

1. 8:00 A.M. 7-24-19 Packet

Documents:

[**PACKET.PDF**](#)

**GRAND TRAVERSE COUNTY BOARD OF COMMISSIONERS
STUDY SESSION**

**Wednesday, July 24, 2019
8:00 a.m.**

**Governmental Center, Commission Chambers
400 Boardman Avenue
Traverse City, Michigan 49684**

A Study Session is held for review and discussion of information only. This study session is being held to receive an update regarding the Airport.

If you are planning to attend and you have a disability requiring any special assistance at the meeting, please notify the County Clerk immediately at 922-4760.

AGENDA

1. OPENING CEREMONIES OR EXERCISES
2. ROLL CALL
3. FIRST PUBLIC COMMENT

Any person shall be permitted to address a meeting of the Board of Commissioners which is required to be open to the public under the provision of the Michigan Open Meetings Act. Public Comment shall be carried out in accordance with the following Board Rules and Procedures:

Any person wishing to address the Board shall state his or her name and address.

No person shall be allowed to speak more than once on the same matter, excluding time needed to answer Commissioners' questions, if any. The Chairperson shall control the amount of time each person shall be allowed to speak, which shall not exceed three (3) minutes. The Chairperson may, at his or her discretion, extend the amount of time any person is allowed to speak.

Public comment will be solicited during the two public comment periods noted in Rule 5.4, Order of Business. However, public comment will generally be received at any time during the meeting regarding a specific topic currently under discussion by the board. Members of the public wishing to comment should raise their hand or pass a note to the clerk in order to be recognized, and shall not address the board until called upon by the chairperson. Please be respectful and refrain from personal or political attacks.

4. Airport Update – Maintaining/Improving Land Use and Obstructions
5. SECOND PUBLIC COMMENT (Refer to Rules under Public Comment above)
6. ADJOURNMENT

Cherry Capital Airport

AIRPORT UPDATE

MAINTAINING- IMPROVING LAND USE &
OBSTRUCTIONS



Northwestern Regional Airport Commission

NRAC as directed by the Leelanau and Grand Traverse Counties

- ▶ Pursuant to Ch. 7 of the Michigan Aeronautics Code section 134
 - ▶ Acquire, establish, construct, enlarge, improve, maintain, equip, operate, regulate the Cherry Capital Airport and other aeronautical facilities and property incidental to its' operation per Public Act 327 of the Michigan Aeronautics Code
 - ▶ It is expressly understood that the NRAC shall comply with all laws and regulations, municipal, state, and federal

Public Act 327

- ▶ Directs governmental control to the NRAC to:
 - ▶ Act on behalf of the political subdivisions (Grand Traverse County and Leelanau County)acting jointly by which the NRAC is appointed all the powers of each such political subdivisions granted by this act

Goals



► Northwestern Regional Airport Commission Goals

- Safe
- Secure
- Self Sufficient



TVC – 2018/2019

- ▶ 2018
- ▶ 96,189 Aircraft Operations
- ▶ 500,416 Total Passengers
- ▶ 2.2 Million Pounds of Cargo

- ▶ 2019
- ▶ Total Passenger Up 12.5%
 - ▶ June Up 24.8%
- ▶ Airline Operations Up 10.7%
- ▶ 216,571 Pounds of Cargo in June Up 5.1%



Airport Finance

- ▶ Operating Budget - \$6.4 million
- ▶ Supported by landing fees, aircraft and vehicle parking fees, rental fees, land rent, and concessionaire fees –those that use the airport support the airport
- ▶ NO LOCAL TAX DOLLARS
- ▶ Cherry Capital Airport is completely self sufficient



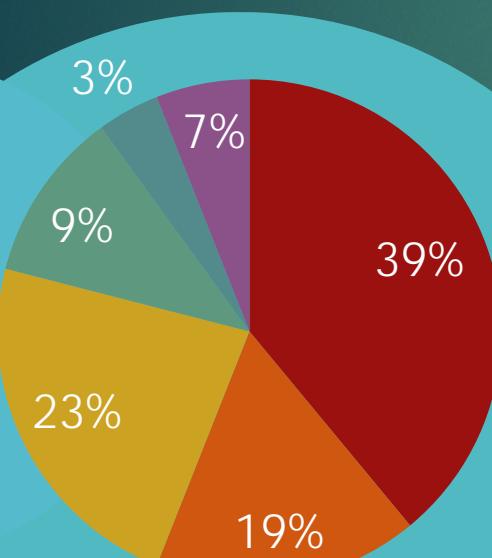
Airport Finance



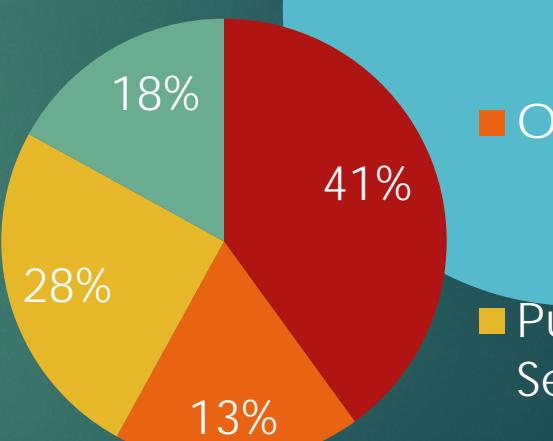
- ▶ Capital Budget \$2.0 million per year
 - ▶ Funding
 - ▶ Airport Improvement Program (AIP) money is made up from the tax on an airline ticket
 - ▶ Passenger Facility Charges - \$4.50 per passenger
 - ▶ Funding is from the users of the airport system, no local tax dollars are used to support Cherry Capital Airport



Operating Revenues



Operating Expenses



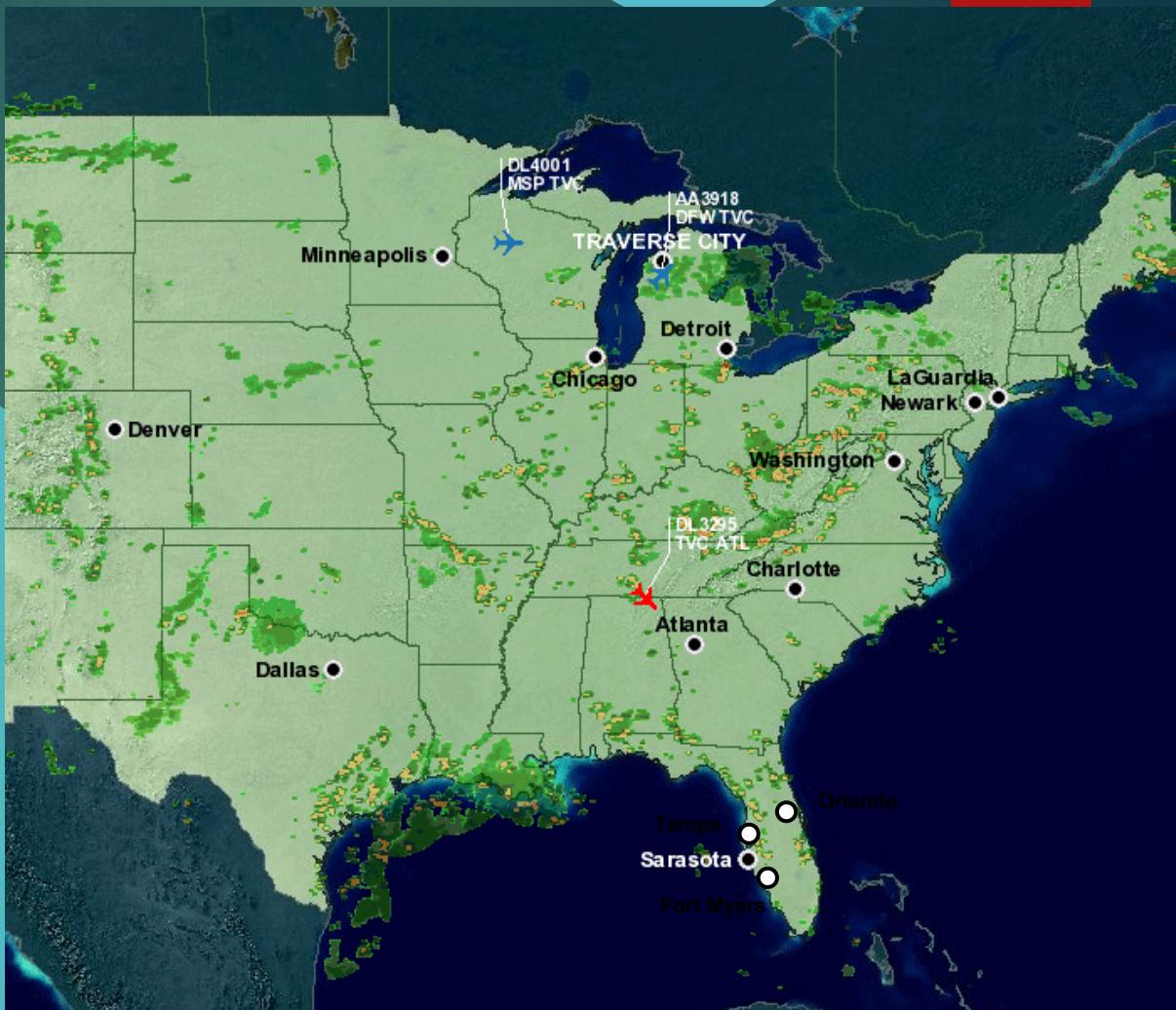
- Rental Income
- Rent-A-Car
- Parking
- Landing
- Aviation fuel
- Other

- Personnel Costs
- Occupancy
- Purchased Services
- Other

Airport Economic Impact

- ▶ Michigan Department of Transportation – Office of Aeronautics – Community Benefits Assessment 2017
 - ▶ Determined that TVC annual economic Impact is **\$991,364,000** ranking TVC 3rd in the state behind DTW and GRR
 - ▶ Average visitor spending per person is **\$752.00** ranking TVC number 1 in the state
 - ▶ Local jobs 2,199

Airline Service – 5 Airlines, 14 Cities



Compatible Land Use

- ▶ Land use on and in the vicinity of Airports (natural and man made) must be reserved for compatible uses to provide for the health, safety, and general welfare of the public
 - ▶ This is accomplished through Federal Aviation Regulations, Part 77 and 139, Michigan Aeronautics Code, Michigan Zoning Enabling Act
 - ▶ Local zoning also recognizes these hazards and regulates them
 - ▶ East Bay Township
 - ▶ Garfield Township
 - ▶ City of Traverse City
 - ▶ Acme Township
 - ▶ Peninsula Township
 - ▶ Elmwood Township



FAA Form 7460-1Notice of Proposed Construction or Alteration

NOTICE OF PROPOSED CONSTRUCTION OR ALTERATION

§ 77.7 Form and time of notice.
If you are required to file under § 77.5, you must file the Form in accordance with FAA Form 7440-1, Notice of Proposed Construction or Alteration, FAA Form 7440-1 is available at FAA regional offices and on the Internet.

(b) You must submit this form at least 45 days before the start date of the proposed construction or alteration or the date an application for a construction permit is filed, whichever is earliest. (c) If you propose construction or alteration that is also subject to the licensing requirement of the Federal Communications Commission (FCC), you must submit your notice to the FAA on or before the date that the application is filed with the FCC.

(d) If you propose construction or alteration to an existing structure that exceeds 2,000 ft. in height above ground level (AGL), the FAA presumes it to be a hazard to air navigation that results in an inefficient use of airspace. You must include detailed information with your notice that would not constitute a hazard to air navigation and why it would not cause an inefficient use of airspace.

(e) The 45-day advance notice requirement is waived if immediate construction or alteration is required because of an emergency involving essential public services, public health, or public safety. You must file the notice with the FAA by any available means. If you file a completed Form 7440-1 within 5 days of the initial notice to the FAA, outside normal business hours, the nearest flight service station will accept emergency notices.

§ 77.9 Construction or alteration requiring notice.
If requested by the FAA, or if you propose any of the following types of construction or alteration, you must file notice with the FAA:

(a) Any construction or alteration that is more than 200 ft. AGL at its site.

(b) Any construction or alteration that exceeds an imaginary line extending outward and upward at any of the following angles:

(1) 10° to 15° horizontal distance of 20,000 ft. from the nearest point of the nearest runway of each airport described in paragraph (d) of this section with its longest runway more than 3,200 ft. in actual length, excluding heliports.

(2) 10° to 15° horizontal distance of 10,000 ft. from the nearest point of the nearest runway of each airport described in paragraph (d) of this section with its longest runway no more than 3,200 ft. in actual length, excluding heliports.

(3) 25 to 1 for a horizontal distance of 5,000 ft. From the nearest point of the nearest runway of each airport or heliport described in paragraph (d) of this section.

(a) Any highway, railroad, or other structure or for mobile objects, of a height which, if adjusted upward 17 feet for an Interstate Highway that is part of the National System of Military and Interstate Highways where overcrossings are designed for a minimum height of 17 feet, would normally traverse any other public roadway, feet or the height of the mobile object would normally traverse the road which is greater, for a primary road, 23 feet for a railroad and for a secondary or other minor traversal way, per section 107 of the National System of Highways, the height of the highest mobile object that would normally traverse it would, except a standard paragraph (a) or (b) of this section.

(d) Any construction or alteration on any of the following airports and heliports:

(1) A public use airport listed in the Airport/Facility Directory, Airport Supplement, Pacific Coast Supplement of the U.S. Government Flight Information Publications.

(2) A military airport under construction or an airport under construction that will be available for public use.

(3) An airport or heliport operated by a Federal agency or the DOD.

(4) An airport or heliport with at least one FAA-approved instrument approach procedure.

(e) You do not need to file notice for construction or alteration of:

(1) Any object that will be shielded by existing structure of a permanent and substantial nature or height of equal or greater height and will be located in the congested area of a city, town, or settlement where the shielded structure will not adversely affect safety in air navigation;

(2) Any air navigation facility, airport visual approach or landing aid, aircraft search device, or meteorological device meeting FAA requirements for the use of the facility or service, or service siting criteria on military airports, the location and height of which are fixed by its functional purpose;

(3) Any construction or alteration for which notice is required by any other FAA regulation;

(4) Any antenna structure of 20 feet or less in height, except one that would increase the height of another antenna structure.

Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177
Fax: (817) 520-5555

Website: <https://ocean.faa.gov>

Federal Regulations and Standards

- ▶ **Federal Aviation Regulation Part 139 – Certification of Airports**
 - ▶ In a manner authorized by the Administrator, each certificate holder must ensure that each object in each area within its authority that has been determined by the FAA to be an obstruction is removed, marked, or lighted, unless determined to be unnecessary by an FAA aeronautical study. FAA Advisory Circulars contain methods and procedures for the lighting of obstructions that are acceptable to the Administrator.
- ▶ **Protecting for Federal Aviation Regulation Part 77**
 - ▶ The size of each Part 77 imaginary surface is based on the category of each runway.
 - ▶ Categories are based on the type of runway – utility or non-utility and type of runway approach – visual, non-precision or precision instrument.
 - ▶ This information must be shown on your Airport Layout Plan (ALP) and kept current.
 - ▶ The FAA 5010 Airport Master Report (lines 50-58) identify obstruction data related to Part 77 Approach Surface.
- ▶ **Application of Table 3-2 in FAA's AC 150/5300-13A "Design AC".**
 - ▶ Table 3-2 Approach/departure standards table (aka "TSS").
 - ▶ Per a specific runway type (nine categories in table) based on visual or instrument approach, type of aircraft, and visibility minimums.
 - ▶ More recently updated ALPs are showing the application of TSS. TSS cannot be applied to a runway unless shown on an approved ALP.

OBSTRUCTION IDENTIFICATION SURFACES FEDERAL AVIATION REGULATIONS PART 77							
DIM	ITEM	DIMENSIONAL STANDARDS (FEET)					
		VISUAL RUNWAY		NON - PRECISION INSTRUMENT RUNWAY		PRECISION INSTRUMENT RUNWAY PIR	
		A	B	A	B	C	D
A	WIDTH OF <u>PRIMARY SURFACE</u> AND APPROACH SURFACE WIDTH AT INNER END	250	500	500	500	1,000	1,000
B	RADIUS OF <u>HORIZONTAL SURFACE</u>	5,000	5,000	5,000	10,000	10,000	10,000
		VISUAL APPROACH		NON - PRECISION INSTRUMENT APPROACH		PRECISION INSTRUMENT APPROACH	
		A	B	A	B	C	D
C	APPROACH SURFACE WIDTH AT END	1,250	1,500	2,000	3,500	4,000	16,000
D	APPROACH SURFACE LENGTH	5,000	5,000	5,000	10,000	10,000	*
E	APPROACH SLOPE	20:1	20:1	20:1	34:1	34:1	*

- A - UTILITY RUNWAYS
- B - RUNWAYS LARGER THAN UTILITY
- C - VISIBILITY MINIMUMS GREATER THAN 3/4 MILE
- D - VISIBILITY MINIMUMS AS LOW AS 3/4 MILE
- * - PRECISION INSTRUMENT APPROACH SLOPE IS 50:1 FOR INNER 10,000 FEET AND 40:1 FOR AN ADDITIONAL 40,000 FEET



Table 3-2. Approach and Departure Standards Table 1.2

Runway Type	DIMENSIONAL STANDARDS* Feet (Meters)					Slope	
	A	B	C	D	E		
1	Approach end of runways expected to serve small airplanes with approach speeds less than 50 knots. (Visual runways only, day/night).	0 (0)	120 (37)	300 (91)	500 (152)	2,500 (762)	15:1
2	Approach end of runways expected to serve small airplanes with approach speeds of 50 knots or more. (Visual runways only, day/night).	0 (0)	250 (76)	700 (213)	2,250 (686)	2,750 (838)	20:1
3	Approach end of runway expected to serve large airplanes. (Visual runways only, day/night).	0 (0)	400 (122)	1,000 (305)	1,500 (457)	8,500 (2591)	20:1
4	Approach end of runways expected to accommodate instrument approaches having visibility greater than or equal to 3/4 statute mile. ³	200 (61)	400 (122)	3,400 (1158)	10,000 ⁴ (3048)	0 (0)	20:1
5	Approach end of runways expected to accommodate instrument approaches having visibility minimums less than 3/4 statute mile.	200 (61)	800 (244)	3,400 (1158)	10,000 ⁴ (3048)	0 (0)	34:1
6 ⁵	Approach end of runways expected to accommodate instrument approaches with vertical guidance.	0 (0)	Runway width 200 (61)	1520 (463)	10,000 ⁴ (3048)	0 (0)	30:1
7	Departure runway ends used for any instrument operations.	0 ⁶ (0)	See Figure 3-4.			40:1	

* The letters are keyed to those shown in Figure 3-2 of AC 150/5300-13A.

General Notes:

1. This table presents the dimensional standards applicable to varying runway types based on normal conditions (e.g. standard 3-degree glidepath angle). Meeting the requirements of this table will protect the use of the runway in both visual and instrument meteorological conditions near the airport while ensuring maximum runway utility. Final published visibility minimums are determined, in part, by applying the criteria described in FAA Order 8260.3.
2. For planning purposes, objects must remain clear of the surfaces provided in this table. The FAA Flight Procedures Team must mitigate existing obstacles that penetrate instrument procedures that cannot be removed, relocated, or lowered. A modification of standards is not issued for the surfaces described in this table, in accordance with FAA Order 5300.1.
3. Marking and lighting of obstacle penetrations to this surface or the use of a Visual Guidance Slope Indicator (VGSI), may avoid displacing the threshold. Contact the Flight Procedures Team if existing obstacles penetrate this surface.
4. 10,000 feet (3048 m) represents a nominal value for planning purposes. For runways with only straight-in approaches, the length is dependent on the TERPS visual descent point or DA point. For runways with both circling and straight-in approaches, the length is the greater of 10,000 feet or the TERPS visual descent point/DA point.
5. The criteria in Row 6 is required in addition to the applicable approach surface established within the table. Applicable to ILS, GLS, LPV, LNAV/VNAV, and RNP lines of minima.
6. Dimension A is measured relative to the TODA (to include clearway).

Federal grant assurances directly related to approaches.....

- ▶ Airport sponsors accepting federal AIP funding must agree to certain obligations and conditions associated with receiving the funds. These assurances require the grant recipients to maintain and operate their airports safely & efficiently and in accordance with specified conditions.
- ▶ Effective operation & maintenance of airport (#19)
- ▶ Hazard removal - Protection of approaches to airport (#20)
- ▶ Ensure compatible land use and zoning (#21)
- ▶ Adherence to the approved Airport Layout Plan (#29)

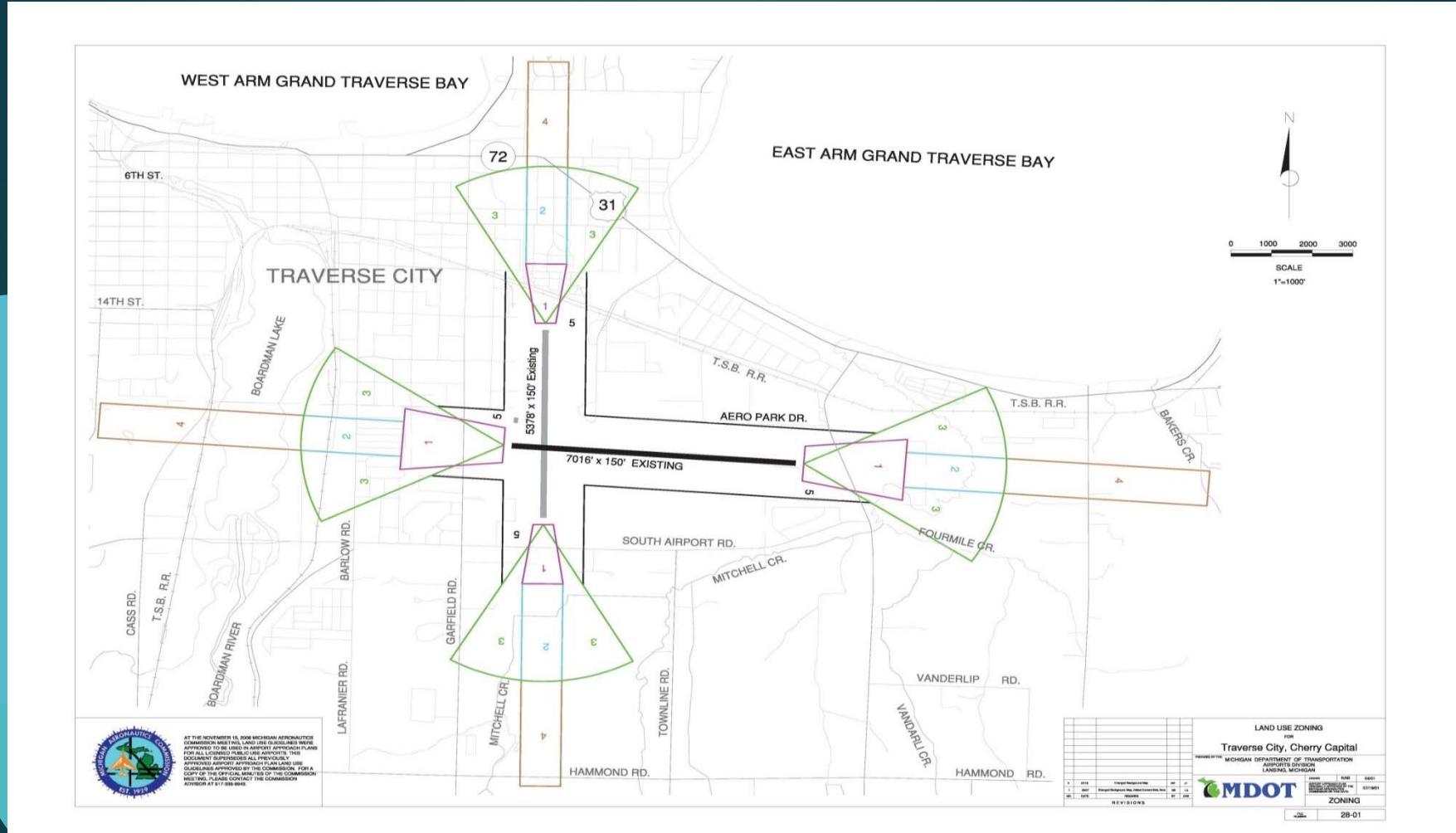
FAA Airport Inspection

- ▶ When an FAA Airport Inspector does an inspection at your airport, they provide you with an inspection report and an updated FAA 5010 Airport Master Record.
- ▶ They will provide comments about any deficiencies with meeting FAA standards.
- ▶ They are reporting Part 77 Obstruction Data on the Airport Master Record 5010 (lines 50-58) among other data updates. It's important for sponsors to review their inspection report and the 5010 in coordination with their current ALP.
- ▶ It's important to follow through in a timely manner with taking action on those obstructions identified that affect Part 77 Surfaces.

ALP Obstruction Tables & Approach Sheets

- ▶ The sponsor is required by grant assurances to maintain a current Airport Layout Plan (ALP).
- ▶ ALPs show runway surface obstruction tables. These tables show a proposed disposition (such as remove, lower, relocate, trim, DONH, etc.) for identified obstructions to Part 77 and TSS, if applied.
- ▶ The sponsor is responsible for evaluating their obstruction tables and taking timely action to follow through with the proposed disposition. A review of these tables will be done annually at the MAP meeting.
- ▶ If a Part 77 obstruction cannot be resolved or mitigated with the application of TSS, the sponsor may need to have further evaluation done through a FAA Aeronautical Study.
- ▶ Any identified obstruction to the TSS should be mitigated as soon as possible.
- ▶ The sponsor's ALP should be updated as these obstructions are resolved.

Michigan Approach Plan For TVC

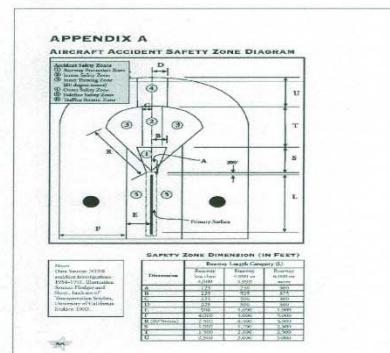


Michigan Approach Plan For TVC

- ▶ Land Use Characteristics
- ▶ Land Use Guidelines
- ▶ Land Use Planning Strategies

ACCIDENT SAFETY ZONES, LAND USE GUIDELINES AND PLANNING STRATEGIES FOR NEW DEVELOPMENT				
Accident Safety Zones	Land Use Characteristics	Land Use Guidelines	Land Use Planning Strategies	
Zone 1 High Risk Areas	Population Residential Commercial Industrial	Avoid land uses with high potential for pedestrian injuries or fatalities.	1. Avoid high density residential, commercial and industrial land uses within Zone 1.	
Residential vs. Commercial Land Use	Population Residential Commercial	Population Residential Commercial Industrial Land Use	1. Create a healthy built environment with a mix of residential, commercial and other uses. 2. Possible options should certain population and other demographic factors exist, include: high density residential areas (i.e. high density townhouses, high density apartments, high density condominiums). 3. Encourage mixed-use development to include residential, commercial and other uses. 4. Encourage mixed-use development to include residential, commercial and other uses.	
Special Protection Land Use	Population Residential Commercial Industrial	Population Residential Commercial Industrial Land Use	1. Prohibit enclosed utilities and all residential land uses within Zone 1, unless they offer the following benefits: high density residential development and other uses, including mixed-use development, or incorporate a mix of residential and non-residential uses, such as a mix of single-family, townhouse and condominium units. 2. Encourage mixed-use development to include residential, commercial and other uses.	

COMPATIBLE LAND USE MATRIX			
Adjacent Suburb Zone	Land Use Characteristics	Land Use Guidelines	Land Use Planning Strategies
Zone 2 Population Density	Population Density	Avoid land uses which are potentially harmful or objectionable. Prohibit all uses which are incompatible with the population density guidelines.	1. QCP population; 2. No buildings which by their nature, will be inherently harmful or objectionable; 3. Create a height based regulation mechanism; 4. Encourage separation and setbacks; 5. Encourage setbacks away from the roadway;
Special Character Zone	Special Character Zone	Prohibit all Special Character Land Use	1. Encourage mobile home parks; 2. Encourage low growing vegetation; 3. Encourage permeable paving; 4. Encourage permeable roof membranes; 5. Encourage permeable ground cover and 6. Encourage compatible land uses

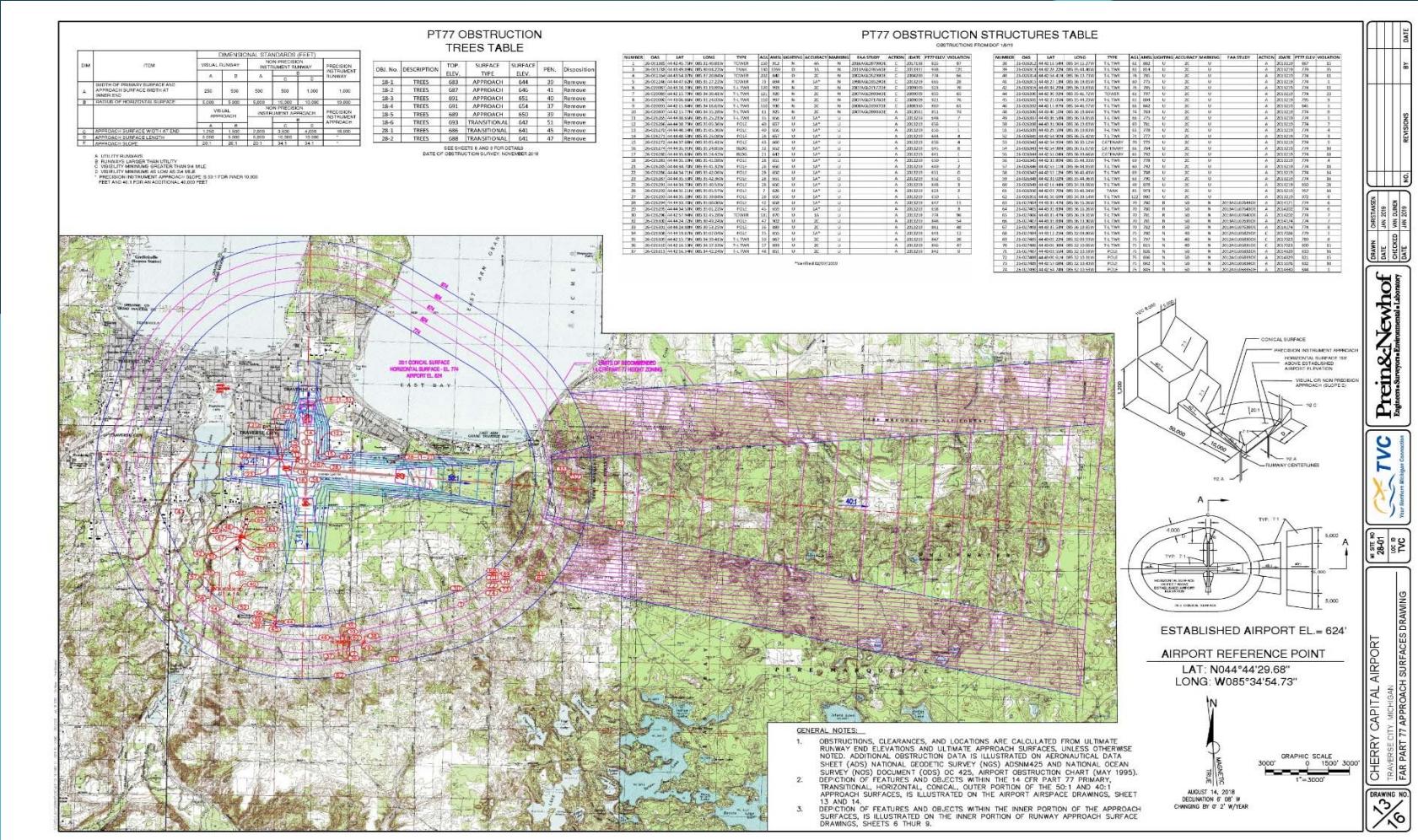


AT THE SEPTEMBER 19, 2009 MICHIGAN
AERONAUTICS COMMISSION MEETING, THESE
AIRCRAFT GUIDELINES WERE AMENDED AND
APPROVED TO BE USED IN GREAT LAKES APPROVAL
PLANS FOR ALL LICENSED PUBLIC USE
AIRPORTS. THIS DOCUMENT AMENDS ALL
PREVIOUSLY APPROVED AIRPORT APPROVAL
PLAN LAND USE GUIDELINES APPROVED BY
COMMISSION. FOR A COPY OF THE OFFICIAL
MINUTES OF THE COMMISSION MEETING,
PLEASE CONTACT THE COMMISSION ADVISOR
AT 517-335-2826.

ANY AIRPORT SPONSOR OR DULY AUTHORIZED REPRESENTATIVE OF A ZENITH LOCAL GOVERNMENTAL UNIT MAY REQUEST THAT MODIFICATIONS BE MADE TO THE APPROVAL OF AN AIRPORT APPROACH PLAN. ALL SUCH REQUESTS MUST CLEARLY STATE THE CHANGES TO THE CURRENT PLAN THAT ARE REQUESTED, AND ANY ANALYSIS USED TO JUSTIFY THE MODIFICATION. PLEASE CONTACT THE AIRPORT'S DIVISION ZONING SPECIALIST TO REQUEST ANY SUCH AMENDMENTS.

 MDOT MICHIGAN DEPARTMENT OF TRANSPORTATION AIRPORTS DIVISION		LAND USE GUIDELINE STATE OF MICHIGAN AIRPORT APPROACH	
APPROVED		 RON L. JOHNSON DIRECTOR OF AIRPORTS MICHIGAN DEPARTMENT OF TRANSPORTATION	
RES 91-1770-B		 DEPT OF TRANSPORTATION MICHIGAN	

Updated ALP Part 77 Obstruction Plan



Thank You

