West Michigan Airport Authority
60 Geurink Boulevard, Holland, MI 49423
Comprising City of Zeeland, Park Township and City of Holland

West Michigan Airport Authority

Meeting Agenda

October 20, 2025

4:00 p.m. – 6:30 p.m.

60 Geurink Blvd. Holland, MI 49423

Zoom Link

1. Call to Order
2. Roll Call
3. Approval of Agenda (3 Minutes): **Action Requested**.
4. Approval of Prior Meeting Minutes: (3 Minutes): **Action Requested**.
   A. September 8, 2025, Meeting Minutes
5. Unfinished Business
   A. Update on North Taxiway project (5 Minutes): **No Action Requested**
6. New Business
   A. Financial Reports (5 Minutes): **Action Requested**
   B. FBO Report (5 Minutes): **Action Requested**
   C. North Taxilane Change Order (10 Minutes): **Action Requested**
   D. Closed Session to consider the Purchase or Lease of Real Property (30 Minutes): **Action Requested**
   E. Crosswind Runway Committee Presentation (60 Minutes): **No Action Requested**
7. Communications from Airport Authority Manager
8. Updates from the Board
9. Public Comment

   *All public comments are limited to **3 minutes** per speaker on an Agenda item. The Public Comment period is established for members of the public to voice opinions to the Board only. The Chair holds discretion on any interaction by the Board, otherwise Members of the Airport Authority Board or staff do not respond during this period.*
10. Adjourn: **Action Requested.**

Next Meeting will be held November 10, 2025, at 4:00 PM.

**All agenda item times are approximate*

West Michigan Airport Authority

September 8, 2025

DRAFT Meeting Minutes

CTO: Vice Chair Gruppen called the meeting to order at 4:00pm. (1600)

Roll Call: The following members answered the call: Byrd, Shea, Roden, Hoekwater, Brandsen, Zeerip; ex-officio Fogg. Member Dannenberg joined at 4:17pm. Also, present were Treasurer McCammon, Airport Director Neyens, and Avflight Manager Lotz. Chair Murray and Ex-officio Van Beek advised the board in advance of their absences.

Public Comment: Vice-Chair Gruppen called for public comment. No one sought recognition.

Agenda: Byrd moved to approve the agenda as stated, seconded by Hoekwater. Motion passed on voice vote.

Minutes: The minutes of the August 11, 2025, meeting were reviewed by the board. Director Neyens requested to add exact numbers to the Gallagher insurance invoice section, replacing $30,000 with $30,309, and $7,000 with $7,188; additionally requested language be added defining the term "kicker" under the L3Harris Antenna section. ("kicker"), meaning that the agreement will automatically extend unless either party provides notice of intent to terminate. Shea moved approval of amended meeting minutes, seconded by Zeerip.

Unfinished Business:

North-Taxilane Project: Neyens briefed the board on the continued work, the project is still on track to finish on time. One minor issue was discussed regarding a backup power supply line. This work will be covered under the project scope, with the Airport responsible for the 5% match.

Building and Development Committee: ex-officio member Fogg raised concerns over the make-up of the committee, stating not enough aviation individuals were on there or individuals with aviation knowledge. He advised there was one pilot on there that flies little aircraft. After some discussion Neyens clarified that two members were pilots, one is a corporate pilot and a GA pilot.

New Business:

October Board Meeting Change: Vice Chair Gruppen opened it up to discussion for the changing of the next meeting to October 20th at 4:00pm. Byrd moved to accept the date change for the next board meeting to October 20th at 4:00pm, seconded by Shea. Motion passed unanimously by a roll call vote.

Financial Reports: McCammon noted the packet included the first two months of the fiscal year, expenses and revenue are on track for the year. McCammon talked about working with Neyens and Chair Murray to update airport financial procedures. Dannenberg moved to accept the financial report, seconded by Byrd. Motion passed unanimously by a roll call vote.

FBO Report: Lotz reported our Fuel sales were down about 8% from last month, attributed to less transient aircraft and a tenant has not been flying as much as of late. Dannenberg moved to accept the FBO report, seconded by Byrd. Motion passed by voice vote.

L3Harris Lease Renewal: After the Lease Renewal was signed and returned to L3Harris, they requested a few minor changes to the lease agreement, Hillegonds described the minor changes to the board and clarified that the lease was an auto renewal, either party would need to take action to terminate the lease. Shea moved to approve the amended lease agreement, seconded by Hoekwater. Motion passed unanimously by a roll call vote.

Gallagher Invoice Payment Ratification: Neyens stated that the remaining $7,188 had been paid to Gallagher to keep the airport in good standing with all of our insurance providers. After discussions with three insurance providers, they all said our premiums are on the better side of the market. The airport could now start a broker of record change if we decided too. McCammon clarified that a Broker of Record change would have financial implications. Dannenberg moved to ratify the payment to Gallagher, seconded by Byrd. Motion passed unanimously by roll call.

CIP Approval: Neyens advised of his intent to submit the current Capital Improvement Plan to MDOT, before he and the airport's consultant meet with MDOT on September 23rd. ex-officio member Fogg asked about adding the North/South runway to the list. It was decided to not add that when the North/South Runway Committee has yet to present their findings. One item of note was the Request Neyens is making to MDOT, which was to try and move the construction of Taxiway A up a year to 2027. Brandsen moved to accept the report as is, supported by Byrd. Motion passed unanimously by roll call.

North Hangar Development: Neyens updated that two companies interested in building hangars now have the engineering files and storm water treatment plans to aid them in developing practical development plans.

Agricultural Lease Discussion: : Neyens advised that the Agricultural Leases were amended to $125 per acre, with an annual increase of 2%. This followed continued conversations with local farmers. Dannenberg moved to accept the new lease agreement terms, seconded by Byrd. Motion passed unanimously by roll call.

Mead Brothers Proposal: Neyens presented a $13,200 quote to remove growth in drainage ditches and two retention ponds. After discussion, the Board approved the work on the condition that Neyens obtained a second formal quote to ensure competitiveness. Shea moved to approve the work up to $13,200, contingent on receiving one other formal quote and with authority to amend the budget accordingly. Byrd seconded the motion. Motion passed unanimously by roll call.

Board Engagement and Collaboration: Vice-Chair Gruppen asked to have this added on due to members not feeling involved. Gruppen encouraged all members to speak up and ask questions when they are not understanding something.

Manager's Notes: Neyens reminded the Board that the Airport will be making a $42,060 payment to Mead & Hunt soon. This is because the Taxilane expansion went beyond what MDOT would cover. Neyens also stated his intent to start working with the City of Holland HR Department to hire an assistant soon. Additionally, Neyens informed the Board that he would be leaving for the MDOT conference immediately after the Board meeting and would return Friday. Lastly, he reminded the Board that the main gate east of the Terminal building would be closed for the expansion project beginning Tuesday the 9th. Minor impacts to operations were expected, and Avflight was prepared.

Adjournment: The business of the board having been completed, Hoekwater moved, Byrd seconding, to adjourn the meeting. Passed on voice vote at 6:03 p.m. (1803)

Submitted by,
Matt Neyens, Airport Manager

North Taxilane Update

Progress on the North Taxilane has slowed recently, though this is not a major concern at this time. The slowdown has had minimal impact on airport operations. The primary issue delaying completion is the installation of the perimeter fence and vehicle gate. Until these are in place, the final topsoil work surrounding the Taxilane cannot be started.

Both Mead Brothers and Mead & Hunt have actively worked to expedite the fencing portion of the project. However, during initial installation, Mead & Hunt identified improper methods being used for setting the fence posts. As a result, the contractor was required to redo approximately 30 posts to meet specifications, this was a minor setback in the larger fencing delay.

Despite these outstanding items, I fully believe it is still worthwhile to move forward with the ribbon-cutting event. The new pavement is accessible and will provide attendees with a clear view of the area's potential for future expansion. Although, like most projects there will still likely be punch list items that will need to be completed.

Remaining Work Includes:

- Fence installation and gate relocation
- Topsoil, seeding, and mulching
- Final lighting installation
- Additional drainage improvements / vegetation removal.

Agenda

West Michigan Airport Authority

Meeting Date: October 20, 2025	**Agenda Item:**
Subject: Financial Reports for 9/30/2025-Unaudited	**Prepared By**: Devon Bialik, City Finance

Recommendation: Accept Financial Reports as information

The West Michigan Airport Authority started a new fiscal year (FY 2026) on July 1, 2025. Attached are Budget Performance Reports and the Balance Sheets for the three months ended September 30, 2025 (25.00% of the year).

GENERAL FUND

Revenues

Operating revenues for the first three months totaled $305,019.23, or 39.61% of budget, and are above expectations due to summer property tax payments from the City of Holland and the City of Zeeland. September operating revenues include monthly franchise fees, quarterly hangar rentals invoiced, and quarterly/semi-annual hangar land leases billed out. The flight school franchise fee is recorded in a separate account and invoices through September 2025 have been paid.

Expenses

Operating expenses for the first three months totaled $128,535.01, or 16.24% of budget. September operating expenses are composed of regular monthly expenses and appear to be in line with expectations.

CAPITAL FUND

Revenues/Expenses

Capital revenues and expenses include funding for the portion of the project that is local only. The funding information for the remaining part of the project will be obtained from MDOT at fiscal year-end and the related transactions will be recorded then.

BALANCE SHEET/COMBINED FUND EQUITY

The West Michigan Airport Authority began FY 2026 with a combined fund balance of $2,572,197.

General Fund Assets totaled $1,286,181.04 at September 30th, comprised mostly of cash. General Fund Liabilities totaled $24,502.69 at September 30th, and represents unearned revenue (prepaid lease). The ending fund balance at September 30th is $1,261,678.35.

The combined General and Capital funds cash balance at September 30th is $2,718,280.

West Michigan Airport Authority Budget Performance Report

Balance As Of 09/30/2025

		25-26 Amended Budget	YTD Balance 09/30/2025	Available Balance 09/30/2025	% Bdgt Used	End Balance 06/30/2025
Fund: 110 WMAA (AIRPORT) GENERAL FUND						
Account Category: Revenues						
000.000						
110-000.000-573.000	SMALL TAXPAYER PPT LOSS REIMBURSEMEN	22,800.00	0.00	22,800.00	0.00	(47,325.51)
110-000.000-581.100	CONTRIB FROM OTHER GOVTS-CITY OF HOL	148,800.00	144,688.35	4,111.65	97.24	(140,859.90)
110-000.000-581.110	CONTRIB FROM OTHER GOVTSCITY OF ZEEL	87,500.00	59,225.20	28,274.80	67.69	(80,669.55)
110-000.000-581.210	CONTRIB FROM OTHER GOVTS-PARK TOWNSH	145,000.00	4.60	144,995.40	0.00	(144,302.23)
110-000.000-615.810	FRANCHISE FEES-FBO FRANCHISE	29,800.00	7,126.36	22,673.64	23.91	(28,947.01)
110-000.000-615.815	FRANCHISE FEES-FLIGHT SCHOOL	5,000.00	2,375.16	2,624.84	47.50	(12,060.31)
110-000.000-615.820	FRANCHISE FEES-FUEL FLOWAGE FEE	60,000.00	16,236.90	43,763.10	27.06	(73,128.57)
110-000.000-615.830	FRANCHISE FEES-LANDING FEES	27,000.00	11,770.80	15,229.20	43.60	(31,147.40)
110-000.000-665.000	INVESTMENT INCOME	30,000.00	0.00	30,000.00	0.00	(37,107.83)
110-000.000-665.900	INVESTMENT INCOME-MARKET ADJUSTMENT	0.00	0.00	0.00	0.00	(18,795.55)
110-000.000-665.905	RENTAL-AGRICULTURAL LAND LEASE	13,100.00	0.00	13,100.00	0.00	(12,738.74)
110-000.000-665.910	RENTAL-HANGAR LAND LEASE	133,200.00	46,568.54	86,631.46	34.96	(139,225.47)
110-000.000-665.915	RENTAL-T-HANGARS	57,600.00	14,520.00	43,080.00	25.21	(57,454.19)
110-000.000-665.920	RENTAL-AIRPORT BUSINESS CENTER	10,200.00	2,503.32	7,696.68	24.54	(9,900.25)
Total		770,000.00	305,019.23	464,980.77	39.61	(833,662.51)
Revenues		770,000.00	305,019.23	464,980.77	39.61	(833,662.51)
Account Category: Expenditures						
595.000						
110-595.000-723.000	EMPLOYER FICA/MEDICARE CONTRIBUTION	0.00	0.00	0.00	0.00	306.00
Total		0.00	0.00	0.00	0.00	306.00
595.100						
110-595.100-701.000	PAYROLL-REGULAR	95,500.00	18,460.51	77,039.49	19.33	49,883.63
110-595.100-702.000	PAYROLL-TEMPORARY HELP	26,000.00	0.00	26,000.00	0.00	0.00
110-595.100-703.100	SPECIAL PAY ONE TIME PAYMENT	0.00	0.00	0.00	0.00	24,432.50
110-595.100-710.000	PAYROLL-VACATION/PTO GENERAL	0.00	1,778.00	(1,778.00)	100.00	8,344.67
110-595.100-712.000	PAYROLL-HOLIDAYS	0.00	668.28	(668.28)	100.00	1,698.92
110-595.100-716.000	PAYROLL - MISCELLANEOUS	0.00	0.00	0.00	0.00	4,000.00
110-595.100-720.005	INSURANCE HEALTH	13,400.00	217.97	13,182.03	1.63	2,910.38
110-595.100-720.006	INSURANCE-HEALTH OPT OUT	0.00	719.82	(719.82)	100.00	80.18
110-595.100-720.007	INSURANCE - EMPLOYER HSA CONTRIBUTIO	0.00	0.00	0.00	0.00	350.00
110-595.100-720.010	INSURANCE DENTAL	700.00	17.58	682.42	2.51	10.55
110-595.100-720.030	INSURANCE-INCOME PROTECT (STD)	600.00	0.00	600.00	0.00	263.22
110-595.100-720.031	INSURANCE-LONG TERM DISABILITY	0.00	62.34	(62.34)	100.00	0.00
110-595.100-721.005	RETIREMENT CONTRIBUTION MERS DC	7,700.00	1,672.55	6,027.45	21.72	4,568.09
110-595.100-723.000	EMPLOYER FICA/MEDICARE CONTRIBUTION	9,300.00	1,654.44	7,645.56	17.79	6,665.10
110-595.100-723.200	UNEMPLOYMENT COMP INSURANCE	0.00	0.00	0.00	0.00	3.20
110-595.100-723.500	WORKERS COMP INSURANCE	300.00	0.00	300.00	0.00	0.00
110-595.100-730.000	POSTAGE	100.00	0.00	100.00	0.00	14.55
110-595.100-740.000	OPERATING SUPPLIES GENERAL	2,000.00	0.00	2,000.00	0.00	2,975.66
110-595.100-741.000	OPERATING SUPPLIES-CONTROLLED CAPITA	3,000.00	0.00	3,000.00	0.00	0.00
110-595.100-801.000	CONTRACTUAL-LEGAL	28,000.00	9,563.00	18,437.00	34.15	39,550.00
110-595.100-802.005	CONTRACTUAL-AUDIT SERVICES	8,700.00	0.00	8,700.00	0.00	8,500.00
110-595.100-802.200	CONTRACTUAL-FISCAL AGENT SERVICES	30,800.00	8,299.50	22,500.50	26.95	37,863.00
110-595.100-803.000	CONTR-HUMAN RESOURCES	0.00	0.00	0.00	0.00	1,565.00
110-595.100-806.000	CONTRACTUAL-TECHNOLOGY	5,000.00	4,999.00	1.00	99.98	5,000.00
110-595.100-807.000	CONTRACTUAL-ARCHITECT/ENGINEER	10,000.00	0.00	10,000.00	0.00	1,600.00

Holland MICHIGAN

West Michigan Airport Authority Budget Performance Report

Balance As Of 09/30/2025

		25-26 Amended Budget	YTD Balance 09/30/2025	Available Balance 09/30/2025	% Bdgt Used	End Balance 06/30/2025
Fund: 110 WMAA (AIRPORT) GENERAL FUND						
Account Category: Expenditures						
595.100						
110-595.100-807.415	CONTRACTUAL-ARCHITECT/ENGINEER	0.00	0.00	0.00	0.00	(48.95)
110-595.100-808.000	CONTR-BLDGS&GRNDS	14,200.00	0.00	14,200.00	0.00	988.38
110-595.100-808.002	CONTR-BLDGS&GRNDS SOLID WASTE DISPOS	1,000.00	0.00	1,000.00	0.00	977.57
110-595.100-808.801	CONTR-BLDGS&GRNDS MAINTENANCE GENERA	7,000.00	68.67	6,931.33	0.98	23,587.21
110-595.100-808.802	CONTR-BLDGS&GRNDS SNOWPLOWING	8,000.00	0.00	8,000.00	0.00	6,007.40
110-595.100-809.001	CONTRACTUAL-MISC CONSULTING	30,000.00	8,589.00	21,411.00	28.63	58,798.44
110-595.100-809.005	CONTRACTUAL-MISC AIRPORT FBO	0.00	0.00	0.00	0.00	1,406.79
110-595.100-812.100	CONTR-FBO MGMT SVCS	20,000.00	61.57	19,938.43	0.31	16,694.64
110-595.100-812.110	CONTR-FBO MOWING	91,100.00	10,872.91	80,227.09	11.94	71,264.72
110-595.100-812.115	CONTR-FBO SNOWPLOWING	115,000.00	0.00	115,000.00	0.00	113,668.00
110-595.100-812.120	CONTR-FBO GEN MAINTENANCE	19,000.00	84.63	18,915.37	0.45	18,415.60
110-595.100-816.000	CONTRACTUAL-SOFTWARE SUBSCRIPTIONS	5,000.00	209.15	4,790.85	4.18	6,041.39
110-595.100-851.000	COMMUNICATIONS CELLULAR REIMBURSEMEN	700.00	0.00	700.00	0.00	610.63
110-595.100-851.050	COMMUNICATIONS-CELLULAR DIRECT BILLE	0.00	0.00	0.00	0.00	307.66
110-595.100-901.000	PRINTING	2,000.00	0.00	2,000.00	0.00	8.56
110-595.100-902.000	PRINTING PUBLISHING-NEWS MEDIA	0.00	0.00	0.00	0.00	226.72
110-595.100-903.000	PRINTING ADVERTISING/PROMOTIONAL	15,000.00	6,675.16	8,324.84	44.50	43,412.63
110-595.100-903.005	CONTR-ADVERTISING/MARKETING	50,000.00	0.00	50,000.00	0.00	0.00
110-595.100-920.805	PUBLIC UTILITIES-FENCE GATES	600.00	42.18	557.82	7.03	517.58
110-595.100-920.810	PUBLIC UTILITIES-LANDING LIGHTS/SYST	4,500.00	340.64	4,159.36	7.57	4,171.69
110-595.100-920.815	PUBLIC UTILITIES-PARKING LOT LIGHTS	700.00	50.48	649.52	7.21	457.95
110-595.100-920.820	PUBLIC UTILITIES-RUNWAY LIGHTS	6,000.00	379.30	5,620.70	6.32	5,146.90
110-595.100-920.825	PUBLIC UTILITIES-T HANGARS	5,800.00	446.44	5,353.56	7.70	5,200.05
110-595.100-933.000	EQUIPMENT MAINTENANCE-GENERAL	0.00	0.00	0.00	0.00	1,344.16
110-595.100-933.015	EQUIPMENT MAINTENANCE-ILS LANDING	16,000.00	4,000.00	12,000.00	25.00	16,000.00
110-595.100-940.000	BUILDING RENTAL/LEASE	1,000.00	1,000.00	0.00	100.00	1,000.00
110-595.100-943.000	EQUIPMENT RENTAL/LEASE GENERAL	15,000.00	0.00	15,000.00	0.00	44,150.00
110-595.100-955.000	MISC. GENERAL	3,000.00	38.45	2,961.55	1.28	1,365.43
110-595.100-960.000	EDUCATION, TRAINING, CONF REGISTRATI	3,000.00	350.00	2,650.00	11.67	375.00
110-595.100-961.000	TRAVEL, MEALS, MILEAGE	3,000.00	811.20	2,188.80	27.04	1,578.05
110-595.100-961.100	EMPLOYEE RECRUITMENT	0.00	0.00	0.00	0.00	7,238.79
110-595.100-962.000	INSURANCE PREMIUMS	41,500.00	37,960.00	3,540.00	91.47	36,098.00
110-595.100-964.001	REFUNDS-PRIOR YEAR PROPERTY TAX	0.00	0.00	0.00	0.00	75.92
110-595.100-965.000	DUES & SUBSCRIPTIONS	4,000.00	0.00	4,000.00	0.00	488.51
110-595.100-969.200	WRITE-OFFS UNCOLL PROPERTY TAXES	0.00	0.00	0.00	0.00	294.09
110-595.100-977.000	MACHINERY & EQUIPMENT GENERAL	0.00	0.00	0.00	0.00	1,186.31
Total		723,200.00	120,092.77	603,107.23	16.61	689,334.47
595.200						
110-595.200-808.001	CONTR-BLDGS&GRNDS JANITORIAL	12,500.00	1,535.97	10,964.03	12.29	9,385.88
110-595.200-850.000	COMMUNICATIONS TELEPHONE	7,800.00	1,240.00	6,560.00	15.90	8,125.38
110-595.200-901.000	PRINTING	1,700.00	22.72	1,677.28	1.34	764.15
110-595.200-920.005	PUBLIC UTILITIES-HBPW	19,500.00	1,929.23	17,570.77	9.89	18,768.81
110-595.200-921.010	PUBLIC UTILITIES-NATURAL GAS	5,500.00	66.23	5,433.77	1.20	4,986.25
110-595.200-931.000	BLDG & GRNDS MAINT GENERAL	8,000.00	2,102.55	5,897.45	26.28	5,087.84
110-595.200-933.000	EQUIPMENT MAINTENANCE-GENERAL	10,000.00	816.50	9,183.50	8.17	12,624.73
110-595.200-946.000	OFFICE EQUIP RENTAL/LEASE	3,200.00	729.04	2,470.96	22.78	(201.94)
110-595.200-991.500	PRINCIPAL PMT-LEASE	0.00	0.00	0.00	0.00	2,452.00

Holland MICHIGAN

West Michigan Airport Authority Budget Performance Report

Balance As Of 09/30/2025

	25-26 Amended Budget	YTD Balance 09/30/2025	Available Balance 09/30/2025	% Bdgt Used	End Balance 06/30/2025
Fund: 110 WMAA (AIRPORT) GENERAL FUND					
Account Category: Expenditures					
595.200					
110-595.200-993.500 INTEREST-LEASE	0.00	0.00	0.00	0.00	368.00
Total	68,200.00	8,442.24	59,757.76	12.38	62,361.10
965.000					
110-965.000-995.410 TRANSFER TO WMAA CAPITAL FUND	0.00	0.00	0.00	0.00	134,000.00
Total	0.00	0.00	0.00	0.00	134,000.00
Expenditures	791,400.00	128,535.01	662,864.99	16.24	886,001.57
Fund 110 - WMAA (AIRPORT) GENERAL FUND:					
TOTAL REVENUES	770,000.00	305,019.23	464,980.77	39.61	(833,662.51)
TOTAL EXPENDITURES	791,400.00	128,535.01	662,864.99	16.24	886,001.57
NET OF REVENUES & EXPENDITURES:	(21,400.00)	176,484.22	(197,884.22)		(52,339.06)

West Michigan Airport Authority Budget Performance Report

Balance As Of 09/30/2025

		25-26 Amended Budget	YTD Balance 09/30/2025	Available Balance 09/30/2025	% Bdgt Used	End Balance 06/30/2025
Fund: 410 WMAA (AIRPORT) CAPITAL PROJECTS						
Account Category: Revenues						
000.000						
410-000.000-538.000	FEDERAL GRANT-FEDERAL CAPITAL	1,520,500.00	0.00	1,520,500.00	0.00	(27,044.59)
410-000.000-579.000	STATE GRANT-MDOT CAPITAL	84,300.00	0.00	84,300.00	0.00	(6,656.09)
410-000.000-665.000	INVESTMENT INCOME	30,000.00	0.00	30,000.00	0.00	(30,795.35)
410-000.000-665.900	INVESTMENT INCOME-MARKET ADJUSTMENT	0.00	0.00	0.00	0.00	(20,343.35)
410-000.000-683.000	MISCELLANEOUS REVENUE	0.00	0.00	0.00	0.00	(917.95)
410-000.000-699.110	TRANSFER FROM WMAA GENERAL FUND	69,000.00	0.00	69,000.00	0.00	(134,000.00)
Total		1,703,800.00	0.00	1,703,800.00	0.00	(219,757.33)
Revenues		1,703,800.00	0.00	1,703,800.00	0.00	(219,757.33)
Account Category: Expenditures						
595.000						
410-595.000-807.000	CONTRACTUAL-ARCHITECT/ENGINEER	0.00	1,218.00	(1,218.00)	100.00	10,600.55
410-595.000-807.415	CONTRACTUAL-ARCHITECT/ENGINEER	15,000.00	0.00	15,000.00	0.00	0.00
410-595.000-974.000	LAND IMPROVEMENTS GENERAL	1,952,000.00	1,152.42	1,950,847.58	0.06	34,659.28
410-595.000-974.000-26-AIR000001	LAND IMPROVEMENTS GENERAL	0.00	45,237.23	(45,237.23)	100.00	0.00
Total		1,967,000.00	47,607.65	1,919,392.35	2.42	45,259.83
Expenditures		1,967,000.00	47,607.65	1,919,392.35	2.42	45,259.83
Fund 410 - WMAA (AIRPORT) CAPITAL PROJECTS:						
TOTAL REVENUES		1,703,800.00	0.00	1,703,800.00	0.00	(219,757.33)
TOTAL EXPENDITURES		1,967,000.00	47,607.65	1,919,392.35	2.42	45,259.83
NET OF REVENUES & EXPENDITURES:		(263,200.00)	(47,607.65)	(215,592.35)		174,497.50

Holland MICHIGAN

Balance Sheet

Through 9/30/25
Detail Listing
Exclude Rollup Account

Account	Account Description	FY 2025 Actual	FY 2026 YTD
Fund Category	**GOVERNMENTAL**		
Fund Type	**GENERAL FUND**		
Fund	**110 - WMAA (Airport) General Fund**		
	ASSETS		
110-000.000-001.675	Cash Due from Cash/Inv Pool	1,203,132.84	1,277,381.86
110-000.000-018.000	Accounts Receivable General	10,476.82	8,799.18
110-000.000-028	Prior Years Taxes Receivables	294.92	294.92
110-000.000-031.000	Allowance for Uncollectible Taxes	(294.92)	(294.92)
110-000.000-076.010	Due from Local Govt Units Due from Park Township	-	-
110-000.000-071.010	Due from Local Govt Units Due from Zeeland City	16.00	-
110-000.000-090.000	Accounts Receivable In/Out	-	-
110-000.000-123.000	Prepaid Items General	-	-
	ASSETS TOTALS	1,213,625.66	1,286,181.04
	LIABILITIES AND FUND EQUITY		
	LIABILITIES		
110-000.000-202.000	Accounts Payable General	57,159.39	-
110-000.000-201.000	Contracts Payable	-	-
110-000.000-257.000	Accrued Wages Payable General	8,996.70	-
110-000.000-258.010	Accrued Fringes Payable FICA-Social Security/Medicare	-	-
110-000.000-259.010	Accrued Fringes Payable Pension	-	-
110-000.000-360.000	Deferred Revenue General	62,275.44	24,502.69
	LIABILITIES TOTALS	128,431.53	24,502.69
	FUND EQUITY		
110-000.000-385.000	Fund Balance - Assigned (By Action) Business Center	125,000.00	125,000.00
110-000.000-390.000	Fund Balance-Unassigned	960,194.13	1,136,678.35
	FUND EQUITY TOTALS	1,085,194.13	1,261,678.35
	LIABILITIES AND FUND EQUITY	1,213,625.66	1,286,181.04

Fund Balance, Beginning	1,261,678.35
Remaining Budget Revenues	609,767.78
Remaining Budget Expenditures	(662,864.99)
Fund Balance, Estimated Ending	1,208,581.14
Fund Balance % of Budgeted Expenditures	153%

Year-End Transfer to Capital

FY 2025 Ending Fund Balance (Unassigned)	960,194.13
2026 Budgeted Expenditures	791,400.00
Fund Balance % of Budgeted Expenditures	121%
Proposed Transfer of amount > 120% max range	(29,055.87)

Holland MICHIGAN

Balance Sheet

Through 9/30/25
Detail Listing
Exclude Rollup Account

Account	Account Description	Prior Year Total Actual	Current YTD Balance
Fund Category **GOVERNMENTAL**			
Fund Type **CAPITAL PROJECT FUNDS**			
Fund 410 - **WMAA (Airport) Capital Projects**			
ASSETS			
410-000.000-001.675	Cash Due from Cash/Inv Pool	1,490,810	1,440,898
410-000.000-078.000	Due from State of Michigan Due from State-Aeronautics	-	-
	ASSETS TOTALS	1,490,810	1,440,898
LIABILITIES AND FUND EQUITY			
LIABILITIES			
410-000.000-202.000	Accounts Payable General	2,305	-
410-000.000-228.410	Due To State of Michigan	1,503	1,503
	LIABILITIES TOTALS	3,807	1,503
FUND EQUITY			
410-000.000-390.000	Fund Balance-Unassigned	1,487,003	1,439,395
	FUND EQUITY TOTALS	1,487,003	1,439,395
	LIABILITIES AND FUND EQUITY TOTALS	1,490,810	1,440,898

CASH DISBURSEMENT REPORT WMAA FOR CITY OF HOLLAND

EXP CHECK RUN DATES 09/01/2025 - 09/30/2025
POSTED
PAID

Invoice Number	Date Paid	Approval Department	Paid By Check Number	Vendor Name	Description	Inv Amt
SEPTEMBER 2025	09/04/2025	PAY	15067	MADISON NATIONAL LIFE CO, INC - ACH	ACCT 102906800000000	14,109.49
706557	09/11/2025	AIR	15087	123.NET-ACH	AIRPORT SERVICES FOR AUGUST 2025	620.00
AUGUST 2025	09/11/2025	AIR	15089	AVFLIGHT HOLLAND CORPORTATION - ACH	LAWNMOWING AND MGT	5,413.17
PAY APP 1	09/11/2025	AIR	15116	MEAD & HUNT INC - ACH	CATEGORY 3 N HANGER AREA TAXILANE	42,060.70
3200652	09/11/2025	AIR	92191	ARROWASTE INC.	REFUSE FOR AIRPORT	52.00
27042	09/11/2025	AIR	92192	BOILEAU & CO.	AUGUST 2025 FOR AIRPORT	3,586.97
2026-00226	09/11/2025	AIR	92193	HOLLAND CITY TREASURER	AUGUST 2025 SERVICES	96.35
91082553	09/11/2025	AIR	92194	QUALITY AIR HEATING & COOLING INC	SERVICE CALL FOR AIRPORT	315.00
I-55828	09/11/2025	AIR	92195	SIGNS NOW	ETCHMARK VINYL FOR OFFICE GLASS	208.86
41841504	09/25/2025	AIR	15183	CANON FINANCIAL SERVICES INC. - ACH	COPIES, LEASE AND INSURANCE	212.97
OCTOBER 2025	09/25/2025	PAY	15197	MADISON NATIONAL LIFE CO, INC - ACH	ACCT 102906800000000	13,862.75
PAY APP 2	09/25/2025	AIR	15198	MEAD & HUNT INC - ACH	NORTH TAXILANE PROJECT	3,176.53
E0800X10H9	09/25/2025	AIR	15228	PCARD - MICROSOFT PURCHASES	MOTNHLY SUBSCRIPTION	68.00
369097-369104	09/25/2025	AIR	92406	CUNNINGHAM DALMAN P.C.	AIRPORT AUGUST ;25 LEGAL	7,000.50
TRAVEL REIMBUR	09/25/2025	AIR	92407	MATTHEW NEYENS	CONFERENCE MAAE	1,161.20
Report Total:						91,944.49

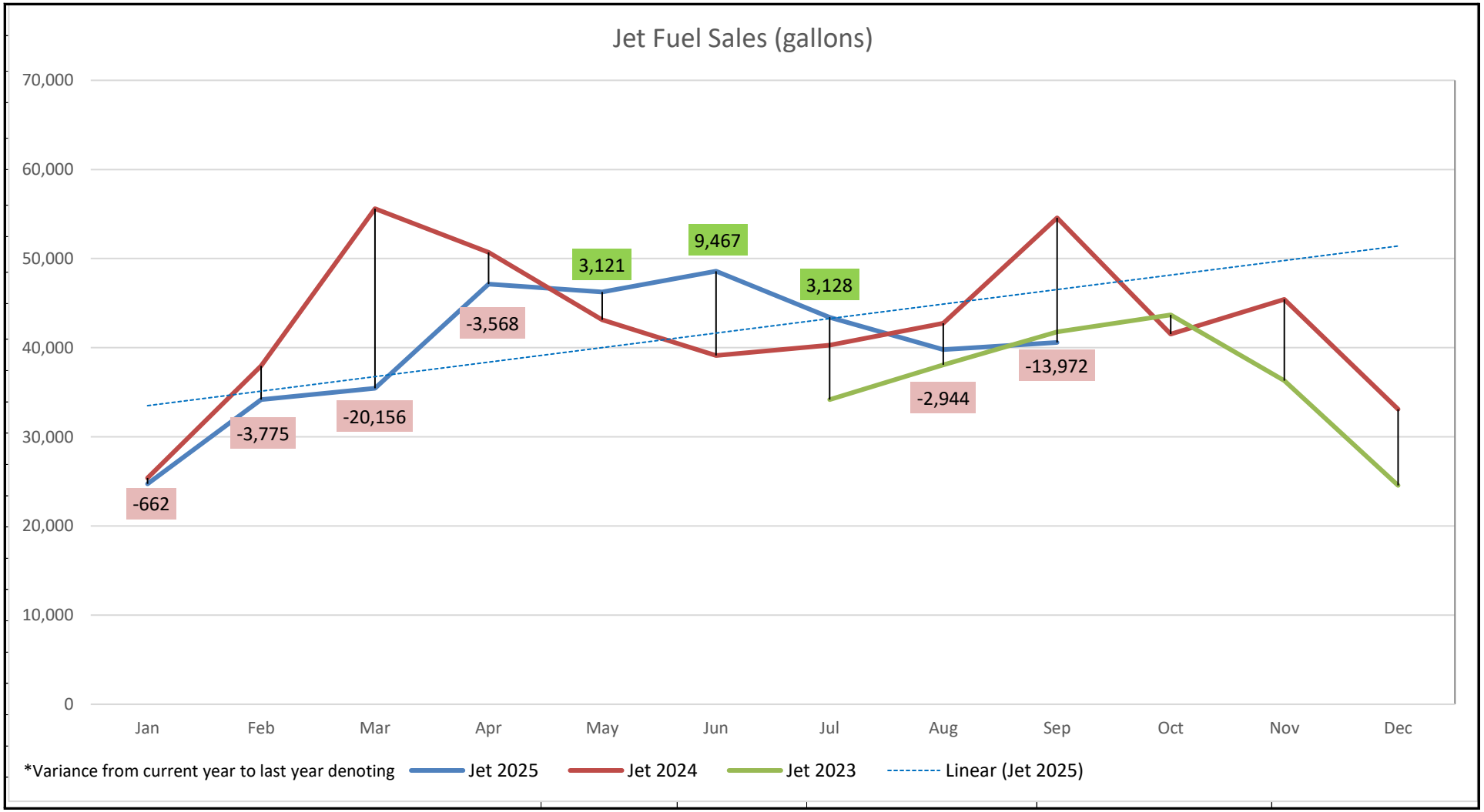
Agenda

WMAA MONTHLY FBO REPORT

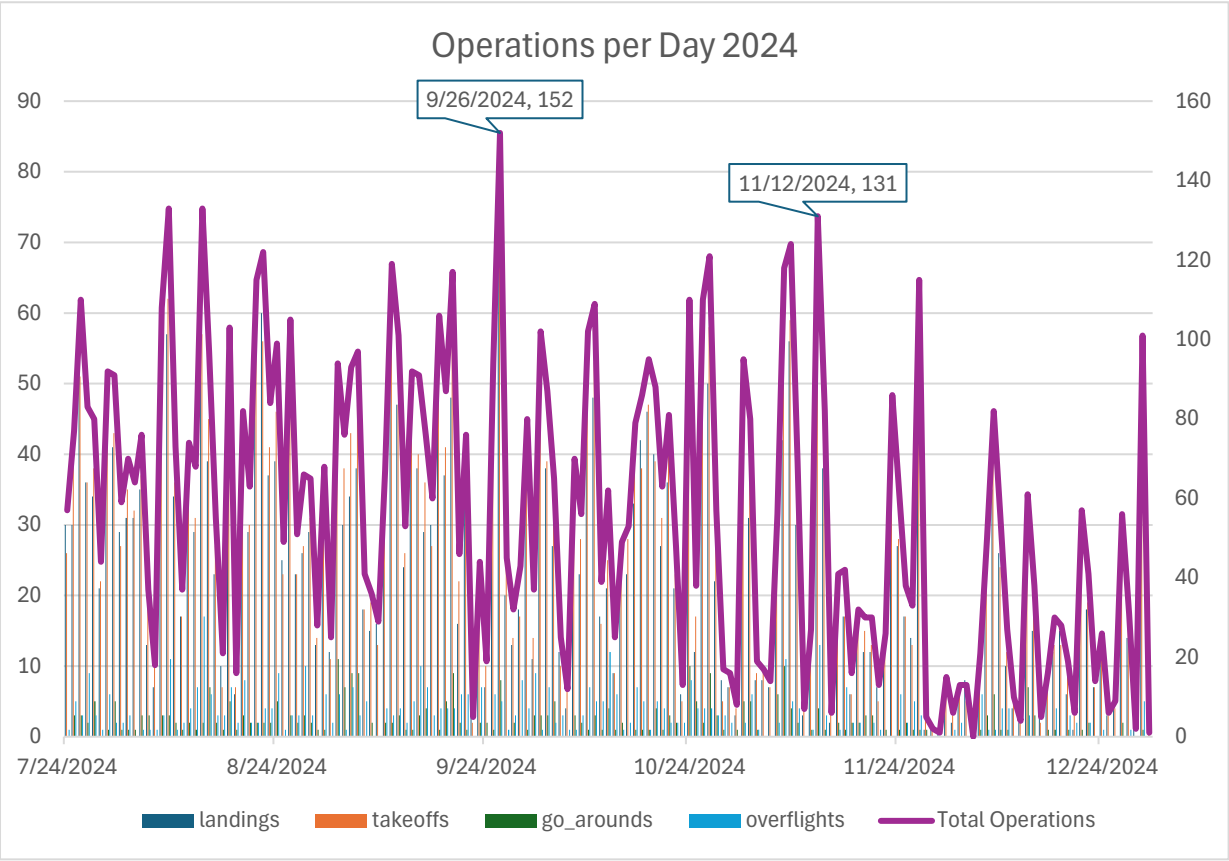
West Michigan Regional Airport FBO Report					
Avflight Holland					
September 2025					
Total Fuel Gallons	**Current**	**One**	**Current Year**	**F/Y to Date**	
Delivered	**Month**	**Year Ago**	**To Date**	**Compared**	
	09/25	**09/24**	**01/01/25-09/30/25**	**01/01/24-09/30/24**	
Avgas	**3,176**	**3,836**	**28,288**	**28,444**	
Jet Fuel	**40,593**	**54,565**	**360,124**	**389,485**	
Total Gallons Delivered	**43,769**	**58,401**	**388,412**	**417,929**	**(29518)**
Landing Fees Collected	**$4,733**	**(85% to airport)=**		**$4,023.05**	
Freight (lbs)	**800 lbs**				

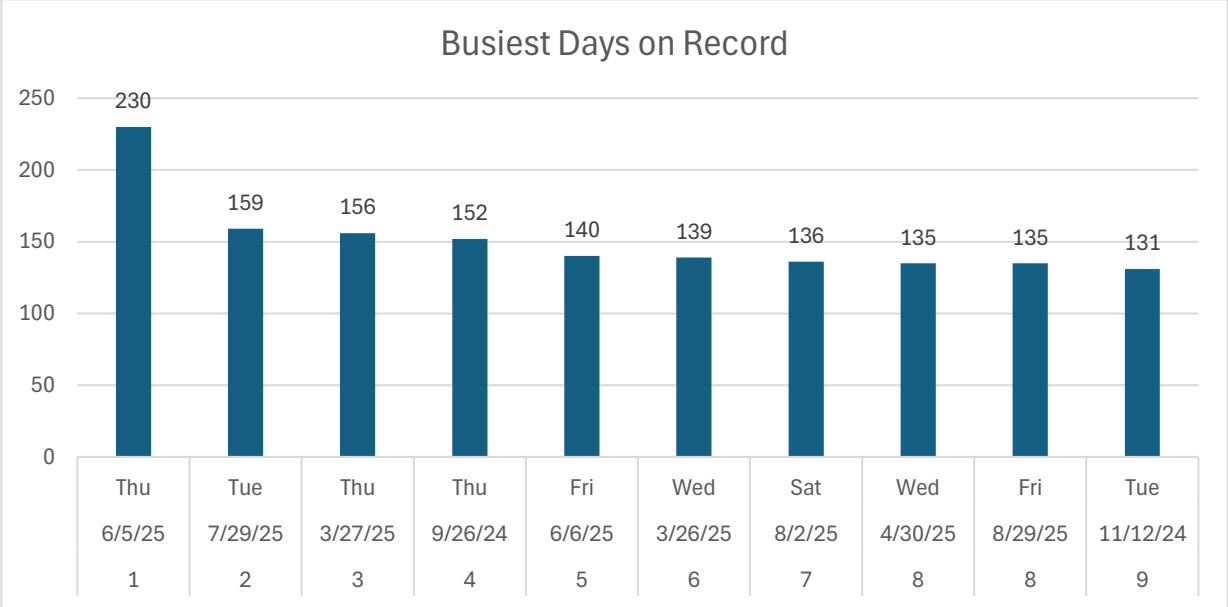
Agenda

WMAA MONTHLY FBO REPORT

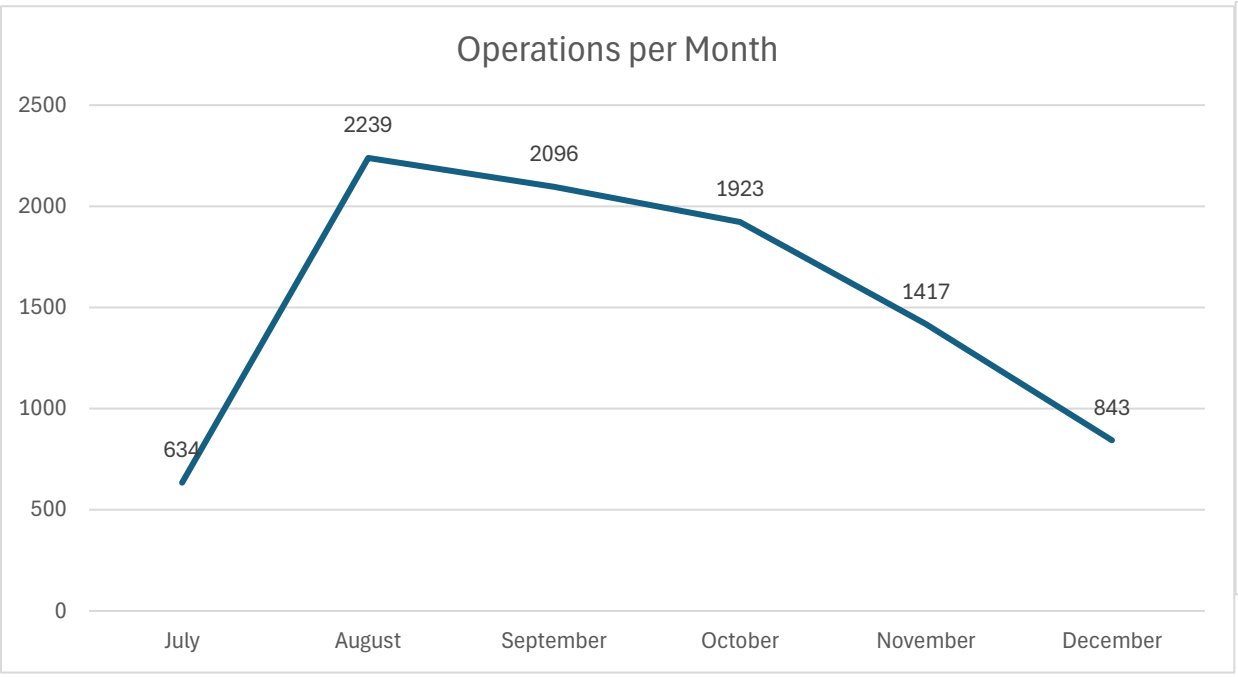


Agenda


Operations per Day 2024
9/26/2024, 152
11/12/2024, 131
90
80
70
60
50
40
30
20
10
0
160
140
120
100
80
60
40
20
0
7/24/2024
8/24/2024
9/24/2024
10/24/2024
11/24/2024
12/24/2024
landings
takeoffs
go_arounds
overflights
Total Operations

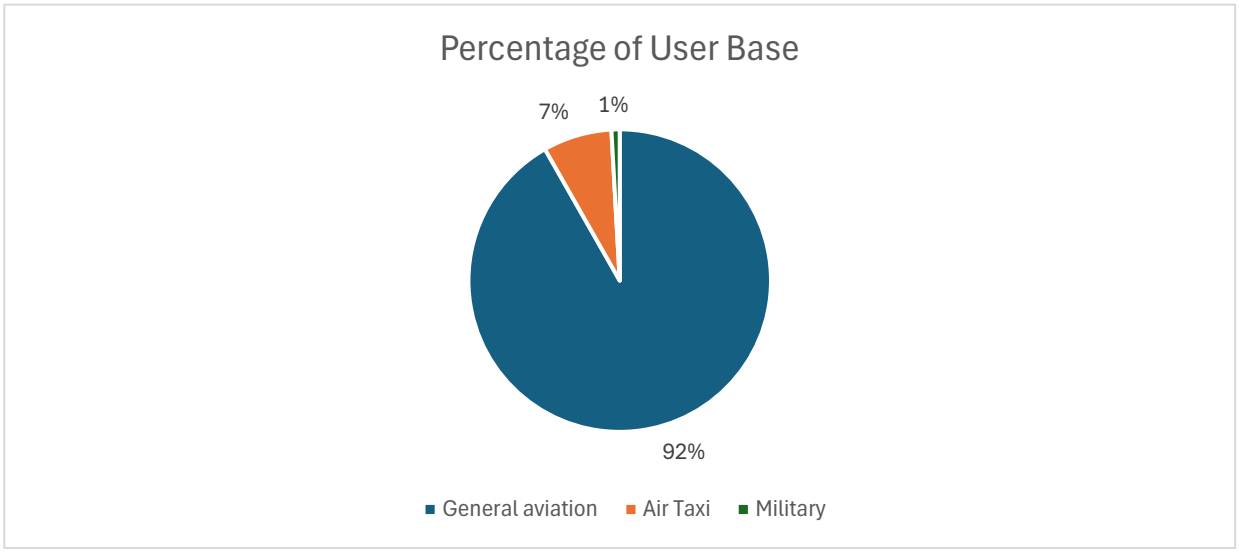

Busiest Days on Record
250
200
150
100
50
0
230
159
156
152
140
139
136
135
135
131
Thu 6/5/25 1
Tue 7/29/25 2
Thu 3/27/25 3
Thu 9/26/24 4
Fri 6/6/25 5
Wed 3/26/25 6
Sat 8/2/25 7
Wed 4/30/25 8
Fri 8/29/25 8
Tue 11/12/24 9

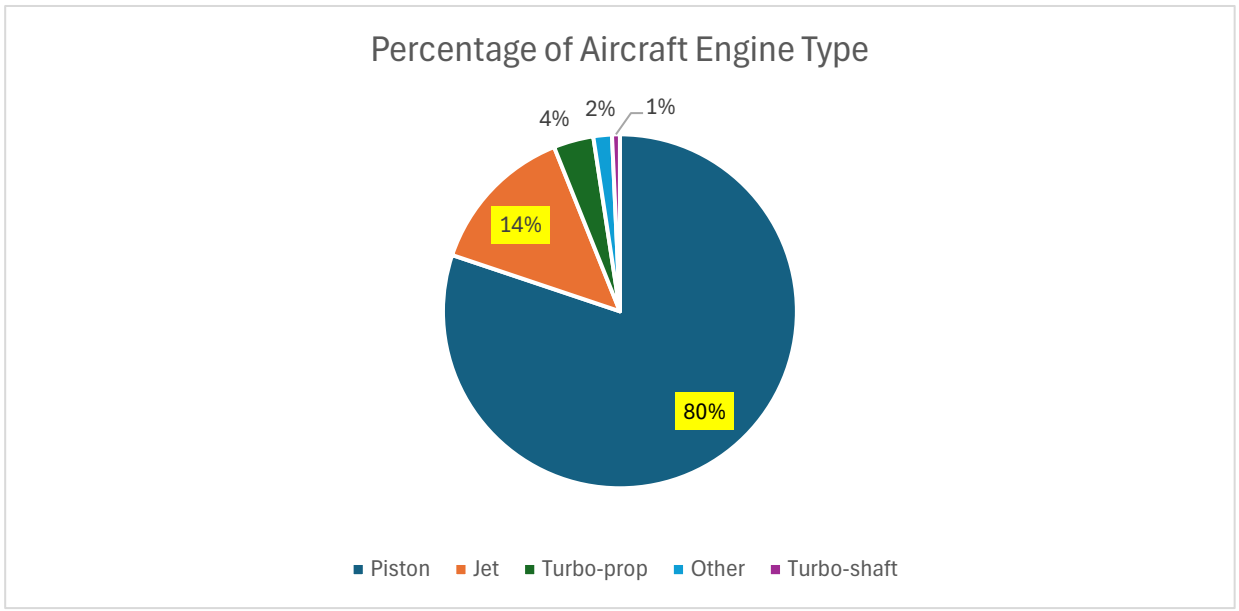
Agenda

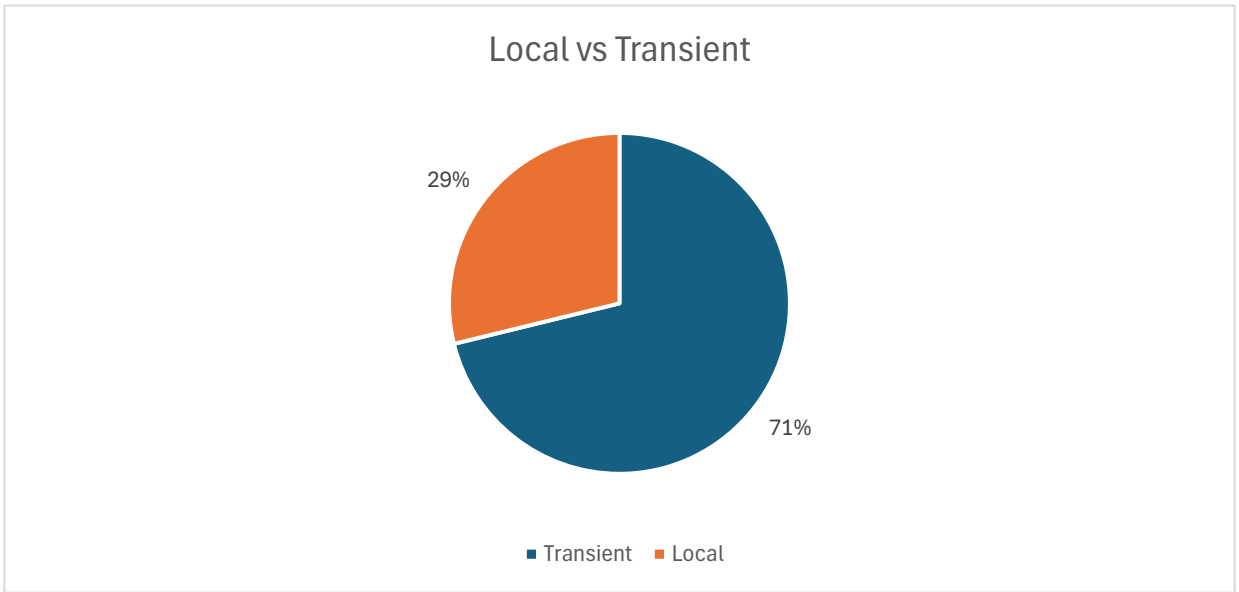

Operations per Month
2500
2000
1500
1000
500
0
2239
2096
1923
1417
843
634
July
August
September
October
November
December


Beaver Island
Waukesha
Grand Rapids
Pontiac
Holland
Chicago-Wheeling
Null
Teterboro

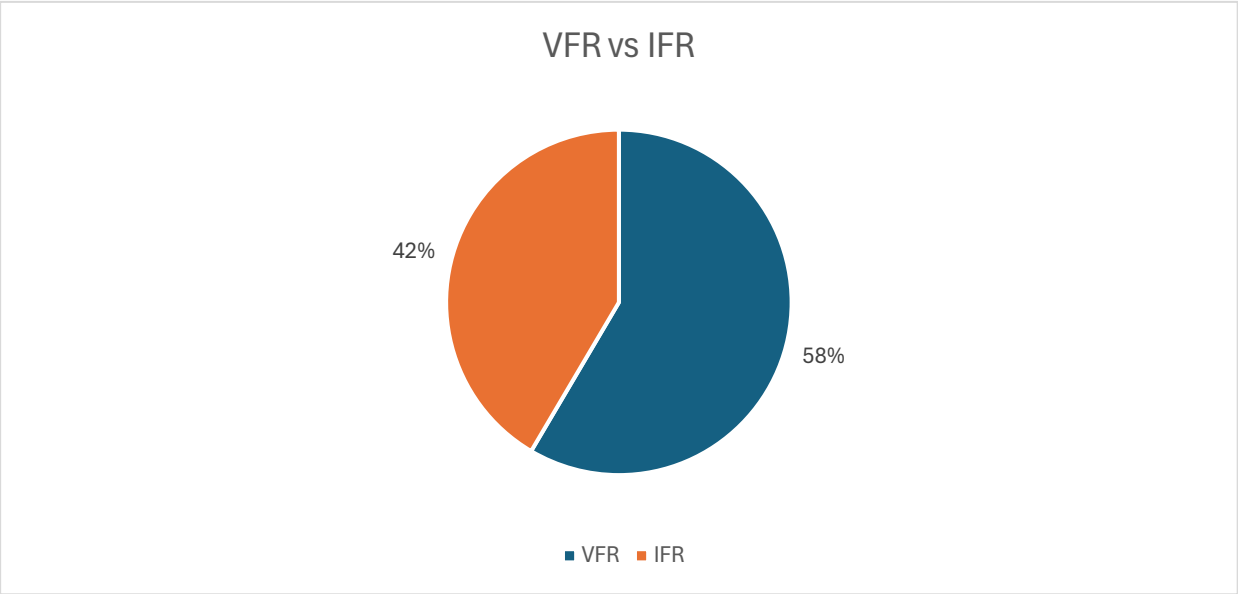
Agenda

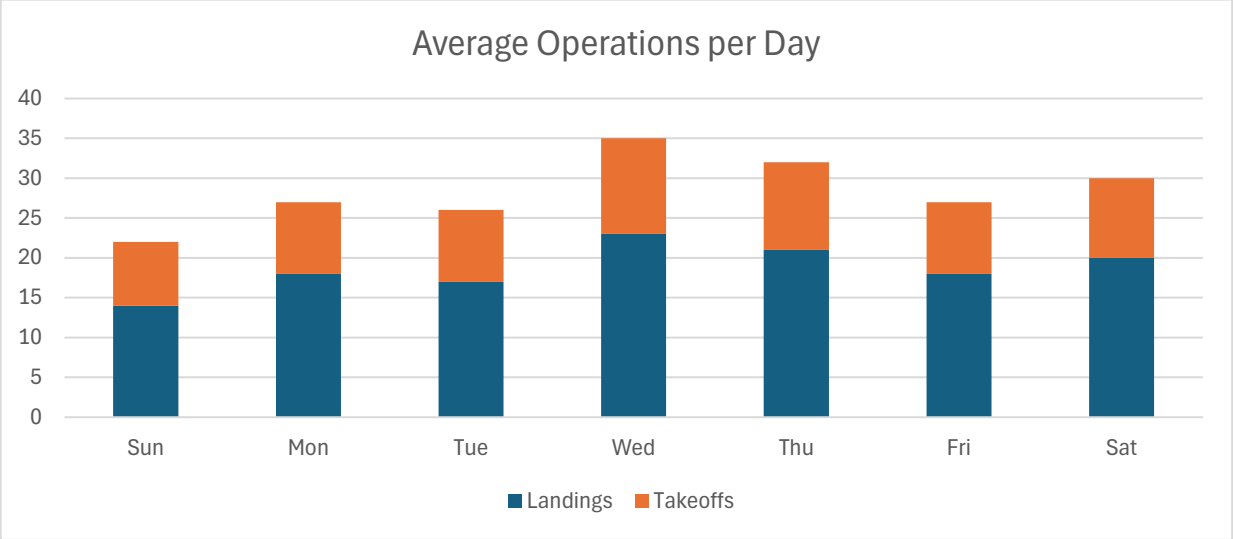

Percentage of User Base
7%
1%
92%
General aviation
Air Taxi
Military

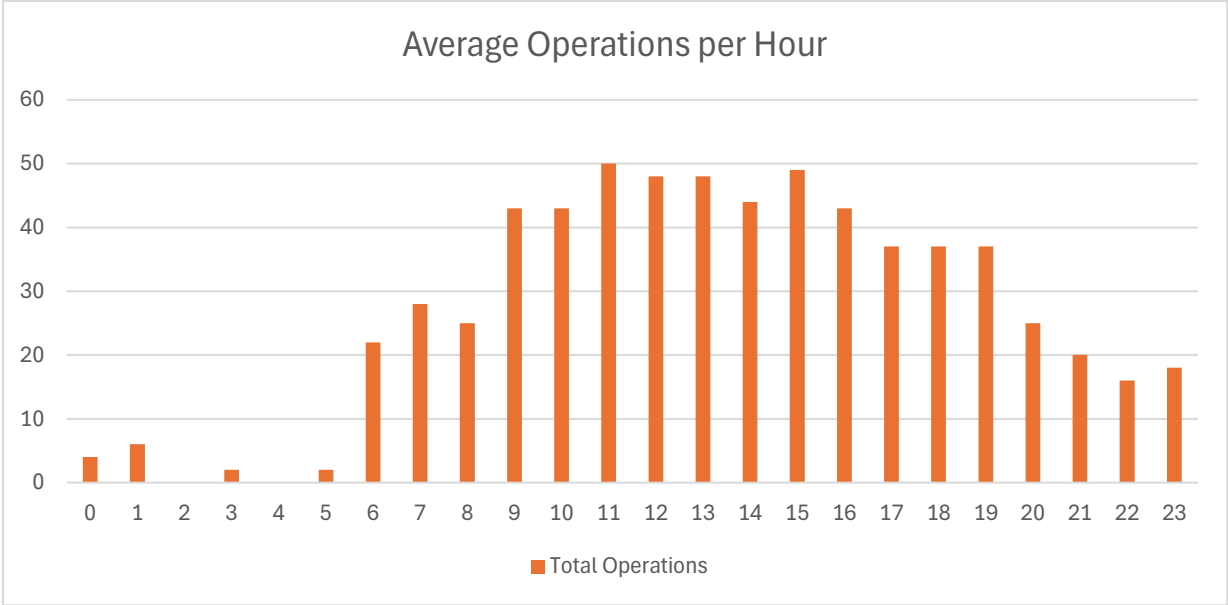

Percentage of Aircraft Engine Type
4%
2%
1%
14%
80%
Piston
Jet
Turbo-prop
Other
Turbo-shaft


Local vs Transient
29%
71%
Transient
Local

Agenda


VFR vs IFR
42%
58%
VFR
IFR


Average Operations per Day
40
35
30
25
20
15
10
5
0
Sun
Mon
Tue
Wed
Thu
Fri
Sat
Landings
Takeoffs


Average Operations per Hour
60
50
40
30
20
10
0
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
Total Operations

Mead & Hunt

CONTRACT MODIFICATION

SPONSOR –West Michigan Regional Airport
60 Geurink Boulevard.
Holland, MI 49423

ARCHITECT / ENGINEER – Mead & Hunt, Inc.
2605 Port Lansing Rd., Lansing, MI 48906
Ph: 517-321-8334

PROJECT: Construct North Hangar Area Taxilane
Federal Project No.: 3-26-0045-17824 (BIL)
Federal Project No.: B-26-0045-4424 (AIP)

CONTRACT MOD. NO.: #1

DATE: 07/25/2025

PRIME CONTRACTOR: Mead Bros Excavating, Inc.
15195 Eaton Rapids Rd.
Springport, MI 49284

ATTACHMENTS (AS INDICATED):

- Cost Analysis and Statement of Reasonableness ☐
- Independent Cost Estimate ☐
- Consequences of Change Order ☐
- Conformance to AIP Stds. and Regs. ☐
- ☐

SHORT DESCRIPTION: Change Order No. 1

DESCRIPTION OF CHANGES: This change order reflects changes required by the authority having jurisdiction (AHJ) over the storm water detention system and flood plain impacts. To obtain the required permit, additional 36" pipe was required to prevent uncontrolled discharge off the south side of the taxilane. In addition, additional expansion of the detention pond was required, which led to additional excavation to meet flood plain impact mitigation levels of 1:1.25. The local permitting process was completed after the project was bid.

Category 1 (BIL) – Job No. 209435 – Construct Taxilane (Stds) – North Hangar Park

INCREASES / DECREASES TO EXISTING ITEMS:

Item No.	Description	Quantity Change	Unit	Unit Price	Total
102001	Temporary Seeding and Mulching	-33,880	SYD	$0.50	-$16,940.00
Reason: Item will not be required due to delays due to receival of funding.					
102003	Inlet Protection, Installed and Removed	3	EA	$150.00	$450.00
Reason: Required due to drainage and stormwater storage changes.					
101005	Remove Existing 10' Chain Link Fence	475	LFT	$14.40	$6,840.00
Reason: Fence was relocated to prevent detention pond and forebay, causing the need for additional removals.					
152001	Unclassified Excavation	1,570	CYD	$17.00	$26,690.00
Reason: Required due to drainage and stormwater storage changes.					
162004	Chain-Link Fence, PVC Coated, 10' with Top Rail	380	LFT	$70.00	$26,600.00
Reason: Fence was relocated to prevent detention pond and forebay.					
701002	24-Inch Reinforced Concrete Pipe, Class V	-6	LFT	$161.00	-$966.00
Reason: Quantity Correction					

701003	36-Inch Reinforced Concrete Pipe, Class V	300	LFT	$185.00	$55,500.00
Reason: Required due to drainage and stormwater storage changes.					
701004	24-Inch Reinforced Concrete Flared End Section, Class V	1	EA	$1,300.00	$1,300.00
Reason: Quantity Correction					
751001	Drainage Manhole, 6' Dia.	1	EA	$7,350.00	$7,350.00
Reason: Required due to drainage and stormwater storage changes.					
901001	Seeding	-0.05	AC	$1,800.00	-$90.00
Reason: Required due to drainage and stormwater storage changes.					
908001	Mulching	-0.49	AC	$1600.00	-$784.00
Reason: Required due to drainage and stormwater storage changes.					
908002	Erosion Control Blanket	285	SYD	$1.25	$356.25
Reason: Required due to drainage and stormwater storage changes.					

Total Increase / Decrease to Existing Items: $106,306.25

NEW ITEMS:

Item No.	Description	Quantity Change	Unit	Unit Price	Total

Total New Items: $0.00

Category 2 (AIP) – Job No. 220252 - Install Taxiway Lighting – North Hangar Park

INCREASES / DECREASES TO EXISTING ITEMS:

Item No.	Description	Quantity Change	Unit	Unit Price	Total

Total Increase / Decrease to Existing Items: $0.00

NEW ITEMS:

Item No.	Description	Quantity Change	Unit	Unit Price	Total

Total New Items: $0.00

Category 3A – Local Only - Construct Taxilane (Stds) – North Hangar Park

INCREASES / DECREASES TO EXISTING ITEMS:

Item No.	Description	Quantity Change	Unit	Unit Price	Total

Total Increase / Decrease to Existing Items: $0.00

NEW ITEMS:

Item No.	Description	Quantity Change	Unit	Unit Price	Total

Total New Items: $0.00

Category 3B – Local Only - Install Taxiway Lighting – North Hangar Park

INCREASES / DECREASES TO EXISTING ITEMS:

Item No.	Description	Quantity Change	Unit	Unit Price	Total

Total Increase / Decrease to Existing Items: $0.00

NEW ITEMS:

Item No.	Description	Quantity Change	Unit	Unit Price	Total

Total New Items: $0.00

Total Authorized Net Change: $106,306.25

CONTRACT MODIFICATION SUMMARY:

Category 1 Original Contract Sum:	$1,388,353.17
Change by Contract Modification No. 1:	106,306.25
Category 1 Authorized Contract Sum:	$1,494,659.42
Category 2 Original Contract Sum:	$164,821.00
Change by Contract Modification No. 1:	$0.00
Category 2 Authorized Contract Sum:	$164,821.00
Category 3A Original Contract Sum:	$240,979.33
Change by Contract Modification No. 1:	$0.00
Category 3A Authorized Contract Sum:	$240,979.33
Category 3B Original Contract Sum:	$2,257.50
Change by Contract Modification No. 1:	$0.00
Category 3B Authorized Contract Sum:	$2,257.50

APPROVAL SIGNATURES:

Jeffrey E Mead — 9-12-2025

Prime Contractor – Mead Bros Excavating, Inc. — Date

Project Engineer – Jeffrey Thoman, PE — Date

Airport Sponsor – Chuck Murray, Board Chair — Date

MDOT Office of Aeronautics – Paul Nicastri — Date

North Taxilane Change Order Details

Mead & Hunt utilized the City's guidance to design the drainage system in accordance with City requirements, but when the City reviewed the drainage, they had several comments/revisions (11 total comments) they wanted in order to issue the permit.

Many of the comments were calculation based and/or requirements to provide additional information. Most of which didn't require any changes to the project design. Below are their comments and our responses and impacts:

1. The City does not allow for oversizing of BMPs to compensate for untreated areas unless you can show that the entire site still satisfies the treatment criteria.

   See response to Question 9.

2. If the treatment train for various areas differ, they should be entered as separate sub-basins in the LGROW spreadsheet. See attached.

   The existing detention basin drainage area has been divided into multiple sub-basins, delineated based on water quality treatment train. The revised LRGOW spreadsheet is included with the report in this exhibit. (No change to design)

3. If one sub-basin is routed to a different outfall or will bypass the downstream basin it should utilize a separate LGROW spreadsheet.

   There are no longer any separate outfalls or bypass sub-basins. This comment is addressed. (No change to design)

4. Based on Exhibit 3 included with your latest submittal, the stormwater management area for your site is 5.66 acres. The LGROW spreadsheet included with your submittal uses a total area of 4.90 acres.

   The LGROW spreadsheet for the existing detention basin expansion has been updated and is current to the proposed drainage areas. The revised LRGOW spreadsheet is included with the report in this exhibit. (No change to design)

5. Provide calculations which show that the grass buffer satisfies the area, length, and slope criteria for a vegetated filter strip. See attached.

   Calculations for filter strip water quality provided in the south sub-basin has been included with this submittal. Filter strips are not required in the other sub-basins to meet 80% TSS requirement. (No change to design)

6. The areas passing through the detention basin should utilize the "Pass: Sediment Forebay" and "Pass: Detention Basin (extended)" BMPs in their Water Quality Treatment Train. These should be entered under the sub-basin used for the detention area. See attached.

   The recommended BMPs have been implemented to the appropriate sub-basins in the revised LGROW spreadsheet. (No change to design)

7. The channel protection volume is the difference between the pre- and post-development 2-year runoff volumes. Per the attached LGROW spreadsheet, the required channel protection volume for your site is 13,839 cubic feet.

Channel protection volume definition is understood. The value reported in the previous submittal was to be conservative. Based on the revised LRGOW spreadsheet included with this submittal report and following your example, the channel protection volume was calculated as 12,647 cubic feet using the design areas. The basin geometry was modified as discussed in the response to Question 11. The additional storage provided below 670.20 and within the new geometry is 60,267 cubic feet, far exceeding the volume requirement. (Basin geometry modified)

8. The 24-hour detention for Extended Detention requires a 24-hour lag time between the peaks of the inflow and outflow hydrographs. If the peak inflow occurs 12-hours into a 24-hour inflow hydrograph, the outflow peak should occur 36 hours into a 72-hour outflow hydrograph. Therefore, the allowable extended detention release rate is based on a 72-hour drawdown time. Based on the attached LGROW spreadsheet this results in a required extended detention release rate of 0.107 CFS. See attached. Please know this is a common mistake as the information is not clear in the Stormwater Standards.

The methodology outlined in the City stormwater standards is considered very conservative as it assumes the discharge rate is constant throughout the storm event, while the discharge would in fact decrease as the basin stage falls.

It is conservatively assumed that the channel protection volume in the existing basin in the existing condition was at 670.20, just below the primary outfall. At this elevation, the discharge through the 6 weep drains is 0.88 cfs. Following expansion of the basin, and including the additional channel protection volume calculated in the LGROW spreadsheet, the proposed channel protection volume would be stored at elevation 669.64, resulting in a discharge of 0.74 cfs. This means that following completion of the project, the channel protection discharge will be lower than existing, further protecting downstream channels.

A HydroCAD model of the expanded detention basin has been created. The model includes the 6 weep drains to demonstrate draw-down time. From an elevation of 669.64 feet, the basin would drain in approximately 48 hours. Any modification of the outlet structure to reduce discharge and thus increase the draw-down time would violate FAA Advisory Circular 150/5320-5D Section 11-4 and FAA Advisory Circular 150/5200-33C Section 2.3.1.2. This would endanger airfield operations by attracting waterfowl and is not allowed.

It is our opinion that downstream receiving waters are sufficiently protected by the basin expansion proposed. (no change to design)

9. As noted above, the City does not generally allow for oversizing BMPs to compensate for untreated areas. However, if you can show that the total peak discharge including the entire detention basin contributing area and the proposed bypass areas satisfy the 0.13 cfs per acre criteria this will satisfy the flood control requirement. If not, flood control must be provided for the areas which are currently bypassing.

Language requiring the entire site to be controlled was not in the City stormwater documents. Regardless, the site has been regraded so that the entire site area of the taxilane contributes to the existing detention basin expansion. Areas draining off the north

side of the taxilane are routed through a ditch which discharges into the detention basin. Runoff from the south and west side of the taxilane is collected in a swale and directed to storm sewer which drains to the detention basin. The off-site runoff coming from the west in an existing ditch is still routed through the project area using a storm sewer system and discharged to the east. (This is the comment that primarily caused the cost increase. There was small section of the Taxiway, as well as the areas between the taxiway and parking lot, the was able to "free drain" into a ditch, which outfalled directly into the wetland area east of the terminal. This was similar to pre-project conditions, in which the farmed area north of the parking lot drained into the ditch (which was filled as part of this project), that outfalled directly into the wetland. In order to meet the detention requirements, the basin was designed as if that water was required to be stored by the basin, even though it had no way to get there. We were under the impression this method would work, as the detention requirements of the whole site were met, and the amount of uncontrolled runoff was similar to pre-project conditions, with a negligible amount of impervious area being uncontrolled, in our opinion. They had a different opinion, which required us to fill the area between the parking lot and taxilane and collect the water in that area to send it to the basin. That cost alone was more than $70K, as it required extension of a 36" pipe, additional grading and additional drainage structures.)

10. The as-built information provided for the detention basin outlet structure shows that the primary overflow, into the rim of the control structure, is at an elevation of 671.18. Generally, the flood control volume should be stored below this elevation to ensure that it will be adequately detained. Any storage above this elevation will bypass the control orifices and likely exceed the 0.13 cfs per acre criteria.

The additional detention storage volume provided by expanding the existing basin has been recalculated to only include volume below the rim of the control structure, at elevation 671.18. As shown in the revised LGROW spreadsheet attached to this submittal, the required detention volume following sub-basin revisions discussed above is 70,840 cubic feet. The basin geometry was modified as discussed in the response to Question 11. The additional storage provided below 671.18 and within the new geometry is 81,160 cubic feet. The surplus of storage is intended to be available for future development. (No design change)

11. The FEMA base flood elevation for the Tulip ICD is 669.7 at this location. The spillway elevation for the detention basin is 671.70 and the top of berm is 673.5. Therefore, the Tulip does not have access to any floodplain storage within the existing or proposed basins. The 669.7 contour outside of the existing detention basin should be used as the basis for cut/fill calculations. No compensating cut can be counted within the proposed detention basin. Any areas inside of the outer 669.7 contour on the proposed basin should be assumed to be filled to the base flood elevation for purposes of calculating cut/fill volumes.

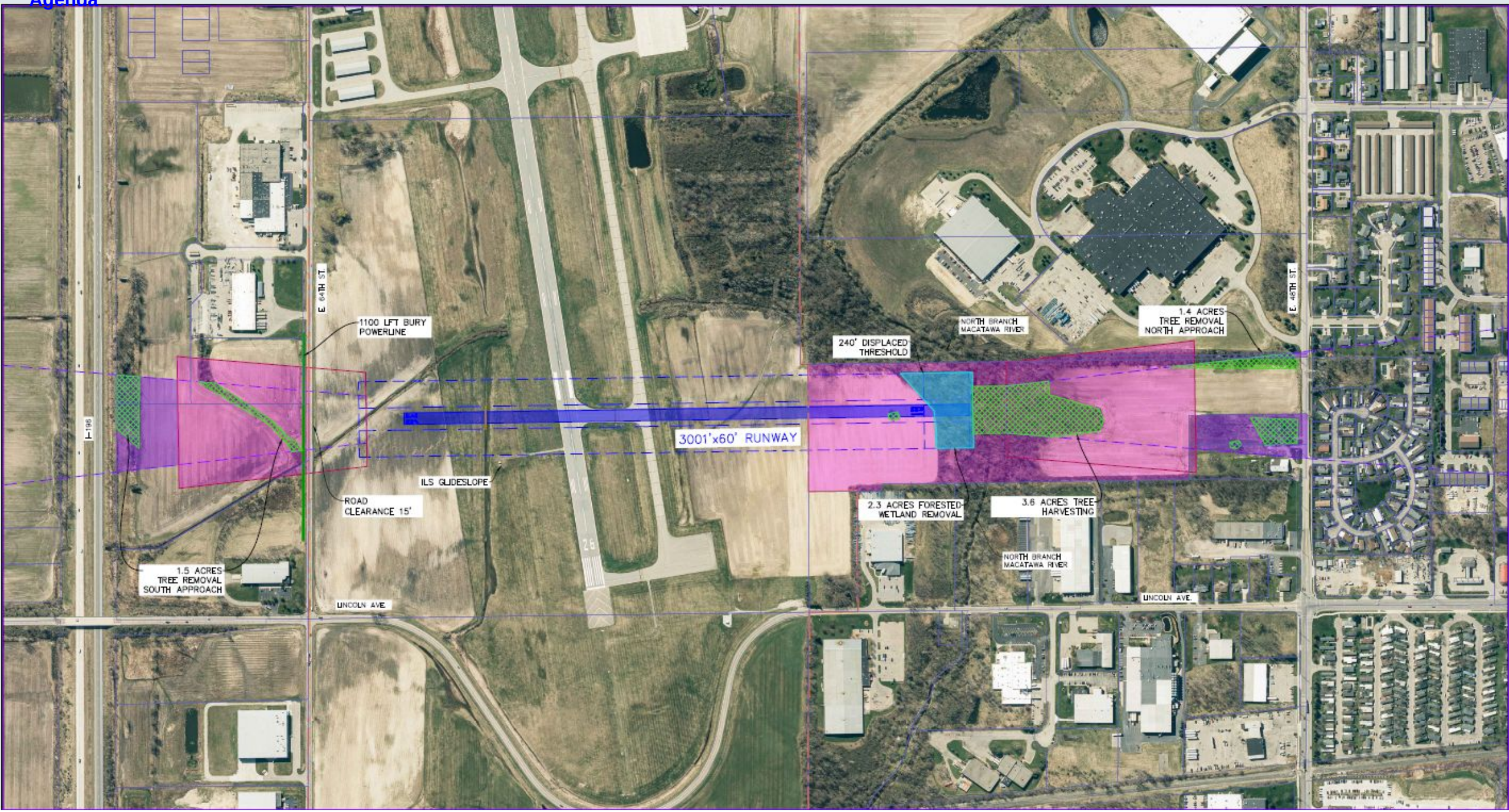
It is understood that the outlet structure does not provide a sufficient hydraulic connection to the floodplain. To reduce floodplain impacts, the geometry and grading of the basin expansion has been revised. Areas within the proposed basin berm and within the existing floodplain boundary were counted as fill up to 669.7. Compensating cut has been provided north of the basin expansion berm, within the floodplain, and below 669.7. This cut provides a cut-fill ratio of 1.28:1. (This comment required a change to the basin design, as well as additional excavation outside of the basin, but within the floodplain to meet the floodplain impact requirements.)

NORTH SOUTH RUNWAY
INFORMATION
JEFF VOS

THANKS TO
PREIN & NEWHOF

BUILD A 60’ WIDE RUNWAY WITH NO PARALLEL TAXIWAY WOULD MEET THE FAA REQUIREMENTS FOR A-I/B-I OPERATIONS

MINIMISE OR ELIMINATE IMPACT OF THE AIRFIELD ELECTRICAL SYSTEM INCLUDES MIRLS, REILS, PAPIS, SIGNS, VAULT WORK, ILS, AND CIRCUITS


1100 LFT BURY POWERLINE
E. 64TH ST.
I-196
3001'x60' RUNWAY
240' DISPLACED THRESHOLD
ILS GLIDESLOPE
ROAD CLEARANCE 15'
1.5 ACRES TREE REMOVAL SOUTH APPROACH
UNCOLN AVE.
NORTH BRANCH MACATAWA RIVER
1.4 ACRES TREE REMOVAL NORTH APPROACH
E. 48TH ST.
2.3 ACRES FORESTED WETLAND REMOVAL
3.6 ACRES TREE HARVESTING
NORTH BRANCH MACATAWA RIVER
UNCOLN AVE.

NORTH SIDE

Shorten the length to 3,001 with a 240 ‘ displaced threshold on the north end only.

*Eliminates the need to relocate major high tension power lines to the north. $ Less, Power Customers ☺

*ONLY 2.3 acres of forested wetland will need to be removed and mitigated

*3.6 acres of harvested trees to the north MDOT has indicated that removal to ground (no grubbing) could be done by a logging contractor without mitigation.

*In the north approach 31.6 acres of land acquisition would be needed for the runway and the RPZ (Runway Protection Zone). An additional 3.0 acres of avigation easement would be

needed to clear trees.

*Most of the property needed is owned by a willing seller

SOUTH SIDE

1. Shorten the length to 3,001 feet

*Approximately 1100 lft of powerline would need to be buried in the south approach along 64th Street.

* Approximately 1.5 acres of tree clearing would be needed in the south approach.

• In the south approach 10.4 acres of land acquisition would be needed in the RPZ (Runway Protection Zone). An additional 4.0 acres of avigation easement would be needed to clear

trees.

*Genzink Family is happy they get to sell the land at market value.

TOTAL ESTIMATED COSTS

The total cost for the project is estimated to be between $4,912,000 and $7,368,000.

- An Order of Magnitude Estimate is attached

• Funding could come from a number of sources.

- FAA AIP Non- primary entitlements ($150,000/year)
- FAA Discretionary funding 90% (Competitive)
- State Apportionment funding (Competitive)
- State matching funds (MDOT typically matches 5% of projects)
- Local airport funds (Match would need to be at least 5%)
- Private funds (Local Business and Individuals)Issues:

Order of Magnitude Estimate

Project Title:
Cross Wind Runway 18/36 Development

Owner:
West Michigan Regional Airport

Date:
March 25, 2025

Project #:

Description	Quantity	Unit	Low	High
Preliminary Engineering	1	LS	$76,000	$114,000
Environmental Assesment	1	LS	$280,000	$420,000
Land Consulting	7	Parcel	$196,000	$294,000
Land Acquisition	42	Acres	$1,512,000	$2,268,000
Easement Acquisition	7	Acres	$67,200	$100,800
Wetland Mitigation	2.3	Acres	$147,200	$220,800
Engineering Design	1	LS	$176,000	$264,000
Engineering CA	1	LS	$264,000	$396,000
Tree Removal	9	Acres	$72,000	$108,000
Grading/Paving Construction	1	LS	$1,303,200	$1,954,800
Electrical Construction	1	LS	$756,800	$1,135,200
Bury Powerlines	1100	Lft	$61,600	$92,400
		Total:	**$4,912,000**	**$7,368,000**

ESTIMATED CONSTRUCTION COST

Current ALP **Mead & Hunt**	**USER DESIRED** **Prein & Newhof**
20 Million Dollars	5-7 Million Length 3,001 feet Width 60 feet
IMPRACTICAL	PRACTICAL

ESTIMATED MAINTENANCE COST

USER
DESIGNED
Prein & Newhof

$40,000-$60,000 annually.
(Not a Prein & Newhof calculation.)

Where do the funds come from?
Estimated 26% activity increase year 1 (Not a Prein & Newhof calculation.)
5-10% Activity Increase through current User Fees
New Hanger land lease Fees

Agenda

Low construction cost
Low environmental impact
Low annual maintenance

High safety improvement
High compatibility with our users
High passenger experience

Mead & Hunt

West Michigan Regional Airport

Crosswind Runway Evaluation

August 12, 2024

Agenda

- Key Questions
- Background Data
- Factors for Consideration
- Summary & Questions

Key Questions for WMAA

- Primary:
  - Should Runway 18/36 continue to be shown on the Airport Layout Plan?
    - Is Runway 18/36 justified?
    - Is Runway 18/36 eligible?
- Secondary:
  - Should WMAA pursue development of Runway 18/36?
    - Is Runway 18/36 fundable?
    - If so, at what length and what type (paved/turf)?

Background Data

Background Data – Wind Coverage

3/31/2022

AC 150/5300-13B
Appendix B

Table B-1. Allowable Crosswind Component per Runway Design Code (RDC)

RDC	Allowable Crosswind Component
A-I and B-I *	10.5 knots
A-II and B-II	13 knots
A-III, B-III, C-I through D-III D-I through D-III	16 knots
A-IV and B-IV, C-IV through C-VI, D-IV through D-VI	20 knots
E-I through E-VI	20 knots

Note: * Includes A-I and B-I small aircraft.

Mead &Hunt

Background Data
Wind Analysis – 2013 ALP

WIND COVERAGE TABLE - ALL WEATHER

RUNWAY	CROSSWIND COMPONENT - KNOTS 10.5	13.0	16.0	20.0
8-26	90.56	95.16	98.71	99.72
18-36	85.30	91.55	97.20	
8-26 AND 18-36	97.56	99.39	99.87	

SOURCE:
NATIONAL CLIMATIC DATA CENTER;
FAA AIRPORT DESIGN VERSION 4.2
MDOT BUREAU OF AERONAUTICS

STATION:
HOLLAND, MI
STATION NUMBER: 72539

NUMBER OF OBSERVATIONS:
72,539

PERIOD OF RECORD:
1999 - 2008

Mead & Hunt

Background Data
Wind Analysis – Existing Coverage

Table 2: Wind Analysis – Existing Runway 8/26 & Future Runway 18/36 – All Weather Conditions

Crosswind (in knots)	8	26	18	36
10.5	80.57%	89.74%	81.69%	79.92%
	92.28%		83.52%	
	97.79%			
13	88.45%	94.86%	89.27%	87.80%
	96.37%		90.06%	
	99.47%			
16	95.87%	98.90%	96.21%	95.70%
	99.27%		96.32%	
	99.92%			
20	98.86%	99.83%	98.94%	98.83%
	99.90%		98.95%	
	99.99%			

Note: Single runway end coverages calculated with same tailwind as headwind

Source: National Climatic Data Center (NCDC), FAA Airports Geographic Information System (AGIS) wind analysis tool

Station: West Michigan Regional Airport.

Period of Record: 2014-2023 based on 124,799 observations.

Mead & Hunt

Conclusion:

Technically Rwy 18/36 is “justified” which makes it “eligible” but is it “fundable”?

Lots of “other considerations” exist that impact the feasibility of funding.

Factors for Consideration

- Environmental and Physical Considerations
- Surrounding Airports
- Estimated Cost
- Available Funding Options

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Environmental and Physical Considerations

Relocation of airport infrastructure	Glideslope antenna and PAPI Runway 26 Taxiway connector between Runway 8/26 and parallel taxiway
60-80 acres of property acquisition/avigation easements construction, RPZs and approach area clearance	
Impacts to North Branch Macatawa River	River enclosure – approx. 600-feet Floodplains Wetlands
30-40 acres of wetland impact (river, drains, small wetland areas)	

Agenda

RUNWAY SAFETY AREA

	FUTURE 8	FUTURE 26	FUTURE 18	FUTURE 36
RUNWAY PROTECTION ZONE (RPZ)	1,000' x 1,750' x 2,500'	1,000' x 1,750' x 2,500'	500' x 700' x 1,000'	500' x 700' x 1,000'
FAR PART-77 APPROACH SURFACE	1,000' x 16,000' x 50,000'	1,000' x 16,000' x 50,000'	500' x 1,500' x 5,000'	500' x 1,500' x 5,000'
RUNWAY SAFETY AREA (RSA)	1,000' x 500'	1,000' x 500'	300' x 150'	300' x 150'
OBJECT FREE AREA (OFA)	1,000' x 800'	1,000' x 800'	300' x 500'	300' x 500'
OBSTACLE FREE ZONE (OFZ)	200' x 400'	200' x 400'	200' x 250'	200' x 250'
PRECISION OBSTACLE FREE ZONE* (POFZ)	200' x 800'	200' x 800'	N/A	N/A

NOTE:
*THE PRECISION OBSTACLE FREE ZONE IS IN EFFECT ONLY WHEN ALL OF THE FOLLOWING OPERATIONAL CONDITIONS ARE MET:
1. VERTICAL GUIDED APPROACH
2. REPORTED CEILING BELOW 250 FEET AND/OR VISIBILITY LESS THAN 3/4 STATUTE MILE (OR RVR BELOW 4,000 FEET)
3. AN AIRCRAFT ON FINAL APPROACH WITHIN TWO MILES OF THE RUNWAY THRESHOLD

RUNWAY DATA

	FUTURE 8	FUTURE 26	FUTURE 18	FUTURE 36
LATITUDE (LAT.)	42° 44' 27.84" N	42° 44' 39.31" N	42° 45' 03.92" N	42° 44' 29.48" N
LONGITUDE (LONG.)	86° 07' 14.34" W	86° 05' 48.61" W	86° 06' 00.97" W	86° 05' 56.77" W
ELEVATION (EL.)	698'	686'	672'	672'
STATION (STA.)	67+02	02+00	100+00	135+00
BEARING	N 79° 42' 18.36" E	N 79° 42' 18.36" E	N 174° 51' 36" E	N 174° 51' 36" E
APPROACH TYPE	PRECISION	PRECISION	VISUAL	VISUAL
TOUCHDOWN ZONE LATITUDE (LAT.)	42° 44' 27.84" N	42° 44' 39.31" N	42° 45' 03.92" N	42° 44' 29.48" N
TOUCHDOWN ZONE LONGITUDE (LONG.)	86° 07' 14.34" W	86° 05' 48.61" W	86° 06' 00.97" W	86° 05' 56.77" W
TOUCHDOWN ZONE ELEVATION (EL.)	698'	686'	672'	672'

APRON DATA

	EXISTING 1	EXISTING 2	EXISTING 3
DESCRIPTION	HOLD APRON	HANGAR APRON	HANGAR APRON
SIZE	260' x 270'	876' x 278'	350' x 148'

DIMENSIONAL INFORMATION

	FUTURE 8	FUTURE 26	FUTURE 18	FUTURE 36
RUNWAY LENGTH	6,502'	6,502'	3,500'	3,500'
RUNWAY WIDTH	100'	100'	75'	75'
RUNWAY SHOULDER WIDTH	0'	0'	0'	0'
TAXIWAY WIDTH	VARIES	VARIES	VARIES	VARIES
TAXIWAY EDGE SAFETY MARGIN	7.5'	7.5'	7.5'	7.5'
TAXIWAY SHOULDER WIDTH	0'	0'	0'	0'
TAXIWAY SAFETY AREA WIDTH	79'	79'	79'	79'
TAXIWAY OBJECT FREE AREA WIDTH	131'	131'	131'	131'
RUNWAY CENTERLINE TO TAXIWAY HOLD LINE	250'	250'	250'	250'
RUNWAY CENTERLINE TO TAXIWAY CENTERLINE LENGTH	400'	400'	300'	300'
RUNWAY CENTERLINE TO BUILDING RESTRICTION LINE LENGTH	745'	745'	495	495

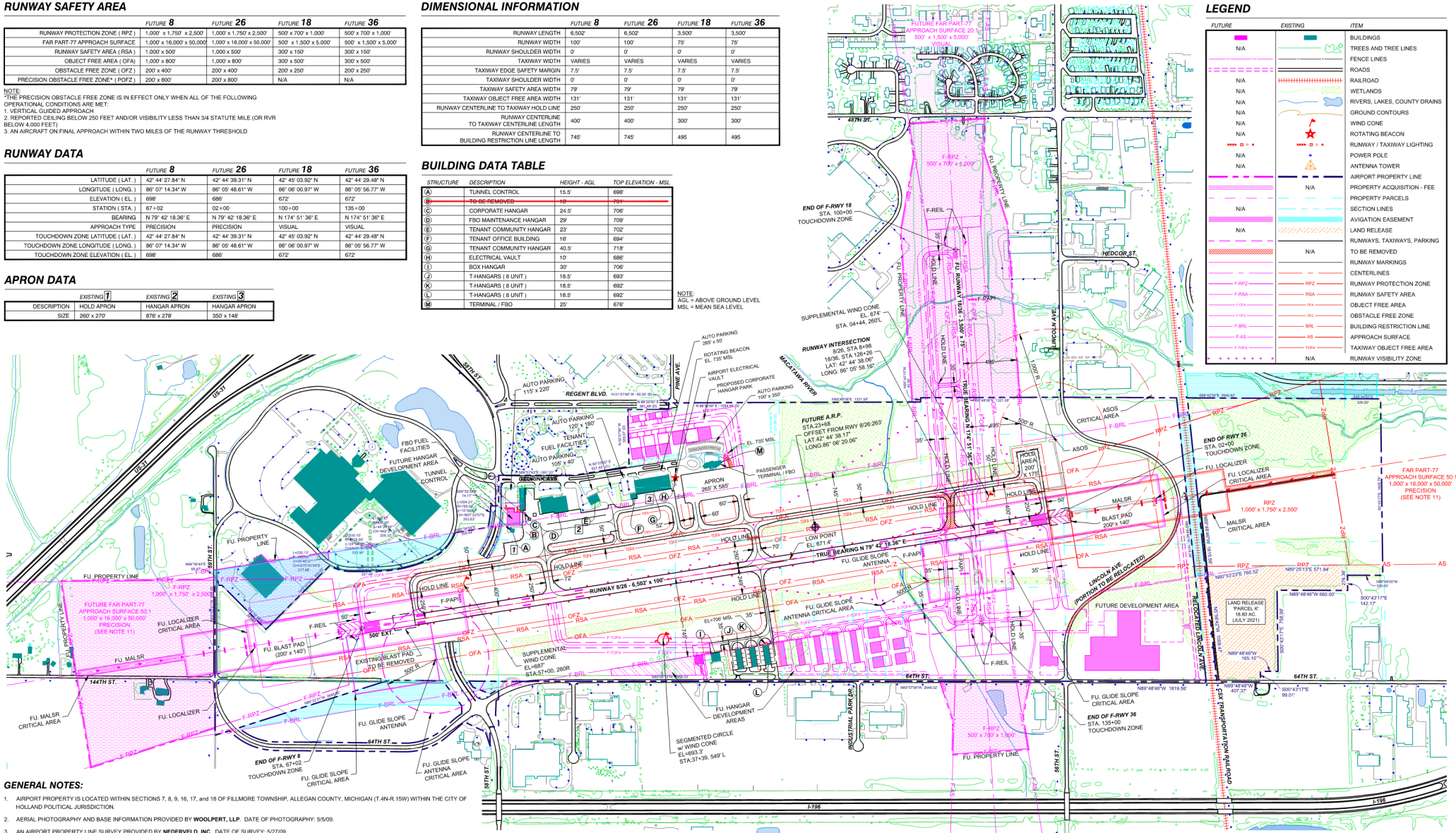
BUILDING DATA TABLE

STRUCTURE	DESCRIPTION	HEIGHT - AGL	TOP ELEVATION - MSL
A	TUNNEL CONTROL	15.5'	698'
B	TO BE REMOVED	15'	701'
C	CORPORATE HANGAR	24.5'	706'
D	FBO MAINTENANCE HANGAR	29'	709'
E	TENANT COMMUNITY HANGAR	23'	702'
F	TENANT OFFICE BUILDING	16'	694'
G	TENANT COMMUNITY HANGAR	40.5'	718'
H	ELECTRICAL VAULT	10'	686'
I	BOX HANGAR	30'	706'
J	T-HANGARS (8 UNIT)	18.5'	693'
K	T-HANGARS (8 UNIT)	18.5'	692'
L	T-HANGARS (8 UNIT)	18.5'	692'
M	TERMINAL / FBO	25'	676'

NOTE:
AGL = ABOVE GROUND LEVEL
MSL = MEAN SEA LEVEL

LEGEND

FUTURE	EXISTING	ITEM
N/A		BUILDINGS
		TREES AND TREE LINES
		FENCE LINES
N/A		ROADS
N/A		RAILROAD
N/A		WETLANDS
N/A		RIVERS, LAKES, COUNTY DRAINS
N/A		GROUND CONTOURS
N/A		WIND CONE
N/A		ROTATING BEACON
		RUNWAY / TAXIWAY LIGHTING
N/A		POWER POLE
N/A		ANTENNA TOWER
	N/A	AIRPORT PROPERTY LINE
		PROPERTY ACQUISITION - FEE
N/A		PROPERTY PARCELS
		SECTION LINES
N/A		AVIGATION EASEMENT
		LAND RELEASE
	N/A	RUNWAYS, TAXIWAYS, PARKING
		TO BE REMOVED
		RUNWAY MARKINGS
		CENTERLINES
F-RPZ	RPZ	RUNWAY PROTECTION ZONE
F-RSA	RSA	RUNWAY SAFETY AREA
F-OFA	OFA	OBJECT FREE AREA
F-OFZ	OFZ	OBSTACLE FREE ZONE
F-BRL	BRL	BUILDING RESTRICTION LINE
F-AS	AS	APPROACH SURFACE
F-TOFA	TOFA	TAXIWAY OBJECT FREE AREA
	N/A	RUNWAY VISIBILITY ZONE



GENERAL NOTES:

1. AIRPORT PROPERTY IS LOCATED WITHIN SECTIONS 7, 8, 9, 16, 17, and 18 OF FILLMORE TOWNSHIP, ALLEGAN COUNTY, MICHIGAN (T.4N-R.15W) WITHIN THE CITY OF HOLLAND POLITICAL JURISDICTION.
2. AERIAL PHOTOGRAPHY AND BASE INFORMATION PROVIDED BY **WOOLPERT, LLP**. DATE OF PHOTOGRAPHY: 5/5/09.
3. AN AIRPORT PROPERTY LINE SURVEY PROVIDED BY **NEDERVELD, INC.** DATE OF SURVEY: 5/27/09.
4. THE NORTH MAGNETIC DECLINATION WAS CALCULATED USING INFORMATION FOUND ON **WWW.NGDC.NOAA.GOV/SEG/GEOMAG/DECLINATION**. THESE CALCULATED FIGURES ARE BASED ON THE INTERNATIONAL GEOMAGNETIC REFERENCE FIELD MODEL, VERSION 10 (2005-2010). DECLINATION AND VARIANCE CALCULATED: 05/26/11.
5. THE AIRPORT IS CLASSIFIED AS AN AIRPLANE DESIGN GROUP II; HOWEVER, SEVERAL TAXIWAYS ARE CONSTRUCTED USING AIRPLANE DESIGN GROUP III STANDARDS.
6. CONTACT "MISS DIG" PRIOR TO ANY CONSTRUCTION TO DETERMINE THE LOCATION OF BELOW GROUND UTILITIES.
7. MORE DETAILED EXISTING BUILDING INFORMATION IS SHOWN ON BUILDING AREA PLAN, SHEET 6.
8. HEIGHT OF PERIMETER FENCE VARIES AND SHOULD BE CONFIRMED WITH AIRPORT SPONSOR REGARDING HEIGHTS AT SPECIFIC LOCATIONS.
9. THE SYMBOLS SHOWN ARE SMALL DUE TO SCALE; HOWEVER, THEY ARE LEGIBLE IN THE ELECTRONIC FILE.
10. ALL FUTURE HOLD LINES ARE OFFSET FROM THE RUNWAY 8/26 250' UNLESS OTHERWISE NOTED.
11. THE EXISTING RUNWAY 26 AND FUTURE RUNWAY 8 APPROACH SURFACE SLOPE IS 50:1 FOR THE FIRST 10,000 FT. AND THEN 40:1 FOR THE FINAL 40,000 FT.

REVISIONS

NO.	DATE	REMARKS	BY	CHK
1	10/29/15	ADDED PARCEL 37, UPDATED RWY 8 RPZ	AEF	AEF
2	2/22/17	FM 03-07-C28	GAM	AEF
3	5/3/18	ADDED FUTURE LAND RELEASE	AEF	AEF
4	10/15/18	EAST APRON TAXIWAY CONNECTOR	AEF	JET
5	01/21	PEN & INK CHANGE FOR PROPOSED HANGAR	AEF	JET
6	6/21	PEN & INK CHANGE PROPOSED CORPORATE HANGAR PARK	AEF	JET
7	1/22	ADDED LAND RELEASE 'PARCEL K'	AEF	AEF
8				
9				
10				

WEST MICHIGAN REGIONAL AIRPORT
HOLLAND, MI

AIRPORT LAYOUT PLAN
FUTURE AIRPORT LAYOUT PLAN

Mead & Hunt
2605 PORT LANSING ROAD
LANSING, MICHIGAN 48906
517.321.8334 - 517.321.5932 FAX

STATE ID. NO.	M&H PROJECT NO. — 03199-00-09001	DESIGNED	SADW 5/11
03-07	FEDERAL CONTRACT NO. — n/a	DRAWN	AEF 5/11
	STATE CONTRACT NO. — B-26-0045-3006	CHECKED	SADW 5/11

SHEET: **4** OF **14**

U.S. Fish and Wildlife Service
National Wetlands Inventory

Future Runway 18/36

May 29, 2024

Wetlands

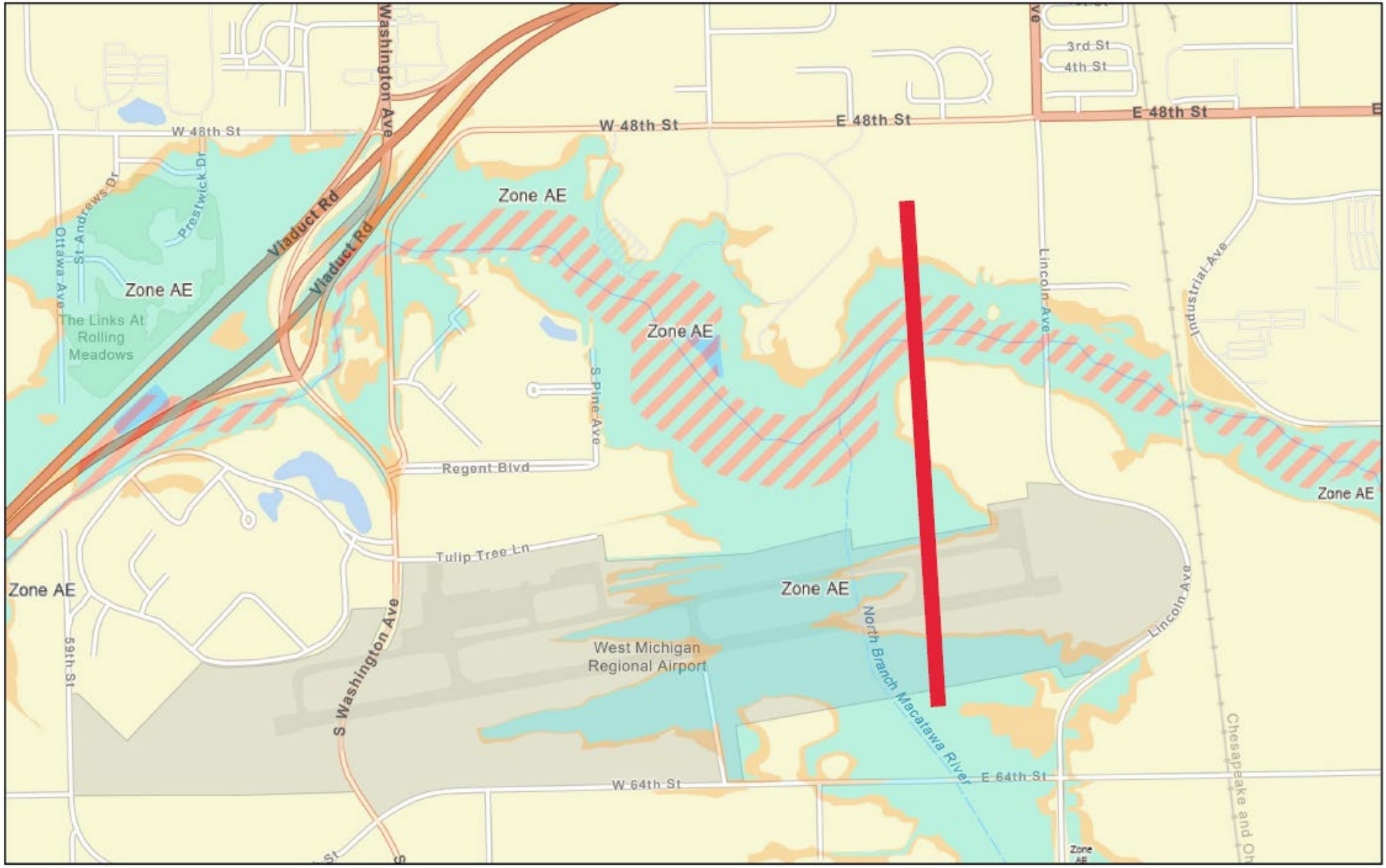
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Mead & Hunt

Floodplains



May 29, 2024

Flood Hazard Zones
- 1% Annual Chance Flood Hazard
- Regulatory Floodway
- Special Floodway
- Area of Undetermined Flood Hazard
- 0.2% Annual Chance Flood Hazard
- Future Conditions 1% Annual Chance Flood Hazard
- Area with Reduced Risk Due to Levee
- Area with Risk Due to Levee

1:18,056

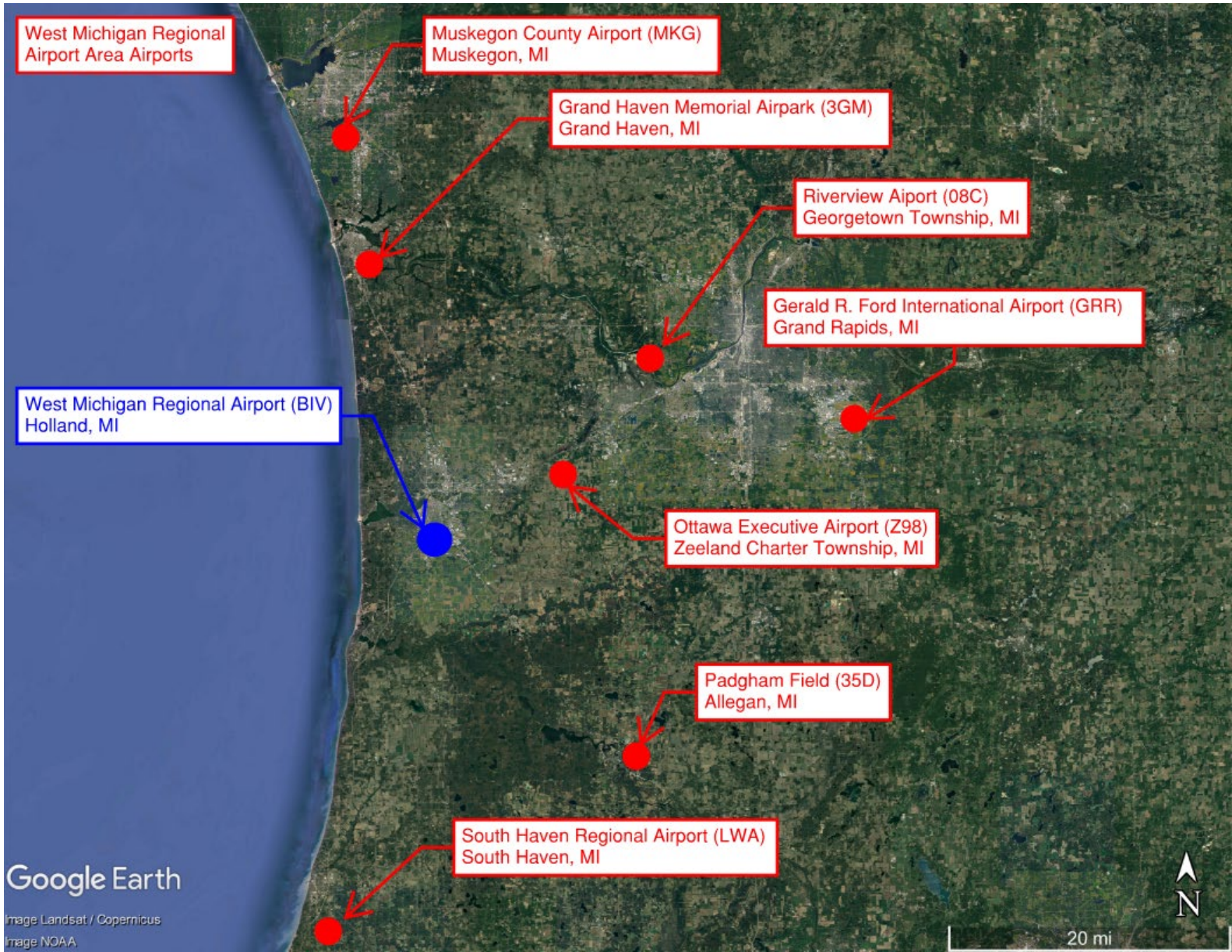
0 0.1 0.2 0.4 mi

0 0.17 0.35 0.7 km

Mead & Hunt

Surrounding Airports

- Nearby options would be an element addressed in the NEPA process



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Surrounding Airports

Table 4: Airfield Configurations of Surrounding Airports

Airport	Runway	Length (ft)	Width (ft)	Surface	Distance from BIV (mi)
West Michigan Regional Airport (Holland)	8/26	6,002	100	Asphalt	n/a
Ottawa Executive Airport (Zeeland)	2/20	3,800	60	Asphalt	10
Padgham Field (Allegan)	11/29	4,300	75	Asphalt	20
	15/33	1,830	150	Turf	
Riverview Airport (Jenison)	14/32	3,920	49	Asphalt	20
Grand Haven Memorial Airpark (Grand Haven)	9/27	3,752	75	Asphalt	21
	18/36	2,058	60	Asphalt	
South Haven Area Regional Airport (South Haven)	5/23	4,800	75	Asphalt	28
	14/32	3,260	190	Turf	
Muskegon County Airport (Muskegon)	6/24	6,501	150	Asphalt	30
	14/32	6,100	150	Asphalt	
Gerald R. Ford International Airport (Grand Rapids)	8L/26R	5,001	100	Asphalt	31
	8R/26L	10,001	150	Concrete	
	17/35	8,501	150	Concrete	

Note: North/south and northwest/southeast oriented runways highlighted in green.

Source: FAA 5010 forms (2024)

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Estimates of Cost – Future Paved Crosswind Runway as shown in ALP

Table 5 - Estimated Cost for Construction of Crosswind New Runway

Project / Step	Order of Magnitude Estimate Low	High
Feasibility / Funding Justification Study	$ 50,000	$ 150,000
Environmental Assessment and Prelim Engineering	$ 675,000	$ 1,125,000
Land Acquisition (60 to 80 acres @ $30k to $50k/acre)	$ 1,800,000	$ 4,000,000
Wetland Mitigation (30 to 40 acres @ $75k to $100k/acre)	$ 2,250,000	$ 4,000,000
Consultant Costs for Land Acquisition and Mitigation	$ 250,000	$ 450,000
Approach Clearing (30 to 40 acres @ $10,000/acre)	$ 450,000	$ 600,000
Runway Construction (design, construction, & CA)	$ 8,130,000	$ 11,555,000
Runway 26 Glideslope Relocation	$ 300,000	$ 600,000
Total	**$ 13,905,000**	**$ 22,480,000**

Mead &Hunt

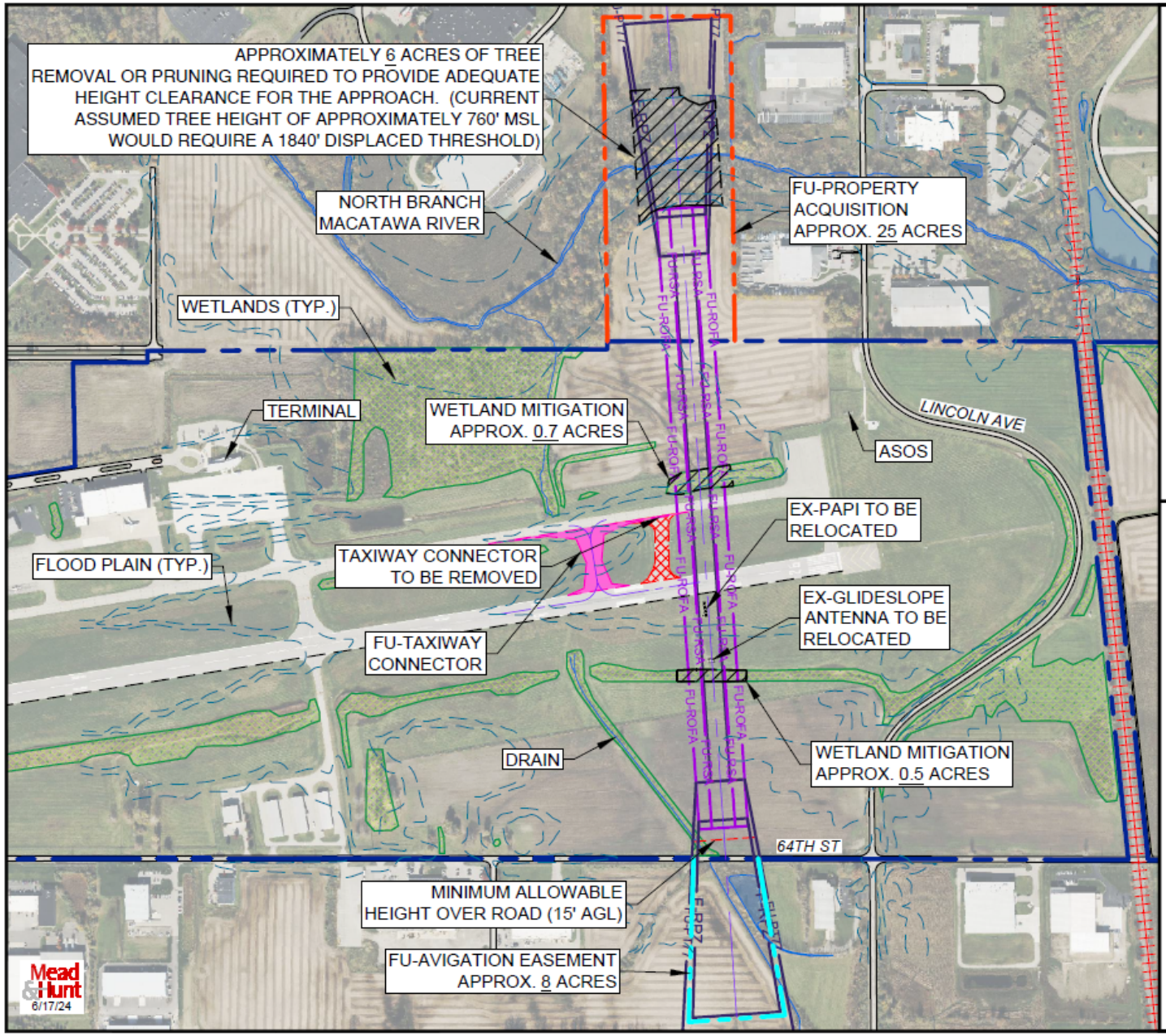
Turf-Small Aircraft Exclusive Runway Option

FIGURE 1

WEST MICHIGAN REGIONAL AIRPORT - HOLLAND, MI

PROPOSED 2,700' TURF CROSSWIND RUNWAY (SMALL AIRCRAFT EXCLUSIVE)

SCALE: 1"= 600'



RUNWAY CONSIDERATIONS:

1. AVOID NORTH BRANCH MACATAWA RIVER AT NORTHERN END OF RUNWAY
2. PROPERTY ACQUISITION
3. AVOID COUNTY DRAIN AT SOUTHERN END OF RUNWAY
4. MULTIPLE AREAS OF WETLAND MITIGATION
5. TREES WITHIN THE NORTHERN APPROACH TO BE MITIGATED
6. RELOCATE RUNWAY 26 PAPI
7. RELOCATE RUNWAY 26 GLIDESLOPE
8. RELOCATE RUNWAY 8/26 TAXIWAY CONNECTOR

LEGEND

- AIRPORT BOUNDARY
- FU. AIRPORT BOUNDARY
- FU. AVIGATION EASEMENT
- WETLANDS
- FU. TURF RUNWAY
- FU. CENTERLINE
- F-RPZ — FU. RUNWAY PROTECTION ZONE
- FU-PT77 — FU. PART 77 APPROACH SURFACE
- FU-RSA — FU. RUNWAY SAFETY AREA
- FU-ROFA — FU. RUNWAY OBJECT FREE AREA

Mead & Hunt

Turf Crosswind Runway Estimate of Costs

Assumes a federally funded project

Project/Step	Low cost	High cost
Feasibility/Funding Justification Study	$50,000	$150,000
EA & Prelim. Engineering	$675,000	$1,125,000
Land Acq. (33 acres @$30K to $50K/acre)	$990,000	$1,650,000
Wetland Mitigation (7-15 acres @$75K to $100K/acre)	$525,000	$1,500,000
Consultant Costs (land and mitigation)	$250,000	$450,000
Approach Clearing (6 acres @$10K/acre)	$60,000	$60,000
Runway Construction (design, construction, CA)	$1,500,000	$2,000,000
Runway 26 Glideslope relocation	$300,000	$600,000
TOTAL	$4,350,000	$4,850,000

Mead & Hunt

Available Funding

AIP = Airport Improvement Program – Funded by the FAA

AIP Entitlements (NPEs)	AIP State Apportionment	AIP Discretionary	Congressionally Directed Spending
• $150,000 annually, can accumulate for up to 4 years, on a rolling basis	• Competitive with all other airports in the state • Focus is usually on rehab/reconstruction of EXISTING facilities	• Competitive with all other NPIAS airports in the US (3,300+) • Focus is usually on rehab/reconstruction of EXISTING facilities	• Competitive with all other sites who submit requests • Would likely need multiple requests • Construction grant must be based on an environmentally cleared and competitively bid project

AIP Entitlements are the only thing that are a “sure-thing” and your NPEs are annually obligated to existing infrastructure on the airfield associated with Runway 8/26.

Summary

Summary of Considerations Challenges to Development

- Justified by less than 3% wind coverage
- 600-ft+ enclosure of the North Branch Macatawa River for paved runway
- Wetlands & Floodplain impacts
  - Impacts with both paved and turf
- Possible noise impacts
- High Construction Costs
- Increased Maintenance Costs
- All other airport projects likely put on “hold” if project is undertaken with federal funds

Mead &Hunt

Summary of Considerations
Funding Challenges

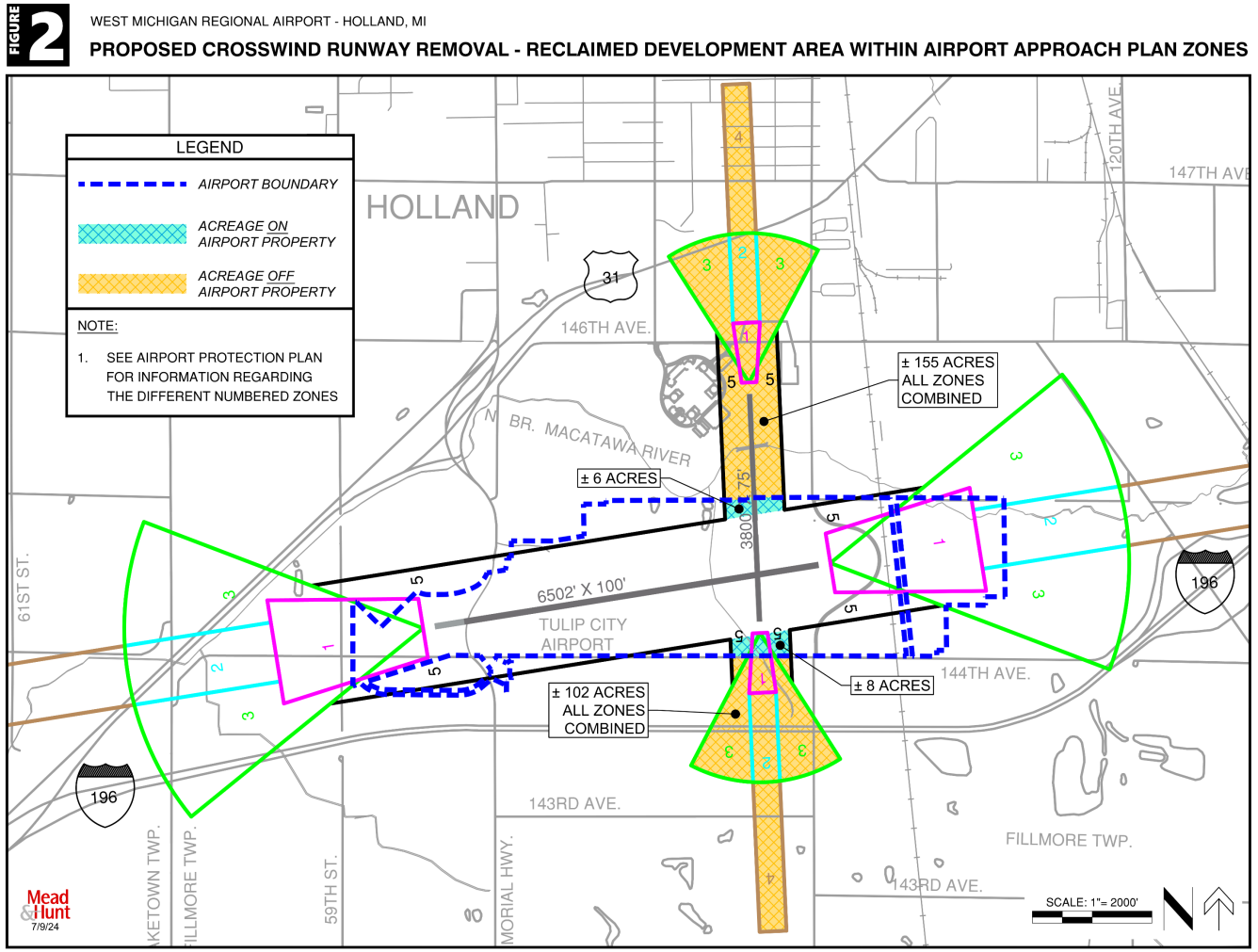
- AIP Entitlements alone will never be enough to fund project
  - Only $150,000 annually
- All other sources are very competitive
- Local funds would need to be used to “front” various elements
- If only local funds were used, the overall project may be less expensive, however, several of the steps are still required due to being a federally obligated airport, such as:
  - Environmental assessment
  - Wetland mitigation and permitting

Mead &Hunt

Summary of Considerations Maintaining Crosswind ON the ALP

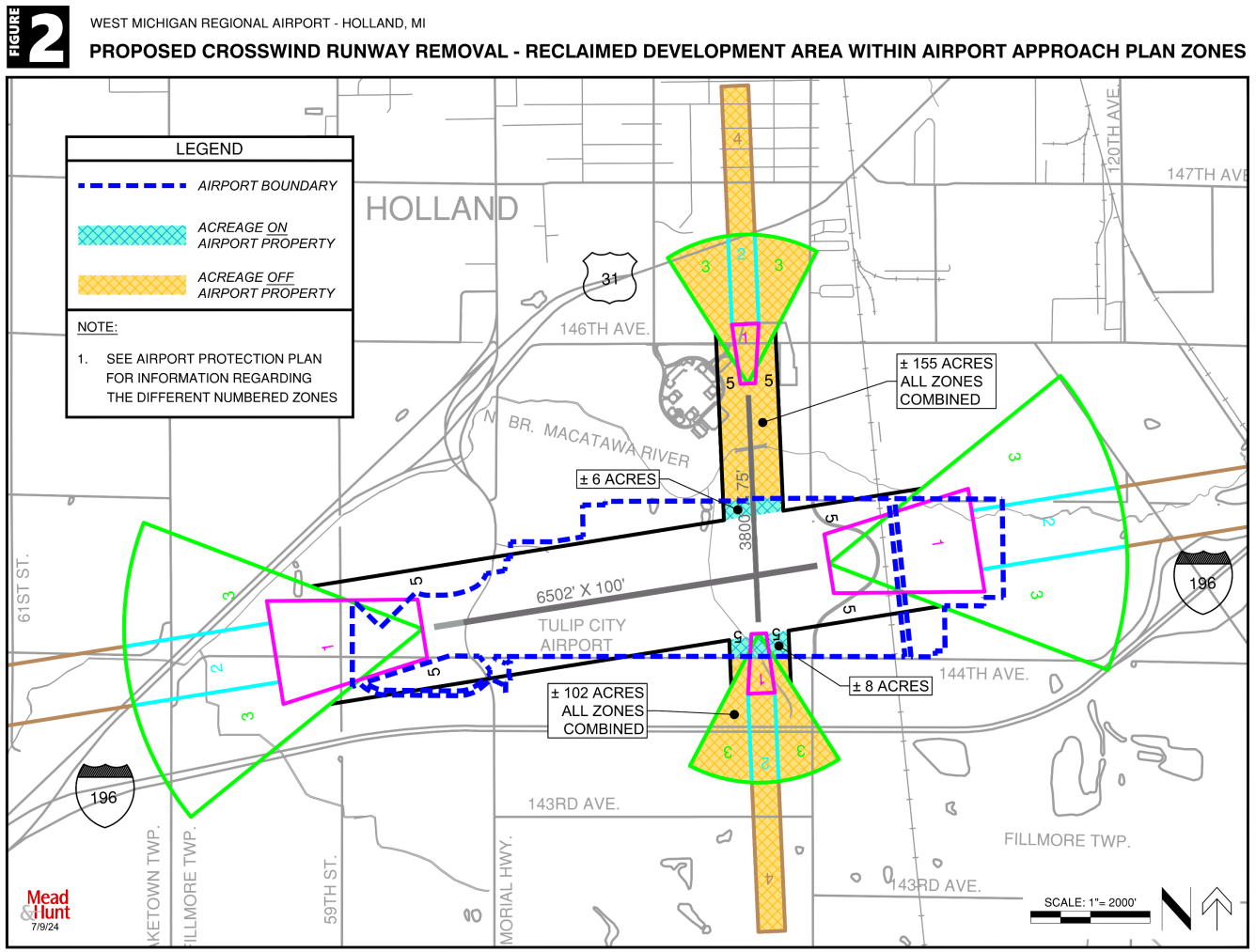
- Preserves the airspace
- Preserves the on-airport area for the development

- Restricts approx. 250 acres of development within the Airport Approach Plan zones
  - Administered by the City of Holland UDO
- Restricts development along Lincoln Ave. and 64th Street



Summary of Considerations
REMOVING Crosswind From the ALP

- Removes the airspace preservation
- Removes land use restrictions on over approx. 250 acres of property along 148th Ave, Lincoln Ave. and 64th Street from the AAP
- Opens approx. 14 acres of airport property for the development



Questions?

Stephanie A.D. Ward, AICP
Manager, Aviation Planning
Mead & Hunt
stephanie.ward@meadhunt.com
517-908-3121

Financial Implications of Retaining the Overlay at WMRA

Background

The subcommittee was tasked with researching the numerous considerations associated with recommending the retention or elimination of an existing "overlay" of property at West Michigan Regional Airport ("WMRA"). The overlay, in basic terms, serves as a placeholder for potential future airport infrastructure. In the case of WMRA, the overlay includes sufficient property to construct a North/South oriented runway, also referred to as a "crosswind runway."

Given the amount of property included in the overlay, the crosswind runway would be suitable for general aviation aircraft with required minimum takeoff and landing distances of approximately 3,000 feet. That would include most (if not all) single engine aircraft and light twin engine aircraft. Depending on the policies of their owners, some light jet aircraft may also be able to use a runway of that length.

Financial Considerations

While the subcommittee was tasked with providing recommendations relative to the overlay, the process required members to look through that assignment and consider key factors associated with the construction, maintenance and safe operation of a second runway at WMRA.

The financial aspect, as the group studied the matter, evolved into the following elements:

- Revenue Resulting from Offering Multiple Runways
- Costs of Construction (and sources of funding)
- Maintenance Costs

Revenue Considerations

The biggest challenge with analyzing the financial impact is completely with estimating the incremental revenue of offering a crosswind runway. While estimated construction costs can vary depending on the length, positioning, features, etc. of the runway (see the studies submitted by Prien and Newhof and Mead & Hunt), it's extremely difficult to estimate incremental revenue.

Revenue at general aviation ("GA") airports, as opposed to airports with scheduled air carrier (i.e. airline) service, is highly correlated with the amount of general aviation air traffic (local and transient) using the airport. It's unarguable that GA airports with

multiple runways experience more traffic than those with just one runway due to the safer landing options offered pilots.

More traffic typically results in more revenue generated by businesses at the airport. The primary revenue sources include aviation fuel sales, aircraft maintenance and repair work, parking fees, and hangar rental income.

The challenge with estimating the amount of incremental revenue brought by adding a crosswind runway is that the issue is much broader than simply the runway itself. It's more about the overall health of the airport's community, what attracts visitors (especially pilots) and the services and amenities offered by the airport. For example, many general aviation pilots will frequent airports with nearby and easily accessible restaurants. If an airport has a restaurant on the field itself (i.e. Jackson, Marshall and Coldwater), even better.

Pilots often plan their flights (and intermediate stops) at airports where per gallon fuel costs are lowest (or at least reasonable). Aviation apps like Foreflight maintain current fuel prices at every airport offering fuel, making it easy for pilots to research and plan their route of flight based on fuel prices.

Airports with amenities like The Air Zoo (Kalamazoo), highly regarded aircraft service and maintenance shops, and active, focused and dedicated airport leadership that treats the airport like a growing business serving its customers, tend to attract more traffic. Said another way, economic development within the community and around the airport has a far greater impact on airport traffic volumes than most other considerations.

Airports with vibrant flight schools would particularly appreciate a crosswind runway, allowing flight training more days per year when winds on the main runway exceed the skill set of student pilots. More training days also drives incremental revenue in the form of fuel sales, maintenance work, etc.

Costs of Construction (and Sources of Funding)

Based on reports from Prien & Newhof and Mead & Hunt, the cost of constructing a paved crosswind runway at WMRA range from $5,000,000 to close to $20,000,000 depending on the length of the runway, features, and location (i.e. wetland/river/tributary impacts, etc.)

Sources of funding have historically included a contribution from local sources (i.e. airport authority, community benefactors, etc.) with the balance provided by the FAA and/or state sources. Consultants interviewed by the subcommittee have commented that crosswind runways are not currently receiving any meaningful support from federal

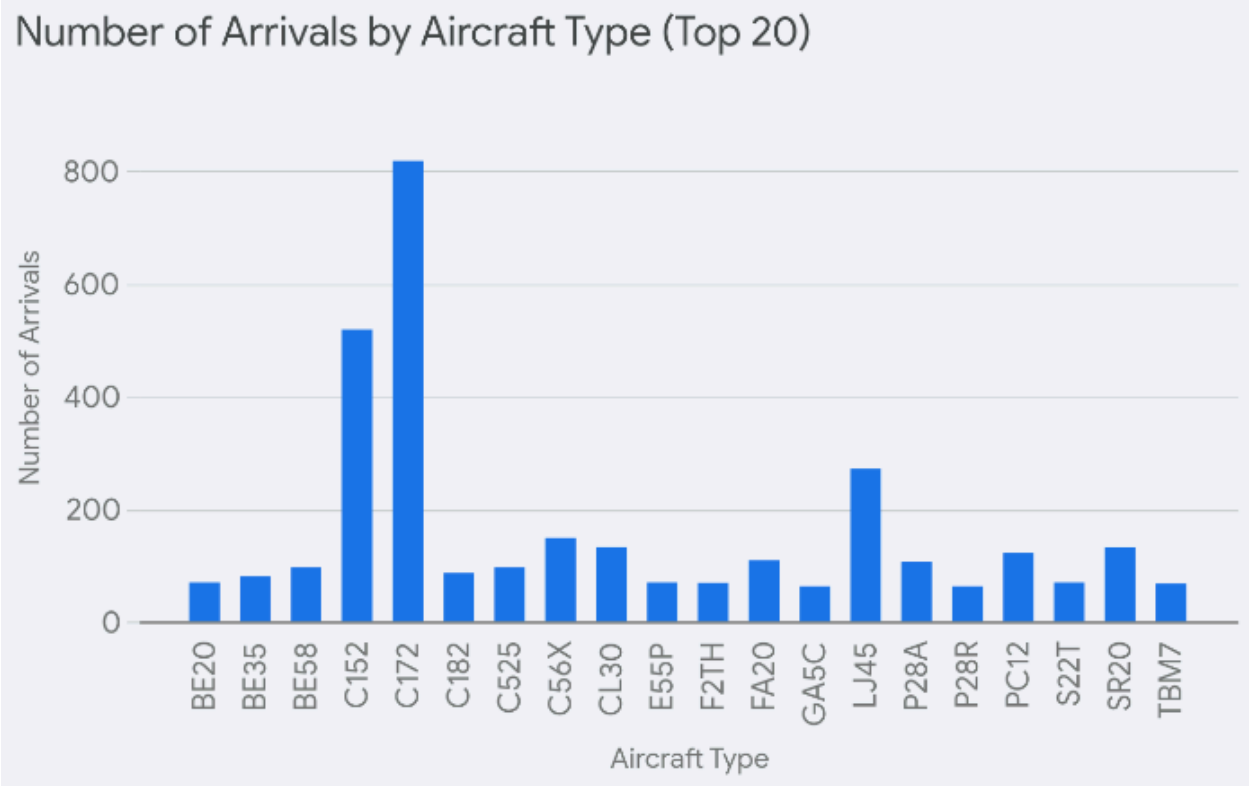
financial resources. WMRA does have local benefactors willing to provide significant financial support.

Maintenance Costs

Costs of maintaining a crosswind runway are considered negligible and typically include snow plowing, mowing, and replacement of runway lighting elements from time to time.

Summary

From a financial perspective, the success of a general aviation airport is augmented by having multiple runways to attract (and retain) more pilots to the airport, but the economic health of the community, businesses using the airport by basing aircraft at the field, and having a dedicated team attracting a diverse range of businesses offering services to those using the airport has the greatest financial impact.



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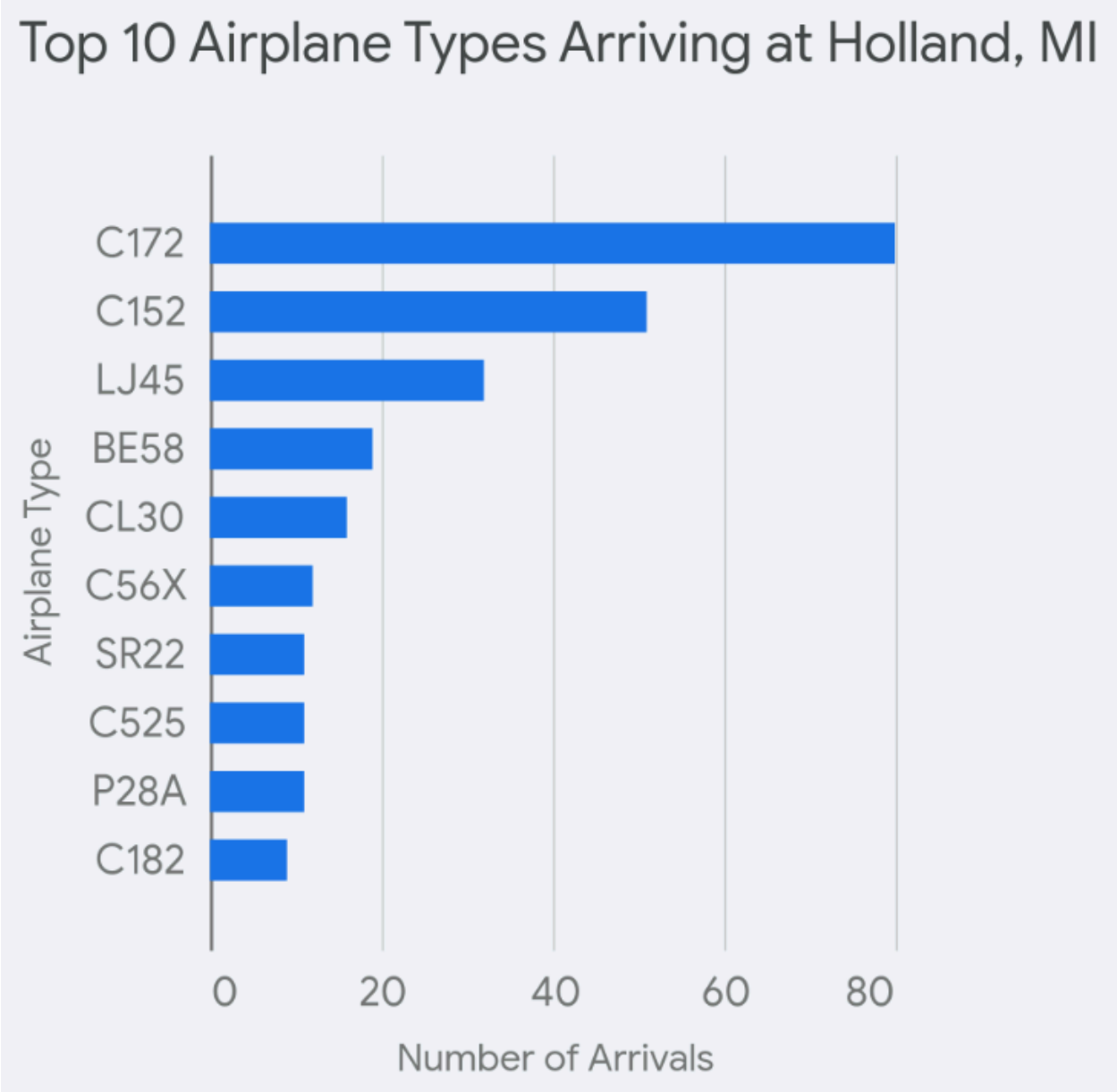
BIV 08.22 - 07.23 - No private data



FlightAware_KBIV - No Private Data

Graphs are taken from WMRA supplied data cited below each image.

Gmail Joe Murray <murrajo@gmail.com>

Zone 1 Impacted Parcels

Paul Sachs <psachs@miottawa.org> Tue, Jun 3, 2025 at 11:20 AM
To: Joe Murray <murrajo@gmail.com>
Cc: Kevin Phillips <kphillips@mercbank.com>, Linda Howell <howellinholland@gmail.com>, Jeff Vos <accutechcnc@sbcglobal.net>

Hi Joe, et al.

The details below reference the ALP Impacts Map that we created for this effort (attached – Layoutv7).

Highlighted Parcels A, B, and C are most notably impacted by N/S runway ALP (Zone 1 Restrictions: 0ft height allowed).

Attached are the individual parcel details, which include sales history.

- Parcel A: Owner is “3303 John Donnelly LLC”
  - Actual owner’s name is Ben Fogg
  - Purchased in 2023
  - [strategic move by Fogg to pursue a N/S runway in the future]

- Parcel B: Owner is “Genzink Development Corp”
  - Purchased in 1998

- Parcel C: Owner is “Beverly Gibson Trust”
  - Purchased in 1994

[city claimed ownership of airport with associated master planning in early 1980s]

Notably:

I spoke with the Holland City Assessor, Jim Bush. None of the Zone 1 restricted parcel owners have ever engaged with Board of Review that he’s aware to have their property taxes reduced due to the Zone 1 restrictions (i.e. 0ft building height allowance).

According to Jim, if these owners were to approach the City to request a property tax reduction due to the building/height limitations they “would definitely be considered for reductions.” I think this is notable to include in our “report” as an action for these property owners to pursue, especially considering our recommendation to “get the house in order” over next five years before taking real action on the N/S runway.

Let me know if any questions, concerns, and/or other information needed.

Respectfully,

Paul

Paul Sachs | Director

Department of Strategic Impact
12220 Fillmore Street, Room 260 | West Olive, MI 49460
P 616-738-4852 | www.miOttawa.org

4 attachments

Layoutv7.pdf
1128K

Zone 1 Impacted Parcel A - 53-02-08-200-005 _ Allegan County _ BS&A Online.pdf
239K

Zone 1 Impacted Parcel B - 53-02-17-200-014 _ Allegan County _ BS&A Online.pdf
238K

Zone 1 Impacted Parcel C - 53-02-17-200-004 _ Allegan County _ BS&A Online.pdf
249K

Report of the Crosswind Subcommittee

On the

Potential Crosswind Runway at West Michigan Regional Airport

Submitted to the Board of the West Michigan Regional Airport Authority

August ___, 2025

On January 13, 2025, the Board of the West Michigan Regional Airport Authority (the "Authority"), having commissioned the consulting firm of Mead and Hunt to complete a study of the potential north/south crosswind runway ("CWR") and having held a public meeting to take comments on the CWR, appointed a subcommittee.

The Crosswind Subcommittee (the "Subcommittee") was comprised of

Joe Murray, Chair
Linda Howell
Kevin Phillips
Paul Sachs
Jeff Vos
Charles Murray – representative of the Board

The Subcommittee began meeting on January 27, 2025, and has met weekly. As part of its work, numerous people were contacted and information requested. The assistance of these individuals and organizations is recognized and appreciated. Those contacted include, but are not limited to the following:

Jim Storey - Interim Airport Manager
Steven Peterson - City of Holland
Mark Meyers - City of Holland
Tricia Dreier - City of Holland
Tom Postma - Lakeshore Commercial Real Estate
Jon VanDuienen - Prein & Newhof
David Teall - Corporate Pilot
Greg McCabe - Corporate Pilot
Matt Neyes - West Michigan Regional Airport Manager
Representatives of the Gerald R. Ford International Airport
Representatives of the Michigan Department of Environmental Quality

The Subcommittee was tasked with researching the numerous considerations associated with recommending the retention or elimination of an existing "overlay" of property at West Michigan Regional Airport ("WMRA"). The overlay, in basic terms, serves as a placeholder for potential future airport infrastructure. In the case of WMRA, the overlay includes sufficient property to construct a CWR.

Given the amount of property included in the overlay, the CRW would be suitable for general aviation aircraft with required minimum takeoff and landing distances of approximately 3,000 feet. That would include most (if not all) single engine aircraft and light twin engine aircraft. Depending on the policies of their owners, some light jet aircraft may also be able to use a runway of that length.

Only 13% of all takeoffs and landings occur during the winter months. A CWR does not solve all issues with winter conditions but would allow for some amount of increased traffic during winter months. Based on the data provided to our Subcommittee 29% of planes landing and taking off from WMRA are C152 and C172. (BIV 08.22 - 07.23). Based on the data provided to the Subcommittee only 13% of take offs and landings occur during the winter months.[1] A 3000' hard-surface, year-round CWR would be sufficient. This position is supported by corporate pilots[2]

Findings and Recommendations:

1. Safety

The lack of a CWR makes takeoffs and landings more hazardous for smaller, general aviation aircraft less safe in certain conditions. Those conditions are more prevalent in wind conditions where the dominant east to west wind is not available. This has a greater impact on less experienced pilots of smaller aircraft, but it is also problematic for larger planes (including jets) when the wind is stronger out of the north or south.[3]

One of the more significant groups of users of the WMRA are student pilots.[4] A lack of a CWR causes this group to either land and takeoff from a different airport or to cancel planned flight time. This makes the WMRA less attractive as a flight school option for student pilots.[5]

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[1] Flight Aware KBV.
[2] Interview with corporate pilots David Teall and Greg McCabe held on May 19, 2025
[3] Mead and Hunt Report, July 8, 2024, page 4.
[4] See flight data summary provided to Subcommittee by WMRA
[5] Interview with Pilots David Teall and Greg McCabe held May 19, 2025

There are occasions where larger, corporate jets are outside of their allowed flight parameters during certain conditions. This is based on manufacturer and insurance guidelines. In these cases, the corporate pilots divert to other airports.[6]

2. Impact on adjacent properties

a. CWR Overlay

The property surrounding the WMRA is restricted in its use by the City of Holland's UDO as well as the FAA requirements for the CWR Overlay.[7]

There are restrictions on how land may be developed and used within the Overlay Area. The WMRA is completely interwoven into the Holland City Master Plan (UDO). However, the City of Holland and the Authority have worked with developers/ property owners to accommodate building allowances in the Overlay impacted areas.[8] It was also seen that land within Area 1 (0' of building height allowed) is minimal.[9] Infrastructure deficiencies (water/ sewage availability) have a larger impact on development in the area of the WMRA than potential or real development of the CWR.[10]

It was noted that building the CWR would potentially affect properties north of East 48th St in the event of an accident. The CWR could impact the availability of Federal replacement monies for buildings that pre-existed the CWR but may or may not be allowed to be rebuilt to their original height after the CWR is constructed.[11]

b. Property Values

Some near-by property owners have raised concerns about potential negative impact on property value as a result of the CWR overlay and its limiting impact on potential development of their property. This concern is based in part on the lack of direction from the Authority and the City of Holland about the construction of a CWR while their property is restricted because of the FAA CWR Overlay.

There is a perception that the CWR Overlay depresses property values. There is little evidence that we could find to support this. The FAA Overlay does not expire. It has been in place since the 1980s[12]. The concerns of current property owners are not a

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[6] Interviews with corporate pilots David Teall and Greg McCabe conducted May 19,2025
[7] See Mead and Hunt Report at page 5-8.
[8] Meeting with Holland City Planners on March 3,2025
[9] City of Holland UDO
[10] Meeting with Holland City Planners March 3,2025
[11] Meeting with Holland City Planners March 3,2025.
[12] Ascent: The 75th Anniversary of the Tulip City/ West Michigan Regional Airport 1942-2017, Kukla

result of new restrictions or limitations arising from the CWR overlay. According to City records and information received from City staff, the FAA Overlay predates any property transactions for the current owners. Further, it should be noted that, according to City staff, none of the current owners have requested any relief on their property taxes to recognize a reduction in potential value due to the CWR overlay.

3. Environmental Impacts

The construction of a Crosswind Runway will have an environmental impact, with the extent of this impact being directly proportional to the CWR's dimensions and location. The proposal by Mead & Hunt noted the CWR would have a significant environmental impact due to its east/west placement and its substantial length and width.[13] Conversely, the Subcommittee received a second preliminary approach from the Prein & Newhof. The Prein & Newhof proposal presents a lesser environmental impact, primarily because it encroaches less into the Macatawa River Branch and its surrounding environments.[14]

4. Financial Implications of Retaining the Overlay at WMRA

While the subcommittee was tasked with providing recommendations relative to the overlay, the process required members to look through that assignment and consider key factors associated with the construction, maintenance and safe operation of a second runway at WMRA.

The financial aspect, as the group studied the matter, evolved into the following elements:

- Revenue Resulting from Offering Multiple Runways
- Costs of Construction (and sources of funding)
- Maintenance Costs

a. Revenue Considerations

The biggest challenge to analyzing the complete financial impact is in estimating the incremental revenue of offering a CWR. While estimated construction costs can vary

[13] Mead and Hunt Report as presented to the WMRAA Board on April 14, 2025
[14] Prein & Newhof report as presented to the CWR Subcommittee on May 12, 2025

depending on the length, positioning, features, etc. of the runway (see the studies submitted by Prien and Newhof and Mead & Hunt), it's extremely difficult to estimate incremental revenue.

Revenue at general aviation ("GA") airports, as opposed to airports with scheduled air carrier (i.e. airline) service, is highly correlated with the amount of general aviation air traffic (local and transient) using the airport. It's unarguable that GA airports with multiple runways experience more traffic than those with just one runway due to the safer landing options offered pilots.

More traffic typically results in more revenue generated by businesses at the airport. The primary revenue sources include aviation fuel sales, aircraft maintenance and repair work, parking fees, and hangar rental income.

The challenge with estimating the amount of incremental revenue brought by adding a CRW is that the issue is much broader than simply the runway itself. It's more about the overall health of the airport's community, what attracts visitors (especially pilots) and the services and amenities offered by the airport. For example, many general aviation pilots will frequent airports with nearby and easily accessible restaurants. If an airport has a restaurant on the field itself (i.e. Jackson, Marshall and Coldwater), even better.

Pilots often plan their flights (and intermediate stops) at airports where per gallon fuel costs are lowest (or at least reasonable). Aviation apps like Foreflight maintain current fuel prices at every airport offering fuel, making it easy for pilots to research and plan their route of flight based on fuel prices.

Airports with amenities like The Air Zoo (Kalamazoo), highly regarded aircraft service and maintenance shops, and active, focused and dedicated airport leadership that treats the airport like a growing business serving its customers, tend to attract more traffic. Said another way, economic development within the community and around the airport has a far greater impact on airport traffic volumes than most other considerations.

Airports with vibrant flight schools would particularly appreciate a CRW, allowing flight training more days per year when winds on the main runway exceed the skill set of student pilots. More training days also drives incremental revenue in the form of fuel sales, maintenance work, etc.

State and Federal regulations regarding drone use are increasing and tending to support the identification and construction of consolidated drone ports for commercial

drone usage.[15] Uncrewed Ariel System (UAS) readiness is a growing area of economic development. The potential for the CRW overlay area to be developed into a drone port or drone park should be examined and its potential economic impact evaluated.

From a financial perspective, the success of a general aviation airport is augmented by having multiple runways to attract (and retain) more pilots to the airport, but the economic health of the community, businesses using the airport by basing aircraft (or potentially drones) at the field, and having a dedicated team attracting a diverse range of businesses offering services to those using the airport has the greatest financial impact.

b. Costs of Construction (and Sources of Funding)

Based on reports from Prien & Newhof and Mead & Hunt, the cost of constructing a paved crosswind runway at WMRA range from $5,000,000 to close to $20,000,000 depending on the length of the runway, features, and location (i.e. wetland/river/tributary impacts, etc.)

Sources of funding have historically included a contribution from local sources (i.e. airport authority, community benefactors, etc.) with the balance provided by the FAA and/or state sources. Consultants interviewed by the subcommittee have commented that crosswind runways are not currently receiving any meaningful support from federal financial resources. This is subject to change and for the time being should not stop planning for a potential change in policy. WMRA does appear have local benefactors willing to provide significant financial support.

c. Maintenance Costs

Costs of maintaining a crosswind runway are considered negligible and typically include snow plowing, mowing, and replacement of runway lighting elements from time to time. Maintenance costs would be impacted by the type of CWR constructed: hard surface year-round or a seasonal grass runway.

d. Potential Grant Impact

The removal of the CWR Overlay could potentially jeopardize other grants and funding allocated to WMRA. Such an action also would preclude the CWR from future consideration in WMRA's growth plans, as per FAA Rules/Regulations. Again, there is no external deadline or timeline for a decision regarding the construction of the CWR.

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[15] State Bar of Michigan Government Law Section meeting June 24, 2025, Drone Presentation by Airspace Link.

Summary, Conclusions and Recommendations

Summary

1. CWR has the potential to provide added/needed benefits and advantages to general aviation users of the WMRA into the future;

2. CWR could become a drone port as FAA regulations of drones expand and appear headed for consolidated locations for commercial drone activity;

3. Removal of the CWR Overlay will not open up enough industrial land for development within the City limits as the majority of the land in the overlay is already developed. Such limited development potential does not outweigh the potential benefits/advantages of a future CWR or drone port;

4. Once a CWR Overlay is approved for removal by the FAA it is highly unlikely an Overlay could ever get added again thereby impeding future growth opportunities for the WMRA;

5. The current economic feasibility of constructing and maintaining a CWR is limited as is sufficiently understanding the potential benefits/advantages of a CWR at WMRA.

6. A CWR would help in supporting the General Aviation population and growing the training opportunities.

7. Currently there does not appear to be Federal financing to support this project.

8. The CWR would not be able to financially support itself with only General Aviation traffic. A plan needs to be in place before implementation for long term support.

Recommendations

1. The CWR Overlay should remain in place until the Authority conducts pertinent due diligence to assess the long-term viability of a CWR.

2. The Authority should dedicate the next 5 years pursuing the following:

a. Develop a comprehensive strategic plan which includes a comprehensive Economic Development Plan. The Economic Development Plan should include:
    i. a detailed assessment of financial/revenue opportunities
    ii. the potential economic impact of using the CWR area for commercial drones
    iii. the potential growth of the airport and its available services/amenities as a result of adding a CWR
    iv. identification of the financial support to purchase lands, build and maintain a Crosswind Runway in a way that is achievable and sustainable
b. Review alternative CWR designs that could be more cost-effective and have less environmental impact yet meet the needs of airport users
c. Engage with pilots, airport users, potential funders, others to better understand the support (including financially) for a CWR

3. The Authority should determine if and how the Crosswind Runway best improves the services and provides for the potential growth that this facility and area require. This recommendation includes evaluation of alternative proposals (seasonal grass or year-round hard surface) and associated costs to determine what costs (construction and maintenance) and plans are the best available, viable, and sustainable.

4. Establish a 5-year deadline with interim deadlines and reporting requirements (no less than semi-annually) to drive this action to ensure that this issue will remain on the Board's agenda as it develops the recommended strategic plan for the airport and the new airport director begins his tenure with WMRA.

_____

Manager Notes – October 20, 2025

Building & Development Committee

We held our first meeting back on 10/1/25. The session primarily consisted of an informational presentation from myself, covering how project financials are managed and how our Consultant and I prioritize items on the Capital Improvement Plan. We reviewed completed, current, planned, and potential future projects. Our next meeting is planned for 11/5/25.

FOIA Request – Legal Fees

I requested our attorney to compile all expenses related to the recent FOIA request received by the Authority. To date, we have incurred $7,638 in legal fees.

BPW Solar Initiative

BPW is preparing to go out to bid on two parcels of airport-owned land. Neither parcel will have airfield access in the foreseeable future. The initiative presents a long-term opportunity for the airport through lease agreements and potential access to discounted power.

Assistant Position Update

I am expanding the posting of the Assistant position to reach a broader audience. The initial round yielded only 20 applicants, and I hope to improve the candidate pool with wider outreach.

ILS Technician Contract

Our contractor for maintaining the Instrument Landing System recently submitted an increased quarterly bill of $7,000, up from the previous $4,000. Upon review, I found that the initial contract term had expired but included an option for a three-year extension. I have sent formal notice of our intent to execute that extension.

MDOT Inspection

Our triannual inspection by MDOT Aeronautics was uneventful, which is a positive outcome. The inspectors provided a few minor recommendations, all of which were already on my radar. One key commitment I made during the inspection was to develop and publish official rules and regulations for the airport. Additionally, we successfully completed the update of our based aircraft records as part of the inspection process.