



Lake Elmo Airport
ADVISORY COMMISSION
LEAAC

Regular Meeting

November 25, 2024



Goal & Purpose of LEAAC

The goal of the LEAAC is to further the general welfare of the community and the Lake Elmo Airport through minimizing or resolving problems created by the aircraft operations at the airport.

PURPOSE:

1. advise the community and the Metropolitan Airports Commission with regard to all matters affecting the Lake Elmo Airport, the classification, rules and regulations supplied to the operation of the Airport and the development of lands adjacent to the Airport
2. cooperate with the Metropolitan Airports Commission staff in reviewing matters affecting the use and control of the Lake Elmo Airport
3. make recommendations to the Metropolitan Airports Commission regarding any proposal affecting the use or operations of Lake Elmo Airport



Agenda



Welcome & Introductions

Approval of Meeting Minutes

Public Comment

Community Spotlight

21D Sound Study Results

Airport Manager Update

Follow-up on Other Topics

Member Comment

Memberships and Meeting Schedule



Welcome & Introductions





Lake Elmo Airport
ADVISORY COMMISSION
LEAAC

Approval of Meeting Minutes:

August 26, 2024



Public Comment

Members of the public are welcome to share their remarks with the Commission.

Please state your name and address

Limit remarks to 3 minutes





Lake Elmo Airport
ADVISORY COMMISSION
LEAAC

Community Spotlight:
City of Lake Elmo





Lake Elmo 1972

“Commitment to the Community”

“The mission of the City of Lake Elmo is to provide planned, quality public services consistent with the City’s character in a fiscally responsible manner in partnership with our community.”

Administration

The City of Lake Elmo operates under a Plan A Council/Administrator form of government.

650 of 855 cities in Minnesota

The Mayor and City Council set policies, legislative direction, budget, and appoint all personnel for the city.

The City Administrator is appointed by the City Council to carry out the implementation of policy.

The City Administrator oversees the operations of all departments.

Mayor & City Council



Charles Cadenhead

Mayor

Term ending 1/1/2025



Nick Dragisich

Council Member

Term ending 1/1/2025



Jeff Holtz

Council Member

Term ending 1/1/2025



Katrina Beckstrom

Council Member

Term ending 1/1/2025



Matt Hirn

Council Member

Term ending 1/1/2027

History

The logo for The City of Lake Elmo features the text "THE CITY OF LAKE ELMO" in a serif font, with "LAKE ELMO" in a larger, bold font. Below the text are stylized green and blue waves. The entire logo is enclosed in a light green oval border.

THE CITY OF
LAKE ELMO

Founded in 1852, Lake Elmo was named after the lake, it has long been mostly farmland and the population is growing rapidly. We have a small airport and a wonderful downtown with a post office, library, shops and restaurants.

- Population (2020 census) 11,335
- Lake Elmo is about 22 square miles, it contains parks, lakes, and many walking trails.
- Sunfish Lake Park is recognized by the DNR as a “Regionally Significant Ecological Area.”
- Lake Elmo was the fastest growing city in MN in 2022.

The logo for The City of Lake Elmo features the text "THE CITY OF LAKE ELMO" in a serif font, with "LAKE ELMO" in a larger, bold font. Below the text are stylized green and blue waves. The entire logo is enclosed in a light green oval border.

THE CITY OF
LAKE ELMO



Populations and People

Total Population

11,335

[P1](#) | 2020 Decennial Census



Employment

Employment Rate

65.7%

[DP03](#) | 2022 American Community Survey 5-Year Estimates



Families and Living Arrangements

Total Households

4,240

[DP02](#) | 2022 American Community Survey 5-Year Estimates



Income and Poverty

Median Household Income

\$158,269

[S1901](#) | 2022 American Community Survey 5-Year Estimates



Housing

Total Housing Units

4,324

[H1](#) | 2020 Decennial Census



Race and Ethnicity

Hispanic or Latino (of any race)

761

[P9](#) | 2020 Decennial Census



Education

Bachelor's Degree or Higher

60.7%

[S1501](#) | 2022 American Community Survey 5-Year Estimates



Health

Without Health Care Coverage

1.7%

[S2701](#) | 2022 American Community Survey 5-Year Estimates

Census Data

Building Permits – Residential Units

The table below shows unit counts per year for single-family – detached and all other residential development. Lake Elmo is projecting more construction of townhouses and multi-family units.

	2023	2024	2025
Single Family -Detached	92	63	118
Residential : 2-family - multi-family	75	146	238

2024 Development Projects

Project that have buildings either constructed, under construction, or will start building construction in 2024.

1. MILESTONES CHILDCARE CENTER – Building Under Construction
2. AT HOME APARTMENTS – Site Improvements Under Construction
3. EASTON VILLAGE 5TH AND 6TH ADDITION – Homes Under Construction
4. THE ROYAL GOLF CLUB – 5TH and 6th ADDITION – Homes Under Construction
5. DRAKE MOTOR PARTNERS – Tesla (Completed), Dairy Queen (Completed), Gardner School Daycare (Building Under Construction)
6. AMIRA – Building Under Construction
7. CEF SOLAR FARM – Under Construction

2025 Development Projects

Project that should start building construction in 2025.

1. NORTHSTAR – Public Utilities Under Construction
2. PRAIRIE SKY – Development Agreement Approved
3. BRIDGEWATER VILLAGE -Development Agreement - Council Agenda
September
4. ROERS – Taken over an approved project – Development Agreement should
be signed In 2024
5. HIGHPOINTE CROSSING – Preliminary Plat Approved
6. OAKLAND MIDDLE SCHOOL – Expansion
7. LAKE ELMO ELEMENTARY SCHOOL – New



NORTHSTAR

Zoning District and Future Land Use: V-LDR – Village Low Density Residential

Proposed Use: Single Family Residential

Units: 200 (105 in 1st Addition)

Size: ~101.39 acres

Applicant: GWSA Land Development (Gonyea)

Location: Northwest Corner of Lake Elmo Avenue and Stillwater Blvd

Summary: The former Schiltgen Farmstead has been platted as a residential development called Northstar. The 1st addition final plat has been approved by City Council. The development will keep the iconic North Star Farm Barn as a HOA amenity. This project is currently under construction.



Hot Topics

- Growth
- Water
 - PFAS-private wells & municipal wells
 - Allocation of water permit-DNR
- New Elementary School & Middle School expansion
- City Center opened in 2023-Fire Department & City Hall

Events

Fire Department Open House on a Mon. in September

- 4:00 pm – 8:00 pm
- Station Tours, Live Fire Demonstrations, Car Seat Safety, Hands Only CPR, Fire Prevention and more!

4th of July Kids parade

- Morning
- Decorate your wagon, hop on your bike join the parade. Ice cream, minnow races, dunk tank and more

Lake Elmo Night Out 1st Tues. in August

- 6:00 pm – 8:00 pm
- Lion's Park
- Brings residents and business owner together, food, games, and camaraderie

Light Up Lake Elmo Sat. December 7th

- 3:00 pm – 5:00 pm
- Tree lighting, visit from Santa, bonfire, kids activities.



Questions?





Lake Elmo Airport
ADVISORY COMMISSION
LEAAC

21D Sound Study
2024 Results



21D Sound Study

The Sound Monitoring Study will:

- Measure and record aircraft sound levels associated with 21D aircraft activity in the areas where the equipment is placed
- Compare and analyze measured versus modeled sound data
- Enhance communication about sounds associated with 21D aircraft activity

The Sound Monitoring Study will not:

- Result in changes to aircraft operating procedures
- Result in changes to the 65 dB DNL contour
- Provide data for every aircraft operating at 21D
- Provide data for aircraft NOT operating at 21D
- Determine whether surrounding communities are compatible or incompatible with aircraft noise.



21D 2024 Sound Study Overview

Study Scope:

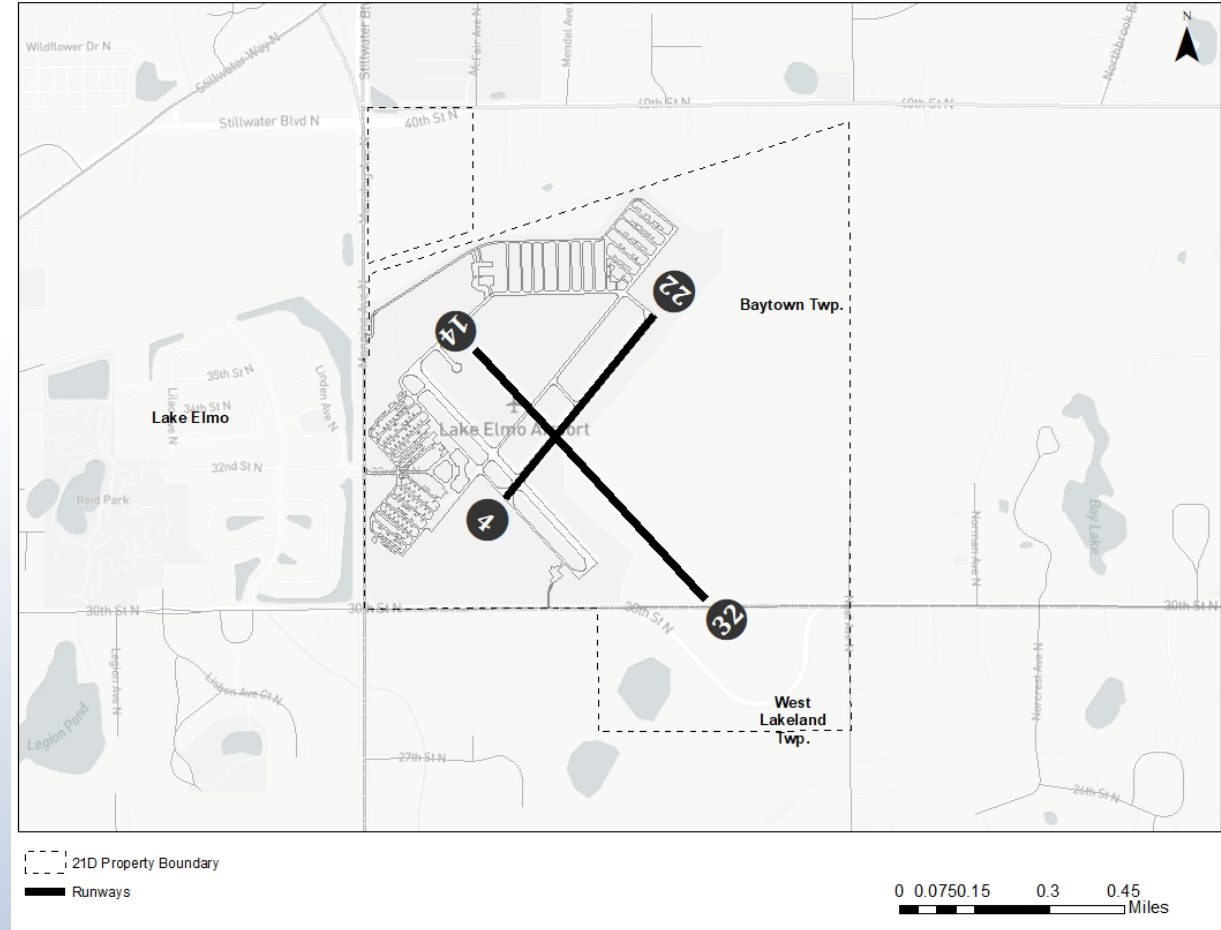
- Field measurements taken at three study locations for seven-consecutive days (Aug 13-19, 2024)
- Modeling used FAA-approved software (AEDT)

Report contains data collection details and results; published on MAC website (metroairports.org)

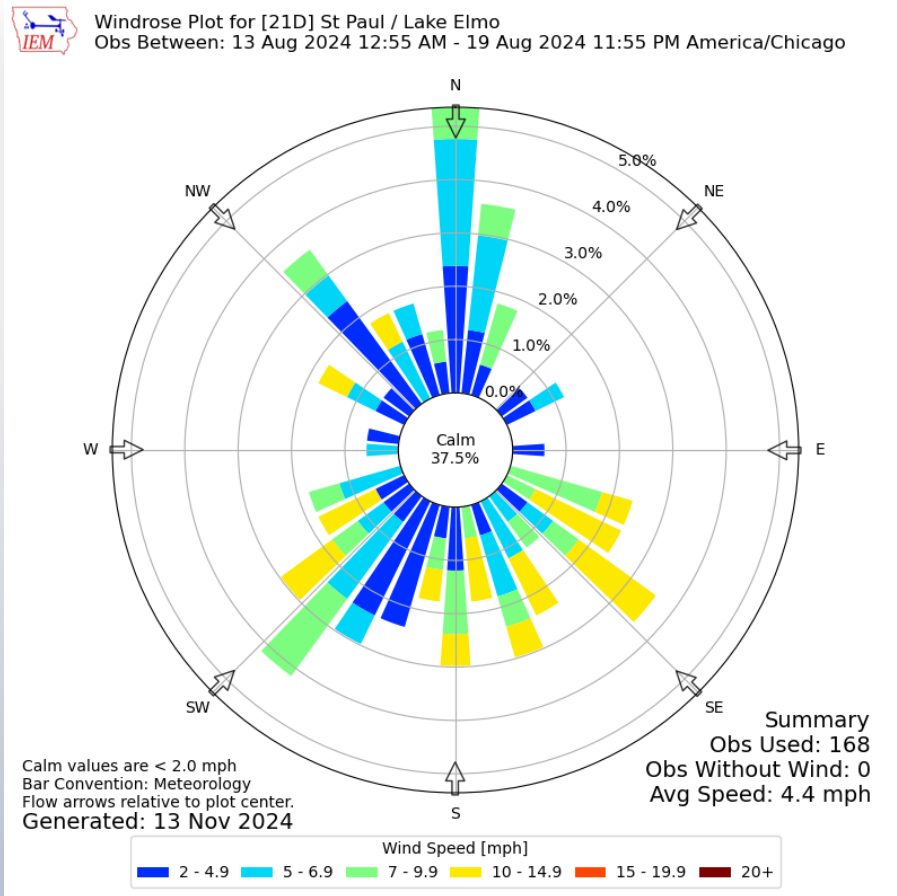


Daily 21D Aircraft Activity per Runway

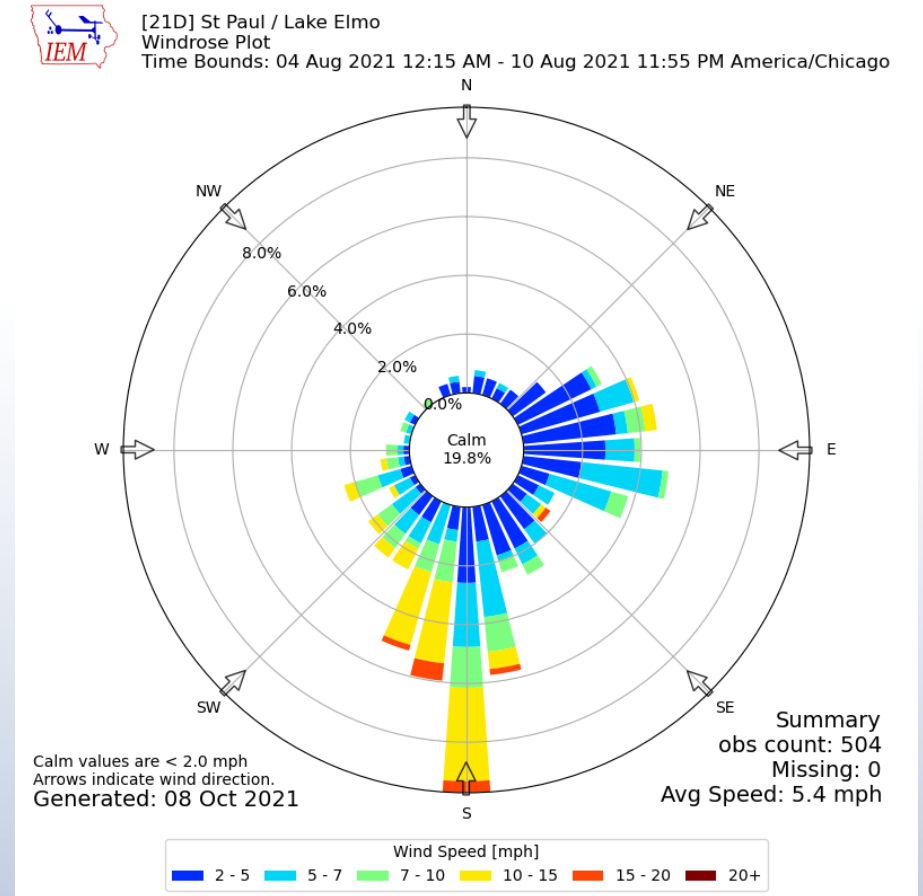
Runway	13-Aug	14-Aug	15-Aug	16-Aug	17-Aug	18-Aug	19-Aug	Runway Total
Arrivals	92	58	50	26	31	84	104	445
4					9	8		17
14	47	39	14	2	1		32	135
22	11	4	33	5	1	2	3	59
32	34	15	3	19	20	74	69	234
Departures	94	57	49	23	33	85	103	444
4					6	4		10
14	45	36	13				36	130
22	11	1	36	8	1	2	1	60
32	38	20		15	26	79	66	244
Daily Total	186	115	99	49	64	169	207	889



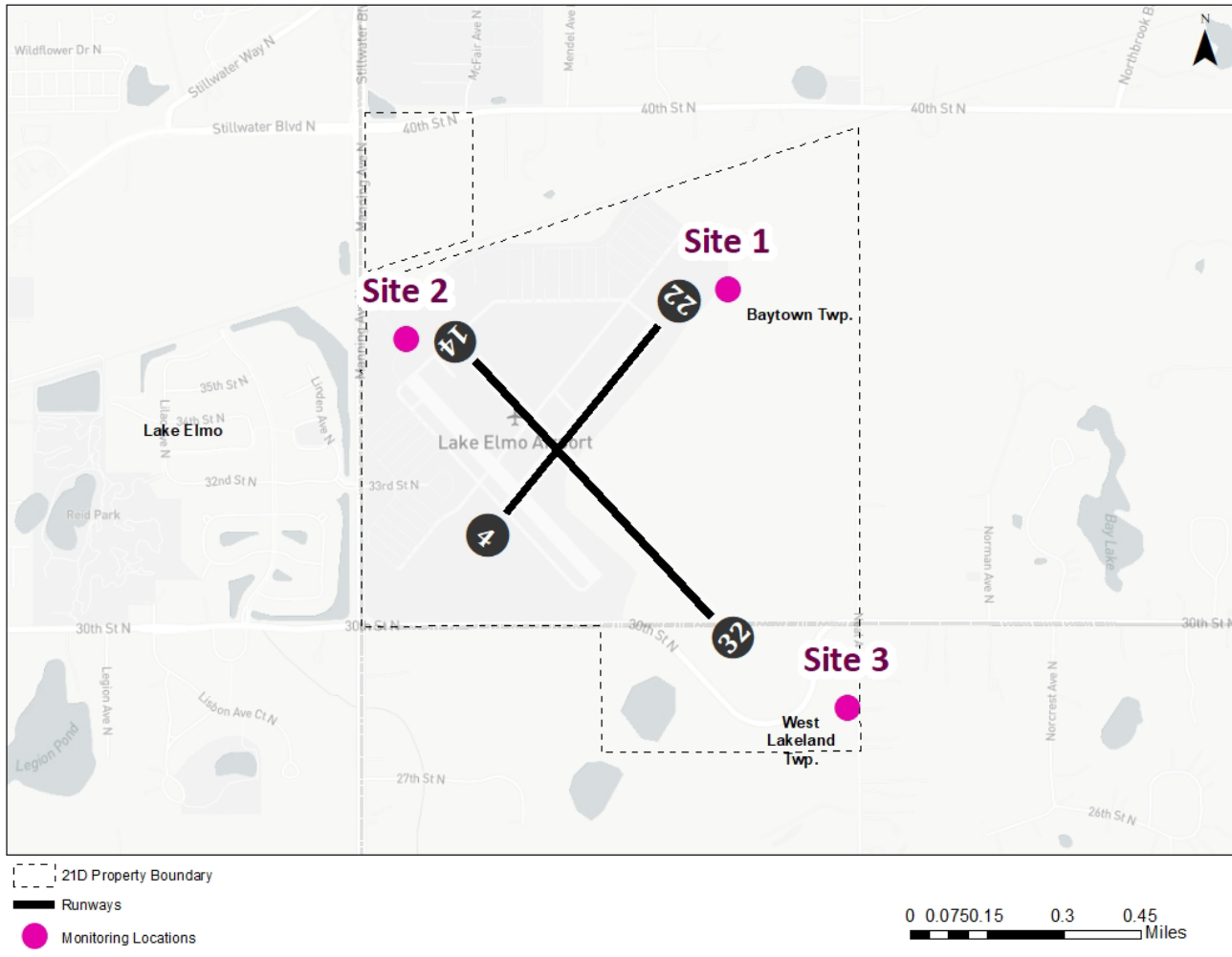
2024



2021

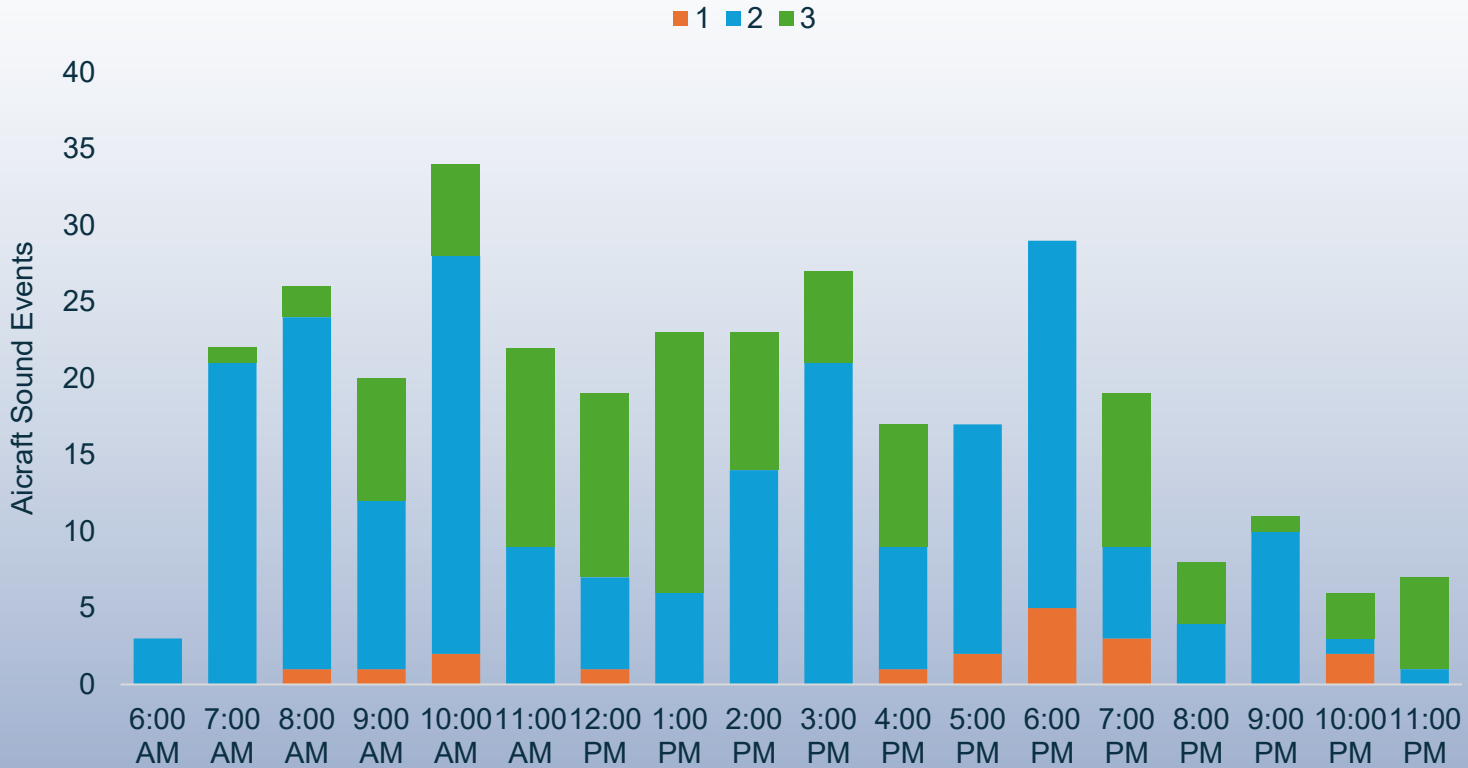


21D 2024 Sound Study Overview



21D 2024 Aircraft Sound Events

	Tue Aug-13	Wed Aug-14	Thur Aug-15	Fri Aug-16	Sat Aug-17	Sun Aug-18	Mon Aug-19	Site Total
Site 1	1	2	1	-	7	6	1	18
Site 2	30	22	1	15	26	64	51	209
Site 3	44	25	13	1	-	3	20	106
Daily Total	75	49	15	16	33	73	72	333



Plane



Train



Truck



Crickets



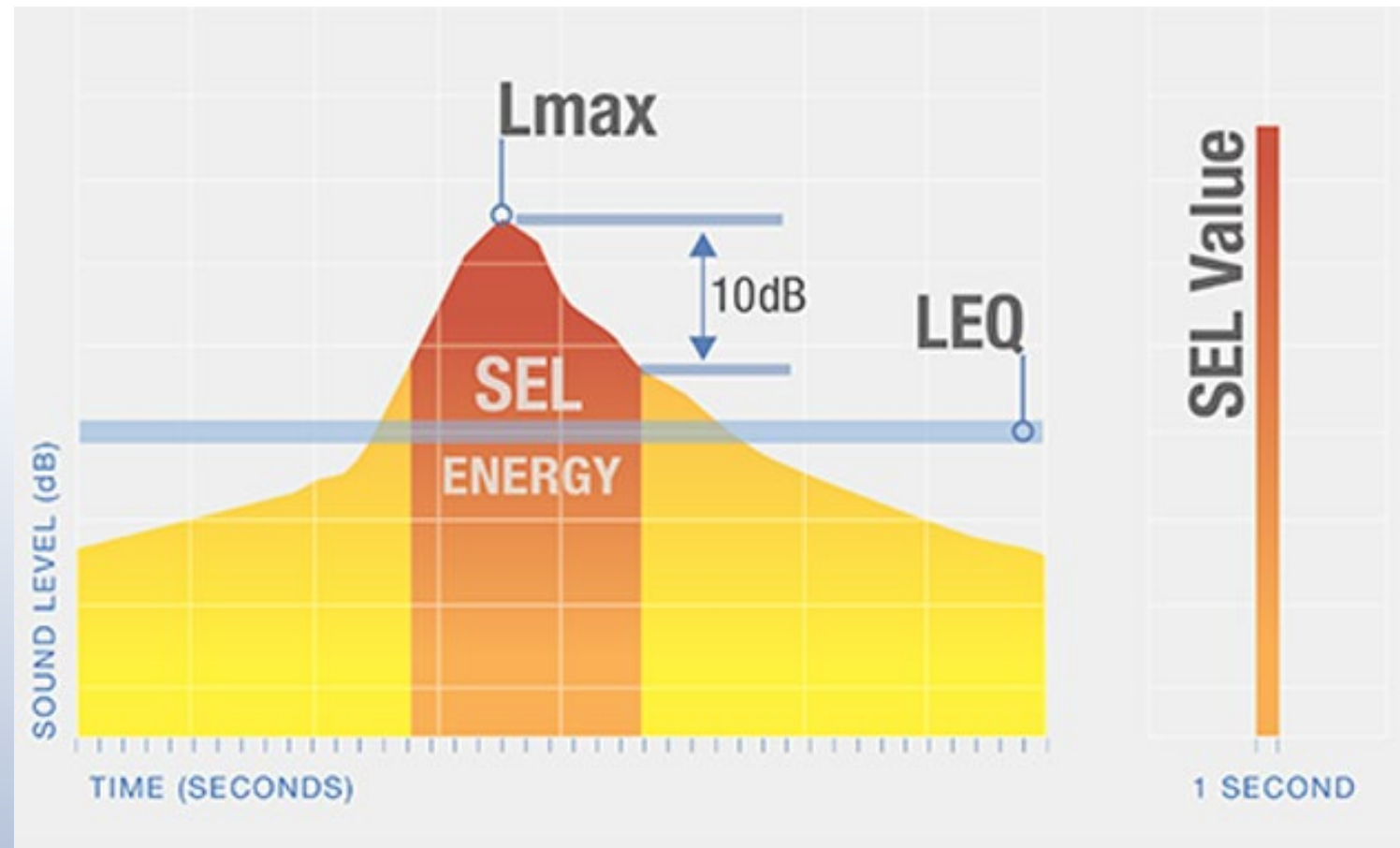
Decibels

- Sound is measured in Decibels (dB)
- Decibels is a logarithmic scale referenced to threshold of hearing
- Why?
 - We hear sound pressures over a HUGE range
 - Decibels compress this range to match the way we interpret sound pressure



Maximum Sound Level (L_{max})

- Accounts only for sound amplitude (A-weighted sound level)
- Two events may have the same maximum level, but different exposures



(LA_{max} is the notation for A-weighted level)



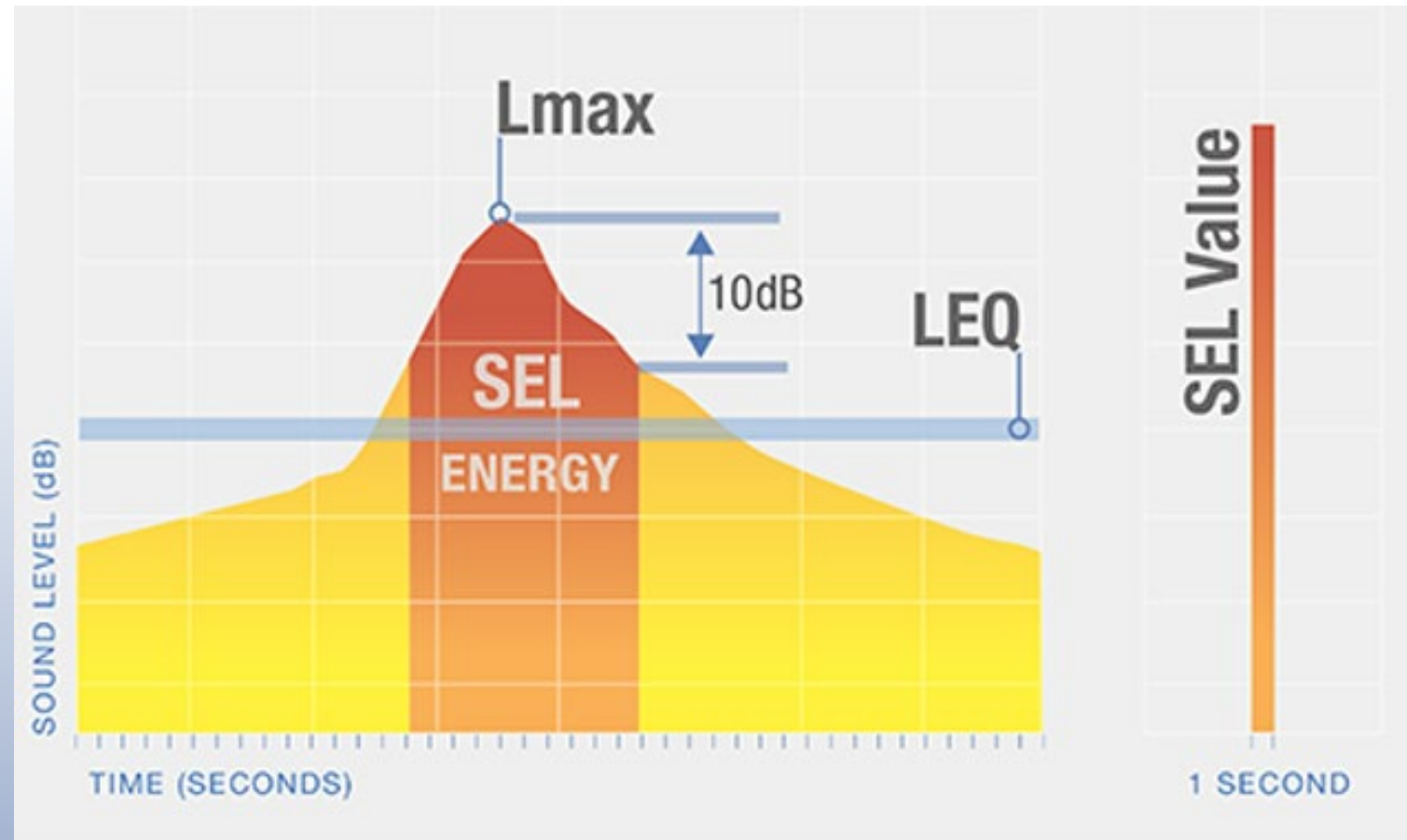
21D Aircraft Sound Events by Level (LA_{max})

Site	# of Events > 65dBA	# of Events > 80dBA	# of Events > 90dBA	# of Events > 100dBA
Aircraft Arrivals				
1	15	4	1	0
2	141	18	0	0
3	65	9	0	0
Arrival Total	221	31	1	0
Aircraft Departures				
1	3	2	1	
2	68	14	0	0
3	41	7	0	0
Departure Total	112	23	1	0
Total Aircraft Events	333	54	2	0



Sound Exposure Level (SEL)

- SEL describes a sound event by compressing and expressing the energy as a 1 second event.
- Cannot compare sound events without using a normalized unit.



Top Ten 21D Aircraft Sound Events (LA_{max})



Site 1							
Date and Time	LA _{max}	Duration	SEL	Aircraft Type	Flight ID	Rank LA _{max}	Rank SEL
8/17/2024 18:05	95.4	21	100.1	VALI	N52411	1	1
8/17/2024 18:15	93.9	21	98.2	VALI	N52411	2	2
8/18/2024 19:02	83	14	90.1	RV9	N208RD	3	3
8/18/2024 10:36	82.3	16	89.5	EN28	N9576	4	4
8/13/2024 10:01	80.4	18	87.9	EN28	N9576	5	5
8/17/2024 18:13	80	12	86.2	C172	N70413	6	7
8/17/2024 17:53	79.2	14	85.8	C172	N70413	7	8
8/15/2024 16:49	78	14	84.8	C172	N61879	8	10
8/17/2024 18:03	76.9	13	84	C172	N70413	9	11
8/18/2024 22:13	76.6	23	86.3	B407	N119SP	10	6

Site 2							
Date and Time	LA _{max}	Duration	SEL	Aircraft Type	Flight ID	Rank LA _{max}	Rank SEL
8/19/2024 19:22	88.3	15	93.1	BE35	N360G	1	3
8/17/2024 15:57	87.7	14	93.7	BE58	N77LB	2	1
8/17/2024 19:11	86.5	13	91.7	BE35	N6269V	3	6
8/18/2024 12:28	86.3	18	92.4	C77R	N1972Q	4	4
8/18/2024 10:15	85.8	14	90.9	BE36	N7385W	5	9
8/16/2024 11:34	85.7	24	93.5	PA30	N7281Y	6	2
8/18/2024 13:52	84.1	21	92.4	PA30	N7281Y	7	5
8/19/2024 10:13	84	16	91.2	RV7	N722DW	8	8
8/13/2024 21:16	83.8	16	90.3	P28A	N9461C	9	11
8/14/2024 8:40	83.7	19	91.6	PA30	N7281Y	10	7

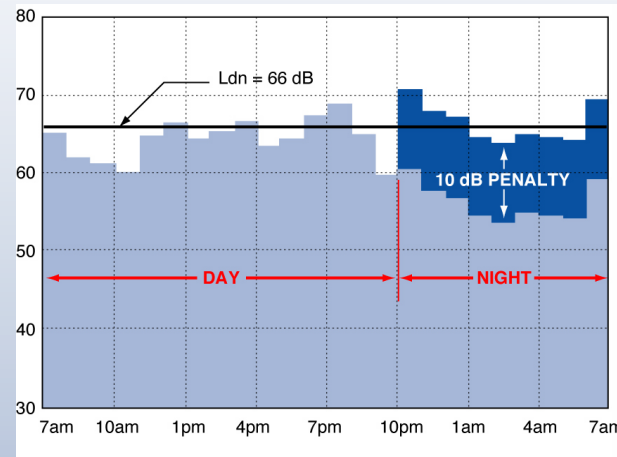


Site 3							
Date and Time	LA _{max}	Duration	SEL	Aircraft Type	Flight ID	Rank LA _{max}	Rank SEL
8/13/2024 11:21	87.5	13	92.1	SR22	N754DJ	1	2
8/15/2024 9:27	86.6	21	93.6	PA30	N7281Y	2	1
8/13/2024 16:45	86.2	14	91.2	BE33	N23TP	3	4
8/13/2024 13:20	85.8	13	91.4	AC11	N5895N	4	3
8/15/2024 22:44	85.1	15	89.6	P28A	N1679H	5	6
8/15/2024 23:47	84.2	14	88.9	P28A	N1679H	6	9
8/15/2024 23:27	83.6	19	88.8	P28A	N1679H	7	10
8/15/2024 23:37	83.4	14	88.5	P28A	N1679H	8	11
8/13/2024 16:48	83.3	11	88.4	BE36	N4608A	9	13
8/15/2024 23:07	83.3	15	88.3	P28A	N1679H	10	14



Day-Night Average Sound Level (DNL)

- A way to describe the noise dose for a 24-hour period
- Accounts for noise event “noisiness” (SEL)
- Accounts for number of noise events
- Provides an additional weighting factor for nighttime operations



EQUIVALENT OPERATIONS FOR DNL = 65

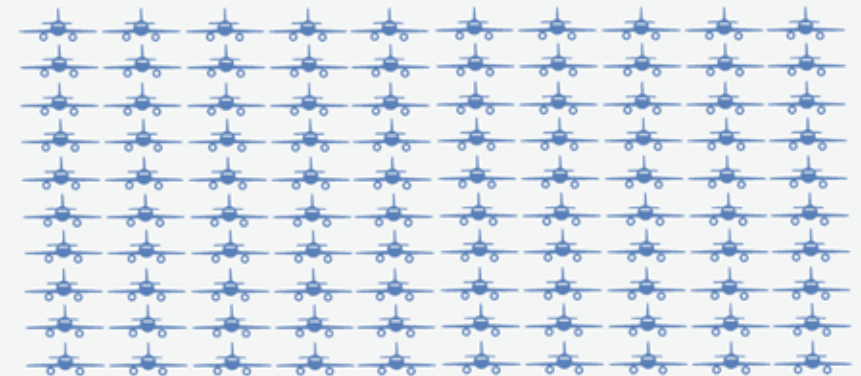
1 EVENT/DAY SEL 114.4 dBA = DNL 65



10 EVENTS/DAY SEL 104.4 dBA = DNL 65

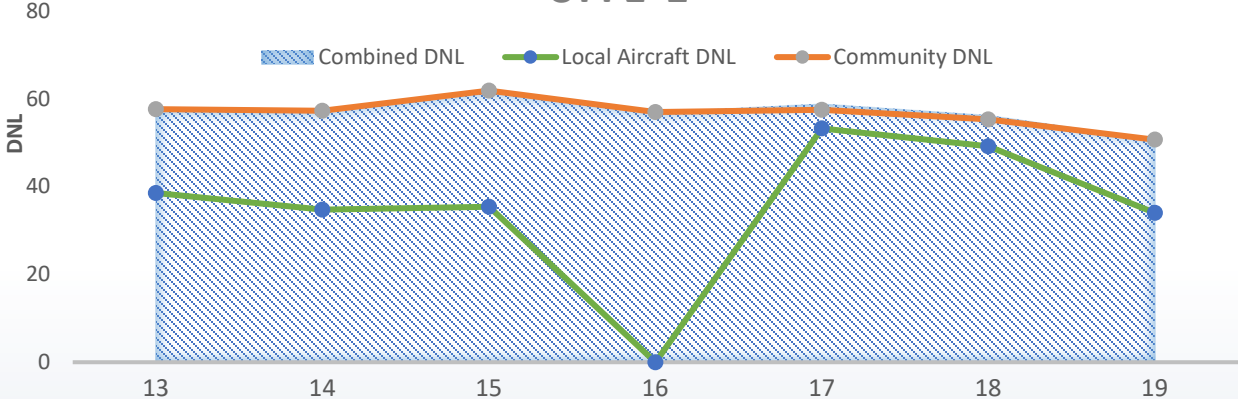


100 EVENTS/DAY SEL 94.4 dBA = DNL 65

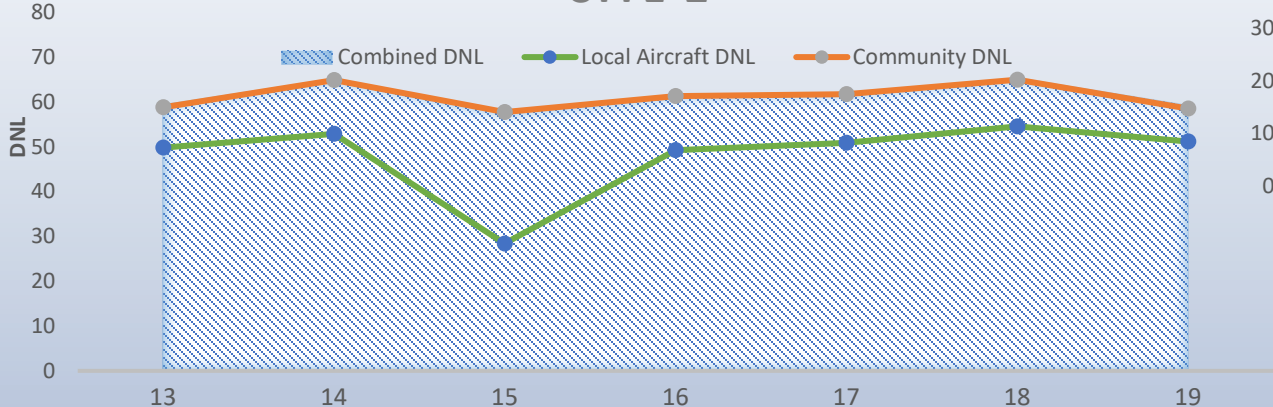


Aircraft and Community Measured DNL

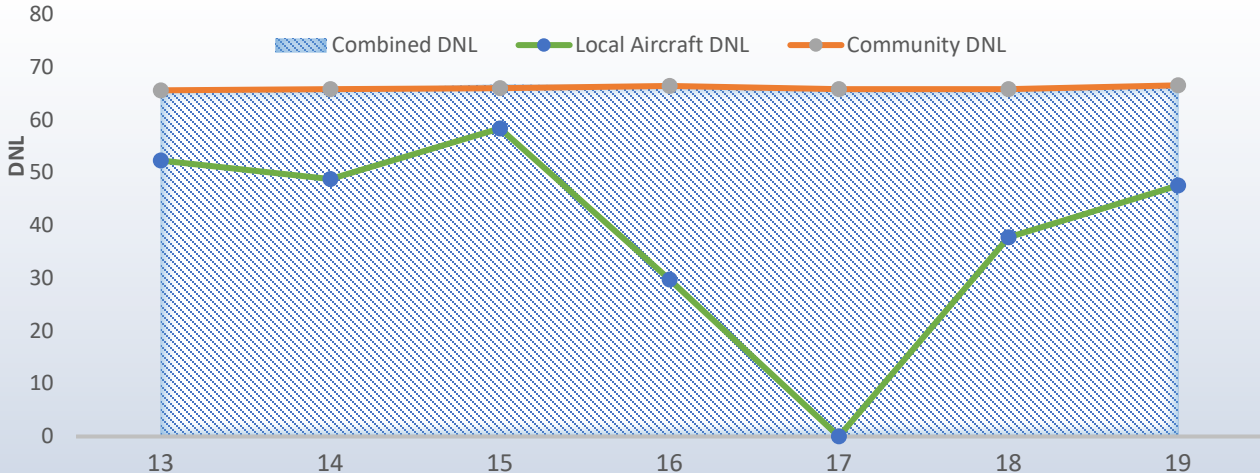
SITE 1



SITE 2



SITE 3



Modeled Results

- FAA-approved modeling software was used to calculate 21D aircraft sound exposure during the study period:
 - utilizing available flight track data for operations at 21D and certificated noise levels for aircraft types operating during the study period
 - calculated sound exposure across a grid of equally spaced analysis locations
 - counted the number of events above 65 dB (Number Above)
 - calculated the amount time that sound levels exceeded 65 dB (Time Above)
 - considered average weather conditions during the study period
 - considered terrain
 - help inform the LEAAC and airport neighbors about 21D aircraft activity and corresponding sound levels



Other Metrics

- Number Above (NA)
 - The number of events above a specified noise level (or threshold) e.g., 30 aircraft events/day above 80 dB Lmax or SEL
- Time Above (TA)
 - The time above a specified noise level (or threshold) e.g., 30 minutes/day above 80 dB



Figure 4.1: Number of Events Above 65 dB per Day

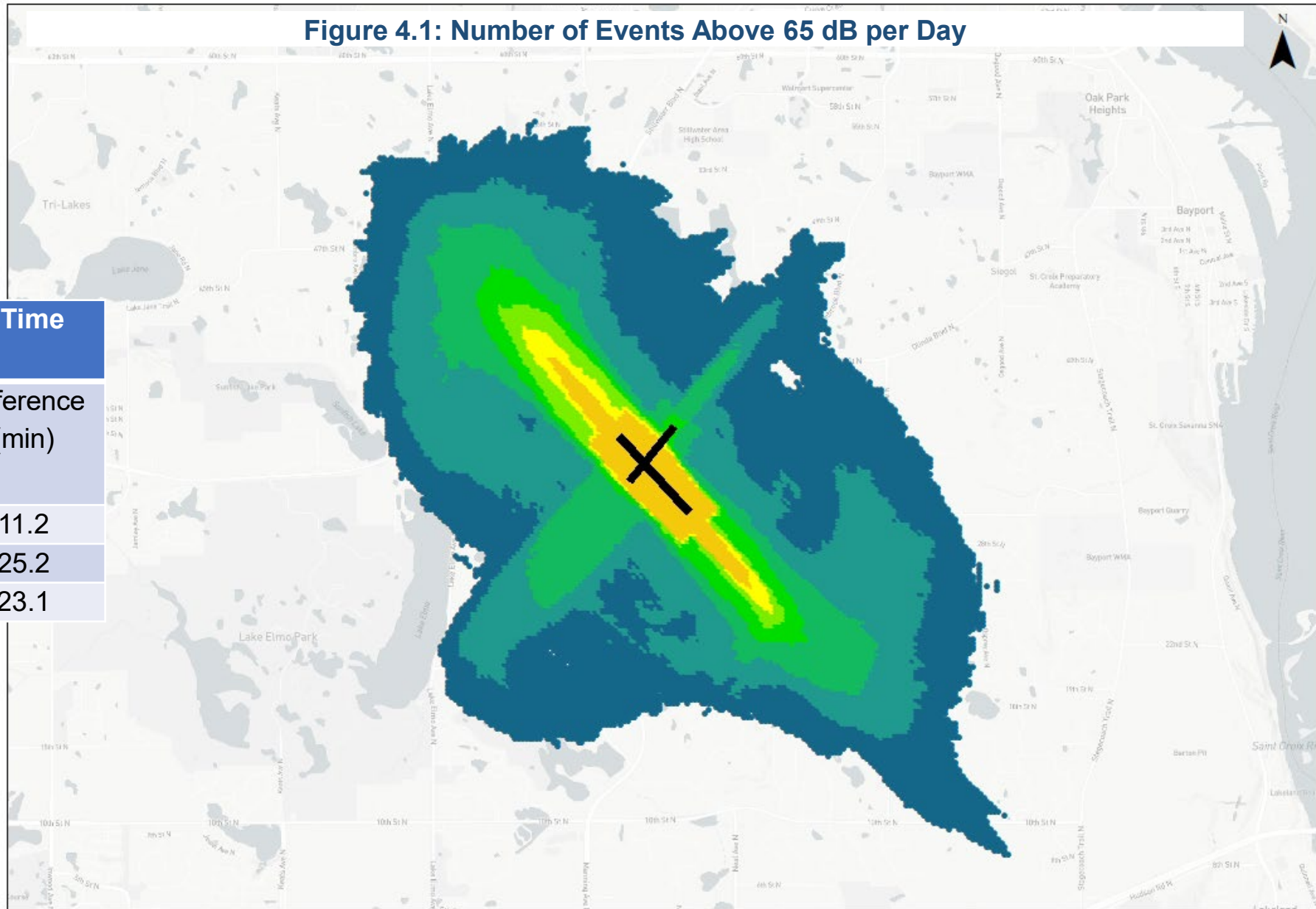
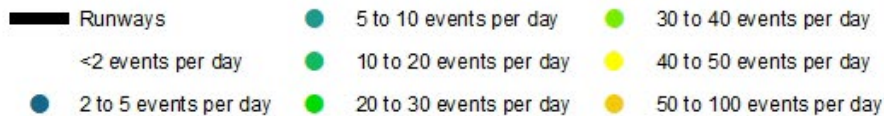


Table 4.2 2024 Measured Vs Modeled Time Above Sound Level

Site	TA65 Measured (min)	TA65 Modeled (min)	Difference (min)
1	4.7	15.9	11.2
2	45.7	70.9	25.2
3	25.0	48.1	23.1



Source: Metropolitan Airports Commission

Figure 4.2: Time Above 65 dB per Day (minutes per day)

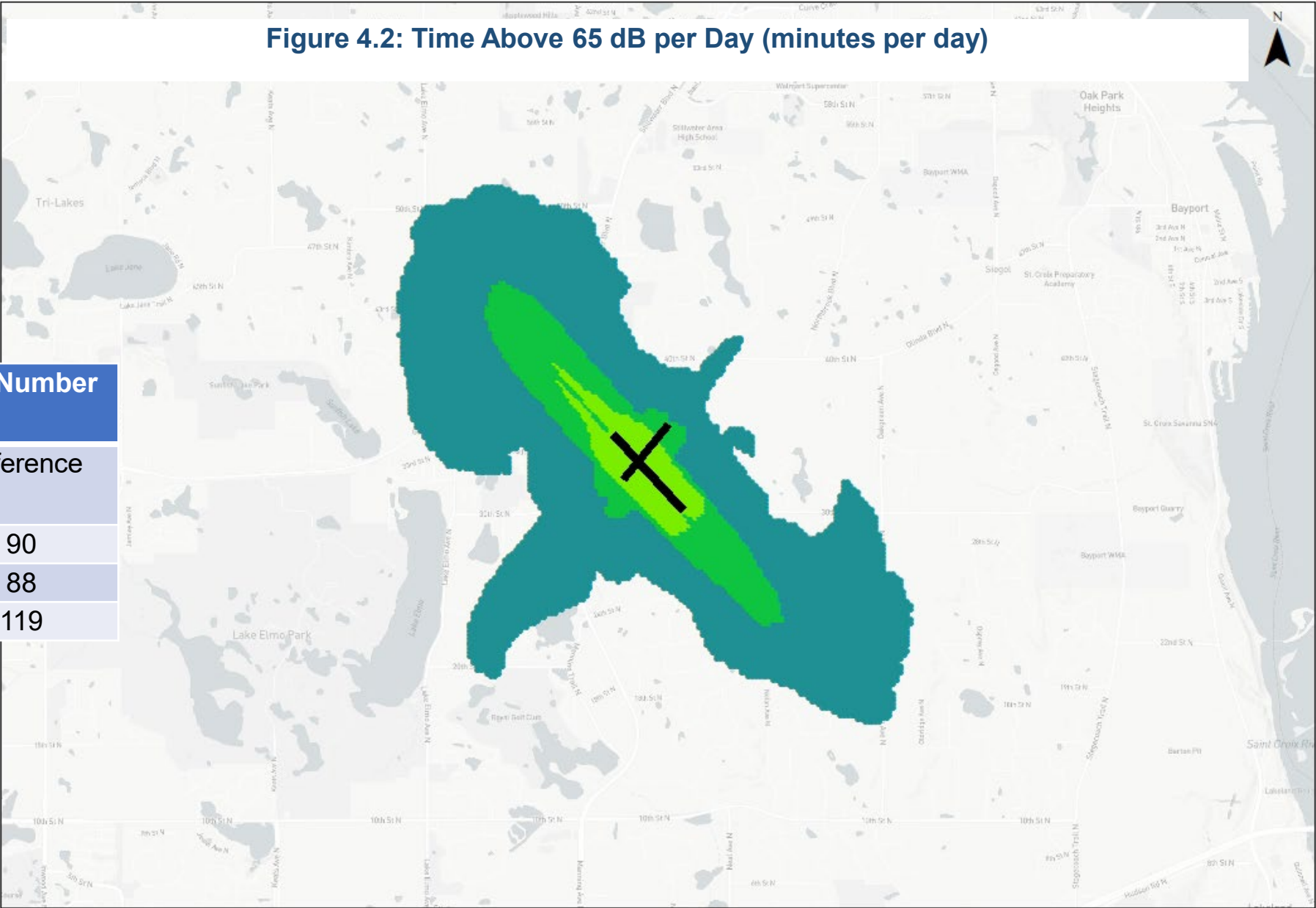
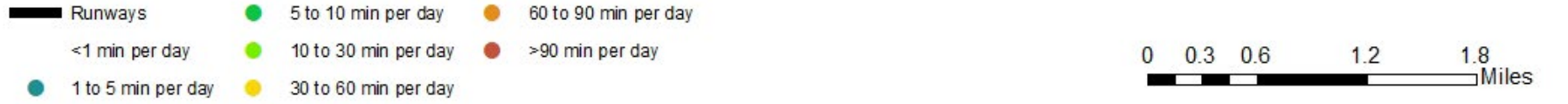


Table 4.1 2024 Measured Vs Modeled Number Above Sound Levels

Site	N ⁶⁵ Measured	N ⁶⁵ Modeled	Difference
1	18	108	90
2	209	297	88
3	106	225	119



Source: Metropolitan Airports Commission

Figure 5.1: 21D 2024 Study Period Complaint Heat Map

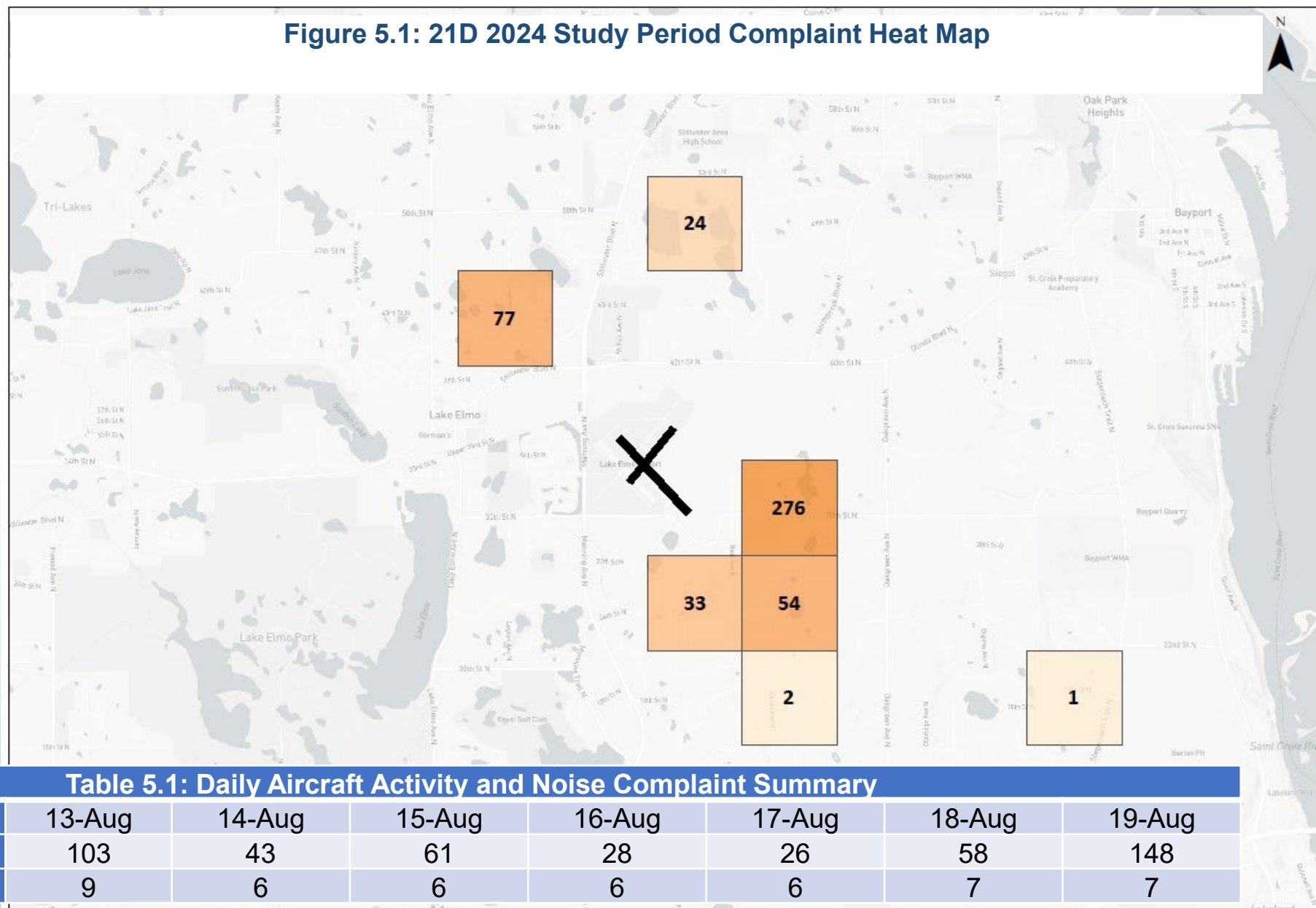
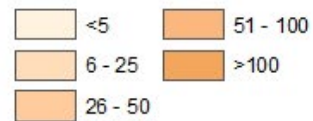


Table 5.1: Daily Aircraft Activity and Noise Complaint Summary

2024 Study Date	13-Aug	14-Aug	15-Aug	16-Aug	17-Aug	18-Aug	19-Aug
Complaints	103	43	61	28	26	58	148
Households	9	6	6	6	6	7	7



Source: Metropolitan Airports Commission





Lake Elmo Airport
ADVISORY COMMISSION
LEAAC

Airport Manager Update





Lake Elmo Airport
ADVISORY COMMISSION
LEAAC

Follow-up on Other Topics



Member Comments





Lake Elmo Airport
ADVISORY COMMISSION
LEAAC

2025 Memberships and Meeting Dates



2025 LEAAC Meeting Dates:

January						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

February						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	

March						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

April						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

May						
S	M	T	W	T	F	S
			1	2	3	
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

June						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

July						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

August						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

September						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

October						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

November						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

December						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			





Thank you for joining us!

Purpose of Minutes

Record of what the body has done:

- action taken
- attendance
- list of discussion topics



Riverfront Parks Project



Riverfront Park Projects

- 2023 Legislative Bill Approvals
 - Bonding Bill
 - Sales Tax
- Park Projects
 - Lumberjack Landing
 - Lowell Park Pavilion
 - Bridgeview Park
- Cost Estimates
- Next Steps

LumberJack Landing

1. Aiple House Renovation *
2. Kayak Launch and Trail* -
3. Picnic Shelter
4. Browns Creek Trail Connection
5. Driveway Reconstruction*
6. Parking Lot (North of Zephyr)
7. Vegetative Management (south)*
8. Vegetative Management (north)
9. Riverbank Stabilization

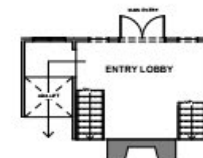
- Denotes design in progress*



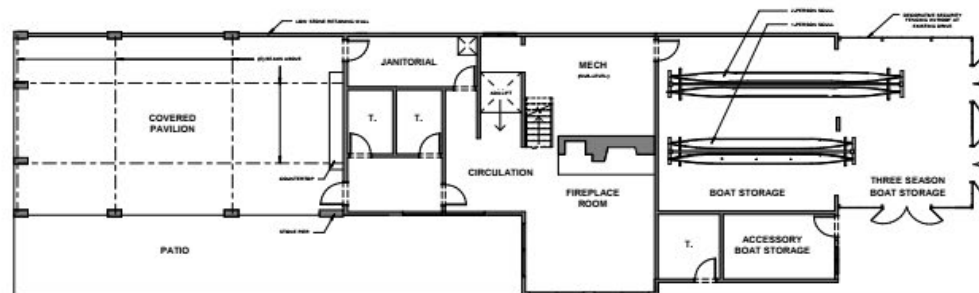
LUMBERJACK LANDING- Aiple House



1 UPPER LEVEL FLOOR PLAN - OPTION A
1/8" = 1'-0"



2 TYPICAL ENTRY WAY PLAN (SPLIT-LEVEL)
1/8" = 1'-0"

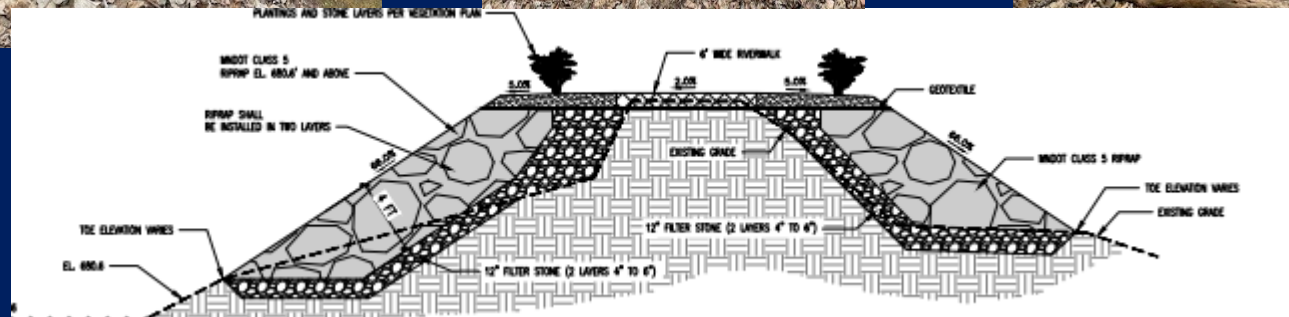
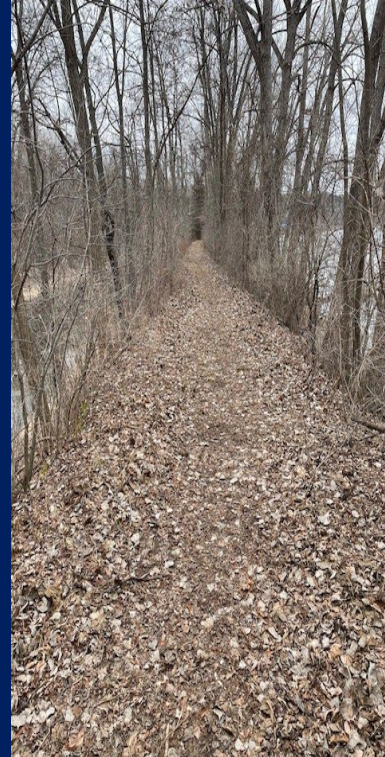


3 LOWER LEVEL FLOOR PLAN - OPTION A
1/8" = 1'-0"

LUMBERJACK LANDING- Trail, Kayak Launch, and Picnic Pavillion



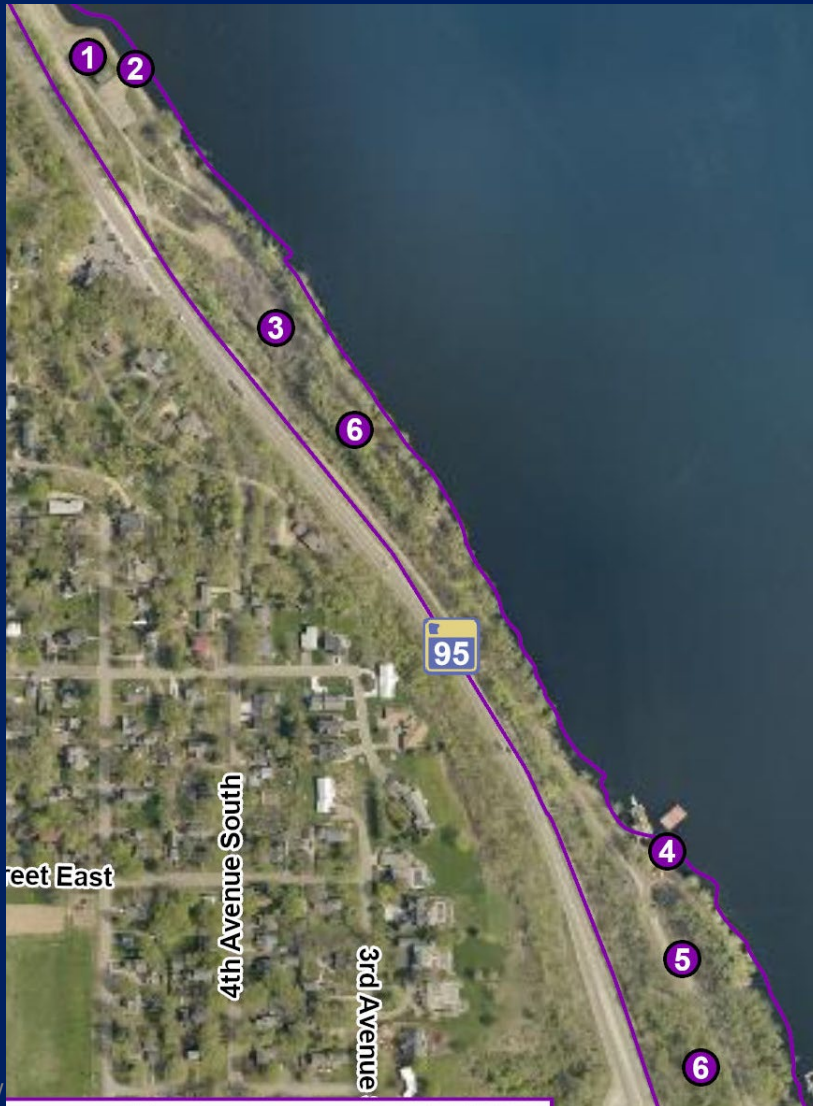
LUMBERJACK LANDING- Riverbank Stabilization and Trail Construction



LOWELL PARK Pavillion- Reconstruction



BRIDGEVIEW PARK



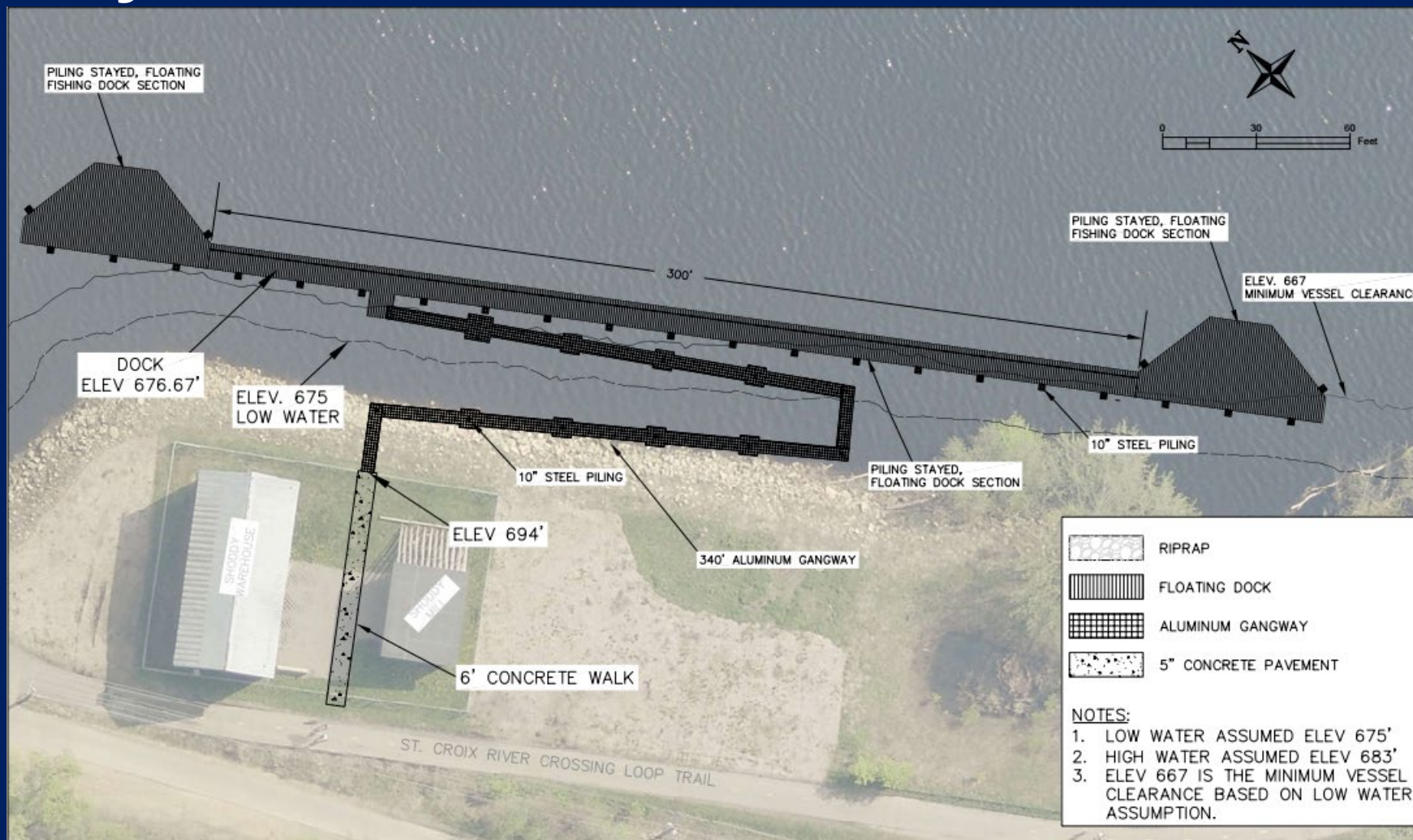
1. Shoddy Mill And Bergstein Warehouse Rehab
2. Boat Docks w/ Fishing Pier
3. Central Area Park
 - (Picnic shelter, turf , Irrigation,
 - Historical Signage)
4. Boat Launch
5. Parking Lot
6. Vegetative Management

BRIDGEVIEW PARK

Bergstein Warehouse and Shoddy Mill Rehabilitation



BRIDGEVIEW PARK Courtesy Boat Docks



BRIDGEVIEW PARK - Parking Lot and Boat Launch

