard to wind energy, not
7 one. So I want to clarify that issue.

8 The other thing is, I made the statement that
9 the intent of the ordinance was that there would be no
10 tall structures of any kind within ten miles of the
11 airport. And I find it ironic that in the packet that
12 we received yesterday, and I don't know where this came
13 from, but it's a memo from Thomas Magoo (phonetic) I
14 guess it is. On or about January 3rd, 2015 I spoke to
15 Neal Jackson, then supervisor of Juniata Township, via
16 telephone. I voiced a concern about buying a farm near
17 the wind turbines since this is not what I wanted. Mr.
18 Jackson responded and asked where in the township the
19 farm was located. When told, he explained that no
20 turbines could be placed within ten miles of the
21 Tuscola Area Airport because of the airport safety
22 zone. Mr. Jackson stated that the Juniata Township
23 Planning Commission secretary had helped write the
24 airport zoning ordinance and that when she explained it
25 to the township board that she had indicated it would

1 restrict development of turbines in that area for the
2 safety of the -- those using and flying around the
3 airport. This chairman of the planning commission for
4 Juniata Township was Ione Vyse. So it's just not my
5 opinion that there should be no tall structures within
6 ten miles of the airport.

7 The other item is that as early as the
8 February 13th, 2019 ZBA meeting before any evidence had
9 been submitted, Mr. Campbell expressed the opinion that
10 Pegasus Wind should not be granted variance. Mr.
11 Campbell was wrong. You have copies of the minutes, I
12 have copies of the minutes, and there's no such
13 statement in the minutes, none whatsoever. In fact,
14 the minutes -- and I have a copy here if I can find
15 them. The minutes of February -- that's February 2018.
16 Bear with me a minute. Minutes of February 2, 19 --
17 2019. The only comment in here was nothing. Nothing.

18 So with that being said and the accusations
19 made against me with regard to a conflict of interest,
20 I would submit that this letter, from Mr. Dienes I
21 believe it is, that the board received speaks for
22 itself, and I will let it speak for itself.

23 Thank you.

24 MS. IONE VYSE: One thing. Since I was
25 mentioned in that letter, I think I should have the

1 couple of words from you and maybe a couple of
2 questions from the board. We don't have the podium
3 anymore this week, but if you could come up and grab a
4 mic. Please state your name and your position.

5 MR. SMITH: My name is Linn Smith. I'm with
6 the Michigan Department of Transportation's Office of
7 Aeronautics. I manage the project support unit, which
8 takes care of airport zoning, airport planning,
9 environmental, as well as all the construction
10 clearances.

11 MR. CAMPBELL: I know you.

12 MR. KINNEY: So a couple of things have come
13 up during the proceedings here. And one is, of course,
14 the turbines are higher than what the ordinance -- some
15 of them are higher than what the ordinance specifies,
16 and how does that affect the traffic flow, departures,
17 safety and those kinds of things.

18 MR. SMITH: So the Michigan Department of
19 Transportation as well as the FAA has issued
20 determinations on that. The FAA determination was
21 pretty clear that it was a no hazard air navigation
22 after a lengthy further study.

23 Back when we were going through the Airport
24 Zoning Ordinance model, one of the things that we've
25 always tried to explain is the height protections that

1 you see that have been approved by Michigan Aeronautics
2 Commission are generic to your size airport and those
3 size aircraft. What happens when you go above that and
4 get into a variance situation, at the FAA level it's
5 called a special airspace study or extended study. And
6 at the Michigan Department of Transportation Office of
7 Aeronautics that goal is airspace review.

8 And I use the analogy of the traffic signal.
9 Those heights that are in your ordinance that are
10 referred by our office and our commission are a yellow
11 light. You have to stop, do an extended study to see
12 if it's going to turn red or green.

13 This was a tough study by all means. I know
14 that they hired a consultant to also study it, to do an
15 independent study for you as well. But at the end of
16 the day, what the FAA determination did say is that you
17 could still maintain -- even in the future, you could
18 get an approach in there. That was a little bit
19 different than what we've seen before, so we took our
20 time with it as well.

21 MR. KINNEY: Was most of the emphasis of the
22 study on IFR traffic or --

23 MR. SMITH: Both IFR and VFR.

24 MR. KINNEY: Could you discuss the VFR
25 portion of it.

1 MR. SMITH: Appreciate it.

2 MR. KINNEY: I think we're at the point in
3 the proceedings where we're open to any motion that's
4 available from the board.

5 MR. CAMPBELL: I'm prepared.

6 I'm prepared to present a resolution to the
7 board. It's the Tuscola Area Airport Zoning Board of
8 Appeals Resolution 2019-01 denying Pegasus Wind, LLC's
9 application for variances for 33 turbines.

10 At a meeting of the Tuscola Area Airport
11 Zoning Board of Appeals (ZBA), held on the 25th day of
12 July, 2019 at 4:30 p.m. at the Tuscola Technology
13 Center, 1401 Cleaver Road, Caro, Michigan, members
14 present, members absent, the following preamble and
15 resolution was offered by William Campbell and seconded
16 by whomever:

17 Whereas, the Airport Zoning Act, MCL
18 259.454(1) provides: The Board of Appeals shall allow
19 a variance if a literal application or enforcement of
20 the regulations would result in practical difficulty or
21 unnecessary hardship and the relief granted would not
22 be contrary to the public interest, but would do
23 substantial justice and be in accordance with the
24 spirit of the regulations.

25 Whereas, Section 5.2G(2) of the Tuscola Area

1 Airport Zoning Ordinance (the ordinance) provides that
2 variances shall be allowed for any of the following
3 reasons: (a), a literal application or enforcement of
4 the regulations would result in practical difficulty or
5 unnecessary hardship; (b), relief granted would not be
6 contrary to the public interest and approach
7 protection; (c), relief granted would be -- do
8 substantial justice; (d), relief granted would be in
9 accordance with the spirit of the regulations of this
10 ordinance; and

11 Whereas, on or about April 18, 2019, Pegasus
12 Wind, LLC (Pegasus Wind) submitted airport zoning
13 permit applications (applications) under the ordinance
14 for 40 wind turbines that are part of the proposed
15 Pegasus Wind Energy Center (the project) in Tuscola
16 County, Michigan; and

17 Whereas, the airport zoning administrator
18 reviewed the applications for compliance with the
19 ordinance; and

20 Whereas, on or about June 13th, 2019 after
21 further review for compliance with the ordinance, the
22 airport zoning administrator conditionally approved
23 seven of the applications and denied 33 of the
24 applications; and

25 Whereas, the airport zoning administrator

1 denied 33 applications because the proposed structures
2 would raise descent minimums contrary to Section 3.6G
3 of the ordinance; and

4 Whereas, the airport zoning administrator
5 also denied seven of these 33 applications because the
6 proposed structures would also exceed the legal height
7 limitations of Section 3.3 of the ordinance; and

8 Whereas, on or about June 11th, 2019, Pegasus
9 Wind applied with the ZBA for variances for the 33
10 turbines that were denied permits by the airport zoning
11 administrator, 17 turbines in Zone B and 16 turbines in
12 Zone E of the airport zoning area; and

13 Whereas, Pegasus Wind's variance applications
14 included the variance application form, the required
15 filing fee, a narrative in support of the variance
16 application with five exhibits attached, a site plan,
17 special land use permits (SLUP), and an FAA issued
18 determination of no hazard (DNH); and

19 Whereas, Exhibit 5 to Pegasus Wind's variance
20 applications identifies the turbines for which it is
21 applying for a variance as well as the reason each
22 turbine requires a variance, and

23 Whereas, the ZBA held public meetings
24 regarding Pegasus Wind's variance applications on June
25 25, 2019 and on July 9th, 2019 during which the ZBA

1 provided Pegasus Wind an opportunity to present in
2 support of the applications and wherein members of the
3 public were provided with an opportunity to comment on
4 the variance applications; and

5 Whereas, the ZBA accepted written comments
6 from the public related to the variance applications
7 until July 25th, 2019; and

8 Whereas, the ZBA received numerous written
9 comments from members of the public; and

10 Whereas, upon consideration of Pegasus Wind's
11 33 variance applications and supporting materials, the
12 presentation made by Pegasus Wind, public comments at
13 the public meetings, and all the other information and
14 materials provided to the ZBA, the ZBA finds that
15 consistent with the Airport Zoning Act and the
16 ordinance, Pegasus Wind's variance applications shall
17 be denied for all 33 turbines for the reasons stated in
18 the June 25th, 2019 and the July 9th, 2019 meeting and
19 as discussed further below.

20 Now, therefore, be it resolved and the ZBA
21 finds as follows: Pegasus Wind has not shown that a
22 literal application or enforcement of the regulations
23 would result in practical difficulty with respect to
24 all 33 turbines. Specifically, Pegasus Wind has not
25 demonstrated a literal application of the height

1 requirements in Section 3.3 and the requirements of
2 Section 3.6G would create a practical difficulty for
3 Pegasus Wind. Factual evidence to clearly demonstrate
4 why other alternatives which would comply with the
5 ordinance, such as shorter turbines or certain other
6 potential alternative locations are not viable options
7 has not been convincingly established.

8 Pegasus Wind has not shown that granting it
9 variances for the 33 turbines would not be contrary to
10 the public interest and approach protection. Although
11 approach protection was part of the consideration
12 undertaken by the FAA's study of the turbines at issue,
13 certain additional risks would remain as a result of
14 the site of the proposed turbines which appear contrary
15 to the public interest and the safety of approaches to
16 the Tuscola Area Airport.

17 Pegasus Wind has not shown that granting it
18 variances for the 33 turbines would do substantial
19 justice. Substantial steps have been taken by the
20 applicant with regard to the construction of the
21 structures at issue within the 33 variance
22 applications, but any reliance by the applicant on the
23 probability of granting of such variances is premature.
24 Additionally, denying the variances is consistent with
25 the protection of the safety of the airport approach

1 plan and is in furtherance of substantial justice.

2 Excuse me. Pegasus Wind has not shown that
3 granting it variances for the 33 turbines would be in
4 accordance with the spirit of the regulations of this
5 ordinance.

6 The spirit and intent of this ordinance is
7 reflected in the stated purpose in Section 1.2, which
8 is to promote the health, safety and welfare of the
9 inhabitants of the County of Tuscola by preventing the
10 establishment of airport hazards, restricting the
11 height of structures and objects of natural growth and
12 otherwise regulating the use of the property in the
13 vicinity of the Tuscola Area Airport and providing for
14 the allowance of variances from such regulations.

15 Taking into account the evidence submitted
16 with regard to the 33 variance applications, and the
17 evidence submitted is most consistent with the spirit
18 of the ordinance to deny the 33 applications --
19 variance applications in this matter. Significant
20 potential risk of airport hazard is posed by the
21 proposed structures.

22 Because Pegasus Wind's applications for
23 height variances under Section 3.3 for seven turbines
24 and for variances under Section 3.6G for all of the 33
25 proposed turbines do not meet the requirements of the

1 Airport Zoning Act and the ordinance, Pegasus Wind is
2 not entitled to variances.

3 All resolutions in conflict in whole or in
4 part are revoked to the extent of such conflict.

5 This resolution may be appealed in conformity
6 with the Airport Zoning Act.

7 A vote on the above resolution was taken as
8 follows.

9 MR. KINNEY: Does that conclude your motion?

10 MR. CAMPBELL: That's my resolution, which
11 needs to be seconded.

12 MR. KINNEY: Do we have a second?

13 MR. CLINESMITH: Yes.

14 MR. KINNEY: We have a second.

15 We'll open it up for discussion by the board.

16 I've got one question, Bill.

17 MR. CAMPBELL: Yes?

18 MR. KINNEY: You're going to -- you're going
19 to deny all 33?

20 MR. CAMPBELL: All 33.

21 MR. KINNEY: Okay. Earlier in some of the
22 proceedings, we talked about seven that were --

23 MR. CAMPBELL: Permits have been granted for
24 the seven.

25 MR. KINNEY: Well, no. I'm talking about the

1 other seven that were more egregious than the rest of
2 the 33. I'm just wondering why --

3 MR. CAMPBELL: I think if you -- if you see
4 there on the seven that -- in here are specified under
5 one section, and the rest on the other section, and all
6 33 do not meet the requirements. Sorry. I've got to
7 go back through my notes here. Seven were denied
8 because the proposed structures would exceed the legal
9 height limitation of Section 3.3. That was the seven
10 that were denied. The others were denied under the --
11 I have to look here.

12 MR. KINNEY: That's 51?

13 MR. CAMPBELL: Pardon?

14 MR. KINNEY: The 51 slope?

15 MR. CAMPBELL: Yes.

16 MR. KINNEY: That's the only question I had
17 on your resolution.

18 MR. CAMPBELL: All 33 are in violation of the
19 ordinance.

20 MR. KINNEY: Okay. Any other board members
21 have anything to --

22 MR. CLINESMITH: Yes. I'd like to ask one of
23 the gentlemen from the turbine company to -- if these
24 are approved, all of these -- say they were all
25 approved. Is there a second phase? Do you have leases

1 STATE OF MICHIGAN
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3 AIRPORT ZONING BOARD OF APPEALS MEETING
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9 AIRPORT ZONING BOARD OF APPEALS MEETING:
10 Taken at 1401 Cleaver Road,
11 Caro, Michigan,
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1 MR. HOOSE: Pardon me? Oh, me? Yes. Yes.
2 MS. FETTING: Clinesmith?
3 MR. CLINESMITH: Yes.
4 MS. FETTING: Kinney?
5 MR. KINNEY: Yes.
6 MS. FETTING: Campbell?
7 MR. CAMPBELL: No.
8 MS. FETTING: Kosik?
9 CHAIRMAN KOSIK: Yes.
10 MS. FETTING: With four yeses, that motion
11 carries. It is currently closed session at 6:42.
12 (Off the record at 6:42 p.m.)
13 (Back on the record at 7:05 p.m.)
14 CHAIRMAN KOSIK: Okay. We're going to reopen
15 the open meeting right now.
16 I believe the point that we're at again -- I
17 wasn't here at the very beginning, so bear with me and
18 correct me a little bit here too if I need it.
19 I believe we're at the point now where
20 Pegasus Wind gets their response back.
21 MR. PUMFORD: All right. Thank you. I
22 appreciate the time you've taken to listen to all the
23 comments so far and giving us an opportunity to
24 clarify.
25 You've heard a lot of passionate comments

1 concerning the Pegasus Wind project and perceived
2 effects to the airport. We did issue a paper that --
3 that answers those comments. We wanted to make sure to
4 cover everything that we've heard, and to do so in a
5 way that ties it back to the ordinance and the decision
6 that you all have to make.

7 These concerns are -- are concerns of the
8 unknown, and are completely normal and common. It's
9 common for people to be a little uneasy about something
10 that's -- that's new. It is important to remember that
11 you can't replace facts with fear or speculation. And
12 so I want to take a little bit of time and highlight
13 five topics that have been receiving the most attention
14 and distill the facts that -- that highlight how to
15 move forward from these things.

16 So the five things I'd like to talk about,
17 the turbines proximity to the airport, the inability to
18 move or remove those turbines from a siting
19 perspective, the economic viability of the airport, I
20 want to touch on flight safety, and then follow up with
21 some -- some legal clarifications.

22 So first, proximity. I can appreciate that
23 people have concerns about the turbines' proximity to
24 the airport. But the fact is that approving --
25 approving variances for structures near airports is a

1 completely routine event. In the U.S. there are 188
2 airports that all have structures greater than 450 feet
3 within three miles of the airport. In fact, there are
4 many that have wind turbines within three miles of the
5 airport. A couple of examples are Mojave Air & Space
6 Port in California, Byron also in California, Port
7 Isabel Airport in Texas and Reagan County Airport in
8 Texas just to name a few.

9 Those -- those -- those airports I've listed
10 all have turbines within three miles of the airport
11 with the closest turbine being 2.1. And then as you
12 remember from our application, our closest turbine is
13 2.6 miles from any landing surface.

14 So if you expand that out a little bit more,
15 let's talk about the -- the airport zoning area, the
16 airport zone, the ten-mile ring. If you applied the
17 Tuscola Area Airport ten-mile ring to all of the
18 airports around the nation, you'll find over 3,100 wind
19 turbines all within that ten mile airport zone.

20 So the fact is that approving variances for
21 structures within that zone is completely routine. And
22 it's -- it's really the normal course of business
23 throughout the United States.

24 Two, I want to talk about where the project
25 is, where the turbines are sited right now. You can't

1 just put a wind turbine in anywhere. The turbines are
2 sited where they have to be sited taking into account
3 environmental concerns, sound and shadow, microwave
4 beam path, deconfliction avoidance, setbacks from land,
5 setbacks from residences, from roads, from transmission
6 infrastructure, setback from each other.

7 All of these things go together to create the
8 fabric of how a wind farm is sited. The movement of a
9 particular turbine one way or another impacts the rest
10 of them. It impacts how those turbines cast shadow or
11 sound or -- or whether they're too close to a
12 neighboring parcel, too close to a neighboring house.
13 So it's not as easy as just moving one turbine. If you
14 move one, that actually impacts the entire -- the
15 entire thing.

16 But I think also important to point out
17 though is from a land use perspective we've gone
18 through that process with the local townships that have
19 land use zoning authority, and we've got unanimous
20 approval from each township for a special land use
21 request.

22 Additionally, we've moved -- but we've
23 removed eleven turbines that we initially thought we
24 were going to plan on to account for CAT C VFR traffic
25 patterns to the proposed runway. Additionally as we

1 went through the FAA process, we highlighted another
2 eight turbines that we're going to remove in order to
3 make a clear path for an instrument approach and
4 departure, again, from that proposed runway. That's a
5 total of 19 turbines that we removed specifically to
6 guarantee the safe and efficient use of this airport,
7 not only now for the current runway, but in the future
8 for any proposed new plans in order to bring more
9 economic benefit to that airport.

10 So the bottom line is shuffling locations or
11 removing the turbines as we stated previously is going
12 to result in us not being able to build the project.
13 The fact is, all 33 turbines are deemed not to be a
14 hazard and also are deemed to not impact the safety and
15 efficiency of the project.

16 So the bottom line for me, what this means
17 is -- is there isn't any evidence that moving or
18 removing the turbines is going to make the airport
19 anymore safe.

20 All right. Third, the economic vitality. We
21 -- we touched on this a little bit. Some members of
22 the public are concerned that the project is going to
23 impact the economic viability of the airport. The fact
24 is, we removed those 19 turbines specifically to
25 protect the current use and the future safety and

1 efficiency of that airport. This means that it -- this
2 is -- it's not a zero sum game. It's not wind turbines
3 or the airport.

4 The previous comment I made about the
5 proximity with the number of airports living with
6 turbines within three miles and the number of airports
7 that currently operate with structures greater than
8 450 feet within three miles suggests that the airport
9 and the wind turbines that we proposed can operate in
10 harmony. It's not a zero sum game. It's a win/win.

11 The airport is protected for current and
12 future use, and the community gets to receive the
13 benefits from hosting the wind project.

14 Number 4, flight safety. I want to talk a
15 little bit about emergency procedures. We -- we've
16 heard a lot about that. For those who fly and
17 understand, emergencies can happen anywhere and they're
18 completely unpredictable. You can't predict the
19 unpredictable, but you can plan for it.

20 The FAA through the practical test standards,
21 which is the book that the FAA examiner uses to -- to
22 evaluate a prospective pilot, it talks about a
23 principle called aeronautical decision making. What
24 that means is the pilot is responsible for planing
25 their flight and going through essentially a mental

1 checklist before they take the runway, before they push
2 the throttle up. So -- for me, I use -- I call it a
3 NEWS check, it's (inaudible), emergencies, weather and
4 SID, which is the instrument departure.

5 For emergencies, I go through a mental
6 checklist. All right. I push the power in. I'm
7 hoping to see concern indications in the engine to tell
8 me that the engine's working fine. All right. You
9 make it through there. You get a certain distance down
10 the runway and you know how far down the runway you can
11 go and still stop if there's an emergency, stop within
12 the remaining runway. You keep building on this.
13 Right. You get airborne and you mentally plan, if I
14 have an engine issue that's either for -- for -- the
15 airplane I fly is below 800 feet, then I'm going to
16 continue straight ahead and find a suitable landing
17 field straight ahead. If it's above 800 feet, then I
18 might have time to turn back around and make a landing
19 at the airfield.

20 All this is part of that aeronautical
21 decision making, the flight planning process that the
22 FAA expects every pilot to undertake in order to fly in
23 -- in the national airspace system.

24 So the bottom line here is it's the
25 responsibility of each pilot to plan for these

1 contingencies, to understand where they are in each
2 phase of flight, and to think through if the worst were
3 to happen right now, what would I do.

4 The fact that the Pegasus project built as
5 proposed, there are going to be notices to airmen, or
6 NOTAMs. Those are going to alert the pilots that there
7 are potential -- or there are structures that are
8 proximate, either 2.6 and greater from the airport not
9 aligned with the center line offset slightly.

10 So the pilot is going to review that and say,
11 okay, as part of my aeronautical decision making, what
12 I'm going to do is plan that if I have some sort of
13 engine -- engine issue and I'm going to have to set
14 back down, I know that -- that if on -- in a certain
15 spot that's (audible) those turbines, I'm just not
16 going to turn to the right if I have an engine issue.
17 The safe way to go is in -- straight ahead or to the
18 left or whatever the case might be.

19 In addition to addressing flight safety, I
20 would like Joe from Capitol Airspace to come back up
21 again and talk a little bit about the FAA perspective
22 on protecting (inaudible).

23 COURT REPORTER: Sir, what is your name?

24 MR. PUMFORD: Ryan Pumford.

25 CHAIRMAN KOSIK: Go ahead.

1 MR. ANDERSON: Good afternoon. And I do
2 thank you for your time and opportunity to speak with
3 you. Again, my name is Joe Anderson, and I'm a project
4 manager at Capitol Airspace.

5 I don't want to take more than just a couple
6 minutes to talk about safety and how we look at safety.
7 I would love to stand up here and tell you that in my
8 mind safety is black and white, very binary. But it's
9 not. It's -- it's nebulous. It's gray.

10 And I'll give you a hypothetical. What if
11 someone has proposed a 500 foot building or a 500 foot
12 wind turbine off of the end of the runway at Detroit.
13 Would that be safe? I'm going to answer it. The
14 answer is, yes, it will be safe because actions will be
15 taken to close that runway, to stop operations for that
16 runway at Detroit.

17 So then the question is: What's the
18 appropriate threshold for safety? How far do you move
19 the building? How far do you move the transmission
20 (inaudible) in order to be safe for that particular
21 airport? And the FAA through many, many years,
22 including hundreds if not thousands of (inaudible)
23 experts has established this process to say what is
24 safe.

25 And the end they could determine that the

1 Pegasus Wind project is safe. They could determine
2 that there is no impact on the efficiency of the
3 airport. So if we scrap all of that and focus only on
4 the Airport Zoning Ordinance, what I know is that it
5 would protect for the VOR approach. It would not
6 protect departures and approaches.

7 So I would encourage you as everybody
8 mentioned tonight is focus on the facts when you're
9 making your decision, focus on sound aeronautical
10 principles. Thank you.

11 MR. PUMFORD: Thanks, Joe.

12 One of the other concerns that was heard over
13 and over again is about Medivac and helicopter
14 operations, safety of those helicopter operations. And
15 I'd like to have Kevin Nelson from Aerodynamics to come
16 up and talk to you a little bit about that. He -- he's
17 flown Medivac out of -- out of Saginaw for a number of
18 years and is a safety expert in the helicopter field.

19 So, Kevin?

20 KEVIN NELSON: Again, my name is Kevin
21 Nelson, Nelson Aerodynamics, and I am a retained
22 consultant on behalf of NextEra Energy.

23 And that means, gentlemen, I've had a chance
24 over the last week to review the particulars of this
25 case. And I'd like to first say before I -- quick

1 summary of resume is, if I was in Elk Rapids, Michigan
2 and Elk Rapids Township where home for me is, I'm a
3 Michigan based company but we are national, I too would
4 be looking for facts that would discourage if not
5 prevent a wind turbine farm in my township. So I am
6 not going to take a side as this retained consultant on
7 whether a wind turbine farm should or should not be
8 approved. But I am here to speak in my subject matter
9 expert area and will take any -- I'm happy to take any
10 questions of the board on aviation safety, aviation
11 considerations, in particular in helicopter operations.
12 So that's -- I'm looking to see that the truth of the
13 facts as it relates to my subject matter territory is
14 properly framed.

15 Okay. Quick resume, Michigan native, Coast
16 Guard officer. I drove ships for the Coast Guard, flew
17 Coast Guard helicopters in terrible weather in Alaska,
18 the Oregon coast, deep fog, nasty stuff, as well as
19 flew air medical out of Saginaw for flight care in the
20 early 2000s. I've been into Marlette and Caro. And
21 one of the flight nurses, Julie Hutchinson, who's a
22 good friend of mine who now lives in Traverse City was
23 from Caro if anybody knows her. So going out to a lot
24 of area here, both scene rescue, on the road, in the
25 farm, as well as the airport and in the field across

1 from the hospital here in Caro. So Fairgrove Township
2 I did training with -- with them as well as all the
3 other townships as far as landing a helicopter safely.

4 First and foremost, I will -- oh, and my
5 company is buying and selling, managing and teaching
6 people to fly helicopters. I'm in the corporate
7 private owner flown aircraft world on the helicopter
8 side. And we consult nationally on heliport design and
9 construction approvals, things like that. I have never
10 done wind turbine consultation. Again, I'm not a wind
11 turbine expert. My subject matter expert area is
12 different from that.

13 But I will say that the wind turbines that
14 are being proposed in my evaluation would be treated
15 exactly like we have treated every other obstruction in
16 this area or anywhere else in the country, whether it's
17 cumulus granite of the Rockies, wind turbines, the
18 radio microwave link tower that you see just to the
19 south of us here. It's similar in height, which has
20 guidewire that I can't see come out from that in a
21 helicopter day and night. It's very difficult. We
22 have to assume they're there until they're not. A wind
23 turbine is much easier to see.

24 At flight care's base or Covenant Life and
25 Flight I think they're called, they have a safety

1 manager which was a role I played. There's a
2 three-ring binder of probably digital files now that
3 give all the hazards. And they're well known, and
4 they're trained for each township. So this would not
5 prevent the use of both the airport as well as the
6 hospital as well as scene landing in the vicinity of
7 and intermixed with the wind turbines. I've got a
8 scenario later I'll describe.

9 Airports all over the world are at risk of
10 being shut down, operations prevented. Look at Santa
11 Monica, California. It's a giant battle. It has very
12 seldom if ever can I think of a case at all where that
13 airport was threatened by the wind turbines, honestly.
14 As much as I'd like to think that wind turbines would
15 threaten airports, I have not found any in the last
16 week.

17 Drones, buildings, residences, mansions that
18 want to have a runway shortened so there aren't the
19 noisy jets flying in and out of them, I have not found
20 a case where wind turbines have affected an airport to
21 the point where it couldn't be operated at all or even
22 in a limited aspect. I simply don't see that. We had
23 a lot of other reasons and agencies like (inaudible),
24 groups, airplane owners and Pilots Association, worked
25 for the FAA, worked for the local community to try to

1 keep airports alive and vibrant. And I don't see in my
2 purview and view in respect to this, I do not see an
3 action that threatens this local airport or any other
4 local airports around here. And the existing turbines
5 in the thumb don't seem to do that.

6 The -- in fixed wing operations, airplanes,
7 legally they're not supposed to be flying below 500
8 feet except for landing and taking off, yet airplane
9 pilots do do that at times. And they take on the risk
10 of going below 500 feet. Helicopters, we can fly a lot
11 lower than that, and we do power line patrols, things
12 like that. We are down at low altitudes. I can tell
13 you that these wind turbines, I have flown in the thumb
14 through wind turbine farms with helicopters, while
15 they're turning, and I have not been unduly hazard and
16 have passengers on board who were of very high net
17 worth. I would not do that with my own child. I
18 wouldn't do it with their helicopter. I wouldn't do it
19 with (inaudible) on board. If it was just me, I
20 wouldn't do it if I thought it was hazardous.

21 I have too much of a reputation in my
22 industry and my business to stand up here and try to
23 push something that I don't believe from an aviation
24 standpoint and setbacks.

25 A little bit more on my resume. I'm also a

1 contributing editor for Vertical Magazine, which is the
2 largest trade publication in the world in the
3 helicopter industry. And I'm recognized by the largest
4 manufacturer of helicopters in the world, Airbus
5 Helicopters, as being somebody who they have hitched
6 their wagon to, and I've hitched my wagon to them on
7 recognizing we need to help helicopter owners after
8 they've purchased their helicopter to do it right and
9 not hurt somebody. So I -- I will be happy to answer
10 any questions that somebody has any concern on.

11 Wind turbines do not equate to a lost -- lost
12 airport. The zero sum game subject that Ryan Pumford
13 mentioned, it's not a zero sum game. My evaluation, I
14 don't see that this is a one or the other at all.

15 The towers that exist and have for decades in
16 this area already prevent blind, reckless, haphazard
17 unprepared flight in bad weather or good weather.
18 These wind turbines are much shorter than a lot of the
19 (inaudible) that we fly -- that I flew with flight care
20 years ago here, would not prevent rotary or fixed wing
21 or Angel Flights for that matter, medical flights in
22 and out of the Caro Airport at all.

23 Regarding the increased -- or the decreased
24 -- or the increased descent minimum for the airport
25 here, again, the VOR approach, a circling VOR approach

1 isn't arcane approach procedure. And if the weather is
2 anything close to that, below probably 1,000 feet,
3 1,500 feet, these pilots are going to use the GPS
4 approach that lines them up far more precise with the
5 runway and is not impacted by the wind turbine farm
6 proposed. And the vast majority of flight operations
7 for somebody who is not equipped with the more modern
8 or experienced with the more modern GPS approaches, if
9 they're -- if they're in what we would call skosh
10 weather, I believe your pilots (inaudible) skosh
11 weather or scud running kind of weather are coming down
12 in low minimum weather on an instrument approach, you
13 are not going to take the least precise approach to
14 come into Car.

15 If you needed to come in to save a life
16 because you're a University of Michigan fixed wing
17 aircraft trying to transport somebody to Mayo Clinic,
18 you're not going to use the least precise instrument
19 approach. And that is the one that has the descent
20 minimum being affected or changed in this case.

21 This is not going to prevent any takeoff or
22 landing in that aspect. The vast majority of flights
23 is done under visual flight rules even if it's on an
24 instrument flight -- flight plan. Those pilots are
25 looking to descend and then get visual at the airport

1 and make visual landing. And most flights are -- are
2 done this way.

3 I echo the professor's response -- discussion
4 earlier about the pilot's responsibility. It made my
5 hair stood -- stand up. I don't want somebody in our
6 airspace, nor should you, who has not followed the
7 rules, who has not taken the time to understand and
8 plan their flight and be aware of these types of
9 hazards or obstructions that are put in the air.

10 I also want to make sure that there's no
11 conflation between emergency operations with what --
12 the comments that the FAA put in there -- I guess in
13 their document. That -- that does not conflate with
14 air medical emergency operations. That is somebody who
15 has an emergency en-route.

16 And a Chinook helicopter that made a landing
17 here, if those wind turbines were there, that crew
18 would have missed those wind turbines. And they
19 already would have known that they were there and they
20 would have already seen them. And I have more faith in
21 the Chinook crew that they would not have just flown
22 into a wind turbine.

23 Given that there are wind turbines close to,
24 for instance, Sweetwater, Texas, I have familiarity
25 there -- and the image that I'd be happy to enter into

1 the record, I have it as a photo file on my iPad, and I
2 can get a text or an e-mail and I can e-mail it to you
3 for the record, shows technology that was easily
4 available in 2011, and this was a picture I took near
5 Sweetwater, Texas. It's about five or six miles west
6 of the airport. Those red things are wind turbines.
7 Rising terrain heading to the west, Sweetwater, Texas
8 is equally or more so rural and dependent upon any
9 economic value that that airport sustained with that.
10 That was eight years ago that picture was taken, easily
11 shown with technology that's even enhanced now what's
12 there. There are a lot of airports that have much
13 closer obstructions that are similar in height and
14 higher that are uncontrolled like Caro Airport. They
15 don't have a control tower. They don't have air
16 traffic telling every pilot, oh, don't go over there
17 because you might hit a wind turbine or a building, a
18 skyscraper, radio tower. That's -- all over the
19 country there are obstructions that are significant
20 around airports, and it does not shut those airports
21 down. And those airports oftentimes were even built
22 after those towers were put in.

23 I'd like to close -- well, another comment
24 I'd like to add though too is that the surface and the
25 vegetation management and the trees and the (inaudible)

1 management of the airport present a far greater hazard
2 to flight safety in the use of this airport in my
3 evaluation than wind turbines 2.6 miles or greater
4 away.

5 Lastly, I'll -- I'll make it an unequivocal
6 statement, and I'm going to be a little bit graphic
7 here, but it happened. It happened in cases that I saw
8 here in this area in the thumb. But this is a
9 fictitious story. But let's pick a 100 acre farm that
10 has a wind turbine like Pegasus Wind Energy in this
11 project, and at that farm the guy that's leasing the
12 land, his granddaughter after a night of a lot of
13 partying on the Fourth of July and the family's
14 shooting off fireworks, the seven-year-old
15 granddaughter gets run over by a tractor. People are,
16 you know, partying, having a good time, it's midnight,
17 it's dark. It's not great weather, but it's weather
18 that's allowable to be flown by the air medical
19 operations in Saginaw, University of Michigan,
20 wherever. That seven-year-old needs to get to a trauma
21 center. Probably Hurley is probably where we would
22 have ended up bringing her with -- especially with a
23 head injury.

24 I will tell you unequivocally that on the
25 property in very close proximity where the fire rescue

1 would be stabilizing that patient for transport, by the
2 time the helicopter got here they would have a landing
3 zone set up. They could land in the -- inside in the
4 proximity of that array of wind turbines safely and
5 transport that child to whatever appropriate medical
6 facility is necessary. Could have done it eleven years
7 ago, could do it now and the technology is only better.

8 And the training and coordination is very
9 significant with local fire and rescue. And I
10 compliment the chief that spoke here earlier. He was
11 chief here when I -- when I was flying there. I don't
12 remember meeting him, but I'm sure we talked. So
13 that's the kind of pride I have in working with folks
14 like that, so.

15 I am open to questions. I'll give up the
16 microphone, and I'll make sure that you have this
17 image.

18 MR. PUMFORD: I know we've been here a long
19 time already tonight. Lastly, and at this point Dan
20 Ettinger is going to come up and clarify some
21 misrepresentations on the legal side, and we'll wrap it
22 all up.

23 MR. ETTINGER: Thank, Ryan.

24 Again, Dan Ettinger, attorney for Pegasus
25 Wind from Warner Norcross + Judd in Grand Rapids,

1 Michigan.

2 We're here tonight because Pegasus Wind is
3 seeking variances that the Airport Zoning Act and the
4 Airport Zoning Ordinance allow it to seek. And I'm not
5 going to rehash discussion of some of the legal issues
6 that are -- we put into the papers that we've provided
7 to everyone yesterday. But I do want to address some
8 of the key points and issues that I heard through
9 public comment tonight and from Mr. Dienes.

10 And one thing that stood out to me is that
11 Mr. Dienes said something that's exactly correct, and
12 that is that -- that you start with the statute. You
13 start with the Airport Zoning Act. And the Airport
14 Zoning Act is focused on avoidance of airport hazards.
15 And the Airport Zoning Act allows for variances. And
16 so you have to evaluate when you're looking at whether
17 or not to make variance -- you have to evaluate that
18 issue through the lens of -- like we talked about last
19 time, through that statute which deals with airport
20 hazards.

21 Now, we heard from -- from several folks
22 tonight similar things that we heard last time and in
23 Mr. Dienes' letters to the board, which is that Section
24 3.6-G absolutely precludes variances as a matter of
25 law. They just -- you can't do it. You can't even

1 apply for it. You don't have to go any further on this
2 issue. We could just stop now. And I do want to deal
3 with that just for a minute, because I think it's an
4 important issue. I think that his interpretation is
5 not correct.

6 As we said in our papers, the Airport Zoning
7 Act, and we've referred to the appropriate section,
8 specifically allows people to seek variances from
9 airport zoning regulations. It doesn't say from some
10 airport regulations. It says from any. So you can
11 seek them from any zoning regulation. That's the
12 statute. That's the statute that gives this body its
13 legal authority to act under the Airport Zoning Act.

14 And then you go to Section 3.6, and it
15 doesn't say anything about you can't seek variances
16 from, you know, the letters underneath that, the
17 section underneath that. And there's a reason for
18 that. That would conflict with Section 1.2 of the
19 ordinance which talks about the purpose and refers to
20 the granting of variances. It would conflict with
21 Section 2.6, which defines an airport hazard and still
22 talks about the possibility of variances, of course, if
23 you can meet the variance criteria, which includes
24 protecting approaches into the airport. It conflicts
25 with the definition of variance in the ordinance, which

1 doesn't make any exceptions for Section 3.6 -- 3.6,
2 excuse me.

3 So you can't just nullify the language of the
4 Airport Zoning Act as well as the language in Section
5 3.6 and elsewhere within -- within the ordinance. We
6 provided some -- some law on this issue that -- that I
7 think is -- is important that -- frankly, even if
8 Section 3.6 could be read as Mr. Dienes is suggesting,
9 that -- that's now allowable under Michigan Law.
10 Because, again, the Airport Zoning Act has spoken. The
11 legislature has spoken and says that a person who wants
12 to seek a variance from what would otherwise be a
13 violation of the regulations of the ordinance is
14 entitled to do that and is entitled to move forward and
15 prove that they can meet those criteria. And we
16 believe we've done that here.

17 And I'll refer you to the case law and
18 language that's cited in our letter. With respect to
19 -- I wanted to address another issue related to use
20 versus non-use variance. As we said, we are seeking a
21 non-use variance. This way it's dimensions of
22 turbines, not height. And that's what's causing the
23 issues that lead us to come before this board and seek
24 variances.

25 The use of wind turbines. Wind turbines are

1 not a -- are not a violation themselves of the
2 ordinance. They are permitted. There's nothing that
3 says they are not a permitted use in the airport zoning
4 area. Again, we talked about that more in our papers.

5 The next issue that was addressed tonight was
6 also addressed in Mr. Dienes' papers, the issue related
7 to the Juniata Township special land use permit.
8 Pegasus Wind has a valid special land use permit in
9 Juniata Township. It was unanimously approved in
10 January of 2018. The Juniata Township Planning
11 Commission has tried to revoke it. Did so -- tried to
12 do so in March of this year. But the Tuscola County
13 Circuit Court judge enjoined the revocation because she
14 believed it was likely illegal. So that revocation is
15 not effective, and Pegasus Wind's special land use
16 permit is considered valid. It's as though that
17 revocation -- from a legal standpoint, it's as though
18 that revocation never took place.

19 So the next issue I want to talk about is the
20 local independence, another issue that was raised in
21 Mr. Dienes' letter. And the point I'd like to -- to --
22 to make tonight is that while the Airport Zoning Board
23 of Appeals is an independent authority, the notion that
24 the FAA and MDOT review and determinations are
25 basically irrelevant to this process is -- is with all

1 due respect incorrect. But that's why the zoning
2 ordinance requires determinations of no hazard and
3 requires an MDOT opinion letter essentially concurring
4 with that and saying that they will issue Tall
5 Structures Act permits once the variances are granted.

6 That's also why on April 16, 2018, and this
7 is in our application materials, the Tuscola Area
8 Airport manager wrote to the FAA and said, quote: We
9 are confident that the FAA will review all the
10 information needed to make a decision in the matter of
11 the wind turbines that will be in the airspace of the
12 TAAA, and we will support your findings in this matter.
13 That was from Mr. Dienes' client. That's from the
14 airport manager of the Tuscola Area Airport Authority.

15 The FAA determinations and MDOT's conference
16 are exten -- in fact with extensive aeronautical
17 studies are clearly important and inform this process
18 and the Zoning Board's decision. The FAA as we've
19 heard determined the turbines will not affect air
20 navigation and safety. And those folks have a
21 significant amount of expertise there.

22 Just because the FAA doesn't consider local
23 zoning ordinances doesn't mean that they don't consider
24 local airport issues as it relates to airport hazards.
25 Clearly they do. That's their charge to consider it

1 all across the country in every community.

2 So this is -- this is about the record. This
3 is about evidence, the evidence that's being presented
4 to you. We believe that the evidence is clear that --
5 that Pegasus Wind meets the variance criteria and is
6 entitled to permit. We don't believe that the opinion
7 of the Tuscola Area Airport Authority that tall stuff
8 by the airport is bad is evidence.

9 Mr. Dienes said -- and I want to make sure I
10 get this right. We, meaning the Tuscola Area Airport
11 Authority, should be working in concert with the ZBA.
12 We shouldn't be going in different directions.

13 As the Zoning Board of Appeals, you're --
14 you're a quasi-judicial body sitting here tonight. The
15 function of the ZBA is to evaluate the evidence and
16 apply the variance criteria based on that evidence.
17 It's not the function of the ZBA, as I think you know,
18 to work in concert with the Tuscola Area Airport
19 Authority, and it's not the function of the Tuscola --
20 Tuscola Area Airport Zoning Board of Appeals to deny
21 variances because of the opinion of the Tuscola Area
22 Airport Authority that tall stuff by the airport is
23 bad.

24 Thank you.

25 MR. PUMFORD: Thanks, Dan.

1 To wrap this up, you all have heard a number
2 of issues and need to separate speculation and fear
3 from fact. We've laid out the facts that all 33 wind
4 turbines don't create airport hazards, and this has
5 been backed up by the FAA, MDOT, et cetera. We've also
6 laid out the facts that support Pegasus Wind turbines
7 comply with all criteria to receive a variance from
8 this board.

9 Further, we've shown how -- shown the facts
10 that show the viability of the airport both now with
11 its current runway and with a proposed future runway is
12 absolutely protected and allows the community to
13 benefit as well. This is fantastic news. Those 475
14 jobs that are created directly and indirectly by the
15 airport are protected. The 150 jobs that the airport
16 could bring in are protected. So with all these facts
17 laid out, we request your approval of our 33 variances.

18 In the interest of time, we -- we tried,
19 maybe failed, to give concise responses, but we're
20 happy to expand -- expand or clarify anything you need
21 now as you deliberate. Thank you.

22 CHAIRMAN KOSIK: Okay. Tuscola County
23 Airport Zoning Board of Appeals, we've heard
24 discussions and we've heard public comment from two
25 different meetings. We have no new business in front



Warner Norcross + Judd LLP

Jim Tussey 7/9/19

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July 8, 2019

Via Email

Clayton Johnson, Esq.
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4301 Fashion Square Boulevard
Saginaw, Michigan 48603

Tuscola Area Airport Zoning Board of Appeals
c/o Jodi Fetting
Tuscola County Clerk
440 N State Street
Caro, MI 48723

Re: **Pegasus Wind's Applications for Variances with the Tuscola Area Airport
Zoning Board of Appeals**

Dear Mr. Johnson and Ms. Fetting:

Our firm represents Pegasus Wind, LLC ("Pegasus Wind") with respect to its applications for variances for 33 turbines that are part of the Pegasus Wind Energy Center. At the Tuscola Area Airport Zoning Board of Appeals ("ZBA") meeting on June 25, 2019, we heard several comments and questions from ZBA members as well as members of the public. Some of the comments and questions related to Michigan law and the variance standard under the Tuscola Area Airport Zoning Ordinance ("Airport Zoning Ordinance"), while others involved technical issues related to air navigation and air safety. The purpose of this letter is to address the key issues raised at the meeting to ensure that the ZBA has complete and accurate information as it makes its decision on Pegasus Wind's variance applications.

Issues Related to Michigan Law and the Variance Standard

- **Is the standard for a variance under Michigan's Airport Zoning Act ("AZA") any different from the standard under the Zoning Enabling Act ("ZEA")?** Yes. There are two key differences between the variance standard under the AZA and the ZEA standard. First, unlike the ZEA, which addresses municipal zoning generally and, as stated in the preamble, authorizes local units of government to regulate the development and use of land through the adoption of zoning ordinances, the AZA focuses specifically on impacts

Clayton Johnson, Esq.
 Jodi Fetting
 July 8, 2019
 Page 2

to air navigation and safety and the avoidance of airport hazards.¹ Any variance request must therefore be evaluated through the lens of that purpose. Second, while the AZA authorizes municipal airports to adopt regulations limiting the height of structures and uses around the airport to prevent airport hazards, it also requires airports to allow for variances from such regulations when the standard under the variance applicant meets the AZA's variance standard. Under the ZEA, a ZBA "may grant a variance" if the standards for a use or nonuse variance are met. MCL 125.3604(7). But under the AZA, a ZBA "shall allow a variance" if the variance standard is met. MCL 259.454(1) (emphasis added). Thus, the AZA addresses a much narrower set of concerns and mandates the approval of a variance if those concerns are sufficiently addressed to meet the variance criteria. That is why the Airport Zoning Ordinance specifically states that the purpose of the airport zoning regulations is to prevent the establishment of airport hazards and to provide "for the allowance of variances from such regulations." Airport Zoning Ordinance, Sec 1.2.

- **Is Pegasus Wind violating the AZA or the Airport Zoning Ordinance by seeking variances for 33 turbines as part of its project?** No. As discussed above, the AZA authorizes airports to enact regulations to protect from airport hazards, and in doing so, "may divide the area into zones, and, within those zones, may specify the land uses permitted and regulate and restrict the height to which structures and trees may be erected or allowed to grow." MCL 259.443(1). But the AZA also specifically allows for variances from those regulations when the standard is met: "A person desiring to erect a structure, or increase the height of a structure, or permit the growth of a tree, or otherwise use property in violation of the airport zoning regulations adopted under this act, may apply to the board of appeals, for a variance from the zoning regulations in question." MCL 259.454(1). Pegasus Wind initially understood that a few of its turbines would likely require variances for height. It came to understand through the Federal Aviation Administration's ("FAA") review that 33 turbines would require variances for the requirement in the Airport Zoning Ordinance that the structure at issue not require a raise in the minimum descent altitude. FAA ultimately issued Determinations of No Hazard ("DNHs") for all 33 turbines notwithstanding the raise in descent minimums because it found that the turbines would not adversely impact air navigation and safety. The Michigan Department of Transportation ("MDOT") has indicated that it concurs with this conclusion. Pegasus Wind has applied for variances because the aeronautical studies and technical review of FAA, MDOT, and Capitol Airspace confirm that the 33 turbines at issue do not pose airport hazards and because Pegasus Wind otherwise meets the variance criteria set forth in the AZA and Airport Zoning Ordinance. While Pegasus Wind would otherwise be violating the Airport Zoning Ordinance if it erected the turbine structures without first obtaining variances for the 33 turbines at issue, Pegasus Wind seeks variances from the airport ZBA as allowed under the AZA to ensure that it is not in violation. Pegasus Wind

¹ The AZA defines an "airport hazard" as "any structure or tree or use of land or of appurtenances thereof which obstructs the air space required for the safe flight of aircraft in landing or taking off at an airport or is otherwise hazardous or creates hazards to such safe landing or taking off of aircraft." MCL 259.433.

could not apply for permits with the Airport Zoning Administrator or variances with the ZBA earlier in the development process, as Pegasus Wind needed to obtain DNHs from FAA prior to seeking approvals from the airport.

- **An attorney for the Tuscola Area Airport Authority (“TAAA”) has suggested that, under the Airport Zoning Ordinance, raising the minimum descent altitude is absolutely prohibited in all instances and no variance can ever be granted in that situation. Is that correct?** No. The Airport Zoning Ordinance does not ban variances outright in certain circumstances, nor could it under the AZA. Pegasus Wind seeks a variance from the Section 3.6.G of the Airport Zoning Ordinance, which states that “no person may use any lands within the [AZA] which . . . [w]ould raise the descent minimums of any instrument approach procedure to the airport, or otherwise limit operations at the airport, as determined by an airspace study conducted by the [FAA].” The TAAA attorney has argued that because Section 3.6 starts by stating “[n]otwithstanding any other provisions of the Ordinance . . . ,” a permit applicant can never seek a variance from the conditions identified in that section. But that is not correct under the ordinance or Michigan law.

Local units of government possess only those powers conferred on them by the Legislature or the Michigan Constitution. *Howell Twp v Rooto Crop*, 258 Mich App 470, 475; 670 NW2d 713 (2003). The same is true of municipal airports and their ZBAs. As discussed above, the AZA specifically allows persons who would otherwise be in violation of an airport zoning ordinance to obtain a variance if they meet the variance criteria: “A person desiring to erect a structure, or increase the height of a structure, or permit the growth of a tree, or otherwise use property in violation of the airport zoning regulations adopted under this act, may apply to the board of appeals, for a variance from the zoning regulations in question.” MCL 259.454(1). Further, the AZA states: “A variance shall not conflict with a general zoning ordinance or regulation of a political subdivision. However, a variance may conflict with a zoning ordinance or regulation adopted exclusively for airport zoning purposes.” *Id.* That would include Section 3.6.G.

The Airport Zoning Ordinance does not state that variances are prohibited for the requirements in Section 3.6.G or any other requirement of the ordinance. In fact, that would run contrary to the ordinance’s stated purpose, which is articulated in Section 1.2. It would also conflict with Section 2.6, which defines an “airport hazard” to be “[a]ny structure or tree within the Airport Hazard Area that exceeds the height limitations established by this Ordinance, or any use of land or appurtenances within the Airport Hazard Area that interferes with the safe use of the airport by aircraft unless a variance has been granted by the Airport Zoning Board of Appeals.” (emphasis added.) So, like the AZA, the Airport Zoning Ordinance specifically allows for variances from requirements precluding airport hazards that would, on their face, appear to be ordinance violations, so long as the variance criteria are met.

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Further, even if Section 3.6 could be read to preclude variances from the requirements of that section, that reading would be illegal and therefore unenforceable under Michigan law. The AZA does not include language allowing airport ZBAs to preclude variances as to certain airport zoning ordinance requirements. Without express language to that effect, the Tuscola Area Airport ZBA has no authority to do so. This is supported by case law in Michigan and elsewhere. The Michigan Court of Appeals recently held that “a township zoning board of appeals has the authority to vary or modify *any* zoning ordinance to prevent unnecessary hardship if the spirit of the ordinance is observed, the public safety is secured, and substantial justice is done.” *City of Detroit v City of Detroit Bd of Zoning Appeals*, 326 Mich App 248; 926 NW2d 311, 315 (2018) (citation and quotation omitted.) Other jurisdictions agree that “no ordinance provision may abridge the variance power granted by the legislature to a local zoning board.” 8 McQuillin Mun Corp, Statutory and Ordinance Provisions, § 25:179.28 (2018) (collecting cases); see also *Strange v Bd of Zoning Appeals of Shelby Cnty*, 428 NE2d 1328, 1331 (Ind Ct App 1981) (“Zoning ordinances may not override state law and policy; enabling legislation is not merely precatory, but prescribes the parameters of conferred authority.” (citing *Bostic v City of West Columbia*, 234 SE2d 224, 225-26 (SC 1977).) As the *Strange* court concluded: “Literally every jurisdiction which we found to have considered the question holds that a zoning ordinance may not in any way restrict the authority of a board of zoning appeals to grant a variance where the enabling statute endows such board with powers to authorize variances from the terms of any zoning ordinance.” *Id.* at 1332.

- **The TAAA attorney has also suggested that the airport ZBA cannot issue Pegasus Wind variances because “there is litigation as to the legality of the wind turbines in Juniata Township.” Is that correct?** No. Under Section 3.4 of the Airport Zoning Ordinance, in order to obtain permits for its turbines, Pegasus Wind must show that a land use permit has been issued by the governing municipalities. As Pegasus Wind explained in its variance narrative, it has valid Special Land Use Permits (“SLUPs”) from all three townships that are part of the Pegasus Wind Energy Center. In fact, the Planning Commissions in Juniata, Fairgrove, and Gilford Townships all unanimously approved Pegasus Wind’s SLUPs. While Juniata Township has illegally attempted to revoke Pegasus Wind’s SLUP, the Tuscola County Circuit Court recently issued a preliminary injunction that prevents the Township from revoking the SLUP, in part so Pegasus Wind could move forward with obtaining the necessary airport approvals. Because Pegasus Wind has valid SLUPs in all three townships, Section 3.4 cannot be used as a basis to deny Pegasus Wind variances or delay the review process.
- **Does Pegasus Wind need to establish an unnecessary hardship to obtain its requested variances?** No. There are two classes of variances with different standards for approval: nonuse (or dimensional) variances and use variances. *Grabow v Macomb Twp*, 270 Mich App 222, 226 n3; 714 NW2d 674 (2006). Nonuse variances are not concerned with the use of the land but, rather, with changes resulting from a structure’s area, height, setback,

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or other dimensional aspects. *Id.* By contrast, use variances seek to permit a use of the land which the zoning ordinance otherwise prohibits. *Id.* For example, a landowner who wishes to build a single family home in a commercial district must seek a use variance. Here, Pegasus Wind seeks variances from the Airport Zoning Ordinance's height restrictions and restrictions related to raising the minimum descent altitude, both of which arise from the height of the proposed turbines rather than the type of land use. Accordingly, Pegasus Wind is seeking nonuse variances. Applicants for a nonuse variance need only establish a practical difficulty, while applicants for a use variance must meet the more stringent unnecessary hardship standard.² *Heritage Hill Ass'n v Grand Rapids*, 48 Mich App 765, 769; 211 NW2d 77 (1973). There is no clear test for establishing a practical difficulty.³ *National Boatland, Inc v Farmington Hills Zoning Bd of Appeals*, 146 Mich App 380; 380 NW2d 472 (1985). Because Pegasus Wind is seeking nonuse variances, it need only establish a practical difficulty in complying with the Airport Zoning Ordinance. And, as noted in Pegasus Wind's variance applications, Pegasus Wind has established that a literal enforcement of the Zoning Ordinance would result in a practical difficulty.

- **Is Pegasus Wind's practical difficulty self-created?** No. While there is no clear test for establishing a practical difficulty, both nonuse and use variances require that the applicant's problem not be "self-created." *Johnson v Robinson*, 420 Mich 115, 125–126; 359 NW2d 526 (1984). But contrary to statements made in public comment, the mere fact that a property owner purchases property with knowledge of applicable restrictions or hardships does not make the problem self-created. *City of Detroit v City of Detroit Bd of Zoning Appeals*, 326 Mich App 248; 926 NW2d 311, 317 (2018). Instead, a hardship is self-created "when a landowner or predecessor in title partitions, subdivides, or somehow physically alters the land after the enactment of the applicable zoning ordinance, so as to render it unfit for the uses for which it is zoned." *Id.* For instance, if after a zoning ordinance is adopted, a property owner divides a parcel of property so that the resulting lots do not meet the zoning ordinance's minimum width requirements for building a home, a variance would not be appropriate because the only hardship would be caused by the actions of the property owner. *Johnson*, 420 Mich at 126. But here, Pegasus Wind has not

² In order to establish an unnecessary hardship, an applicant must show the following four factors: (1) the property cannot reasonably be used for the purposes permitted in its zoning district; (2) the circumstances giving rise to the variance request are unique to the property and not general conditions of the neighborhood itself, (3) the use authorized by the variance will not alter the essential character of the area, and (4) the applicant's problem is not self-created. *Janssen v Holland Charter Twp Zoning Bd of Appeals*, 252 Mich App 197, 201; 651 NW2d 464 (2002).

³ In *National Boatland*, the Michigan Court of Appeals applied the following factors to determine whether a practical difficulty exists: (1) whether compliance with the strict letter of the restrictions would unreasonably prevent the owner from using the property for a permitted purpose or would render conformity with such restrictions unnecessarily burdensome; (2) whether a grant of the variance applied for would do substantial justice to the applicant as well as to other property owners in the district; and (3) whether relief can be granted in such fashion that the spirit of the ordinance will be observed and public safety and welfare secured. *National Boatland*, 146 Mich App at 388. However, application of these factors is not required under Michigan law.

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physically altered the land in any way to make it unfit for the uses for which it is zoned. Rather, as explained below and in Pegasus Wind's variance narrative, Pegasus Wind's practical difficulty in complying with the strict requirements of the ordinance arises from the unusual constraints on wind energy development (*i.e.* a strong wind resource, willing landowners, nearby transmission, willing customers, and available turbine designs) as well as where and how Pegasus Wind can comply with the local zoning requirements. Because Pegasus Wind has made no physical alterations to the land that resulted in the practical difficulties described above, its harm is not self-created under Michigan law.⁴

- **Can't Pegasus Wind simply move or remove some of the 33 variance turbines and still move forward with its project?** No, it cannot. As an initial matter, because Pegasus Wind is seeking nonuse variances, it does not need to establish that alternative placement of the structures is impossible under Michigan law. *Engel v Monitor Tp Zoning Bd of Appeals*, No. 327701, 2016 WL 4770183, at *4 (Mich Ct App, September 13, 2016) (“[P]ractical difficulty” is the relevant standard for the [applicants’] nonuse variance, not whether . . . alternative placement of the arena was impossible.”); *Laurence Wolf Capital Mgt Tr. v City of Ferndale*, 61 Fed Appx 204, 218 (CA 6, 2003) (“A nonuse variance applicant does not need to show . . . that no other suitable location exists.”).

Second, Pegasus Wind has established that reconfiguring its project to either move or remove multiple turbines would make it impossible for Pegasus Wind to develop the project and therefore presents a practical difficulty. As discussed above, Pegasus Wind's current turbine array reflects the consideration of multiple siting variables, including the strength of the wind resource, landowners willing to host turbines or infrastructure, a customer willing to purchase the power, nearby transmission, and the ability to comply with the rigorous permitting requirements in three separate townships. In order to protect air navigation and safety at the airport, Pegasus Wind has already removed 19 turbines. Removing additional turbines from the project will impede Pegasus Wind's ability to comply with its Power Purchase Agreement with its customer. Further, Pegasus Wind cannot simply move turbines because its array has been carefully sited to consider and comply not only with FAA and MDOT regulations, but also all of the local zoning requirements, including setbacks from inhabitable structures and lot lines, sound and shadow flicker requirements, etc. In essence, the turbines that are part of Pegasus Wind's project are interconnected; moving turbines does not just affect those turbines, but the entire array. It would likely require, among other things, re-siting the array, finding additional landowners, seeking new federal, state, and local approvals, and preparing new studies to support those requested approvals. Pegasus Wind could not move forward with its project if forced to go through this process.

⁴ To the contrary, Pegasus Wind removed 19 turbines from its project in an effort to *reduce* any potential hazards to the airport.

Finally, and just as importantly, FAA and MDOT have already concluded that the 33 variance turbines will not pose a hazard to air navigation or safety. This is further supported by Capitol Airspace's aeronautical studies. There is no evidence that moving or removing some of the 33 variance turbines at issue will somehow reduce impacts or otherwise improve safety at the airport. Thus, even if the law allowed such a consideration, there is no factual basis for it here.

- **Several members of the public have suggested that Pegasus Wind is not entitled to variances because it cannot establish that the circumstances giving rise to the variance requests are unique given that Pegasus Wind is seeking 33 variances for turbines that are placed throughout the airport zoning area. Is this correct?** No. As an initial matter, the element of "uniqueness" is typically only required for a use variance. See *Janssen*, 252 Mich App at 201. In fact, several cases have held that an applicant for a nonuse variance is not required to establish unique circumstances necessitating the variance. See *Laurence Wolf Capital Mgt Tr. v City of Ferndale*, 61 Fed Appx 204, 218 (CA 6, 2003) (collecting cases) ("A nonuse variance applicant does not need to show unique circumstances . . ."). In any event, under Michigan law, the uniqueness standard does not require that the circumstances affect only a single landowner; instead, "unique" means that the hardship is not shared by all others. *Janssen*, 252 Mich App at 202. The circumstances of a wind developer trying to site a project in multiple jurisdictions within the airport zoning area are truly unique. And, as explained in Pegasus Wind's variance narrative and during Pegasus Wind's presentation at the June 25, 2019 meeting, the circumstances giving rise to these variance requests are also unique in that the airport zoning area is the rare location where all of the distinctive requirements for successful wind energy development (*i.e.* a strong wind resource, willing landowners, nearby transmission, willing customers, and local land use approvals) converge. Pegasus Wind's variance requests therefore should not be denied on this basis.
- **An attorney for the TAAA has suggested that the profitability of a wind farm is not a proper consideration for the ZBA and that the mere fact that alternative, less profitable wind turbine designs exist is alone reason enough to deny the variances. Is this correct?** No. "There is a common misunderstanding that an applicant's financial considerations can never be considered by a ZBA in deciding a variance request." Gerald A. Fisher et al, *Michigan Zoning, Planning, and Land Use* § 7.6 (ICLE 2008); see also *Janssen*, 252 Mich App at 206 ("[W]hen a 'landowner has made the requisite showing of financial hardship and compatibility of the proposed use with the character of the neighborhood, the variance should be granted . . .'" (citation omitted).) In situations where property is being used for production of income, it is appropriate to consider whether a reasonable return can be derived from the property as then zoned. *Puritan-Greenfield Improvement Ass'n v Leo*, 7 Mich App 659, 668; 153 NW2d 162 (1967); see also *Swiecicki v City of Dearborn*, No. 262892, 2006 WL 2613593, at *3 (Mich Ct App, September 12, 2006) (holding that if the applicant was unable to obtain a variance, he would "have no

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economically viable use of the land because no development could occur on the property”). Here, as Pegasus Wind has previously explained, siting smaller turbines that comply with the height restrictions would make it virtually impossible for Pegasus Wind to achieve a reasonable rate of return. This is because any smaller turbine that would comply with the height regulations would be less efficient and less technologically advanced, and would certainly require Pegasus Wind to site more turbines in order to produce the desired megawatt total needed to sell the energy to Pegasus Wind’s power purchaser. Even assuming that Pegasus Wind could get local land use approvals for additional turbines—which it likely could not due to local zoning restrictions related to a turbine’s proximity to inhabited structures—no reasonable power purchaser would agree to purchase energy from Pegasus Wind if it knew that the company intended to use older, substandard, less efficient turbines with lower output levels. Thus, without the ability to site the 33 turbines within Zones B and E, Pegasus Wind will be unable to meet its obligations under its transmission easements and leases with landowners or its Power Purchase Agreement. In turn, Pegasus Wind will be unable to develop the Pegasus Wind Energy Center at all. Therefore, no reasonable return can be achieved under the existing requirements of the Zoning Ordinance.

Technical Issues Related to Air Navigation and Safety

- **Does the turbines’ proximity to the airport pose an airport hazard?** No. FAA’s aeronautical study includes proximity to airports by evaluating visual flight rules (VFR) and instrument flight rules (IFR) operations. Obstacles, such as wind turbines, can coexist with airports; this is evident throughout the United States National Airspace System. There are 188 public-use airports that have obstacles taller than 450 feet above ground level located within three nautical miles of the runway.⁵ For reference, examples include: Mojave Air and Space Port (MHV), Byron Airport (C83), Port Isabel-Cameron County Airport (PIL), Reagan County Airport (E41), and Monticello Airport (U64). Of these airports, the closest wind turbine is located 2.1 nautical miles from the closest runway end. At Pegasus Wind, the closest wind turbine would be 2.6 nautical miles from the closest existing or potential future runway end. Since FAA has issued favorable DNHs, it is clear that the location of the Pegasus Wind project would not affect the safety or efficiency of the Tuscola Area Airport (CFS).
- **Will the Pegasus Wind project affect a helicopter’s ability to operate at Tuscola Area Airport (CFS), including transiting to and from Saginaw, Michigan?** No. The Pegasus Wind project is located outside of the airport’s VFR traffic pattern airspace. As a result, helicopters can continue to fly into, and out of, Tuscola Area Airport unimpeded. FAA does not consider structures under 500 feet to be potential hazards to helicopter operations.

⁵ These results were derived from FAA’s Digital Obstacle File (DOF) and considered airports with runways longer than 4,000 feet. Smaller airports were removed as they may not be relevant to this discussion.

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If Pegasus Wind were considering turbines higher than 499 feet above ground, FAA would evaluate the potential for impacting a helicopter's ability to fly along recognizable landmarks, such as highways, railroads, or transmission lines. Since the Pegasus Wind project is below 500 feet above ground, it will not impact a helicopter's ability to follow recognizable landmarks, such as highways that traverse through, or near, the Pegasus Wind project. Additionally, historical air traffic data indicates that helicopter operations already transit at higher altitudes over existing wind turbines without an impact on routing. This indicates that helicopters would not have to alter their operations after the Pegasus Wind project is built.

- **Will the Pegasus Wind project affect the safety of aircraft, including emergency operations at or near Tuscola Area Airport?** No. As FAA concluded, the 33 variance turbines will not affect flight safety. Further, the turbines will not increase the risk associated with emergency aircraft operations. "The prime objective of the FAA in conducting [Obstruction Evaluation] studies is to ensure the safety of air navigation, and the efficient utilization of navigable airspace."⁶ In 1952, the President of the United States commissioned a report in response to serious concerns about airplane accidents occurring during both take-off and landing.⁷ This report led to the creation of Runway Protection Zones (RPZs). These zones are established to protect persons and property on the ground in areas where an aircraft accident is more likely to happen.⁸ Today, RPZs are evaluated during each FAA aeronautical study. The Pegasus Wind project is more than 2.2 nautical miles from the closest existing, or potential future RPZ at Tuscola Area Airport.

Pegasus Wind's project, including the 33 variance turbines, poses no greater hazard to emergency aircraft operations than any other above ground structure, topographic feature, or vegetative feature. Accidents are by their very nature unpredictable and can happen at any time, anywhere. If a regulating body were to limit development based on unpredictable emergency operations, then no development above ground would be acceptable. For example, airport buildings and hangars would be hazardous to potential emergency conditions, as would trees and mountains. Essentially, protecting for unpredictable emergency conditions would require zero infrastructure, topography, and vegetation above ground at, or near, airports. That is not how airports are regulated in this country. As discussed above, 188 similar airports have tall structures at similar or closer distances and they coexist with the air traffic operations without a concern for emergency conditions.

⁶ FAA Order 7400.2M, Procedures for Handling Airspace Matters, Part 2. Objects Affecting Navigable Airspace, Paragraph 6-3-1(a) via http://www.faa.gov/documentLibrary/media/Order/7400.2M_Bsc_dtd_2-28-19.pdf

⁷"The Airport and Its Neighbors: The Report of the President's Airport Commission" via <https://apps.dtic.mil/docs/citations/ADA024260>

⁸FAA Advisory Circular 150/5300-13A, Airport Design, Chapter 3. Runway Design, Paragraph 310 via https://www.faa.gov/documentLibrary/media/Advisory_Circular/150-5300-13A-chg1-interactive-201804.pdf

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- **Will the Pegasus Wind project create wake turbulence that will affect aircraft operating at Tuscola Area Airport?** No. The most recent and relevant research was published by the University of Kansas in January of 2018; this study was written by one of the same authors that published an earlier study by the University of Kansas in January of 2014 mentioned during public comments.⁹ This research indicates that a wind turbine could have an effect on aircraft as far as 3,425 feet from the wind turbine (9 rotor diameters from the wind turbine). This is based on a wind speed of 35 nautical miles per hour (40 miles per hour). Beyond 3,425 feet, “the turbulent energy peaks disappear completely” (Page 20). At the Pegasus Wind project, the closest turbine is 15,888 feet (more than 41 rotor diameters) from the nearest current or potential future runway end. Historical climatological data recorded at the airport indicates that wind speeds greater than 17 nautical miles per hour (20 miles per hour) occur less than 1.5% of the time from any direction.¹⁰ Based on this information, it is clear that the Pegasus Wind project would not create a wake turbulence hazard for Tuscola Area Airport.
- **Given that the wind turbines will be painted white, is there a concern that pilots will not be able to see and avoid them?** No. During periods of good weather, pilots can operate under visual flight rules (VFR), which allow and compel them to visually “see and avoid” obstacles, terrain, and other aircraft. To make wind turbines conspicuous for pilots, FAA has published guidance which recommends utilizing white paint for daytime conspicuity and synchronized flashing red lights for nighttime conspicuity.¹¹ Pegasus Wind’s project will comply with this guidance.¹² During periods of inclement weather (e.g. fog or snow squalls), pilots will operate under instrument flight rules (IFR). Under IFR, pilots operate using instruments in the cockpit and utilize published procedures to avoid obstacles, terrain, and other aircraft. These procedures are established by FAA and provide the appropriate obstacle clearance so that aircraft can safely avoid obstacles. As a result, wind turbines do not need to be conspicuous under these conditions. The pilot-in-command is “directly responsible for, and is the final authority as to, the operation of the aircraft.”¹³ As a result, the pilot will operate in a manner that either allows them to visually acquire and avoid obstacles or they will operate on published procedures that do not require the pilot to see the obstacle.

⁹ Report No. K-TRAN:KU-16-3 “Classification of Wind Farm Turbulence and Its Effects on General Aviation Aircraft and Airports” via <http://dmsweb.ksdot.org/AppNetProd/docpop/docpop.aspx?clienttype=html&docid=10103113>

¹⁰ As reported by https://mesonet.agron.iastate.edu/sites/windrose.phtml?station=CFS&network=MI_ASOS

¹¹ FAA Advisory Circular 70/7460-1L Chapter 13 “Marking and Lighting Wind Turbines” via http://www.faa.gov/documentLibrary/media/Advisory_Circular/AC_70_7460-1L_-_Obstruction_Marking_and_Lighting_-_Change_2.pdf

¹² In fact, Pegasus Wind plans to use an advanced aircraft detection lighting system (ADLS) to ensure aircraft safety while at the same time reducing nighttime visual impacts for those on the ground.

¹³ 14 CFR 91.3 “Responsibility and authority of the pilot in command.” via https://www.ecfr.gov/cgi-bin/text-idx?node=14:2.0.1.3.10#se14.2.91_13

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- **Did FAA evaluate the potential for affecting the airport's instrument departure procedures?** Yes. FAA evaluated the airport's obstacle departure procedure (ODP) and determined that the Pegasus Wind project would require an increase to the published minimum climb gradient for aircraft departing from Runway 24. This increase is from 200 to 265 feet per nautical mile. By establishing this minimum climb gradient, FAA is ensuring the appropriate amount of clearance between the wind turbines and departing aircraft. By increasing the departure procedure's minimum climb gradient, FAA does not require a change to the departure procedure's "climb-to" altitude. Thus, as part of its favorable DNHs, FAA concluded that instrument departure procedures can still be safely flown after the Pegasus Wind project is built.
- **Some members of the public have suggested that Pegasus Wind's variance requests should be denied because the project will have an adverse economic impact on the airport. Is that true?** No. There is no evidence that Pegasus Wind's project would have a negative economic or safety-of-flight impact on the airport. Some have speculated that the project will reduce business at the airport based on the assumption that Pegasus Wind's turbines will pose a hazard to air safety or navigation. But this underlying assumption is incorrect. FAA has already concluded that the 33 variance turbines will not adversely impact air navigation and safety. Thus, there is no reason to believe that Pegasus Wind's project will reduce business at the airport or economically harm the airport. To the contrary, Pegasus Wind's project will protect the airport's current and future vitality while offering substantial benefits to the local community, including \$36 million in tax revenue that will go to Tuscola County, Juniata, Fairgrove, and Gilford Townships, and community schools.

As reflected in this letter and Pegasus Wind's submissions to the airport ZBA, Pegasus Wind has carefully designed its wind energy development to comply with all federal, state, and local requirements and to protect air navigation and safety. FAA issued DNHs concluding that Pegasus Wind's 33 variance turbines will not affect air navigation and safety, and MDOT has concurred. Because Pegasus Wind's turbines will not pose an airport hazard and Pegasus Wind meets the variance criteria set forth in the Airport Zoning Ordinance and the AZA, Pegasus Wind respectfully requests that the airport ZBA grant variances for all 33 turbines.

Very truly yours,



Daniel P. Ettinger

/jms
18704839

1 STATE OF MICHIGAN
2 COUNTY OF TUSCOLA
3 AIRPORT ZONING BOARD OF APPEALS MEETING
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9 AIRPORT ZONING BOARD OF APPEALS MEETING:
10 Taken at 1401 Cleaver Road,
11 Caro, Michigan,
12 Commencing at 4:30 p.m.,
13 Tuesday, June 25, 2019,
14 Before Valerie Jo Lohr, CSR-6212.
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1 could be an NFL stadium on the West Coast, it could be
2 a grain silo in Ohio, it could be a wind project in
3 Michigan, we know that development projects elicit
4 opinions, strong opinions on either side either for or
5 against. And so our company works in facts, we work in
6 sound aeronautical principles, and we work in federal
7 regulations to come up with a balance, to strike a
8 balance between the needs to preserve the airport and
9 the airport's operations and the needs of the economic
10 development.

11 At our company, we've been in business for
12 over 20 years. We have filed over 50,000 unique
13 aeronautical study cases, aeronautical studies with the
14 FAA. We have worked on over 1,500 obstruction
15 evaluation projects. I have an undergraduate degree in
16 air traffic control, a four-year program with the
17 Control Training Initiative School, CTI school. And at
18 Capitol Airspace, right now I'm working over 200
19 projects, and half of those are wind projects.

20 So I come to you with expertise. I come to
21 you with a background in aerospace design and
22 protections with projects especially near airports. By
23 the end of this, you should know how did the FAA come
24 to their conclusion that a favorable determination of
25 no hazard was okay here and that it could be affirmed

1 discussions with the FAA in a timely manner, Pegasus
2 terminated an additional eight turbines. So that's
3 everything for the VFR traffic pattern and the need for
4 this approach. You'll notice that the red stops here.
5 That's intentional. That's based on the idea that an
6 aircraft passes over from the intermediate segment to
7 the final segment. They don't descend this approach
8 immediately. That would be a -- so there's a downward
9 sloping surface that goes for one mile. That allows
10 for turbines near the final approach fix to exist.
11 Those turbines in this clear area, by the way, have no
12 impact on the future viability and the future expansion
13 of the airport.

14 So let me switch to now the circling
15 approach. This was published today. This is an
16 example of an instrument approach flight. For those of
17 you not familiar with instrument approaches, the idea
18 is they provide left and right course guidance and
19 minimum altitudes so that aircraft can descend in the
20 clouds, see the runway eventually, and hopefully the
21 pilot sees the runway and makes a safe landing. These
22 procedures have lateral dimensions to them and vertical
23 dimensions to them that have been honed in through
24 years of experience from the FAA. And all are
25 described in FAA Order 8260.3 Delta and 8260.58. The

1 just have us finish.

2 CHAIRMAN KOSIK: I think for the board we
3 want to ask our questions right now. Bill?

4 MR. CAMPBELL: So far from you two gentlemen
5 I've heard a lot of fluff here. I have a question for
6 you. Were you aware that you were in violation of this
7 ordinance when you did your original planning?

8 JOE ANDERSON: I'm not going to speak for
9 Pegasus Wind. My understanding is that's the due
10 diligence of the project.

11 MR. CAMPBELL: Well, somebody must have been
12 aware that you were in violation of this or you
13 wouldn't be here asking for a variance.

14 RYAN PUMFORD: Was your question whether we
15 expected to have to come to the ZBA with the variance
16 request?

17 MR. CAMPBELL: I asked were you aware that
18 you were in violation of this ordinance when you did
19 your planning?

20 RYAN PUMFORD: When we -- when we planned the
21 project, we went through --

22 MR. CAMPBELL: A simple yes or no is all I
23 need. I want some questions here. I don't want a
24 bunch of gibberish.

25 RYAN PUMFORD: Yes. When we did the

1 also has been corroborated by the extensive studies
2 that were done by Capitol Airspace, which are the
3 preeminent experts in the country on these issues. I
4 can't speak to your personal situation, Mr. Campbell.

5 MR. CAMPBELL: I can testify that they would
6 be a hazard. Even a tall tree was a hazard.

7 DAN ETTINGER: Well, Mr. Campbell, again, all
8 I can speak to are the criteria and requirements in the
9 ordinance, and those are the criteria that this board
10 is required to look at in determining whether or not
11 Pegasus Wind is entitled to variances.

12 So I respect your concerns, but I would say
13 that we have shown conclusively that we meet the
14 requirements for a variance and show as is intended in
15 the ordinance that we are entitled to a variance
16 because these turbines will not pose an airport hazard.

17 Anything else?

18 CHAIRMAN KOSIK: Hearing no further questions
19 from the board, thank you.

20 We're going to go into close session right
21 now. Feel free -- I think we'll be very brief. But I
22 have some questions for our legal attorney that we want
23 to do at this time. Thank you.

24 MS. FETTING: We have to do a roll call vote.

25 CHAIRMAN KOSIK: Okay. So we need a motion

1 Airport Authority, Tuscola Area Airport
2 Authority, this group also has decided to take over the
3 Airport Authority. They removed board members. They
4 added townships on to get the votes. The very first
5 meeting -- this happened all within a week. The very
6 first meeting, they come in with a resolution to file
7 an appeal. And with that appeal, they had a brand new
8 group filed called the Friends of the Tuscola Area
9 Airport. And I want to submit this, because I have the
10 articles of incorporation. And at the time, nobody
11 knew who this group was and they wouldn't bring it out.

12 Well, it clearly shows in here the
13 incorporator is Mr. Josh Nolan of Toledo, Ohio, who is
14 an anti-wind attorney that goes all over the country
15 fighting renewable energy. So I just want you guys to
16 -- I have the articles of incorporation.

17 Another thing I want to submit is a document
18 sent to the FAA that was for support of their
19 non-hazard determinations. And in here it's a letter
20 drafted up, and it was signed by Fairgrove Township,
21 Columbia Township, Gilford Township, Wisner Township,
22 Village of Akron and the Village of Fairgrove.

23 And I ask -- you guys are going to go through
24 a lot here tonight, but I think this is important to a
25 lot of us here. Like Erico said, there's 400 of us in



U.S. Department
of Transportation
**Federal Aviation
Administration**

Airspace Policy Group

Airspace Services
800 Independence Avenue SW,
Washington, DC 20591

JUN 19 2019

Alan Armstrong
2900 Chamblee-Tucker Road
Building 5, Suite 350
Atlanta, GA 30341

Dear Mr. Armstrong:

Obstruction Evaluation Case Number: 2019-AWA-2-OE

Aeronautical Study Numbers: 2018-WTE-21 through 35-OE; 2018-WTE-35-OE, 2018-WTE-38-OE, 2018-WTE-40-OE, 2018-WTE-41-OE, 2018-WTE-47 through 49-OE, 2018-WTE-55 through 60-OE, 2018-WTE-64 through 67-OE, 2018-WTE-69 through 72-OE, 2018-WTE-75-OE, 2018-WTE-3995 through 4003-OE, 2019-WTE-78 through 82-OE, and 2019-WTE-84-OE.

Wind Turbines: Caro, Michigan

We have completed our examination of your petition for discretionary review of the subject determinations issued by the Federal Aviation Administration's Obstruction Evaluation Group (OEG). The determinations address proposed wind turbines 3.27 to 9.03 4.22 nautical miles west through north of the airport reference point of the Tuscola Area Airport (CFS) in Caro, Michigan. The height of the structures range from 453 feet (ft.) to 499 ft. above ground level, and 1,104 ft. to 1,237 ft. above mean sea level. The subject aeronautical studies conclude the proposed structures would exceed obstruction standards as contained in Title 14 Code of Federal Regulations (14 CFR) part 77; however, the proposed structures were found to result in no substantial adverse effect on present and planned IFR or VFR operations. On April 3, 2019, the FAA's OEG issued Determinations of No Hazard to Air Navigation for these structures.

On May 2, the FAA received your petition. In your petition, you claim the proposed wind turbines are a hazard to air navigation, and pose a threat to CFS, based on the initial Notice of Presumed Hazard. We do not agree. The issuance of the notice of presumed hazard is the FAA's initial action that advises the structure's proponent that the wind turbines exceed the FAA's obstruction criteria in 14 CFR § 77.17. This preliminary notice is not the FAA's final agency determination and does not predict a certain result from the aeronautical study process. When a structure exceeds the obstruction standards as outlined in 14 CFR part 77, it does not mean the structure is a hazard to air navigation. Rather, it's an indication that the structure must be studied further to determine any adverse effect on operations in the navigable airspace, and whether or not the adverse effect is substantial.

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The OEG follows procedures in accordance with the provisions of 14 CFR part 77, along with guidance contained in FAA Order 7400.2, paragraph 6-3-3, Determining Adverse Effect, paragraph 6-3-5, Substantial Adverse Effect, and paragraph 6-3-9, Evaluating Effect on IFR Operations.

As part of this examination, we have reviewed the determination with respect to the effect the structure would have on instrument flight rules operations, visual flight rules operations, and aircraft operating in the traffic pattern. Consequently, we agree with the OEG finding that the structure would not have an adverse effect on the safe and efficient use of the navigable airspace by aircraft and would not be a hazard to air navigation.

Your petition states that the wind turbines will cause economic impacts to the community. Environmental and economic issues, as well as compliance with federal and state grant assurances are not considered during the conduct of an aeronautical study.

You claim that Bauers Field is a public use airport, and that they did not receive distribution of the public notice. Our research revealed that there is no record for Bauers Field as a public-use airport on file with the FAA. We contacted the Detroit Airports District Office, who found that the determination for Bauers Field was terminated in 2017, when it exceeded the expiration date. Since there are no feasibility studies or proposals on record, Bauers Field would need to refile FAA Form 7480-1, Notice for Construction, Alteration and Deactivation of Airports to have a valid study on file with the FAA. In order for a proposed airport to be considered during an aeronautical study, the airport must be registered with the FAA as a public use airport. Subsequently, we find that the OEG correctly considered CFS as the closest public use airport during the aeronautical study. Additionally, our research revealed that Mr. Bauer has not signed up for a user account on the OEG's website to request notices of proposed construction or public notice information. We recommend that Mr. Bauer establish a new user account at <https://www.oeg.faa.gov> and request notices of proposed construction near his airport.

You also claim that the proposed wind turbines would have an actual radar effect on the Saginaw, MI (MBS) Airport Surveillance Radar (ASR-11). We do not agree. The OEG follows procedures in accordance with the provisions of 14 CFR part 77, along with guidance contained in FAA Order 7400.2, paragraphs 6-3-3, Determining Adverse Effect, and 6-3-5, Substantial Adverse Effect. Specifically, in accordance with FAA Order 7400.2, Paragraphs 6-3-6 (e), Responsibility, and 6-3-10, Evaluating Effect on Air Navigation Facilities, the FAA identifies the presence of any electromagnetic and/or physical effect a proposed obstruction may have on, among other factors, navigational facilities, ground-based primary and secondary radar, and make recommendations to eliminate adverse effect. In this case, The FAA's Technical Operations Office conducted an analysis of the proposed turbines and found that any impacts did not reach the threshold of a substantial adverse effect. This analysis included potential radar impacts and any cumulative effects of this impact. In addition, the Air Traffic Control facilities that would be impacted by the wind turbines stated they had no objections to those impacts. Consequently, we find the OEG followed the correct process and procedures, and the wind turbines were found to have no substantial adverse effects.

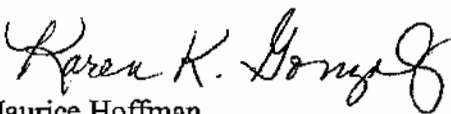
Additionally, you claim that FAA only considered seven comments instead of twelve because of an error in the aeronautical study number listed in the public notice. We agree that the public notice inadvertently listed the wrong year on page 4, which could have resulted in missing comments. During the course of our review, we reviewed all of the comments in the record and those included in the petition, and find that this information would not have changed the final outcome of the determinations.

Further, you claim that the determinations are flawed based on lighting and the lack of a conspicuity study in the determination. In this case, the sponsor has requested the use of an Aircraft Detection Lighting System (ADLS), and on page 1 of the determinations, it states that the use of ADLS is approved. ADLS are comprised of a very sophisticated sensor based system that uses detection sensors to monitor the airspace around an obstruction or group of obstructions and sends a control signal to turn on or off the obstruction lights when an aircraft is within a 3-mile range of the obstruction. This system meets FAA technical standards for lighting, and a depiction of a sample wind farm ADLS coverage map can be found in Appendix A of AC 70/7460-1L, Obstruction Marking and Lighting (see https://www.faa.gov/regulations_policies/advisory_circulars/index.cfm/go/document.information/documentID/1030047).

Lastly, you suggest that FAA determinations permit wind turbines on the premise that the operator will comply with lighting requirements. Pursuant to our regulations at 14 CFR part 77, the FAA conducts aeronautical studies of proposed structures or buildings to determine the effect on the safe and efficient use of navigable airspace, air navigation facilities or equipment. In doing so, the FAA consider factors relevant to navigable airspace including the impact on arrival, departure, and en route procedures, and may include a condition for marking and/or lighting in determinations. The FAA does not approve, license, permit or fund the proposed structure, but only determines if it would be a hazard to air navigation.

Consequently, we agree with the OEG finding that the structures would not have an adverse effect on the safe and efficient use of the navigable airspace by aircraft and would not be a hazard to air navigation. Accordingly, your request for discretionary review is denied, and the above referenced Determinations of No Hazard to Air Navigation are final. The determinations will expire on **DEC 19 2020**.

Sincerely,


Maurice Hoffman
Director of Airspace Service
Air Traffic Organization

AERONAUTICS COMMISSION

Pete Kamarainen, Chairman
 Roger Salo, Vice Chairman
 J. David VanderVeen
 Rick Fiddler
 Russ Kavalhuna
 Mark Van Port Fleet
 MG Gregory J. Vadnais
 Keith Creagh
 Col. Kristie K. Etue
 Mike Trout, Commission Director

STATE OF MICHIGAN

Gretchen Whitmer, Governor

Michigan Department of Transportation

2700 Port Lansing Rd Lansing, MI 48906
 Phone: 517-335-9949 Fax: 517-886-0366

March 19, 2019

Michigan's Tall Structure Act (Act 259, P.S. 1959, as amended by Act 28 P.A. 2016), places authority for review of construction proposals which may affect Michigan airspace with the Michigan Aeronautics Commission. The Michigan Aeronautics Commission has delegated its authority for airspace reviews and approvals to the Michigan Department of Transportation's Office of Aeronautics.

The Office of Aeronautics has conducted a review of the following proposals:

Structure Type: Wind Turbine
 Associated Airport: Caro, MI

The Office of Aeronautics' Airspace Review Team has reviewed the Pegasus Wind LLC -- Caro wind turbine project. After consideration of the existing and future runway configuration as shown on Tuscola Area Airport's Airport Layout Plan, the review team concurs with the FAA's determination of no hazard.

It is the opinion of the Airspace Review Team that a Michigan tall structure permit could be issued to Pegasus Wind for the 33 wind turbines after local airport zoning variance permit approval. Prior to tall structure permit issuance, the Airspace Review Team will review the local airport zoning and airport zoning board of appeals' determination.

I can be contacted at 517-335-9418 or MDOT_Tall_Structures@michigan.gov if you have any questions or comments.

Hilary Hoose

Hilary Hoose
 Aeronautics Analyst
 Michigan Department of Transportation

AERONAUTICS COMMISSION

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2700 Port Lansing Rd Lansing, MI 48906
 Phone: 517-335-9949 Fax: 517-886-0366

Tall Structure Permit

June 18, 2019

Michigan's Tall Structure Act (Act 259, P.S. 1959, as amended by Act 28 P.A. 2016), places authority for review of construction proposals which may affect Michigan airspace with the Michigan Aeronautics Commission. The Michigan Aeronautics Commission has delegated its authority for airspace reviews and approvals to the Michigan Department of Transportation's Office of Aeronautics.

The Michigan Department of Transportation has conducted a review of the following proposal:

FAA Airspace Case Number:	See Attached
Structure Type:	Wind Turbine
Height Above Ground:	See Attached
Top Elevation:	See Attached
Associated Airport:	Tuscola Area
Geographic Coordinates:	See Attached

Please note that:

1. This permit expires on Thursday, June 18, 2020.
2. Obstruction marking and lighting is required as described by FAA Advisory Circular.
3. Changes to this proposal which increase its top elevation or location will INVALIDATE this PERMIT. Please advise the Michigan Department of Transportation of any modifications immediately.
4. If a Notice of Actual Construction (Form 7460-2) is sent to the FAA, please send a copy to the Michigan Department of Transportation.
5. This permit, issued in accordance with the Michigan Tall Structure Act (Act 259 of 1959), concerns the effect of this proposal on air navigation and does not relieve the proponent of any compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.
6. This permit will be considered revoked if local Airport Zoning permit is denied.

Under the authority of the Tall Structures Act, this PERMIT is issued to:

Pegasus Wind LLC
 Attn: Erico J Lopez
 700 Universe Blvd FEW/JB
 Juno Beach, FL 33408

I can be contacted at telephone number 517-335-9418 or email address
 MDOT_Tall_Structures@michigan.gov if you have any questions or comments.

Hilary Hoose

Hilary Hoose
 Aeronautics Analyst
 Michigan Department of Transportation

ASN	Str. Name	AGL	SE	AMSL	Latitude	Longitude
2018-WTE-16-OE	1	486	643	1129	43-33-19.27N	83-30-30.64W
2018-WTE-17-OE	2	486	648	1134	43-33-45.71N	83-28-35.27W
2018-WTE-18-OE	3	486	653	1139	43-33-27.35N	83-28-44.59W
2018-WTE-19-OE	4	486	656	1142	43-33-24.03N	83-28-21.32W
2018-WTE-77-OE	Alt3	486	652	1138	43-33-43.89N	83-28-14.11W
2018-WTE-3997-OE	64	486	620	1106	43-29-05.72N	83-38-56.34W
2018-WTE-3998-OE	65	486	626	1112	43-29-18.14N	83-38-14.58W
2018-WTE-3999-OE	66	486	630	1116	43-29-08.02N	83-37-48.42W
2018-WTE-4000-OE	67	486	633	1119	43-29-02.41N	83-36-58.03W
2018-WTE-9470-OE	WPG1-SM02	312	651	963	43-33-21.62N	83-28-54.83W
2019-WTE-76-OE	58-Alt	499	613	1112	43-31-08.34N	83-37-01.06W
2019-WTE-78-OE	60-Alt	499	615	1114	43-30-17.00N	83-37-43.47W
2019-WTE-79-OE	61-Alt	499	620	1119	43-30-05.06N	83-37-40.78W
2019-WTE-80-OE	62-Alt	499	628	1127	43-30-14.42N	83-36-59.05W
2019-WTE-81-OE	63-Alt	499	626	1125	43-30-11.78N	83-36-39.61W
2019-WTE-83-OE	65-Alt	499	631	1130	43-30-54.16N	83-34-13.01W
2019-WTE-85-OE	67-Alt	499	651	1150	43-33-28.18N	83-29-16.69W

Pegasus Wind, LLC (Pegasus Wind), a Delaware limited liability company, which is indirectly wholly owned by NextEra Energy Resources, LLC, is proposing to construct a utility grid wind energy conversion system, titled "*Pegasus Wind Energy Center*," in Tuscola County, Michigan. The Pegasus Wind Energy Center will be located in Fairgrove, Juniata, and Gilford Townships, and is just east of the permitted existing Tuscola Wind II Energy Center. On April 3, 2019, Pegasus Wind received favorable Determinations of No Hazard (DNHs) from the Federal Aviation Administration (FAA) for all of the turbines in the Pegasus Wind Energy Center. The FAA DNHs are attached to the individual variance applications. This narrative is intended to support Pegasus Wind's request for variances for 33 wind turbines that are part of the Pegasus Wind Energy Center that are necessary because the turbines either raise the descent minimums for an instrument approach procedure to the airport or they exceed the zoning ordinance height limitation, or both.

MCL 259.454(1) of the Airport Zoning Act states that a "person desiring to erect a structure . . . in violation of the airport zoning regulations adopted under this act, may apply to the board of appeals, for a variance from the zoning regulations in question." That section provides the following standard for granting a variance: "The board of appeals shall allow a variance if a literal application or enforcement of the regulations would result in practical difficulty or unnecessary hardship and the relief granted would not be contrary to the public interest, but would do substantial justice and be in accordance with the spirit of the regulations." Thus, if the identified criteria are met, the board of appeals must grant a variance from the zoning regulations. The variance standards in the Tuscola Area Airport Zoning Ordinance mimic those in the Airport Zoning Act.

Pegasus Wind seeks approval of height variances for 7 turbines in Juniata and Fairgrove Townships that are located in Zone B of the Tuscola Area Airport Permit Thresholds Map of the Tuscola Area Airport Zoning Ordinance. Pegasus Wind also seeks approval of variances for 17 turbines in Zone B (including the 7 turbines that require height variances) and 16 turbines in Zone E that raise the CFS VOR/DME-A Circling Minimum Descent Altitude (CMDA). After extensive study, the FAA determined that "[i]ncreasing the MDA for the VOR-A maintains the appropriate obstacle clearance, negating any concern for safety created by the proposals on the procedure." (DNH at 10.) As a result, the FAA ultimately concluded that "the structure[s] would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities." (DNH at 10.)

A more detailed listing of the specific variances being requested (and the respective turbine numbers) is attached. The below discussion illustrates how each of the 33 turbines meets the variance standards under MCL 259.454(1) of the Airport Zoning Act, as well as the standards for a variance in the Tuscola Area Airport Zoning Ordinance.¹

Additionally, Pegasus Wind has retained Capitol Airspace Group to analyze, understand, and mitigate impacts on aviation. Capitol Airspace Group is an aviation consulting firm that provides analytical, strategic, and advocacy services to airports, communities, and commercial developers. The company's core competencies are in air traffic control operations, airspace, terminal instrument procedures (TERPS), and

¹ The variance criteria in the Tuscola Area Airport Variance Application, while stated differently, are substantially similar to the standards under the Airport Zoning Act and the Ordinance. Pegasus Wind meets those criteria as well.

obstacle assessment. Capitol Airspace has assisted in preparing this narrative. The resumes for the key consultants who have supported this project are attached as Exhibit 1.

Background on FAA process and Determinations of No Hazard

The United States Congress has charged the FAA with the responsibility to promote air commerce within the United States. As a part of this responsibility, the FAA has been tasked with ensuring air safety and preserving the National Airspace System. It is through these mandates that the FAA draws its authority to conduct aeronautical studies of proposed wind turbines.²

The FAA undertook an extensive process to review the wind turbines for the Pegasus Wind Energy Center. Below is an overview of the FAA's aeronautical study of the Pegasus Wind Energy Center and conclusions.

Step One: Filing

Developers intending to build structures in excess of 200 feet above ground level (AGL), or in excess of established notification standards (lower, closer to airports), must submit a notice to the FAA at least 45 days prior to the start of construction.³ Primarily, this is conducted via an online submittal process through the FAA's OE/AAA website.⁴ Prior to the FAA's establishment of the FAA OE/AAA automation system, notice was provided to the FAA by submitting FAA Form 7460-1, *Notice of Proposed Construction or Alteration*. The FAA, as well as the wind industry, continues to refer to these filings as "7460-1" filings.

On January 3, 2018, Pegasus submitted FAA 7460-1 filings for the proposed wind turbines. When the FAA received and verified these filings, an aeronautical study number was assigned for each location (2018-WTE-16-OE through 2018-WTE-77-OE).

Step Two: Initial Review

For most projects, ten different government offices take part in the study process, including: Airports, Instrument Flight Procedures Impact Team, Flight Standards, Technical Operations, Frequency Management, United States Air Force, United States Navy, United States Army, Department of Homeland Security (DHS), and the Department of Defense (DoD) Siting Clearinghouse. Technicians in each of these offices will review each point to ensure that the planned structures do not interfere with their areas of responsibility. For example, the Instrument Flight Procedures Impact Team will assess for impacts on current or future instrument procedures at the Tuscola Area Airport.

Once each office has assessed the proposed project, they will submit a response of either "objection" or "no-objection" via the FAA OE/AAA system. During this preliminary review period, the project is considered to be in "work status" by the FAA. After all offices have responded, the project is moved from "work status" into "evaluation status." It is at this point that the FAA

² 14 CFR Part 77 – Safe, Efficient Use, and Preservation of the Navigable Airspace

³ 14 CFR §77.7 – Form and time of notice; and §77.9 – Construction or alteration requiring notice

⁴ <https://oeaaa.faa.gov>

Obstruction Evaluation Specialist will assess all of the responses and determine whether to issue a Notice of Presumed Hazard (NPH) or a favorable DNH.

Step Three: Preliminary Results in a Notice of Presumed Hazard (NPH)

A NPH letter is the method that the FAA uses to notify the developer that they have identified something that will require further aeronautical study in order to determine whether or not the structure will pose a hazard to air navigation.

On February 12, 2018, the FAA issued NPHs for the proposed wind project. These notices identified an impact on Category C and D visual flight rules (VFR) traffic pattern airspace, current instrument departure and approach procedures, and the potential for interference with an FAA air traffic control surveillance radar system.

Capitol Airspace conducted and submitted a detailed review of the identified airspace impacts to the FAA (Exhibit 2). This document described feasible mitigation options such as restricting VFR traffic pattern airspace for future runway operations, increasing "climb-to" altitudes in lieu of increasing departure procedure climb gradient minimums, and implementing the usage of a stepdown-fix in lieu of increasing instrument approach procedure descent minimums.

Additionally, Capitol Airspace analyzed historical air traffic data (obtained from the FAA National Offload Program) to determine whether or not the proposed wind turbines would have a significant effect on air traffic operations at Tuscola Area Airport (Exhibit 3). This data included radar returns for aircraft operating in proximity to the airport between June 1, 2016 and May 31, 2017; analysis of this data showed the following:

- At least 85% of the airport operations were operating under visual flight rules (VFR).
- All operations appeared to be Category A or B aircraft. Aircraft categories are defined by the final approach speed of the aircraft. For reference:
 - Category A aircraft have a final approach speed of less than 90 nautical miles per hour or less (e.g., propeller driven aircraft such as a Cessna 172 or a Beechcraft Barron).
 - Category B aircraft have a final approach speed between 90 and 121 nautical miles per hour (e.g., jet aircraft such as a Cessna Citation or a Bombardier Challenger).
- This air traffic analysis determined that the greatest frequency of all instrument arrivals (utilizing any of the published instrument approach procedures) was an average of 0.37 operations per week. This frequency is well below the FAA's threshold for determining a significant volume of operations (as few as one per week).

Step Four: Responding to a Notice of Presumed Hazard (NPH) and Issuance of Public Notice

In response to the NPHs, Pegasus Wind requested further aeronautical study and circularization for public comment. The FAA issued this notice on March 29, 2018. The FAA typically distributes

public notices via e-mail or postcard to any party that can provide information relevant to the FAA's aeronautical study. The distribution list typically includes the following:⁵

- All public-use airports within 13 nautical miles (NM) of the proposed structures
- All private-use airports within 5 NM of the proposed structures
- Any affected airport
- The air traffic facility that provides radar vectoring services in the vicinity of the proposed structures
- FAA Flight Standards
- All known aviation interested persons such as the Michigan Department of Transportation or other local aviation authorities
- Flying clubs and organizations

Once the comment period has closed, the FAA reviews each comment to determine whether or not it is of a valid aeronautical nature and relevant to the federal aeronautical study process. Multiple comments were submitted during this 37-day period.

Some comments initiated an additional review by the FAA, which resulted in revised NPHs for eight turbines. These revised notices were issued on February 11, 2019 and indicated additional impact on "plan-on-file" procedures which would support a future runway. Pegasus Wind terminated the eight turbines to remove the potential for impacting future operations if the runway was built.

Step Five: Final Determinations

At the end of the further aeronautical study and public comment period, the FAA makes a final decision and will issue either a favorable DNH or a Determination of Hazard. On April 3, 2019, the FAA issued favorable DNHs for the Pegasus Wind Energy Center. Specifically, the FAA stated in its DNHs that it conducted an aeronautical study that "revealed that the structure[s] would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities." (DNH at 1.) The FAA further stated: "This aeronautical study considered and analyzed the impact on existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules; the impact on all existing and planned public-use airports, military airports and aeronautical facilities; and the cumulative impact resulting from the studied structure when combined with the impact of other existing or proposed structures. The study disclosed that the described structure[s] would have no substantial adverse effect on air navigation." (DNH at 3.)

Section 5.2.G(2) Certificates of Variances, Tuscola Area Airport Zoning Ordinance:

As discussed further below, Pegasus Wind meets all of the requirements for a variance under the Tuscola Area Airport Zoning Ordinance. Under the Ordinance, variances shall be allowed for any of the following reasons:

⁵ As described in FAA Order 7400.2L Paragraph 6-3-17, "Circularization"

- (a) A literal application or enforcement of the regulations would result in practical difficulty or unnecessary hardship;

A literal application or enforcement of the regulations would result in practical difficulty or unnecessary hardship. On December 21, 2016, Public Act 342, known as the Clean Renewable and Efficient Energy Act, was signed into law. The Renewable Energy Standard requires Michigan electric providers to achieve a retail supply portfolio that increases from 10% in 2015 to 15% in 2021. In addition, DTE Energy and Consumers Energy recently agreed to generate 25% of their power from renewable sources by 2030.

Siting a wind energy development requires, among other things, a strong wind resource, suitable land available for lease, nearby transmission, a purchaser of the electricity, and compliance with local wind ordinances. The Pegasus Wind Energy Center, as it is configured, meets all of these requirements. Wind data indicates that the Thumb region of Michigan has the best wind resource in the State, making it a prime location for the lowest-cost development of wind farms. NextEra Energy Resources originally intended to develop a wind farm called the Tuscola III Wind Energy Center in Ellington, Almer, and Fairgrove Townships through its subsidiary, Tuscola Wind III. Subsequent to Tuscola Wind III's application for special land use permits, Ellington and Almer Townships adopted highly restrictive wind ordinances that make siting wind turbines in those townships virtually impossible at this time.

As a result, NextEra Energy Resources has been forced to reconfigure its project under Pegasus Wind to include the siting of turbines in Juniata and Gilford Townships and additional turbines in Fairgrove Township that are in closer proximity to the Tuscola Area Airport. Pegasus Wind has already invested substantial resources and committed capital to the project. Specifically, Pegasus Wind has entered into transmission easements and leases with landowners, and has entered into a Power Purchase Agreement with the Michigan Public Power Agency and the Lansing Board of Water and Light for the Pegasus Wind Energy Center. Pegasus Wind has also become obligated under a Generator Interconnection Agreement under which it is committed to spend \$10 million in energy infrastructure improvements. Without the ability to site the 33 turbines within Zones B and E, Pegasus Wind will be unable to meet its obligations under these agreements or develop the Pegasus Wind Energy Center at all, resulting in practical difficulty and unnecessary hardship.

A literal application of the requirements in Section 3.5(B) would create a practical difficulty as to the 7 turbines in Zone B that exceed the height limitations. Virtually all commercial wind turbines sold on the market and used by developers like Pegasus Wind today are in excess of 400 feet (total tip height) and would, therefore, violate the height limitations in the Airport Zoning Ordinance. NextEra purchases its wind turbines from General Electric (GE). The shortest commercial wind turbine that GE actively markets in the United States

is the 2.x MW 116-90 model, which has a 486 foot tip height. GE has a few shorter “special purpose” or “niche” turbines that can be purchased, but they are not economically viable for a commercial project like this one, and even they are taller than 400 feet.

This creates a practical difficulty in complying with the height restrictions. Any wind turbine that Pegasus Wind would be forced to use to comply with the height regulations would be less efficient and less technologically advanced, and would certainly require Pegasus Wind to site more turbines in order to maximize the wind velocity and account for the limitations of those smaller turbines. The increased height reduces the number of turbines required to produce the desired megawatt total needed to sell the energy to Pegasus Wind’s power provider. This, in turn, allows Pegasus Wind to stay farther away from inhabited structures, which is required under township zoning ordinances.

Siting smaller turbines that comply with the height restrictions would also make it virtually impossible for Pegasus Wind to achieve a reasonable rate of return. Pegasus Wind must sell the energy from the project to a power provider. Because the newer, state-of-the-art turbines are much more efficient than older, smaller models, no reasonable power provider would agree to purchase energy from Pegasus Wind if it knew that the company intended to use older, substandard, less efficient turbines with lower output levels.

Nor can Pegasus Wind simply move the turbines further away from the Airport to comply with the regulations. As discussed above, Pegasus Wind needs to site the wind turbines for the Pegasus Wind Energy Center within its land fabric (i.e. on leased property), in communities where there is a strong wind resource and nearby transmission, and where Pegasus Wind can comply with the local zoning requirements. That is what Pegasus Wind has done. However, as shown in the maps attached to the Tuscola County Airport Ordinance, the entirety of Juniata and Fairgrove Townships, and a substantial part of Gilford Township, are located within the Airport Zoning Area and are subject to the applicable height restrictions. Likewise, approximately half of Juniata and Fairgrove Townships are located in Zone B and are subject to the more stringent height restrictions for Zone B. And because the turbines must be sited a certain distance from people’s homes and from each other in order to comply with local zoning restrictions, even if Pegasus Wind were to reconfigure the turbine array within these townships, many of the turbines would still need to be located in Zone B and would, therefore, still require variances. All of these factors would create a practical difficulty or unnecessary hardship in complying with Section 3.5.

A literal application of the requirements in Section 3.6(G) would also create a practical difficulty as to the 17 turbines in Zone B and the 16 turbines in Zone E. After extensive study, the FAA determined that increasing the CMDA for the VOR/DME-A Circling Approach is necessary because it “maintains the appropriate obstacle clearance, negating any concern for safety created by the proposals on the procedure.” (DNH at 10.) Again, Pegasus Wind

cannot simply site small turbines or move the turbines further away from the Airport to comply with the regulations. In fact, Pegasus Wind has already agreed to terminate a portion of the original filings that would have significantly increased the approach minimums; however, terminating or moving additional turbines would make it virtually impossible for Pegasus Wind to achieve a reasonable rate of return or comply with the terms of its Power Purchase Agreement.

A denial of the proposed variances would also deprive the adjacent communities and up to 300 landowners of the ability to participate in and benefit from a wind farm, and undermine the State's regulatory commitment to low-cost clean energy. In granting these variances for turbines for which the FAA has already reviewed, studied, and determined "non-hazardous," the Tuscola Area Airport Zoning Board of Appeals will allow for the combined use of the region by aviation enthusiasts and businesses and the participating wind farm communities and landowners.

(b) Relief granted would not be contrary to the public interest and approach protection;

Granting Pegasus Wind variances is appropriate and would not be contrary to the public interest and approach protection. Juniata, Gilford, and Fairgrove Townships have already determined that the Pegasus Wind Energy Center meets their respective special land use permit requirements, including protection of health, safety, and welfare. Further, approach protection was part of the consideration undertaken by the FAA's study of the turbines that are part of the Pegasus Wind Energy Center. The FAA ultimately concluded that the 33 turbines at issue will ensure safe approaches at the Tuscola Area Airport. Specifically, after a thorough aeronautical study, the FAA determined that "the proposed construction would not have a substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on any navigation facility and would not be a hazard to air navigation providing the conditions set forth in this determination are met." (DNH at 10.) Further, the Airport Manager has stated: "We are confident that the FAA will review all the information needed to make a decision in the matter of the wind turbines that will be in the airspace of the [Tuscola Area Airport Authority] and we will support your finding in this matter." (Exhibit 4.)

As it relates to the Tuscola Area Airport, the public interest is served in the preservation of the safety and efficiencies of the airport. The FAA and Pegasus Wind's aviation consultants have gone to great lengths to analyze the nature of air traffic operations at the airport. Both have concluded that there will be no impact to the safety of air traffic operations as a result of the proposed wind turbines.

The aeronautical studies concluded that the wind turbines will increase the CMDA for the VOR/DME-A Circling Approach at the airport. This instrument approach procedure was determined by the FAA, and in concurrence with an analysis of historical air traffic data by Capitol Airspace, to be the least efficient of the three instrument approach procedures

currently available to pilots operating into, and out of, the airport. Should there be a need to actually fly an instrument approach into Tuscola Area Airport during inclement weather, the more efficient and straight-in instrument approach procedures will be flown. This was affirmed in FAA's favorable DNHS, which also concluded that the VOR/DME-A Circling Approach is only flown every 22.5 days (an average of 0.31 operations per week); this is well below FAA's threshold for significance, defined as an average of one or more flights per week (FAA Order 74600.2M Paragraph 6-3-4). (DNH at 10.)

In addition, the FAA assessed for "plan on file" procedures that may be designed in the future to support a planned runway at the airport. The FAA's aeronautical study determined that as many as 19 wind turbines could have an impact on future procedures. In response, Pegasus Wind opted to withdraw the impacting turbines. Therefore, there is no impact on the safety or efficiency of the current or planned procedures at the airport. These actions demonstrate that Pegasus Wind has taken significant measures to ensure the preservation of the public interest to the airport, users of the airport, and supporting businesses.

Approval of the variances will serve to accommodate both the aviation community and the surrounding landowners and communities that have opted to participate and will benefit from the Pegasus Wind Energy Center. Furthermore, and as stated above, the ability to locate and develop the proposed wind farm in this location advances the renewable energy goals of the State of Michigan.

(c) Relief granted would do substantial justice;

The grant of the variances will result in substantial justice to Pegasus Wind, the Tuscola Area Airport, and the local communities that have approved special land use permits for the Pegasus Wind Energy Center. As discussed above, if Pegasus Wind is unable to obtain the requested variances for the 17 turbines in Zone B and the 16 turbines in Zone E, it will be unable to meet its obligations under the various agreements discussed above and will not be able to construct the Pegasus Wind Energy Center. Approval of the requested variances would have a minimal impact on the Tuscola Area Airport and will provide substantial benefits for the surrounding community. Specifically, the Pegasus Wind Energy Center will generate enough electricity to power approximately 70,200 homes. It will also generate approximately \$35 million in property tax revenue for Tuscola County, Juniata, Gilford, and Fairgrove Townships, and the community schools.

(d) Relief granted would be in accordance with the spirit of the regulations of this Ordinance.

The spirit and intent of this Ordinance is reflected in the stated purpose in Section 1.2, which is "to promote the health, safety, and welfare of the inhabitants of the County of Tuscola by preventing the establishment of airport hazards, restricting the height of structures and objects of natural growth and otherwise regulating the use of property in the vicinity of the Tuscola Area Airport; providing for the allowance of variances from such regulations..." Thus, the Ordinance, like the Airport Zoning Act itself, seeks to strike a balance between

protecting the health, safety, and welfare and allowing variances for structures that do not create airport hazards. The FAA's analysis and recommendations along with the issuance of the favorable determinations for the wind turbines, indicate the FAA's concurrence that the turbines that are part of the Pegasus Wind Energy Center are sufficiently protective of the health, safety, and welfare of the inhabitants of Tuscola County and will not create airport hazards. The design and layout of the array considers the airport's current and adopted master plan. Pegasus Wind's removal of 19 turbines from its array will further ensure that the Tuscola Area Airport will not be impacted by the Pegasus Wind Energy Center.

Section V. Variance Application Criteria

In addition to criteria established in Section 5.2.G(2) of the Tuscola Area Airport Zoning Ordinance, the Application for Airport Zoning Application has identified criteria for those applicants seeking variance requests. While the standards in the Airport Zoning Act and the Tuscola Area Airport Zoning Ordinance ultimately control whether a variance should be granted, Pegasus Wind responds to the Application criteria as follows:

Applicants for a Variance must demonstrate that:

- 1. The proposed variance involves practical difficulties or would result in unnecessary hardship;**

A literal application or enforcement of the regulations would result in practical difficulty or unnecessary hardship. On December 21, 2016, Public Act 342, known as the Clean Renewable and Efficient Energy Act, was signed into law. The Renewable Energy Standard requires Michigan electric providers to achieve a retail supply portfolio that increases from 10% in 2015 to 15% in 2021. In addition, DTE Energy and Consumers Energy recently agreed to generate 25% of their power from renewable sources by 2030.

Siting a wind energy development requires, among other things, a strong wind resource, suitable land available for lease, nearby transmission, a purchaser of the electricity, and compliance with local wind ordinances. Pegasus Wind, as it is configured, meets all of these requirements. Wind data indicates that the Thumb region of Michigan has the best wind resource in the State, making it a prime location for the development of wind farms. NextEra Energy Resources originally intended to develop a wind farm called the Tuscola III Wind Energy Center in Ellington, Almer, and Fairgrove Townships through its subsidiary, Tuscola Wind III. Subsequent to Tuscola Wind III's application for special land use permits, Ellington and Almer Townships adopted highly restrictive wind ordinances that make siting wind turbines in those townships virtually impossible at this time.

As a result, NextEra Energy Resources has been forced to reconfigure its project under Pegasus Wind to include the siting of turbines in Juniata and Gilford Townships and additional turbines in Fairgrove Township that are in closer proximity to the Tuscola Area Airport. Pegasus Wind has already invested substantial resources and committed capital

to the project. Specifically, Pegasus Wind has entered into transmission easements and leases with landowners, and has entered into a Power Purchase Agreement with Michigan Public Power Agency and the Lansing Board of Water and Light for the Pegasus Wind Energy Center. Pegasus Wind has also become obligated under a Generator Interconnection Agreement under which it is committed to spend \$10 million in energy infrastructure improvements. Without the ability to site the 33 turbines within Zones B and E, Pegasus Wind will be unable to meet its obligations under these agreements or develop the Pegasus Wind Energy Center at all, resulting in practical difficulty and unnecessary hardship.

A literal application of the requirements in Section 3.5(B) would create a practical difficulty as to the 7 turbines in Zone B that exceed the height limitations. Virtually all commercial wind turbines sold on the market and used by developers like Pegasus Wind today are in excess of 400 feet (total tip height) and would, therefore, violate the height limitations in the Airport Zoning Ordinance. NextEra purchases its wind turbines from General Electric (GE). The shortest commercial wind turbine that GE actively markets in the United States is the 2.x MW 116-90 model, which has a 486 foot tip height. GE has a few shorter "special purpose" or "niche" turbines that can be purchased, but they are not economically viable for a commercial project like this one, and even they are taller than 400 feet.

This creates a practical difficulty in complying with the height restrictions. Any wind turbine that Pegasus Wind would be forced to use to comply with the height regulations would be less efficient and less technologically advanced, and would almost certainly require Pegasus Wind to site more turbines in order to maximize the wind velocity and account for the limitations of those smaller turbines. The increased height reduces the number of turbines required to produce the desired megawatt total needed to sell the energy to Pegasus Wind's power provider. This, in turn, allows Pegasus Wind to stay farther away from inhabited structures, which is required under township zoning ordinances.

Siting smaller turbines that comply with the height restrictions would also make it virtually impossible for Pegasus Wind to achieve a reasonable rate of return. Pegasus Wind must sell the energy from the project to a power provider. Because the newer, state-of-the-art turbines are much more efficient than older, smaller models, no reasonable power provider would agree to purchase energy from Pegasus Wind if it knew that the company intended to use older, substandard, less efficient turbines with lower output levels.

Nor can Pegasus Wind simply move the turbines further away from the Airport to comply with the regulations. As discussed above, Pegasus Wind needs to site the wind turbines for the Pegasus Wind Energy Center within its land fabric (i.e. on leased property), in communities where there is a strong wind resource and nearby transmission, and where Pegasus Wind can comply with the local zoning requirements. That is what Pegasus Wind has done. However, as shown in the maps attached to the Tuscola County Airport

Ordinance, the entirety of Juniata and Fairgrove Townships, and a substantial part of Gilford Township, are located within the Airport Zoning Area and are subject to the applicable height restrictions. Likewise, approximately half of Juniata and Fairgrove Townships are located in Zone B and are subject to the more stringent height restrictions for Zone B. And because the turbines must be sited a certain distance from people's homes and from each other in order to comply with local zoning restrictions, even if Pegasus Wind were to reconfigure the turbine array within these townships, many of the turbines would still need to be located in Zone B and would, therefore, still require variances. All of these factors would create a practical difficulty or unnecessary hardship in complying with Section 3.5(B).

A literal application of the requirements in Section 3.6(G) would also create a practical difficulty as to the 17 turbines in Zone B and the 16 turbines in Zone E. After extensive study, the FAA determined that increasing the CMDA for the VOR/DME-A Circling is necessary because it "maintains the appropriate obstacle clearance, negating any concern for safety created by the proposals on the procedure." Again, Pegasus Wind cannot simply site small turbines or move the turbines further away from the Airport to comply with the regulations. In fact, Pegasus Wind has already agreed to terminate a portion of the original filings that would have significantly increased the approach minimums; however, terminating or moving additional turbines would make it virtually impossible for Pegasus Wind to achieve a reasonable rate of return or comply with the terms of its Power Purchase Agreement.

A denial of the proposed variances would also deprive the adjacent communities and up to 300 landowners of the ability to participate in and benefit from a wind farm, and undermine the State's regulatory commitment to low-cost clean energy. In granting these variances for turbines for which the FAA has already reviewed, studied, and determined "non-hazardous," the Tuscola Area Airport Zoning Board of Appeals will allow for the combined use of the region by aviation enthusiasts and businesses and the participating wind farm communities and landowners.

2. The proposed variance would protect the aerial approaches of the Tuscola Area Airport;

Granting Pegasus Wind variances will protect aerial approaches. The FAA and Pegasus Wind's aviation consultants have gone to great lengths to analyze the nature of air traffic operations at the airport. Both have concluded that there will be no impact to the safety of air traffic operations as a result of the proposed wind turbines, and that the 33 turbines at issue will ensure safe approaches at the Tuscola Area Airport. Further, the Airport Manager has stated: "We are confident that the FAA will review all the information needed to make a decision in the matter of the wind turbines that will be in the airspace of the [Tuscola Area Airport Authority] and we will support your finding in this matter." (Exhibit 4.)

The aeronautical studies concluded that the wind turbines will increase the CMDA for the VOR/DME-A Circling Approach at the airport. This instrument approach procedure was

determined by the FAA, and in concurrence with an analysis of historical air traffic data by Capitol Airspace, to be the least efficient of the three instrument approach procedures currently available to pilots operating into, and out of, the airport. Should there be a need to actually fly an instrument approach into Tuscola Area Airport during inclement weather, the more efficient and straight-in instrument approach procedures will be flown. This was affirmed in FAA's favorable DNHs which also concluded that the VOR/DME-A Circling Approach is only flown every 22.5 days (an average of 0.31 operations per week); this is well below FAA's threshold for significance, defined as an average of one or more flights per week (FAA Order 74600.2M Paragraph 6-3-4). (DNH at 10.)

In addition, the FAA assessed for "plan on file" procedures that may be designed in the future to support a planned runway at the airport. The FAA's aeronautical study determined that as many as 19 wind turbines could have an impact on future procedures. In response, Pegasus Wind opted to withdraw the impacting turbines. Therefore, there is no impact on the safety nor efficiency of the current or planned procedures at the airport. These actions demonstrate that Pegasus Wind has taken significant actions to ensure the preservation of the public interest to the airport, users of the airport, and supporting businesses.

3. The proposed variance would not destroy or impair the utility of the Tuscola Area Airport;
Significant time has been spent studying the airport. The studies done by the FAA and Capitol Airspace show that the Pegasus Wind Energy Center will not destroy or impair the utility of the Tuscola Area Airport for the following reasons. First, historical air traffic data and the FAA's favorable DNHs clearly show that the affected instrument approach procedure is rarely used. Second, traffic data and climatological data show that pilots only fly the VOR/DME-A Circling Approach during visual meteorological conditions. Third, as mentioned above, pilots approaching the airport during instrument meteorological conditions will prefer the more efficient and precise straight-in procedures. Fourth, the wind turbines have been sited to remove impact on current and planned visual flight rules (VFR) operations. As a result, zero air traffic operations will be affected by the construction of the wind turbines. Therefore, the proposed wind turbines will not destroy nor degrade the utility of the Tuscola Area Airport.
4. The proposed variance would do substantial justice and be in accordance with the Tuscola Area Airport Zoning Ordinance;
As illustrated in the permit applications, all of the turbines in Zones B and E are in accordance with the Tuscola Area Airport Zoning Ordinance with the exception of the height requirement and the minimum descent altitude. The grant of the variances will result in substantial justice to Pegasus Wind, the Tuscola Area Airport, and the local communities that have approved special land use permits for the Pegasus Wind Energy Center. As discussed above, if Pegasus Wind is unable to obtain the requested variances for the 33 turbines in Zone B and Zone E, it will be unable to meet its obligations under the various agreements discussed above and will not be able to construct the Pegasus Wind Energy

Center. Approval of the requested variances would have a minimal impact on the Tuscola Area Airport and will provide substantial benefits for the surrounding community. Specifically, the project will generate enough electricity to power approximately 70,200 homes. It will also generate approximately \$35 million in property tax revenue for Tuscola County, Juniata and Fairgrove Townships, and the community schools.

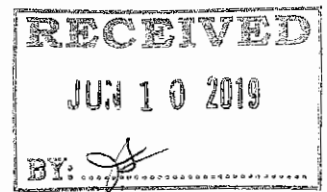
5. The requested variances would not be contrary to:
 - A. The public interest and safety of the public; nor to
 - B. The public interest and safety of the users of the Tuscola Area Airport; nor to
 - C. The public interest and safety of occupants of land in the vicinity of the Tuscola Area Airport; nor to
 - D. Any zoning ordinance or regulation of any political subdivision applicable to the same area.

Juniata, Gilford, and Fairgrove Townships have already determined that the Pegasus Wind Energy Center meets their respective special land use permit requirements, including protection of health, safety, and welfare. The FAA ultimately concluded that the 33 turbines at issue will ensure safe approaches at the Tuscola Area Airport. Approval of the variances will serve to accommodate both the aviation community and the surrounding landowners and communities that have opted to participate and will benefit from the Pegasus Wind Energy Center. Furthermore, and as stated above, the ability to locate and develop the proposed wind farm in this location advances the renewable energy goals of the State of Michigan and will benefit both participating landowners and the local community.

Conclusion

Because Pegasus Wind's applications for height variances under Section 3.5.B for 7 turbines that are located in Zone B of the Tuscola Area Airport Permit Thresholds Map of the Tuscola Area Airport Zoning Ordinance meet the requirements of the Airport Zoning Act and the Tuscola Area Airport Zoning Ordinance, as well as the criteria set forth in the Airport Zoning Board of Appeals Variance Application, Pegasus Wind respectfully requests that the Airport Zoning Board of Appeals grant height variances for the 7 turbines in Zone B listed on the spreadsheet attached as Exhibit 5.

Similarly, because Pegasus Wind's applications for variances under Section 3.6.G for the 17 turbines located in Zone B and the 16 turbines located in Zone E of the Tuscola Area Airport Permit Thresholds Map of the Tuscola Area Airport Zoning Ordinance meet the requirements of the Airport Zoning Act and the Tuscola Area Airport Zoning Ordinance, as well as the criteria set forth in the Airport Zoning Board of Appeals Variance Application, Pegasus Wind respectfully requests that the Airport Zoning Board of Appeals grant variances for the 33 turbines in Zones B and E listed on Exhibit 5 that raise the CFS VOR/DME-A CMDA.



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TUSCOLA COUNTY
AIRPORT ZONING ADMINISTRATIVE AGENCY
Mike Yates, Zoning Administrator

VIA US MAIL - RETURN RECEIPT REQUESTED

June 10, 2019

Erico J. Lopez
Pegasus Wind LLC
700 Universe Blvd
Juno Beach, FL 33408

RE: Tuscola Airport Zoning Permit Application - Aeronautical Study No. 2018-WTE-16-OE.

Mr. Lopez:

Pursuant to the Tuscola Area Airport Zoning Ordinance (the "Ordinance"), an Airport Zoning Permit is required in connection with construction of certain structures within the Airport Zoning Area. Such permits may be issued upon application and satisfaction of the various requirements outlined in the Ordinance. Under the Ordinance, the undersigned Airport Zoning Administrator is responsible for reviewing and either granting or denying any such Airport Zoning Permit Applications submitted pursuant to the Ordinance.

On April 18, 2019, the Airport Zoning Administrator received an Airport Zoning Permit Application ("Application") for this proposed structure. The following items were submitted in addition to the Application itself:

- Land use permit information;
- Federal Aviation Administration Determination of No Hazard information;
- Site Plan information; and
- A project narrative.

Pursuant to Article 4, Section 4.2B(1) of the Ordinance, each Application must include a site plan with "[a] scale of not less than one (1) inch equals fifty (50) feet if the subject property is less than three (3) acres and one (1) inch equals one hundred feet if three (3) acres or more." The subject property is greater than three (3) acres. Correspondingly, the appropriate scale required by the Ordinance was one (1) inch equals one hundred feet. The site plan included with the Application did not include this scale. Therefore, the Application was deficient upon submission. An updated site plan including the appropriate scale drawings was submitted on May 13, 2019. The Application was deemed to have been re-submitted as of that date. Applicant confirmed this date in correspondence to the Airport Zoning Administrator.

Pursuant to Article 3, Section 3.5 of the Ordinance, unless the Airport Zoning Administrator determines—based on the study of an aeronautical engineer—that the proposed use would cause “an imminent and material interference with a terminal obstacle clearance area, a departure area, turn and termination area, or circling area” then a permit shall issue if **all** of the following conditions are met:

- A land use permit has been issued by the governing municipality;
- The structure’s height or use is not inconsistent with this Ordinance;
- The landowner has obtained a determination of no hazard by the Federal Aviation Administration (“FAA”) if application required; and
- The landowner has obtained an opinion from the Michigan Aeronautics Commission (“MAC”) that a Michigan Tall Structure Permit could be issued, if required by MAC.

The Airport Zoning Administrator has reviewed the application related to Aeronautical Study No. 2018-WTE-16-OE and reaches the following conclusions with regard to the requirements outlined above.

With regard to land use permitting, the structure related to Aeronautical Study No. 2018-WTE-16-OE is situated in Fairgrove Township. The application materials include evidence of a valid land use permit related to this proposed structure. Accordingly, this requirement is fulfilled.

The structure’s height and use must be consistent with the Ordinance. Having reviewed the Application and attached materials, the relevant provisions of the Ordinance, and the FAA Determination of No Hazard for this proposed structure, the Airport Zoning Administrator has determined that this requirement is fulfilled with regard to the proposed structure.

The applicant must also obtain a Determination of No Hazard from the FAA with regard to any structure for which FAA application is required. Here, a Determination of No Hazard for the subject Aeronautical Study has been issued. This Determination of No Hazard was final and not subject to petition for review. Accordingly, this requirement is fulfilled.

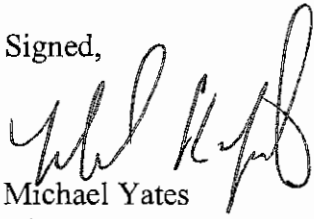
Applicant is also required to provide an opinion from MAC that a Michigan Tall Structure Permit could be issued by MAC for the proposed structure, if such a permit is required. As of the date of this correspondence, Applicant has provided some correspondence from MAC, but such correspondence does not indicate that either: (1) a Michigan Tall Structure Permit could be issued for this proposed structure, or (2) that a Michigan Tall Structure Permit is not required for this proposed structure. Accordingly, this requirement is not yet satisfied with regard to the proposed structure.

Based upon the forgoing, it is the decision of the Airport Zoning Administrator that this Application is **CONDITIONALLY APPROVED** subject to the Airport Zoning Administrator’s receipt of written confirmation from MAC that either: (1) a Michigan Tall Structure Permit could be issued with regard to the proposed structure, or (2) that a Michigan Tall Structure Permit is not required for this proposed structure. Receipt of an actual Tall Structure Permit would also satisfy this requirement. This conditional approval does not permit Applicant to construct the proposed structure until approval becomes final. This conditional approval shall

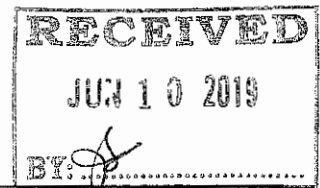
become final when the Airport Zoning Administrator confirms to Applicant in writing its receipt of the above-described confirmation from MAC. If this confirmation is not received by the Airport Zoning Administrator on or before August 5, 2019, then this conditional approval shall expire and be automatically rescinded, and the Application will be considered denied for failure to comply with Article 3, Section 3.5D of the Ordinance.

If this conditional approval expires, the application is denied, and such denial may be appealed to the Tuscola County Airport Zoning Board of Appeals by submitting a notice of appeal specifying the grounds of appeal to the Airport Zoning Administrator within thirty (30) days of the effective date of said denial.

Signed,

A handwritten signature in black ink, appearing to read 'Michael Yates', is written over the printed name.

Michael Yates
Airport Zoning Administrator



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TUSCOLA COUNTY
AIRPORT ZONING ADMINISTRATIVE AGENCY
Mike Yates, Zoning Administrator

VIA US MAIL - RETURN RECEIPT REQUESTED

June 10, 2019

Erico J. Lopez
Pegasus Wind LLC
700 Universe Blvd
Juno Beach, FL 33408

RE: Tuscola Airport Zoning Permit Application - Aeronautical Study No. 2018-WTE-21-OE.

Mr. Lopez:

Pursuant to the Tuscola Area Airport Zoning Ordinance (the "Ordinance"), an Airport Zoning Permit is required in connection with construction of certain structures within the Airport Zoning Area. Such permits may be issued upon application and satisfaction of the various requirements outlined in the Ordinance. Under the Ordinance, the undersigned Airport Zoning Administrator is responsible for reviewing and either granting or denying any such Airport Zoning Permit Applications submitted pursuant to the Ordinance.

On April 18, 2019, the Airport Zoning Administrator received an Airport Zoning Permit Application ("Application") for this proposed structure. The following items were submitted in addition to the Application itself:

- Land use permit information;
- Federal Aviation Administration Determination of No Hazard information;
- Site Plan information; and
- A project narrative.

Pursuant to Article 4, Section 4.2B(1) of the Ordinance, each Application must include a site plan with "[a] scale of not less than one (1) inch equals fifty (50) feet if the subject property is less than three (3) acres and one (1) inch equals one hundred feet if three (3) acres or more." The subject property is greater than three (3) acres. Correspondingly, the appropriate scale required by the Ordinance was one (1) inch equals one hundred feet. The site plan included with the Application did not include this scale. Therefore, the Application was deficient upon submission. An updated site plan including the appropriate scale drawings was submitted on May 13, 2019. The Application was deemed to have been re-submitted as of that date. Applicant confirmed this date in correspondence to the Airport Zoning Administrator.

Pursuant to Article 3, Section 3.5 of the Ordinance, unless the Airport Zoning Administrator determines—based on the study of an aeronautical engineer—that the proposed use would cause “an imminent and material interference with a terminal obstacle clearance area, a departure area, turn and termination area, or circling area” then a permit shall issue if **all** of the following conditions are met:

- A land use permit has been issued by the governing municipality;
- The structure’s height or use is not inconsistent with this Ordinance;
- The landowner has obtained a determination of no hazard by the Federal Aviation Administration (“FAA”) if application required; and
- The landowner has obtained an opinion from the Michigan Aeronautics Commission (“MAC”) that a Michigan Tall Structure Permit could be issued, if required by MAC.

The Airport Zoning Administrator has reviewed the application related to Aeronautical Study No. 2018-WTE-21-OE and reaches the following conclusions with regard to the requirements outlined above.

With regard to land use permitting, the structure related to Aeronautical Study No. 2018-WTE-21-OE is situated in Fairgrove Township. The application materials include evidence of a valid land use permit related to this proposed structure. Accordingly, this requirement is fulfilled.

The structure’s height and use must be consistent with the Ordinance. Here, the applicant included information with the Application admitting that this proposed structure would raise descent minimums contrary to Article 3, Section 3.6G of the Ordinance. Accordingly, this requirement is not satisfied with regard to the proposed structure.

The applicant must also obtain a Determination of No Hazard from the FAA with regard to any structure for which FAA application is required. Here, a Determination of No Hazard for the subject Aeronautical Study has been issued. However, pursuant to the FAA’s determination letter, such decision would only become final if no valid petitions for review were filed prior to May 13, 2019. In the case of a valid petition for review, the FAA states that “this determination will not become final pending disposition of the petition.” Here, the Airport Zoning Administrator’s review of information publicly available on the FAA website and information provided by Attorney Alan Armstrong shows that the Determination of No Hazard for Aeronautical Study No. 2018-WTE-21-OE is the subject of a valid petition for review. Thus, the determination has not become final.

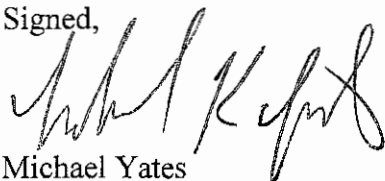
Applicant is also required to provide an opinion from MAC that a Michigan Tall Structure Permit could be issued by MAC for the proposed structure, if such a permit is required. As of the date of this correspondence, Applicant has provided some correspondence from MAC, but such correspondence does not indicate that either: (1) a Michigan Tall Structure Permit could be issued for this proposed structure, or (2) that a Michigan Tall Structure Permit is not required for this proposed structure.

Based upon the forgoing, it is the decision of the Airport Zoning Administrator that this Application is **DENIED** because the proposed structure would raise descent minimums contrary

to Article 3, Section 3.6G of the Ordinance. Because this application is denied on the foregoing basis, the Airport Zoning Administrator does not decide whether the requirements of obtaining an FAA Determination of No Hazard and a MAC opinion letter are satisfied at this time.

This denial may be appealed to the Tuscola County Airport Zoning Board of Appeals by submitting a notice of appeal specifying the grounds of appeal to the Airport Zoning Administrator within thirty (30) days of this written decision.

Signed,

A handwritten signature in black ink, appearing to read "Michael Yates", is written over the printed name.

Michael Yates
Airport Zoning Administrator

Greg Ackerman
6/25/19

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FAIRGROVE TOWNSHIP

5758 VanGiesen Road
Fairgrove, MI 48733

May 7, 2019

Manager of Airspace Policy Group
Mail Processing Center
Federal Aviation Administration
800 Independence Avenue, SW
Room 423
Washington D.C. 20591

Re: Pegasus Wind LLC Aeronautical Study #2018-WTE-21 to 75-OE
and 2019 WTE-78 to 84-OE

Dear Sir or Madam:

We are submitting this communication to you as the authorized representatives of Fairgrove Township, which is located in Tuscola County, Michigan. Fairgrove Township is located in Township 13 North, Range 8 East of the State of Michigan survey quadrants. The content of this letter has been reviewed, endorsed and approved by the other municipal officers that appear below.

This letter is to urge the Federal Aviation Administration to affirm the **Determination Of No Hazard To Air Navigation** as it pertains to the Pegasus Wind project, which is proposed to be constructed and operated in Fairgrove Township and in Juniata Township, Tuscola County, Michigan.

By way of background, it is my understanding that the Pegasus wind project is owned and operated by NextEra Energy Company. That organization has previously developed and operates a wind turbine project in Fairgrove Township commonly known as "*Tuscola Bay Wind II*" which consists of 37 wind turbines, a substation, above-ground and below-ground electrical transmission lines and related transformers and equipment. This project was approved by Fairgrove Township in 2013. It has produced substantial economic benefits to Fairgrove Township, farm landlords and the taxing authorities in Tuscola County. We have encountered no difficulties with the operation of that system.

Similarly, Fairgrove Township has approved the site plans for locating approximately 37 additional wind turbines and related equipment and improvements in the Township by Pegasus Wind LLC. I understand this project is meeting substantial resistance from individuals who have populated organizations such as Ellington Township, Almer Township, Juniata Township and most recently, the Tuscola County Airport Authority. We believe their agenda is to block the development of any wind project anywhere in Tuscola County. They are using the Tuscola County Airport Authority and the FAA review process as their most recent method to obstruct the construction of this project.

Federal Aviation Administration
May 7, 2019
Page 2

We find it interesting that Almer Township and Ellington Township have now populated the Tuscola County Airport Authority and intend to appeal the Determination Of No Hazard To Air Navigation as members of the Tuscola County Airport Authority. It is especially ironic, since neither township is slated to have wind turbines developed within their boundaries as part of the Pegasus Wind project.

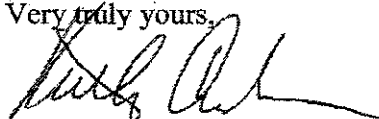
Almer Township joined the Tuscola County Airport Authority within the past 18 months, and Ellington Township joined in the past 30 days. Neither has been a member of the Tuscola County Airport Authority for at least the preceding 10 to 12 year period, which reflects their disinterest in the activities of that organization. It is my understanding that the current membership of the Tuscola County Airport Authority lacks any aviation experience. We believe that the Tuscola County Airport Authority has been turned into a defacto anti-wind advocacy body. We urge you to consider their agenda and lack of aviation expertise in evaluating their objections to the Determination Of No Hazard to Air Navigation, which was issued by the Obstruction Evaluation Group of the Federal Aviation Administration on April 3, 2019.

We also note that when the application of Pegasus Wind LLC was first submitted to the Federal Aviation Administration, the 2018 studies were circularized on March 29, 2018 to all known aviation interests. The Tuscola County Airport Authority submitted a letter supporting the FAA process and did not object to the project. Obviously, that position has changed as a result of the anti-wind activists now populating the Tuscola County Airport Authority board.

In conclusion, we urge the Federal Aviation Administration to affirm the **Determination Of No Hazard To Air Navigation** and authorize Pegasus Wind LLC to proceed with construction of their wind turbine project, in conformity with the determinations.

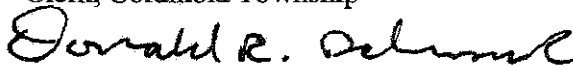
If you have any questions regarding this matter, please feel free to contact us.

Very truly yours,

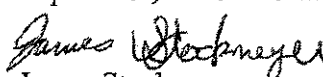


Keith Aeder
Supervisor, Fairgrove Township

Christine Kolar
Clerk, Columbia Township

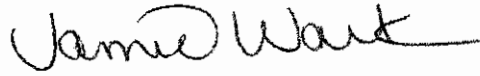


Donald Schmuck
Supervisor, Akron Township

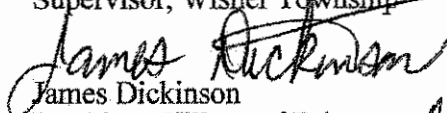


James Stockmeyer
Supervisor, Gilford Township

Federal Aviation Administration
May 7, 2019
Page 3

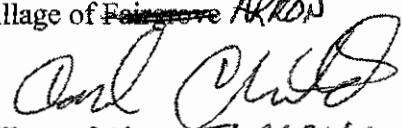


Jamie Wark
Supervisor, Wisner Township



James Dickinson
President, Village of ~~Fairgrove~~ AKRON

Carl Childs



President, Village of ~~Akron~~ FAIRGROVE

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ALAN ARMSTRONG
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ATLANTA, GEORGIA 30341

(770) 451-0313
FAX (770) 451-0317

alan@alanarmstronglaw.com
www.alanarmstronglaw.com

May 13, 2019

Via Email

clerkbrenda@juniatatownship.org
clerk@fairgrovetwp.org
gilfordtwp@airadvantage.net
MDOT_Tall_Structures@michigan.gov
gilfordtwp@airadvantage.net

Via Facsimile
517-886-0366

Tuscola County Commissioners
c/o Jodi Fetting, County Clerk
125 W. Lincoln St.
Suite 500
Caro, MI 48723

Tuscola Building Codes
c/o Curtis Stowe
SCMCCI
1309 Cleaver Road, Suite A
Caro, MI 48723-9135

Michigan Department of Transportation
c/o Hilary Hoose, Aeronautics Analyst
2700 Port Lansing Road
Lansing, MI 48906

Tuscola County Airport Zoning Adm.
c/o Michael Yates
125 W. Lincoln St., Suite 500
Caro, MI 48723

Juniata Township Board
c/o Brenda Bigham, Clerk
1050 S. Fenner Rd.
Caro, MI 48723

Fairgrove Township Board
c/o Katie Gebhardt, Clerk
5002 Center St.
Fairgrove, MI 48733

Gilford Township Board
c/o Robert L. Haines, Clerk
6230 Gilford Road
Fairgrove, MI 48733

Re: Petition for Review of FAA Determinations of No Hazard

Dear Sir or Madam:

Please be advised that the undersigned represents The Friends of the Tuscola Area Airport, Inc. ("The Friends"), and the Tuscola Area Airport Authority, and other similarly situated individuals and entities, in filing a Petition for Review of the April 3, 2019, to the Determinations of No Hazard to Air Navigation ("DNH") issued by the Federal Aviation Administration (FAA). The Aeronautical Study Numbers for the Determinations of No Hazard are set forth in footnote 1 below.¹

¹ Aeronautical Study Numbers: 2018-WTE-21-OE through 2018-WTE-35-OE; 2018-WTE-38-OE; 2018-WTE-40-OE; 2018-WTE-41-OE; 2018-WTE-47-OE; 2018-WTE-48-OE; 2018-WTE-49-OE; 2018-WTE-55-OE through 2018-WTE-60-OE; 2018-WTE-64-OE through 2018-WTE-67-OE; 2018-WTE-68-OE; 2018-WTE-69-OE through

Tuscola County Commissioners, et al.
May 13, 2019
Page 2

Notice from the FAA regarding the acceptance of The Friends Petition for Review filed May 2, 2019, has been received and is attached as Exhibit A. The Petition was validated and accepted with the following terminology:

The determination(s) issued for the subject Aeronautical Study Number(s) (2019-AWA-OE) will not become final pending disposition of the petition. The Federal Communications Commission (FCC) will also be notified if the structure(s) is subject to their licensing authority.

Therefore, I respectfully request that you take no action concerning this issuance of any permits or other authorizations for construction of operation or the proposed Pegasus Wind Energy facility while this Petition for Review remains pending.

The Determinations of No Hazard recite that the FAA's April 3, 2019, Determinations are not final. In fact, each Determination states, in pertinent part:

This determination becomes final on May 13, 2019 unless a petition is timely filed. In which case, this determination will not become final pending disposition of the petition.

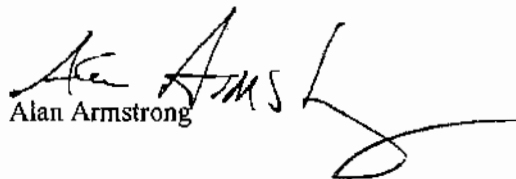
To repeat, the Petition for Review has been filed and accepted as valid.

Therefore, since the April 3, 2019, Determinations of No Hazard are NOT final until a decision is rendered by the FAA on the Petition for Review filed May 2, 2019, no action, including permits, construction, hearings, or similar activities that would rely upon FAA approval will be allowed.

In light of the foregoing, it appears no Tall Structure approvals can be issued by MDOT/MAC while the FAA considers the Petition for Review. Furthermore, it appears no permits can be lawfully issued by the Tuscola Area Airport Zoning Administrator or variances granted by the Zoning Board of Appeals while the Petition for Review is being considered by the FAA.

Thank you for your time and attention to this matter.

Sincerely,


Alan Armstrong

AA/kjw
Enclosure

2018-WTE-72-OE; 2018-WTE-75-OE; 2018-WTE-77-OE; 2019-WTE-78-OE through 2019-WTE-82-OE; 2019-WTE-83-OE; 2019-WTE-84-OE; 2019-WTE-85-OE; and 2018-WTE-3995-OE through 2018-WTE-4003-OE.

TUSCOLA COUNTY AIRPORT ORDINANCE PERMIT ANALYSIS SHEET

Zones A,E

(a copy to be filed with each application record)

1. Fairgrove Township or Municipality 9/22/19 (date)
2. Pegasus Wind, LLC (Name of Applicant) 700 Sunrise Blvd. June Beach, FL 33408 (Address of Applicant)
43-32-32.87N (Location of building site - Latitude and Longitude) 83-28-44.32 W NAD 83

(Note: If a permit is to be issued all conditions imposed by the FAA and/or MAC, plus any conditions imposed or required by local Ordinances should be included in the appropriate blanks on the permit.

If height of structure is twenty-five (25) feet or less no permit is required.

If height of structure is greater than five hundred (500) feet a variance is required.

3. (Yes or No) Land use permit has been issued by above Municipality. Yes
If no, a permit CAN NOT be issued. Copy of land use permit to be filed with application
4. (Yes or No) Purposed structure will be compliant with Sec. 3.6 of the Tuscola Area Airport Zoning Ordinance. If also in zones 1-5, is compliant with zone use guidelines. No
If no, a permit CAN NOT be issued, VARIANCE IS REQUIRED.
5. (Yes or No) An FAA permit or determination of no hazard has been issued. _____
Required if purposed height is greater than two hundred (200) feet above ground level.
6. Zone location of proposed structure. _____
(Choose A or E see map 1 page A1 of ordinance) Also check for zones 1-5, special conditions exist.
7. Elevation of land at structure site. _____
8. Enter Permit Threshold for the zone indicated on line 6 from chart 2 _____
9. Add lines 7 and 8 _____
10. Airport elevation. 701
11. Enter Permit Threshold for the zone indicated on line 6 from chart 2 _____
12. Add lines 10 and 11 _____
13. Enter the smaller of lines 9 and 12. _____
14. Total elevation of purposed structure. (Land elevation plus Height of sturcture) _____
15. Compare the values on lines 13 and 14. If line 14 is less than line 13, no permit is required.
If line 14 is greater than or equal to line 13 a permit or variance is required. Continue for determination.

Value from line 14

16. Enter the Height Limit for Zone of structure from chart 1 below.

17. Compare the values on lines 14 and 16. If line 14 is greater than line 16, **A VARIANCE IS REQUIRED.**
If line 14 is equal to or less than line 16, a permit may be issued.

CHART 1: HEIGHT LIMITS		CHART 2 : PERMIT THRESHOLDS	
Zone A but not 1-5	851 feet ASL	Zone A but not 1-5	35 feet
Zones 1-5	Value of A-E Zone	Zones 1-5	25 feet
Zone E	1201 feet ASL	Zone E	499 feet

VARIANCE REQUIRED ?:

If a variance is required and desired by the applicant, file the following with the Airport Zoning Appeals Board.

1. Copy of application for Tuscola Tall Structures Permit with attached site plan.
2. Approved municipality land use permit.
3. Copy of this form.
4. Copies of all FAA and MAC documents.



APPLICATION FOR AIRPORT ZONING PERMIT
Tuscola County Airport Zoning Ordinance

Sections 1-6 To Be Completed by Applicant

Failure to provide complete information may result in a delay of review or denial of a permit.
 If an FAA for 7460-1, Notice of Proposed Construction or Alteration, has been submitted for review, include a copy of that application and/or response letter from the FAA with this application along with any other supporting documentation.

1. Contact Information

Applicant Information

Name Pegasus Wind, LLC
 Contact Erico Lopez
 Address 700 Universe Blvd.
 City/State/ Zip Juno Beach, FL 33408
 Phone 561-691-3010

Engineer/Architect Information

Name Atwell
 Contact Tim Jones
 Address Two Towne Sq Suite 700
 City/State/Zip Southfield, MI 48076
 Phone 248-447-2000

2. Structure Information

Type of Construction

☒ New Construction

☐ Permanents

☐ Alteration

☐ Temporary

Elevations

Ground Elevation 657ft (MSL)

Height of Structure + 486ft (AGL)

Top Elevation 1143ft (MSL)

Description & Use of Structure (dimensions, type of construction, purpose, etc)

3. Site Information

Site Address: Darbee Rd Township Fairgrove Section 12
 City/State/Zip Akron, MI, 48701 Latitude 43-32-32.87
 Nearest Road Intersection N Sheridan Rd & W Darbee Longitude 83-28-44.32

4. DRAWING INFORMATION

Request will not be considered without an engineered drawing/site plan set which illustrates the following:

____ Drawing identification (file name or # and date)	____ Engineers Seal
____ Scale	____ Contact Information
____ Site Map	____ Profile view of Structure

5. REMARKS (Information which might have value in making determination)**6. Certification**

I hereby certify that all statements on this application are true and correct.

Signature:  Date 4-15-19Name and Title of Person Filing Application: Erico Lopez - Project Manager PH 561-691-3010

FOR INTERNAL USE ONLY
Airport Ordinance Administrator Review

Date Received _____ Site Location: Zone _____ Amount of Fee Attached \$ _____

Elevation Information	Ground elevation at site	_____
	Height of Structure	_____
	Top Elevation	_____
	Allowable Elevation	_____

FAA Form 7460-1	Form Required	____ Yes	____ No
	Date Submitted to FAA	_____	
	Date of Response from FAA	_____	
	Response from FAA	____ Approved	____ Denied
	FAA Comments	_____	

Permit No: _____	Date Approved _____	Date Denied _____
Comments or restrictions: _____		

Tuscola Airport Ordinance Administrator - Signature

Tuscola Airport Ordinance Administrator - Print or Type



April 16, 2018

Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth TX 76177

Re: Aeronautical Study Numbers 2018-WTE-16-OE thru 2018-WTE-77-OE

The Tuscola Area Airport Authority would like to take this opportunity to respond to the above study numbers.

The FAA, MDOT Aeronautics and the Tuscola Area Airport Authority have had a long and successful relationship.

We, TAAA, look to you, FAA, for guidance and recommendations in all matters of this type.

We are confident that the FAA will review all the information needed to make a decision in the matter of the wind turbines that will be in the airspace of the TAAA and we will support your findings in this matter.

Sincerely,

Tuscola Area Airport Authority (CFS)
1750 Speirs Dr.
Caro MI 48723



Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2018-WTE-21-OE

Issued Date: 04/03/2019

Erico J. Lopez
Pegasus Wind LLC
700 Universe Blvd FEW/JB
Juno Beach, FL 33408

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Wind Turbine 6
Location:	Caro, MI
Latitude:	43-32-32.87N NAD 83
Longitude:	83-28-44.32W
Heights:	657 feet site elevation (SE)
	486 feet above ground level (AGL)
	1143 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. Therefore, pursuant to the authority delegated to me, it is hereby determined that the structure would not be a hazard to air navigation provided the following condition(s) is(are) met:

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 2, Obstruction Marking and Lighting, white paint/synchronized red lights - Chapters 4,12&13(Turbines).

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- ☒ At least 10 days prior to start of construction (7460-2, Part 1)
☒ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

See attachment for additional condition(s) or information.

Your request for consideration to utilize an Aircraft Detection Lighting System to operate the recommended lighting is approved provided that the equipment meets established technical standards.

This determination expires on 10/03/2020 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is subject to review if an interested party files a petition that is received by the FAA on or before May 03, 2019. In the event a petition for review is filed, it must contain a full statement of the basis upon which it is made and be submitted to the Manager of the Airspace Policy Group. Petitions can be submitted via mail to Federal Aviation Administration, 800 Independence Ave, SW, Room 423, Washington, DC 20591, via email at OEPetitions@faa.gov, or via facsimile (202) 267-9328.

This determination becomes final on May 13, 2019 unless a petition is timely filed. In which case, this determination will not become final pending disposition of the petition. Interested parties will be notified of the grant of any review. For any questions regarding your petition, please contact Airspace Policy Group via telephone – 202-267-8783.

This determination is based, in part, on the foregoing description which includes specific coordinates and heights. This determination is valid for coordinates within one (1) second latitude/longitude and up to the approved AMSL height listed above (provided the AGL height does not exceed 499 feet). If a certified 1A or 2C accuracy survey was required to mitigate an adverse effect, any change in coordinates or increase in height will require a new certified accuracy survey and may require a new aeronautical study.

If construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

Additional wind turbines or met towers proposed in the future may cause a cumulative effect on the national airspace system. All information from submission of Supplemental Notice (7460-2 Part 2) will be considered the final data (including heights) for this structure. Any future construction or alteration, including but not limited to changes in heights, requires separate notice to the FAA.

Obstruction marking and lighting recommendations for wind turbine farms are based on the scheme for the entire project. ANY change to the height, location or number of turbines within this project will require a reanalysis of the marking and lighting recommendation for the entire project. In particular, the removal of previously planned or built turbines/turbine locations from the project will often result in a change in the marking/lighting recommendation for other turbines within the project. It is the proponent's responsibility to contact the FAA to discuss the process for developing a revised obstruction marking and lighting plan should this occur.

In order to ensure proper conspicuity of turbines at night during construction, all turbines should be lit with temporary lighting once they reach a height of 200 feet or greater until such time the permanent lighting configuration is turned on. As the height of the structure continues to increase, the temporary lighting should be relocated to the uppermost part of the structure. The temporary lighting may be turned off for periods when

they would interfere with construction personnel. If practical, permanent obstruction lights should be installed and operated at each level as construction progresses. An FAA Type L-810 steady red light fixture shall be used to light the structure during the construction phase. If power is not available, turbines shall be lit with self-contained, solar powered LED steady red light fixture that meets the photometric requirements of an FAA Type L-810 lighting system. The lights should be positioned to ensure that a pilot has an unobstructed view of at least one light at each level. The use of a NOTAM (D) to not light turbines within a project until the entire project has been completed is prohibited.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

This aeronautical study considered and analyzed the impact on existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules; the impact on all existing and planned public-use airports, military airports and aeronautical facilities; and the cumulative impact resulting from the studied structure when combined with the impact of other existing or proposed structures. The study disclosed that the described structure would have no substantial adverse effect on air navigation.

An account of the study findings, aeronautical objections received by the FAA during the study (if any), and the basis for the FAA's decision in this matter can be found on the following page(s).

If we can be of further assistance, please contact Steve Phillips, at (816) 329-2523, or steve.phillips@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2018-WTE-21-OE.

Signature Control No: 352294984-401412437

(DNH - WT)

Mike Helvey

Manager, Obstruction Evaluation Group

Attachment(s)

Additional Information

Map(s)

Additional information for ASN 2018-WTE-21-OE

Abbreviations:

AGL, Above Ground Level
 AMSL, Above Mean Sea Level
 ASN, Aeronautical Study Number
 ASR, Airport Surveillance Radar
 ATC, Air Traffic Control
 CFR, Code of Federal Regulations
 CG, Climb Gradient
 DME, Distance Measuring Equipment
 GPS, Global Positioning System
 LAP, Instrument Approach Procedure
 IFR, Instrument Flight Rules
 MDA, Minimum Descent Altitude
 NM, Nautical Mile
 RNAV, Area Navigation
 RWY, Runway
 Std., Standard
 VFR, Visual Flight Rules
 VHF, Very High Frequency
 VOR, VHF Omnidirectional Radio Range System

The proposed structures are part of a proposed wind farm and would be located approximately 3.27 - 9.03 NM west through north of the Airport Reference Point for the Tuscola Area Airport (CFS), Caro, MI. The ASNs with coordinates, AGL heights, and AMSL heights are as follows:

ASN	/	Latitude	/	Longitude	/	AGL / AMSL
2018-WTE-21-OE	/	43-32-32.87N	/	83-28-44.32W	/	486 / 1143
2018-WTE-22-OE	/	43-32-35.47N	/	83-28-17.24W	/	486 / 1154
2018-WTE-23-OE	/	43-32-10.70N	/	83-29-27.38W	/	486 / 1142
2018-WTE-24-OE	/	43-32-00.22N	/	83-28-38.84W	/	486 / 1157
2018-WTE-25-OE	/	43-31-58.13N	/	83-28-09.79W	/	486 / 1156
2018-WTE-26-OE	/	43-30-51.62N	/	83-28-37.68W	/	486 / 1161
2018-WTE-27-OE	/	43-30-53.18N	/	83-28-04.65W	/	486 / 1164
2018-WTE-28-OE	/	43-30-20.39N	/	83-33-25.41W	/	499 / 1144
2018-WTE-29-OE	/	43-30-12.72N	/	83-33-11.86W	/	499 / 1144
2018-WTE-30-OE	/	43-30-01.20N	/	83-33-06.56W	/	499 / 1146
2018-WTE-31-OE	/	43-30-16.87N	/	83-32-02.21W	/	486 / 1142
2018-WTE-32-OE	/	43-30-09.71N	/	83-31-47.04W	/	486 / 1148
2018-WTE-33-OE	/	43-30-13.27N	/	83-31-06.31W	/	486 / 1151
2018-WTE-34-OE	/	43-29-51.39N	/	83-31-00.37W	/	486 / 1154
2018-WTE-35-OE	/	43-30-17.23N	/	83-30-20.47W	/	486 / 1156
2018-WTE-38-OE	/	43-29-28.71N	/	83-30-20.38W	/	486 / 1162
2018-WTE-40-OE	/	43-29-24.16N	/	83-33-19.56W	/	453 / 1104
2018-WTE-41-OE	/	43-29-11.05N	/	83-33-18.70W	/	453 / 1106
2018-WTE-47-OE	/	43-28-32.50N	/	83-34-35.32W	/	486 / 1136

2018-WTE-48-OE / 43-28-30.35N / 83-34-14.53W / 486 / 1143

2018-WTE-49-OE / 43-28-13.82N / 83-34-28.65W / 486 / 1143

2018-WTE-55-OE / 43-27-40.11N / 83-34-27.26W / 486 / 1143

2018-WTE-56-OE / 43-27-39.35N / 83-33-23.15W / 486 / 1148

2018-WTE-57-OE / 43-27-41.75N / 83-33-06.97W / 486 / 1152

2018-WTE-58-OE / 43-27-35.68N / 83-32-01.70W / 486 / 1203

2018-WTE-59-OE / 43-27-23.72N / 83-31-58.84W / 486 / 1208

2018-WTE-60-OE / 43-27-23.71N / 83-31-00.64W / 486 / 1237

2018-WTE-64-OE / 43-26-07.20N / 83-34-40.85W / 486 / 1160

2018-WTE-65-OE / 43-26-20.87N / 83-34-11.14W / 486 / 1163

2018-WTE-66-OE / 43-26-50.51N / 83-34-08.83W / 486 / 1153

2018-WTE-67-OE / 43-26-54.70N / 83-32-50.26W / 486 / 1213

2018-WTE-69-OE / 43-25-41.64N / 83-34-11.21W / 486 / 1206

2018-WTE-70-OE / 43-26-22.71N / 83-33-16.50W / 486 / 1218

2018-WTE-71-OE / 43-26-20.36N / 83-32-55.40W / 486 / 1215

2018-WTE-72-OE / 43-26-33.62N / 83-32-07.20W / 486 / 1232

2018-WTE-75-OE / 43-25-46.43N / 83-32-06.66W / 486 / 1183

2018-WTE-3995-OE / 43-30-10.32N / 83-30-01.25W / 486 / 1158

2018-WTE-3996-OE / 43-29-56.64N / 83-31-50.15W / 486 / 1148

2018-WTE-3997-OE / 43-29-05.72N / 83-38-56.34W / 486 / 1106

2018-WTE-3998-OE / 43-29-18.14N / 83-38-14.58W / 486 / 1112

2018-WTE-3999-OE / 43-29-08.02N / 83-37-48.42W / 486 / 1116

2018-WTE-4000-OE / 43-29-02.41N / 83-36-58.03W / 486 / 1119

2018-WTE-4001-OE / 43-29-17.44N / 83-36-36.19W / 486 / 1109

2018-WTE-4002-OE / 43-29-29.55N / 83-36-23.92W / 486 / 1109

2018-WTE-4003-OE / 43-29-04.12N / 83-36-33.32W / 486 / 1109

2019-WTE-78-OE / 43-30-17.00N / 83-37-43.47W / 499 / 1114

2019-WTE-79-OE / 43-30-05.06N / 83-37-40.78W / 499 / 1119

2019-WTE-80-OE / 43-30-14.42N / 83-36-59.05W / 499 / 1127

2019-WTE-81-OE / 43-30-11.78N / 83-36-39.61W / 499 / 1125

2019-WTE-82-OE / 43-29-59.40N / 83-36-36.94W / 499 / 1129

2019-WTE-84-OE / 43-29-23.14N / 83-34-09.33W / 499 / 1153

They would exceed the obstruction standards of 14 CFR Part 77 as follows:

Section 77.17(a)(2): A height that is 200 feet AGL, or above the established airport elevation, whichever is higher, within 3 NM miles of the established reference point of CFS and that height increases in the proportion of 100 feet for each additional NM from the airport up to a maximum of 499 feet. The following would exceed:

2018-WTE-21-OE by 17 feet

2018-WTE-22-OE by 32 feet

2018-WTE-23-OE by 33 feet

2018-WTE-24-OE by 85 feet

2018-WTE-25-OE by 96 feet

2018-WTE-26-OE by 197 feet
 2018-WTE-27-OE by 211 feet
 2018-WTE-30-OE by 15 feet
 2018-WTE-31-OE by 64 feet
 2018-WTE-32-OE by 92 feet

2018-WTE-33-OE by 130 feet
 2018-WTE-34-OE by 161 feet
 2018-WTE-35-OE by 171 feet
 2018-WTE-38-OE by 231 feet
 2018-WTE-42-OE by 26 feet
 2018-WTE-43-OE by 27 feet
 2018-WTE-44-OE by 145 feet
 2018-WTE-45-OE by 155 feet
 2018-WTE-46-OE by 54 feet
 2018-WTE-50-OE by 49 feet

2018-WTE-51-OE by 82 feet
 2018-WTE-52-OE by 185 feet
 2018-WTE-56-OE by 59 feet
 2018-WTE-57-OE by 83 feet
 2018-WTE-58-OE by 200 feet
 2018-WTE-59-OE by 204 feet
 2018-WTE-60-OE by 282 feet
 2018-WTE-65-OE by 3 feet
 2018-WTE-66-OE by 4 feet
 2018-WTE-67-OE by 137 feet

2018-WTE-69-OE by 13 feet
 2018-WTE-70-OE by 96 feet
 2018-WTE-71-OE by 120 feet
 2018-WTE-72-OE by 185 feet
 2018-WTE-75-OE by 149 feet
 2018-WTE-3995-OE by 198 feet
 2018-WTE-3996-OE by 101 feet

Section 77.17(a)(3): A height that increases a minimum instrument flight altitude within a terminal area;

The following would exceed the RWY 24 Diverse A departure area by ____ feet requiring TAKE-OFF MINIMUM AND (OBSTACLE) DEPARTURE PROCEDURES RWY 24 from Std. to Std. with a minimum CG increase from 200 to ____ feet per NM to ____ feet AMSL.

ASN	/ exceeds /	CG /	climb to
2018-WTE-60-OE /	58	/ 237 /	1,500
2018-WTE-61-OE /	2	/ 201 /	1,400
2018-WTE-62-OE /	49	/ 242 /	1,500
2018-WTE-63-OE /	84	/ 265 /	1,500
2018-WTE-73-OE /	112	/ 256 /	1,400
2018-WTE-74-OE /	100	/ 249 /	1,400

The following would increase the CFS VOR/DME-A Circling MDA from 1,240 feet AMSL to _____ feet AMSL.

ASN	/ MDA
2018-WTE-28-OE	/ 1,460
2018-WTE-29-OE	/ 1,460
2018-WTE-30-OE	/ 1,460
2018-WTE-31-OE	/ 1,440
2018-WTE-32-OE	/ 1,460
2018-WTE-33-OE	/ 1,460
2018-WTE-34-OE	/ 1,460
2018-WTE-35-OE	/ 1,420
2018-WTE-36-OE	/ 1,380
2018-WTE-37-OE	/ 1,480
2018-WTE-38-OE	/ 1,480
2018-WTE-39-OE	/ 1,480
2018-WTE-40-OE	/ 1,420
2018-WTE-41-OE	/ 1,420
2018-WTE-42-OE	/ 1,420
2018-WTE-43-OE	/ 1,420
2018-WTE-44-OE	/ 1,460
2018-WTE-45-OE	/ 1,460
2018-WTE-46-OE	/ 1,460
2018-WTE-47-OE	/ 1,440
2018-WTE-48-OE	/ 1,460
2018-WTE-49-OE	/ 1,460
2018-WTE-50-OE	/ 1,460
2018-WTE-51-OE	/ 1,460
2018-WTE-52-OE	/ 1,480
2018-WTE-53-OE	/ 1,500
2018-WTE-54-OE	/ 1,520
2018-WTE-55-OE	/ 1,460
2018-WTE-56-OE	/ 1,460
2018-WTE-57-OE	/ 1,460
2018-WTE-58-OE	/ 1,520
2018-WTE-59-OE	/ 1,520
2018-WTE-60-OE	/ 1,540
2018-WTE-61-OE	/ 1,520
2018-WTE-62-OE	/ 1,540
2018-WTE-63-OE	/ 1,540
2018-WTE-64-OE	/ 1,440
2018-WTE-65-OE	/ 1,480
2018-WTE-66-OE	/ 1,460
2018-WTE-67-OE	/ 1,520

2018-WTE-69-OE / 1,360
 2018-WTE-70-OE / 1,520
 2018-WTE-71-OE / 1,520
 2018-WTE-72-OE / 1,540
 2018-WTE-73-OE / 1,520
 2018-WTE-74-OE / 1,500
 2018-WTE-75-OE / 1,480
 2018-WTE-76-OE / 1,440
 2018-WTE-3995-OE / 1,440
 2018-WTE-3996-OE / 1,460

2018-WTE-3997-OE / 1,420
 2018-WTE-3998-OE / 1,420
 2018-WTE-3999-OE / 1,420
 2018-WTE-4000-OE / 1,420
 2018-WTE-4001-OE / 1,420
 2018-WTE-4002-OE / 1,420
 2018-WTE-4003-OE / 1,420
 2019-WTE-78-OE / 1,420
 2019-WTE-79-OE / 1,420
 2019-WTE-80-OE / 1,440

2019-WTE-81-OE / 1,440
 2019-WTE-82-OE / 1,440
 2019-WTE-84-OE / 1,460

The following would be located in an area which would require additional notations (7:1 relief applies) on the CFS (PROPOSED) RNAV (GPS) RWY 11.

2018-WTE-28-OE
 2018-WTE-29-OE
 2018-WTE-30-OE
 2018-WTE-41-OE
 2018-WTE-47-OE
 2018-WTE-48-OE
 2018-WTE-49-OE

The turbines would be within the line of sight of the Saginaw, MI (MBS) ASR-11 facility. They could cause unwanted primary-only returns (clutter) in the immediate area of the turbines, primary-only target drops in the general area of the turbines. Also, tracked primary-only targets could diverge from the aircraft path and follow wind turbines, when the aircraft is over or near the turbines.

In order to facilitate the public comment process, the 2018 studies were circularized under ASN 2018-WTE-16-OE on March 29, 2018, to all known aviation interests and to non-aeronautical interests that may be affected by the proposal. Seven letters of objection were received as a result of the circularization.

One letter from the Tuscola Area Airport Authority was not an objection, but rather a simple statement of support for the FAA process.

A pilot and flight instructor stated a belief that these would be a hazard, although no specific information was given to substantiate that claim. This letter also stated concern for training flights and impact upon IFR approaches. Also stated was concern for aircraft being forced to use other airfields, which the commenter stated would damage local businesses.

Another pilot stated that the turbines would be within a height restricted area as defined by the CFS Zoning Board. The commenter also described situations such as emergency and student pilot training. Statements concerning the previous mentioned zoning seem to imply the belief these zoning restrictions are relevant to the FAA aeronautical study. The commenter also quoted from a document not distributed to the public, which includes some information about radar.

The Mayor of Caro objected based on economic concerns and a CFS zoning ordinance.

Another commenter and pilot objected stating a navigational hazard and reduced utility of the airport because of the VOR-A MDA increase. A concern for surrounding communities and economy were also expressed.

The Aircraft Owners and Pilots Association (AOPA) objected based on a stated threat to safety and efficiency. They stated the impact to the VOR procedure would limit access to the airport and decrease efficiency. Concerns for the planned RWY and growth limitations were stated.

The CFS zoning administrator objected by stating local zoning ordinances. He also characterized the initial FAA findings that were circularized as "violate(ing) Aeronautical safety procedures ... as outlined in the Code of Federal Regulation".

Local land use authority, including, but not limited to, the CFS Zoning Board Ordinances, are not considered a factor for determining the extent of the aeronautical effect as defined by U.S. Law/Regulations. The Regulations contained within 14 CFR Part 77 are not, as some appear to believe, safety procedures or a reason to call a proposed structure a "hazard". The FAA's determination of whether a proposal would or would not be a hazard to air navigation is based on the findings of the completed aeronautical study and not simply whether or not they exceed the obstruction standards. All of the impacts are considered. Some of these are not circularized to the public, such as the radar impact. The FAA is the sole user of the radar system for navigation and therefore public comment is irrelevant. The FAA determines whether the radar presentation is acceptable for the designated purpose (ATC). Economic considerations are not germane to studies conducted in accordance with Part 77. Consideration is not given to operations such as emergencies because they are not considered regular and continuing. The concern expressed by comments about student pilots possibly deviating from/violating the established procedures and rules, is also not considered a factor, as the FAA cannot condone such violations.

A portion of the original filings would have significantly increased the CFS (PROPOSED) RNAV (GPS) RWY 11 minimums. In consideration of the substantial adverse effects those would have posed, the proponent agreed to terminate those and are therefore not included in this list of ASNs. They filed an additional 10 studies further from the area of concern. Six of these (ASNs 2019-WTE-78, 79, 80, 81, 82, and 84-OE) would have similar effect upon the VOR-A IAP. In the interest of efficiency for the process, these 6 have been included in this determination. Although the circularization did not specifically list them, they are in close proximity to, and are of no greater impact than, the circularized ASNs. The results of the circularization is being appropriately applied to all of the ASNs.

The aeronautical study disclosed that the proposed structures would have the adverse effect as described above on IFR procedures. The increase to the CG on the departure procedure is not considered excessive.

The ASNs that are listed as affecting the proposed RWY 11 IAP would not affect the minimums and only require a notation on the IAP. There are currently IAPs to both ends of the current primary runway, RWY 06/24. These are more precise procedures, and the FAA considers them to be preferred over the VOR IAP.

This is in keeping with efforts to modernize the National Airspace System and favor IAPs that are based upon newer technology than the VOR. Despite this fact, a deeper analysis of the IFR traffic into CFS was performed. This analysis revealed that although there were a number of what appeared to be "practice" VOR approaches conducted, the volume of actual IFR aircraft executing the VOR approach amounted to only one every 22.5 days on average. This is not considered significant. Increasing the MDA for the VOR-A maintains the appropriate obstacle clearance, negating any concern for safety created by the proposals on the procedure. The proposed structures would have no other effect on any existing or proposed arrival, departure, or en route IFR operations or procedures.

The turbines would be within the line of sight of the Saginaw, MI (MBS) ASR-11 facility. However, this would not cause an unacceptable adverse impact on ATC operations at this time.

Study for possible VFR effect disclosed that the proposals would have no effect on existing or proposed VFR arrival or departure operations. The proposals are beyond normal traffic pattern airspace. The proposed new RWY construction, as listed by the plans on file with the FAA, will not change that status. Therefore, the proposal would not have an adverse effect on VFR traffic pattern operations at CFS, or any other known public use or military airports. At 453, 486, and 499 feet AGL, the structures would not have a substantial adverse effect on en route VFR flight operations.

The proposed structures would be appropriately obstruction marked/lighted to make them more conspicuous to airmen should circumnavigation be necessary.

The cumulative impact of the proposed structures, when combined with other proposed and existing structures, is not considered to be significant. Study did not disclose any significant adverse effect on existing or proposed public-use or military airports or navigational facilities, nor would the proposals affect the capacity of any known existing or planned public-use or military airport.

Therefore, it is determined that the proposed construction would not have a substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on any air navigation facility and would not be a hazard to air navigation providing the conditions set forth in this determination are met.

Additional conditions:

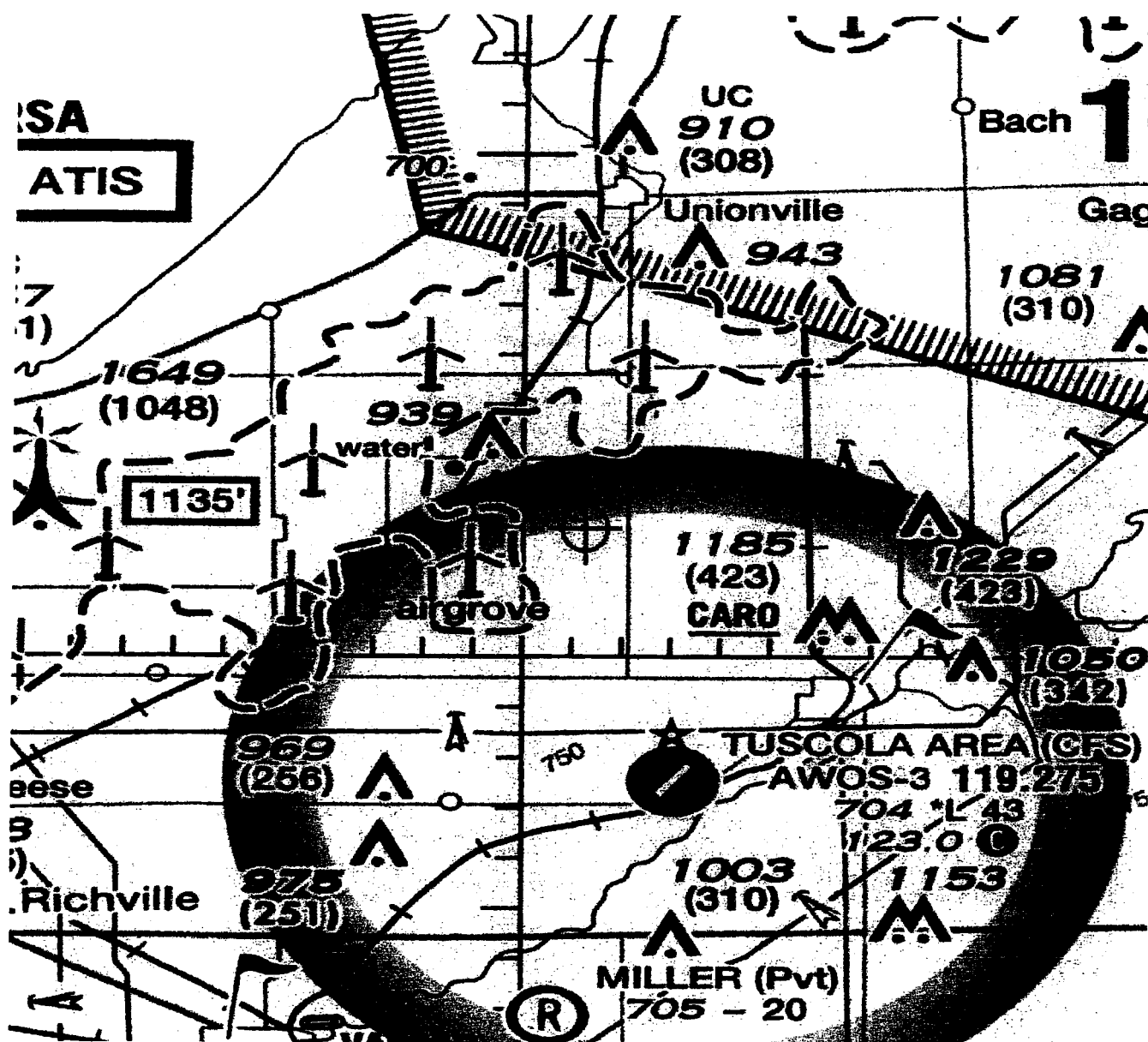
As a condition of this determination it is required that Notice of Actual Construction or Alteration (7460-2 Part 1) be E-filed at least 10 full days prior to the start of construction so that appropriate action can be taken to amend the effected procedure(s) and/or altitude(s).

NOTE: A recommendation for white paint/synchronized red lights will be made for all turbines until such time as the proponent confirms that the layout is final (no changes, no additions, no removals) and all turbines can and will be built at their determined location and height. At that time, the proponent may contact this office and request a re-evaluation of the marking and lighting recommendations for the turbines within this project and a portion of the turbines may qualify for the removal of the lighting recommendation.

Our review of the request to utilize an Aircraft Detection Lighting System to operate the lights for this wind farm was conducted without regard to whether the final lighting plan approved includes lighting this turbine.

Unless changed or amended, this determination, as it applies to the use of this type system, is valid for this turbine whether it requires a light now or at some point in the future.

Sectional Map for ASN 2018-WTE-21-OE



TUSCOLA AREA AIRPORT ZONING ORDINANCE

**ADOPTED BY THE TUSCOLA COUNTY BOARD OF COMMISSIONERS
UNDER THE AUTHORITY OF**

IN COMPLIANCE WITH PA110 OF 2006

COUNTY ORDINANCE # 01-2010

ORDINANCE ADMINISTARTED BY:

The Local Municipality Zoning Administrator

or by default

The Airport Zoning Administrative Agency

TUSCOLA COUNTY AIRPORT ZONING ORDINANCE

DRAFTED BY

Working Committee for the Tuscola Area Airport

Appointed by

Tuscola Area Airport Zoning Commission/Tuscola County Planning Commission

Under the authority of

THE TUSCOLA COUNTY COMMISSIONERS

Contributing expert direction, consultation and draft ordinance models:

Mr. Doug Van Essen, Attorney for Tuscola County

WORKING COMMITTEE FOR THE TUSCOLA AREA AIRPORT:

Chairperson
Delores Damm

Vice Chairperson
Ione Vyse

Committee
William Campbell
Brian Schriber
Bernard (Bud) Kreh
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**ARTICLE 1
TITLE AND PURPOSE**

1.1 Title

This Ordinance includes all airport zoning plans attached hereto and is to be known and may be cited as the "Tuscola Area Airport Zoning Ordinance."

1.2 Purpose

An Ordinance establishing airport zoning regulations for the purpose of promoting the health, safety, and general welfare of the inhabitants of the County of Tuscola by preventing the establishment of airport hazards, restricting the height of structures and objects of natural growth and otherwise regulating the use of property in the vicinity of the Tuscola Area Airport; providing for the allowance of variances from such regulations; designating the Airport Zoning Administrative Agency/Zoning Administrator charged with the administration and enforcement of such regulations; establishing an airport zoning board of appeals; providing for enforcement; and imposing penalties for violation of this Ordinance.

The Board of Commissioners of the County of Tuscola does hereby ordain as follows:

ARTICLE 2 DEFINITIONS

For the purposes of this Ordinance, the words, terms and phrases set forth in this Article mean:

- 2.1 **ABOVE ESTABLISHED AIRPORT ELEVATION (AEAE)**
Denoted elevations above the elevation of the airport (seven hundred one (701) feet).
- 2.2 **ABOVE GROUND LEVEL (AGL)**
Denotes elevations above ground level at the base of the structure.
- 2.3 **ABOVE MEAN SEA LEVEL**
Denotes elevations above sea level based upon and determined by reference to the United States Coast and Geodetic Survey datum.
- 2.4 **AIRPORT**
The Tuscola Area Airport and all appurtenances used or acquired for airport buildings or other airport facilities, and all other appurtenant rights of way or other existing or future interests.
- 2.5 **AIRPORT ELEVATION**
Seven hundred one (701) feet above mean sea level at the midpoint of the runway of the Tuscola Area Airport.
- 2.6 **AIRPORT HAZARD**
Any structure or tree within the Airport Hazard Area that exceeds the height limitations established by this Ordinance, or any use of land or appurtenances within the Airport Hazard Area that interferes with the safe use of the airport by aircraft unless a variance has been granted by the Airport Zoning Board of Appeals.
- 2.7 **AIRPORT HAZARD AREA(AHA)**
Any area of land or water, or both, lying within Tuscola County as depicted in zones A thru E on the accompanying map (see Map 1, pg. I), in which an airport hazard might exist if not prevented by this Ordinance. The Airport Hazard Area (AHA) is equivalent to the Airport Zoning Area (AZA).
- 2.8 **AIRPORT ZONING ACT**
Act no. 23 of the Public Acts of the State of Michigan for the year 1950 (Extra Session).
- 2.9 **AIRPORT ZONING ADMINISTRATIVE AGENCY**
The Tuscola County Airport Zoning Administrator or its Agent, the local zoning administrator.
- 2.10 **AIRPORT ZONING BOARD OF APPEALS**
An independent, five (5) member board appointed by the Tuscola County Commissioners.
- 2.11 **AIRPORT ZONING AREA (AZA)**
The area lying within Zones A through E on Map 1, Pg I.

2.12 APPROACH SURFACE

A surface longitudinally centered on the extended runway centerline, extending outward and upward from the end of the primary surface and at the same slope as the approach zone height limitation slope set forth in Article 4 of this Ordinance. The perimeter of the approach surface coincides with the perimeter of the approach zone.

2.13 APPROACH ZONE

An area that commences two hundred (200) feet beyond the end of each paved runway, existing or planned, and extends outward for ten thousand (10,000) feet at a slope of thirty-four to one (34:1) and extends outward for five thousand (5,000) feet from each end of turf runways at a slope of twenty to one (20:1).

2.14 BOARD OF APPEALS

The Tuscola Area Airport Zoning Ordinance Board of Appeals.

2.15 CONICAL SURFACE

A surface starting at the periphery of the horizontal surface and at a height of one hundred fifty (150) feet above airport elevation, extending outward and upward at a slope of fifty feet outward for each foot upward (50 to 1) for a horizontal distance of seventeen thousand, five hundred (17,500) feet.

2.16 CONICAL ZONE

The area that commences at the periphery of the horizontal zone and extends outward there from, a horizontal distance of seventeen thousand, five hundred (17,500) feet.

2.17 HAZARD TO AIR NAVIGATION

An obstruction determined to have a substantial adverse effect on the safe and efficient utilization of the navigable airspace.

2.18 HEIGHT

For the purpose of determining the height limits in all zones set forth in this Ordinance and shown on the zoning map, the datum shall mean above ground level at the base of the structure unless otherwise specified.

2.19 INNER HORIZONTAL SURFACE

An inner horizontal plane one hundred fifty (150) feet above the established airport elevation, the perimeter of which coincides with the perimeter of the horizontal zone.

2.20 INNER HORIZONTAL ZONE

A zone established by swinging arcs of ten thousand (10,000) feet radii for all existing or planned MAC and FAA approved, paved runways, measured from the center of each end of the primary surface of each runway and connecting the adjacent arcs by drawing lines tangent to those arcs.

2.21 LAND-USE GUIDANCE ZONE

An area or zone, in which certain types of land uses are recommended due to noise, vibrations, fumes, dust, fuel particles and other effects that may be caused by the operation of aircraft landing at, or taking off from, or operating at the Tuscola Area Airport (See Map 3, Pg III).

2.22 NON-CONFORMING USE

Any pre-existing structure, object of natural growth, or use of land that is inconsistent with the provisions of this Ordinance or any amendment thereto as of the effective date of this regulation.

2.23 OBSTRUCTION

Any structure, growth, or other object, including a mobile object, which exceeds a limiting height set forth in Article 3 of this Ordinance and FAA Regulations part 77.23.

2.24 OUTER HORIZONTAL SURFACE

A horizontal plane five hundred (500) feet above the established airport elevation, the perimeter of which coincides with the perimeter of the outer horizontal zone.

2.25 OUTER HORIZONTAL ZONE

The area lying between the outer edges of the Conical Surface and extending to a radius of 10 miles.

2.26 PERSON

Any individual, firm, partnership, corporation, company, association, joint stock association, Municipal Corporation, or other body politic, including but not limited to, any trustee, receiver, assignee or other similar representative of any of them.

2.27 PERMIT

A permit issued by the Airport Zoning Administrative Agency/ Zoning Administrator.

2.28 PRIMARY SURFACE

A surface longitudinally centered on a runway. When the runway has a specially prepared hard surface, the primary surface extends two hundred (200) feet beyond each end of that runway and has a width of five hundred (500) feet. When the runway has no specially prepared hard surface, the primary surface ends at each end of that runway and has a width of two hundred fifty (250) feet.

2.29 RUNWAY

A defined area on an airport prepared for landing and takeoff of aircraft along its length, including runways that are planned and approved by the FAA and MAC per current layout plans.

2.30 STRUCTURE

Any object, including a mobile object, constructed or installed by man, including but without limitation, buildings, wind generators, towers, cranes, smokestacks, earth formations, overhead transmission lines, and radio and television aerials and antennae, but no including highways and their appurtenances.

2.31 TRANSITIONAL SURFACES

An imaginary plane perpendicular to a runway centerline and to the centerline extended through the runway's primary surface and approach surface, which plane extends outward and upward from each side of the runway's primary surface and approach surface at a slope of seven to one (7:1) extending to the intersection of the transitional surface with the inner horizontal surface.

2.32 TRANSITIONAL ZONE

The areas beneath the transitional surfaces.

2.33 TREE

Any object of natural growth.

2.34 VARIANCE

An issuance by the Airport Zoning Board of Appeals authorizing the erection of a new structure, increase in the height of an existing structure or growth of a tree or other use of property in excess of the height restrictions in Zones A through E on Map 1, Pg I or the use restrictions in this Ordinance as provided for in MCL 259.454.

2.35 ZONING ADMINISTRATOR

The Airport Zoning Administrative Agency or the local zoning administrator where a local unit of government has adopted and maintains this Ordinance, including any amendments, and elects to have its zoning administrator/board administer the Ordinance, and who is designated and charged with the administration and enforcement of this Ordinance and/or the local zoning administrator if a local unit exercises its rights under MCL §259.445 with respect to its geographic boundaries.

ARTICLE 3 GENERAL REGULATIONS

3.1 Airport Zoning Area

An Airport Zoning Area (AZA) is here-by established, which area or zone consists of the area between the conical zone and the circumference created by a circle with a radius of 10 miles and the center being the reference point of the airport. (See Map 1, Pg. I).

3.2 Approach Standards

The approach, transitional, conical and inner and outer horizontal surfaces that establish the height limitations under this Ordinance are denoted on Map 1, Pg. I.

3.3 Legal Height Limitations

No use or structure shall be constructed or altered or made more non-conforming in the Airport Zoning Area (AZA) that exceeds the airport clearance requirements below, unless a Determination of No Hazard has been issued by the Federal Aviation Administration (FAA) OR a Michigan Tall Structure Permit has been issued by the Michigan Aeronautics Commission, AND a variance has been issued by the Airport Zoning Board of Appeals under this Ordinance. (See Map 1, Pg. I).

Zone A. (Horizontal Zone)

The height limit is established at one hundred fifty (150) feet above the established airport elevation or eight hundred fifty-one (851) feet above sea level.

Zone B. (Conical Zone)

The height limit slopes fifty (50) feet outward for each foot upward (50:1), beginning at the periphery of the horizontal zone and extending seventeen thousand five hundred (17,500) feet horizontally. The zone begins at one hundred fifty (150) feet above established airport elevation (AEAE) and extends to a height of five hundred (500) feet above established airport elevation (AEAE).

Zone C. (Runway Approach Zone)

The height limit slopes thirty-four (34) feet outward for each foot upward (34:1), beginning two hundred (200) feet beyond the end of the paved runway, existing or planned and approved by FAA and MAC, and extending to a horizontal distance of ten thousand (10,000) feet along the extended runway centerline.

Zone D. (Transitional Zone)

The height limit is established to begin at the edge of the primary surface or approach surface and increasing at a slope of seven (7) feet outward for each foot upward on a line perpendicular to the centerline of the runway and to that centerline extended, and extending to the intersection of the transitional surface with the inner horizontal surface.

Zone E. (Outer Horizontal Zone)

The height limit is established at five hundred (500) feet above ground level or above the established airport elevation, whichever is the lesser.

3.4 Permit Requirement

To ensure compliance with this Ordinance, an application for an Airport Zoning Permit shall be required for all structures that are within the limits of zones A thru E and will equal or exceed the limits below and as shown on Map 2, Pg II.

Zone A. Twenty-five (25) feet above ground level (AGL) in zones 1-5 (See map 3 page III) and thirty-five (35) feet above ground level (AGL), in the remainder of Zone A.

Zone B. One hundred twenty-five (125) feet above ground level (AGL) or above established airport elevation (AEAE), whichever is the lesser, in Zone B.

Zones C and D. Twenty-five (25) feet above ground level (AGL).

Zone E. Four hundred ninety-nine (499) feet above ground level (AGL) or above established airport elevation (AEAE) whichever is the lesser, for any other part of the hazard area. A permit is not required for structures less than four hundred ninety-nine (499) feet in zone E unless a "Determination of Presumed Hazard" has been issued for the structure. This requirement is not relinquished even if a subsequent "Determination of No Hazard" has been issued.

The Airport Zoning Administrative Agency/Zoning Administrator may also require application for any structure that the Federal Aviation Administration (FAA) has required notice of under Title XIV of the Code of Regulations Part 77. No structure shall be erected or materially changed without a permit that is necessary under this ordinance.

3.5 Permit Issuance

Unless the Airport Zoning Administrative Agency/Zoning Administrator conclude that the proposed use would cause an imminent and material interference with a terminal obstacle clearance area, a departure area, turn and termination area or circling approach area, based on a study by an aeronautical engineer retained by the Administrator, a permit shall be issued for a proposed structure that is located within the Airport Zoning Area if ALL of the following requirements are met:

- A. A land-use permit has been issued by the governing municipality.
- B. The structure's height or use is not inconsistent with this Ordinance.
- C. The landowner has obtained a determination of no hazard by the Federal Aviation Administration (FAA) if application is required.
- D. An opinion from MAC that The Michigan Tall Structure Permit could be issued, if required by the Michigan Aeronautics Commission (MAC).

Note: It is the option of the Applicant as to the order of meeting the requirements.

3.6 Unlawful Land Use

Notwithstanding any other provisions of this Ordinance, no person may use any lands within the Airport Zoning Area (AZA) which:

- A. Would create electrical interference with radio communications between the airport and aircraft or create interference with navigational aids employed by aircraft;
- B. Would make it difficult for flyers to distinguish between airport lights and others or result in glare to the eyes of flyers using the airport;
- C. Would create air pollution in such amounts as to impair the visibility of flyers in the use of the airport;
- D. Would locate or permit the operation of a dump, waste disposal site, sanitary landfill, hazardous waste facility, solid waste transfer station or recycling facility within 10,000 feet of any runway at the airport, unless the construction, location and operation of the site is approved or authorized by the Federal Aviation Administration as not being in violation of its orders, rules or regulations applicable to the airport, or unless a waiver is issued by the Federal Aviation Administration;
- E. Would otherwise endanger the landing, taking off, or maneuvering of aircraft;
- F. Would attract birds;
- G. Would raise the descent minimums of any instrument approach procedure to the airport, or otherwise limit operations at the airport, as determined by an airspace study conducted by the Federal Aviation Administration.

3.7 Non-Conforming Existing Uses

The provisions of Section 3.3 and 3.6 of this Ordinance shall not apply to structures, trees or other non-conforming uses existing in an Airport Hazard Area on the effective date of this Ordinance, unless the local Zoning Administrator determines it to be abandoned, or 80% torn down, destroyed, deteriorated, or decayed. The definition of abandon shall be the same as definition used by each respective local land-use zoning agency.

3.8 Alterations to Non-Conforming Land Use

The provisions of Section 3.3 and 3.6 of this Ordinance shall apply to changes or alterations which increase the height of existing structures, trees or other non-conforming uses after the effective date of this Ordinance, with the same force and effect as though the same were new uses.

3.9 Land-Use Guidance Zone

- A. **Purpose.** The purpose of land-use guidance zones 1 to 5 as identified on Map 3, Pg III, hereto, is to designate areas in which certain types of land uses are recommended due to undesirable effects that may be caused by the operation of aircraft.
- B. **Acceptable Land-Use.** The uses of land within the areas shown on the zoning plans are acceptable land-uses as outlined in the land use guidelines (see Pgs. V through IX).

ARTICLE 4 PERMITS

4.1 Permit Threshold Map

There is attached hereto as **Map 2, Pg II**, the Permit Threshold Map, showing applicable height limitations within the Airport Hazard Area (AHA) above which Airport Zoning Permits are required under this Ordinance. The Permit Threshold Map is affixed to this Ordinance for the information of and consultation by all persons proposing to make uses of land within the Airport Hazard Areas, whether the same be a new use or changes in an existing use, and it shall not be a defense in any action that a person charged with violation of this Ordinance, whether in a criminal or civil action, failed to consult this Ordinance or the permit maps prior to the action giving rise to the violation.

4.2 Application for Airport Zoning Permits

NOTE: The permit hereafter described refers to, and only to, the Airport Zoning Permit and is obtainable only after first obtaining a land use permit from the municipality in which the land use is to take place.

- A. The owner of the land on which the structure is proposed as well as any lessee, licensee or operator of the structure must execute the Application for the Permit.
- B. An application for a permit shall include a site plan and be accompanied by the Airport Zoning Permit Fee assessed by the administering agency.

Every site plan submitted to the Airport Administrative Agency/Zoning Administrator shall be in accordance with the requirements of this Ordinance and shall include the following information:

- (1) A scale of not less than one(1) inch equals fifty (50) feet if the subject property is less than three (3) acres and one (1) inch equals one hundred (100) feet if three (3) acres or more.
- (2) Date, north point and scale
- (3) The Latitude and Longitude of the base of the proposed structure or use.
- (4) The elevation of the land at the base of the proposed structure or use.
- (5) The dimensions of all lot and property lines showing the relationship of the subject property to abutting properties.
- (6) The uses of all surrounding property, including general topography, natural characteristics such as woods, wetlands, and floodplains, public drains, utilities and other related items.
- (7) The location of all existing structures within five hundred (500) feet of the property.
- (8) The location of existing developments, planned new development and site revisions, including grading, landscaping, pedestrian circulation and other activities.

- (9) The location of all existing and proposed drives and parking areas.
 - (10) The location and right-of-way widths of all abutting streets and alleys.
 - (11) The names and addresses and seal of the architect, planner, designer or engineer responsible for the preparation of the site plan.
- C. Application shall be made to the Airport Zoning Administrative Agency/Zoning Administrator upon forms furnished by the Airport Zoning Administrative Agency/Zoning Administrator. Applicant shall supply copies as required.
 - D. The Airport Zoning Administrative Agency/Zoning Administrator shall, within thirty (30) days from the application, determine whether the height limitations as designated by the Airport Zoning Maps and this Ordinance, would or would not be violated if the application were granted, and that all the requirements and considerations of section 3.5 have been met, shall then grant or deny the application accordingly (the Airport Zoning Administration Agency/Zoning Administrator not being vested with authority to permit a variance).
 - E. The Airport Zoning Administrative Agency/Zoning Administrator shall advise applicant of its action within five (5) days after the action has been taken.
 - F. In the event of a denial that is based on the violation of the restrictions of this Ordinance, the Applicant must apply to the Tuscola County Airport Zoning Board of Appeals for a certificate of variance, prior to initiation of any judicial proceedings.
 - G. The issuance of a permit shall not be construed to permit a use that violates any section of this Ordinance or any general zoning ordinance or regulations of any political subdivision applicable to the same area.
 - H. The permit shall be valid for a period of one (1) year from the date of issuance. An extension of up to one (1) year may be granted if sought before the first year terminates. The extension shall be based on the demonstration that the development has encountered unforeseen difficulties beyond the applicant's control.

4.3 Permit Procedures

Persons desiring to create a new use, or to change existing uses, must file an application for a permit if the proposal involves improvements that exceed the permit threshold heights as specified in Section 3.4 of this Ordinance. Such persons shall proceed with one of the following after consulting the applicable permit threshold map: (See Map 2, Pg. II)

A. Procedure One:

If it appears, after consulting the Permit Threshold Map, that the proposed new use, or changed existing use, clearly would not violate the terms of this Ordinance or require a permit, then the new use may be created, or existing use altered, without applying for a permit hereunder or taking any further action under this Ordinance.

B. Procedure Two:

Note: It is the option of the Applicant as to the order of meeting the requirements.

If it appears, after consulting the Permit Threshold Map, that the proposed new use, or change to an existing use may violate the terms of this Ordinance or require a permit, the new use shall not be created, or existing use changed, until a proper permit has first been obtained from the Airport Zoning Administrative Agency/Zoning Administrator in accordance with the provisions of this Ordinance.

The Administrator may consider the application before or after the Applicant(s) has obtained a Determination of No Hazard or the Federal Aviation Administration (FAA) has issued a variance, and/or the Michigan Aeronautics Commission has issued a Michigan Tall Structure Permit.

Inasmuch, as the height limitations imposed in the Airport Hazard Area steadily increase from the airport center, and at various rates according to location of approaches, the permit maps are only approximations for any given segment of the Airport Hazard Area and therefore a height limitation may be somewhat greater than accorded by the maps, depending upon the particular plat of land involved.

The purpose of this second procedure is, therefore, to enable the Airport Zoning Administrative Agency/Zoning Administrator to make exact mathematical determinations and enable users of the land within the hazard area to avoid violations of this Ordinance.

C. Procedure Three:

If it appears, after consulting the Permit Threshold Map, that the proposed new use, or change in existing use, will violate the provisions of this Ordinance, then no such new or changed use shall be undertaken unless the person proposing to undertake it shall first apply to the Tuscola Area Airport Zoning Board of Appeals and obtain a certificate of variance in accordance with the procedures contained in this Ordinance.

4.4 Exception for Emergency Repairs

No permit is required for the emergency repair or emergency replacement of nonconforming public utility structures, when the height of such structures will not be increased by such repair or replacement. It is intended that in the application of this provision any combination of circumstances calling for immediate action or remedy in the repair or replacement of such nonconforming public utility structures shall be deemed an emergency.

4.5 Expenses

The Airport Zoning Administrative Agency/Zoning Administrator may require the Applicant to obtain an opinion of an Aeronautical Engineer approved by the Airport Zoning Administrative Agency/Zoning Administrator or the Federal Aviation Administration (FAA). The Opinion shall address whether the proposed structure to be permitted will not violate the provisions of federal or state law or this Ordinance, and/or imminently and materially interfere with a terminal obstacle clearance area, a departure area, turn and termination area or circling approach area of the current airport. The Applicant shall pay for the costs of the Opinion, which shall be made available to the public.

ARTICLE 5 ORDINANCE ADMINISTRATION

5.1 Airport Zoning Administration

A. Primary Administration

Pursuant to Section 15 of the Airport Zoning Act, being MCL §259.445, if a local unit of government within the Airport Hazard Area adopts and incorporates this Ordinance as it is written, including any amendments, then that ordinance's administrator may serve as the Zoning Administrator pursuant to this Ordinance for all areas within the geographic boundaries of the local unit, provided that the Airport Zoning Board of Appeals as provided in Section 4.2 will continue to exercise such powers as are conferred on it by the Airport Zoning Act, as further provided below. If any municipality does not adopt the amendments to this ordinance within forty-five (45) days of their adoption by the county, that municipality shall have their authority to administer the ordinance automatically revoked. Any local unit of government that wishes to exercise its rights under Section 15 of the Airport Zoning Act, MCL §259.445, and this subsection, must file a certified copy of its adoption of the provisions of this Ordinance, accompanied by a written notice of its intention to serve as the administrator of this Ordinance within its jurisdiction with the Tuscola County Clerk, and with the Tuscola County Planning Commission.

B. Default Administration.

The Tuscola Airport Zoning Administrative Agency is designated the Zoning Administrator charged with the duty of administering and enforcing this Ordinance. The Airport Zoning Administrative Agency shall act as the "administrative agency" referred to in the Airport Zoning Act, PA 23 of 1950. The duties of the Airport Zoning Administrative Agency shall include those of issuing permits as provided below, but the Airport Zoning Administrative Agency shall not have or exercise any of the powers or duties delegated to the Airport Zoning Board of Appeals. The Airport Zoning Administrative Agency may adopt such rules of procedure as may be necessary in connection with the administration and enforcement of this Ordinance.

(1) Authority

The Tuscola County Board of Commissioners does hereby establish an Airport Zoning Administrative Agency consisting of an individual, appointed by and answerable to them, for this position.

(2) Duties

It shall be the duty of the Airport Zoning Administrative Agency to administer and enforce the regulations prescribed herein. Applications for permits may be made to the Default Airport Zoning Administrative Agency only under the following conditions, upon a form published for that purpose.

- (a) The municipality in which the property is located has chosen not to have the Local Zoning Administrator administer this ordinance.
- (b) The Zoning Administrator of the municipality in which the property is located, requests that the Airport Zoning Administrative Agency rule on the application.

Applications requiring submission to the Airport Zoning Administrative Agency by this Ordinance shall be considered and granted or denied as promptly as is feasible.

(3) Compensation

Compensation shall be at a rate determined by the Tuscola County Board of Commissioners.

C. Document Filing

A copy of the entire application including site plan, county application form, analysis form and any other related documents shall be forwarded to the Tuscola County Planning Commission for filing.

D. Airport Property Land Use Administration

The Airport Authority Board is granted sole authority to approve land uses on airport property in accordance with State and Federal guidelines. This does not exempt the Airport Authority Board from complying with the decisions and authority of the Michigan Aeronautics Commission granted by the Aeronautics Code of the State of Michigan.

5.2 Board of Appeals

There is hereby created an Airport Zoning Board of Appeals consisting of an independent, five (5) person body appointed by the Tuscola County Board of Commissioners. The Board of Appeals has the powers set forth in Section 27 of the Airport Zoning Act, being MCL §259.457, and shall exercise such powers as are conferred upon it in the Airport Zoning Act and in this Ordinance.

A. Official Name:

The Board of Appeals shall be officially known as the Tuscola Area Airport Zoning Board of Appeals.

B. Compensation:

The Board of Appeals shall receive such compensation and expense reimbursement for attendance at meetings and hearings, and may employ such necessary personnel, as may be provided for by resolution of the Tuscola County Board of Commissioners.

C. Rules and Procedures:

The Board of Appeals shall adopt by-laws concerning its organization and procedure, including appeal forms, and other authorized matters, consistent with the provisions of the Airport Zoning Act and this Ordinance. Such rules shall include, but not be limited to:

- (1) The Board of Appeals shall provide a reasonable period of time from which appeal may be taken to it from an action of the Airport Zoning Administrative Agency/Zoning Administrator.
- (2) Meetings of the Board of Appeals shall be held at the call of the Chair and at such other times as the Board of Appeals may determine. Notice of all meetings shall be given to all members.
- (3) An annual meeting shall be held during the month following the anniversary date of this Ordinance.
- (4) The Chair, or in his or her absence the Vice-Chair, may administer oaths or affirmations and issue subpoenas to compel the attendance of witnesses.
- (5) All hearings of the Board of Appeals shall be public, and it shall keep minutes of its proceedings, showing the vote of each member upon each question, or if absent or abstaining with cause, then so indicating and recording.

- (6) The Board shall keep records of its examinations and other official acts, all of which shall be immediately filed in the offices of the Tuscola Airport Zoning Board of Appeals, (Annex Office) and shall be a public record.

D. Powers:

The Board of Appeals, by the concurring vote of a majority of its members, shall have the power to issue certificates of variance under the provisions of this Ordinance, or to otherwise decide appeals from any order, requirement, rule, regulation, decision or determination made by the Airport Zoning Administrative Agency/Zoning Administrator under the powers conferred upon it by this Ordinance.

E. Who May Appeal:

Any person, including the governing body of any political subdivision, aggrieved by the refusal of the Airport Zoning Administrative Agency/Zoning Administrator to issue a permit or, its conclusion that a proposed use is in violation of this Ordinance or any other decision regarding the implementation of the Ordinance, may appeal to the Tuscola Area Airport Zoning Board of Appeals, including but not limited to submission of a request for a variance.

F. Appeal Procedure:

- (1) All appeals from actions of the Airport Zoning Administrative Agency/Zoning Administrator shall be taken within the time and in the manner provided by the by-laws of the Board of Appeals, by filing with the Airport Zoning Administrative Agency/Zoning Administrator and with the Board of Appeals, a notice of appeal specifying the grounds of appeal.
- (2) The Airport Zoning Administrative Agency/Zoning Administrator shall promptly transmit to the Board of Appeals all the papers constituting the record upon which the action appealed was taken.
- (3) An appeal shall “stay” all proceedings in furtherance of the action appealed from, unless the Airport Zoning Administrative Agency/Zoning Administrator certifies to the Board of Appeals, after the notice of appeal has been filed with it, that by reason of the facts stated in the certificate a “stay” would, in the Zoning Administrator's opinion, cause imminent peril to life or irreparable damage to property.
- (4) In that case, proceedings shall not be “stayed” otherwise than by order of the Board of Appeals and on due cause shown.
- (5) The Board of Appeals shall fix a time for the hearing of the appeal, give public notice and due notice to the parties of interest, and decide the appeal within a reasonable time.
- (6) Any party may appear at the hearing in person or by agent or by attorney.
- (7) The Board of Appeals may, in conformity with the provisions of this Ordinance, reverse, affirm or modify, wholly or partly, the order, requirement, decision or determination as ought to be made, and to that end shall have all the powers of the Zoning Administrator.

G. Certificates of Variance:

- (1) An application for certificate of variance is to be submitted on the form provided for by the rules of the Board of Appeals and may be submitted along with or in lieu of an appeal.
 - (a) If the application is granted, the applicant will receive a certificate of variance in the form prescribed by such rules.
 - (b) The certificate shall provide that it is not effective for a period of thirty (30) days following the date of its issuance.
 - (c) Immediately upon issuance, copies of the certificate shall be filed with the Airport Administrative Agency/Zoning Administrator, Tuscola County Planning Commission, the Michigan Aeronautics Commission and each political subdivision affected by the certificate.
- (2) In acting upon applications for variance, a variance can be granted on the condition that The Federal Aeronautics Administration (FAA) and the Michigan Aeronautics Commission (MAC) has issued a permit or determination of non-hazard. Any conditions imposed by FAA or MAC shall automatically become a part of a variance issued. Additional conditions may be imposed.

The Tuscola County Airport Zoning Board of Appeals reserves the right to send documentation, or any other input to the Federal Aeronautics Administration (FAA) and/or to the Michigan Aeronautics Commission (MAC) that has relevance to the permit sought.

In addition, variances shall be allowed for any of the following reasons:

- (a) A literal application or enforcement of the regulations would result in practical difficulty or unnecessary hardship.
- (b) Relief granted would not be contrary to the public interest and approach protection.
- (c) Relief granted would do substantial justice.
- (d) Relief granted would be in accordance with the spirit of the regulations of this Ordinance.

Provided, however, that any variance may be allowed subject to any reasonable condition or conditions subsequent that the Board of Appeals may deem necessary to effectuate the purpose of this Ordinance. Nothing in this section shall be construed to permit a use that would conflict with any general zoning ordinance or regulation of any political subdivision applicable to the same area.

ARTICLE 6 JUDICIAL ACTION

6.1 Appeals to Circuit Court

Any person, including the Michigan Aeronautics Commission on behalf of and in the name of the State, aggrieved by any decision of the Tuscola Area Airport Zoning Board of Appeals, may appeal to the Circuit Court of the County of Tuscola as provided in Section 30 of the Airport Zoning Act.

6.2 Penalties

Any person who violates this Ordinance or any regulations, orders or rulings made pursuant to this Ordinance, shall be guilty of a misdemeanor and, upon conviction thereof, shall be punished by a fine of not more than \$500.00 or imprisoned for a term not to exceed 90 days, or both. Each day a violation continues to exist after notice shall constitute a separate offense. Such notice may be given by the Airport Zoning Administrative Agency/Zoning Administrator by certified mail, return receipt requested, addressed to the person maintaining the violation at the last known address.

6.3 Appearance Ticket Authorization

Unless prohibited by state law, the following persons are empowered to issue and serve appearance tickets for violations of this Ordinance, pursuant to Act No.175 of the Public Acts of 1927, as amended by Act No.506 of the Public Acts of 1980, Act No.366 of the Public Acts of 1984 and Act No.49 of the Public Acts of 1988, being sections 764.9c and 764.9f of the Michigan Compiled Laws:

- A. The Airport Zoning Administrative Agency and/ or Local Zoning Administrator if a Local Unit of Government has exercised its administration rights under this Ordinance;

OR

- B. The Tuscola County Sheriff and all other Tuscola County Deputy Sheriffs

6.4 Civil Action Available

The Airport Zoning Administrative Agency/Zoning Administrator, on behalf of and in the name of the County of Tuscola, may, in addition to any criminal action taken, institute in the Circuit Court of Tuscola County, an action to prevent, restrain, correct or abate any violation of this Ordinance or the Airport Zoning Act, or of airport zoning regulations adopted under this Ordinance or under the Airport Zoning Act, or of any order or ruling made in connection with their administration or enforcement, and the court shall adjudge to the plaintiff such relief, by way of injunction (which may be mandatory) or otherwise, as may be proper under all the facts and circumstances of the case, in order to effectuate fully the purposes of this Ordinance or the Airport Zoning Act and the regulations adopted and orders and rulings made pursuant thereto.

Such action by the Airport Zoning Administrative Agency/Zoning Administrator shall be undertaken only if the local unit's administrative body or the County Board of Commissioners, respectively, shall have authorized a civil action.

ARTICLE 7
NON-PRE-EMPTION AND SEVERABILITY OF PROVISIONS

7.1 Severability of Provisions

If any of the provisions of this Ordinance or its application to any person or circumstance is held invalid, such invalidity shall not affect other provisions or applications of this Ordinance which can be given effect without the invalid provisions or applications of the Ordinance, and to that end the provisions of this Ordinance are declared to be severable.

7.2 Non-pre-emption.

This Ordinance is not intended to pre-empt any more stringent local zoning ordinance or other land-use control. Rather, this Ordinance is designed to augment and add to existing land-use controls.

ARTICLE 8
AMENDMENTS

This Ordinance, and the regulations prescribed herein, may be amended by the Tuscola County Board of Commissioners after a public hearing is held in relation to the proposed amendment, pursuant to Section 19 of the Airport Zoning Act.

ARTICLE 9
EFFECTIVE DATE

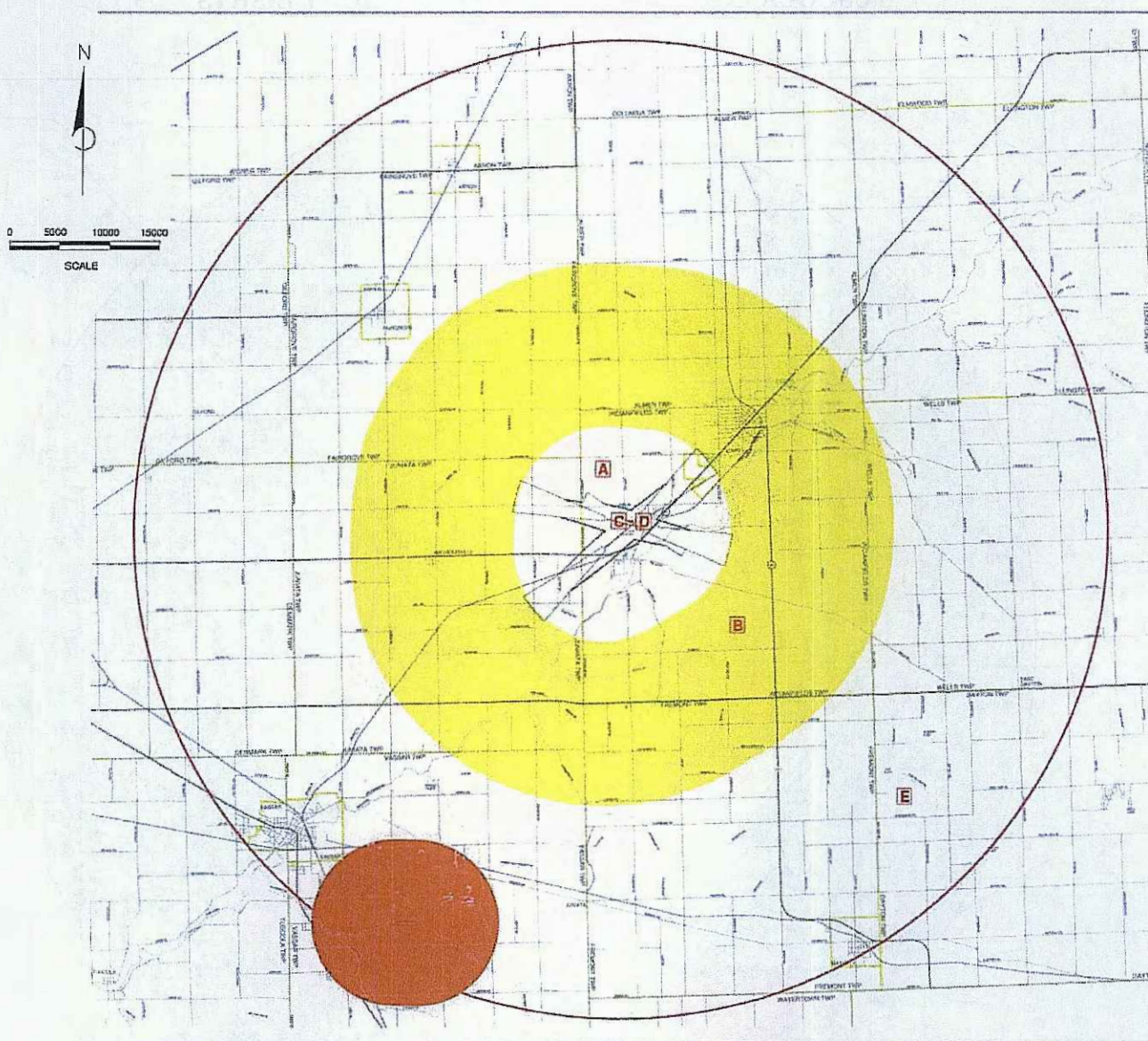
This Ordinance shall take effect on January 1, 2011.

Thomas Bardwell, Chairperson,
Tuscola County Board of Commissioners

Attest:

Ms. Margie White, Tuscola County Clerk

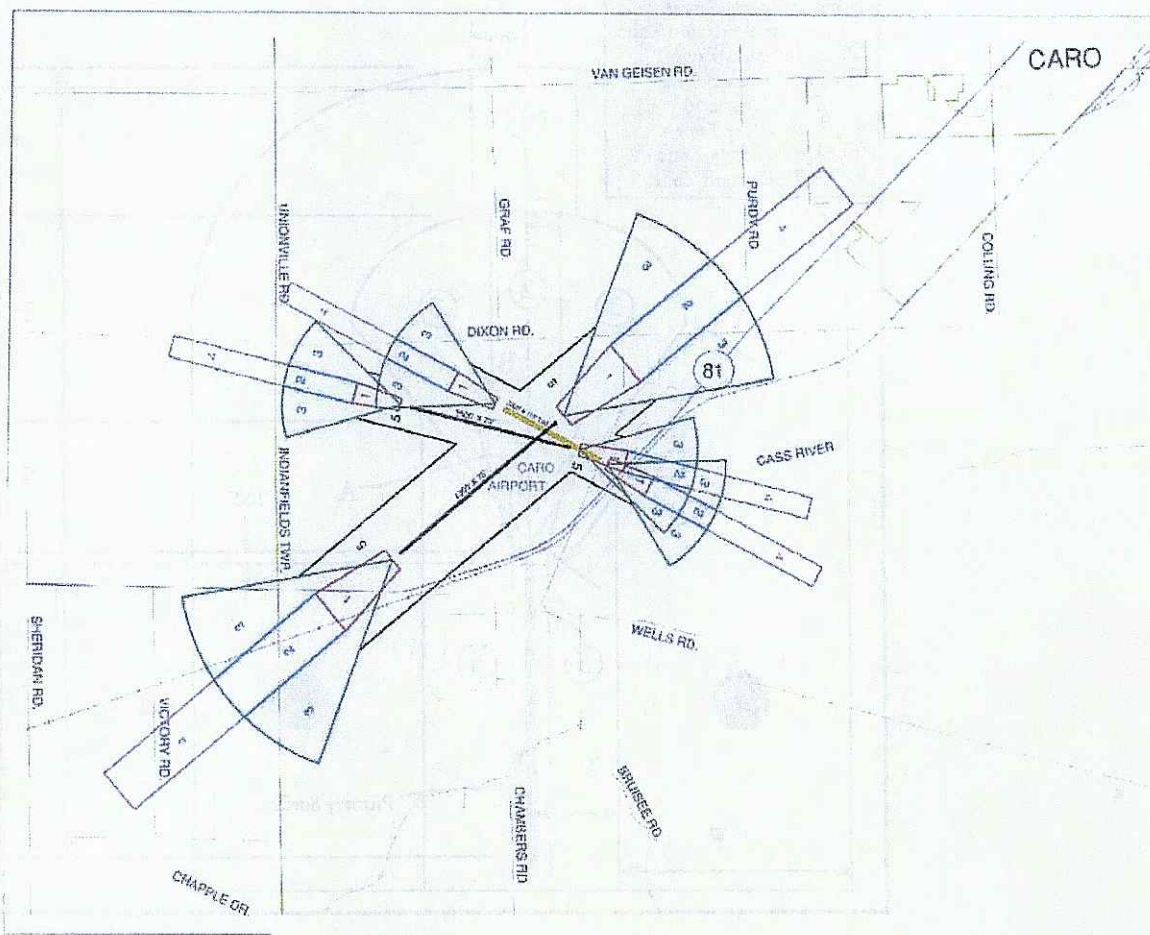
TUSCOLA COUNTY AREA AIRPORT PERMIT THRESHOLDS



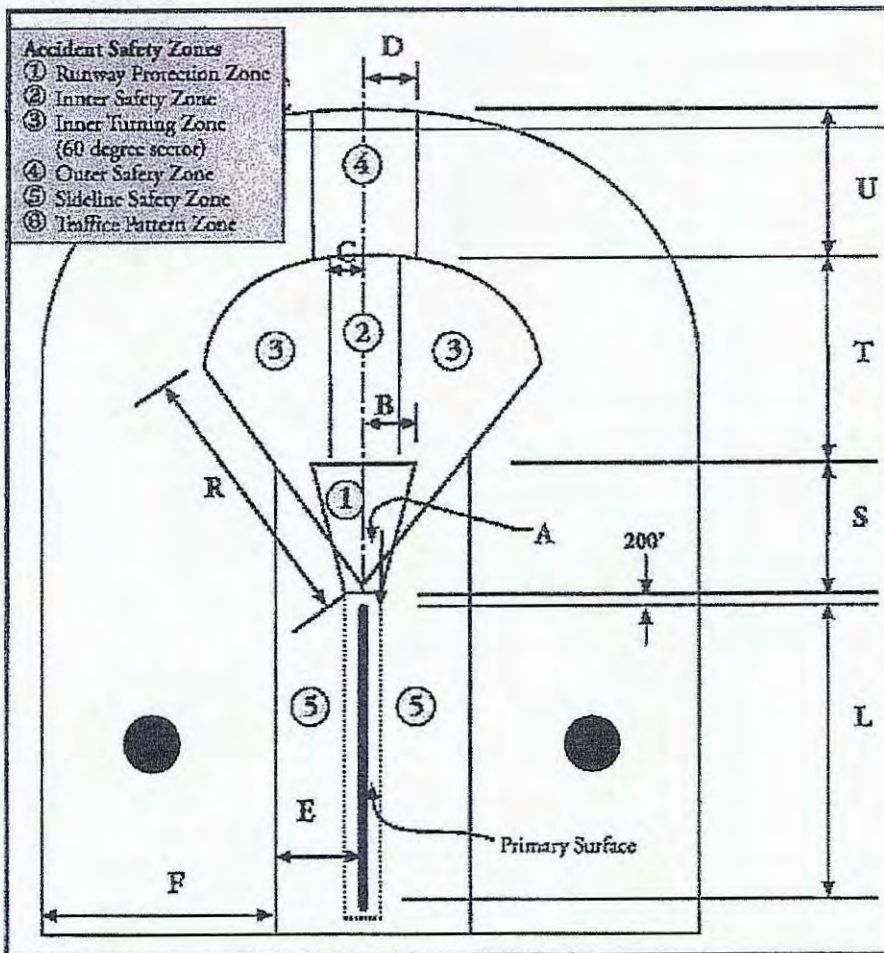
PERMIT REQUIREMENTS

- A** Twenty-five (25) feet above ground level (AGL) in zones 1-5 (see map 3 page A-3) and thirty-five (35) feet above ground level (AGL) in the remainder of Zone A.
- B** One hundred twenty-five (125) feet above ground level (AGL) or above established airport elevation (AEAE), whichever is the lesser.
- C- D** Twenty-five (25) feet above ground level (AGL).
- E** Four hundred ninety-nine (499) feet above ground level (AGL) or above established airport elevation (AEAE), whichever is the lesser. An airport permit is not required for structures less than four hundred ninety-nine in zone E unless a "Determination of Presumed Hazard" has been issued for the structure. This requirement is not relinquished, even if a subsequent "Determination of No Hazard" has been issued.

LAND USE ZONES



AIRCRAFT ACCIDENT SAFETY ZONE DIAGRAM



SAFETY ZONE DIMENSION (IN FEET)

Note:
Data Source: NTSB
accident investigations
1984-1991. Illustration
Source: Hodges and
Shurt, Institute of
Transportation Studies,
University of California.
Berkeley, 1993.

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

ACCIDENT SAFETY ZONES, LAND USE GUIDELINES AND PLANNING STRATEGIES FOR NEW DEVELOPMENT

Accident Safety Zone	Land Use Characteristics	Land Use Guidelines	Land Use Planning Strategies *All aviation uses are acceptable
Zone 1 (See Special Note)	Population Density	Avoid land uses which concentrate people indoors or outdoors.	<ol style="list-style-type: none"> 1. 0-5 people/acre. 2. Airport sponsor should purchase property if possible. 3. Zone land uses, which by their nature, will be relatively unoccupied by people (i.e. mini-storage, small parking lots).
	Residential vs. Non-Residential Land Use	Prohibit all residential land uses. All non-residential land uses permitted outright subject to the Population Density and Special Function Land Use guidelines.	<ol style="list-style-type: none"> 1. Create a height hazard overlay ordinance around the airport. 2. Airport sponsor should purchase property if possible. 3. Airport sponsor should obtain aviation and obstruction easements. 4. During the site development process, shift all structures away from the runway centerlines if possible. 5. Landscaping requirements shall establish only low growing vegetation. 6. Prohibit high overhead outdoor lighting. 7. Require downward shading of lighting to reduce glare. 8. Reevaluate all possible permitted conditional uses to assure compatible land use.
	Special Function Land Use	Prohibit all Special Function Land Uses.	<ol style="list-style-type: none"> 1. Prohibit overhead utilities and all noise sensitive land uses. 2. Zone land for uses other than for schools, play fields, hospitals, nursing homes, daycare facilities and churches. 3. Limit storage of large quantities of hazardous or flammable material. 4. Ensure permitted uses will not create large areas of standing water, or generate smoke/steam, etc.

Special Note: Since the dimensions of Zone 1 are similar to the dimensions of the Runway Protection Zone (RPZ), those airports receiving federal grant dollars from the FAA's Airport Improvement Program, should strongly consider purchasing the RPZ or otherwise acquire rights to the property for the RPZ.

COMPATIBLE LAND USE MATRIX

Accident Safety Zone	Land Use Characteristics	Land Use Guidelines	Land Use Planning Strategies *All aviation uses are acceptable
Zone 2	Population Density	Avoid land uses which concentrate people indoors or outdoors.	1. 0-5 people/acre. 2. Zone land uses, which by their nature, will be relatively unoccupied by people (i.e. mini-storage, small parking lots).
	Residential vs. Non-Residential Land Use	Prohibit all residential land uses. All non-residential land uses permitted outright subject to the Population Density and Special Function Land Use guidelines.	1. Create a height hazard overlay ordinance around the airport. 2. Obtain aviation and obstruction easements. 3. During site development process, shift all structures away from the runway centerlines if possible. 4. Prohibit mobile home parks. 5. Landscaping requirements shall establish only low growing vegetation. 6. Prohibit high overhead outdoor lighting. 7. Require downward shading of lighting to reduce glare. 8. Evaluate all possible permitted conditional uses to assure compatible land use.
	Special Function Land Use	Prohibit all Special Function Land Uses.	1. Prohibit overhead utilities and all noise sensitive land uses. 2. Zone land for uses other than for schools, play fields, hospitals, nursing homes, daycare facilities and churches. 3. Limit storage of large quantities of hazardous or flammable material. 4. Ensure permitted uses will not create large areas of standing water, or generate smoke/steam, etc.

COMPATIBLE LAND USE MATRIX

Accident Safety Zone	Land Use Characteristics	Land Use Guidelines	Land Use Planning Strategies *All aviation uses are acceptable
Zone 3	Population Density	Avoid land uses which concentrate people indoors or outdoors.	1. < 25 people/acre. 2. Zone land uses, which by their nature, will be relatively unoccupied by people (i.e. mini-storage, small parking lots).
	Residential vs. Non-Residential Land Use	Limit residential development to Low Density housing standards. All non-residential land uses permitted outright subject to the Special Function Land Use guidelines.	1. Create a height hazard overlay ordinance around the airport. 2. Obtain aviation and obstruction easements. 3. During site development process, shift all structures away from the runway centerlines if possible. 4. Prohibit mobile home parks. 5. Landscaping requirements shall establish only low growing vegetation. 6. Prohibit high overhead outdoor lighting. 7. Require downward shading of lighting to reduce glare. 8. Evaluate all possible permitted conditional uses to assure compatible land use.
	Special Function Land Use	Prohibit all Special Function Land Uses.	1. Prohibit overhead utilities and all noise sensitive land uses. 2. Zone land for uses other than for schools, play fields, hospitals, nursing homes, daycare facilities and churches. 3. Limit storage of large quantities of hazardous or flammable material. 4. Ensure permitted uses will not create large areas of standing water, or generate smoke/steam, etc.

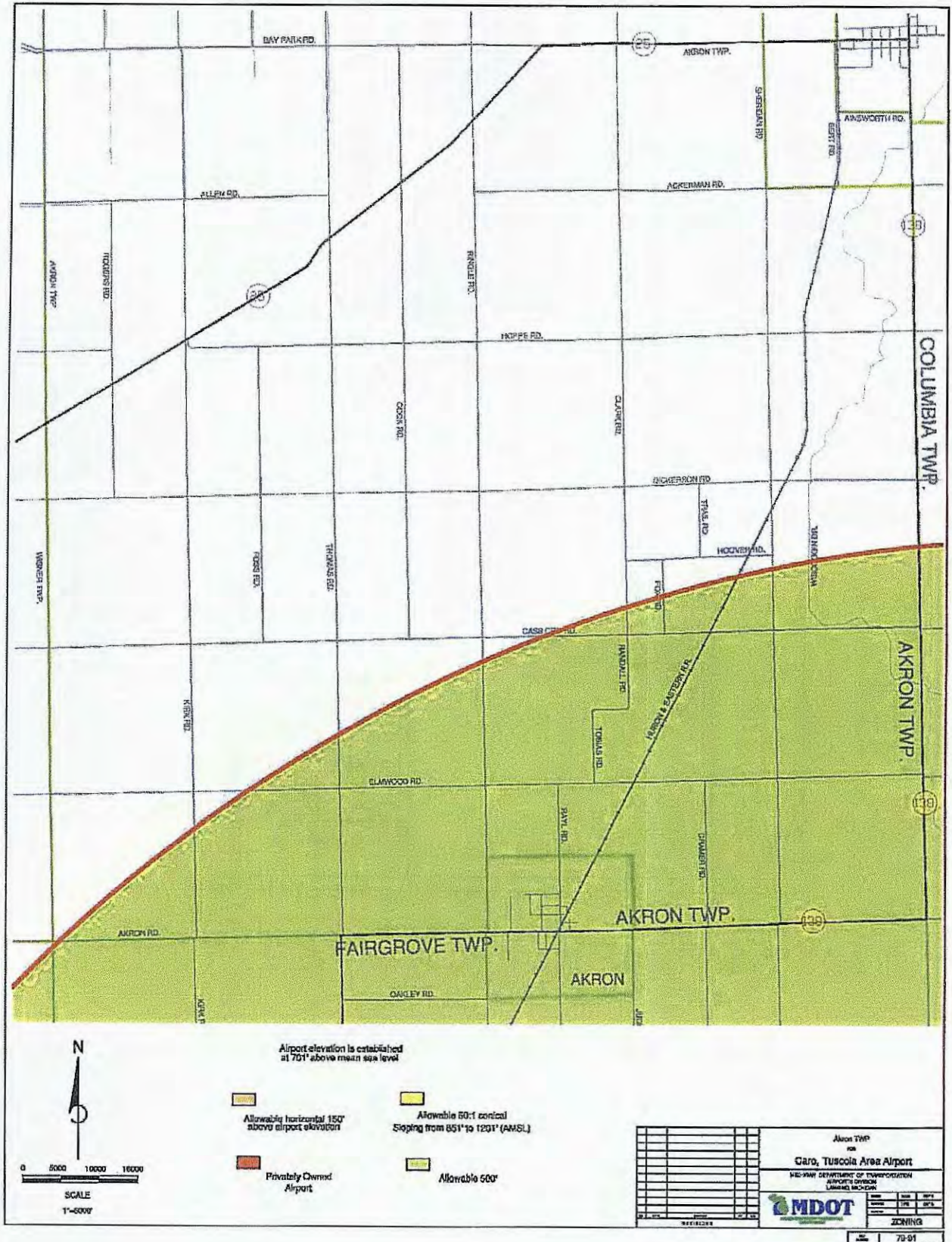
COMPATIBLE LAND USE MATRIX

Accident Safety Zone	Land Use Characteristics	Land Use Guidelines	Land Use Planning Strategies *All aviation uses are acceptable
Zone 4	Population Density	Limit population concentrations.	1. < 40 people/acre in buildings; < 75 persons/acre outside buildings.
	Residential vs. Non-Residential Land Use	Limit residential development to Low Density housing standards. All non-residential land uses permitted outright subject to the Special Function Land Use guidelines.	1. Create a height hazard overlay ordinance around the airport. 2. Obtain aviation easements. 3. Clustered development to maintain density as long as open space remains unbuilt. Place clustered development away from extended runway centerline. 4. Prohibit mobile home parks. 5. Require downward shading of lighting to reduce glare. 6. Evaluate all possible permitted conditional uses to assure compatible land use.
	Special Function Land Use	Prohibit all Special Function Land Uses.	1. Evaluate noise sensitive land uses in light of aircraft noise contour lines (if available) when establishing new zoning. 2. Prohibit high overhead utilities and all noise sensitive land uses. 3. Zone land for uses other than for schools, play fields, hospitals, nursing homes, daycare facilities and churches. 4. Limit storage of large quantities of hazardous or flammable material. 5. Ensure permitted uses will not create large areas of standing water, or generate smoke/steam, etc.

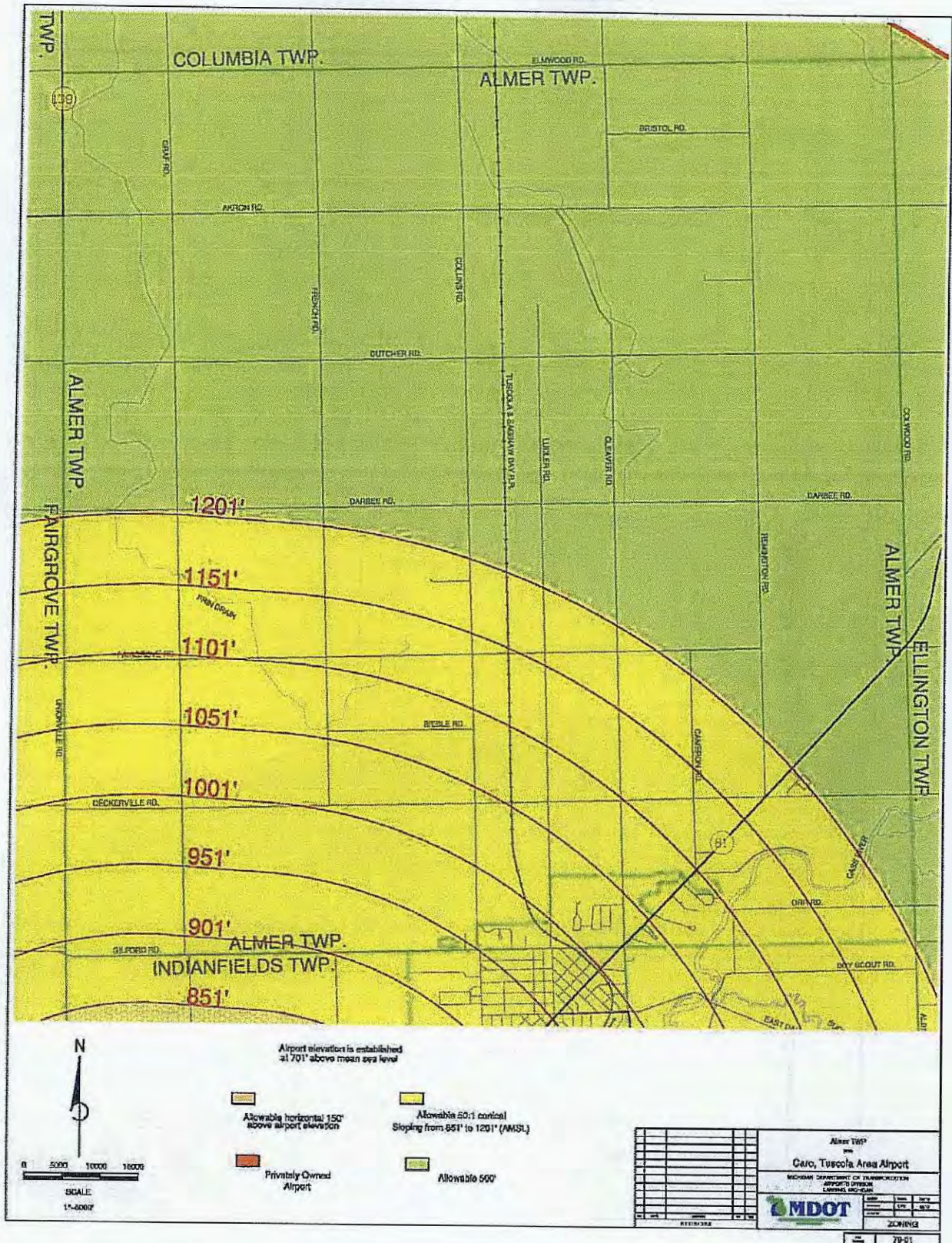
COMPATIBLE LAND USE MATRIX

Accident Safety Zone	Land Use Characteristics	Land Use Guidelines	Land Use Planning Strategies *All aviation uses are acceptable
Zone 5	Population Density	Avoid land uses which concentrate people indoors or outdoors.	<ol style="list-style-type: none"> 0-5 people/acre. Zone land uses, which by their nature, will be relatively unoccupied by people (i.e. mini-storage, small parking lots).
	Residential vs. Non-Residential Land Use	Prohibit all residential land uses. All non-residential land uses permitted outright subject to the Population Density and Special Function Land Use guidelines.	<ol style="list-style-type: none"> Airport sponsor should purchase property if possible. Create a height hazard overlay ordinance around the airport. Obtain aviation and obstruction easements. During site development process, shift all structures away from the runway centerlines if possible. Landscaping requirements shall establish only low growing vegetation. Prohibit high overhead outdoor lighting. Require downward shading of lighting to reduce glare. Evaluate all possible permitted conditional uses to assure compatible land use.
	Special Function Land Use	Prohibit all Special Function Land Uses.	<ol style="list-style-type: none"> Prohibit overhead utilities and all noise sensitive land uses. Zone land for uses other than for schools, play fields, hospitals, nursing homes, daycare facilities and churches. Limit storage of large quantities of hazardous or flammable material. Ensure permitted uses will not create large areas of standing water, or generate smoke/steam, etc.

AKRON TOWNSHIP



ALMER TOWNSHIP



COLUMBIA TOWNSHIP

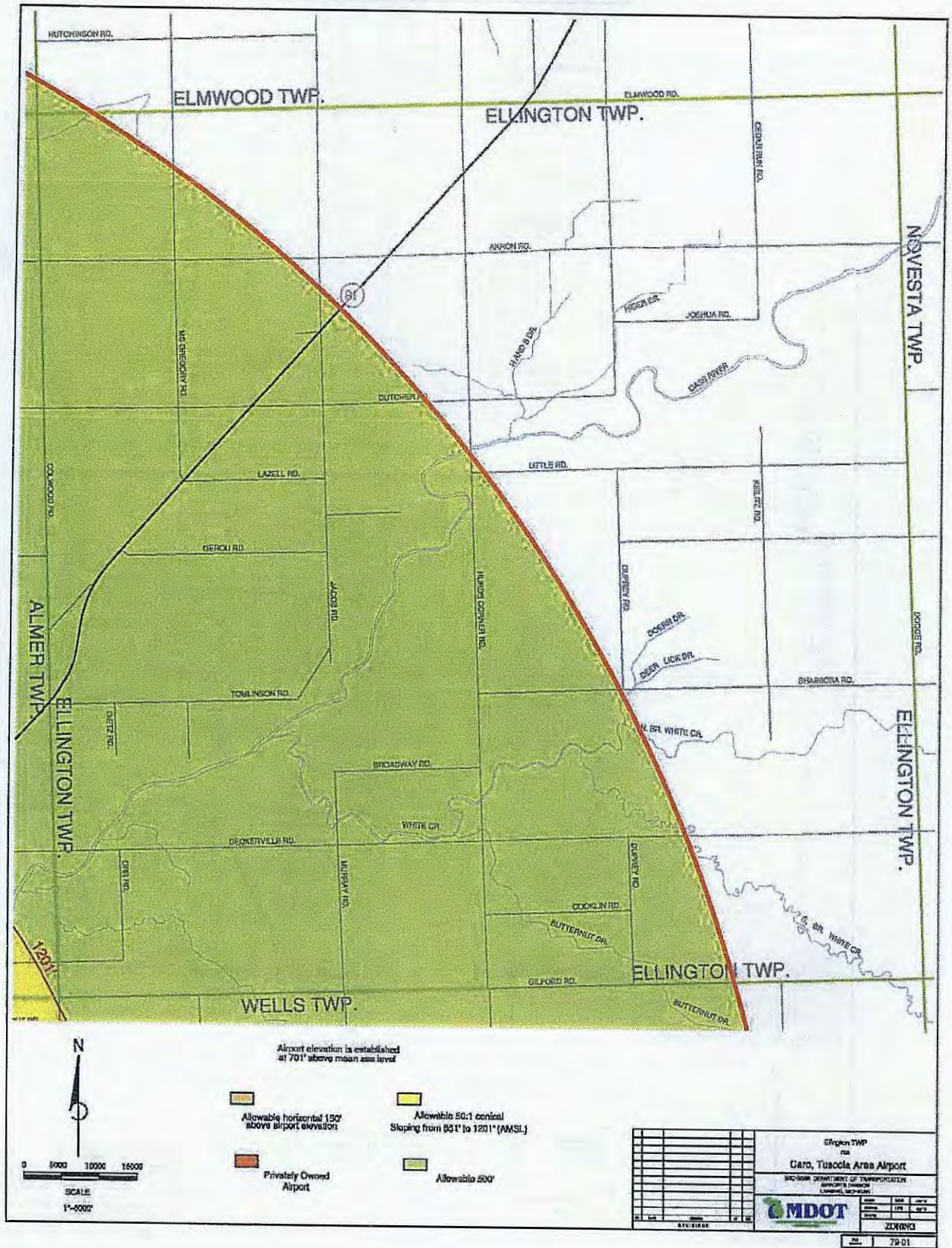


DAYTON TOWNSHIP





ELLINGTON TOWNSHIP

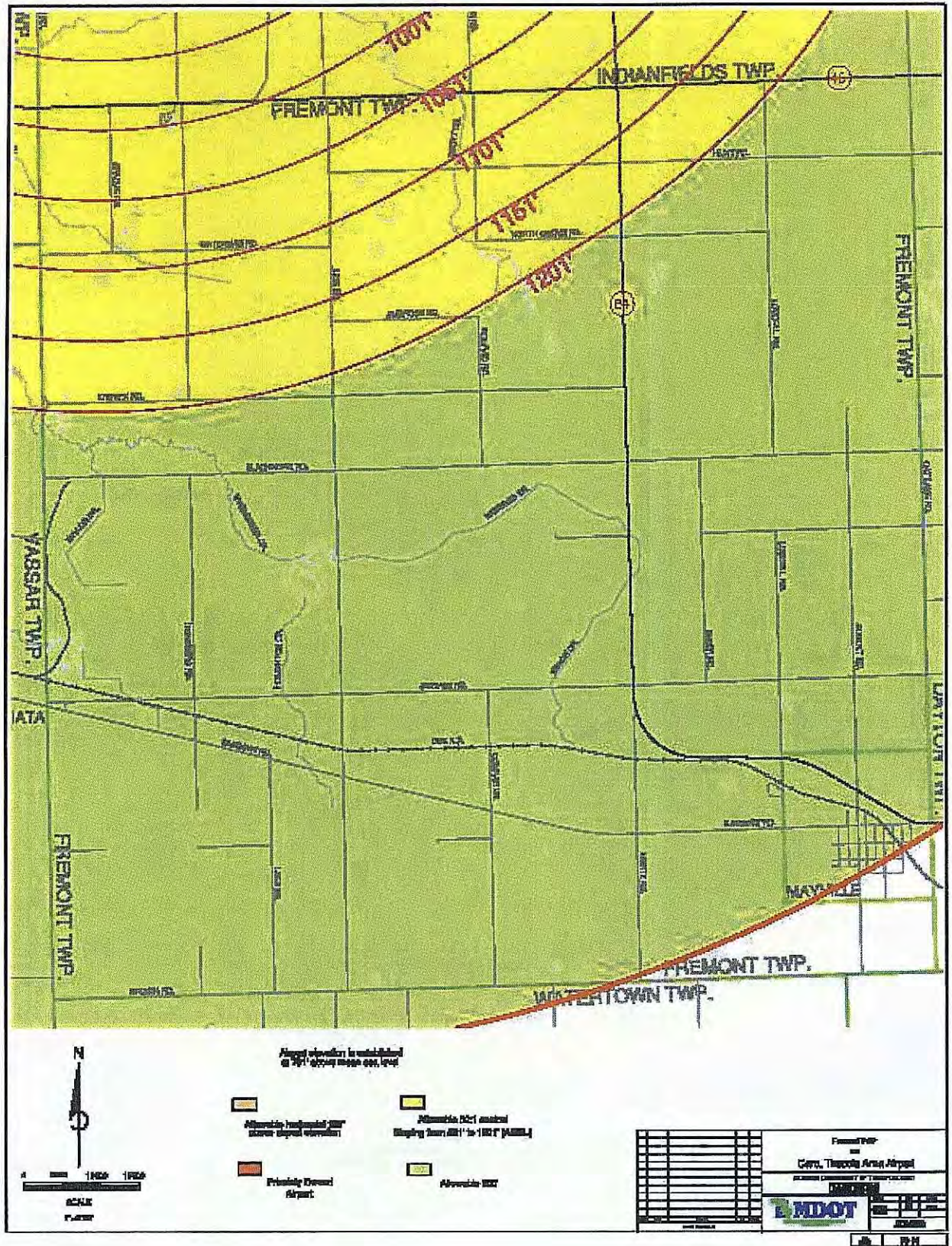




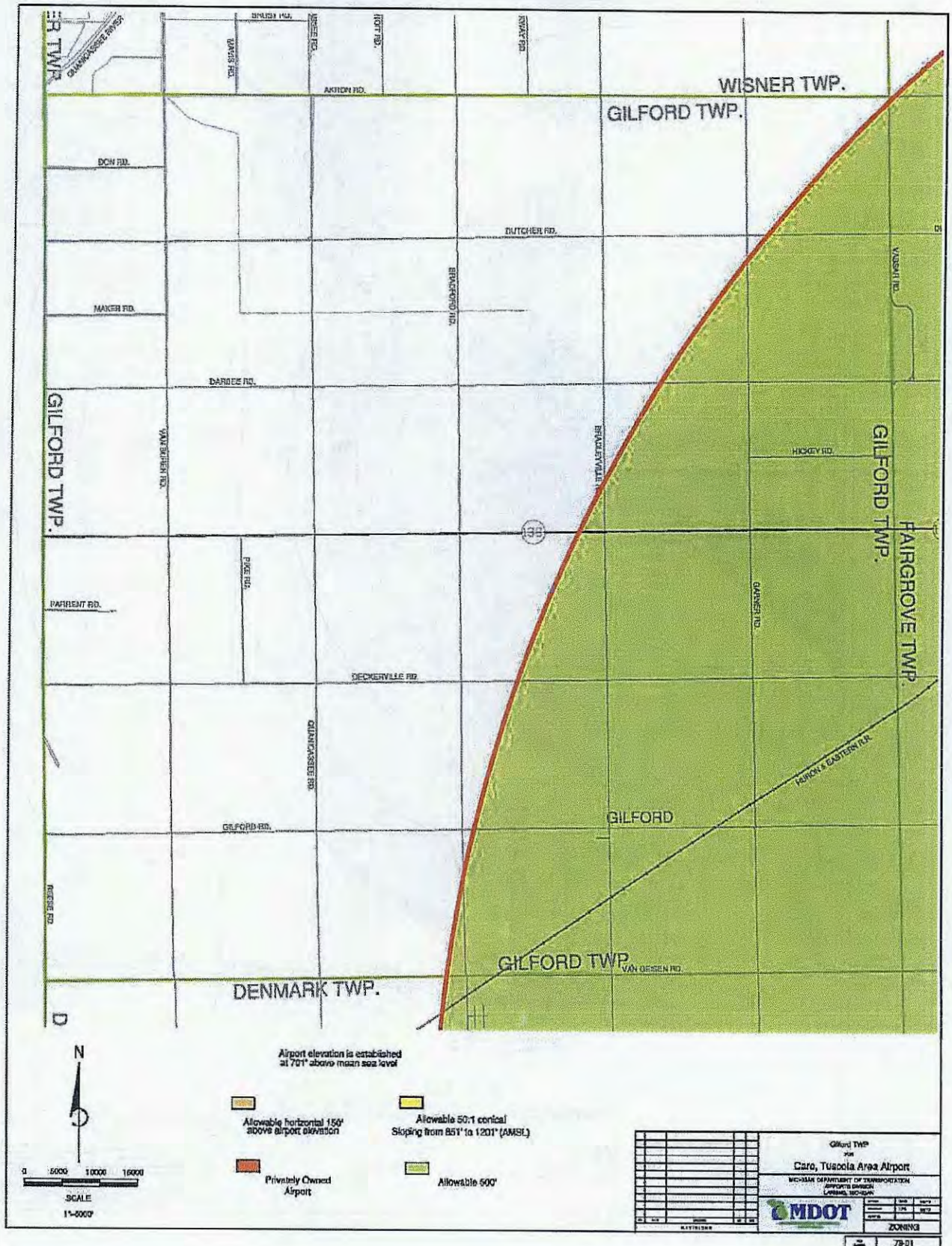
FAIRGROVE TOWNSHIP



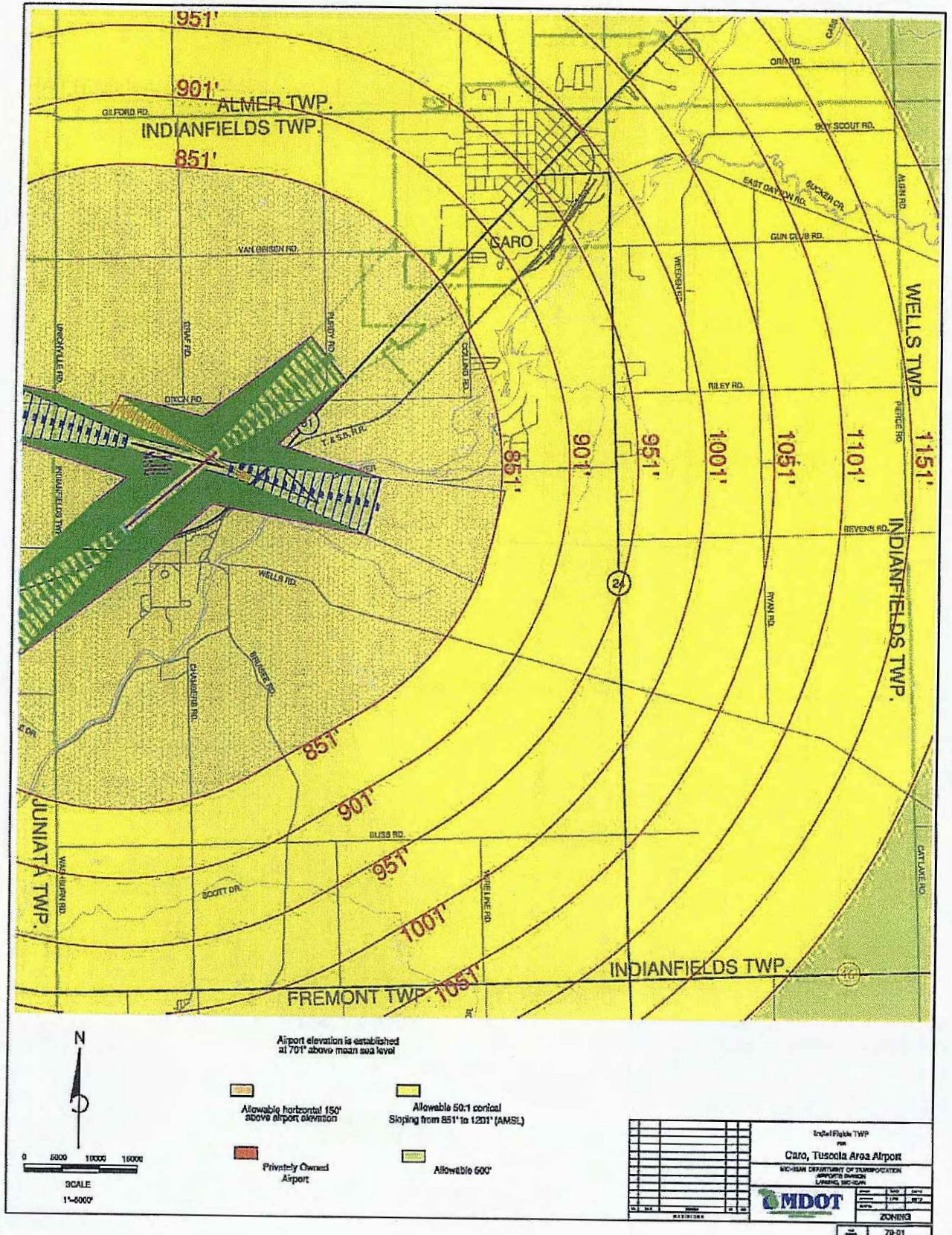
FREMONT TOWNSHIP



GILFORD TOWNSHIP



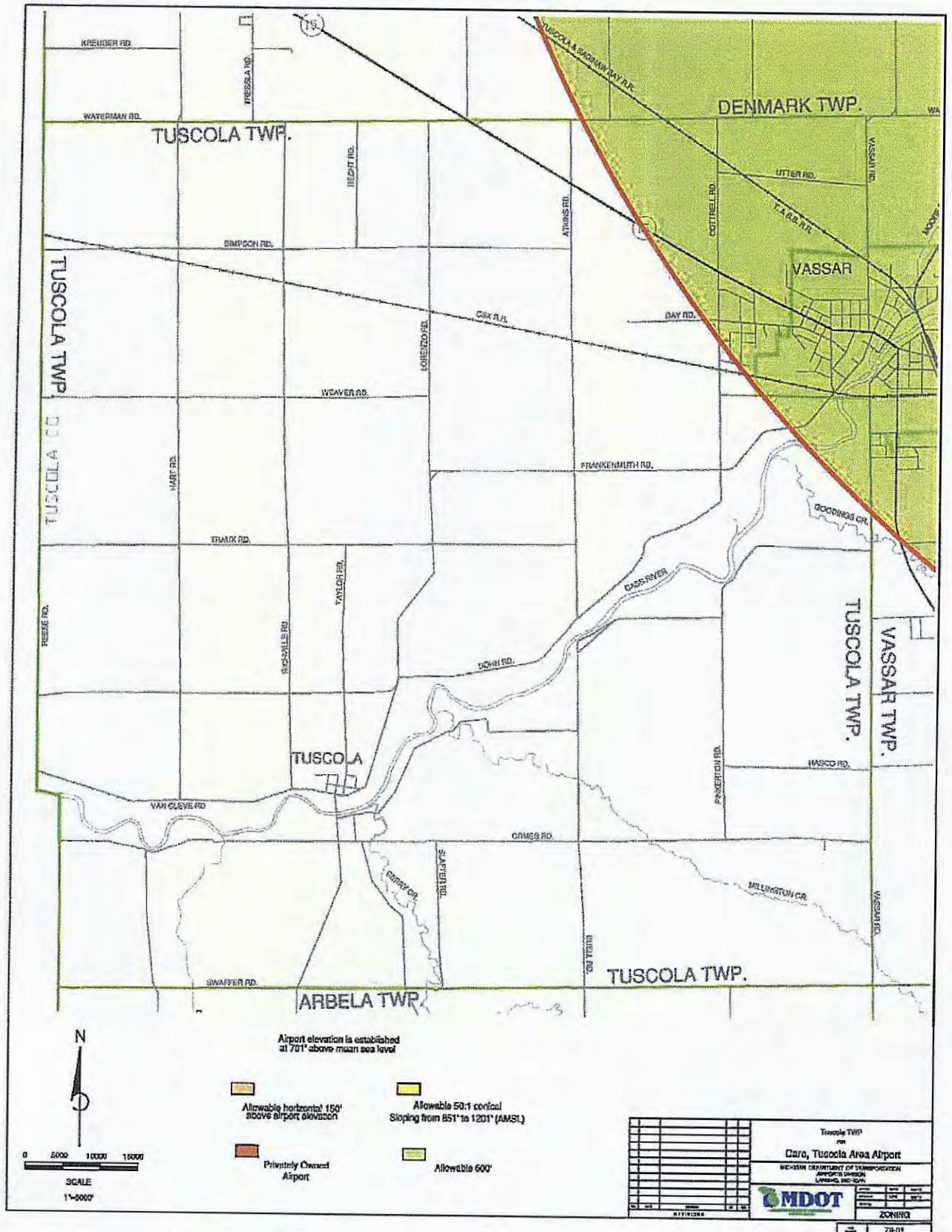
INDIANFIELDS TOWNSHIP



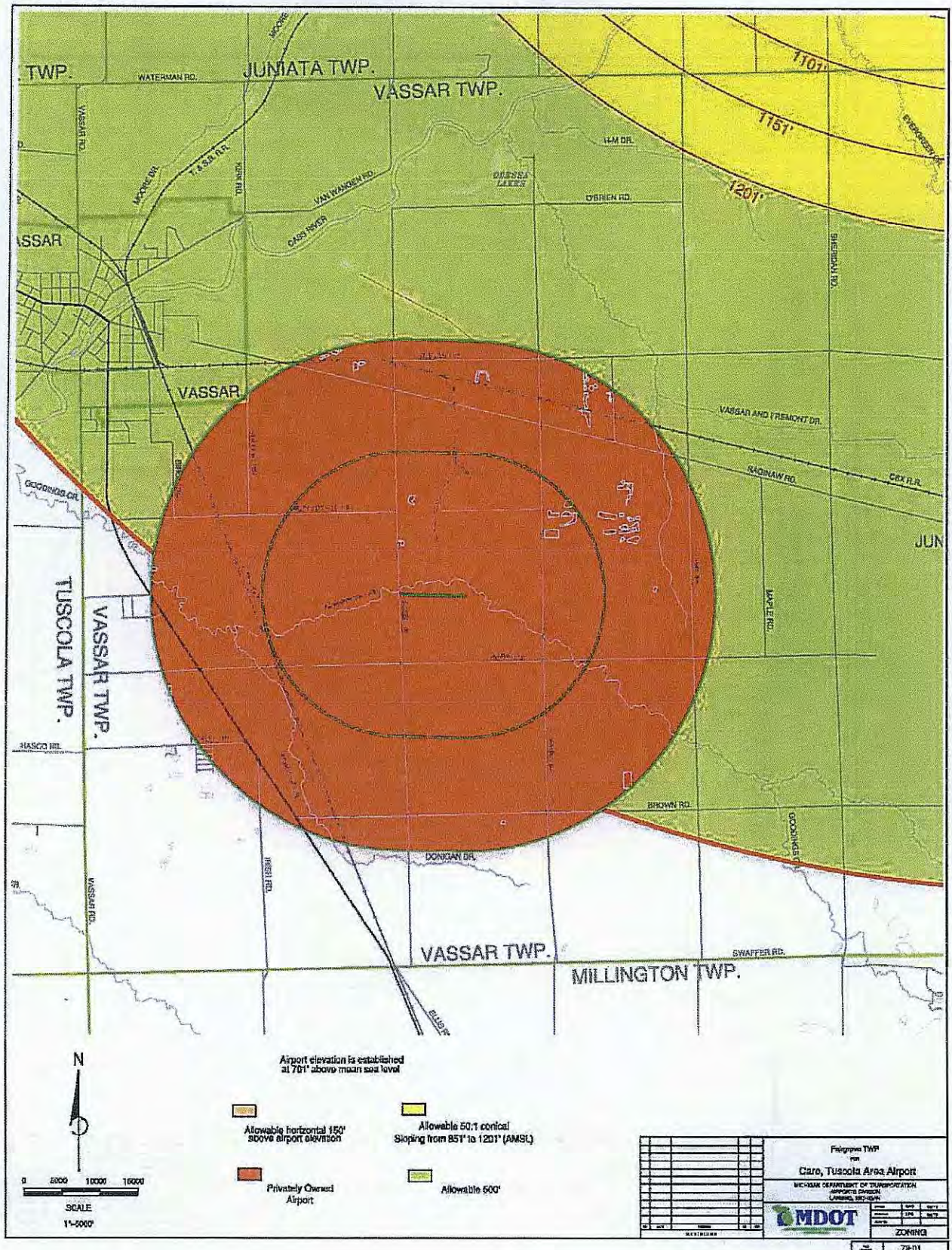
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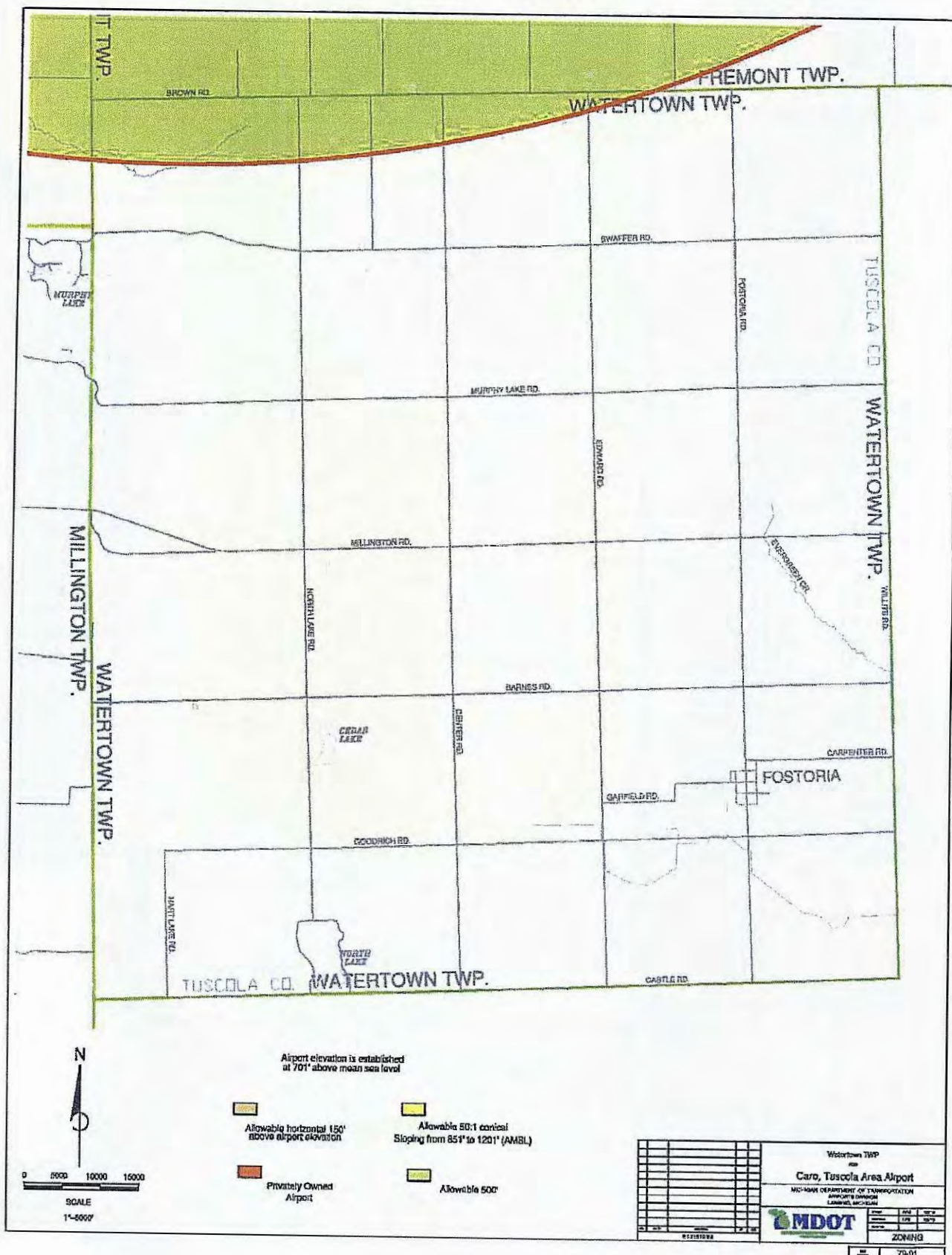
TUSCOLA TOWNSHIP

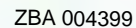


VASSAR TOWNSHIP



WATERTOWN TOWNSHIP

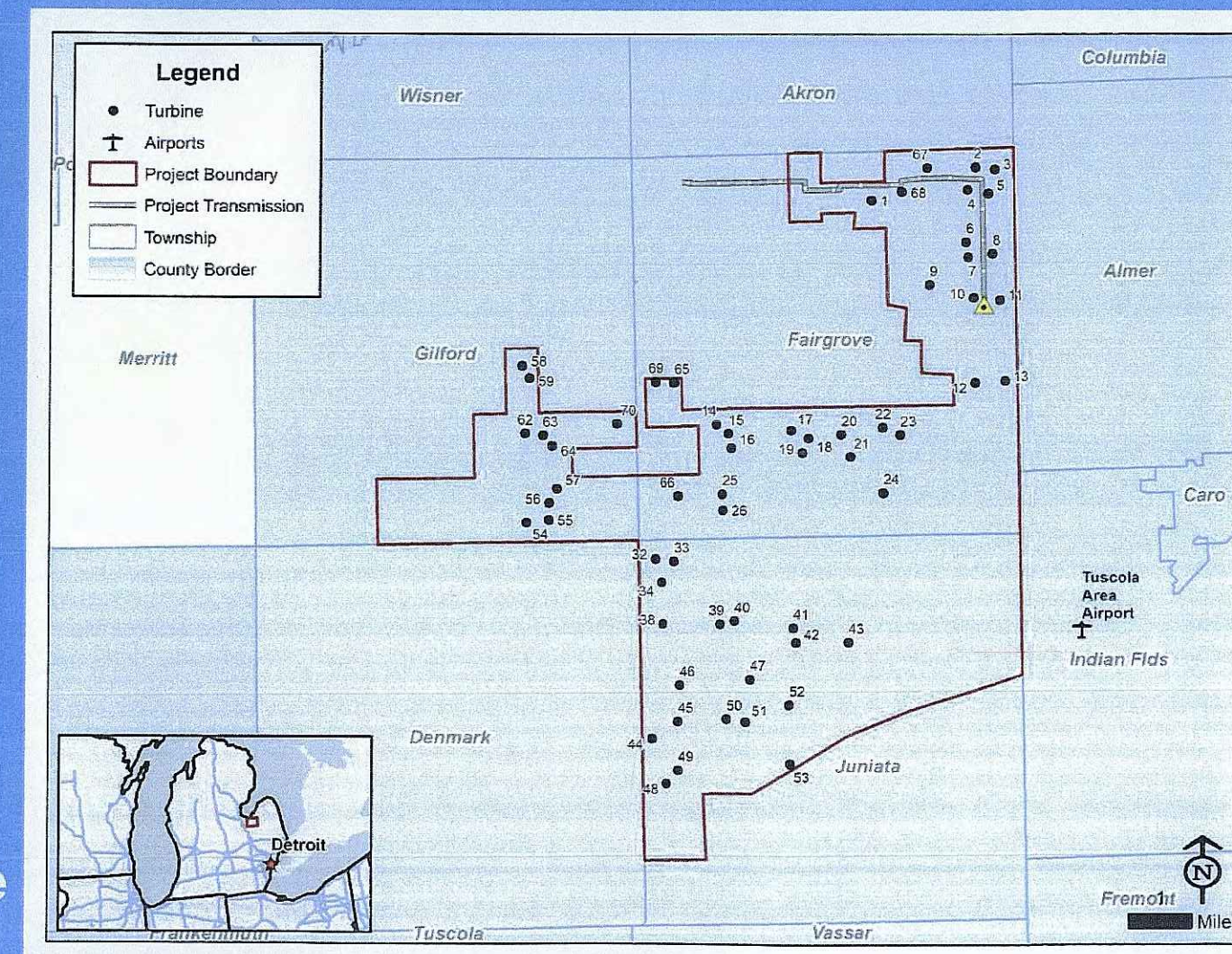




The Pegasus Wind Energy Center spans three townships in Tuscola County; Juniata, Fairgrove, and Gilford

Pegasus Wind Energy Center

- ▶ A proposed 151.1 megawatt, 60-turbine wind project
 - ▶ Fairgrove township - 31 turbines
 - ▶ Juniata township - 19 turbines
 - ▶ Gilford township - 10 turbines
- ▶ Will generate enough electricity to power 70,200 homes
- ▶ ~\$36 million in property taxes from Pegasus Wind
 - ▶ ~\$12 million in tax revenue to your County
 - ▶ ~\$17 million available to Community Schools
 - ▶ ~\$4.1 million to Fairgrove
 - ▶ ~\$2.2 million to Juniata
 - ▶ ~\$600k to Gilford
- ▶ In addition to the millions of tax dollars received from the Tuscola Bay and Tuscola II Wind projects

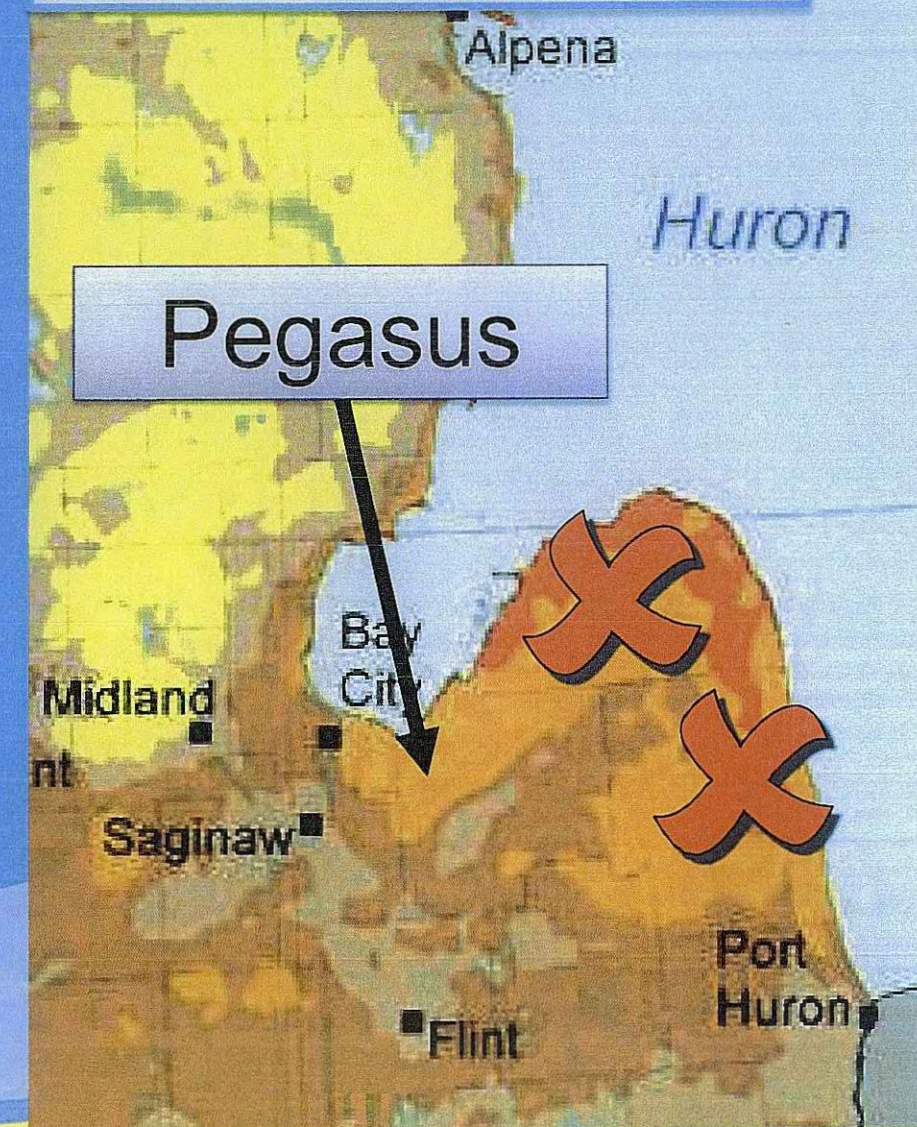


Why are we here?

The union of land, wind, transmission, customer, and local law

- ▶ **Projects can only be effectively sited where:**
 - » The wind blows
 - » Nearby available transmission
 - » Willing landowners and local land use approvals
 - » Competitive economics (Customer willing to buy)
- ▶ **Unique location where all of the above meet**
- ▶ **Project would not impact safety and utility of airport**

Wind Speed Map



INCA
ENERGY

Airport and Project will Coexist

Protection of Airport + Benefits to the Community = Win/Win for All

All Federal,
State, and
Local
Approvals

Approaches
protected for
all future
plans

FAA affirmed no
adverse impact to
the safety and
efficiency of the
airport

**\$36
Million**

County, School, and
Township taxes

**400+
Landowners
Supplemental
Income**

RECEIVED by MSC 8/30/2023 9:43:16 AM

TUSCOLA COUNTY, MICHIGAN

WIND ENERGY FACILITY

POWER PURCHASE AGREEMENT

between

**MICHIGAN PUBLIC POWER AGENCY
as Purchaser**

and

PEGASUS WIND, LLC

as Seller

dated as of

August 11, 2017

approvals required by the Michigan Department of Environmental Quality), engineering, construction and operation of the facilities. This assumption of risk by the Seller includes the applicability or availability of Production Tax Credits or any other federal or state production tax credits.

(b) Other than the right and obligation to buy Purchased Energy, Environmental Attributes associated with such Purchased Energy and Purchaser's Allocated Capacity from Seller in accordance with the provisions of this Agreement, this Agreement shall not be interpreted to create any rights in the Wind Project in favor of Purchaser, and Purchaser hereby disclaims, any other right, title or interest in any part of the Wind Project.

(e) Seller shall pay, or cause to be paid, all taxes on or with respect to the production and delivery of Energy pursuant to this Agreement arising prior to the Delivery Point (including taxes related to the ownership and/or operation of the Wind Project and income derived therefrom). Purchaser shall pay, or cause to be paid, all taxes on or with respect to Energy delivered pursuant to this Agreement at and from the Delivery Point (including all sales, use, excise or other similar taxes on the purchase from Seller). Each Party shall use commercially reasonable efforts to implement and administer the provisions of this Agreement in accordance with the intent of the Parties to minimize all taxes so long as neither Party is materially adversely affected by such efforts.

2.3 *Construction of the Wind Project.*

(a) Seller shall use commercially reasonable efforts to achieve the Construction Milestones set forth in Exhibit E and cause the Commercial Operation Date to occur no later than the Commercial Operation Milestone Date.

(b) In the event that the Commercial Operation Date does not occur on or prior to the Commercial Operation Milestone Date, subject to extension as provided in Section 2.3(b)(iii), Seller shall pay damages to Purchaser on account of such delay ("Delay Damages") as specified below; provided, however, that in no event shall the aggregate amount of Delay Damages payable by Seller exceed [REDACTED]

(i) Seller shall pay Delay Damages in an amount equal to [REDACTED]

(ii) Delay Damages shall begin to accrue on the day after the Commercial Operation Milestone Date and shall continue to accrue until the Commercial Operation Date is achieved or until this Agreement is terminated pursuant to Section 3.4, subject to the aggregate limitation provided for above. Delay Damages shall be payable in lieu of actual damages accrued for the period during which Delay Damages are assessed. The Parties acknowledge that the Delay Damages are difficult or impossible to determine, that otherwise obtaining an adequate remedy is inconvenient, and that the foregoing liquidated damages constitute a reasonable approximation of the harm or loss, and not a penalty. All Delay Damages shall be cumulative.

(iii) The Commercial Operation Milestone Date shall be extended as necessary, up to December 31, 2019, if Seller has not obtained an executed

Interconnection Agreement and all zoning approvals, environmental approvals, permits and other governmental approvals necessary to construct and operate the Wind Project in the manner contemplated by this Agreement notwithstanding Seller's commercially reasonable efforts. Seller shall keep Purchaser apprised of the construction progress. Seller shall notify Purchaser as soon as possible of the need to extend the Commercial Operation Milestone Date.

(c) In the event that the Commercial Operation Date does not occur on or prior to the date 180 calendar days after the Commercial Operation Milestone Date, subject to extension as provided in Section 2.3(b)(iii), Purchaser shall have the absolute and unconditional right, but not the obligation, to terminate the Agreement upon ten (10) Business Days prior written notice to Seller. Except as otherwise provided in this Section 2.3(c), Purchaser's right to terminate the Agreement pursuant to this Section 2.3(c) shall not be affected, diminished or modified, by any pre-Commercial Operation Date Force Majeure Events that may affect Seller; provided, Purchaser's termination right pursuant to this Section 2.3(c) shall expire on the Commercial Operation Date. If Purchaser terminates the Agreement pursuant to this Section 2.3(c) due to Seller's failure to achieve the Commercial Operation Date, then:

(i) Seller shall pay Purchaser Delay Damages through the effective date of termination, subject to the limit thereon provided for in Section 2.3(b), to the extent such Delay Damages have not been previously paid by Seller, and

(ii) such termination and right to the payments described in Section 2.3(b) shall be Purchaser's sole and exclusive remedy for Seller's failure to achieve Commercial Operation of the Wind Project for reasons other than Force Majeure.

2.4 *Purchaser's Failure to Accept Delivery of Energy.*

In the event that Purchaser fails to accept delivery of all of the Energy tendered at the Delivery Point by Seller that Purchaser is obligated to receive as provided herein for any reason other than due to a Force Majeure Event that prevents such acceptance pursuant to Section 8.1 or the proper exercise by Purchaser of its suspension rights pursuant to Section 3.4(c)(ii), then Purchaser shall pay to Seller as liquidated damages an amount equal to the positive difference, if any, between (i) the amount that would have been payable by Purchaser to Seller hereunder if such tendered Energy had been accepted by Purchaser; and (ii) the net amount, if any, that Seller, using commercially reasonable efforts under the circumstances, actually realizes through remarketing of such Energy to Persons other than Purchaser, *provided* that in the event Seller is unable to remarket such Energy, then the net amount described in clause (ii) shall be [REDACTED] and the damages owed by Purchaser shall also include the then applicable amount of the Production Tax Credit (on a per MWh basis) on an After-Tax Basis for each MWh of such Energy that Seller was unable to remarket. The damages provided in this Section 2.4 shall be the sole and exclusive remedy of Seller for any failure of Purchaser to accept delivery of Energy that it is required to accept hereunder.

Fairgrove Township Planning Commission

Special Land Use Permit #: SLUP01b-2017 approved with conditions on December 20, 2017, and amended on February 22, 2018 and June 21, 2018 (*This permit supersedes and replaces SLUP01-2017*)

Applicant: Pegasus Wind LLC, as represented by NextEra Energy Resources (Juno Beach, FL)

Purpose of Request: Special Land Use Permit application submitted by NextEra Energy Resources requesting the construction of a Utility Grid Wind Energy System comprised of 34 wind turbine locations (including two alternates), access roads, an underground electrical power collection system, an overhead transmission line, a project substation, and ancillary facilities, to be located in Sections 1 through 6, Sections 11 through 14, Sections 23 through 29, and Sections 31 through 35 of Fairgrove Township, as indicated in the Special Land Use Permit application submitted on November 3, 2017, with revisions through November 22, 2017, and the Special Land Use Permit amendments submitted on January 25, 2018 and on April 18, 2018. The participating parcels in Fairgrove Township are listed in this permit document. The public hearing with the Planning Commission to review the application was held on December 20, 2017, and the second public hearing to review the application amendment was held on February 22, 2018, and the third public hearing to review the application's second amendment was held on June 21, 2018. The proposal is called the Pegasus Wind Energy Center and each turbine will have a nameplate capacity of 2.5 MW or 2.3 MW.

Decision and Motion by the Planning Commission: The Special Land Use Permit for a Utility Grid Wind Energy System comprised of 34 wind turbine locations (including two alternates), access roads, an underground electrical power collection system, an overhead transmission line, a project substation, and ancillary facilities as described in the Pegasus Wind application, submitted by NextEra Energy Resources on November 3, 2017, and Pegasus Wind application amendment submitted on January 25, 2018 and another amendment submitted on April 18, 2018, which satisfactorily addresses the requirements of Sections 706 and 708 of the Fairgrove Township zoning ordinance, was approved with the following conditions:

1. Prior to the issuance of construction permits:
 - a. Upon completion of a mutually acceptable host-community agreement which addresses the taxation and assessment of the wind energy improvements, including the appropriate cost multiplier table as will be defined by the host community agreement for use in assessing the improvements and,
 - b. Provide the Township with signed permits approving the turbine locations listed in the January 22nd motion for the Tuscola Area Airport.
2. Prior to construction:
 - a. Submittal of information and approval or appropriate documentation to ensure conformance to Certifications per Section 708(d)(8),
 - b. Submittal of summary list of the type and quantity of all materials used in operation per Section 708(d)(13),
 - c. Submittal of FAA documentation of no hazard letters to ensure conformity to visual impact Section 708(d)(21),
 - d. Submittal of fixed broadcast, retransmission, RTK, radio, television, or wireless phone study showing the Pegasus project does not produce any interference with signal or reception. If there is interference, the Applicant shall provide a replacement signal to the affected party per Section 708(d)(24),
 - e. Finalize surety bond for decommissioning agreement per Section 708(d)(26), and
 - f. Provide Planning Commission copies of any Federal Aviation Administration (FAA) applications and correspondence indicating implementation requirements, if any, for the aircraft detection lighting system (ADLS).
3. Prior to commercial operation, the Applicant will restore any damaged road to the same or better condition prior to the beginning of construction of the Pegasus Wind Project.

4. Post Construction:
 - a. Annual submission of insurance policy certificates to ensure conformance with Section 708(d)(5),
 - b. Annual submittal of Pegasus Wind Project complaints to ensure conformance with Section 708(d)(27),
 - c. Within 60 days after commercial operation, submit a sound modeling report that conforms to Section 708(d)(18)(h), and
 - d. Within one year after commercial operation, submit as-built drawings of the Utility Grid Wind Energy System, in electronic PDF and hard copy formats, including locational data of site features that can be read in both CAD and GIS mapping systems.
5. The Special Use Permit that was approved on December 20, 2017, and subsequent amendments approved on February 22, 2018 and on June 21, 2018, is valid for one year per the requirements of Section 705(4) of the Fairgrove Township Zoning Ordinance requiring construction of the Pegasus Wind Project to commence prior to June 21, 2019.

Vote: The motion carried by a roll call vote of the members voting, granting conditional approval (the conditions are noted above) for a Special Land Use permit.

Signed: Bruce Turner Date: July 9 2018
 Bruce Turner, Zoning Administrator

Fairgrove Township Planning Commission
SLUP01b-2017 (Supersedes and replaces SLUP01-2017.)

List of 165 participating parcels properties from the 12/20/17 public hearing:

010-001-000-0100-00	010-009-000-0100-00	010-023-000-0500-01	010-028-000-0500-00
010-001-000-0300-01	010-009-000-0200-00	010-023-000-0600-00	010-028-000-0700-00
010-001-000-0300-02	010-010-000-0100-00	010-023-000-0700-01	010-028-000-1000-00
010-001-000-0400-00	010-010-000-0600-00	010-024-000-0100-01	010-029-000-0300-01
010-001-000-1650-00	010-010-000-0800-00	010-024-000-0300-01	010-029-000-0300-03
010-001-000-1700-00	010-010-000-0900-00	010-024-000-1100-00	010-029-000-0300-04
010-001-000-1800-01	010-011-000-0300-00	010-024-000-1200-00	010-029-000-0500-00
010-001-000-1900-00	010-012-000-0100-00	010-024-000-1300-01	010-029-000-0600-01
010-001-000-2000-01	010-012-000-0200-03	010-024-000-1400-01	010-029-000-0600-02
010-001-000-2000-02	010-012-000-0400-00	010-024-000-1400-02	010-029-000-0800-00
010-002-000-0100-00	010-012-000-0600-00	010-025-000-0100-00	010-029-000-1000-01
010-002-000-0175-00	010-012-000-0700-00	010-025-000-0400-00	010-029-000-1100-02
010-002-000-0200-00	010-012-000-0800-01	010-025-000-0500-00	010-029-000-1200-00
010-002-000-0450-00	010-012-000-0800-02	010-025-000-0700-00	010-029-000-1500-00
010-002-000-0600-00	010-012-000-0900-02	010-025-000-0750-00	010-029-000-1700-00
010-002-000-0700-00	010-012-000-1000-00	010-025-000-0800-00	010-029-000-1900-00
010-002-000-1000-00	010-012-000-1100-02	010-025-000-2800-00	010-032-000-0200-00
010-002-000-1100-00	010-013-000-0100-01	010-025-000-2900-00	010-032-000-0600-00
010-002-000-1600-00	010-013-000-0300-00	010-025-000-3900-02	010-032-000-0900-03
010-002-000-1800-01	010-013-000-0400-01	010-026-000-0300-01	010-032-000-0900-04
010-002-000-1900-00	010-013-000-0500-00	010-026-000-0300-02	010-032-000-1500-01
010-003-000-0200-00	010-013-000-0700-00	010-026-000-0500-01	010-032-000-1600-00
010-003-000-0300-00	010-013-000-0800-02	010-026-000-0500-02	010-033-000-0100-00
010-003-000-0700-00	010-013-000-1000-00	010-026-000-0600-01	010-033-000-0700-00
010-003-000-0750-00	010-014-000-0100-00	010-026-000-0700-00	010-033-000-0800-01
010-003-000-0800-00	010-014-000-0300-01	010-026-000-0800-00	010-034-000-0100-00
010-003-000-0900-00	010-014-000-0300-02	010-026-000-1100-00	010-034-000-0500-00
010-004-000-0300-00	010-014-000-0400-00	010-026-000-1400-00	010-034-000-0700-00
010-004-000-0400-00	010-014-000-0500-01	010-026-000-1500-01	010-034-000-0800-00
010-004-000-0600-01	010-014-000-0500-03	010-027-000-0100-00	010-034-000-1000-01
010-004-000-0900-03	010-014-000-0600-00	010-027-000-0150-00	010-035-000-0600-00
010-004-000-1600-00	010-014-000-0700-00	010-027-000-0200-01	010-035-000-0850-00
010-004-000-1700-00	010-015-000-0300-01	010-027-000-0200-02	010-035-000-0900-00
010-004-000-1800-00	010-015-000-0300-02	010-027-000-0300-00	010-035-000-1200-00
010-004-000-1900-00	010-015-000-0700-00	010-027-000-0400-00	010-035-000-1400-00
010-004-000-2300-00	010-015-000-1000-03	010-027-000-0500-00	010-036-000-0700-02
010-005-000-0200-01	010-020-000-1600-00	010-027-000-0600-00	010-036-000-1000-00
010-005-000-0300-01	010-021-000-0300-00	010-027-000-0700-00	010-036-000-1500-00
010-005-000-0500-00	010-021-000-0700-00	010-027-000-0900-00	010-036-000-1800-00
010-005-000-0600-00	010-023-000-0100-00	010-028-000-0100-00	
010-005-000-1000-01	010-023-000-0300-00	010-028-000-0300-00	
010-006-000-0300-01	010-023-000-0400-00	010-028-000-0400-00	

List of 2 participating parcels properties from the 2/22/18 public hearing:

010-023-000-0800-00 010-029-000-0100-01

List of 10 participating parcels properties from the 6/21/18 public hearing:

010-026-000-0600-01	010-028-000-0300-00	010-031-000-0100-00	010-032-000-0900-03
010-026-000-0700-00	010-028-000-0700-00	010-031-000-0400-00	
010-026-000-0800-00	010-028-000-1000-00	010-031-000-0800-01	

Fairgrove Township

Tuscola County, Michigan

5002 Center Street | Fairgrove | Michigan | 48733

(989) 693-6771

www.fairgrovetwp.org

Gilford Township Planning Commission

Special Use Permit #: SUP01-2018 approved with conditions on August 8, 2018.

Applicant: Pegasus Wind LLC, as represented by NextEra Energy Resources (Juno Beach, FL)

Purpose of Request: Special Use Permit application submitted by Pegasus Wind, LLC (NextEra Energy Resources, LLC is the parent company), proposing a Utility Grid Wind Energy System comprised of four wind turbine locations, access roads, an underground electrical power collection system, and ancillary facilities, to be located in Sections 35 and 36, as indicated in the Special Use Permit application submitted on June 21, 2018. The participating parcels in Gilford Township are listed in this permit document. The public hearing with the Planning Commission to review the application was held on August 8, 2018. The proposal is called the Pegasus Wind Energy Center and consists of four GE 2.5-116 turbines with a hub height of 295.3 feet, an overall height of 485.6 feet, and a nameplate capacity of 2.5 megawatts (MW).

Decision and Motion by the Planning Commission: The Special Use Permit for a Utility Grid Wind Energy System comprised of four wind turbine locations, access roads, an underground electrical power collection system, and ancillary facilities as described in the Pegasus Wind application, submitted by NextEra Energy Resources on June 21, 2018, and satisfactorily addresses the requirements of Sections 7.2(g)(1) and 7.28(d) of the zoning ordinance, was approved with the following conditions:

1. Section 7.28 (d)(4) Insurance Applicant shall agree to send updated insurance policy certificates to the Township on an annual basis.
2. Section 7.28 (d)(7) Certifications Applicant shall demonstrate all appropriate permits are being pursued and to provide the Planning Commission with an estimated timeframe for obtaining approvals on said permits, including anticipated dates of permit issuance, if applicable, from MDOT Tall Structures and the Tuscola Area Airport. A copy of all permits shall be furnished to the Township planning consultant when issued.
3. Section 7.28 (e)(4) Sound Pressure Level Applicant shall hire a third-party consultant to complete a post construction study and be provided to the Township within 60 days of commercial operation.
4. Section 7.28 (e)(5) Construction Codes, Towers, and Interconnection Standards Applicant shall comply with all applicable construction, electric code, and local building permit requirements, as well as provide documentation of no hazard from the FAA and copies of any FAA applications and correspondence indicating implementation requirements, if any, for the aircraft detection lighting system (ADLS). No building permit may be issued prior to the issuance of a zoning permit.
5. Section 7.28 (e)(12) Decommissioning Applicant shall resolve decommissioning requirements and the decommissioning agreement prior to construction.
6. Section 7.28 (e)(13) Complaint Resolution Prior to construction, the applicant shall agree to provide the Township Zoning Administrator with quarterly reports on the conflict resolution process.
7. The applicant shall execute a mutually acceptable host-community agreement with Gilford Township which addresses the taxation and assessment of the wind energy improvements, including the appropriate cost multiplier table as will be defined by the host community agreement for use in assessing the improvements, and shall be fully executed prior to the issuance of building permits pertaining to the construction of any component of the Utility Grid Wind Energy System.
8. Any approved Special Use Permit is valid for one year per the requirements of Section 7.2(d) of the zoning ordinance requiring construction of the Pegasus Wind project to commence prior to 8/8/19.
9. The Applicant shall restore any damaged road to the same or better condition that existed prior to the beginning of construction of the Pegasus Wind Project as determined by the Tuscola County Road Commission.
10. Within one year after commercial operation, submit as-built drawings of the Utility Grid Wind Energy System, in electronic PDF and hard copy formats, including locational data of site features that can be read in both CAD and GIS mapping systems.

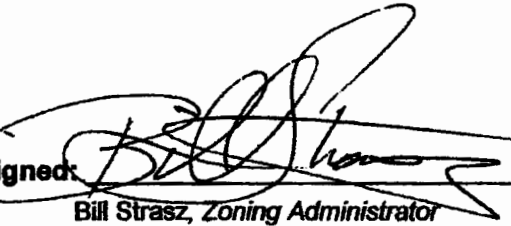
11. The applicant shall work with Mr. Randy Morley to adjust the location of turbine 67 while ensuring compliance with the zoning ordinance and without affecting the location of the other turbines in this project.
12. The applicant shall pursue participation agreements with all property owners in Gilford Township and document that action by furnishing a letter to each township resident with a proof of mailing to be filed with the Township Clerk within the next 30 days from this date

Participating Parcels:

012-033-000-0400-00
 012-033-000-1600-00
 012-034-000-1600-02
 012-034-000-1600-03
 012-034-000-1600-05
 012-034-000-1650-00
 012-034-000-2100-02
 012-034-000-2100-03
 012-034-000-2200-00
 012-034-000-2300-00
 012-034-000-2800-03
 012-034-000-3100-00
 012-035-000-0100-00
 012-035-000-0400-00

012-035-000-2500-01
 012-035-000-3100-00
 012-035-000-3200-00
 012-035-000-3250-00
 012-035-000-3400-00
 012-036-000-0100-01
 012-036-000-0120-01
 012-036-000-0200-05
 012-036-000-0300-00
 012-036-000-0400-00
 012-036-000-0500-00
 012-036-000-0700-02
 012-036-000-1000-00

Vote: The motion carried by a roll call vote of four (4) Planning Commission members voting yes, with one absence, granting conditional approval (the twelve conditions are noted above) for a Special Use Permit.

Signed: 
 Bill Strasz, Zoning Administrator

Date: 10/4/18

Gilford Township
 Tuscola County, Michigan
 6230 Gilford Road | Fairgrove | Michigan | 48733
 (989) 693-6394
 www.gilfordtownship.com

**JUNIATA TOWNSHIP
DECISION OF PLANNING COMMISSION**

Special Land Use Permit

1. Permit # 18-01

2. Decision Date – 1-13-2018

3. Applicant – Pegasus Wind LLC, a subsidiary of NextEra Energy Resources LLC

Address – 700 Universe Blvd. Juno Beach, FL 33408 ATT: Erico Lopez Phone – 617-372-2208

4. The following Representatives of Pegasus Wind LLC related the plans for this proposed project.

Erico Lopez - Project Manager

Mark Trumbauer – Community Development Lead

Richard Lampeter – Sound Engineer, Epsilon Associate, Inc.

Jeff Damen – Construction Manager, NextEra Energy Resources

Daniel Ettinger – Attorney, Warner Norcross & Judd

Bourke Thomas – Environmental Consultant, Atwell

Tim Jones – Engineering Consultant, Atwell

5. Request - A special land use permit (SLUP) for the purpose of constructing a commercial wind energy system as part of the Pegasus Wind Energy Center.

6. Property Description for SLUP - property location of site plans

014-005-000-0500-00, 014-006-000-0550-00, 014-006-000-0400-01, 014-006-000-1100-00,
014-005-000-1000-01, 014-005-000-1200-00, 014-004-000-0900-00, 014-003-000-1900-00,
014-007-000-0500-00, 014-008-000-0400-00, 014-008-000-0100-00, 014-009-000-0800-00,
014-009-000-1100-00, 014-010-000-0600-00, 014-010-000-0100-00, 014-010-000-1400-02,
014-019-000-0600-00, 014-018-000-1600-00, 014-018-000-0300-00, 014-017-000-0100-01,
014-019-000-1000-00, 014-019-000-1100-01, 014-017-000-1400-00, 014-017-000-1300-01
014-016-000-0800-00, 014-015-000-1100-02, 014-015-000-1600-00, 014-021-000-1700-05

The turbines and associated infrastructure are located on the parcels set forth in Pegasus Wind, LLC's SLUP Application and Site Plans.

7. Documents Submitted by Applicant –

A. Application Binder with Site Plans dated November 3, 2017

B. Application Form with required fee dated November 3, 2017

C. Complaint Log from Fairgrove Township 12/2013 to 9/20/2017

D. 50 Scale Site Plans dated 11/27/2017 (submitted on 11/28/2017)

E. Updated Site Plans with updated flicker and sound reports submitted on 12/28/2017

F. January 2, 2018 Rebuttal Letter and Exhibits

1. Set Back Considerations, General Electric

2. Richard Lampeter INCE, Credentials

3. Richard Lampeter memorandum addressing noise levels, vibration, and shadow flicker.

4. Loren D. Knopper Ph.D, Credentials
5. Loren D. Knopper comments related to health effects of wind turbines.
- G. Site Plan Setback Review listing distances of turbines to non-participating parcels and distances on non-participating receptors to the 30 hour shadow contour line
 1. Excel spreadsheet one of lists
- H. Shapefiles of turbine locations, sound modeling contours and shadow modeling contours.
- I. January 12 Letter and documentation, Effects of Trees on Wind Flow Variability and Turbulence
 1. Enlarged tree removal map.
8. Information considered by the Planning Commission
 - A. All submitted documents from the applicant
 - B. Townley Engineering's Analysis of Application meeting requirements of the Juniata Township Commercial Wind Ordinance
 - C. The Juniata Township Zoning Ordinance
 - D. The Juniata Township Commercial Wind Ordinance
 - E. Information and materials provided by citizens of Juniata Township and other members of the public prior to and at the public hearing for the SLUP.
9. Finding of fact in regards to the SLUP Decision
 - A. That a site plan review and special land use initial application was made by Pegasus Wind, LLC and submitted to the Planning Commission on November 3, 2017.
 - B. That the application of Pegasus Wind, LLC was submitted with the proper application fee.
 - C. That the application of Pegasus Wind, LLC contained a site plan meeting necessary requirements for review by the Planning Commission.
 - D. That the Planning Commission held a public hearing and a subsequent public meeting in accordance with the Juniata Township Zoning Ordinance Section 606, and the Michigan Zoning Enabling Act on January 3, 2018.
 - E. That pursuant to the authority and responsibility set forth in Juniata Township Ordinance, Section 804 (1) and (2), the Planning Commission hereby finds that the application submitted by Pegasus Wind, LLC along with any supplemental materials meets the requirements of the general standards for special land use under Section 604 (2)(a) and the discretionary considerations under Section 604(2)(b) of the Juniata Township Zoning Ordinance as well as the specific standards set forth in sections 2-4 of the Juniata Township Commercial Wind System Energy Ordinance.
 - F. That the Planning Commission hereby finds that the Pegasus Wind, LLC site plan conforms with the general requirements for site plans under Section 306(3) of the Juniata Township Zoning Ordinance and the specific standards set forth under Section 3 of the Juniata Commercial Wind Energy System Ordinance.
 - G. And that the findings herein made by the Planning commission are based on the information contained within the application of Pegasus Wind, LLC and any supplemental information

provided thereto, the requirements of the Juniata Township Commercial Wind Energy System Ordinance and the requirements of the Juniata Township Zoning Ordinance, a review of the site plan, material provided by Pegasus Wind, LLC, the engineering report and opinions of Townley Engineering, information provided by the public prior to the hearing of January 3, 2018, and comments of the public provided at the public hearing on January 3, 2018.

10. Decision – The Special Land Use Permit requested by Pegasus Wind LLC was approved with conditions.

11. Conditions –

A. Pegasus Wind, LLC shall implement the complaint resolution process described in its application. A report of all complaints and resolutions to complaints shall be filed with the Township monthly for the first year and quarterly thereafter.

B. Prior to construction, Pegasus Wind, LLC shall submit a summary chart derived from the Manufacturers' Material Safety Data Sheets showing the type and quantity of all materials planned to be used at the site during operation.

C. Pegasus Wind, LLC shall ensure that any damage to a public road located within the Township resulting from the construction, maintenance, or operation of the Pegasus Wind Energy Center will be repaired at the expense of Pegasus Wind, LLC pursuant to the Tuscola County Road Commission requirements.

D. Pegasus Wind, LLC shall comply with all applicable local, county, state and federal requirements.

E. Prior to construction, Pegasus Wind, LLC shall enter into a mutually agreeable decommissioning agreement with the township consistent with the requirements of the Juniata Township Commercial Wind System Ordinance and the decommissioning summary submitted by Pegasus Wind, LLC with its application.

F. Pegasus Wind, LLC shall submit a bond for the purpose of decommissioning a wind turbine or subset of wind turbines. The amount of said bond shall be equivalent to the highest bond contracted by NextEra in the state for tower decommissioning and revisited annually.

G. Pegasus Wind, LLC shall ensure wind tower sites shall meet a neat and tidy appearance. Overgrowth and weeds shall not exceed 8 inches. Refuse shall not accumulate at the site.

H. Pegasus Wind, LLC shall provide an annual compliance review to include a proof of liability policy, decommissioning bond, complaint log, and any modification to Pegasus Wind Energy Center.

I. In the event of sale, Pegasus Wind, LLC shall provide notification of sale, name of purchaser and contact information for individuals responsible for the duties required by Special Land Use Permit, within 30 days of the proposal. Purchaser must agree to all conditions, agreements and promises presented by Pegasus Wind, LLC in writing to Juniata Township.

J. Pegasus Wind, LLC shall provide copies of all incident reports to the designated Juniata

Township contact person.

K. Pegasus Wind, LLC shall increase liability to \$2 million per occurrence, \$5 million in aggregate, deductible to be no more than \$5,000. Juniata Township shall be named as an additional insured party. The amount of liability insurance shall be reviewed bi-annually.

L. Pegasus Wind LLC shall mitigate ice throw to comply with the Juniata Township Commercial Wind Energy System Ordinance by interrupting turbine operations.

M. Pegasus Wind, LLC shall return the property on which the lay down yard is located to its original state.

N. The application material, associated amendments, and additions, shall be considered the terms of a contract between Pegasus Wind LLC and Juniata Township. Any violation of terms will be considered a violation of the ordinance.

O. Pegasus Wind, LLC shall provide as-built drawings once operational.

P. Pegasus Wind, LLC shall mitigate interference with signal transmission or reception should it occur.

Q. Pegasus Wind, LLC shall institute a post construction sound measurement program to ensure compliance at the property line.

12. Reasons for the decision - The application meets all the requirements of the Juniata Township Zoning Ordinance and The Juniata Township Commercial Wind Energy System Ordinance.

13. No changes were made to the map/drawing/site plan by the Planning Commission.

14. Vote of the Planning Commission Members

Stark

(Yes)

(No)

Miklovic

(Yes)

(No)

Stoick

(Yes)

(No)

Vyse

(Yes)

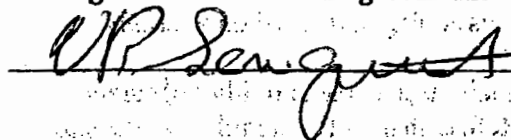
(No)

Sonquist

(Yes)

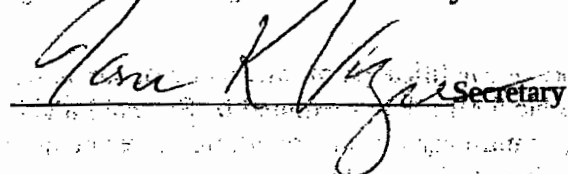
(No)

15. Signature of the Planning Commission Chairman



Chairperson

I, Ione K. Vyse, Secretary of the Juniata Township Planning Commission, certify that on January 13, 2018, the above members did approve the Special Land Use Permit requested. I witnessed the signatures set forth above and attest to the accuracy of this report.

 Secretary

Benjamin M. Doyle
President
Capitol Airspace Group

Capabilities Summary

Twenty-five years of Aviation Experience includes seventeen years of airspace analysis focused on obstruction analysis and terminal instrument procedures. Five years experience supervising and conducting aircraft operations in fixed and tactical military air traffic control facilities in the United States, Germany and Bosnia-Herzegovina. Experience includes tower operations as an active tower controller, training supervisor and Tower Chief at the Wiesbaden Army Airfield Air Traffic Control Tower. Certified as FAA Control Tower Operator (certificate last awarded in 1997).

Experience

2010 to Present

President and Owner, Capitol Airspace Group

Responsible for the overall management of Capitol Airspace Group, an aviation consulting firm focused on providing airspace, obstacle evaluation and instrument procedures design services to airports and private companies.

2009 to 2010

Vice President, Airspace and Obstacle Evaluation

Responsible for JDA Aviation's Airspace and Obstacle Evaluation line of business. Responsibilities included the management of all client projects, technical analysis and airspace mitigation development. Duties included the overall business and fiscal management of the Airspace and Obstacle Evaluation line of business, supporting staff and contractors.

1999 to 2009, Aviation Management Associates, Inc., Alexandria, VA

Director, Airspace Analysis

Responsible for supervising the completion of airspace obstruction studies for client developers, attorneys and architects. Responsibilities include managing all technical and programmatic aspects of Aviation Management's airspace business. These duties require an in-depth knowledge of and experience in air traffic control procedures and air traffic and airspace management.

Airspace

In accordance with Federal Aviation Regulations, provide extensive obstruction analysis of proposed construction throughout the United States. Based on analyses, advise clients on federal filing requirements and file proposed structures which are deemed "obstructions to navigable airspace". Conduct analyses using a host of FAA databases and proprietary airspace models. Responsible for representing client interests during airspace negotiations and appeals with FAA, state and local aviation authorities.

Airspace Models

Responsible for the development and maintenance of all airspace models and tools to support obstacle evaluation and procedure design.

1996 to 1999, 3-58th Aviation Battalion (ATS), U.S. Army, Wiesbaden, Germany***Tower Chief***

Responsible for supervising facility operations to ensure compliance with military and FAA rules and regulations. Responsibilities included supervision of shift supervisors and subordinate controllers while ensuring that all controllers remained at a safe and proficient operational level. Additional responsibilities included setting and enforcing policy dealing with air traffic control operations specific to the airfield and coordinating with associated facilities for standard and non-standard operations.

Training Supervisor

Responsible for planning, scheduling, directing, and supervising facility training for all assigned ATC personnel. Responsibilities included developing local course material, training aids and control scenarios to supplement U.S. Army and FAA training programs. Supervised and conducted classroom and self-study training while ensuring trainee position qualification and recommending trainees for facility rating.

Air Traffic Controller

Provided terminal air traffic control services for U.S., German and military operations. Provided IFR, SVFR and VFR control for local and international, fixed and rotary wing flights in class D airspace. Coordinated with Frankfurt approach Control for IFR arrivals, departures and over-flights. Deployed as Air Traffic Controller during operations in Bosnia-Herzegovina.

1994 to 1996, 304th Military Intelligence Battalion, U.S. Army, Fort Huachuca, AZ***Air Traffic Controller***

Provided terminal air traffic control services at Libby Army Airfield in support of U.S. Army, Air Force, commercial air carrier and general aviation aircraft. Controlled Air Force and Army pilot training flights consisting of precision and non-precision approaches as well as closed traffic on crossed runways. Controlled a mixture of manned and unmanned aircraft within Class D and Class E airspace. Provided IFR, SVFR and VFR control of local and transient aircraft.

Education

Associates Degree, History, Cochise College, Sierra Vista, AZ, 1996

Air Traffic Control Course, U.S. Army Air Traffic Control School, Fort Rucker, AL, 1994

Air load Planning Course, U.S. Air Force, Munich, Germany, 1997

Primary Leadership Development Course, Non-Commissioned Officer Academy, Grafenwoehr, Germany, 1997

Pegasus Wind Project

Tuscola County, Michigan

Airspace Impact Mitigation Analysis

March 30, 2018



Capitol Airspace Group

capitolairspace.com

(703) 256 - 2485

conducted an airspace impact mitigation analysis to determine the likelihood of impacts resulting from the proposed Pegasus wind project. The FAA will likely approve required changes to published procedures if the ultimate airspace impacts are not significant. This study assessed changes to Visual Flight Rules (VFR) traffic pattern airspace, departure procedures, and instrument approach procedures that would maintain their integrity in accordance with the appropriate instrument procedure design criteria while also addressing associated height constraints.

18, the FAA issued notices of presumed hazard (NPH) that indicate the proposed exceed Tuscola Area Airport (CFS) 14 CFR Part 77.17(a)(2) and 77.19 imaginary. Additionally, these wind turbines would be located within VFR traffic pattern airspace port and the proposed Bauer's Field Airport. The wind turbines would also exceed surfaces associated with Tuscola Area Airport instrument departure procedures and ch procedures. These penetrations would require an increase to instrument e minimum climb gradients and instrument approach procedure minimum descent rnative mitigation options are identified and then approved by the FAA.

study indicate that options are available that could allow for the approval of wind at all of the proposed locations. In many cases, changes to VFR traffic pattern may be required due to the aircraft approach categories that currently operate at Tuscola Sawyer's Field. To resolve the impact on instrument departure procedures, the "climb to turning" can be increased in order to preserve the currently published minimum climb gradient. This mitigation option would remove the additional performance requirement greater than standard minimum climb gradient. To resolve the impact on instrument approaches, a stepdown fix can be added to the affected procedure in order to preserve the minimums. This mitigation option would not require additional equipment and development at all of the proposed locations.

impact based on physical airspace height constraints. Impact on communications, surveillance systems must be mitigated separately if identified during FAA aeronautical

Capitol Airspace Group

2023

2023

Methodology

Capitol Airspace studied the proposed project based upon location information contained in FAA aeronautical studies 2018-WTE-16:77-OE. Capitol Airspace used this information to validate the FAA identified airspace impacts as well as identify viable mitigation options that would allow for wind development at the proposed locations and heights. Capitol Airspace evaluated all 14 CFR Part 77 imaginary surfaces, VFR traffic pattern airspace, instrument departure procedures, and instrument approach procedures in accordance with the following documents and data sources:

- 14 CFR Part 77 Safe, Efficient Use, and Preservation of the Navigable Airspace
- FAA Order 7400.2L Procedures for Handling Airspace Matters
- FAA Order 8260.3D United States Standard for Terminal Instrument Procedures
- FAA Order 8260.19H – Flight Procedures and Airspace
- FAA Order 8260.58A United States Standard for Performance Based Navigational (PBN) Instrument Procedure Design
- United States Government Flight Information Publication, US Terminal Procedures
- National Airspace System Resource Aeronautical Data

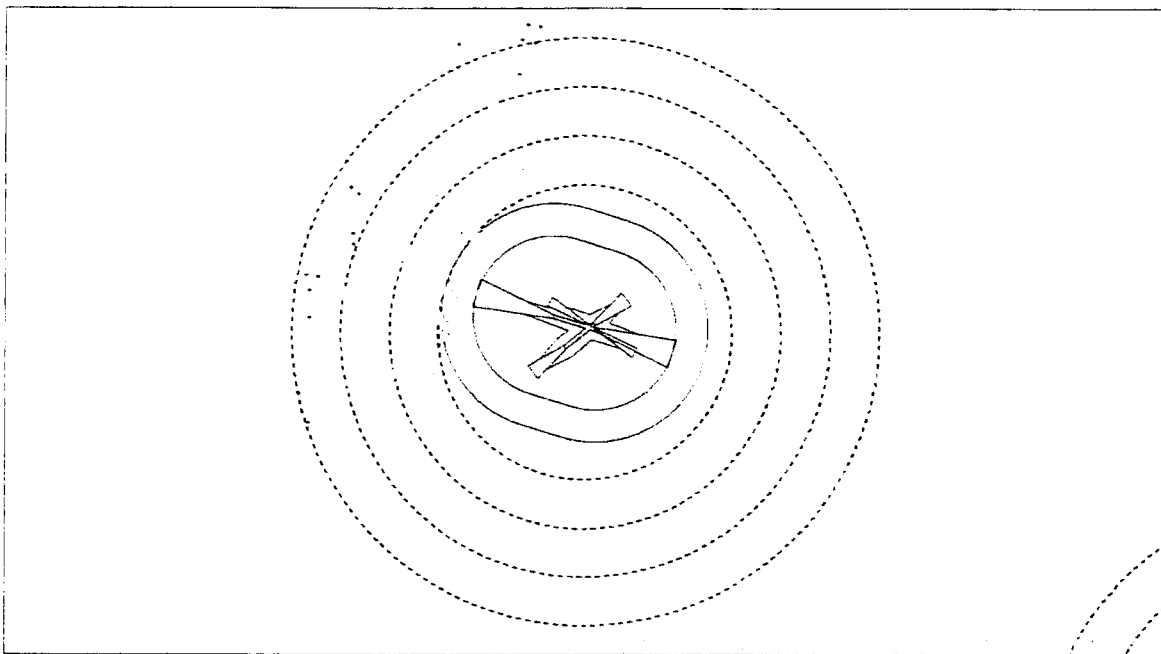


Figure 1: Tuscola Area Airport (CFS) 14 CFR Part 77.17(a)(2) (dashed blue) and 77.19 (solid black) imaginary surfaces; orange points indicate wind turbines that exceed these surfaces

Study Findings

Visual Flight Rules (VFR) Traffic Pattern Airspace

The NPH indicates that a total of 38 wind turbines will be located within VFR traffic pattern airspace.

Tuscola Area Airport

The existing airport reference code (ARC) is B-II. Additionally, an analysis of FAA National Offload Program (NOP) radar track data indicates that only Category A or B aircraft operated at the airport for the period between June 1, 2016 and May 31, 2017.

Runway	Status	Dimensions (length x width)	Surface	Pavement Strength
06-24	Existing	4,302' x 75'	Asphalt	12,500 [single wheel]
13-31	Existing	2,277' x 110'	Turf	N/A - Turf
11-29	Proposed	5,000' x 100'	Asphalt	30,000 [single wheel]

Table 1: Tuscola Area Airport runway physical characteristics

Runway 06/24

21 wind turbines (orange points, *Figure 2*) are located within the Runway 06/24 Category C and/or D VFR traffic pattern airspace (shaded gray, *Figure 2*). Considering the runway's physical characteristics (*Table 1*) and airport's utilization as indicated by NOP data, it is unlikely that this runway supports a significant volume of Category C or D aircraft. All of the proposed wind turbines are located outside of Runway 06/24 Category B VFR traffic pattern airspace (solid blue, *Figure 2*) – as a result, no mitigation should be necessary.

Runway 13/31

13 wind turbines (orange points, *Figure 3*) are located within the Runway 13/31 Category D VFR traffic pattern airspace (shaded gray, *Figure 3*). Due to the turf surface, this runway will not support larger than Category B aircraft. All of the proposed wind turbines are located outside of Runway 13/31 Category B VFR traffic pattern airspace (solid blue, *Figure 3*) – as a result, no mitigation should be necessary.

¹ Tuscola Area Airport, 2017, <https://www.faa.gov/airports/airportinfo/airport/13000>.

² <https://www.faa.gov/airports/airportinfo/airport/13000>.

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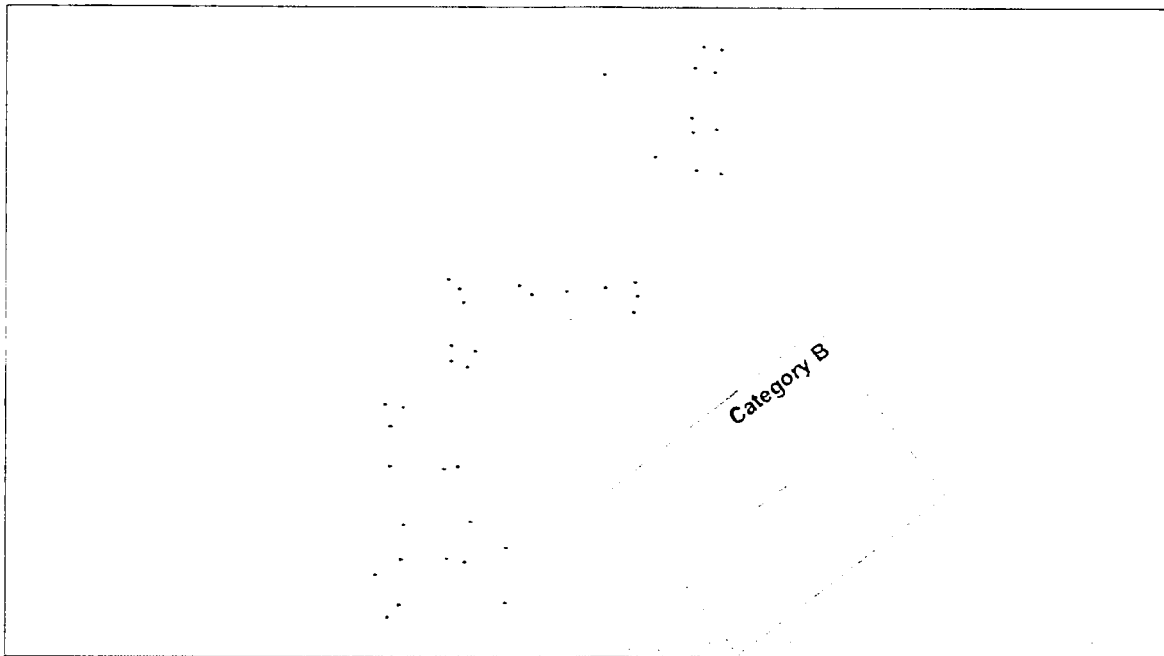


Figure 2: Tuscola Area Airport (CFS) Runway 06/24 VFR traffic pattern airspace

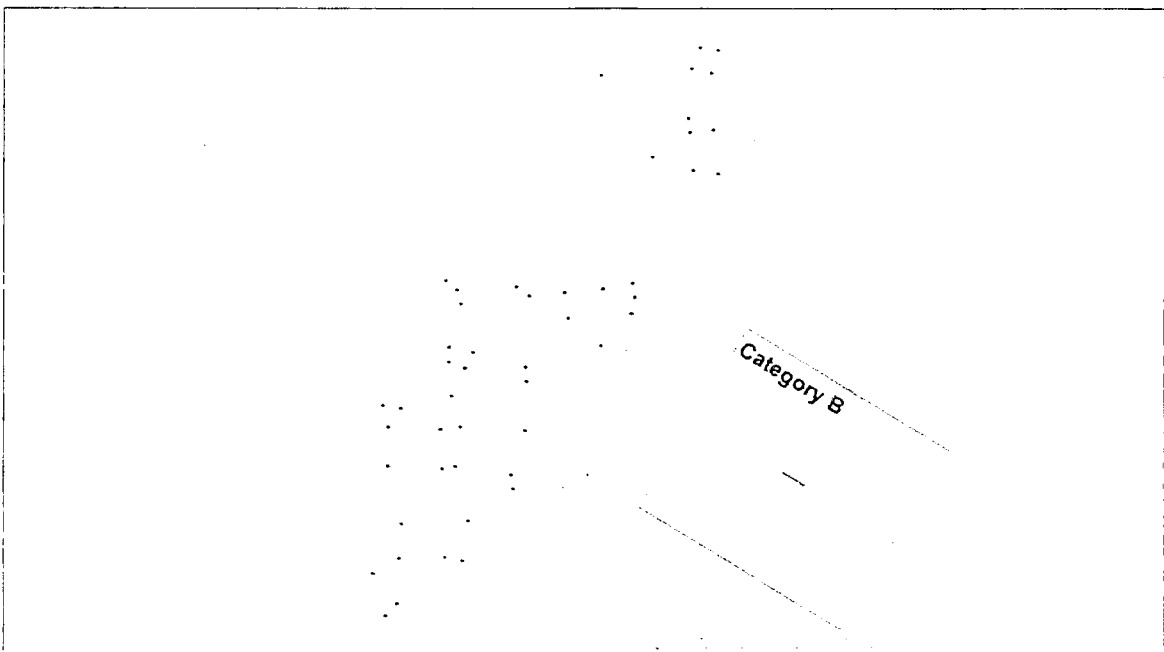


Figure 3: Tuscola Area Airport (CFS) Runway 13/31 VFR traffic pattern airspace

Capitol Airspace Group

Runway 11/29 (Proposed)

23 wind turbines (orange points, *Figure 4*) are located within the Runway 11/29 Category D VFR traffic pattern airspace (shaded gray, *Figure 4*). The planned Runway 11/29 approach category is C and the planned airplane design group is II. If the FAA determines this planned runway will support a significant volume of Category C aircraft, it would require mitigation for 11 wind turbines located within the Category C VFR traffic pattern airspace (dashed blue, *Figure 4*).

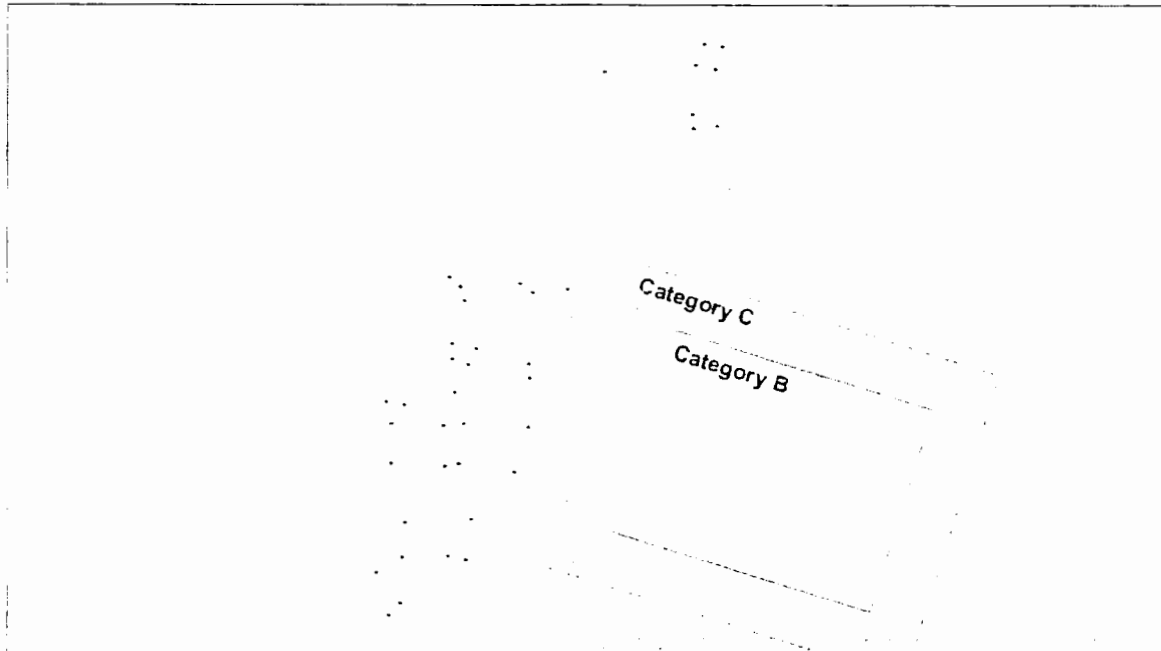


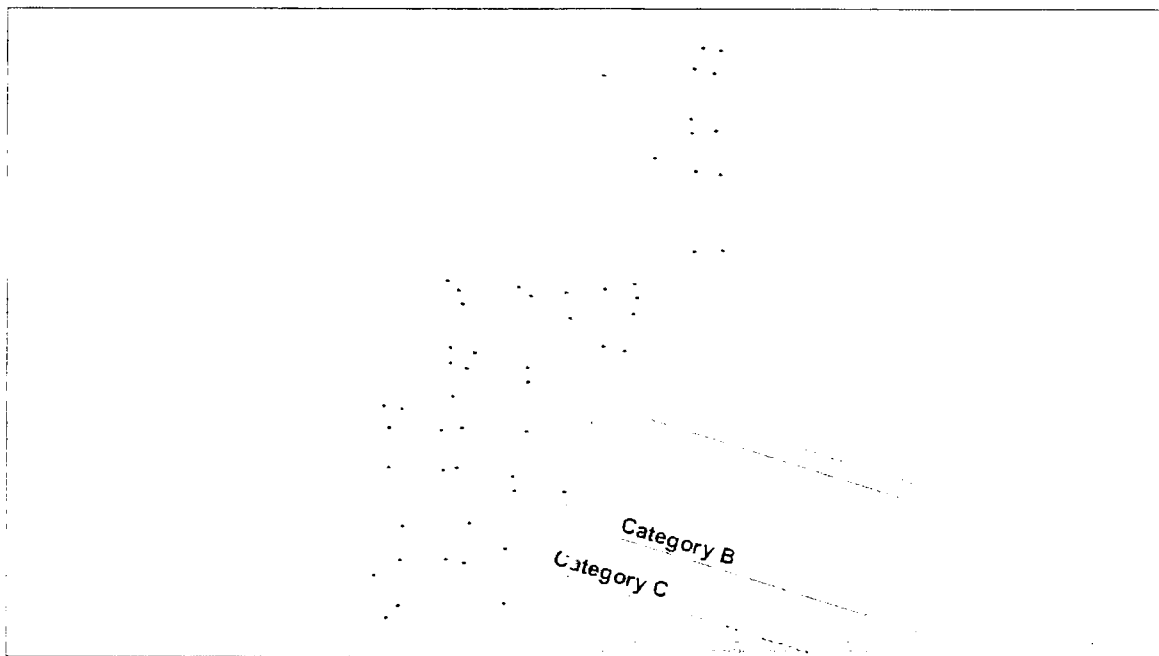
Figure 4: Tuscola Area Airport (CFS) Runway 11/29 VFR traffic pattern airspace (standard left hand traffic)

In order to mitigate the impact of wind development on Category C VFR traffic pattern operations, the patterns must be altered and/or wind turbines relocated. Establishing a right-hand traffic pattern for Runway 11 would place four of the 11 wind turbines outside of the Category C VFR traffic pattern airspace (dashed blue, *Figure 5*). In addition, right-hand traffic would prevent overflight of the City of Caro, Michigan. The remaining seven wind turbines could be relocated outside of Category C VFR traffic pattern airspace if the FAA determines that a significant volume of Category C aircraft are anticipated to use the planned runway.

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*Figure 5: Tuscola Area Airport (CFS) Runway 11/29 VFR traffic pattern airspace
(right-hand traffic pattern established for Runway 11)*

Capitol Airspace Group

Approved by the Capitol Airspace Group on 8/29/2023

Bauer's Field (3648)

Runway 09/27 (Proposed)

Nine wind turbines (orange points, *Figure 6*) would be located within the proposed Runway 09/27 Category D VFR traffic pattern airspace (shaded gray, *Figure 6*). Runway 09/27 is an approximately 2,200 foot long turf runway. Due to the turf surface, this runway will not support larger than Category B aircraft. All of the proposed wind turbines are located outside of Runway 09/27 Category B VFR traffic pattern airspace (solid blue, *Figure 6*) – as a result, no mitigation should be necessary.

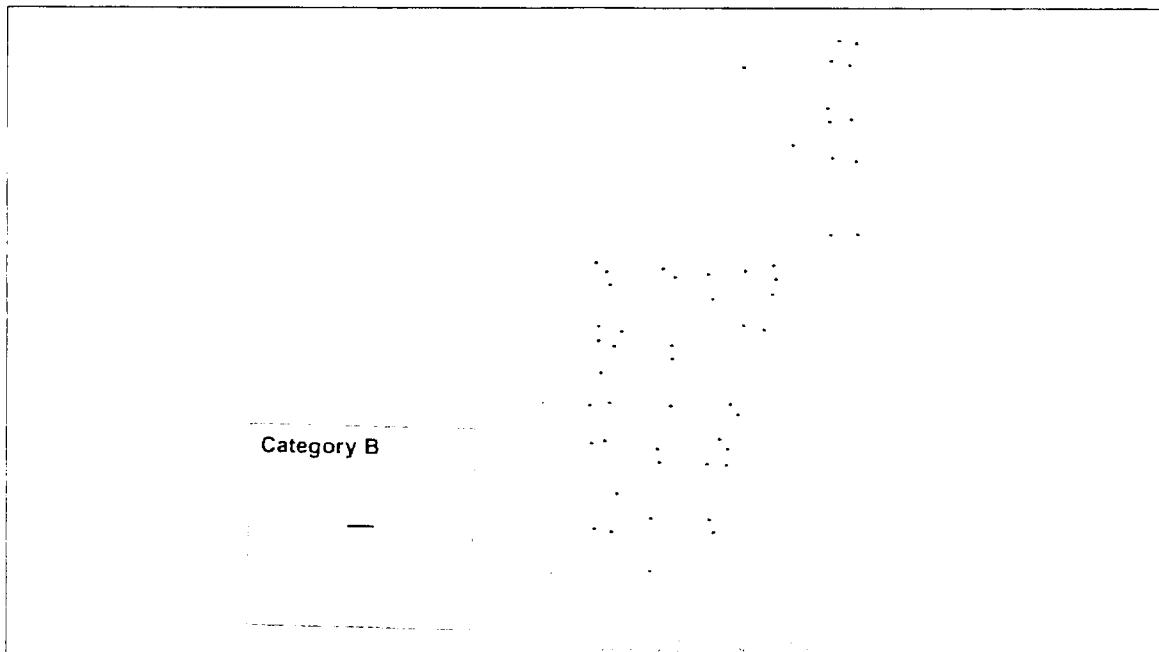


Figure 6: Bauer's Field (3648) Runway 09/27 VFR traffic pattern airspace

Capitol Airspace Group

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Instrument Departures

The NPH indicates that six wind turbines will require an increase to minimum climb gradients associated with Takeoff Minimums and Obstacle Departure Procedures.

Tuscola Area Airport

Six of the proposed wind turbines (orange points, *Figure 7*) will exceed the Runway 24 obstacle departure procedure 40:1 obstacle clearance surface. These wind turbines will require an increase to the minimum climb gradient from 200 feet per nautical mile to as much as 265 feet per nautical mile.

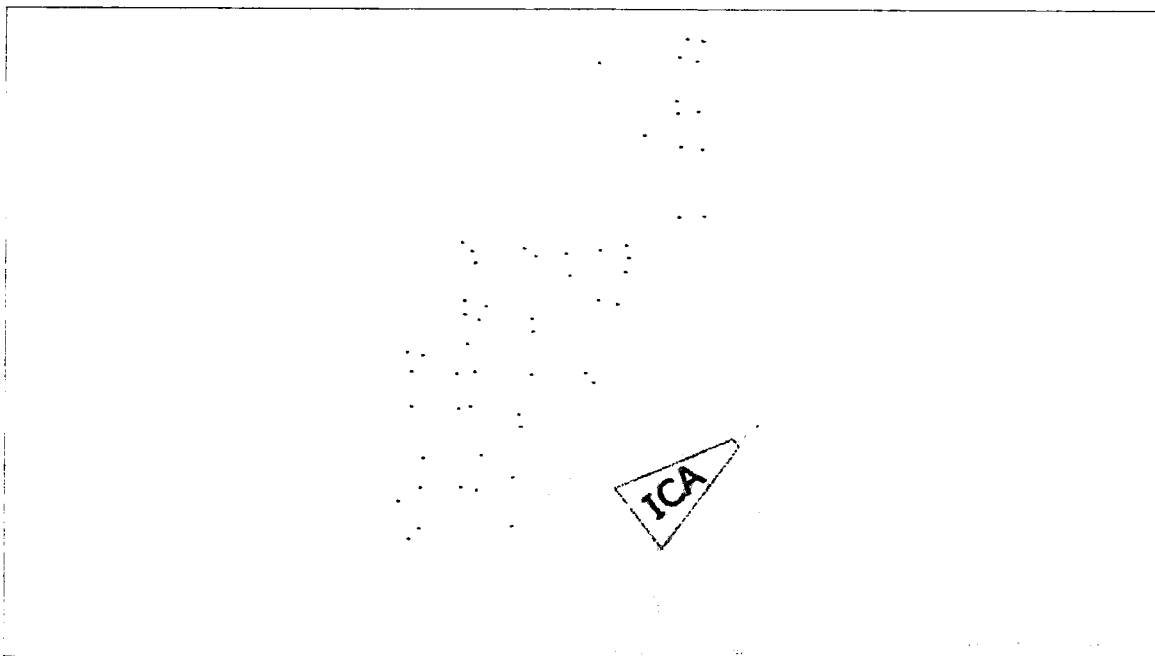


Figure 7: Tuscola Area Airport (CFS) Runway 24 obstacle departure procedure assessment; existing procedure with turn at 400 feet above DER

A higher than standard minimum climb gradient (200 feet per nautical mile) potentially excludes aircraft from departing Tuscola Area Airport during instrument meteorological conditions due to a higher performance requirement. Instead of increasing the minimum climb gradient, the altitude at which aircraft begin their first turn could be increased from the 400 feet above departure end of runway (DER) to 1,400 feet above mean sea level (AMSL). The increased turn altitude results in a longer initial climb area (ICA) and an increased obstacle clearance surface start height outside of the ICA (*Figure 8*).

This mitigation option would resolve the impact of the six wind turbines and only requires that aircraft climb less than an additional 300 feet prior to turning. At the minimum 200 foot per nautical mile climb gradient, this increased turn altitude lengthens the ICA by 1.58 nautical miles.

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Tuscola Area Airport (CFS) Runway 24

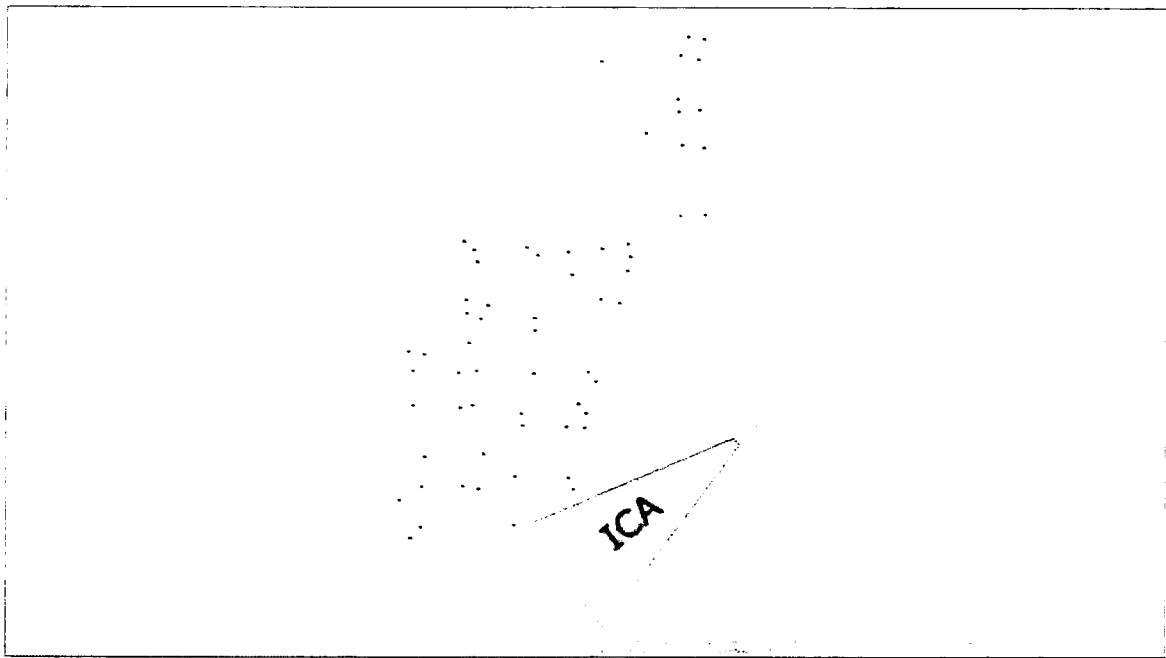


Figure 8: Tuscola Area Airport (CFS) Runway 24 obstacle departure procedure assessment; proposed procedure with turn at 1400 feet AMSL

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Instrument Approaches

The NPH indicates that 47 wind turbines will require a non-precision instrument approach procedure minimum descent altitude (MDA).

Tuscola Area Airport

46 of the proposed wind turbines (orange points, *Figure 9*) exceed the VOR/DME-A final approach segment obstacle clearance surface and will require an increase to the minimum descent altitude from 1,240 feet AMSL to as high as 1,500 feet AMSL.

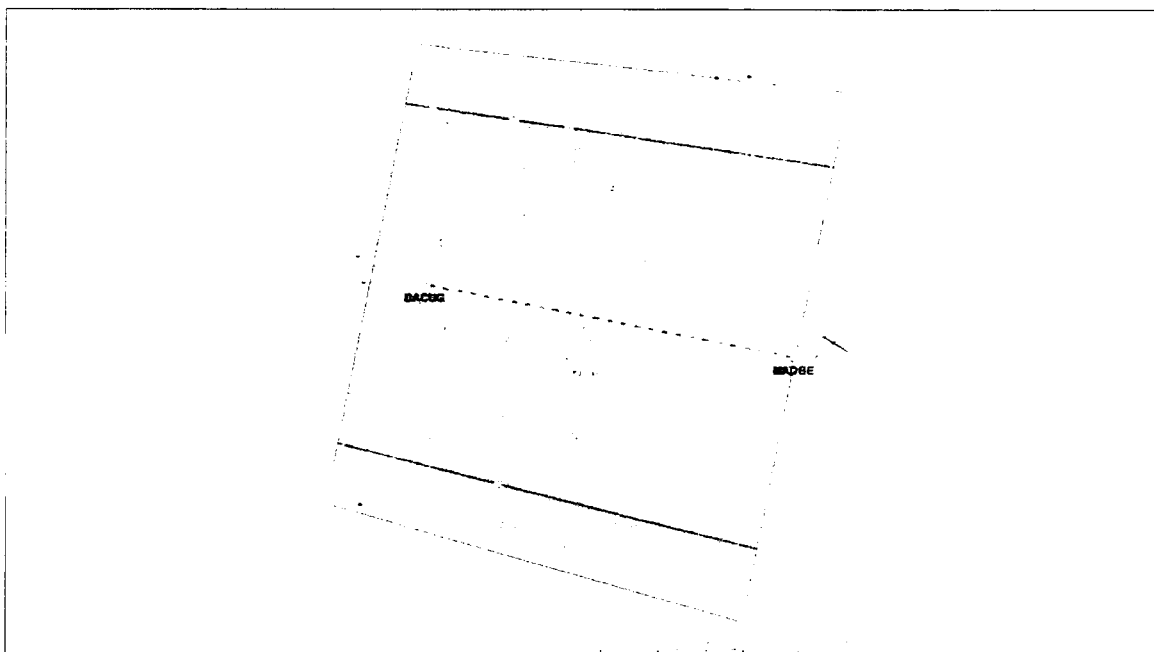
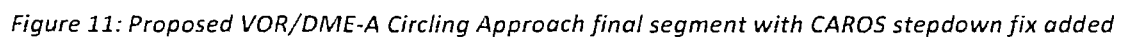
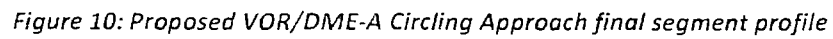


Figure 9: Existing VOR/DME-A Circling Approach final segment

Since this procedure already requires distance measuring equipment (DME), a stepdown fix, *CAROS*, can be added without additional avionics requirements (*Figure 10 & Figure 11*). Based on the current 2.16° vertical descent angle, *CAROS* would be located 1.60 nautical miles prior to the missed approach point, *MADBE*, at an altitude of 1,600 feet AMSL. The resulting *DACUG* to *CAROS* segment obstacle clearance surface would be 1,280 feet AMSL (*1,600 foot AMSL MDA – 250 feet required obstacle clearance – 70 foot remote altimeter setting source adjustment*) and would not be affected by any of the proposed wind turbines.² After the stepdown fix, the MDA would remain as published or could potentially be lowered pending FAA review of controlling obstacles within the *CAROS* to *MADBE* final stepdown segment obstacle evaluation area.



Capitol Airspace Group

Tuscola Area Airport

Conclusion

At their proposed locations and heights, 46 wind turbines will exceed the Tuscola Area Airport 14 CFR Part 77.17(a)(2) imaginary surface. Four of these wind turbines will also exceed the Tuscola Area Airport 14 CFR Part 77.19(b) conical surface. However, heights in excess of these surfaces are feasible provided proposed wind turbines do not have a substantial adverse effect on air navigation. In order to avoid the likelihood of a substantial adverse effect, the adverse effect on VFR traffic pattern airspace as well as instrument departure and approach procedures must be mitigated.

VFR Traffic Pattern Airspace

30 wind turbines would be located within Tuscola Area Airport VFR traffic pattern airspace. An additional eight wind turbines would be located within the proposed public-use airport Bauer's Field VFR traffic pattern airspace. The existing Tuscola Area Airport ARC is B-II and NOP Data indicates that only Category B or lower aircraft have historically operated at the airport. All of the proposed wind turbines are located outside of Category B VFR traffic pattern airspace and should not require mitigation. Eleven wind turbines are located within the proposed Tuscola Area Airport Runway 11/29 Category C VFR traffic pattern airspace. If the FAA anticipates that this proposed runway will support a significant volume of Category C aircraft, mitigation would be required for 11 proposed wind turbines. Mitigation options include establishing right traffic for Runway 11 and relocating the seven wind turbines remaining within Category C VFR traffic pattern airspace.

Instrument Departure Procedures

Six of the proposed wind turbines would require an increase to departure procedure minimum climb gradients. This increase potentially excludes aircraft from departing Tuscola Area Airport under certain weather conditions due to a higher performance requirement. However, the standard 200 foot per nautical mile climb gradient can be preserved by changing the Runway 24 "climb to" altitude from the standard 400 feet above DER to 1,400 feet AMSL. This change accommodates wind turbines at the six identified locations, preserves the currently published minimum climb gradient, and should have a minimal effect on departure routing.

Instrument Approach Procedures

46 of the proposed wind turbines would require an increase to the VOR/DME-A MDA. In order to preserve the currently published MDA a stepdown fix could be added in order to hold aircraft at or above 1,600 feet AMSL over the proposed wind turbines while still allowing descent to the currently published MDA. Since the procedure already requires DME, the addition of the CAROS stepdown fix would not introduce any new avionics equipage requirements.

These mitigation options were assessed in accordance with applicable FAA TERPS documents and represent technically achievable changes to the affected procedures that would also allow for wind development. All of these mitigation options are subject to FAA approval.

If you have any questions regarding the findings of this study, please contact *Ron Morgan* or *Tim Connolly* at (703) 256-2485.

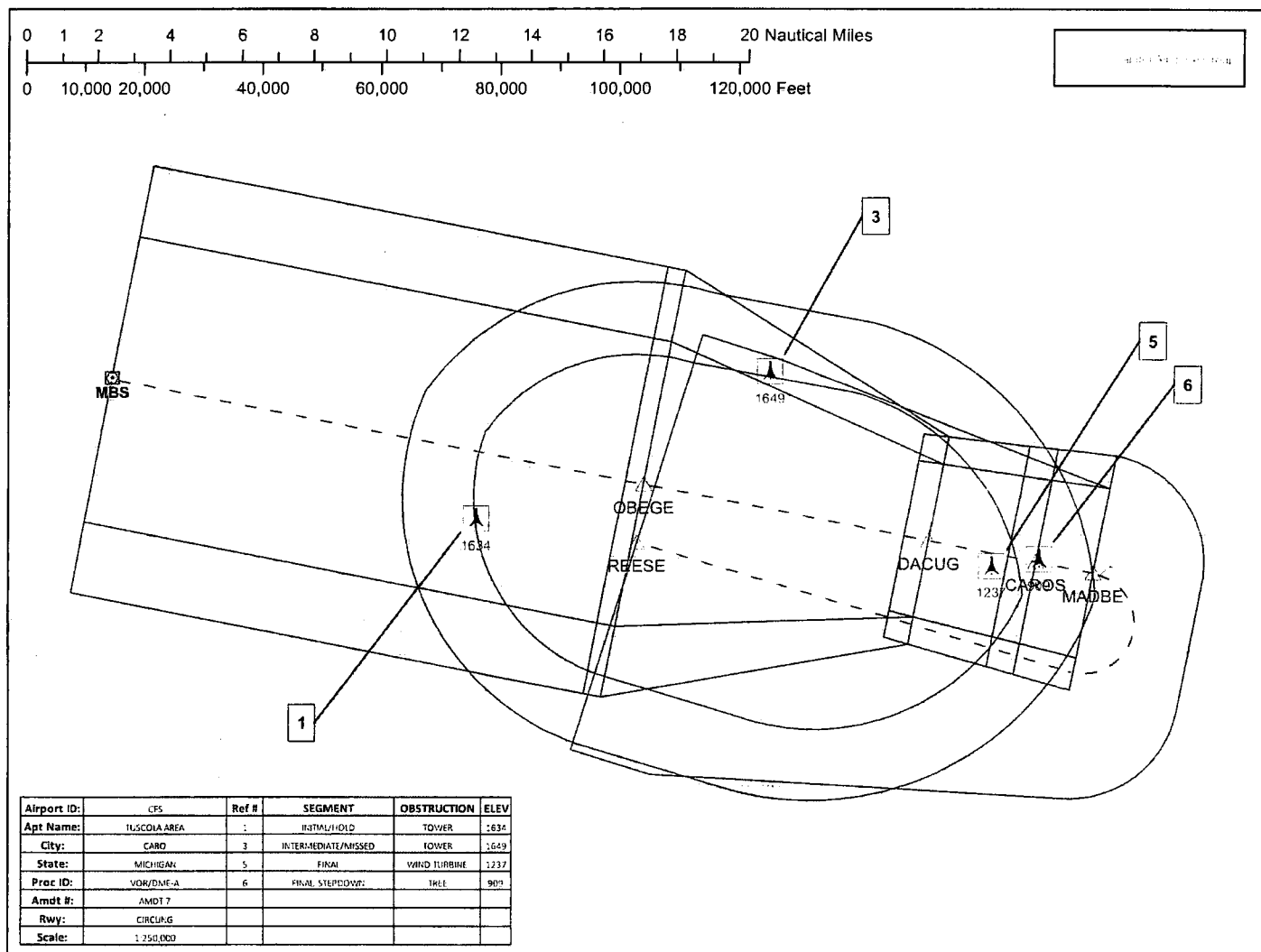
VOR/DME STANDARD INSTRUMENT APPROACH PROCEDURE FLIGHT STANDARDS SERVICE - TITLE 14 CFR PART 97.23										Bearings, headings, courses, and radials are magnetic. Elevations and altitudes are in feet, MSL, except HAT, HAA, TCH, and RA. Altitudes are minimum altitudes unless otherwise indicated. Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles or in feet RVR.									
TERMINAL ROUTES										MISSED APPROACH									
FROM		TO		COURSE AND DISTANCE		ALTITUDE		MAP: MADBE/MBS 27.63 DME FIX											
MBS VOR/DME (IAF)		OBEGE/MBS 15.00 DME		102.00 / 15.00		3000		CLIMBING RIGHT TURN TO 3000 ON HEADING 220 AND ON MBS VOR/DME R-108 TO REESE INT/15.22 DME AND HOLD. ADDITIONAL FLIGHT DATA: HOLD E, RT, 288.08 INBOUND FAS OBST: 909 TREE 432737.73N/0832912.90W CHART CIRCLING ICON. FAC CROSSES MID POINT OF RWY 6-24.											
OBEGE/MBS 15.00 DME (IF)		DACUG/MBS 23.00 DME		102.00 / 8.00		2300													
1. PT ____ SIDE OF COURSE ____ OUTBOUND ____ FT WITHIN ____ MILES OF ____ (IAF) 2. PROFILE STARTS AT MBS VOR/DME ____ 3. FAC: <u>102.00</u> FAF: <u>DACUG/MBS 23.00 DME</u> DIST FAF TO MAP: ____ THLD: ____ 4. MIN. ALT: MBS VOR/DME 3000, OBEGE 3000, DACUG 2300, CAROS 1600 8. MSA FROM: MBS VOR/DME 3100										MAG VAR: 3W EPOCH YEAR: 1965									
CATEGORY																			
		A			B			C			D			E					
	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA				
CIRCLING	1240	1	536	1240	1	536			NA			NA							
NOTES:																			
CHART NOTE: CIRCLING NA TO RWYS 13 AND 31. @ NA WHEN LOCAL WEATHER NOT AVAILABLE.																			
CHART NOTE: PROCEDURE NA AT NIGHT.																			
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE SAGINAW/MBS INTL ALTIMETER SETTING AND INCREASE ALL MDA 80 FEET																			
CITY AND STATE				ELEVATION: 704		TDZE:		FACILITY IDENTIFIER:				PROCEDURE:							
CARO, MI				AIRPORT NAME:		TUSCOLA AREA		MBS				VOR/DME-A, AMDT 7							

Standard Instrument Approach Procedure	VOR/DME STANDARD INSTRUMENT APPROACH PROCEDURE FLIGHT STANDARDS SERVICE - TITLE 14 CFR PART 97.23	Bearings, headings, courses, and radials are magnetic. Elevations and altitudes are in feet, MSL, except HAT, HAA, TCH, and RA. Altitudes are minimum altitudes unless otherwise indicated. Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles or in feet RVR.	
<p>CHANGES:</p> <p>1. ADDED CAROS STEPDOWN FIX AT 432744.09N/0832920.34W, 1.60NM FROM MAP</p> <p>REASONS:</p> <p>1. TO RETAIN CURRENTLY PUBLISHED MDA</p>			
CITY AND STATE CARO, MI	ELEVATION: 704 TDZE: 400 AIRPORT NAME: TUSCOLA AREA	FACILITY IDENTIFIER: MBS	PROCEDURE: VOR/DME-A, AMDT 7

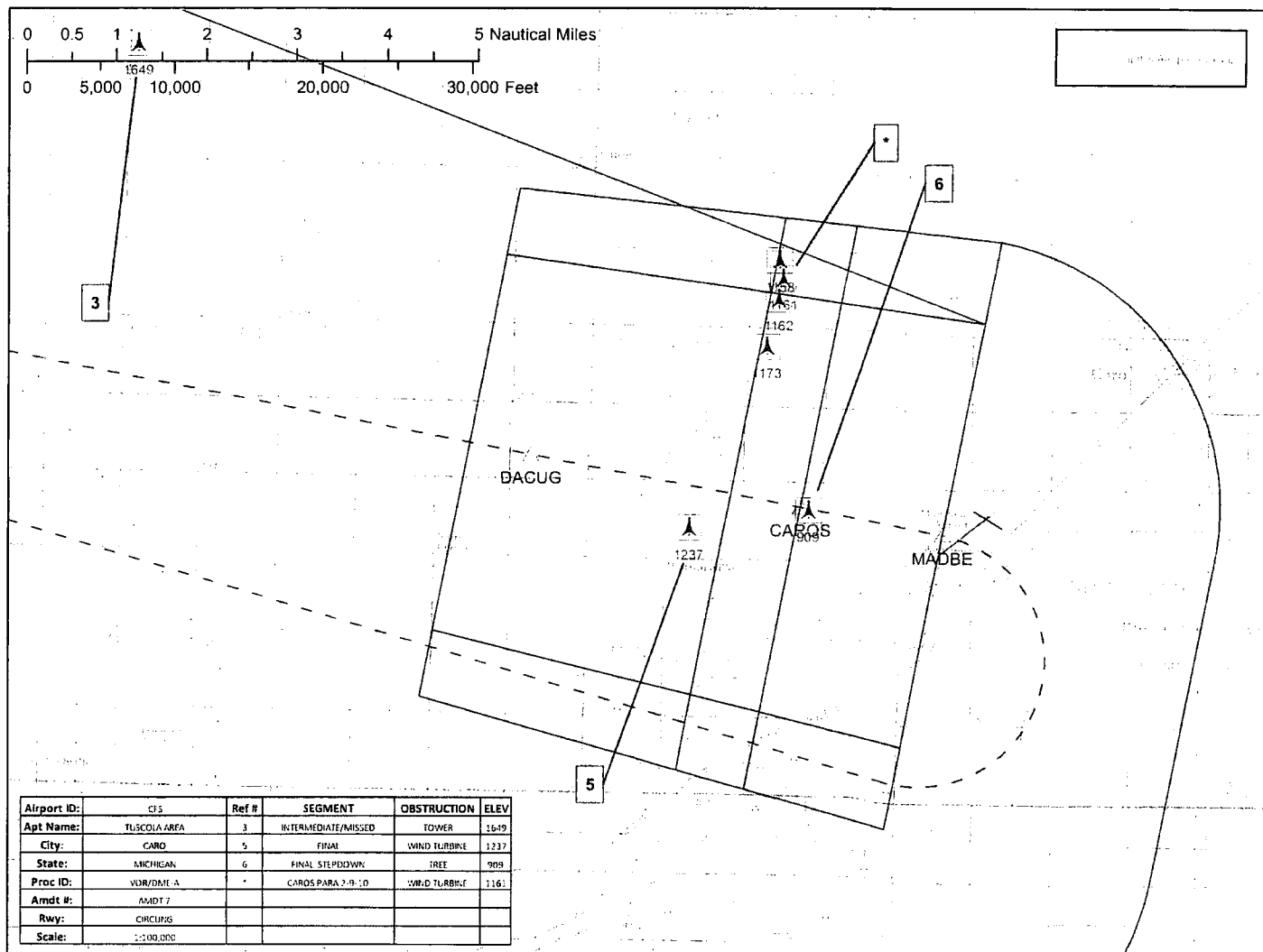
449

PART B - SUPPLEMENTAL DATA										PART C - REMARKS
1. COMMUNICATIONS WITH			2. WEATHER SERVICE			3. ALTIMETER SETTING				VDP NOT ESTABLISHED - FINAL IS CIRCLING ONLY. PRECIPITOUS TERRAIN EVALUATION COMPLETED. 100 FT VEGETATION USED. KCF5/KMBS AWOS-3 ON SERVICE A. CAT A AND B ONLY PER CEN FPO ORDER 8260.3, VOLUME 1, "VISUAL PORTION OF FINAL" PENETRATIONS: 20:1 (RW06) 765 TREE (KCFST0473) 432702.13N/0832727.12W (11.06) 741 TREE (KCFST0443) 432705.05N/0832724.40W (4.21) (RW24) 762 TREE (KCFST0104) 432750.20N/0832618.89W (17.43) 760 TREE (KCFST0103) 432750.03N/0832618.32W (14.36) 765 TREE (KCFST0071) 432747.60N/0832610.57W (5.16) 727 TREE (KCFST0137) 432747.75N/0832623.34W (2.98) 779 TREE (KCFST0045) 432750.37N/0832607.85W (2.49) 724 TREE (KCFST0138) 432747.52N/0832623.33W (0.70) ORDER 8260.3, VOLUME 1, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED. CAT A: 1.30NM CAT B: 1.83NM NO ADDITIONAL AIRSPACE REQUIRED. RASS PRESSURE PATTERNS SAME KCF5 704, KMBS 668 RA = 70. MSA EXTENDED TO 29 NM AS PER 8260.38 PARA 221 AND 8260.19G PARA 8-6-3, H. (4) XP: TO RETAIN CURRENTLY PUBLISHED MDA. ORDER 8260.3 2-9-10 "OBSTACLES CLOSE TO A PFAF OR A FINAL APPROACH SEGMENT SDF" EXCLUSIONS: (CAROS) 1158 WIND TURBINE (2018-WTE-36-OE) 433022.65N/0832946.00W (-87) 1162 WIND TURBINE (2018-WTE-37-OE) 432957.01N/0832946.28W (-25) 1173 WIND TURBINE (2018-WTE-39-OE) 432925.46N/0832955.27W (-32) 1161 WIND TURBINE (2018-WTE-76-OE) 433010.80N/0832942.67W (-18)
MBS APP CON, ZOB ARTCC, LAN FSS			NWS	OTHER:		SOURCE: KCF5 / KMBS				
SATISFACTORY ON:			FAA	AWOS-3		DISTANCE: 0 / 28.05				
			A / C			HOURS: 0/24				
X	VHF	X	UHF	HF	LOCATION: KCF5	ADJUSTMENT: 0 / 70				
4. MONITOR STATUS		PRIMARY NAVAID: MBS VOR/DME								
		MONITOR POINT: MOCC								
		HRS OPTN:	CAT 1	24						
5. APPROACH & RUNWAY LIGHTING		CAT 3								
		ALS								
		(S) SALS								
		MALS								
		HIRL								
		X	MIRL 06 (PCL), 24 (PCL)							
		X	REIL 06, 24 (PCL)							
		TOZ								
6. RUNWAY MARKINGS		C/LINE								
		X	OTHER (SPECIFY): PAPI-4L 06, 24 (PCL)							
		BASIC								
7. RUNWAY VISUAL RANGE		ALL WEATHER								
		INSTRUMENT NPI-F 06, 24								
		APPROACH								
8. GLIDE PATH		MIDFIELD								
		ROLL OUT								
		GP ANGLE:								
9. FINAL APPROACH COURSE AIMING		RUNWAY THRESHOLD				FT. FROM THRESHOLD				
		ON CENTERLINE				FT. FROM THRESHOLD				
		DISTANCE FROM RWY:								
10. WAIVERS: NONE		ELEV RWY THRESHOLD:								
		ELEV GP ANTENNA:								
		THRESHOLD CROSSING HEIGHT:								
PART D - PREPARED BY:					DATE:					
TIM CONNOLLY					3/30/2018					
TITLE:					OFFICE:					
AIRSPACE/GIS MANAGER					CAPITOL AIRSPACE GROUP					

ZBA 001027



ZBA 001028



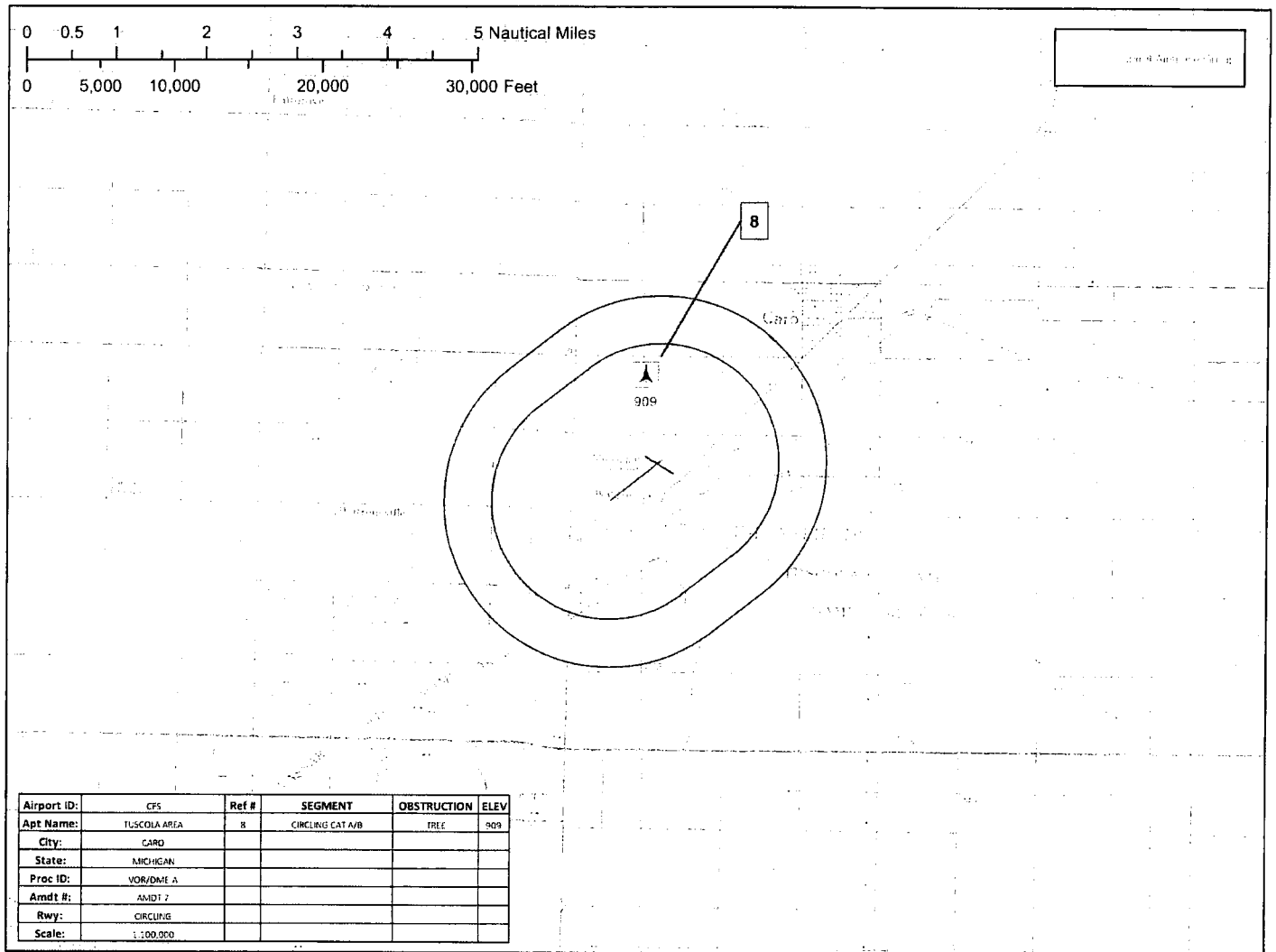


EXHIBIT 3

Pegasus Wind Project

NextEra Energy

Tuscola County, Michigan

Air Traffic Flow Analysis

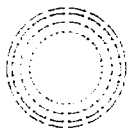
November 20, 2017



Capitol Airspace Group

capitolairspace.com

(703) 256 - 2485



Introduction

Capitol Airspace conducted an air traffic flow analysis for the Pegasus wind project in Tuscola County, Michigan. The purpose for this analysis was to determine the nature of air traffic operations at Tuscola Area Airport (CFS) to aid in developing the airspace mitigation options necessary to accommodate the Pegasus wind project.

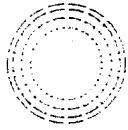
In order to determine the nature of air traffic operations at Tuscola Area Airport, Capitol Airspace evaluated one year's worth of historical radar track data obtained from the FAA. This data was utilized to determine the types of aircraft that regularly use the airport. In addition, this data was also utilized to determine the number of flights at the airport and the specific operation (i.e., departure, arrival, instrument approach procedure) associated with that flight.



Figure 1: VFR dataset (left) and IFR dataset (right) radar tracks that appeared to operate at Tuscola Area Airport (CFS)

Methodology

Capitol Airspace evaluated FAA National Offload Program (NOP) radar returns for the period between June 01, 2016 and May 31, 2017. The FAA NOP data contained 6,712,600 radar returns associated with flights operating within 20 nautical miles of Tuscola Area Airport at or below 6,000 feet above mean sea level. These radar returns were identified by Detroit (D21) Terminal Radar Approach Control (TRACON), Flint (FNT) TRACON, Lansing (LAN) TRACON, Saginaw (MBS) TRACON, and Cleveland (ZOB) Air Route Traffic Control Center (ARTCC).



FAA NOP data separates radar returns into visual flight rules (VFR) and instrument flight rules (IFR) datasets (*Table 1*). The VFR dataset includes only non-discrete (1200) beacon codes and provides limited detail beyond the radar return's geographic position. The IFR dataset includes discrete (non-1200) beacon codes. This dataset is more detailed than the VFR dataset and can be used to determine the specific aircraft associated with the radar return.

Data Element	Dataset	
	VFR	IFR
Unique Flight Index		•
Unique Track Index	•	•
Actual Aircraft Call Sign		•
Position	•	•
Source Facility	•	•
Discrete Beacon Code		•
Departure Airport		•
Arrival Airport		•
Aircraft Type		•
User Class		•

Table 1: NOP data element overview

The following process was used to determine the number and type of flights that likely operated at Tuscola Area Airport:

- 1. Parse and Import Radar Data** – Original data was provided in compressed comma separated value (CSV) text format. CSV files were provided for each day of the year. Each CSV file was uncompressed, combined, and imported into a spatial database.
- 2. Build Radar Tracks** – Radar tracks were created for all flights based on their unique flight index. In some cases, multiple track indexes were associated with a single flight index due to multiple air traffic facilities surveilling the flight.
- 3. Remove duplicates** – The VFR dataset can contain up to four duplicative flights if all of the identified air traffic facilities surveilled the flight. Capitol Airspace removed duplicates from the VFR dataset by analyzing each track for altitude, heading, and time similarities.
- 4. Evaluate Radar Tracks** – In order to understand the nature of flight operations at Tuscola Area Airport, Capitol Airspace analyzed each track for altitude and direction. In addition to flights that were identified as having Tuscola Area Airport as the identified departure or arrival airport, flights with tracks that appeared to operate at the airport were also considered.



Findings

Tuscola Area Airport Operations

The VFR dataset indicates that 1,766 unique flights appeared to operate at Tuscola Area Airport between June 01, 2016 and May 31, 2017. The IFR dataset indicates that 322 unique flights appeared to operate at the airport over the same period. This represents a total operation count of 2,088 (5.72 per day). The IFR dataset also indicates that these operations were associated with either Approach Category A or Approach Category B aircraft (*Table 2*).

Owner	Aircraft ID(s)	Aircraft Manufacturer	Aircraft Model	Approach Category	Total Operations
Martinaire	MRA603	Cessna	Caravan (C208)	A	78
POET	N610PT N525EM N710PT	Cessna	Citation (C525)	B	47
Wingnuts LLC	N828DS	Beechcraft	Bonanza (BE36)	A	26

Table 2: Frequent operators at Tuscola Area Airport derived from IFR dataset

These findings correlate with the airport reference code (ARC) for Tuscola Area Airport identified by the 2017 Michigan Aviation System Plan. In addition, the radar tracks are located within FAA Category B VFR traffic pattern airspace as applied to Runway 06/24 (*Figure 2*).

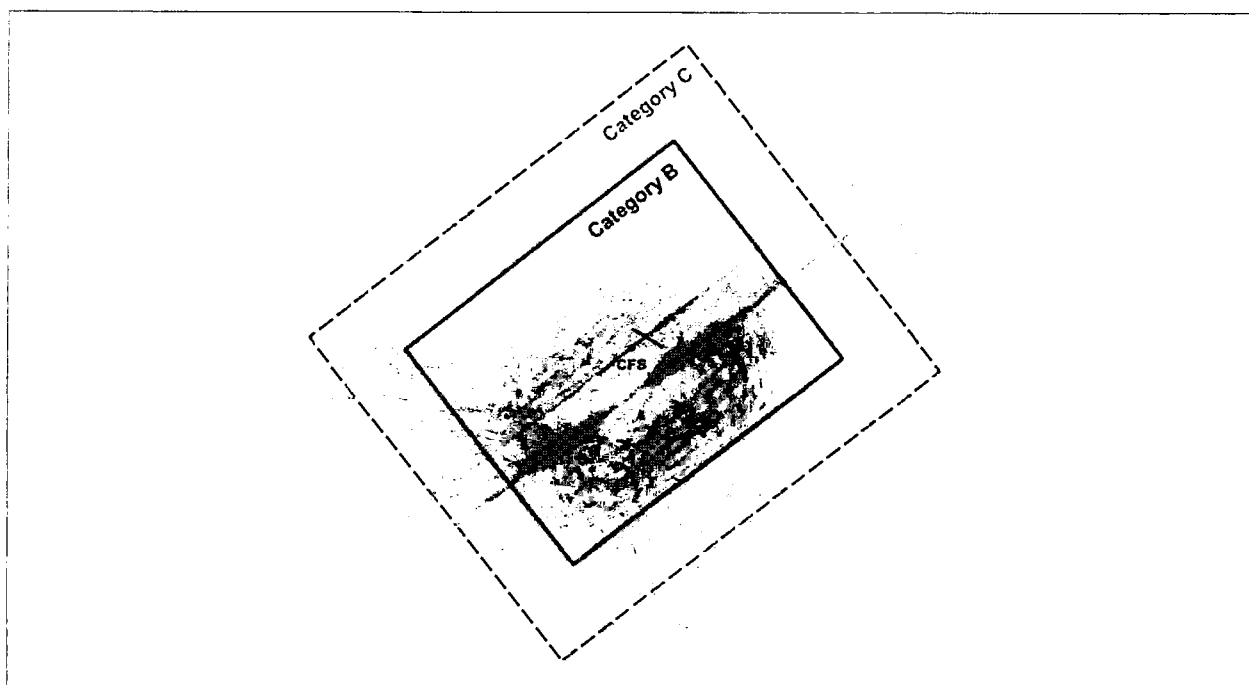
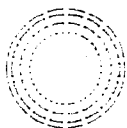


Figure 2: VFR dataset tracks indicate that traffic patterns are contained within Runway 06/24 Category B VFR traffic pattern airspace (note: majority of tracks are shifted southward due to radar sensor inaccuracy)



Departures

The IFR dataset indicates that 112 flights appeared to depart Tuscola Area Airport between June 01, 2016 and May 31, 2017 (*Figure 3*). It should be noted that these departures could have occurred during either visual meteorological conditions (VMC) or instrument meteorological conditions (IMC) and do not necessarily indicate an “instrument” departure. Further analysis using Tuscola Area Airport Automated Weather Observing System (AWOS) reports would be necessary to determine how many departures occurred during IMC.

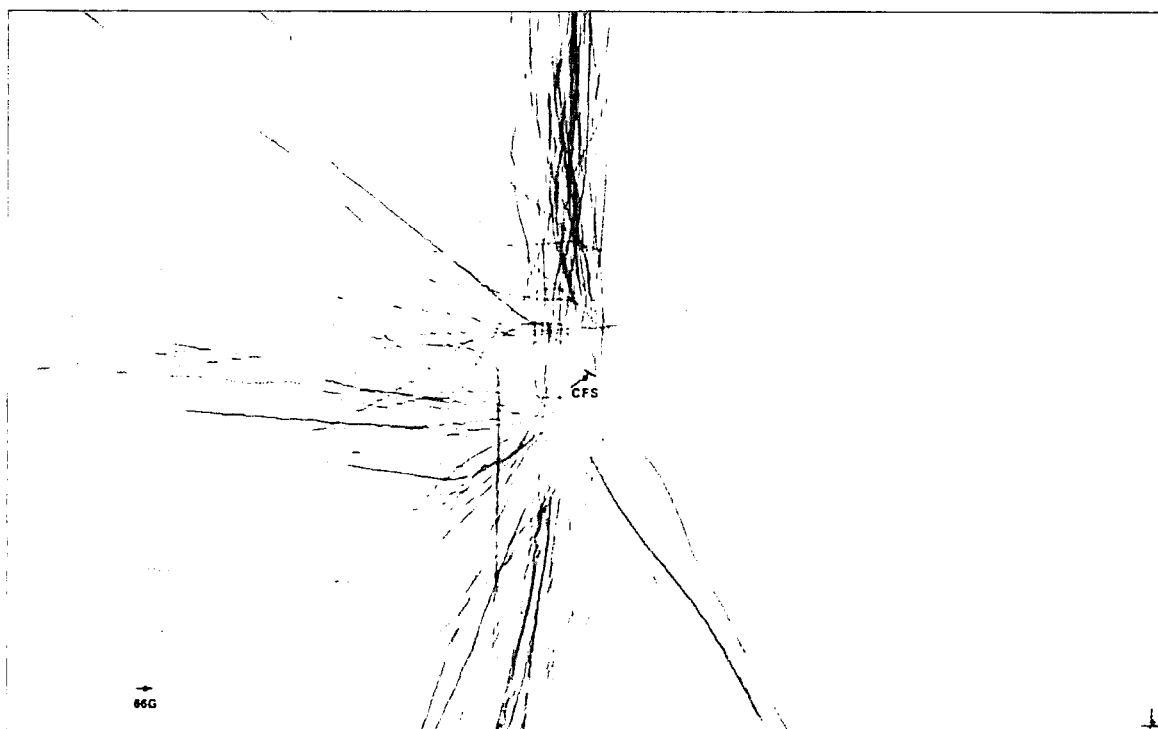


Figure 3: Radar tracks that appeared to depart Tuscola Area Airport

Arrivals

RNAV (GPS) Approach to Runway 06

The IFR dataset indicates that 19 flights appeared to fly the RNAV (GPS) Approach to Runway 06 between June 01, 2016 and May 31, 2017 (*Figure 4*). This represents a 0.37 per week utilization which is well below the FAA’s threshold for “significant” volume of operations (as few as one per week).

RNAV (GPS) Approach to Runway 24

The IFR dataset indicates that 2 flights appeared to fly the RNAV (GPS) Approach to Runway 24 between June 01, 2016 and May 31, 2017 (*Figure 5*). This represents a 0.04 per week utilization which is well below the FAA’s threshold for “significant” volume of operations.

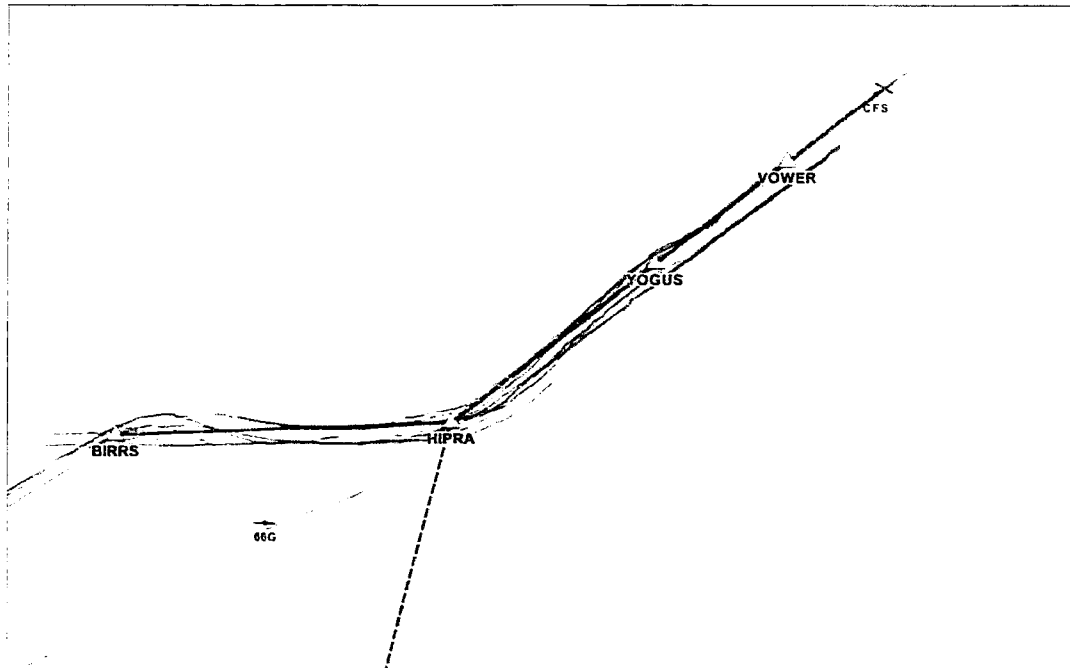
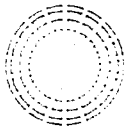


Figure 4: Radar tracks for flights that appeared to fly the RNAV (GPS) Approach to Runway 06

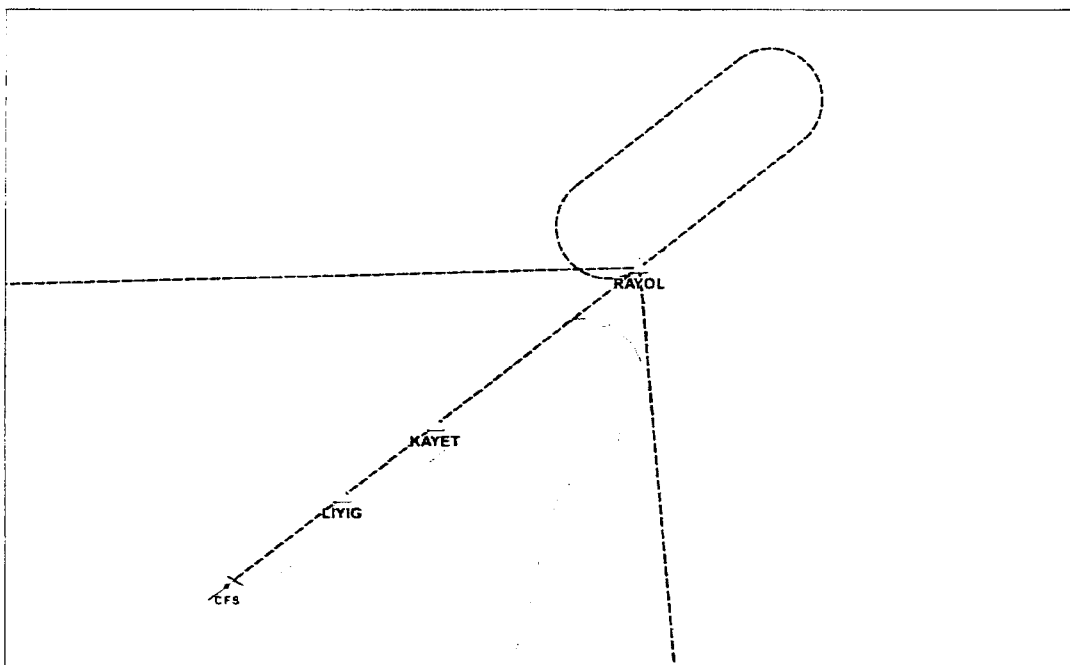
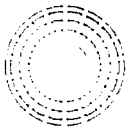


Figure 5: Radar tracks for flights that appeared to fly the RNAV (GPS) Approach to Runway 24
(note: graphic depicts 4 total tracks associated with only two flights)



VOR/DME-A Circling Approach

The IFR dataset indicates that 8 flights appeared to fly the VOR/DME-A circling approach between June 01, 2016 and May 31, 2017 (*Figure 6*). This represents a 0.15 per week utilization which is well below the FAA's threshold for "significant" volume of operations.

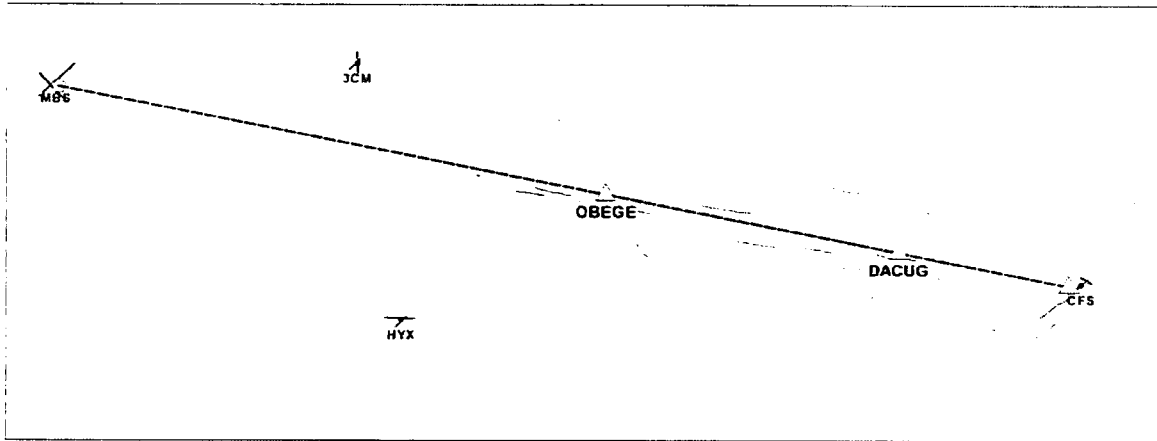


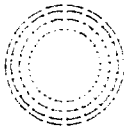
Figure 6: Radar tracks for flights that appeared to fly the VOR/DME-A circling approach

Visual Approach Following Termination of Air Traffic Services

The IFR dataset indicates that 181 flights flew a visual approach and did not fly a published instrument approach procedure (*Figure 7*). These flights are associated with aircraft that either cancelled their IFR flight plan or terminated "VFR flight following." The FAA should not consider impact on these operations during aeronautical study of proposed wind turbines.



Figure 7: Radar tracks for flights that appeared to fly a visual approach after cancelling IFR or terminating "VFR flight following"



Conclusion

Using FAA NOP data, Capitol Airspace identified historical radar tracks that operated at Tuscola Area Airport and determined:

1. **Total Operations:** 2,088 flights appeared to operate at the airport between June 01, 2016 and May 31, 2017, an average of 5.72 per day (*Figure 1*). The VFR dataset contained 1,766 (85%) of the total operations. The IFR dataset contained 322 (15%) of the total operations.
2. **Aircraft Types:** Operations at the airport are associated with Approach Category A and Approach Category B aircraft. The flight tracks are located within FAA Category B VFR traffic pattern airspace as applied to Runway 06/24 (*Figure 2*). As a result, it is unlikely that the FAA would protect for VFR traffic pattern airspace larger than Category B considering the airport's existing layout.
3. **Frequent Users:** The IFR dataset indicates that Martinaire (freight operator) Cessna Caravans, POET (biofuel producer with a plant in Caro) Cessna Citations, and a Wingnuts LLC (private owner) Beechcraft Bonanza each operated at the airport between 0.5 and 1.5 times per week (*Table 2*). It should be noted that these aircraft may also be contained in the VFR dataset or that aircraft contained solely in the VFR dataset operated more frequently.
4. **Instrument departure procedures:** The IFR dataset contained 112 flights that appeared to depart the airport (*Figure 3*). However, an analysis of the airport's AWOS weather reports is necessary to determine how many of these departures occurred during instrument meteorological conditions.
5. **Instrument approach procedures:** The IFR dataset indicates that published instrument approach procedure utilization is low (*Figure 4*, *Figure 5*, and *Figure 6*). The greatest frequency of operations for any one procedure is 0.37 per week. This frequency is well below the FAA's threshold for determining a significant volume of operations (as few as one per week).

The results of this analysis can be used to further discussions with the airport and the FAA during aeronautical study of the proposed Pegasus wind project. In addition, the results can be used to develop and refine the airspace mitigation options necessary to accommodate the Pegasus wind project.

Please contact *Ron Morgan* or *Tim Connolly* at (703)-256-2485 with any questions regarding the findings of this analysis.

Aircraft ID	Date	Aircraft Type	User Class	Likely Operation	Lowest Ceiling (Above Airport)	Lowest Visibility (Statute Miles)	Weather
X94T	6/14/2016	C182	Military	RNAV (GPS) Approach to Runway 06	7000	10	VFR
N525EM	6/28/2016	C25C	General Aviation	RNAV (GPS) Approach to Runway 06	1800	10	MVFR
MRA603	7/30/2016	C208	Air Carrier	RNAV (GPS) Approach to Runway 06	8000	5	MVFR
N525EM	8/1/2016	C25C	General Aviation	RNAV (GPS) Approach to Runway 06	300	10	IFR
N610PT	8/1/2016	C510	General Aviation	RNAV (GPS) Approach to Runway 06	300	10	IFR
PO52	8/13/2016	-	Military	RNAV (GPS) Approach to Runway 06	3200	7	VFR
N8426G	8/31/2016	PA34	General Aviation	RNAV (GPS) Approach to Runway 06	-	10	VFR
MRA603	9/10/2016	C208	Air Carrier	RNAV (GPS) Approach to Runway 06	1100	3	MVFR
PO50	9/10/2016	-	Military	RNAV (GPS) Approach to Runway 06	1100	3	MVFR
MRA603	9/17/2016	C208	Air Carrier	RNAV (GPS) Approach to Runway 06	500	5	IFR
PO32	9/17/2016	-	Military	RNAV (GPS) Approach to Runway 06	500	5	IFR
MRA603	11/5/2016	C208	Air Carrier	RNAV (GPS) Approach to Runway 06	700	1	IFR
PO34	11/5/2016	-	Military	RNAV (GPS) Approach to Runway 06	700	1	IFR
PO96	11/26/2016	-	Military	RNAV (GPS) Approach to Runway 06	1100	10	MVFR
MRA603	1/28/2017	C208	Air Carrier	RNAV (GPS) Approach to Runway 06	1900	10	MVFR
MRA603	3/25/2017	C208	Air Carrier	RNAV (GPS) Approach to Runway 06	600	2.5	IFR
PO32	3/25/2017	-	Military	RNAV (GPS) Approach to Runway 06	600	2.5	IFR
N64KT	5/19/2017	C340	General Aviation	RNAV (GPS) Approach to Runway 06	1500	10	MVFR
N64KT	5/19/2017	C340	-	RNAV (GPS) Approach to Runway 06	1500	10	MVFR
N3099L	10/6/2016	PA32	General Aviation	RNAV (GPS) Approach to Runway 24	-	10	VFR
X94T	5/9/2017	-	Military	RNAV (GPS) Approach to Runway 24	-	10	VFR
N525EP	6/15/2016	C25C	General Aviation	VOR/DME-A Circling Approach	4200	10	VFR
N525EM	7/29/2016	C25C	General Aviation	VOR/DME-A Circling Approach	12000	10	VFR
X334	8/2/2016	-	Military	VOR/DME-A Circling Approach	-	10	VFR
N607TN	8/16/2016	C525	General Aviation	VOR/DME-A Circling Approach	-	10	VFR
X9082T	8/24/2016	-	Military	VOR/DME-A Circling Approach	-	10	VFR
N629RM	12/2/2016	PA31	-	VOR/DME-A Circling Approach	3900	10	VFR
N629RM	12/2/2016	PA31	-	VOR/DME-A Circling Approach	3900	10	VFR
X9EV	4/23/2017	-	Military	VOR/DME-A Circling Approach	-	10	VFR
N4773L	6/1/2016	C152	General Aviation	Visual Approach Following Termination of Air Traffic Services	-	10	VFR
X135F	6/2/2016	-	Military	Visual Approach Following Termination of Air Traffic Services	-	10	VFR
N6288J	6/3/2016	PA28	General Aviation	Visual Approach Following Termination of Air Traffic Services	-	10	VFR
MRA603	6/4/2016	C208	Air Carrier	Visual Approach Following Termination of Air Traffic Services	-	10	VFR
PO38	6/4/2016	-	Military	Visual Approach Following Termination of Air Traffic Services	-	10	VFR
X143	6/4/2016	-	Military	Visual Approach Following Termination of Air Traffic Services	-	10	VFR
N828DS	6/4/2016	BE36	General Aviation	Visual Approach Following Termination of Air Traffic Services	4700	7	VFR
N710PT	6/6/2016	C525	General Aviation	Visual Approach Following Termination of Air Traffic Services	-	10	VFR
MRA603	6/11/2016	C208	Air Carrier	Visual Approach Following Termination of Air Traffic Services	-	10	VFR
X8DC	6/11/2016	-	Military	Visual Approach Following Termination of Air Traffic Services	-	10	VFR
N828DS	6/13/2016	BE36	General Aviation	Visual Approach Following Termination of Air Traffic Services	-	10	VFR
X432AE	6/17/2016	-	Military	Visual Approach Following Termination of Air Traffic Services	-	10	VFR
MRA603	6/18/2016	C208	Air Carrier	Visual Approach Following Termination of Air Traffic Services	-	10	VFR
PO31	6/18/2016	-	Military	Visual Approach Following Termination of Air Traffic Services	-	10	VFR
X2AE	6/18/2016	M20P	Military	Visual Approach Following Termination of Air Traffic Services	-	10	VFR
N757MP	6/18/2016	C172	General Aviation	Visual Approach Following Termination of Air Traffic Services	-	10	VFR
X13Q	6/20/2016	-	Military	Visual Approach Following Termination of Air Traffic Services	-	10	VFR
N828DS	6/20/2016	BE36	General Aviation	Visual Approach Following Termination of Air Traffic Services	-	10	VFR
N525EM	6/23/2016	C25C	General Aviation	Visual Approach Following Termination of Air Traffic Services	6000	10	VFR

Aircraft ID	Date	Aircraft Type	User Class	Likely Operation	Lowest Ceiling (Above Airport)	Lowest Visibility (Statute Miles)	Weather
MRA603	6/25/2016	C208	Air Carrier	Visual Approach Following Termination of Air Traffic Services		10	VFR
PO40	6/25/2016	-	Military	Visual Approach Following Termination of Air Traffic Services		10	VFR
XL7UM	6/26/2016	-	Military	Visual Approach Following Termination of Air Traffic Services		10	VFR
XLN7UM	6/26/2016	-	Air Carrier	Visual Approach Following Termination of Air Traffic Services		10	VFR
C4KW	6/27/2016	-	Military	Visual Approach Following Termination of Air Traffic Services		10	VFR
N9333P	6/27/2016	PA24	General Aviation	Visual Approach Following Termination of Air Traffic Services		10	VFR
X70C	6/29/2016	-	Military	Visual Approach Following Termination of Air Traffic Services		10	VFR
X40S	7/2/2016	-	Military	Visual Approach Following Termination of Air Traffic Services	6500	10	VFR
MRA603	7/2/2016	C208	Air Carrier	Visual Approach Following Termination of Air Traffic Services		10	VFR
N240W	7/5/2016	RV6	General Aviation	Visual Approach Following Termination of Air Traffic Services		10	VFR
N610PT	7/6/2016	C510	General Aviation	Visual Approach Following Termination of Air Traffic Services		10	VFR
CAP2026	7/7/2016	C182	Air Carrier	Visual Approach Following Termination of Air Traffic Services	6000	10	VFR
X44F	7/9/2016	-	Military	Visual Approach Following Termination of Air Traffic Services	2800	10	MVFR
MRA603	7/9/2016	C208	Air Carrier	Visual Approach Following Termination of Air Traffic Services		10	VFR
PO55	7/10/2016	-	Military	Visual Approach Following Termination of Air Traffic Services		10	VFR
N710PT	7/10/2016	C25B	General Aviation	Visual Approach Following Termination of Air Traffic Services	8000	10	VFR
X59N	7/11/2016	-	Military	Visual Approach Following Termination of Air Traffic Services		10	VFR
XLFNT	7/12/2016	HELO	Other	Visual Approach Following Termination of Air Traffic Services		10	VFR
N416RA	7/12/2016	C414	General Aviation	Visual Approach Following Termination of Air Traffic Services		10	VFR
N525EM	7/13/2016	C25C	General Aviation	Visual Approach Following Termination of Air Traffic Services		10	VFR
N710PT	7/15/2016	C25B	General Aviation	Visual Approach Following Termination of Air Traffic Services	2900	10	MVFR
N710PT	7/15/2016	C25B	General Aviation	Visual Approach Following Termination of Air Traffic Services	5000	10	VFR
MRA603	7/16/2016	C208	Air Carrier	Visual Approach Following Termination of Air Traffic Services		10	VFR
PO36	7/16/2016	-	Military	Visual Approach Following Termination of Air Traffic Services		10	VFR
XLN5UM	7/17/2016	-	Air Carrier	Visual Approach Following Termination of Air Traffic Services		10	VFR
N525EM	7/18/2016	C25C	General Aviation	Visual Approach Following Termination of Air Traffic Services		10	VFR
N710PT	7/20/2016	C25B	General Aviation	Visual Approach Following Termination of Air Traffic Services		10	VFR
MRA603	7/23/2016	C208	Air Carrier	Visual Approach Following Termination of Air Traffic Services	6000	10	VFR
PO52	7/23/2016	-	Military	Visual Approach Following Termination of Air Traffic Services	6000	10	VFR
N828DS	7/29/2016	BE36	General Aviation	Visual Approach Following Termination of Air Traffic Services		10	VFR
X407	7/29/2016	-	Military	Visual Approach Following Termination of Air Traffic Services		10	VFR
CGSEK	7/29/2016	-	Other	Visual Approach Following Termination of Air Traffic Services	12000	10	VFR
X91U	8/1/2016	-	Military	Visual Approach Following Termination of Air Traffic Services	1700	10	MVFR
X334	8/2/2016	-	Military	Visual Approach Following Termination of Air Traffic Services		10	VFR
N22TE	8/3/2016	C208	General Aviation	Visual Approach Following Termination of Air Traffic Services		10	VFR
N610PT	8/4/2016	C510	General Aviation	Visual Approach Following Termination of Air Traffic Services		10	VFR
N610PT	8/5/2016	C510	General Aviation	Visual Approach Following Termination of Air Traffic Services		10	VFR
MRA603	8/6/2016	C208	Air Carrier	Visual Approach Following Termination of Air Traffic Services		10	VFR
N850WM	8/6/2016	TBM8	General Aviation	Visual Approach Following Termination of Air Traffic Services	7000	10	VFR
N850WM	8/7/2016	TBM8	General Aviation	Visual Approach Following Termination of Air Traffic Services		10	VFR
N525EM	8/8/2016	C525	General Aviation	Visual Approach Following Termination of Air Traffic Services		10	VFR
N610PT	8/8/2016	C510	General Aviation	Visual Approach Following Termination of Air Traffic Services		10	VFR
N2174V	8/8/2016	C182	General Aviation	Visual Approach Following Termination of Air Traffic Services		10	VFR
X333UM	8/9/2016	CSNA	Military	Visual Approach Following Termination of Air Traffic Services		10	VFR
N610PT	8/10/2016	C510	General Aviation	Visual Approach Following Termination of Air Traffic Services		10	VFR
N31407	8/10/2016	PA32	General Aviation	Visual Approach Following Termination of Air Traffic Services		10	VFR
X407	8/11/2016	-	Military	Visual Approach Following Termination of Air Traffic Services		10	VFR
N525EM	8/12/2016	C25C	General Aviation	Visual Approach Following Termination of Air Traffic Services		10	VFR

0/2023 9:46 AM

Aircraft ID	Date	Aircraft Type	User Class	Likely Operation	Lowest Ceiling (Above Airport)	Lowest Visibility (Statute Miles)	Weather
MRA603	8/13/2016	C208	Air Carrier	Visual Approach Following Termination of Air Traffic Services	3200	7	VFR
N610PT	8/15/2016	C510	General Aviation	Visual Approach Following Termination of Air Traffic Services		10	VFR
N972JB	8/16/2016	SR22	General Aviation	Visual Approach Following Termination of Air Traffic Services	4400	7	VFR
X7TN	8/16/2016	-	Military	Visual Approach Following Termination of Air Traffic Services	3700	10	VFR
N525EM	8/19/2016	C25C	General Aviation	Visual Approach Following Termination of Air Traffic Services		10	VFR
MRA603	8/20/2016	C208	Air Carrier	Visual Approach Following Termination of Air Traffic Services		7	VFR
PO29	8/20/2016	-	Military	Visual Approach Following Termination of Air Traffic Services		7	VFR
X72D	8/22/2016	-	Military	Visual Approach Following Termination of Air Traffic Services		10	VFR
G23677	8/24/2016	HELO	Military	Visual Approach Following Termination of Air Traffic Services		10	VFR
X13Q	8/26/2016	-	Military	Visual Approach Following Termination of Air Traffic Services		10	VFR
MRA603	8/27/2016	C208	Air Carrier	Visual Approach Following Termination of Air Traffic Services	7500	10	VFR
N75327	8/27/2016	P28A	General Aviation	Visual Approach Following Termination of Air Traffic Services	7500	10	VFR
XCP2034	8/28/2016	-	Air Carrier	Visual Approach Following Termination of Air Traffic Services	1100	7	MVFR,VFR
X83V	8/29/2016	PA28	Military	Visual Approach Following Termination of Air Traffic Services		10	VFR
N828DS	9/3/2016	BE36	General Aviation	Visual Approach Following Termination of Air Traffic Services		7	VFR
MRA603	9/3/2016	C208	Air Carrier	Visual Approach Following Termination of Air Traffic Services		7	VFR
PO33	9/3/2016	-	Military	Visual Approach Following Termination of Air Traffic Services		10	VFR
X40S	9/3/2016	-	Military	Visual Approach Following Termination of Air Traffic Services		10	VFR
X407	9/10/2016	-	Military	Visual Approach Following Termination of Air Traffic Services	300	1.5	IFR
N474KC	9/14/2016	PC12	General Aviation	Visual Approach Following Termination of Air Traffic Services		10	VFR
N610PT	9/15/2016	C510	General Aviation	Visual Approach Following Termination of Air Traffic Services		10	VFR
POV	9/15/2016	C510	Air Carrier	Visual Approach Following Termination of Air Traffic Services		10	VFR
X350A	9/16/2016	-	-	Visual Approach Following Termination of Air Traffic Services		10	VFR
N4844F	9/19/2016	C172	General Aviation	Visual Approach Following Termination of Air Traffic Services		10	VFR
MRA603	9/24/2016	C208	Air Carrier	Visual Approach Following Termination of Air Traffic Services		10	VFR
N44WZ	9/28/2016	RV4	General Aviation	Visual Approach Following Termination of Air Traffic Services		10	VFR
MRA603	10/1/2016	C208	Air Carrier	Visual Approach Following Termination of Air Traffic Services	500	1.75	IFR
X72D	10/3/2016	-	Military	Visual Approach Following Termination of Air Traffic Services	5000	10	VFR
N525EM	10/4/2016	C525	General Aviation	Visual Approach Following Termination of Air Traffic Services		10	VFR
N710PT	10/6/2016	C25B	General Aviation	Visual Approach Following Termination of Air Traffic Services		10	VFR
MRA603	10/8/2016	C208	Air Carrier	Visual Approach Following Termination of Air Traffic Services		10	VFR
PO53	10/8/2016	-	Military	Visual Approach Following Termination of Air Traffic Services		10	VFR
N1689H	10/8/2016	PA28	General Aviation	Visual Approach Following Termination of Air Traffic Services		10	VFR
X4WA	10/9/2016	-	Military	Visual Approach Following Termination of Air Traffic Services		10	VFR
PO89	10/10/2016	-	Military	Visual Approach Following Termination of Air Traffic Services		10	VFR
X6294T	10/11/2016	-	Military	Visual Approach Following Termination of Air Traffic Services		10	VFR
N525EM	10/13/2016	C525	General Aviation	Visual Approach Following Termination of Air Traffic Services		10	VFR
CGPLS	10/14/2016	C210	Other	Visual Approach Following Termination of Air Traffic Services		10	VFR
PO34	10/15/2016	-	Military	Visual Approach Following Termination of Air Traffic Services		10	VFR
X828DS	10/19/2016	-	Military	Visual Approach Following Termination of Air Traffic Services		10	VFR
X2AE	10/19/2016	-	Military	Visual Approach Following Termination of Air Traffic Services		10	VFR
MRA603	10/22/2016	C208	Air Carrier	Visual Approach Following Termination of Air Traffic Services	3500	10	VFR
N828DS	10/22/2016	BE36	General Aviation	Visual Approach Following Termination of Air Traffic Services		10	VFR
MRA603	10/29/2016	C208	Air Carrier	Visual Approach Following Termination of Air Traffic Services		10	VFR
PO35	10/29/2016	-	Military	Visual Approach Following Termination of Air Traffic Services		10	VFR
X3JR	10/29/2016	-	Military	Visual Approach Following Termination of Air Traffic Services		10	VFR
N710PT	11/1/2016	C25B	General Aviation	Visual Approach Following Termination of Air Traffic Services		10	VFR
N9585C	11/1/2016	PA32	General Aviation	Visual Approach Following Termination of Air Traffic Services	6000	10	VFR

Aircraft ID	Date	Aircraft Type	User Class	Likely Operation	Lowest Ceiling (Above Airport)	Lowest Visibility (Statute Miles)	Weather
XCP2027	11/5/2016	-	Air Carrier	Visual Approach Following Termination of Air Traffic Services		7	VFR
MRA603	11/12/2016	C208	Air Carrier	Visual Approach Following Termination of Air Traffic Services		10	VFR
N807GK	11/12/2016	SR20	General Aviation	Visual Approach Following Termination of Air Traffic Services		10	VFR
PO36	11/19/2016	-	Military	Visual Approach Following Termination of Air Traffic Services	4800	10	VFR
XLFT	11/21/2016	HELO	Other	Visual Approach Following Termination of Air Traffic Services		10	VFR
MRA603	11/26/2016	C208	Air Carrier	Visual Approach Following Termination of Air Traffic Services	1100	10	MVFR
N629RM	12/2/2016	PA31	-	Visual Approach Following Termination of Air Traffic Services	3900	10	VFR
MRA603	12/3/2016	C208	Air Carrier	Visual Approach Following Termination of Air Traffic Services	1600	10	MVFR
N629RM	12/5/2016	PA31	General Aviation	Visual Approach Following Termination of Air Traffic Services	3200	7	VFR
N629RM	12/9/2016	PA31	General Aviation	Visual Approach Following Termination of Air Traffic Services	12000	10	VFR
MRA603	12/10/2016	C208	Air Carrier	Visual Approach Following Termination of Air Traffic Services	12000	10	VFR
XL7UM	12/11/2016	-	Military	Visual Approach Following Termination of Air Traffic Services	12000	10	VFR
X8DS	12/19/2016	BE36	Military	Visual Approach Following Termination of Air Traffic Services		10	VFR
X09L	12/20/2016	-	Military	Visual Approach Following Termination of Air Traffic Services		10	VFR
X60J	12/21/2016	-	Military	Visual Approach Following Termination of Air Traffic Services		7	VFR
N8426G	12/22/2016	PA34	General Aviation	Visual Approach Following Termination of Air Traffic Services	2600	10	MVFR
N5886M	1/1/2017	SR20	General Aviation	Visual Approach Following Termination of Air Traffic Services		10	VFR
N6464E	1/2/2017	C172	General Aviation	Visual Approach Following Termination of Air Traffic Services		5	MVFR
PO16	1/2/2017	-	Military	Visual Approach Following Termination of Air Traffic Services		5	MVFR
MRA603	1/7/2017	C208	Air Carrier	Visual Approach Following Termination of Air Traffic Services		10	VFR
PO14	1/14/2017	-	Military	Visual Approach Following Termination of Air Traffic Services	8000	10	VFR
MRA603	2/4/2017	C208	Air Carrier	Visual Approach Following Termination of Air Traffic Services		10	VFR
PO31	2/4/2017	-	Military	Visual Approach Following Termination of Air Traffic Services		10	VFR
N710PT	2/9/2017	C525	General Aviation	Visual Approach Following Termination of Air Traffic Services	900	1	IFR
N710PT	2/9/2017	C525	General Aviation	Visual Approach Following Termination of Air Traffic Services	4100	10	VFR
MRA603	2/11/2017	C208	Air Carrier	Visual Approach Following Termination of Air Traffic Services		5	MVFR
PO30	2/11/2017	-	Military	Visual Approach Following Termination of Air Traffic Services		5	MVFR
PO29	2/18/2017	-	Military	Visual Approach Following Termination of Air Traffic Services		10	VFR
X8DS	2/18/2017	-	Military	Visual Approach Following Termination of Air Traffic Services		10	VFR
X22W	2/23/2017	-	Military	Visual Approach Following Termination of Air Traffic Services		10	VFR
X13Q	3/2/2017	-	Military	Visual Approach Following Termination of Air Traffic Services		10	VFR
X153SA	3/4/2017	-	Military	Visual Approach Following Termination of Air Traffic Services		10	VFR
PO26	3/11/2017	-	Military	Visual Approach Following Termination of Air Traffic Services		10	VFR
N877DE	3/19/2017	PA32	General Aviation	Visual Approach Following Termination of Air Traffic Services		10	VFR
X280	3/22/2017	-	Military	Visual Approach Following Termination of Air Traffic Services		10	VFR
MRA603	4/1/2017	C208	Air Carrier	Visual Approach Following Termination of Air Traffic Services		10	VFR
PO35	4/1/2017	-	Military	Visual Approach Following Termination of Air Traffic Services		10	VFR
N432AE	4/2/2017	M20	-	Visual Approach Following Termination of Air Traffic Services		10	VFR
XLFT	4/8/2017	HELO	Other	Visual Approach Following Termination of Air Traffic Services		10	VFR
N8304P	4/10/2017	PA24	General Aviation	Visual Approach Following Termination of Air Traffic Services		10	VFR
N525EM	4/13/2017	C25C	General Aviation	Visual Approach Following Termination of Air Traffic Services	6000	10	VFR
N828DS	4/14/2017	BE36	-	Visual Approach Following Termination of Air Traffic Services		10	VFR
N828DS	4/14/2017	BE36	-	Visual Approach Following Termination of Air Traffic Services		10	VFR
MRA603	4/15/2017	C208	Air Carrier	Visual Approach Following Termination of Air Traffic Services	3800	3	MVFR
PO35	4/15/2017	-	Military	Visual Approach Following Termination of Air Traffic Services	3800	3	MVFR
N6076T	4/18/2017	C182	General Aviation	Visual Approach Following Termination of Air Traffic Services		10	VFR
MRA603	4/22/2017	C208	Air Carrier	Visual Approach Following Termination of Air Traffic Services		10	VFR
PO47	4/22/2017	-	Military	Visual Approach Following Termination of Air Traffic Services		10	VFR

Aircraft ID	Date	Aircraft Type	User Class	Likely Operation	Lowest Ceiling (Above Airport)	Lowest Visibility (Statute Miles)	Weather
MRA603	4/29/2017	C208	Air Carrier	Visual Approach Following Termination of Air Traffic Services	2300	10	MVFR
XLFNT	5/3/2017	HELO	Other	Visual Approach Following Termination of Air Traffic Services		10	VFR
MRA603	5/6/2017	C208	Air Carrier	Visual Approach Following Termination of Air Traffic Services		10	VFR
N710PT	5/11/2017	C258	General Aviation	Visual Approach Following Termination of Air Traffic Services	6500	10	VFR
N787EP	5/11/2017	C25C	General Aviation	Visual Approach Following Termination of Air Traffic Services		10	VFR
N807AD	5/11/2017	C56X	-	Visual Approach Following Termination of Air Traffic Services		10	VFR
N350A	5/12/2017	C340	-	Visual Approach Following Termination of Air Traffic Services		10	VFR
MRA603	5/13/2017	C208	Air Carrier	Visual Approach Following Termination of Air Traffic Services		10	VFR
XLFNT	5/18/2017	HELO	Other	Visual Approach Following Termination of Air Traffic Services		10	VFR
N64KT	5/19/2017	C340	-	Visual Approach Following Termination of Air Traffic Services	1500	10	MVFR
MRA603	5/20/2017	C208	Air Carrier	Visual Approach Following Termination of Air Traffic Services		10	VFR
N119MS	5/21/2017	C210	General Aviation	Visual Approach Following Termination of Air Traffic Services	8000	10	VFR
N877DE	5/22/2017	PA32	General Aviation	Visual Approach Following Termination of Air Traffic Services	4500	10	VFR
X78P	5/23/2017	-	Military	Visual Approach Following Termination of Air Traffic Services	7000	10	VFR
N31407	5/23/2017	P28A	-	Visual Approach Following Termination of Air Traffic Services	7500	10	VFR
N31407	5/23/2017	P28A	-	Visual Approach Following Termination of Air Traffic Services	7500	10	VFR
MRA603	5/27/2017	C208	Air Carrier	Visual Approach Following Termination of Air Traffic Services		7	VFR
N31407	5/30/2017	P28A	General Aviation	Visual Approach Following Termination of Air Traffic Services	5000	10	VFR

Greg Ackerman
6/25/19
RECEIVED by MSC 8/30/2023 9:43:16 AM

LARA Corporations
Online Filing System
Department of Licensing and Regulatory Affairs

Form Revision Date 07/2016

ARTICLES OF INCORPORATION
For use by DOMESTIC NONPROFIT CORPORATION

Pursuant to the provisions of Act 162, Public Acts of 1982, the undersigned corporation executes the following Articles:

ARTICLE I

The name of the corporation is:

FRIENDS OF THE TUSCOLA AREA AIRPORT, INC.

ARTICLE II

The purpose or purposes for which the corporation is formed are:

To identify and study issues relating to the maintenance and operation of the Tuscola Area Airport, including, but not limited to, the airport's impact upon the prosperity of the region, as well to act in any manner permissible under Section 501 of the Internal Revenue Code.

ARTICLE III

The Corporation is formed upon basis.

If formed on a stock basis, the total number of shares the corporation has authority to issue is

If formed on a nonstock basis, the description and value of its real property assets are (if none, insert "none"):

None

The description and value of its personal property assets are (if none, insert "none"):

None

The corporation is to be financed under the following general plan:

The corporation will be financed through donations from its directors, committee members, and the general public.

The Corporation is formed on a basis.

ARTICLE IV

The street address of the registered office of the corporation and the name of the resident agent at the registered office (P.O. Boxes are not acceptable):

1. Agent Name: MATT SHELSON
2. Street Address: 21 N. ALMER ST.
Apt/Suite/Other:
City: CARO
State: MI

Zip Code: 48723

3. Registered Office Mailing Address:

P.O. Box or Street Address: 21 N. ALMER ST.
Apt/Suite/Other:
City: CARO
State: MI

ARTICLE V

The name(s) and address(es) of the incorporator(s) is (are) as follows:

Name	Residence or Business Address
JOSHUA J. NOLAN	405 MADISON AVE., SUITE 1000, TOLEDO, OH 43604 USA

Signed this 11th Day of April, 2019 by the incorporator(s).

Signature	Title	Title if "Other" was selected
Joshua J Nolan	Incorporator	

By selecting ACCEPT, I hereby acknowledge that this electronic document is being signed in accordance with the Act. I further certify that to the best of my knowledge the information provided is true, accurate, and in compliance with the Act.

☐ Decline ☒ Accept

MICHIGAN DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS
FILING ENDORSEMENT

This is to Certify that the ARTICLES OF INCORPORATION

for

FRIENDS OF THE TUSCOLA AREA AIRPORT, INC.

ID Number: 802310276

received by electronic transmission on April 11, 2019 ***, is hereby endorsed.***

Filed on April 11, 2019 ***, by the Administrator.***

The document is effective on the date filed, unless a subsequent effective date within 90 days after received date is stated in the document.



In testimony whereof, I have hereunto set my hand and affixed the Seal of the Department, in the City of Lansing, this 11th day of April, 2019.

Julia Dale, Director

Corporations, Securities & Commercial Licensing Bureau

Jodi Fetting
Tuscola County Clerk
www.tuscolacounty.org

Tuscola County Clerk's Office



440 N. State Street
Caro, MI 48723
989-672-3780

PUBLIC NOTICE

Residents of Tuscola County please take notice
At the Call of the Chairman to the
Tuscola County Airport Zoning Board of Appeals
The July 16, 2019 meeting has been rescheduled to
July 25, 2019 at 4:30 p.m.

The continued meeting to review
Variance applications received
Will be held on **Thursday, July 25, 2019 at 4:30 p.m.**
At the Tuscola Technology Center,
1401 Cleaver Road, Caro Michigan.

Jodi Fetting
Tuscola County Clerk
On behalf of AZBA Chairman
Posted: July 15, 2019 at 9:30 a.m.

Jodi Fetting
Tuscola County Clerk
www.tuscolacounty.org

Tuscola County Clerk's Office



440 N. State Street
Caro, MI 48723
989-672-3780

PUBLIC NOTICE

Residents of Tuscola County please take notice the
Tuscola County Airport Zoning Board of Appeals
Recessed their meeting held on July 9, 2019.

The continued meeting to review
Variance applications received

Will be held on **Tuesday, July 16, 2019 at 4:30 p.m.**

At the Tuscola Technology Center,
1401 Cleaver Road, Caro Michigan.

Jodi Fetting
Tuscola County Clerk
On behalf of AZBA Chairman
Posted: July 10, 2019

Jodi Fetting
Tuscola County Clerk
www.tuscolacounty.org

Tuscola County Clerk's Office



440 N. State Street
Caro, MI 48723
989-672-3780

PUBLIC NOTICE

Residents of Tuscola County please take notice

The Tuscola County Airport Zoning

Board of Appeals

Has scheduled a Meeting

To review variance applications filed

For Tuesday, July 9, 2019 at 4:30 p.m.

At the Tuscola Technology Center

1401 Cleaver Road, Caro Michigan.

**Jodi Fetting
Tuscola County Clerk
On behalf of AZBA Chairman
Posted: June 28, 2019**

Jodi Fetting
Tuscola County Clerk
www.tuscolacounty.org

Tuscola County Clerk's Office



440 N. State Street
Caro, MI 48723
989-672-3780

PUBLIC NOTICE

Residents of Tuscola County please take notice

The Tuscola County Airport Zoning

Board of Appeals

Has scheduled a Meeting

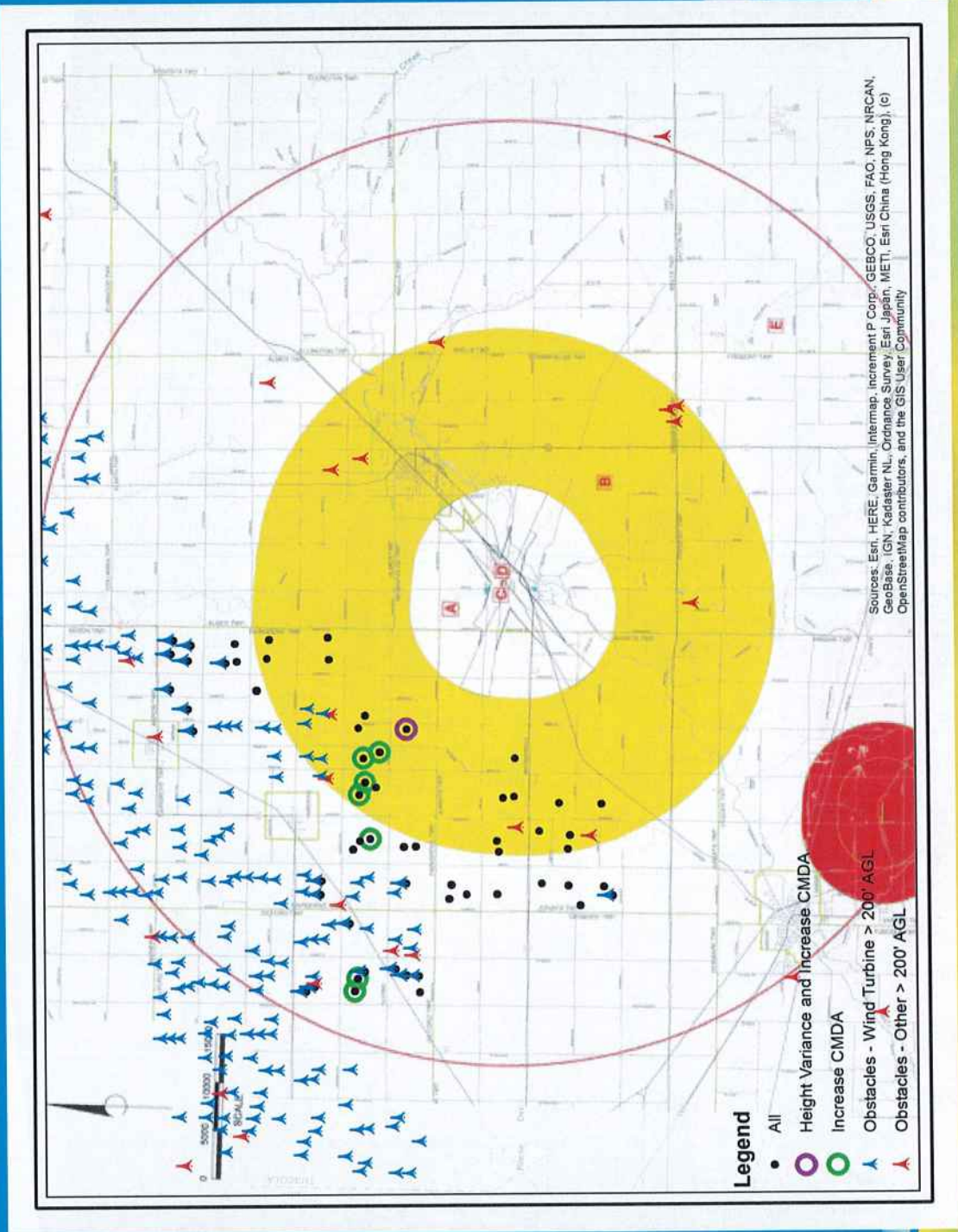
To review variance applications filed

For Tuesday, June 25, 2019 at 4:30 p.m.

At the Tuscola Technology Center

1401 Cleaver Road, Caro Michigan.

Jodi Fetting
Tuscola County Clerk
Posted: June 14, 2019



1 interest. There are 246 people in Almer Township that
2 doesn't think this is in their best interest. And
3 there are 244 people in Ellington Township that doesn't
4 think a variance is in their best interest. That's
5 three to one. And we're supposed to consider the
6 public interest. Three to one against it that I've
7 seen here.

8 And we talk about hardship and undue
9 hardship. What we've heard here is NextEra at the very
10 beginning not only did they plan knowingly, willingly
11 and intentionally to violate this ordinance, a good
12 ordinance -- not only did they plan to violate it, they
13 went ahead and violated it. And when they were caught
14 doing that, they're here asking us five people to
15 reward them for violating the ordinance.

16 Now, I don't know about the country you live
17 in. The country I live in, people don't get rewarded
18 for violating the law. Thank you.

19 CHAIRMAN KOSIK: Thank you. Any other board
20 comment?

21 MR. KINNEY: I'd like to just talk about
22 3.6-E. And that says would otherwise endanger the
23 landing, takeoff or maneuvering of an aircraft. That's
24 not been brought up much in this whole discussion. But
25 if you look at the airspace around the Tuscola Area

1 Airport, up to 700 feet, that is Class G airspace.
2 It's uncontrolled airspace. If you get outside of 6.6
3 miles of the airport, it goes up to 1,200 feet of the
4 ground.

5 And we have a lot of VFR flyers who have
6 talked a lot about instrument approaches. But most of
7 the -- most of the traffic in and out of the Caro
8 Airport is VFR. Flying Class G space VFR, there are
9 windmills. And the minimum for flying in that airspace
10 is one statute mile of flight visibility and clear of
11 clouds.

12 We talked about the instrument approaches,
13 the minimums for those instrument approaches are one
14 statue mile. And so basically the minimums -- the
15 weather minimums for flying VFR for takeoff and landing
16 at the Caro Airport are the same as they are for the
17 instrument approaches.

18 Now, keeping that in mind, these VFR pilots
19 are completely legal to take off if the visibility is
20 greater than a mile, VFR. And if they do that, then
21 there's a couple of other things that you need to take
22 into consideration. The standards for maintaining
23 altitude in an airplane is plus or minus 100 feet. If
24 you can maintain plus or minus 100 feet, then you're
25 flying a good airplane.