

SAWYER COUNTY AIRPORT









AGENDA

- 1. Welcome/Introductions
- 2. Master Plan Process Update
- 3. Discussion of Draft Working Papers
 - 1. Inventory
 - 2. Aviation Demand Forecasts
 - 3. Facility Requirements
- 4. Next Steps
- 5. Open Discussion/Questions





- Master Plan Process and Elements





SAWYER COUNTY AIRPORT





CHAPTER 1





Exhibit 1C: Existing Airside Facilities

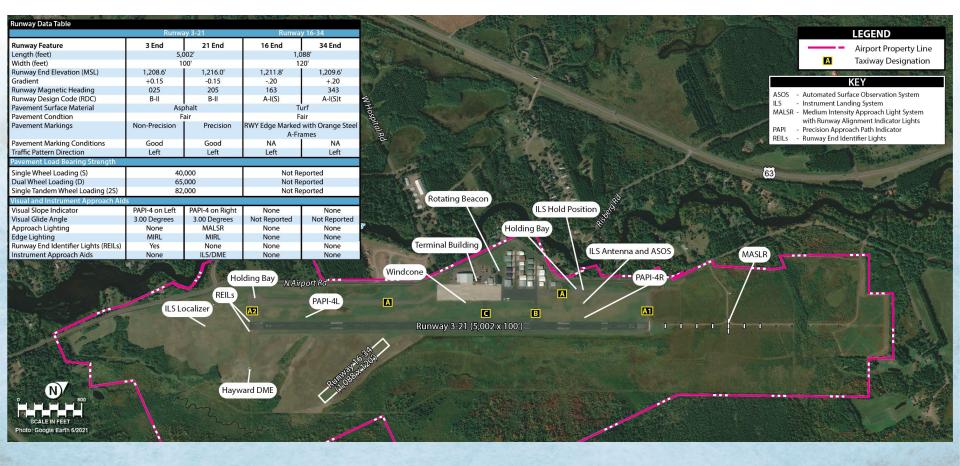




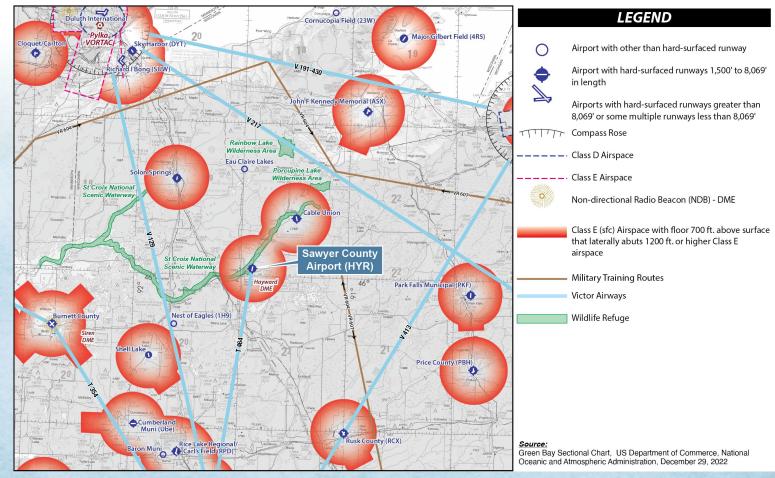


Exhibit 1E: Existing Landside Facilities

	and the state	The second second	A RING
Building	Facility Type	Tenant	SF
ID			
1		Hayward Aviation	1,500
2	Conventional Hangar	The second s	21,600
3	Executive Hangar	Hayward Aviation	3,700
4		Private	6,800
5	Executive Hangar	Private	6,300
6	Executive Hangar	Private	4,100
7	Executive Hangar	Private	4,100
8	Executive Hangar	Private	2,700
9	Executive Hangar	Hayward Aviation	5,400
10	Executive Hangar	Private	2,700
11	Executive Hangar	Private	5,300
12	Executive Hangar	Private	4,700
13	Executive Hangar	Private	2,400
14	Executive Hangar	Private	2,600
15	Executive Hangar	Private	2,500
16	Executive Hangar	Private	3,900
17	Executive Hangar	Private	2,500
18	Executive Hangar	Private	4,000
19		Private	3,300
20	Executive Hangar	Private	3,700
21	Executive Hangar	Private	3,200
22	Executive Hangar	Private	4,000
23	Executive Hangar	Private	2,600
24		Private	4,400
25	Executive Hangar	Private	4,400
26		Private	1,700
27	Executive Hangar	Civil Air Patrol	3,300
Source: Coff	man Associates Analysis	1	
		A	



Exhibit 1G: Vicinity Airspace





AIRPO MAST PL,

Exhibit 1J: Zoning

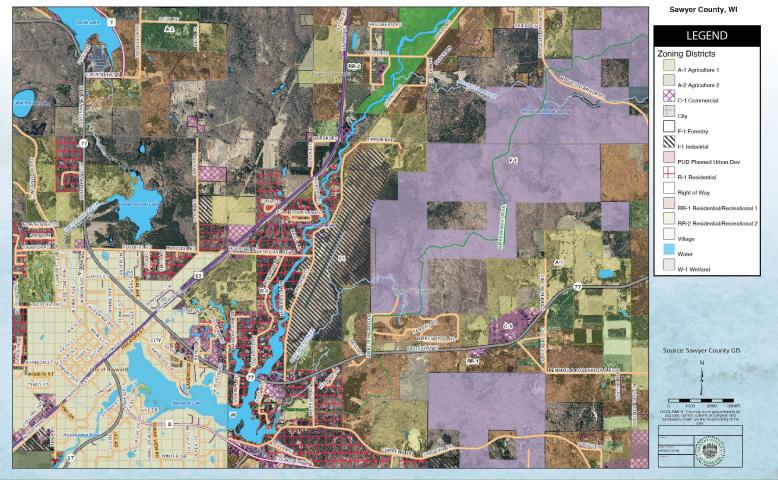






Exhibit 1L: **Urban Resources**



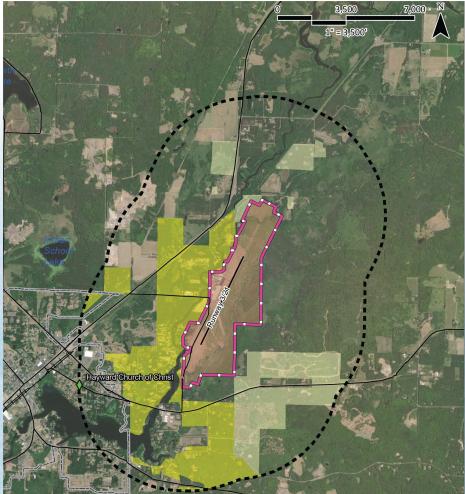
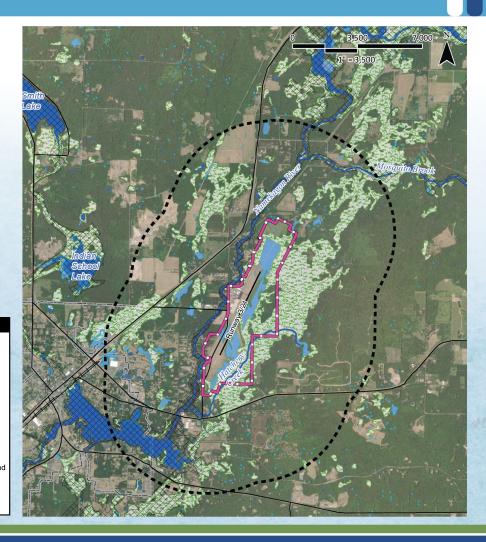




Exhibit 1M: Natural Resources







SAWYER COUNTY AIRPORT



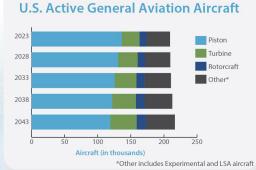


CHAPTER 2 FORECASTS





Exhibit 2A: National General Aviation Forecasts

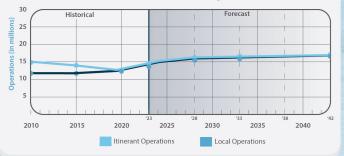




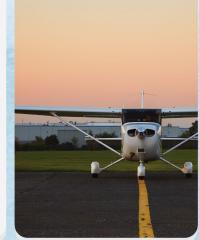
U.S. Air Taxi Operations 10 Historical Forecast (SL nillio 8 s (in 6 4 ð 2 28' 33' 23' 38' 2015 2020 2025 2030 2035 2040 2010



U.S. General Aviation Operations







Source: FAA Aerospace Forecasts FY2023-2043



AIRPORT MASTER PLAN

Exhibit 1H: Vicinity Airports

CABLE UN	IION (3CU)	SOLON SPRINGS	MUNICIPAL (OLG)	SHELL LAKE MUNICIPAL (SSQ)			
Airspace Classification Location from HYR Elevation Weather Reporting ATCT Annual Operations (2021) Based Aircraft (2021)		Airport NPIAS Classification General Aviation - Basic Airspace Classification Class G Location from HYR 23.3 nm NW Elevation 1,102' MSL Weather Reporting ASOS-3 ATCT No Annual Operations (2021) 4,525 Based Aircraft (2023) 15		Airport NPIAS Classification General Aviation - Basic Airspace Classification Class G Location from HYR 26.6 nm SW Elevation 1,233' MSL Weather Reporting None ATCT No Annual Operations (2021) 12,600 Based Aircraft (2023) 10			
Enplaned Passengers (2021)	0	Enplaned Passengers (2021)	0	Enplaned Passengers (2021).	0		
Runways	08-26 (2,194' x 150') - Turf 17-35 (3,709' x 75') - Asphalt	Runway	01-19 (3,099' x 60') - Asphalt	Runway	14-32 (3,711' x 75') - Asphalt		
Lighting (highest intensity)	MIRL	Lighting (highest intensity)	MIRL	Lighting (highest intensity)	MIRL		
Marking (highest precision)	Non-Precision	Marking (highest precision)	Non-Precision	Marking (highest precision)	Non-Precision		
Approach Aids	None	Approach Aids	PAPI-2L, REILs	Approach Aids	PAPI-2L, REILs		
Instrument Approaches	RNAV (GPS)	Instrument Approaches RNAV (GPS)		Instrument Approaches	RNAV (GPS)		
Services Provided: Fuel (100LL)		Services Provided: Fuel (100LL), Instruction	Services Provided: None			

KEY							
WOS Automated Weather Observation System	PAPI Precision Approach Path Indicator	RNAV	'	Area Navigation			
ASOS Automated Surface Observation System	REIL Runway End Identification Lights	GPS	I	Global Positioning System			
NPIAS National Plan of Integrated Airport Systems	MALS Medium Intensity Approach Lighting System	RNP	Ι	Required Navigation Performance			
ATCT Airport Traffic Control Tower	MALSF Medium Intensity Approach Lighting System with Sequenced Flashing Light	ts VOR	Ι	Very High Frequency Omnidirectional Range			
HRL High Intensity Runway Lighting	ILS Instrument Landing System	DME		Distance Measuring Equipment			
MIRL Medium Intensity Runway Lighting	LOC Localizer	nm		Nautical Miles			



Exhibit 1H: Vicinity Airports

JOHN F KENNEDY MEMORIAL (ASX)



Airport NPIAS Classification General Aviatio	n - Local
Airspace Classification	. Class G
Location from HYR 38.	3 nm NE
Elevation 8	327' MSL
Weather Reporting	ASOS
ATCT	No
Annual Operations (2022)	. 10,525
Based Aircraft (2021)	25
Enplaned Passengers (2021)	0

RICE LAKE REGIONAL / CARL'S FIELD (RPD)



Airport NPIAS Classification General Aviation - Local
Airspace ClassificationClass G
Location from HYR 38.9 nm SW
Elevation 1,109' MSL
Weather Reporting AWOS-3
ATCT No
Annual Operations (2021) 27,650
Based Aircraft (2020) 34
Enplaned Passengers (2021) 0

01 10 (6 700 x 100) April

RICHARD I BONG (SUW)

RP



Airport NPIAS Classification General Aviation - Local
Airspace Classification Class G
Location from HYR48.2 nm NW
Elevation
Weather Reporting AWOS-3
ATCT No
Annual Operations (2022) 19,250
Based Aircraft (2023) 50
Enplaned Passengers (2021) 0

 $04.22(5.100' \times 75')$ Acob

Runways	02-20 (5,197' x 100') - Asphalt 13-31 (3,498' x 75') - Asphalt	Ru		
Lighting (highest intensity)	MIRL	Lig		
Marking (highest precision)	Non-Precision	Ma		
Approach Aids	PAPI-4L, REILs	Ар		
Instrument Approaches	ILS/LOC, RNAV (GPS)	Ins		
Services Provided: Fuel (100LL & JetA)				

Runways	13-31 (3,500' x 75') Asphal		
Lighting (highest intensity)	HIRL, MALSR		
Marking (highest precision)	Precision		
Approach Aids	PAPI-4L, REILs		
Instrument Approaches	ILS/LOC, RNAV (GPS)		
Services Provided: Fuel (100LL	& JetA), Charter, Instruction,		
Rental, Sales			

Runways	14-32 (4,001' x 75') - Asphalt			
Lighting (highest intensity)	MIRL			
Marking (highest precision)	Non-Precision			
Approach Aids	PAPI-4L, REILs			
Instrument Approaches	RNAV (GPS)			
Services Provided: Fuel (100LL	& JetA), Parachute Jumping,			
Instruction Rental				

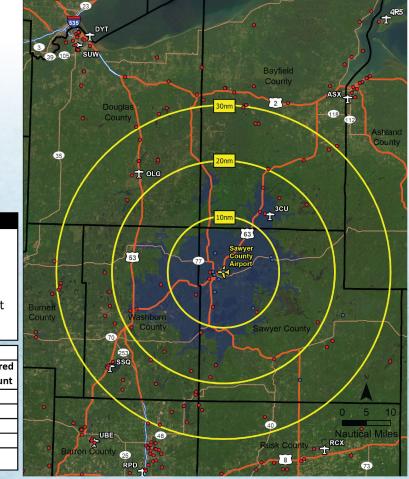
KEY

AWOS	Automated Weather Observation System	PAPI	Precision Approach Path Indicator	RNAV	Ι	Area Navigation
ASOS	Automated Surface Observation System	REIL	Runway End Identification Lights	GPS	Ι	Global Positioning System
NPIAS	National Plan of Integrated Airport Systems	MALS	Medium Intensity Approach Lighting System	RNP	Ι	Required Navigation Performance
ATCT	Airport Traffic Control Tower	MALSF	Medium Intensity Approach Lighting System with Sequenced Flashing Lights	VOR	Ι	Very High Frequency Omnidirectional Range
HIRL	High Intensity Runway Lighting	ILS	Instrument Landing System	DME	Ι	Distance Measuring Equipment
MIRL	Medium Intensity Runway Lighting	LOC	Localizer	nm	I	Nautical Miles





Exhibit 2B: Service Area



DLH

194

 LEGEND

 Registered Aircraft

 Based Aircraft

 NPIAS Airport

 Sawyer County Airport

 30-Minute Drive Time

Based & Registered Aircraft Counts								
Distance From Based Aircraft FAA Regist								
HYR Count Aircraft Cou								
0 - 10nm	17	23						
10 - 20nm	0	19						
20 - 30nm	3	58						
Total 29* 100								
*9 Based aircraft registered to addresses beyond 30nm from HYR								
*4 Additional based airc	raft are considered pa	rt time						



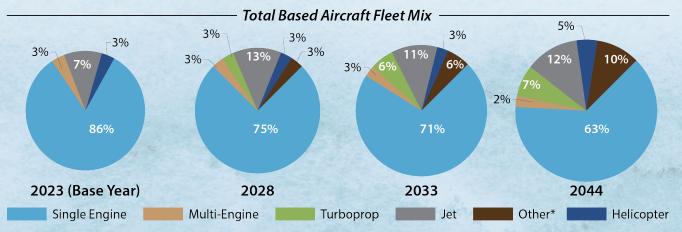
Exhibit 2H: Forecast Summary

	BASE YEAR	2028	2033	2043
ANNUAL OPERATIONS				
ltinerant				
Air Carrier	-	-	-	-
Other Air Taxi	252	290	350	480
General Aviation	6,201	7,600	8,600	10,900
Military	100	100	100	100
Total Itinerant	6,553	8,000	9,100	11,500
Local				
General Aviation	3,622	4,200	4,600	5,500
Military	-	-	-	-
Total Local Operations	3,622	4,200	4,600	5,500
Total Annual Operations	10,175	12,200	13,700	17,000
AIAs	730	895	1,013	1,284
PEAKING				
Total Annual Operations	10,175	12,200	13,700	17,000
Peak Month	1,018	1,220	1,370	1,700
Design Day	33	39	44	55
Design Hour	5	6	7	8
Busy Day	41	49	54	66



Exhibit 2H: Forecast Summary

	BASE YEAR	2028	2033	2043
BASED AIRCRAFT				
Single Engine	25	24	25	26
Multi-Engine	1	1	1	1
Turboprop	0	1	2	3
Jet	2	4	4	5
Helicopter	1	1	1	2
Other	0	1	2	4
Total HYR Based Aircraft	29	32	35	41



*Other includes LSA and Experimental Aircraft Source: Airport records; Coffman Associates analysis





Exhibit 2J: Aircraft Classification Parameters

	AIRCRAFT APPROACH C	A-1						
Category	Appr	Approach Speed						
A		nan 91 knots						
В		91 knots or more but less than 121 knots						
С		but less than 141 knots	2					
D		e but less than 166 knots nots or more						
E	AIRPLANE DESIGN GI							
Group #	Tail Height (ft)	Wingspan (ft	0					
Group #	<20	<49	B-1					
i i	20-<30	49-<79						
ü	30-<45	79-<118						
IV.	45-<60	118-<171						
v	60-<66	171-<214						
VI	66-<80	214-<262						
	VISIBILITY MINI	MUMS	5 ×					
RVR* (ft)	Flight Visibility	Category (statute miles)	∧ / B ∐ 12,500 lbs.					
VIS	3-mile or great	er visibility minimums	A D-II or less					
5,000		ver than 1-mile						
4,000		but not lower than ¾-mile						
2,400		Lower than ¾-mile but not lower than ½-mile						
1,600		Lower than ½-mile but not lower than ¼-mile						
1,200		r than ¼-mile	B-11 over 12,500 lbs.					
*RVR: Runway Visual	Range							
G.	TAXIWAY DESIGN GR	OUP (TDG)						
140								
120								
6	TDG-6							
臣 100								
COCKPIT TO MAIN GEAR (FEET)								
80	TDG-4	(TDG-5)						
× 60								
E 🗖	(TDG-2B)							
A 40			A/B-III					
8 H	(TDG-1B)	3)						
20	TDG-2A							
	(TDG-1A)							
ò	10 20	30 40	50					
	MAIN GEAR W	NDTH (FEET)						
Source: FAA AC 150/53	00-13B, Airport Design		TDG: Taxiway Design Group					

A-I	Aircraft	TDG	C/D-I	Aircraft	TDG	
SODE	 Beech Baron 55 Beech Bonanza Cessna 150, 172 	1A 1A		 Lear 25, 31, 45, 55, 60 Learjet 35, 36 (D-1) 	1B 1B	
	 Cessila 150, 172 Eclipse 500 Piper Archer, Seneca 	1A 1A 1A	C/D-II	 Challenger 600/604 Cessna Citation VII, X+ Embraer Legacy 450/500 	1B 1B 1B	
B-I	Beech King Air 90 Gessna 421 Cessna Citation CJ1 Cessna Citation 1 Embraer Phenom 100	1A 1A 1A 1A 2A 1B		 Gulfstream 350, 450 (D-II) Gulfstream 6200/6280 Lear 70, 75 Bombardier (RJ-200, -700 Embroer ERJ-135, -140, -145 	2A 1B 1B 1B/2B 2B	
A/B-II ^{12,500} lbs.	Beech Super King Air 200 Cessna 441 Conquest Cessna Citation CJ2 Pilatus PC-12	2A 1A 2A 1A	C/D-III less than 150,000 lbs.	 Gulfstream V Gulfstream 550,650 (D-III) Bombardier CRJ-900, -1000 Embraer E-170, -175, -190 	2A 2B 2B 3	
B-II over 12,500 lbs.	Beech Super King Air 350 Cessna Citation CI3,V Cessna Citation Bravo Cessna Citation Bravo Cessna Citation Ll4 Cessna Citation Latitude/Longitude	2A 2A 1A 1B 1B	C/D-III ^{over} 150,000 lbs.	 Airbus A319-100, -200 Boeing 737-800, -900, BBJ (D-III) MD-83, -88 (D-III) 	3 3 4	
	 Embraer Phenom 300 Falcon 10, 20, 50 Falcon 900, 2000 Hawker 800/850, 4000 Pilatus PC-24 	1B 1B 2A 1B 1B	C/D-IV	 Airbus A300-100, -200, -600 Boeing 757-200 Boeing 767-300, -400 MD-11 	5 4 5 6	
A/B-III	 Bombardier Dash 8 Bombardier Global 5000, 6000, 7000, 8000 Falcon 6X, 7X, 8X 	3 2B 2B	D-V	 Airbus A330-200, -300 Airbus A340-500, -600 Boeing 747-100, -400 Boeing 777-300 Boeing 787-8, -9 	5 6 5 6 5	
TDG: Taxiway Design Group	Note: Aircraft pictured is ic	dentifie	d in bold type.			





Exhibit 2K: Historical Jet and Turboprop Operations

AIRPORT REFERENCE CODE (ARC) SUMMARY

ARC	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023*
A-I	22	18	30	48	30	30	44	24	40	34	20
A-II	14	20	44	32	20	42	30	38	66	46	66
B-I	326	288	338	280	196	174	150	106	104	70	96
B-II	558	470	514	642	598	596	556	506	592	496	430
B-III	4	0	16	22	2	14	76	82	62	54	112
C-I	56	60	46	50	30	94	90	18	30	36	34
C-II	188	172	194	158	180	178	190	210	208	208	248
C-IV	0	2	0	0	0	0	0	2	0	0	0
D-I	8	2	2	4	8	0	0	0	2	0	0
D-II	20	18	4	12	8	4	16	12	18	18	22
D-III	0	0	2	0	2	4	0	2	6	0	0
E-I	2	0	0	0	0	0	0	0	4	0	0
TOTAL	1,198	1,050	1,190	1,248	1,074	1,136	1,152	1,000	1,132	962	1,028





Exhibit 2K: Historical Jet and Turboprop Operations

APPROACH CATEGORY

AC	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023*
A	36	38	74	80	50	72	74	62	106	80	86
В	888	758	868	944	796	784	782	694	758	620	638
С	244	234	240	208	210	272	280	230	238	244	282
D	28	20	8	16	18	8	16	14	26	18	22
E	2	0	0	0	0	0	0	0	4	0	0
TOTAL	1,198	1,050	1,190	1,248	1,074	1,136	1,152	1,000	1,132	962	1,028

DESIGN GROUP

DG	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023*
1	414	368	416	382	264	298	284	148	180	140	150
П	780	680	756	844	806	820	792	766	884	768	766
- 111	4	0	18	22	4	18	76	84	68	54	112
IV	0	2	0	0	0	0	0	2	0	0	0
TOTAL	1,198	1,050	1,190	1,248	1,074	1,136	1,152	1,000	1,132	962	1,028



SAWYER COUNTY AIRPORT





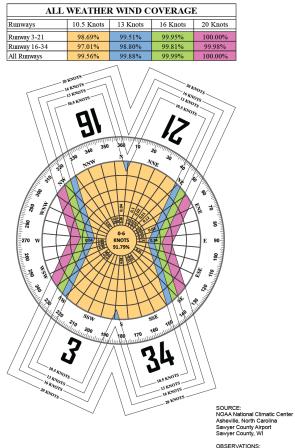
AIRPORT MASTER PLAN

CHAPTER 3 AIRPORT FACILITY REQUIREMENTS

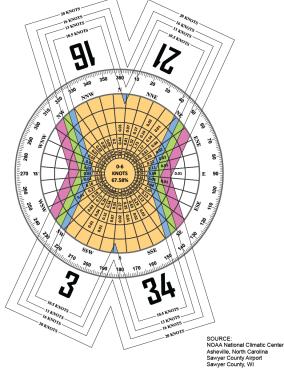




Exhibit 3B: Windroses



IFR WIND COVERAGE									
Runways	10.5 Knots	13 Knots	16 Knots	20 Knots					
Runway 3-21	99.02%	99.62%	99.94%	99.99%					
Runway 16-34	96.87%	98.69%	99.76%	99.96%					
All Runways	99.60%	99.88%	99.98%	99.99%					



OBSERVATIONS: 30,104 IFR Weather Observations Jan. 1, 2013 - Dec, 31 2022

OBSERVATIONS: 52,930 All Weather Observations Jan. 1, 2013 - Dec, 31 2022





Exhibit 3C: Existing Safety Areas

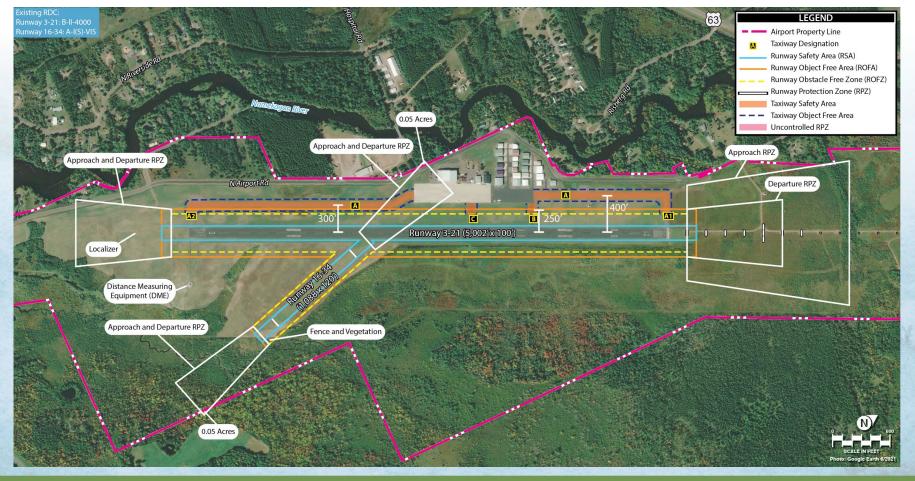




Exhibit 3D: Airside Facility Requirements

Category	Category Existing		Ultimate	Existing/Ultimate	
Runways	3-21	3-21	3-21	16-34	
Runway Design Code (RDC)	B-II-4000	C-II-4000	D-III-4000	A-I(S)-VIS	
Dimensions	5,002' x 100'	Consider extension; maintain width	Consider extension; maintain width	1,088' X 120'	
Pavement Strength	40,000 lbs S 65,000 lbs D 82,000 lbs 2S	Maintain	Maintain	Turf - Maintain; consider 12,500 S if paved	
Safety Areas			· · · · · · · · · · · · · · · · · · ·		
Runway Safety Area (RSA)	150-feet-wide by 300 feet beyond end (meets standard)	400/500-feet-wide by 1,000 feet beyond end (Obstructions include localizer, vegetation, and grading)	500- feet-wide by 1,000 feet beyond end (Obstructions include localizer, vegetation, and grading)	120-feet-wide by 240 feet beyond end (Obstructions include vegetation, fence, Runway 3-21 safety areas)	
Runway Object Free Area (ROFA)	500-feet-wide by 300 feet beyond end (meets standard)	800-feet-wide by 1,000 feet beyond end (Obstructions include localizer and vegetation)	800-feet-wide by 1,000 feet beyond end (Obstructions include localizer and vegetation)	250-feet-wide by 240 feet beyond end (Obstructions include vegetation and Runway 3-21 safety areas)	
Runway Obstacle Free Zone (ROFZ)	400-feet-wide by 200 feet beyond end (meets standard)	Maintain	Maintain	250-feet-wide by 240 (Obstructions include vegetation and Runway 3-21 safety areas)	
Runway Protection Zone (RPZ)	otection Zone (RPZ) Portion of Runway 3 approach/Runway 21 departure RPZ contain public road (N. Airport Road)		Runway 3 approach/Runway 21 departure RPZ will increase in size (Obstructions include N. Airport Road)	(Runway 16 appoach/34 departure obstructions include hangar)	
Taxiways			·		
Design Group	2A	2B	2B	N/A	
Parallel Taxiway Separation from Runway	300 feet (south poriton of Taxiway A); 400 feet (north portion of Taxiway A); (meets standard)	Maintain existing 300 feet minimum separation	Standards increase to 400 feet of separation; south portion of Taxiway A will require 100-foot shift	N/A	
Widths	35-feet-wide (Taxiway A, A1, A2, B); 50-feet-wide (Taxiway C); (meets standard)	Maintain existing width for all 35 foot wide taxiways; evaluate Taxiway C width exceeds standard	Maintain existing width for all 35 foot wide taxiways; evaluate Taxiway C width exceeds standard	N/A	
Holding Position Separation	250 feet (meets standard)	Maintain	262 feet (increase in separation)	N/A	
Notable Conditions	Direct runway access from Taxiway C and B; holding bays do not meet separation standards	Consider corrective measures	Consider corrective measures	N/A	
			КЕҮ		
		ASOS - Automated Surface Observation Station D - Dual Wheel Loading ILS - Instrument Landing System LOC - Localizer	MALSR - Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights MIRL - Medium Intensity Runway Lighting MITL - Medium Intensity Taxiway Lighting	n PAPI - Precision Approach Path Indicato REIL - Runway End Identification Lights RNAV - Area Navigation S - Single Wheel Loading	

 Single Wheel Loading
 Single Tandem Wheel Loading S 2S





Figure 3A: ROFA

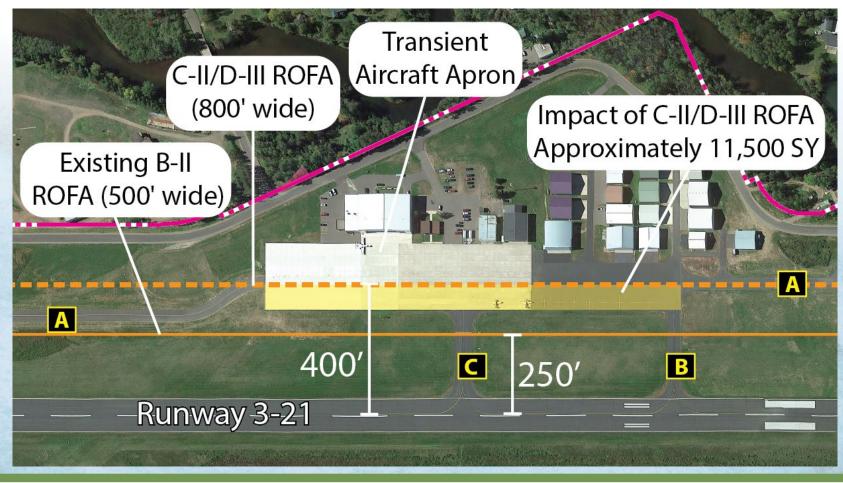






Exhibit 3D: Airside Facility Requirements

Category Existing		Future	Ultimate	Existing/Ultimate
Runways	Runways 3-21		3-21	16-34
Navigational and Weather Aids				
Instrument Approaches	ILS or LOC (Runway 21); RNAV (Runway 3-21)	Maintain	Maintain	N/A
Weather Aids	ASOS, wind cone, rotating beacon	Maintain	Maintain	Maintain
Approach Aids	PAPI-4 (Runway 3-21); REIL (Runway 3); MALSR (Runway 21)	Maintain	Maintain	N/A
Lighting and Marking			· ·	
Runway Lighting	MIRL	Maintain	Maintain	N/A
Runway Marking	Non-precision (Runway 3); Precision (Runway 21)	Maintain	Maintain	N/A
Taxiway Lighting	MITL (Taxiway A, A1, A2); Retroreflective markers (Taxiway C, B)	Add MITL for Taxiway B and C	Add MITL for Taxiway B and C	N/A
4			KEY	
		ASOS - Automated Surface Observation Station D - Dual Wheel Loading ILS - Instrument Landing System LOC - Localizer	 MALSR - Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights MIRL - Medium Intensity Runway Lighting MITL - Medium Intensity Taxiway Lighting 	PAPI - Precision Approach Path Indicator REIL - Runway End Identification Lights RNAV - Area Navigation S - Single Wheel Loading 2S - Single Tandem Wheel Loading





Exhibit 3E: Landside Facility Requirements

Available | Short Term | Intermediate Term | Long Term



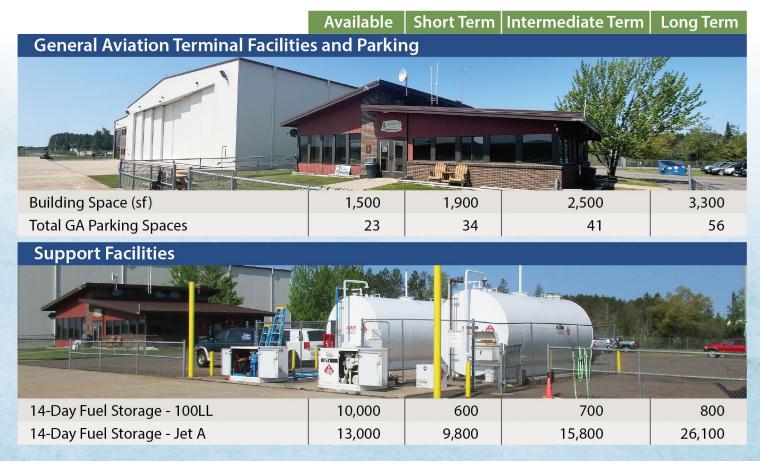
Aircraft Parking Apron

the set of the set				
		1		44
Transient Single/Multi-Engine Aircraft (sy)		20,000	21,600	26,400
Transient Business Jet (sy)		11,800	13,000	15,800
Local Based (sy)		10,800	12,000	15,600
Total Apron Area (sy)	25,329	42,600	46,600	57,800





Exhibit 3E: Landside Facility Requirements







NEXT STEPS -

- Phase 2 Elements Airport Development Alternatives
- PAC Meeting #3 January/February timeframe; draft documents available for review approx. one week prior to meeting
- Public Information Workshop #1 held same day as PAC meeting #3; we encourage you to invite your associates and members of the public
- Phase 3 Elements Begin work on Recommended Plan, Landuse Compatibility, Financial Management, and Development Program following PAC meeting #3 and discussion with group





QUESTIONS?

We want to hear from you!

Direct any questions or comments after this meeting to Mitch Stamp with Coffman Associates at 602-993-6999 or mstamp@coffmanassociates.com or visit the project website to submit comments online.

https://sawyercounty.airportstudy.net/