14 CFR Part 150 Noise Compatibility Study Update

Greater Rockford Airport Authority (GRAA)

Public Workshop & Hearing | November 2023







Comments & Questions

- All meeting attendees are muted
- Questions will be addressed during Question and Answer breaks
- Questions can be submitted through
 - <u>Q&A</u> : Attendee can type questions or comments
 - Raise Hand Raise Hand : Attendee can "Raise Hand", the attendee will be unmuted in order to verbally ask their question
 - Study Website: Questions can also be submitted via the study website contact page:
 https://www.airportprojects.pot/rfd-part150/contact/

https://www.airportprojects.net/rfd-part150/contact/



Agenda



- Part 150 Study Overview
- Public Involvement
- Future 2028 Noise Compatibility Program (NCP) Noise Contour
- Elements of a Noise Compatibility Program
- Noise Abatement Measures
- Land Use Mitigation Measures
 - Remedial / Corrective
 - Preventative
- Program Management Measures
- Next Steps



Noise Exposure Maps

- Description of the noise levels for existing and future (+5 years) conditions
- Future condition should take into account any changes (physical or operational) that may have an effect on the noise levels around the airport
 - Examples of physical changes may include: runway threshold relocation, changes in terminal/gate layout, new aircraft parking facilities
 - Examples of operational changes may include: changes in aircraft operating levels, and fleet mix, new flight tracks, new destinations

Part 150 Study Overview

Elements of a Part 150 Study

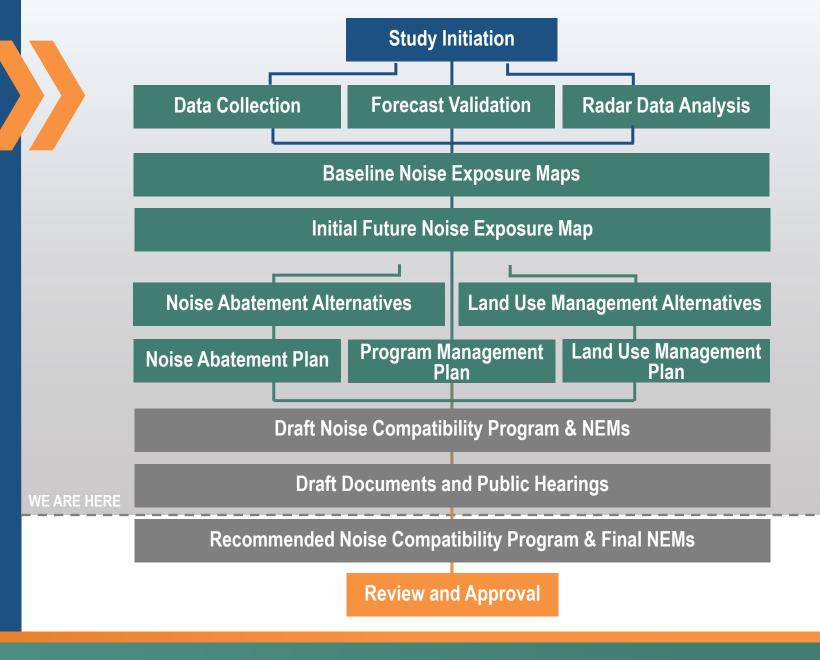


Noise Compatibility Program

- Recommendations for reducing, minimizing, and/or mitigating aircraft noise and land use conflicts
 - Noise Abatement
 - Land Use Mitigation
 - Program Management



Part 150 Study Overview





Public Involvement



Public Involvement Opportunities

- Advisory Committee Group of stakeholders affected by, or having oversight responsibilities for, issues covered by the Part 150 Study Update
 - Airport Authority Officials
 - Aircraft Operators
 - Government Officials / Land Use Planners
 - Community Groups
 - Air Traffic Controllers
- Public Workshops informational meetings to discuss and gather comments on potential aviation noise, land use, and other mitigation measures
- Public Hearings to receive comments (either oral or written) from the public on the Draft Part 150 Study Update document
- Project Website
 - Project website will be updated with study information, including images and documents pertinent to the study https://www.airportprojects.net/rfd-part150/
 - Posting of all meeting notices
 - Posting of study process and draft findings



Questions & Answers



Please raise hand to ask question



(2023) Noise Exposure Contours



65 - 70 DNL

75+ DNL

70 - 75 DNL

822.6 Acres 318.5 Acres

261.6 Acres

Total 1,402.7 Acres

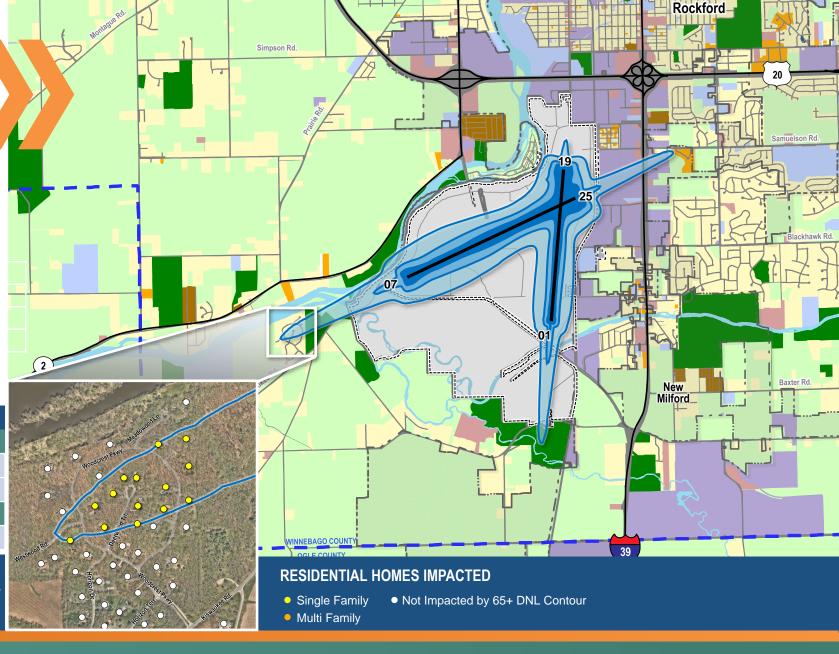
Land Use Incompatibilities

RESIDENTIAL IMPACTS								
75+ DNL 70-75 DNL 65-70 DNL 65+ DNI								
Single Family Units	0	0	14	14				
Multi-Family Units	0	0	0	0				
Total Housing Units	0	0	14	14				
Estimated Population	0	0	36	36				











Future 2028 NCP Noise Contour

NEMs Subject to FAA Review & Approval



65 - 70 DNL 1,170.9 Acres

455.7 Acres

363.9 Acres

Total 1,990.5 Acres

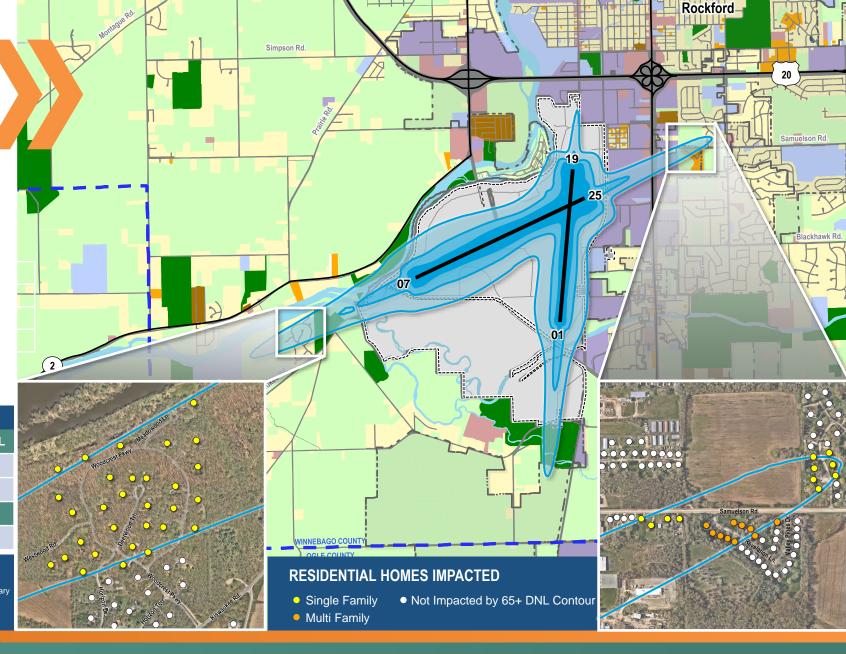
Land Use Incompatibilities

RESIDENTIAL IMPACTS									
75+ DNL 70-75 DNL 65-70 DNL 65+ DNL									
Single Family Units	0	0	41	41					
Multi-Family Units	0	0	20	20					
Total Housing Units	0	0	61	61					
Estimated Population	0	0	162	162					











Noise **Exposure Contours**

Existing 2023/Future 2028 **65 DNL Comparison**

RESIDENTIAL IMPACTS									
2023 2028 DIFFERENCE 65+ DNL 65+ DNL									
Single Family Units	14	41	+27						
Multi-Family Units	0	20	+20						
Total Housing Units	14	61	+47						
Estimated Population	36	162	+126						

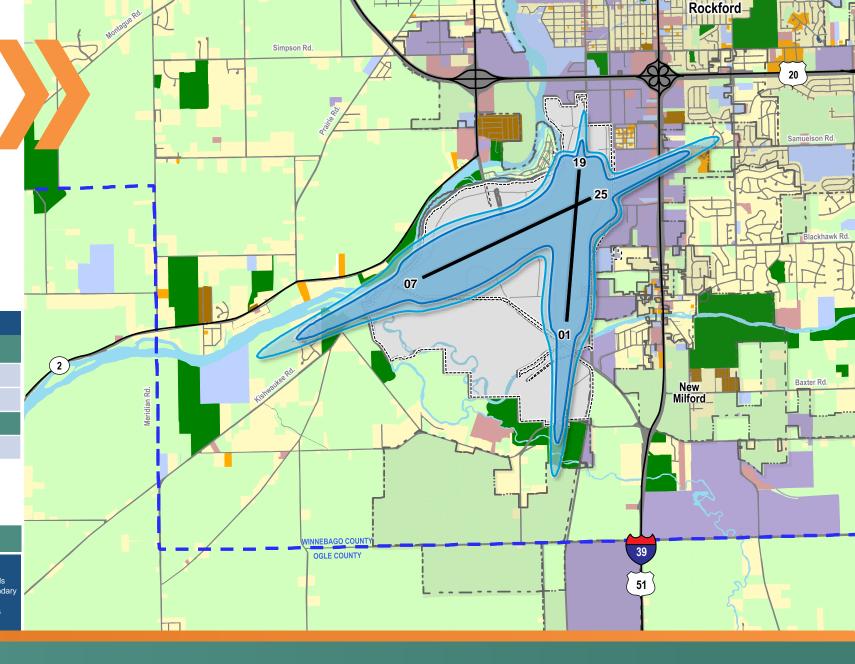
2023 65+ DNL 1,402.7 Acres 2028 65+ DNL 1,990.5 Acres

> **Change in Acreage** +587.8 Acres

Single-Family Residential Multi-Family Residential

Agricultural / Open Space / Vacant Commercial ROW/Utility

Airport Property Boundary





Elements of a Noise Compatibility Program

Types of NCP Measures:

Noise Abatement

Purpose: To abate noise levels in surrounding communities

- Flight Track Location
- Runway Use
- Flight Management
- **Ground Activity Restrictions**
- Facility Modification

Land Use Mitigation

Purpose: To mitigate noise levels in surrounding communities

- Preventive
- Remedial / Corrective

Program Management

Purpose: To provide administrative and management actions to allow the airport to maintain land use compatibility in surrounding communities

- Noise Complaint Protocols
- Management of Noise Program
- Updates to NEM/NCP



Previously Approved Noise Abatement Measures

Measure	Description Responsible 2003 Status		Current Status	Recommendation						
	Approved	Approved Noise Abatement Measures								
NA-1	Maintain existing noise abatement procedures per Tower Order of June 15, 1984.	Air Traffic Control Tower (ATCT), Airlines, GRAA	Approved as Voluntary	Implemented as Conditions Allow	Recommended to be withdrawn					
NA-3	All aircraft departing on Runway 7 should be fanned along three departure tracks: Left, Right, and Center.	ATCT, Airlines, GRAA	Approved as Voluntary	Implemented as Conditions Allow	Recommended to be continued					
NA-4	Direct pilots of C-130s to turn as tightly as practicable when training on Runway 19.	ATCT, Airlines, GRAA	Approved as Voluntary	Not Applicable	Recommended to be withdrawn					
NA-7 / NA-12	During daytime and nighttime hours all aircraft over 12,500 lbs. departing Rwy 25 having departure courses of 250 degrees clockwise through 069 degrees inclusive turn right on course to the Dubuque (DBQ) or the Nodine (ODI) navigational fix as soon as practicable.	ATCT, Airlines, GRAA	Approved as Voluntary	Implemented as Conditions Allow	Recommended to be continued with modifications					
NA-8 / NA-13	During daytime and nighttime hours all aircraft over 12,500 lbs. departing Rwy 25 having departure courses 070 degrees clockwise through 249 degrees inclusive retain 20-degree left turn and maintain heading until reaching 3,000 feet mean sea level (MSL).	ATCT, Airlines, GRAA	Approved as Voluntary	Implemented as Conditions Allow	Recommended to be continued with modifications					
NA-9	During nighttime hours all aircraft over 12,500 lbs. departing Runway 19 having departure courses of 0 degrees clockwise through 190 degrees maintain runway heading until reaching 3,000 feet MSL before turning on course.	ATCT, Airlines, GRAA	Approved as Voluntary	Implemented as Conditions Allow	Recommended to be continued with modifications					



Previously Approved Noise **Abatement** Measures

Five (5) measures recommended to continue

Six (6) measures recommended to continue with modifications

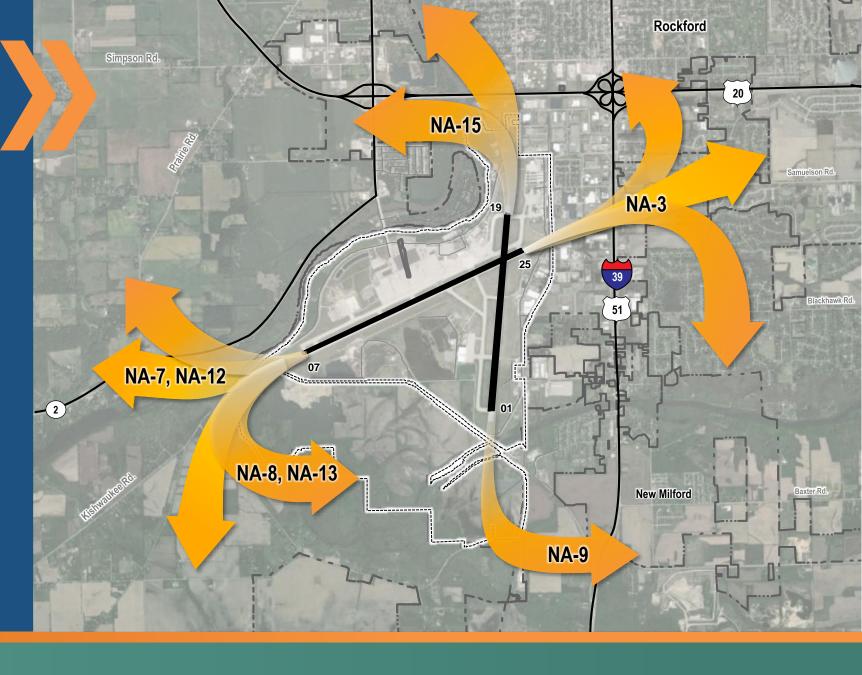
Two (2) measures recommended to be withdrawn

Measure Description		Responsible Party	2003 Status	Current Status	2023 NCP Recommendation
	Approved	d Noise Abate	ement Measu	res	
NA-10	Establish an informal preferential runway use plan for all daytime and nighttime operations after Rwy 7/25 is extended.	ATCT, Airlines, GRAA	Approved as Voluntary	Implemented as Conditions Allow	Recommended to be continued
NA-11	For all aircraft requiring more than 8,000 feet certified takeoff length, Rwy 25 preferred.	ATCT, Airlines, GRAA	Approved as Voluntary	Implemented as Conditions Allow	Recommended to be continued
NA-14	Aircraft weighing more than 12,500 lbs. conduct touch and go and low approach training activity on the south side of the airport when using Rwys 7 or 25.	ATCT, Airlines, GRAA	Approved as Voluntary	Implemented as Conditions Allow	Recommended to be continued with modifications
NA-15	During nighttime hours all aircraft over 12,500 lbs. departing Rwy 1, maintain runway heading until reaching 3,000 feet MSL before turning on course.	ATCT, Airlines, GRAA	Approved as Voluntary	Implemented as Conditions Allow	Recommended to be continued
NA-16	Encourage the use of noise attenuating construction standards for all new on-airport structures/facilities and use those structures as noise barriers/buffers to adjacent off-airport land uses.	ATCT, Airlines, GRAA	Approved as Voluntary	Implemented as Conditions Allow	Recommended to be continued



Current Noise Abatement Measures

The currently implemented noise abatement measures reduce noise impacts within the 65+ DNL noise contour to the fullest extent possible.





Questions & Answers



Please raise hand to ask question



Previously Approved Land Use Mitigation Measures

Measure	Description	Responsible Party	2003 Status	Current Status	2023 NCP Recommendation
		Approved La	nd Use Meas	ures	
LU-2	Adopt noise overlay zoning prohibiting development of selected noise-sensitive land uses within the 60-65 DNL noise contour of the 2008 Noise Exposure Map (NEM)/Noise Compatibility Program (NCP)	GRAA, City of Rockford, Winnebago County, Ogle County	Approved	To date only Ogle County zoning ordinances have incorporated the RFD NCP, these ordinances were updated in 2021 but continue to reference the 1994 NCP.	Recommended to be continued with modification to include the new 2023/2028 NEMs
LU-4	Amend local comprehensive plans by adopting the updated Part 150 NCP as their noise compatibility elements for the City of Rockford and Ogle and Winnebago Counties.	GRAA, City of Rockford, Winnebago County, Ogle County	Approved	Language related to continuing an active presence in RFD activities is included in the latest Ogle County Comprehensive Plan.	Recommended to be continued with modification to include the new 2023/2028 NEMs.
LU-5	Adopt guidelines for discretionary review of development projects for the City of Rockford, Winnebago County, Ogle County, and the GRAA	GRAA, City of Rockford, Winnebago County, Ogle County	Approved	Implemented as Needed	Recommended to be continued with modification to include the new 2023/2028 NEMs.
LU-8	Voluntary acquisition of single- family residences on Blackhawk Island	GRAA	Approved	Fully Implemented	N/A
LU-9	Redevelop airport-owned land parcels located along Kishwaukee Street south of Research Parkway	GRAA	Approved	The implementation of this measure is pending; dependent upon the interest of a potential developer and the availability of funding.	Recommended to be continued



Previously Approved Land Use Mitigation Measures

- Five (5) Measures are recommended for continuation with modification
- One (1) Measure is recommended for continuation
- Three (3) Measures are fully implemented and require no action

Measure	Description	Responsible Party	2003 Status	Current Status	2023 NCP Recommendation				
Approved Land Use Measures									
LU-11	Acquire development and overflight rights via purchase of land use and avigation easement over undeveloped parcel in Runway 7 approach	GRAA	Approved	Fully Implemented	N/A				
LU-12	Offer options of voluntary sale to GRAA or sound insulation to owner of one (1) single-family residence south of the airport in the 65 DNL contour of the 1993 NCP.	GRAA or sound insulation to owner of one (1) single-family residence south of the airport in the 65 DNL contour of the 1993		This measure was fully implemented with the voluntary sale of one (1) single-family home.	N/A				
LU-13	Encourage the City of Rockford and Winnebago County to require plat notes on new subdivision plats and to record the notes on deeds for new subdivisions within the Airport Noise Overlay Zones	GRAA, City of Rockford, Winnebago County	Approved	To date, the airport noise contours are not referenced in any local subdivision ordinance.	Recommended to be continued with modification to include the new 2023/2028 NEMs.				
LU-14	Encourage Winnebago County, the City of Rockford, the Village of New Milford, and the Village of Davis Junction not to allow an increase in the residential density in the Agricultural Priority (AG) or Rural Residential (RR) zoning districts (Winnebago County) in the 2008 NEM/NCP 60+ DNL noise contour.	GRAA, City of Rockford, Winnebago County, Ogle County and Villages of New Milford and Davis Junction	Approved	To date based on zoning ordinances the allowable residential densities allowed in these zones has been increased	Recommended to be continued with modification to include the new 2023/2028 NEMs.				



Land Use Mitigation Airport Noise Overlay

Zone AC-1 **Prohibited Land Uses**

Recommended Land Use Restrictions

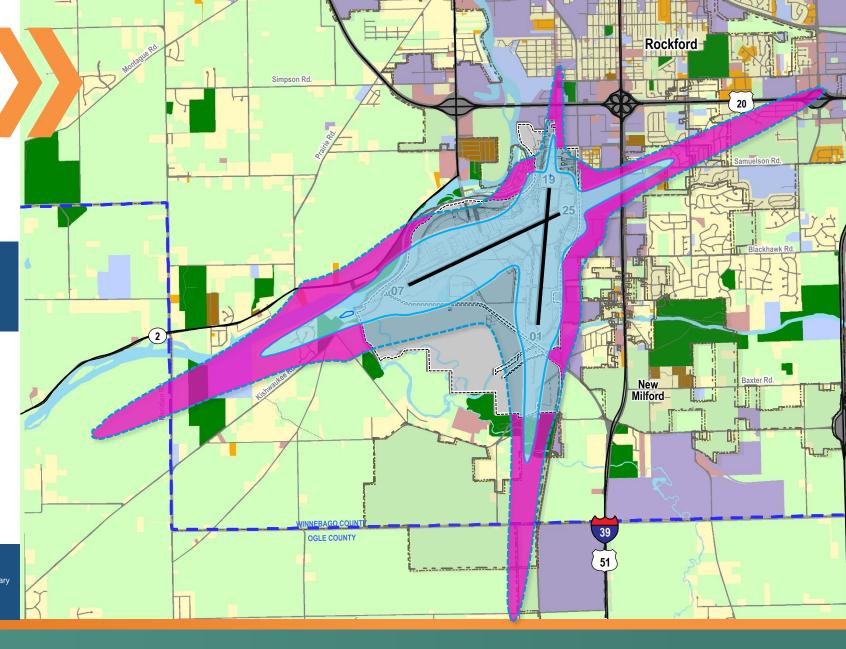
Mobile Homes Hospitals and Nursing Homes **Outdoor Music Shells and Amphitheaters Resorts and Group Camps**



Single-Family Residential

Agricultural / Open Space / Vacant

Airport Property Boundary County Boundaries





Land Use Mitigation Airport Noise Overlay

Zone AC-2 **Prohibited Land Uses**

Recommended Land Use Restrictions

Residential (SF & MF) units if also in Zone AC-3

Education Services

Medical Facilities

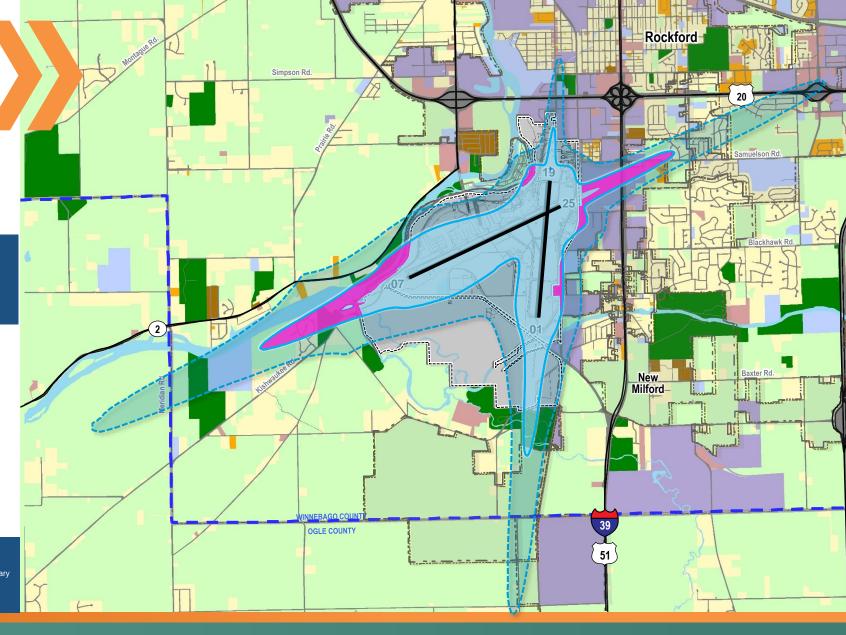
Cultural Activities including Places of Worship Auditoriums, Concert Halls

60 DNL 65 DNL Zone AC-2

Single-Family Residential

Agricultural / Open Space / Vacant

Airport Property Boundary County Boundaries



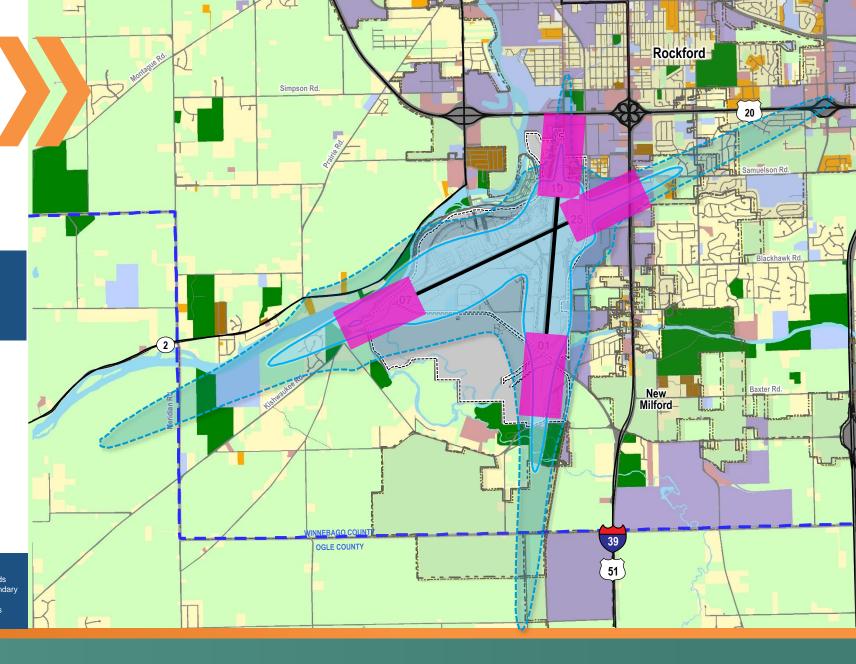


Land Use Mitigation Airport Noise Overlay

Zone AC-3 **Prohibited Land Uses**

Recommended Land Use Restrictions Residential (SF & MF) Units **Education Institutions** Hotels & Motels Libraries, Museums, Art Galleries or Similar Use Sports & Amusement Arenas | Parks Indoor And Outdoor







Questions & Answers



Please raise hand to ask question



Land Use Mitigation Proposed New Measures

	Description	Benefits	Drawbacks	Evaluation & Recommendation					
	Corrective / Remedial								
	Offer Residential Sound Insulation Program for Single- and Multi-Family Homes within the 65+ DNL Noise Contour and in the defined Block Rounding Areas Outside of the 65+ DNL Noise Contour.	Would reduce interior noise levels for the homes impacted within the 65+ DNL contour and in the block rounding area outside of the 65+ DNL noise contour.	Final eligibility for each property would have to be determined. Final cost would still have to be determined based on participation rates and local costs to implement.	This measure has the ability to provide benefits to the homes impacted by the 65+ DNL noise contour and in the block rounding area outside the 65+ DNL noise contour. Therefore, this alternative is RECOMMENDED for inclusion in the NCP.					
	Occupied Single- and Multi-Family Homes if into compatible uses. Properties wou		Final eligibility for each property would have to be determined. Final cost dependent on participants that decline sound insulation.	This measure has the ability to convert impacted properties to compatible uses. Therefore, this alternative is RECOMMENDED for inclusion in the NCP.					
	Preventative								
	Adopt Improved Building Codes	This alternative would recommend updating existing building codes to ensure that new residential construction meets current FAA criteria for sound insulation within AC-1 and AC-2 zones.	This alternative may increase the overall cost of residential construction	This measure will require potential builders to use higher quality materials during construction to reduce noise within residential structures within zones AC-1 and AC-2. Therefore, this alternative is RECOMMENDED for inclusion in the NCP.					
	Develop a Voluntary Fair Disclosure Program for Resale Properties	Will disclose through regulations on the seller or their representatives at the time of sale that an existing property could be subjected to aircraft noise.	Will need to seek cooperation from the City of Rockford and Winnebago County along with the local Rockford realtors to participate.	This measure will notify potential buyers that they may be subjected to aircraft noise within the zones AC-1 and AC-2. This alternative is RECOMMENDED for inclusion in the NCP.					



New Remedial Land Use **Mitigation**Recommendations



LU-15: Sound Insulation of residential properties is recommended within defined boundaries known as **Noise Mitigation Program Area's (NMPA)**

 Not all properties will meet eligibility requirements for sound insulation, based on interior sound level reduction tests performed during the program.

LU-16: Offer Avigation Easements to owner-occupied single- and multi-family homes within NMPA #1 if sound insulation is declined and or eligibility requirements are not met.



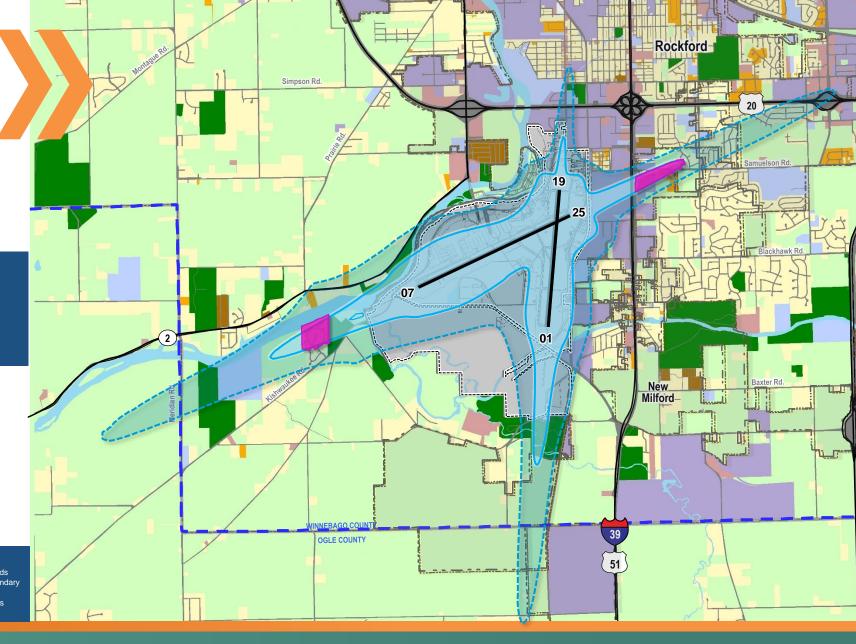
Remedial Land Use Mitigation Recommendations

NMPA #1

Residential Sound Insulation Program

> 41 Single-Family Units 20 Multi-Family Units







Proposed Primary NMPA #1a

NMPA Subject to FAA Review & Approval

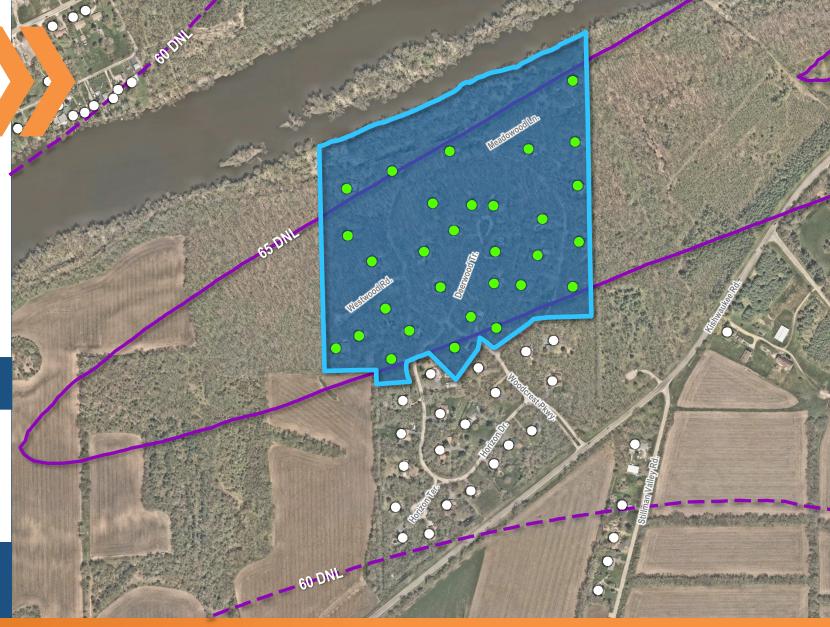
NMPA #1a | 30 SF Units

Based on AIP Handbook

Section R-6, Eligible Noise Contour Threshold (a) DNL 65 dB Noise Contour



Residential Units in NMPA 1a Residential Units outside NMPA 1a Future (2028) 60 DNL Noise Exposure Contour Future (2028) 65 DNL Noise Exposure Contour Airport Property Boundary



Proposed Primary NMPA #1b

NMPA Subject to FAA Review & Approval

NMPA #1b | 11 SF Unit | 20 MF Units

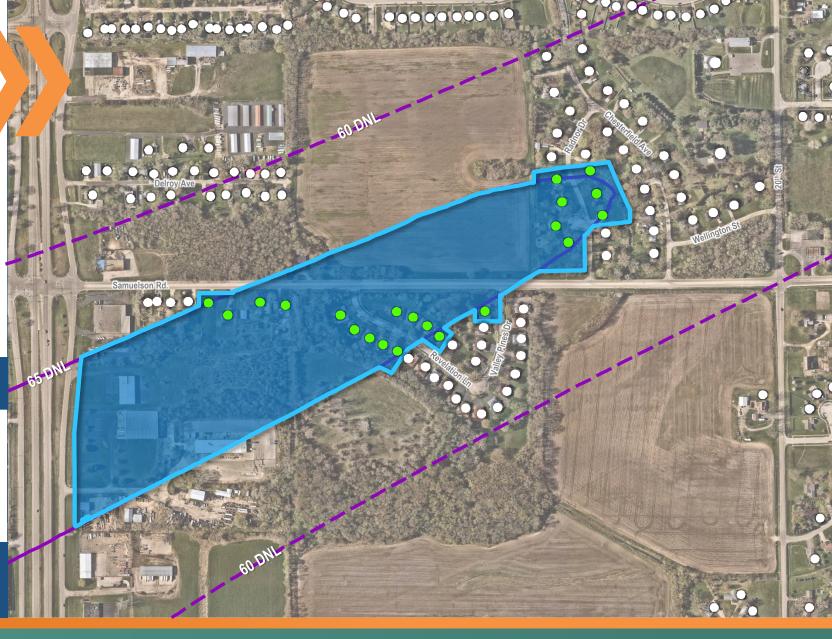
Based on AIP Handbook

Section R-6, Eligible Noise Contour Threshold (a) DNL 65 dB Noise Contour



Residential Units outside NMPA 1a

Future (2028) 60+ DNL Noise Exposure Contour Future (2028) 65+ DNL Noise Exposure Contour Airport Property Boundary





Remedial Land Use Mitigation Recommendations

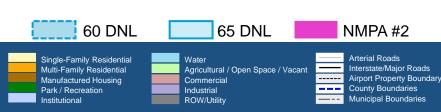
NMPA #2

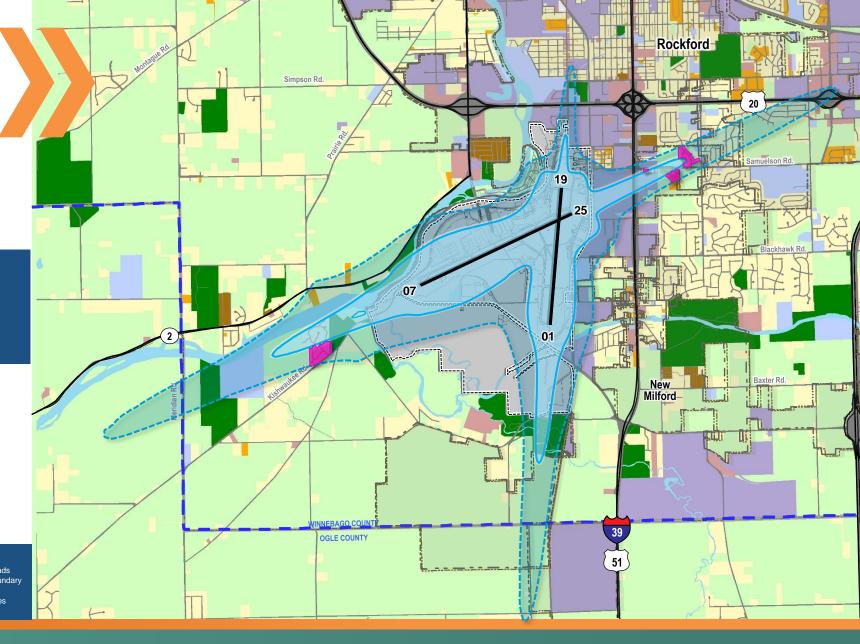
Residential Sound Insulation Program

Block Rounding Area Subject to FAA Review & Approval

51 Single-Family Units

36 Multi-Family Units







Proposed Block Rounding NMPA #2a

NMPA Subject to FAA Review & Approval

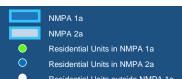
NMPA #2a | 20 SF Units

Block rounding area #2a includes SF Units outside the 65+ DNL noise contour in Woodcrest Estates subdivision south to Kishwaukee Road

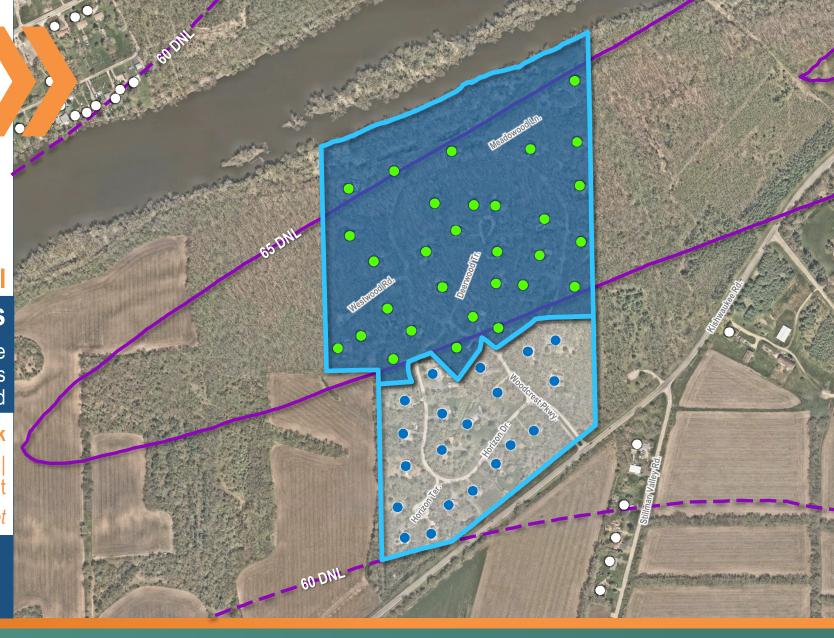
Based on AIP Handbook

Table R-2, Block Rounding Requirements (e) Logical Breakpoint

Neighborhood Boundary | Significant Arterial Surface Street







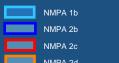


Proposed Block Rounding NMPA #2b, 2c, 2d

NMPA Subject to FAA Review & Approval

NMPA #2b | 4 SF Units | NMPA #2c | 36 MF Units NMPA #2d | 27 SF Units

Based on AIP Handbook Table R-2, Block Rounding Requirements (e) Logical Breakpoint Neighborhood Boundary | Significant Arterial Surface Street



Residential Units in NMPA 1a

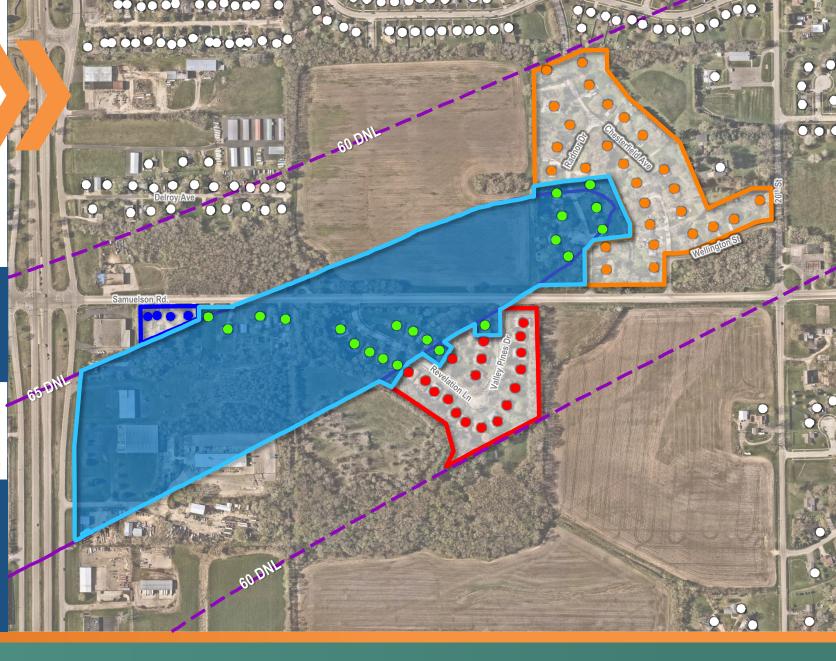
Residential Units in NMPA 2b

Residential Units in NMPA 2c

Residential Units in NMPA 2d

Residential Units outside NMPA 2d

Future (2028) 60+ DNL Noise Exposure Contour Future (2028) 65+ DNL Noise Exposure Contour Airport Property Boundary





Corrective Land Use Mitigation Estimated Cost

Measure Id	Type Of Measure	Direct Cost (Total)	Direct Cost To FAA (80% Share)	Direct Cost To Airport (20% Share)					
	Residential Sound Insulation Program								
LU-15 ⁽¹⁾	Offer Residential Sound Insulation to 61 Residential Units within the 65 DNL Noise Contour (NMPA 1a & 1b) and 87 Residential Units outside the 65 DNL Noise Contour (NMPA 2a, 2b, 2c, & 2d)	\$9,250,000 ⁽²⁾ (\$62,500 per home)	\$7,400,000	\$1,850,000					

Notes:

(2)Total cost for LU-15 mitigation measure is the maximum possible mitigation cost and assumes 100 percent participation in program by eligible property owners. Property owners participating would also have to ensure they meet both the eligibility requirements for interior noise levels and the year the property was built. In addition, some property owners may choose one measure over another which would reduce overall costs. All costs are based on 2020 cost projections.

NMP	Housing Counts	Direct Cost (Total)	Direct Cost To FAA (80% Share)	Direct Cost To Airport (20% Share)
1a/1k	Residential Units inside 65 DNL– 61 SF & MF units	\$3,812,500	\$3,050,000	\$762,500
2a	Residential Units outside 65 DNL – 20 SF units	\$1,250,000	\$1,000,000	\$250,000
2b	Residential Units outside 65 DNL – 4 SF units	\$250,000	\$200,000	\$50,000
2c	2c Residential Units outside 65 DNL – 36 MF units		\$1,800,000	\$450,000
2d	Residential Units outside 65 DNL – 27 SF units	\$1,687,500	\$1,350,000	\$337,500



⁽¹⁾ Property owners who decline sound insulation would be offered avigation easements as part of measure LU-16. Estimated costs of avigation easements \$3,000 per home.

Preventative Land Use Mitigation Recommendations & Cost

■ Two (2) new preventative land use mitigation measures are recommended

LU17: Improved Building Codes

- Update existing building codes to meet current sound insulation guidelines
- Reduces interior noise levels
- For new development or major remodeling

LU-18: Voluntary Fair Disclosure Program

- Property sales subjected to notification
- Probability of safety or aircraft noise impacts
- Formal measure would require recording of a notice at time of sale
- Informal measure could be mailings of disclosure notices within community

Type Of Measure	Direct Cost (Total)	Direct Cost To FAA (80% Share)	Direct Cost To Airport (20% Share)	Direct Cost To Local Government	Direct Cost To Users
		Mitigation Measur	es (Preventative)		
Adopt Improved Building Codes	\$25,000	\$20,000	\$5,000	Minimal	None
Develop A Voluntary Fair Disclosure Program	\$25,000		\$25,000	Minimal	None
Subtotal	\$50,000 Plus Administrative Costs	\$20,000 Plus Administrative Costs	\$30,000 Plus Administrative Costs	Minimal Administrative Costs; Plus Potential Loss Of Tax Base	None



Questions & Answers



Please raise hand to ask question



Previously Approved Program Management Measures & Cost

- Five (5) Measures are recommended for continuation
- One (1) Measure is recommended for continuation with modification
 - Measure OM-2 is recommended to be modified to develop a more formal noise complaint and response process.

	Measure		Description	Responsible Party	2003	Status	Curre	nt Status	2023 NCP Recommendation
			Ар	pproved Program	n Mana	gement Me	easures		
	OM-1	Monitoring compliance with recommended Noise Abatement Measures, contour updating (five-year cycle), and land use implementation assistance.		Greater Rockford Airport Authority (GRAA)	Approved		Implemented		Recommended to be continued
	OM-2		plaint response system uter database.	GRAA	App	proved	Partially I	mplemented	Recommended to be continued with modifications
	OM-3	staff period	w and evaluation. GRAA dically review the NCP and evisions and refinements, ary.	GRAA	Ap	pproved Impl		emented	Recommended to be continued
	OM-4	Establish a Awareness	Pilot/Community Program.	GRAA	Ap	proved Not Im		plemented	Recommended to be continued
	OM-5		of Instrument Departure of for Runways 1, 19, and	GRAA Approved		oroved	Not Im	plemented	Recommended to be continued
	OM-6		port information in the ilities Directory.	GRAA Approved		Implemented		Recommended to be continued	
	Type Of Meas	ure	Direct Cost (Total)	Direct Cost To F (80% Share)		(20%	st To Airport Share)	Direct Cost To Local Government	Direct Cost To Users
-	Continue Logging	g of Noise	Minimal Administrative Costs	Program Ma None	inagement		ministrative Costs	None	None
Init	Complaints iate Community F	S Roundtable or							
	oise Abatement C		Minimal Administrative Costs	None Perform Regular Updates	s to the NF		ministrative Costs	None	None
	Update		\$350,000 to \$400,000	\$280,000 to \$320			to \$80,000		
	NEM ONLY Or		, , , , , , , , , , , , , , , , , , ,	,, 	,	4.0,000		None	None
	Update		\$650,000 to \$750,000	\$520,000 to \$60	00,000	\$130,00	00 to \$150,000		
	NEM & NO Subtota		\$350,000 to \$750,000 plus	\$280,000 to \$600,			0 to \$150,000	None	None
	administrative costs administrative costs plus administrative costs Administrative co								



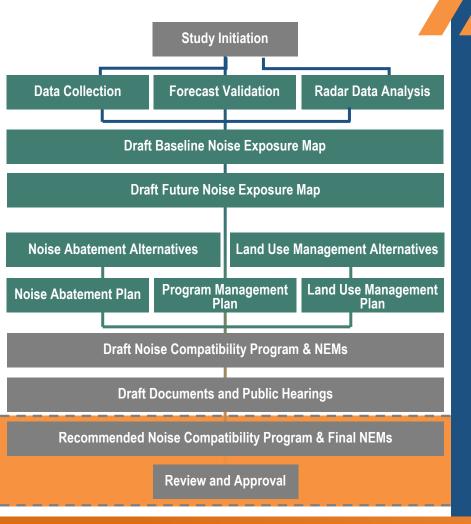
Questions & Answers



Please raise hand to ask question



Next Steps



- Gather Community Input on the Noise Abatement,
 Land Use Mitigation, Program Management Measures
 - Gather input from advisory committee
 - Gather input from public
 - Gather input from GRAA
 - Gather input from ATC / FAA
 - GRAA acceptance of NCP recommendations
- After comment period submit the official NEM's and NCP for review and approval by the FAA
- Coordination with FAA through review and approval process



How to make a public comment during the hearing

- All meeting attendees are muted
- Public Hearing Comments can be submitted through
 - : Attendee can type questions or comments
 - Raise Hand : Attendee can "Raise Hand", the attendee will be unmuted in order to verbally make public comment
 - Study Website: Public comments can also be submitted via the study website contact page: https://www.airportprojects.net/rfd-part150/contact/



How to make a public comment after the hearing



Written and oral public comments will be accepted during the public hearing immediately following this workshop.

Public comments on the Noise Compatibility Study Update and draft documentation will also be accepted until November 30th, 2023, at 6:00 p.m.

Comments can be submitted after the public hearing via the following methods:

- STUDY WEBSITE: https://www.airportprojects.net/rfd-part150/home/contact/
- EMAIL: jesse.baker@landrumbrown.com
- MAIL: Jesse Baker, Landrum & Brown, 4445 Lake Forest Drive, Suite 700, Cincinnati, OH 45242



PUBLIC HEARING





