





TECHNICAL ADVISORY COMMITTEE MEETING #3 March 23, 2022

WELCOME BACK!







MASTER PLAN PROCESS



Forecast Summary

	BASE		FORECAST	
	2020	2025	2030	2040
ENPLANEMENTS	51,350	302,637	348,882	464,044
OPERATIONS			10	"-
ltinerant				
Air Carrier	512	2,776	3,886	6,067
Air Taxi	9,166	16,442	17,500	20,600
General Aviation	22,792	24,600	24,900	28,400
Military	7,356	7,230	7,230	7,230
Subtotal	39,826	51,049	53,515	62,297
Local				
General Aviation	14,438	15,300	16,100	18,000
Military	3,356	3,356	3,356	3,356
Subtotal	17,794	18,656	19,456	21,356
Total Operations	57,620	69,705	72,971	83,653
TOTAL OPERATIONS PEAKING				
Annual Operations	57,620	69,705	72,971	83,653
Peak Month	5,896	7,133	7,467	8,560
Busy Day	277	336	350	402
Design Day	194	235	245	281
Design Hour	10	12	13	15
CIVILIAN BASED AIRCRAFT		200	10	
Single-Engine Piston	115	121	121	133
Multi-Engine (Piston/Turbine)	14	16	19	23
et	21	24	31	40
Helicopter	2	3	5	8
Total Civilian Based Aircraft	152	164	176	204

LINCOLNAIRPORT AIRPORT MASTER PLAN



	Runway 18-36 (existing/ultimate) AIP and PFC Eligible	Runway 18-36 (existing/ultimate) Planning Purposes (includes military)	Runway 14-32 (existing/ultimate)	Runway 17-35 (existing/ultimate)
Airport Reference Code (ARC)	C-III (existing) C-IV (ultimate)	D-IV	C-III	C/D-II
Critical Aircraft (Typ.)	CRJ 900/EMB 170 (existing) A320/B737/B767- 300F (ultimate)	T-38 KC-135	CRJ 900 EMB 170	Gulfstream G280 Gulfstream G450
Runway Design Code (RDC)	C-III-2400 (existing) C-IV-2400 (ultimate)	D-IV-2400	C-III-5000	C/D-II-4000
Taxiway Design Group (TDG)	TDG 2 (existing) TDG 5 (ultimate)	TDG 4	TDG 2 (existing) TDG 5 (ultimate)	TDG 2
Approach Reference Code (APRC)	D/VI/2400	D/VI/2400	D/IV/5000 & D/V/5000	B/III/4000 & D/II/4000
Departure Reference Code (DPRC)	D/VI	D/VI	D/IV & D/V	B/III & D/II

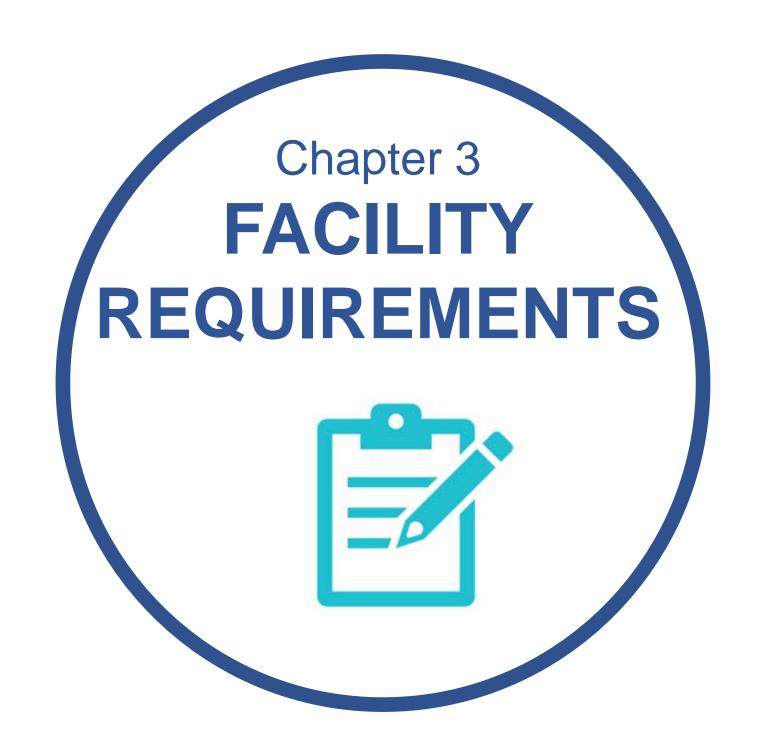








Exhibit 3A-1:

Airfield Capacity Factors





AIRFIELD LAYOUT



Number of Exits



WEATHER CONDITIONS

VMC (VFR) **Visual Meteorological Conditions**



IMC (IFR) **Instrument Meteorological Conditions**



PVC Poor Visibility Conditions



LINCOLNAIRPORT AIRPORT MASTER PLAN



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Dluilog Fdsdflw Idfwruv

AIRCRAFT MIX

Category A & B Aircraft



Category C Aircraft



Category D Aircraft



OPERATIONS

Arrivals



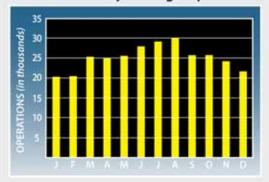
Departures



Touch-and-Go Operations

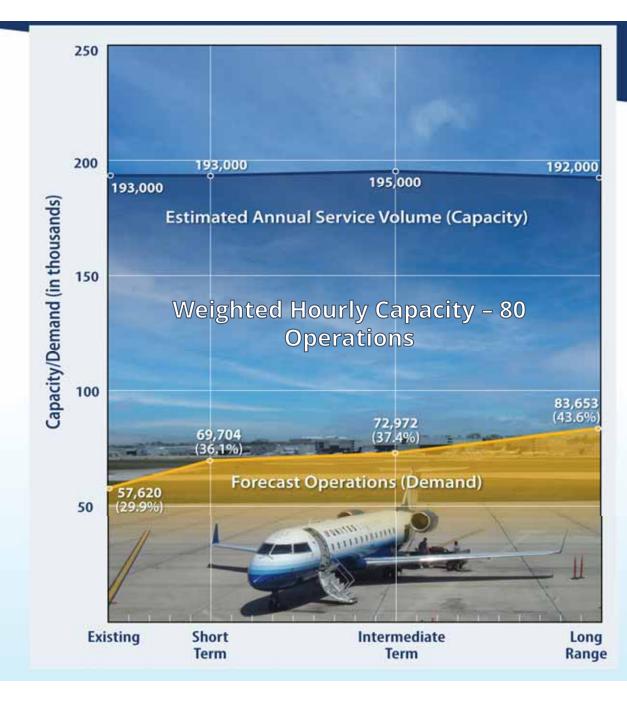


2015-19 Monthly Average Operations



LINCOLNAIRPORT AIRPORT MASTER PLAN

Exhibit 3B: Demand/Capacity Analysis







Runway Designations



2004 - Designations changed from 17R-35L/17L-35R 18-36/17-35

Current Magnetic Heading – 177¶357¶

FAA AC 150/5340-1M, Standards for Airport Markings "Parallel runways separated by a large distance, as by a central terminal..., it is preferrable to designate the runways as non-parallel runways to avoid pilot confusion."

LINCOLNAIRPORT

AIRPORT MASTER PLAN



Exhibit 3C: Windroses

ALL V	VEATHER	R WIND O	COVERAG	SE.
unways	10.5 Knots	13 Knots	16 Knots	20 Knots
unway 18-36/17-35	92.71%	96.33%	98.80%	99,70%
onway 14-32	89.43%	94.70%	98.36%	99.65%
II Runways	97.07%	98.70%	99,63%	99,93%
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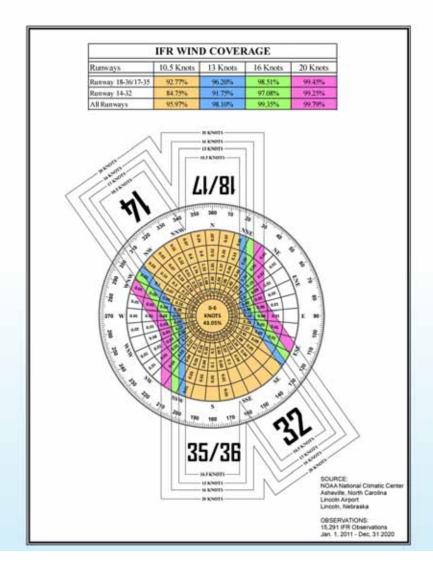






Exhibit 3C: Windroses

ALL WEATHER WIND COVERAGE						
Runways	10.5 Knots	13 Knots	16 Knots	20 Knots		
Runway 18-36/17-35	92.71%	96.33%	98.80%	99.70%		
Runway 14-32	89.43%	94.70%	98.36%	99.65%		
All Runways	97.07%	98.70%	99.63%	99,93%		

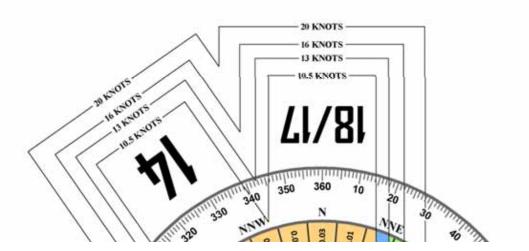






Exhibit 3C: Windroses

IFR WIND COVERAGE						
Runways	10.5 Knots	13 Knots	16 Knots	20 Knots		
Runway 18-36/17-35	92.77%	96.20%	98.51%	99.45%		
Runway 14-32	84.75%	91.75%	97.08%	99.25%		
All Runways	95.97%	98.10%	99.35%	99.79%		

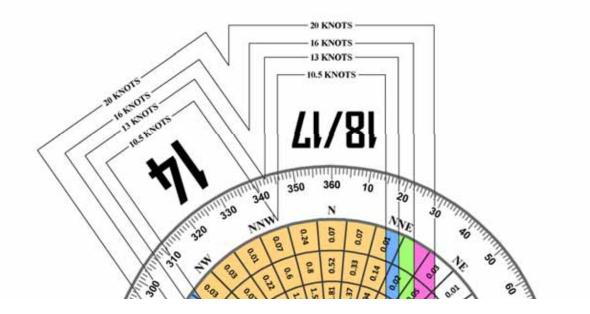
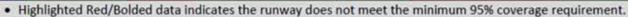




TABLE 3F | Monthly Crosswind Coverage

			ALL-WEAT	HER (KNOT	5)	IFR (KNOTS)			
		10.5	13	16	20	10.5	13	16	20
	January	93.27%	96.96%	99.13%	99.86%	95.95%	98.63%	99.75%	99.99%
	February	93.29%	96.84%	98.94%	99.64%	93.55%	96.73%	98.72%	99.62%
	March	89.68%	94.21%	97.68%	99.29%	89.57%	94.40%	97.61%	98.81%
17-35	April	86.72%	93.11%	97.68%	99.32%	88.62%	94.72%	98.21%	99.34%
	May	89.35%	94.52%	98.36%	99.63%	89.39%	94.24%	97.92%	99.25%
18-36	June	92.36%	95.88%	98.32%	99.41%	83.27%	88.20%	92.60%	97.03%
18	July	96.18%	98.18%	99.51%	99.81%	90.63%	93.62%	96.74%	98.11%
Runway	August	95.79%	98.09%	99.50%	99.84%	93.63%	95.32%	97.74%	98.57%
É	September	96.32%	98.47%	99.65%	99.95%	94.84%	97.50%	99.45%	99.96%
~	October	92.99%	96.41%	98.59%	99.68%	98.48%	99.65%	99.91%	99.98%
	November	93.81%	96.90%	99.03%	99.81%	94.96%	97.93%	99.42%	99.96%
	December	92.62%	95.93%	98.44%	99.56%	93.00%	96.25%	98.73%	99.50%
	January	92.21%	96.37%	99.19%	99.88%	89.91%	95.26%	98.88%	99.95%
	February	86.53%	92.86%	97.54%	99.45%	78.38%	87.83%	94.79%	98.58%
	March	84.89%	91.63%	96.91%	99.03%	82.67%	90.89%	97.68%	99.63%
~	April	83.16%	90.56%	96.24%	98.90%	71.16%	82.85%	92.70%	97.79%
1-3	May	86.69%	92.92%	97.76%	99.52%	81.79%	89.93%	97.31%	99.32%
17	June	90.17%	95.26%	98.24%	99.56%	84.27%	89.78%	94.89%	98.14%
wa	July	92.43%	96.52%	99.33%	99.80%	90.37%	94.45%	98.03%	98.93%
Runway 14-32	August	94.08%	97.39%	99.30%	99.76%	92.56%	94.98%	96.91%	98.45%
-	September	89.76%	95.22%	98.47%	99.65%	90.97%	95.80%	98.51%	99.41%
	October	91.37%	95.82%	98.74%	99.80%	94.88%	97.81%	99.65%	100.00%
	November	89.29%	94.71%	98.32%	99.69%	86.25%	92.86%	97.58%	99.52%
	December	91.28%	95.79%	98.72%	99.69%	86.07%	92.51%	97.08%	98.95%



[·] All-weather observations: 122,259

• IFR observations: 15,291

Source: NOAA National Climatic Center, Lincoln Airport for the period January 1, 2011, through December 31, 2022.





LINCOLNAIRPORT MASTER PLAN



Exhibit 3D: Runway 18-36 Grade Conditions





Legend

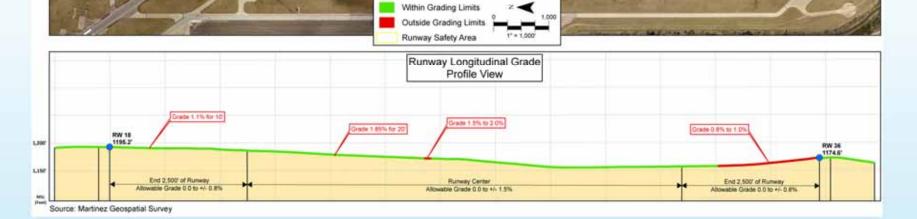
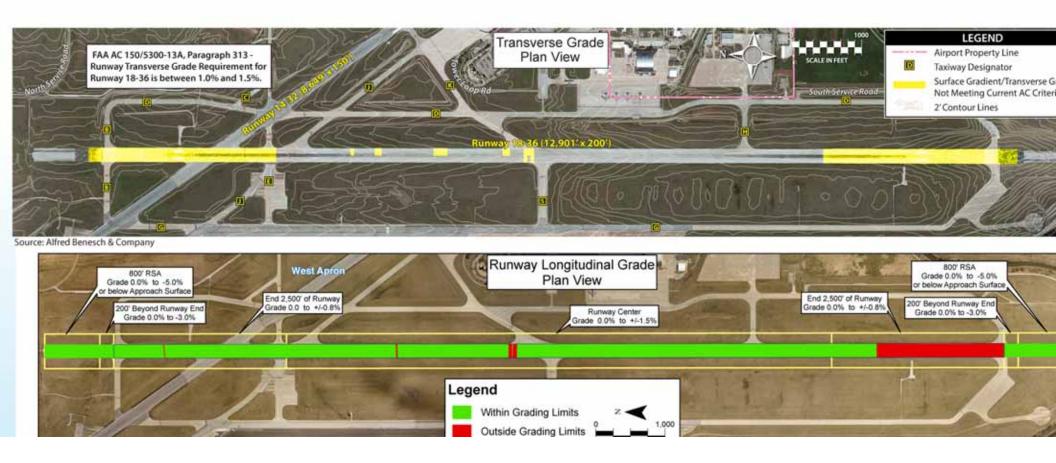






Exhibit 3D: Runway 18-36 Grade Conditions



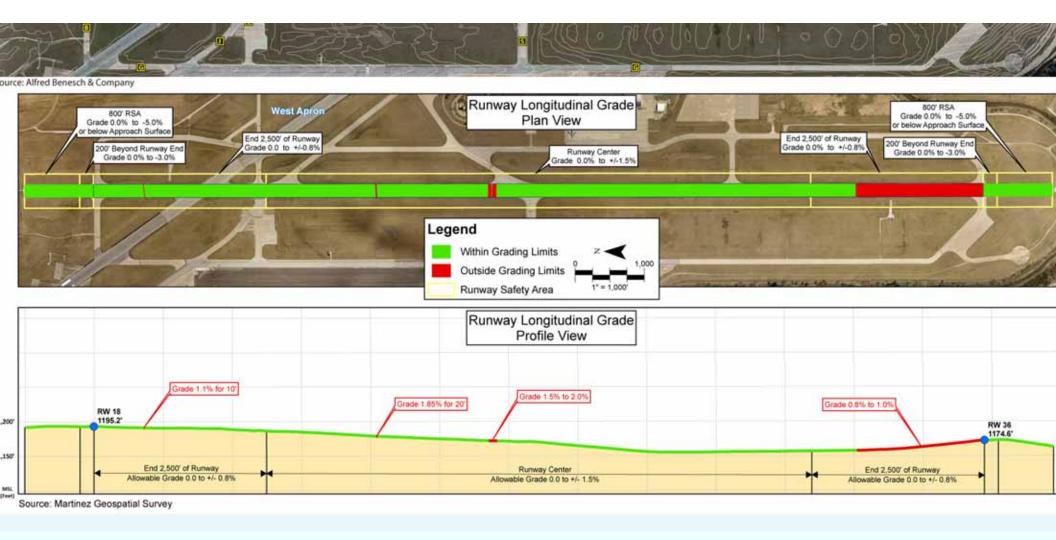






Exhibit 3E: Runway 17-35 Longitudinal Grade Conditions

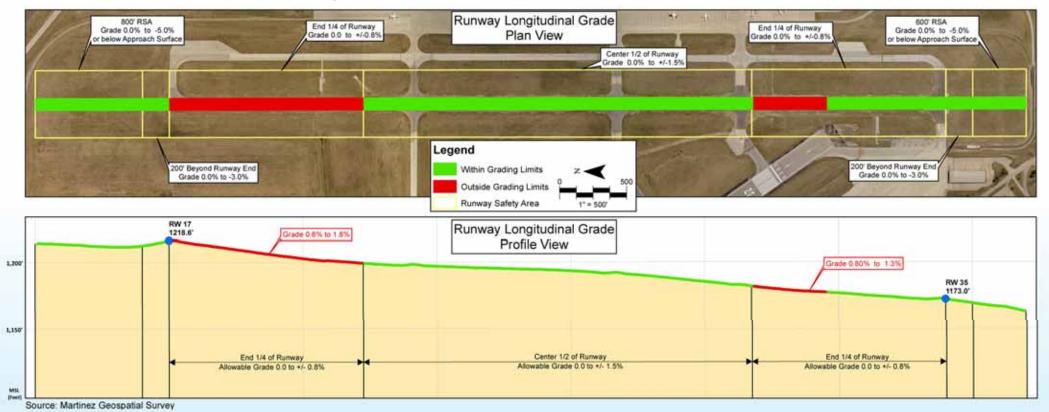
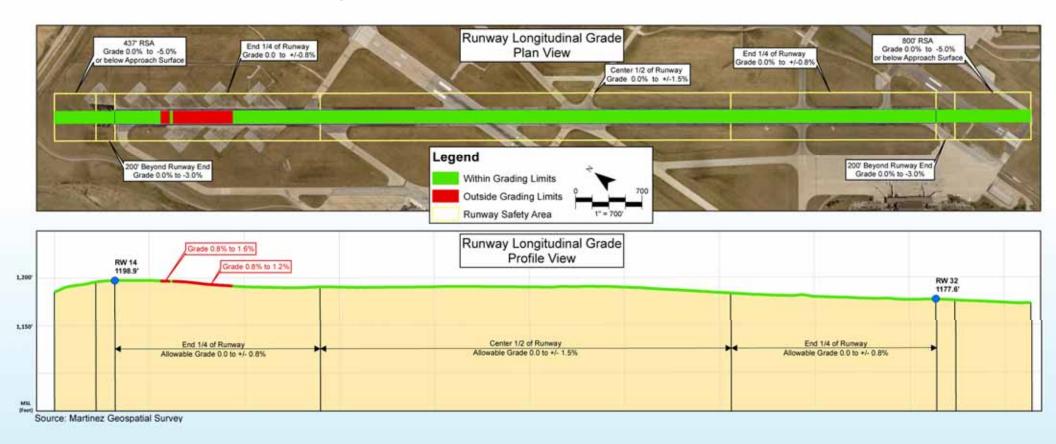
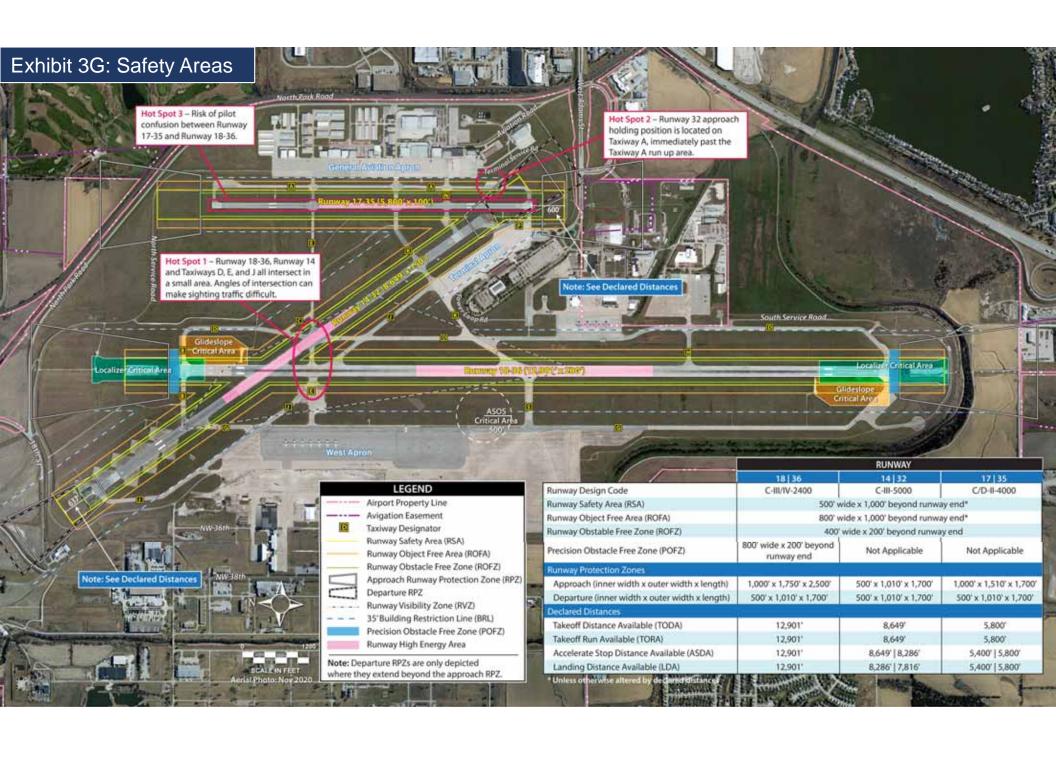


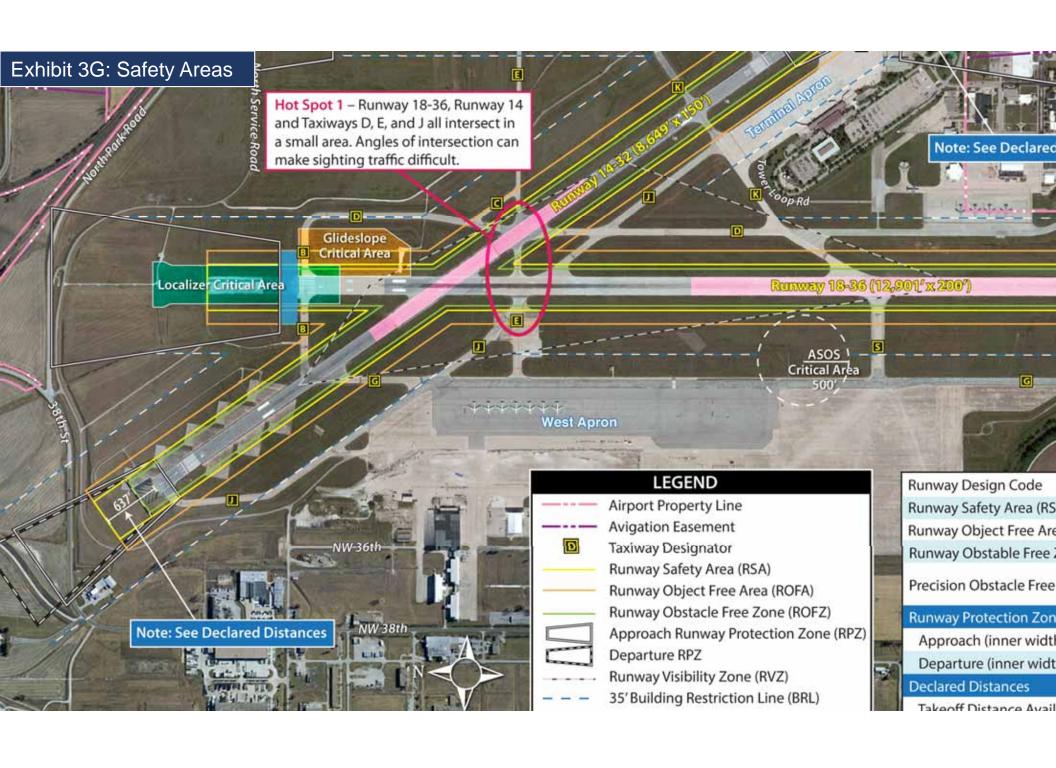


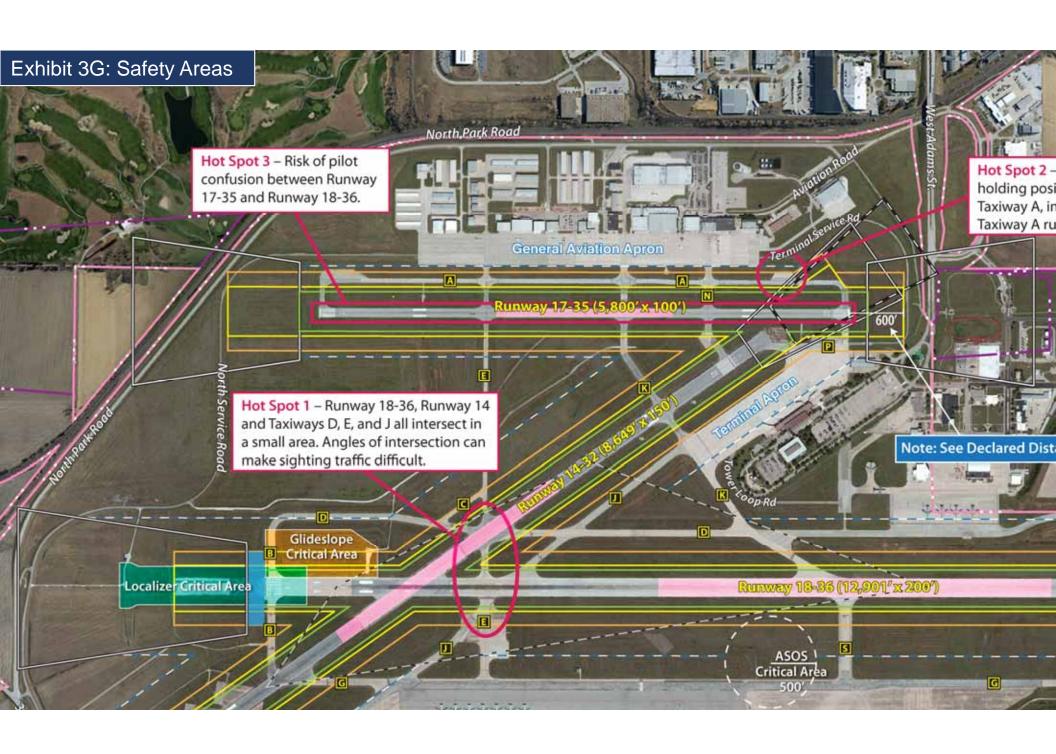


Exhibit 3E: Runway 14-32 Longitudinal Grade Conditions









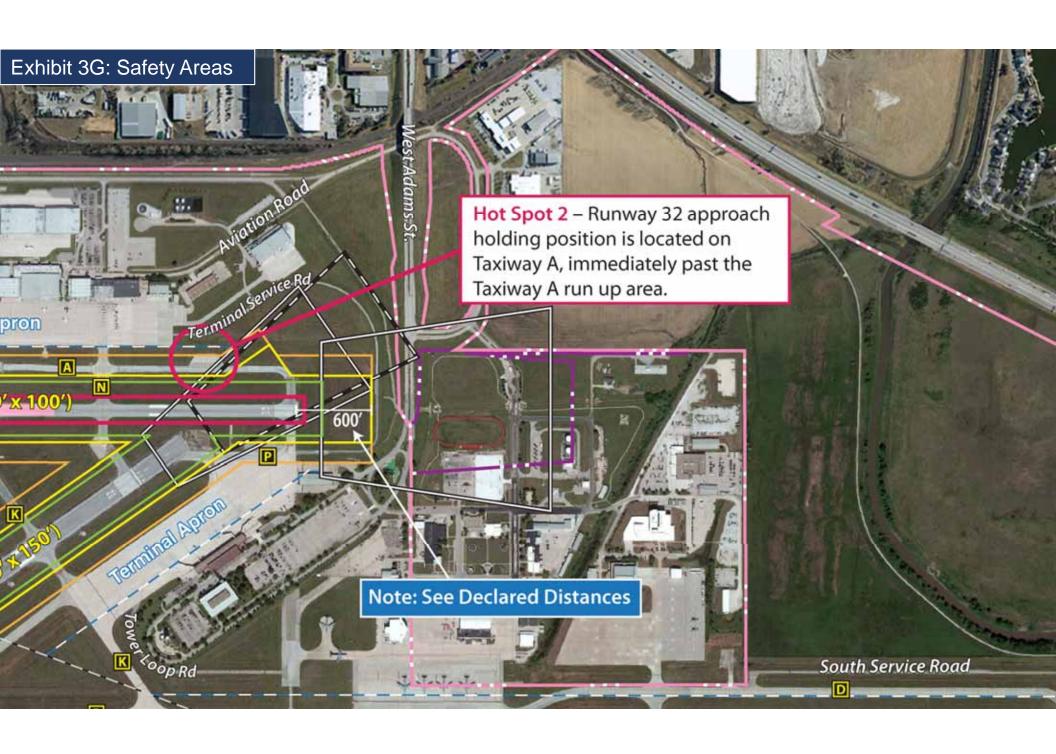






Figure 3B: Runway 35/Taxiway A Changes





LINCOLNAIRPORT MASTER PLAN



Exhibit 3H: RSA Grading







Source: Martinez Geospatial Survey

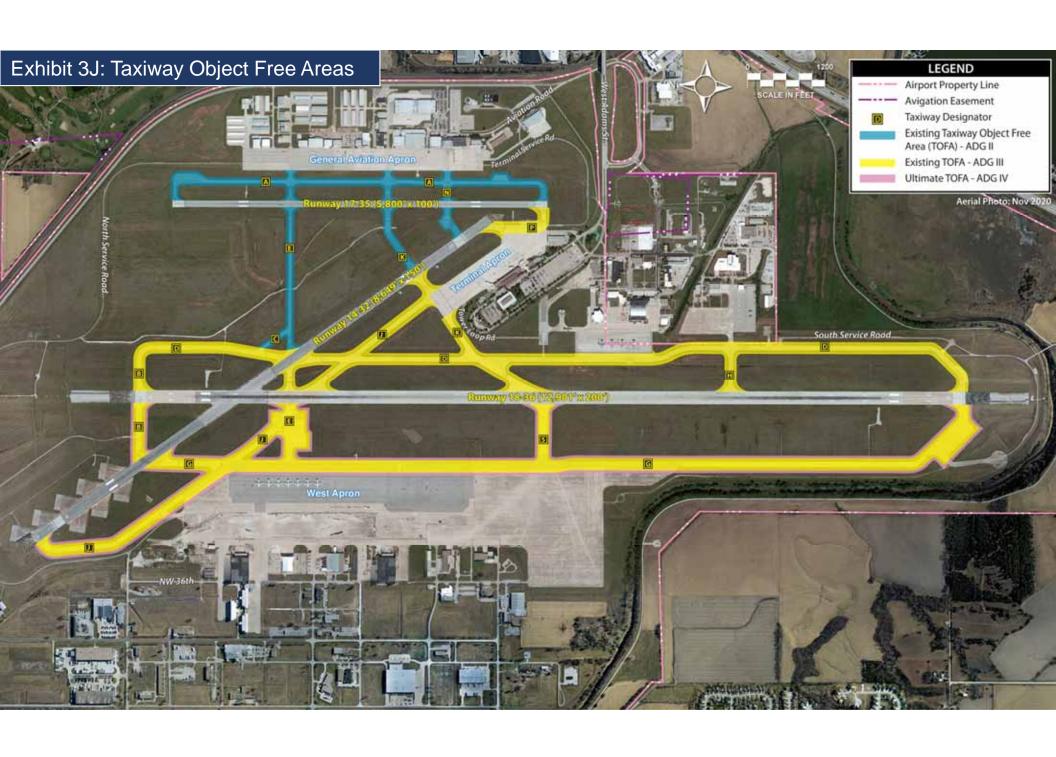




Exhibit 3K: Airside Facility Requirements Summary

ASOS: automated surface observation station
ATCT: airport traffic control tower
D: dual-wheel type landing gear type
HIRL: high intensity runway edge lighting
MALSR: MALS with runway alignment indicator lights
MIRL: medium intensity runway edge lighting
PAPI: precision approach path indicator

POFZ: precision object free zone

RDC: runway design code
REIL: runway end identification lighting
ROFA: runway object free area
ROFZ: runway obstacle free zone
RPZ: runway protection zone
RSA: runway safety area
S: single-wheel landing gear type

EXISTING CONDITION	SHORT-TERM	LONG-TERM
RDC C-III-2400	RDC C-III/IV-2400	RDC C-III/IV-2400
12,901' x 200'	Maintain 7,900' x 150' at minimum	Same
No paved shoulders	Convert 25' of existing runway width on both sides to shoulders	Maintain
100,000 (5); 200,000 (D); 400,000 (DT)	Maintain	Maintain
Standard RSA; ROFA; ROFZ; POFZ	Maintain	Maintain
RPZs: Entirely owned/controlled	Maintain	Maintain
RDC C-III-5000	RDC C-III-5000	RDC C-III-5000
8,649' x 150'	Maintain	Maintain
80,000 (S); 170,000 (D); 280,000 (DT)	Maintain	Maintain
RSA/ROFA reduced on 14 end; RSA overlaps 17-35 RSA; standard ROFZ	Consider options to eliminate RSA overlap	Maintain
RPZs: 32 departure 0.32 acres uncontrolled	Maintain if no runway changes made	Maintain if no runway changes mad
RDC D-II-4000	RDC D-II-4000	RDC D-II-4000
5,800' x 100'	Maintain	Maintain
45,000 (S); 59,000 (D)	Maintain	Strengthen to 73,900 (D)
RSA/ROFA reduced on 35 end: RSA overlaps	100000000	
14-32 RSA; modification to standards for perimeter road in ROFA; standard ROFZ	Consider options to eliminate RSA overlap	Maintain
RPZs: 15.75 acres uncontrolled including a	Expand avigation easements	\$21(121)L
NANG building in the Runway 3S approach RPZ	to uncontrolled areas	Maintain
	TAXIWAYS	
All taxiways at least 50' wide; Meets TDG 3/4 Standards	Maintain	Meet TDG 5 standards (Boeing 767-300F)
No Paved Shoulders	Maintain	Add 30' shoulders
Taxiway Hot Spots 1-3	Consider corrective measures	Maintain corrected condition
Direct-access points	Consider corrective measures	Maintain corrected condition
Large expanses of pavement	Consider corrective measures	Maintain corrected condition
Occasional Runway 35/Taxiway A wrong surface landings	Consider mitigation measures	Maintain corrected condition
	NAVIGATIONAL AND APPROACH AIDS	
14 Published Instrument Approach	Consider 3/4-mile	Maintain
Procedures (ILS/RNAV/VOR/DME)	minimums to Runway 14-32	Maritain
ASOS	Maintain	Maintain
ATCT	Maintain	Maintain
PAPI-4s (18, 36, 14, 17, 35); VASI-4 (32)	Consider PAPI-4 for Runway 32	Maintain
MALSR (18, 36); ODALS (35)	Maintain	Maintain
REILs (14, 17)	Consider REILs for Runway 32	Maintain
Lighted Windcones	Add supplemental windcone to Runway 35	Maintain
	LIGHTING, MARKING, AND SIGNAGE	
Rotating Beacon	Maintain	Maintain
Precision Markings (18-36)	Maintain	Maintain
Non-Precision Markings (14-32, 17-35)	Maintain	Maintain
HIRL (18-36)	Maintain	Consider gradual replacement with LED technology
MIRL (14-32, 17-35)	Maintain	Consider gradual replacement with LED technology
Holding Position Markings - 300'+ from 18-36 centerline (263' standard)	Maintain	Maintain
Holding Position Markings - 263'+ from 14-32 centerline (263' standard)	Maintain	Maintain
Holding Position Markings - 250' from 17-35 centerline (250' standard)	Maintain	Maintain
Lighted airfield location, directional, and	Maintain	Consider gradual replacement with LED technology

LINCOLNAIRPORT AIRPORT MASTER PLAN



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	EXISTING CONDITION	SHORT-TERM	LONG-TERM
,0	RDC C-III-2400	RDC C-III/IV-2400	RDC C-III/IV-2400
18-36	12,901' x 200'	Maintain 7,900' x 150' at minimum	Same
	No paved shoulders	Convert 25' of existing runway width on both sides to shoulders	Maintain
\geq	100,000 (S); 200,000 (D); 400,000 (DT)	Maintain	Maintain
RUNWAY	Standard RSA; ROFA; ROFZ; POFZ	Maintain	Maintain
	RPZs: Entirely owned/controlled	Maintain	Maintain
32	RDC C-III-5000	RDC C-III-5000	RDC C-III-5000
4	8,649' x 150'	Maintain	Maintain
7	80,000 (S); 170,000 (D); 280,000 (DT)	Maintain	Maintain
RUNWAY	RSA/ROFA reduced on 14 end; RSA overlaps 17-35 RSA; standard ROFZ	Consider options to eliminate RSA overlap	Maintain
쮼	RPZs: 32 departure 0.32 acres uncontrolled	Maintain if no runway changes made	Maintain if no runway changes made
	RDC D-II-4000	RDC D-II-4000	RDC D-II-4000
-35	5,800' x 100'	Maintain	Maintain
7	45,000 (S); 59,000 (D)	Maintain	Strengthen to 73,900 (D)
RUNWAY 1	RSA/ROFA reduced on 35 end; RSA overlaps 14-32 RSA; modification to standards for perimeter road in ROFA; standard ROFZ	Consider options to eliminate RSA overlap	Maintain
쮼	RPZs: 15.75 acres uncontrolled including a NANG building in the Runway 35 approach RPZ	Expand avigation easements to uncontrolled areas	Maintain
		TAXIWAYS	
	All taxiways at least 50' wide; Meets TDG 3/4 Standards	Maintain	Meet TDG 5 standards (Boeing 767-300F)
	No Paved Shoulders	Maintain	Add 30' shoulders
		2 174	7.2 (2.12)

nnc n II 4000	PDC D II 4000	BBC D II 4000						
RDC D-II-4000	RDC D-II-4000	RDC D-II-4000						
5,800' x 100'	Maintain	Maintain						
45,000 (S); 59,000 (D)	Maintain	Strengthen to 73,900 (D)						
RSA/ROFA reduced on 35 end; RSA overlaps 14-32 RSA; modification to standards for perimeter road in ROFA; standard ROFZ RPZs: 15.75 acres upcontrolled including a	Consider options to eliminate RSA overlap	Maintain						
RPZs: 15.75 acres uncontrolled including a NANG building in the Runway 35 approach RPZ	Expand avigation easements to uncontrolled areas	Maintain						
	TAXIWAYS							
All taxiways at least 50' wide; Meets TDG 3/4 Standards	Maintain	Meet TDG 5 standards (Boeing 767-300F)						
No Paved Shoulders	Maintain	Add 30' shoulders						
Taxiway Hot Spots 1-3	Consider corrective measures	Maintain corrected condition						
Direct-access points	Consider corrective measures	Maintain corrected condition						
Large expanses of pavement	Consider corrective measures	Maintain corrected condition						
Occasional Runway 35/Taxiway A wrong surface landings	Consider mitigation measures	Maintain corrected condition						
	NAVIGATIONAL AND APPROACH AIDS							
14 Published Instrument Approach Procedures (ILS/RNAV/VOR/DME)	Consider 3/4-mile minimums to Runway 14-32	Maintain						
ASOS	Maintain	Maintain						
ATCT	Maintain	Maintain						
PAPI-4s (18, 36, 14, 17, 35); VASI-4 (32)	Consider PAPI-4 for Runway 32	Maintain						
MALSR (18, 36); ODALS (35)	Maintain	Maintain						
REILs (14, 17)	Consider REILs for Runway 32	Maintain						
Lighted Windcones	Add supplemental windcone to Runway 35	Maintain						
LIGHTING, MARKING, AND SIGNAGE								
Rotating Beacon	Maintain	Maintain						
Precision Markings (18-36)	Maintain	Maintain						
Non-Precision Markings (14-32, 17-35)	Maintain	Maintain						
HIRL (18-36)	Maintain	Consider gradual replacemen with LED technology						

	wrong surface landings	consider magadon measures	manitani corrected condition				
	_	NAVIGATIONAL AND APPROACH AIDS					
R	14 Published Instrument Approach Procedures (ILS/RNAV/VOR/DME)	Consider 3/4-mile minimums to Runway 14-32	Maintain				
	ASOS	Maintain	Maintain				
	ATCT	Maintain	Maintain				
	PAPI-4s (18, 36, 14, 17, 35); VASI-4 (32)	Consider PAPI-4 for Runway 32	Maintain				
	MALSR (18, 36); ODALS (35)	Maintain	Maintain				
	REILs (14, 17)	Consider REILs for Runway 32	Maintain				
	Lighted Windcones	Add supplemental windcone to Runway 35	Maintain				
	LIGHTING, MARKING, AND SIGNAGE						
	Rotating Beacon	Maintain	Maintain				
	Precision Markings (18-36)	Maintain	Maintain				
	Non-Precision Markings (14-32, 17-35)	Maintain	Maintain				
	HIRL (18-36)	Maintain	Consider gradual replacement with LED technology				
	MIRL (14-32, 17-35)	Maintain	Consider gradual replacement with LED technology				
	Holding Position Markings - 300'+ from 18-36 centerline (263' standard)	Maintain	Maintain				
	Holding Position Markings - 263'+ from 14-32 centerline (263' standard)	Maintain	Maintain				
	Holding Position Markings - 250' from 17-35 centerline (250' standard)	Maintain	Maintain				
	Lighted airfield location, directional, and distance remaining signage	Maintain	Consider gradual replacement with LED technology				

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Table 3Z: Summary of Terminal Facility Requirements (sf)

Functional Area	2019		FORECAST			
Functional Area	Existing	Recommended	2025	2030	2035	2040
PUBLIC SPACE						2.1
Circulation ¹	22,011	15,520	21,250	24,020	28,960	29,290
Ticket Lobby Queue	3,963	2,130	2,490	2,840	3,910	3,910
TSA Passenger Security Screening ²	8,518	5,900	8,090	8,090	8,090	8,090
Passenger Gate Holdrooms	8,570	5,850	8,320	9,710	14,140	14,140
Baggage Claim ³	4,070	2,610	5,020	5,120	7,420	7,470
Restrooms (pre/post security)4	4,660	5,270	6,720	7,570	9,100	9,310
Other/Misc. Tenants ⁵	975	970	970	970	970	970
Subtotal	52,767	38,460	53,210	58,680	73,030	73,620
AIRLINE SPACE			20		ass -	
Ticketing ⁶	3,485	2,940	3,430	3,920	5,390	5,390
TSA Checked Baggage Screening	1,750	880	1,750	1,750	1,750	1,750
Outbound Baggage Make-Up ⁷	7,800	5,850	6,830	7,800	10,730	10,730
Inbound Bag Claim Laydown ⁷	5,500	1,100	2,200	2,200	3,300	3,300
Baggage Service Offices (BSO)	360	360	530	630	680	740
Flyer's Club	964	960	960	960	960	960
Subtotal	19,859	12,090	15,700	17,260	22,810	22,870
CONCESSIONS SPACE		,				
Landside/Storage ⁸	1,303	1,460	1,640	1,700	1,770	1,850
Airside/Storage ⁹	2,643	1,930	3,540	4,080	4,710	5,430
Subtotal	3,946	3,390	5,180	5,780	6,480	7,280
NON-PUBLIC SPACE						
Non-Airline Tenant Space	1,556	1,550	1,550	1,550	1,550	1,550
Airport Administration	10,212	10,210	10,210	10,210	10,210	10,210
Restrooms/Circulation	2,987	2,160	2,490	2,610	3,070	3,080
Airport Ops ¹⁰	2,976	1,360	1,800	1,920	2,340	2,370
Building Operations/Systems ¹¹	10,507	8,450	11,480	12,600	15,230	15,720
Subtotal	28,238	22,890	27,530	28,890	32,400	32,930
Total Gross Area (SF)	104,810	77,670	101,620	110,610	134,720	136,700

Table 3AA:
Terminal Program
Trigger Point
Summary

	2019			FORECAST			
Trigger Point Area	Existing	Recommended	Capacity Threshold	2025	2030	2035	2040
SENERAL		70	She 25		11		10.5
Annual Enplanements	<u> </u>	164,998		302,637	348,882	402,194	464,044
Aircraft Gates/PBB	6	6		6	7	8	8
Aircraft Positions	7	7		7	8	9	9
PUBLIC SPACE		10	30-				All
Circulation	22,011	15,730	0		8	8	8
Ticket Lobby Queue	3,963	2,130	0	0	0	A-	Δ
TSA Passenger Security Screening	8,518	5,900	0	A	A	A	A
Passenger Gate Holdrooms	8,570	5,850	0	Δ	0	0	0
Baggage Claim	4,070	2,610	0	8	8	8	8
Restrooms (pre/post security) ¹	4,660	5,270	A	8	8	8	8
Other/Misc. Tenants	975	970	0	0	0	0	0
AIRLINE SPACE							
Ticketing	3,485	2,940	0	A	8	8	8
TSA Checked Baggage Screening	1,750	880	0	A		A	A
Outbound Baggage Makeup	7,800	5,850	0	A	A	8	8
Inbound Bag Claim Laydown	5,500	1,100	0	0	0	0	0
Baggage Service Offices (BSO)	360	360	_	8	8	8	0
Flyer's Club	964	960	A	A		$-\Delta$	A
CONCESSIONS							
Landside/Storage	1,303	1,460	8	8	8	8	8
Airside/Storage	2,643	1,930	0	8	0	0	8
NON-PUBLIC SPACE							
Non-Airline Tenant Space	1,556	1,550		A			A
Airport Administration	10,212	10,210	0	0	0	0	0
Restrooms/Circulation	2,987	2,160	0	0	Δ	0	8
Airport Operations	2,976	1,360	0	0	0	0	0
Building Operations/Systems	10,507	7,610	0	8	8	0	8
OTAL GROSS (sq ft)	104,810	76,830	Ø	Δ	(3)	8	8



Table 3AB: Vehicle Parking Requirements

	Current Capacity	Current Need	Short- Term	Intermediate- Term	Long- Term
PARKING REQUIREMENTS (SPACES)	Capacity	Need	Term	Term	term
Parking Garage	336				
Surface Parking (North and South Lots)	701				
Total Public Parking Spaces	1,037	148-231	272-424	314-488	418-650
Employee	66	41-66	76-121	87-140	116-186
Rental Car Ready/Return	225	82-99	151-182	174-209	232-278
Cell Phone Lot	37	23-31	35-46	41-55	48-64
Red numbers indicate forecasted requirement	exceeds existing of	apacity.			







Table 3AC: Air Cargo Requirements

Cargo Element	Low-Range Scenario	High-Range Scenario					
Total Cargo Forecast (in tons)	19,250	35,250					
CARGO BUILDING REQUIREMENTS							
Air Cargo Building (s.f.)	19,250-48,125	35,250-88,125					
Truck Dock Positions	10-24	18-44					
Truck Staging/Parking (s.f.)	19,250-48,125	35,250-88,125					
CARGO APRON REQUIREMENTS							
Total Positions	2 (Boeing 737-800)	2 (Boeing 767-300F)					
Total Apron Space (s.f.)	61,200	144,000					
Ground Support Equipment Space (s.f.)	4,813-12,031	8,813-22,031					

LINCOLNAIRPORT AIRPORT MASTER PLAN











AIRPORT MASTER PLAN

Tables 3AD, 3AE, 3AF:

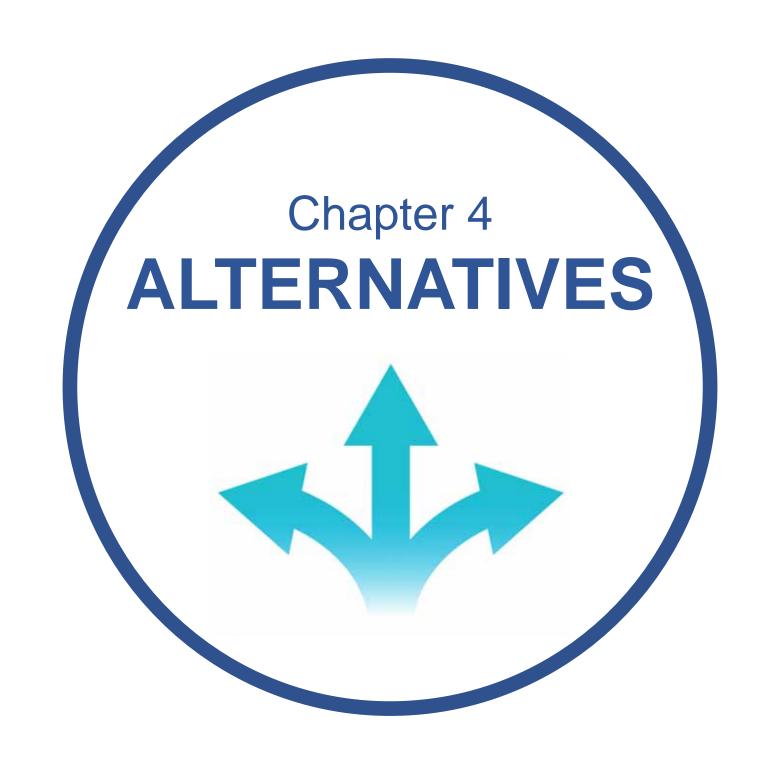
General Aviation Requirements



	Available	Short Term	Intermediate Term	Long Term
Peak Hour Itinerant GA Operations		27	27	31
Passenger Multiplier		2.0	2.2	2.5
Peak Hour Passengers		54	60	78
General Aviation Services Facility Area (s.f.)	10,000+	6,800	7,500	9,800
Total General Aviation Parking Spaces	200+	165	180	222

	Available	Short Term	Intermediate Term	Long Term
Total Based Aircraft	152	164	176	204
HANGAR AREA REQUIREMENTS	**************************************			
T-Hangar Hangar Area (s.f.)	238,275	238,275	238,275	238,275
Executive Hangar Area (s.f.)	64,957	76,200	99,700	130,500
Conventional Hangar Area (s.f.)	741,943	753,200	776,700	807,500
Total	1,045,175	1,067,675	1,114,675	1,176,275

	Available	Short Term	Intermediate Term	Long Term
Transient Single- and Multi-Engine Aircraft Positions		59	60	69
Transient Jet Positions		18	18	21
Locally Based Aircraft Positions		51	55	65
Total Marked Positions		128	133	155
Total Apron Area (s.y.)	149,000	136,900	142,800	166,100







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ALTERNATIVES







Non-Development Alternatives

No-Build/Do-Nothing:

- No new capital investments at the airport/limited maintenance.
- Bound by grant assurances received \$40+ million in development grants since 2002.
- Results in diminished capability to accommodate existing and future users. Negatively impacts economy.

Relocate Airport:

- Abandon existing airport and build new facility.
- Requires: Feasibility/site selection study, master plan, environmental impact statement (EIS).
- Cost \$1.09+ billion.

Transfer Service:

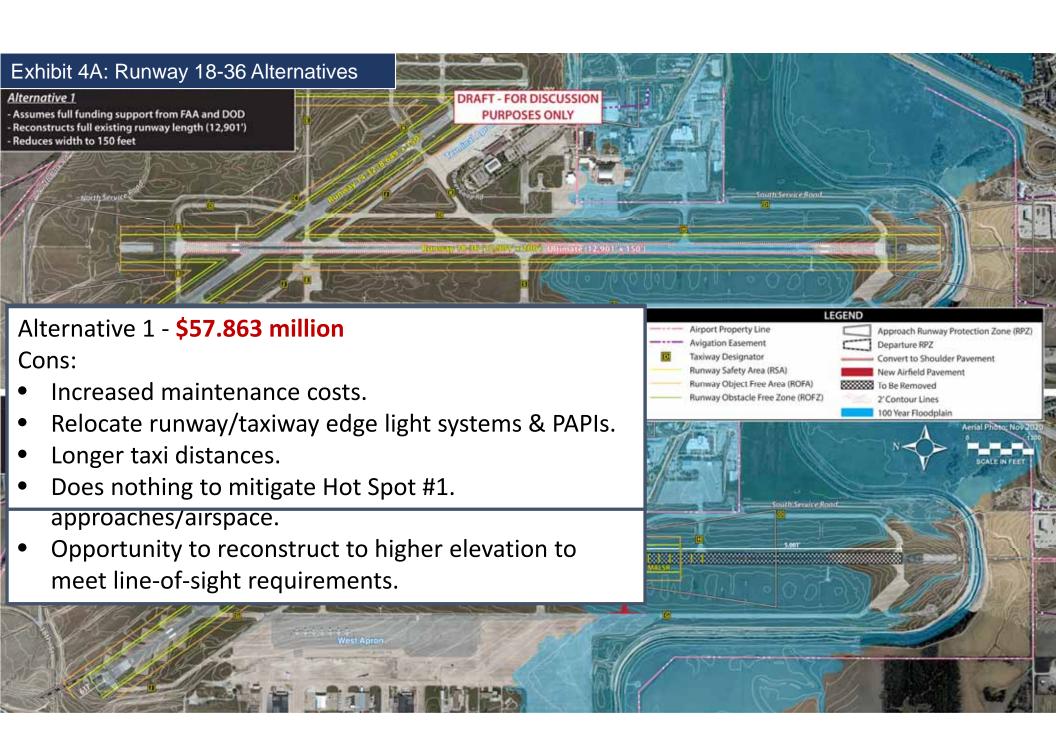
- Move services to another nearby airport.
- 5 public-use airports within 30nm of LNK. All GA airports unable to accommodate LNK-level activities.
- OMA only commercial option, located 48nm from LNK service area.
 Limited terminal capacity to accept transfer. NEANG/Duncan homeless.

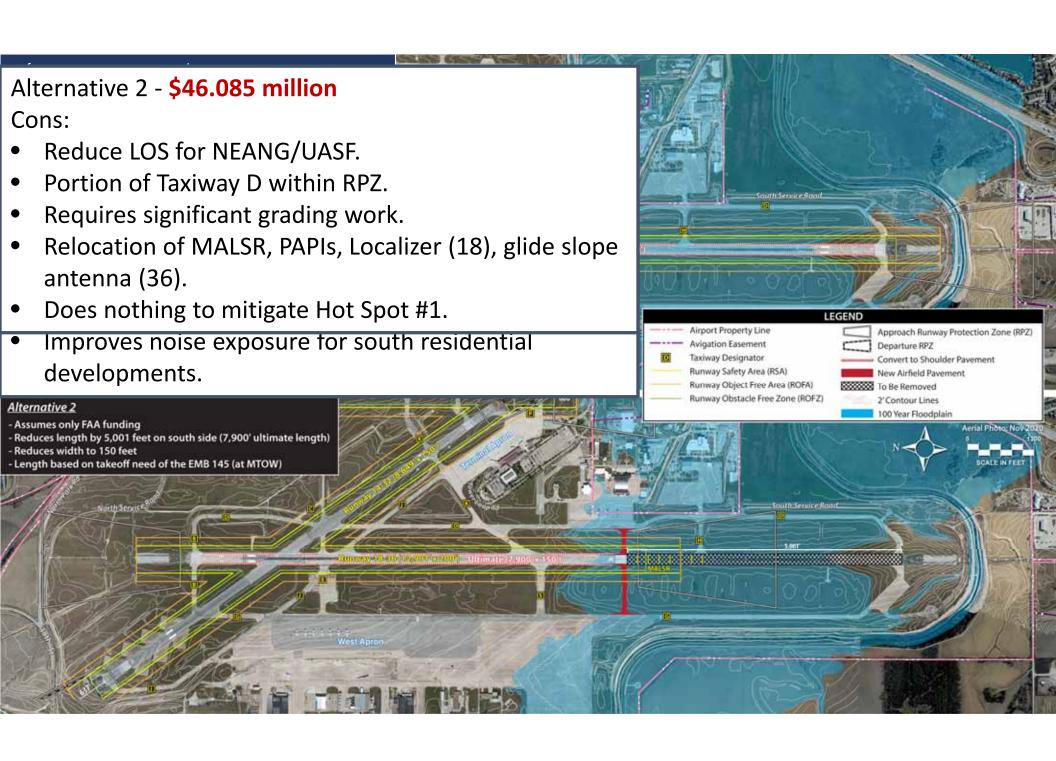
Airfield Considerations

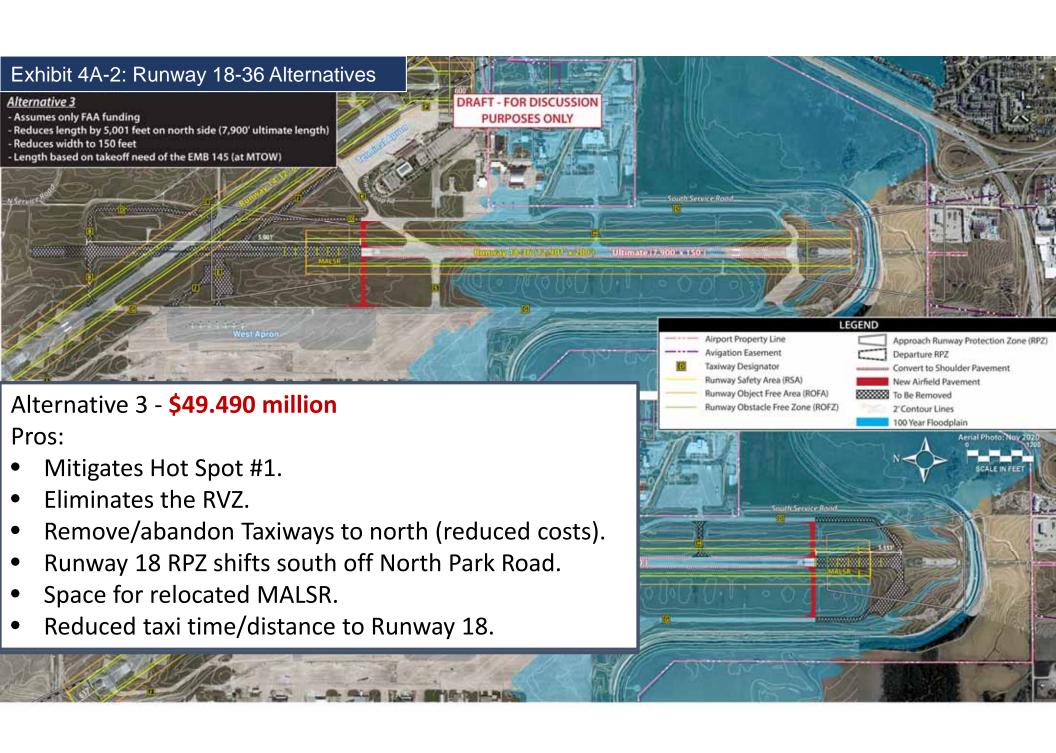
#	Non-Standard/Deficient Condition	Applicable Design Standard	Proposed Action(s) to be Evaluated
1	Runway 18-36, at 12,901 feet long, exceeds the AIP-eligible critical design aircraft length of 7,900 feet and needs major rehabilitation.	FAA AC 150/5325-4B, Runway Length Requirements for Airfield Design, Paragraph 102.	Maintain existing length or reduce length to 7,900 feet to accommodate the Embraer ERJ-145.
2	Runway 18-36 at 200 feet wide, exceeds the AIP-eligible critical design aircraft width of 150 feet and needs major rehabilitation.	FAA AC 150/5300-13A, Change 1, Airport Design, Paragraph 304.b.	Reduce width to 150 feet and convert outer 25 feet of existing pavement to shoulders. Relocate runway edge lighting accordingly.
3	Runway visibility zone (RVZ) line-of-sight is obstructed.	FAA AC 150/5300-13A, Change 1, Airport Design, Paragraph 305.c.	Reconstruct Runway 18-36 to an eleva- tion that provides for proper RVZ visibil- ity.
4	Runway 14-32 RSA overlaps with Runway 17-35 RSA. Hot Spot #2 - Runway 32 approach holding position is located on Taxiway A, immediately past the Taxiway A run up area.	FAA AC 150/5300-13A, Change 1, Airport Design, Paragraph 304.e.	These non-standard conditions are a result of the same issue; the overlapping of the Runway 14-32 and 17-35 RSAs. Consider alternatives to shift the Runway 14-32 RSA so they no longer overlap.
5	Runway 14 threshold is displaced by 363 feet unnecessarily.	FAA AC 150/5300-13A, Change 1, Airport Design, Paragraph 307.	Consider relocating the threshold to the end of runway pavement.
6	Portions of the Runway 32 and 17-35 RPZs ex- tend over uncontrolled property and public road rights-of-way.	FAA AC 150/5300-13A, Change 1, Airport Design, Paragraph 310.	Consider expand avigation easements to establish control over these areas.
7	Runway 32 is equipped with a 4-box visual ap- proach slope indicator (VASI) system, which is an obsolete system.	FAA AC 150/5300-13A, Change 1, Airport Design, Paragraph 625.	Replace the VASI system with a 4-light precision approach path indicator (PAPI) system.
8	Runway 32 is not currently equipped with runway end identifier lights (REILs)	FAA AC 150/5300-13A, Change 1, Airport Design, Paragraph 317.a.(4).	Consider adding REILs to Runway 32.

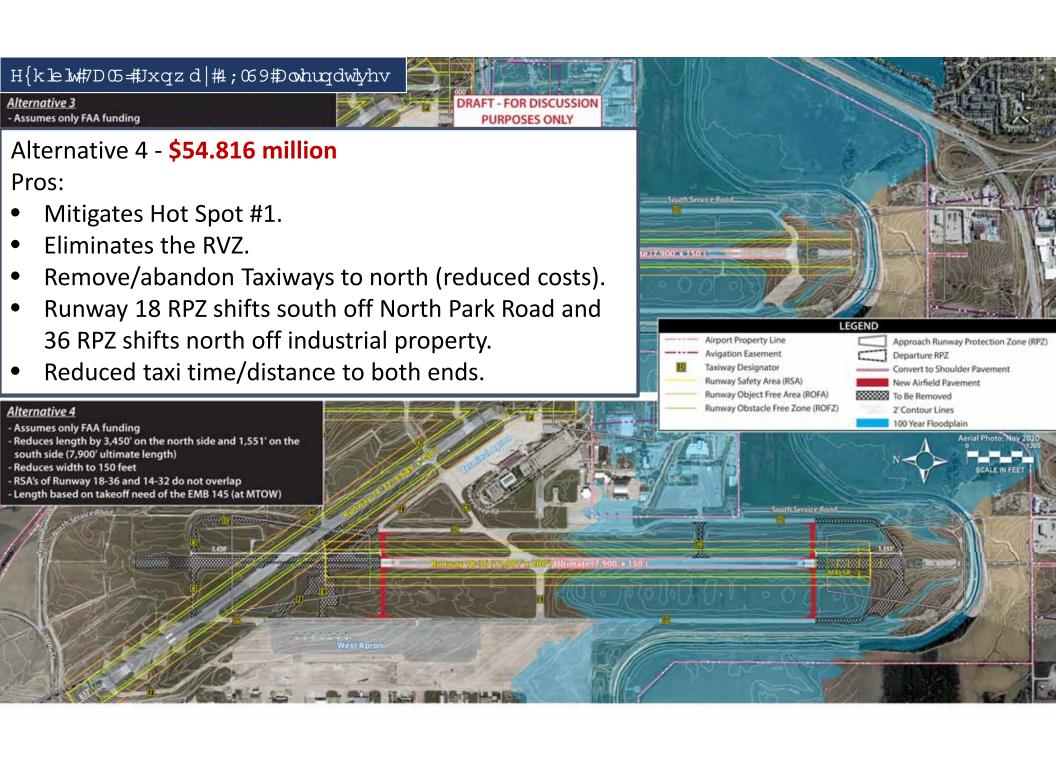
Airfield Considerations

#	Non-Standard/Deficient Condition	Applicable Design Standard	Proposed Action(s) to be Evaluated
9	Hot Spot #3 - Risk of pilot confusion between Runway 17-35 and Runway 18-36.	FAA AC 150/5340-1M, Change 1, Standards for Airport Markings, Paragraph 2.3.5.	Consider redesignating the parallel run- ways as 18L/R and 36L/R.
10	Pilot confusion between Runway 35 and Taxi- way A causes occasional wrong-surface land- ings.	FAA AC 150/5300-13B DRAFT, Airport Design, Paragraph 4.6.2.	Consider offsetting Taxiway A near the end of the runways.
11	Hot Spot #1 - Runway 18-36, Runway 14, and Taxiways D, E, and J all intersect in a small area. Angles of intersection can make sighting traffic difficult.	FAA AC 150/5300-13A, Change 1, Airport Design, Paragraph 401.b.(3) (4) (5.c) (5.d).	Consider corrective measures including eliminating non-standard pavement and constructing new taxiways to improve safety.
12	Taxiways E and S provide direct access from the west apron to Runway 18-36. Taxiways E and N provide direct access to Runway 17-35. These conditions increase the potential for runway incursions.	FAA AC 150/5300-13A, Change 1, Airport Design, Paragraph 401.b.(5).(g).	Consider offsetting connecting taxiways or adding no-taxi islands to force pilots to make a turn prior to entering a runway.
13	Taxiways K and S create an intersection within the Runway 18-36 high energy area. Taxiways D and E intersect within Runway 14-32's high energy area. Taxiway K creates an intersection within the Runway 17-35 high energy area.	FAA AC 150/5300-13A, Change 1, Airport Design, Paragraph 401.b.(5).(d).	Move taxiway/runway intersections outside the high-energy area (middle 1/3 rd of the runway).
14	Existing holding aprons are non- standard design.	FAA AC 150/5300-13A, Change 1, Airport Design, Paragraph 412.b.	Consider constructing new holding bays or bypass taxiways that meet design standard.









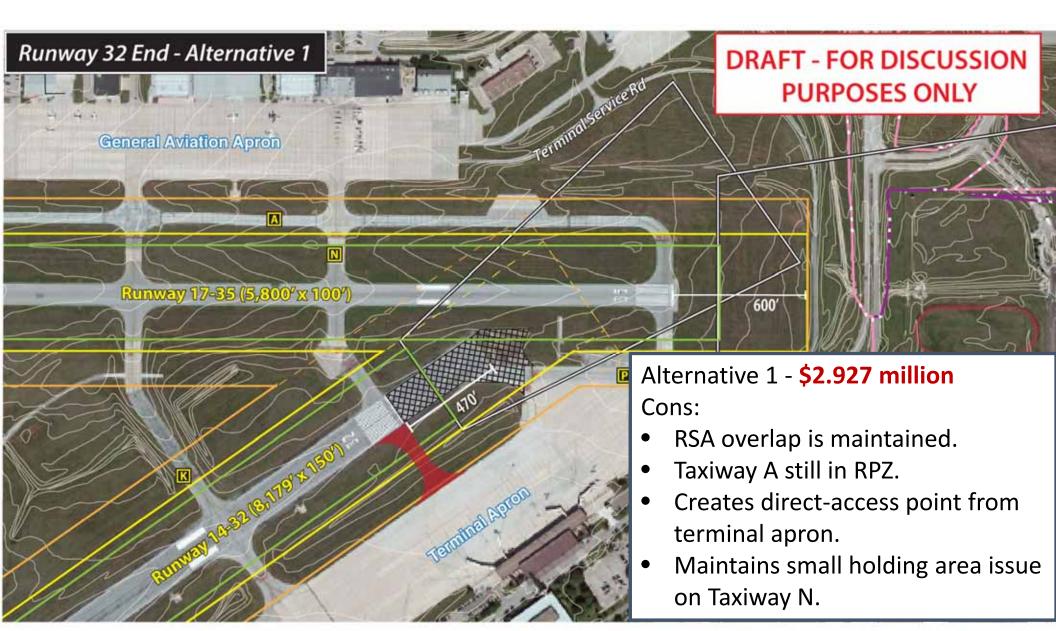


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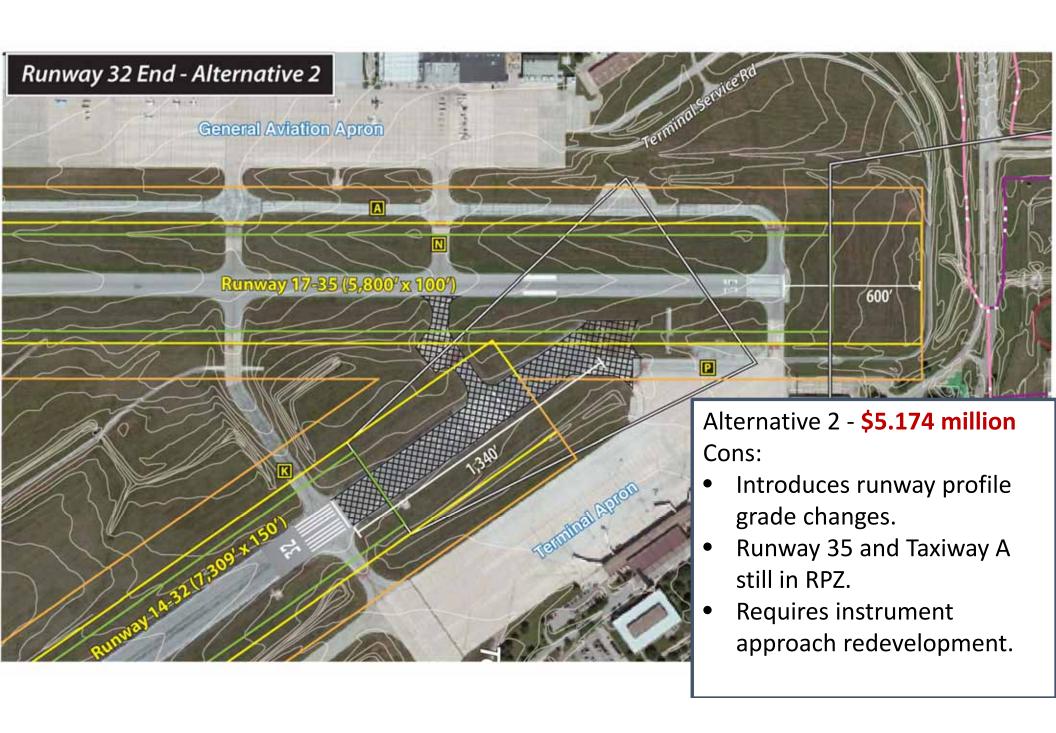






Exhibit 4B-2: Runway 14-32 Alternatives



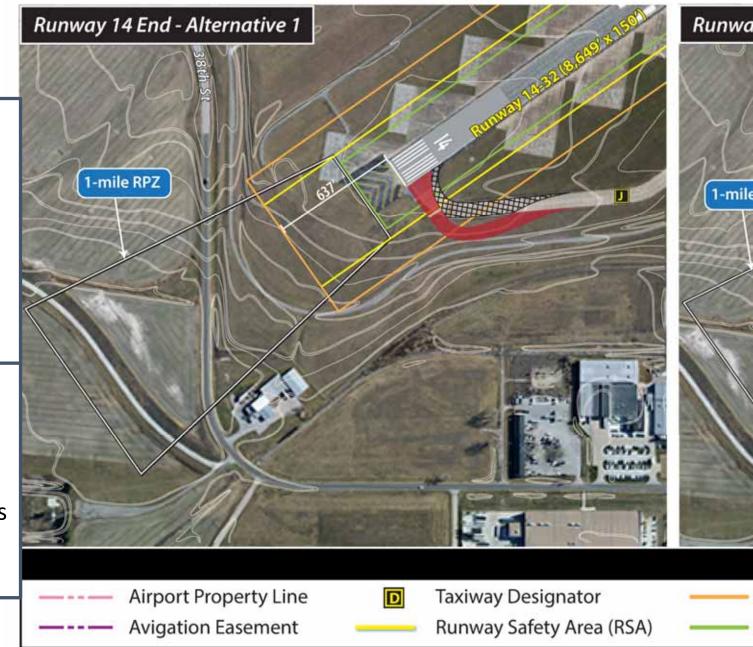
Alternative 1 - \$5.507 million

Pros:

- Improves LOS, increases LDA to 8,649'.
- RPZs co-located.
- 90-degree entrance taxiway.

Cons:

- NW 38th St in RPZ.
- Perimeter road would need to be relocated.
- Existing building restricts lower minimums.
- Relocated PAPIs/REILs.



Alternative 2 - **\$6.240**

million

Pros:

- Adequate LOS maintained.
- Shifts ROFA further from road.
- PAPIs/REILs remain inplace.
- Instrument approach unchanged.

Cons:

- Takeoff distance reduced.
- NW 38th St in RPZ.
- Existing building restricts lower minimums.



Alternative 3 - \$9.536 million

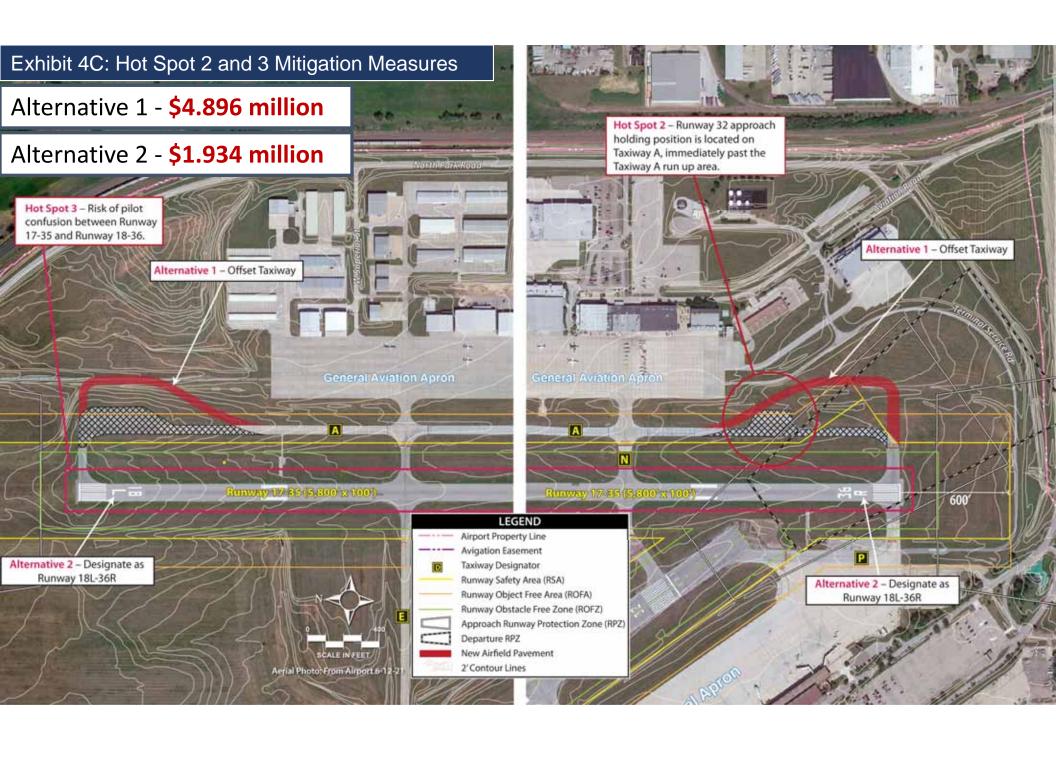
Pros:

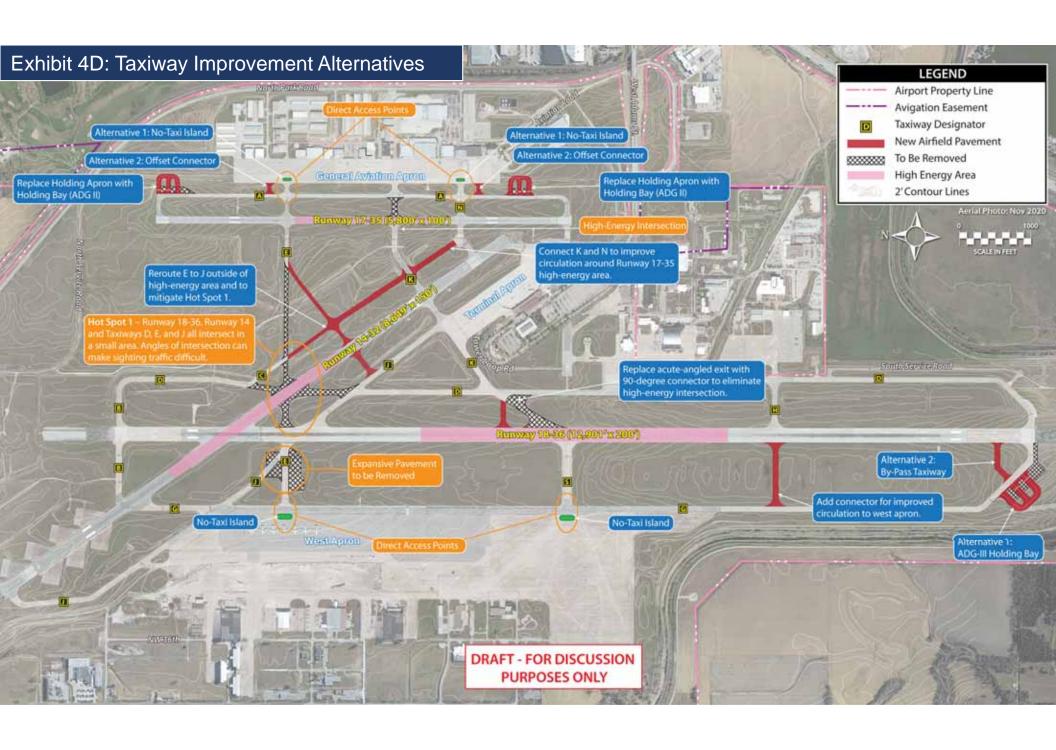
- Potential ¾-mile approach.
- Opens up development potential NW or 38th St.
- Reduces maintenance costs.
- Adequate LOS maintained.

Cons:

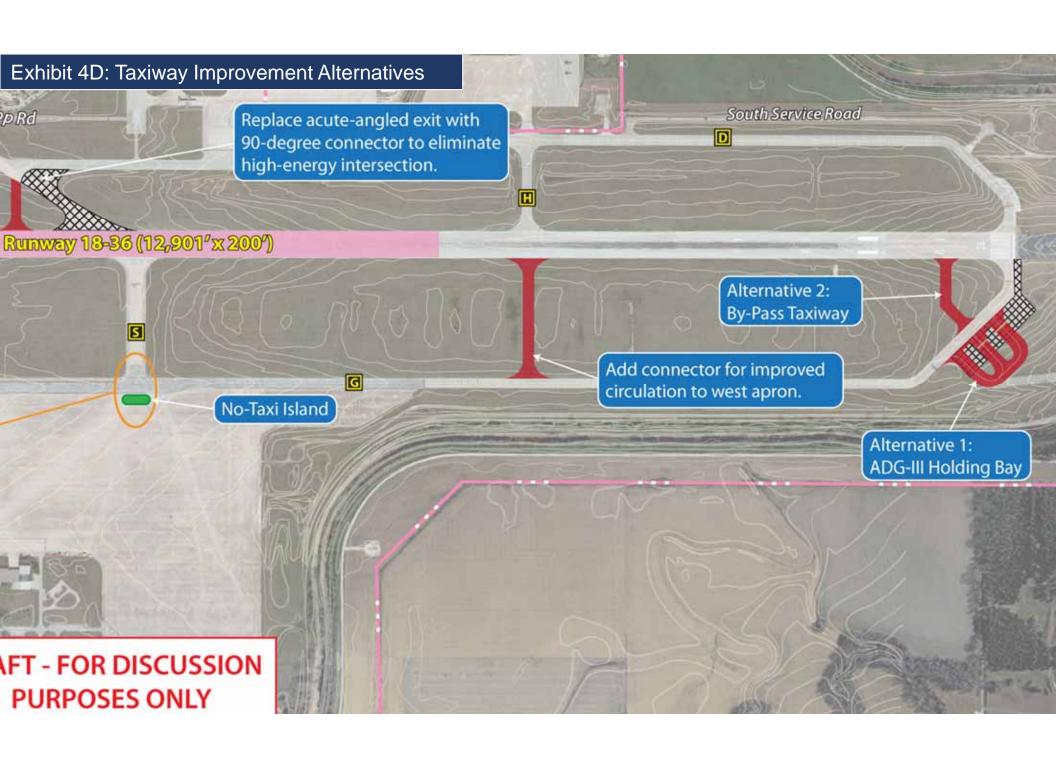
- NW 38th St in ¾-mile
 RPZ.
- Requires relocation of PAPI, REILs, edge lighting.
- Combined with 32 Alt. 2
 6,046' long runway.











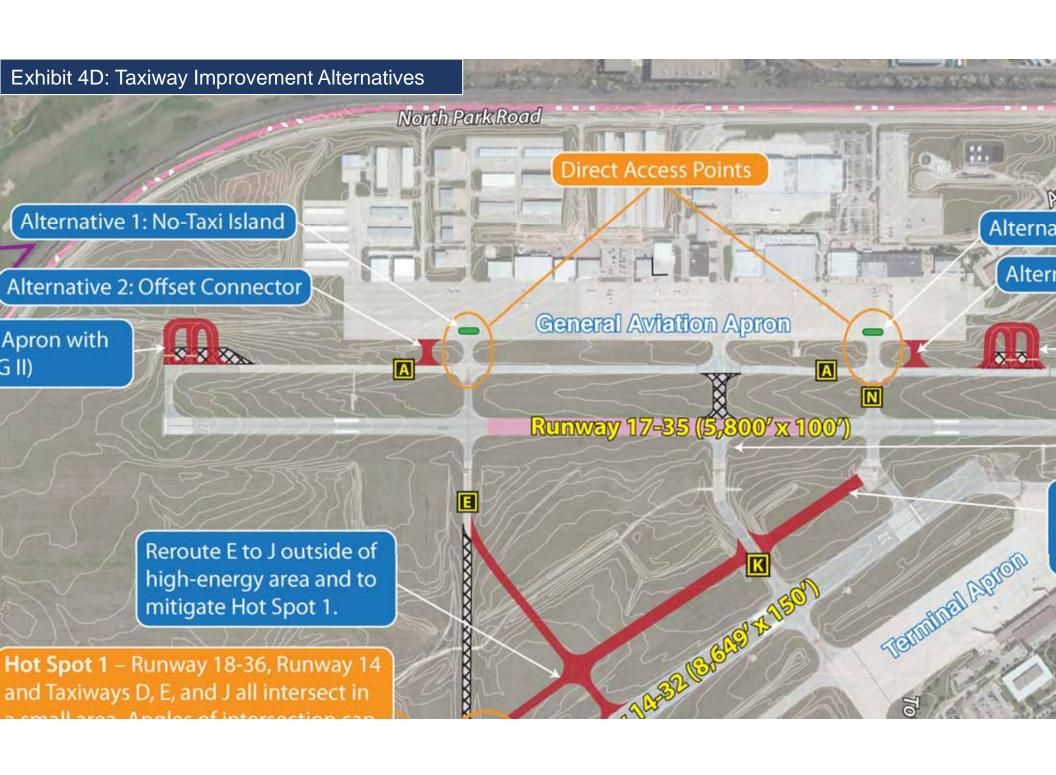






Table 4D: Landside Planning Considerations

#	Landside Component	Existing Capacity/Condition	Consideration		
1	Passenger Terminal Building	104,810 sf (upon completion of the LNK Next expansion)	Expand total terminal area by 31,890 sf to a total of 136,700 sf.		
2	Vehicle Parking	1,037 public spaces; 66 em- ployee spaces; 225 rental car spaces; 37 cell phone lot spaces	Expand employee lot up to 186 spaces; rental car ready/return lot up to 278 spaces; cell phone lot up to 64 spaces.		
3	Air Cargo	25,300 sf (unused)	Reserve 3-8 acres for potential large-scale air cargo operator.		
4	Hangars	1,045,175 sf (T-hangars, execu- tive, and conventional hangars)	Focus on developing new executive and conventional hangars (131,100+ sf new capacity). T-hangars are a lower priority.		
5	General Aviation Aprons	149,000 sy (east side only)	Expand capacity to 166,100 sy (combination of east and west sides).		
6	General Aviation Terminal Services	10,000+ sf provided by FBOs	Existing capacity is sufficient, but consider a new west side general aviation terminal.		
7	Fuel Storage	Total static storage capacity: 232,000 gallons (Jet A) 42,000 gallons (AvGas)	Existing static storage capacity is sufficient. Ultimate decision to expand capacity up to FBOs.		
8	Land Development	Areas on the airport's northeast (25 acres) and north (120 acres) side are available for new devel- opment. West side areas availa- ble for redevelopment	Expand general aviation or air cargo facilities to developable areas and redevelopment areas on the west side.		
sf - sc	sf – square feet sy – square yards				





Figure 4A: Terminal Site Envelope







Figure 4B: 20-Year Terminal Development

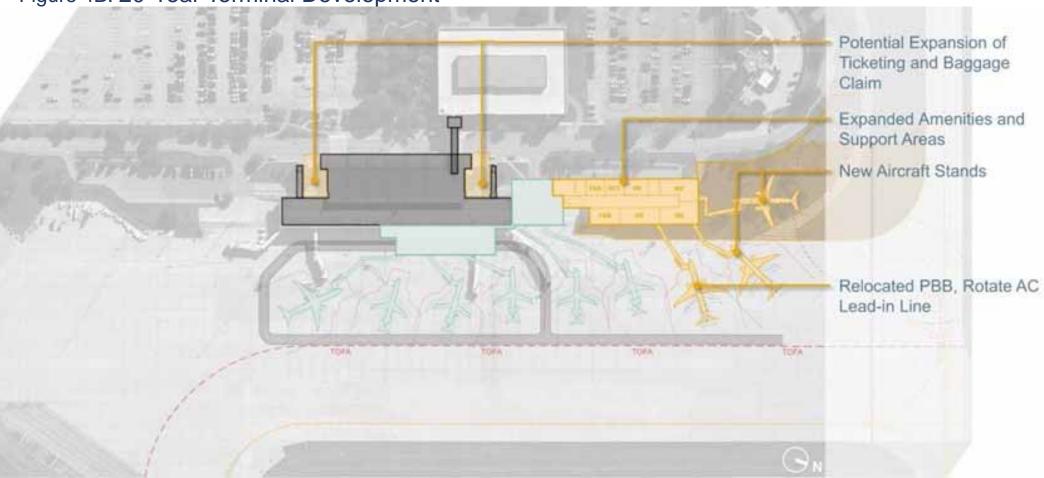


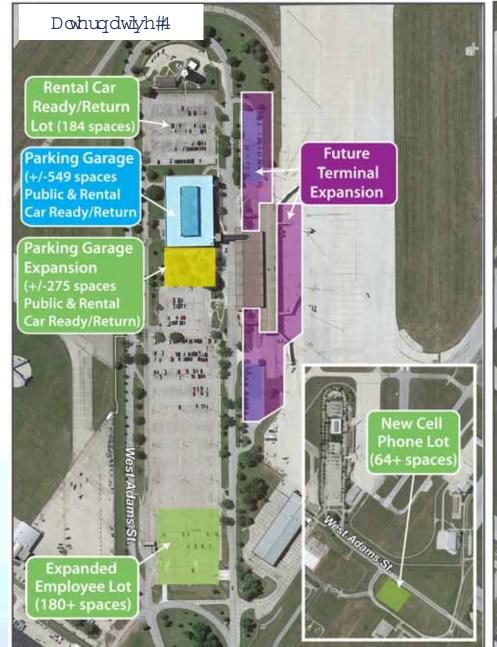




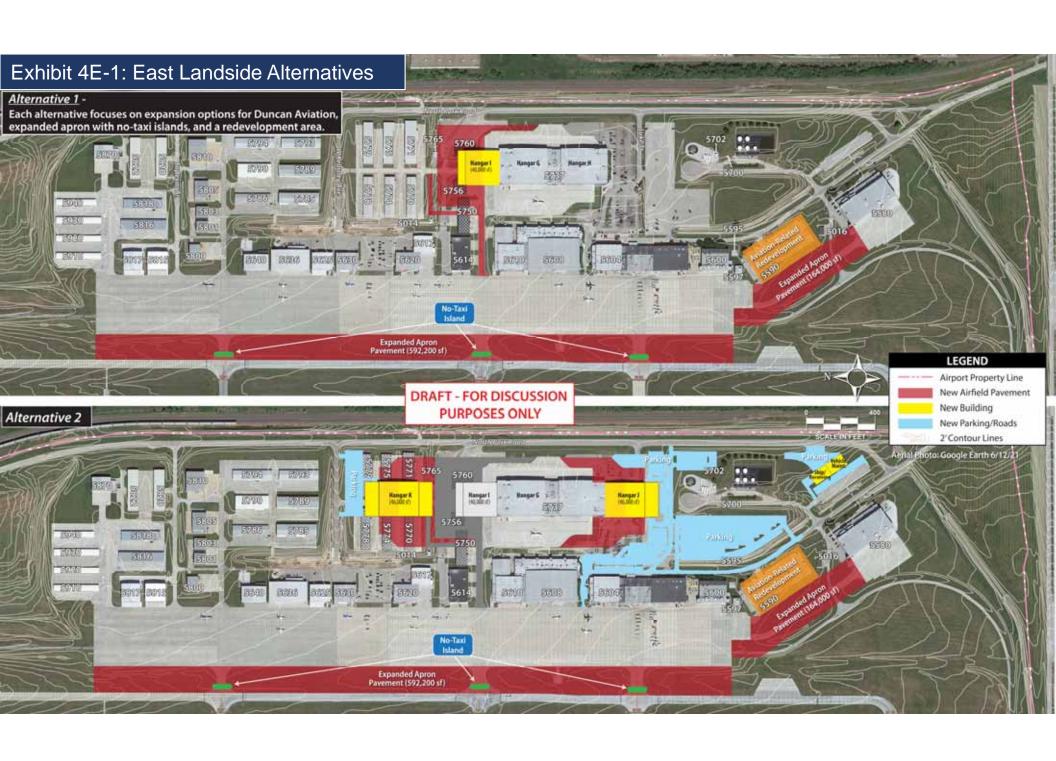
Figure 4C: 20+-Year Terminal Development

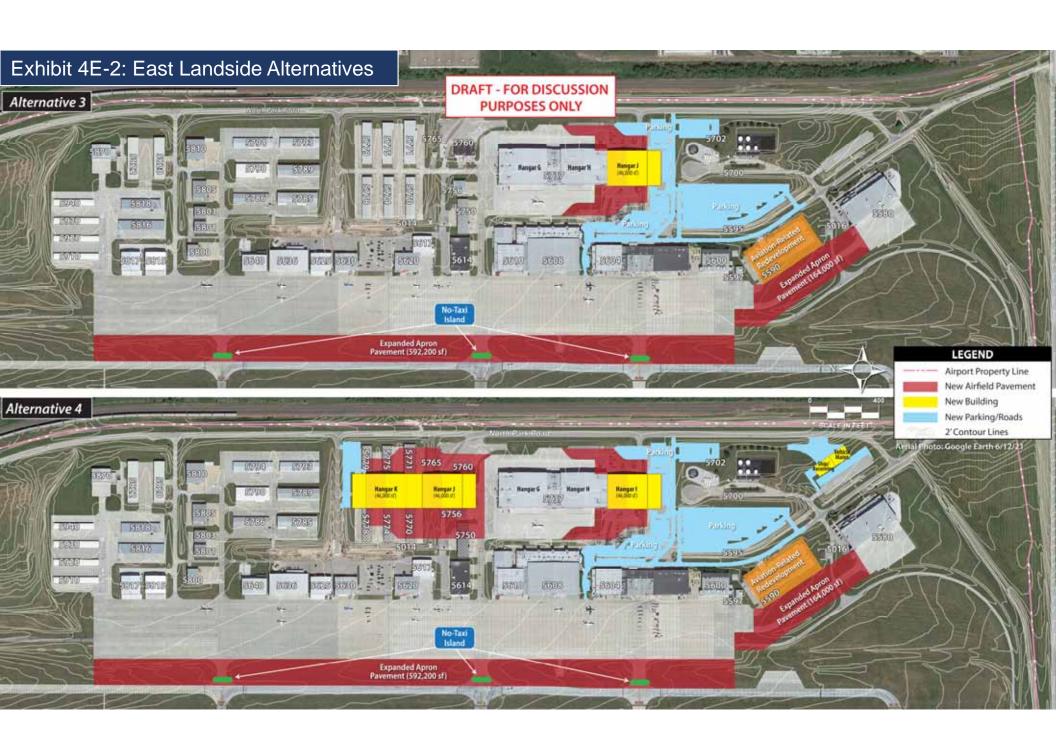


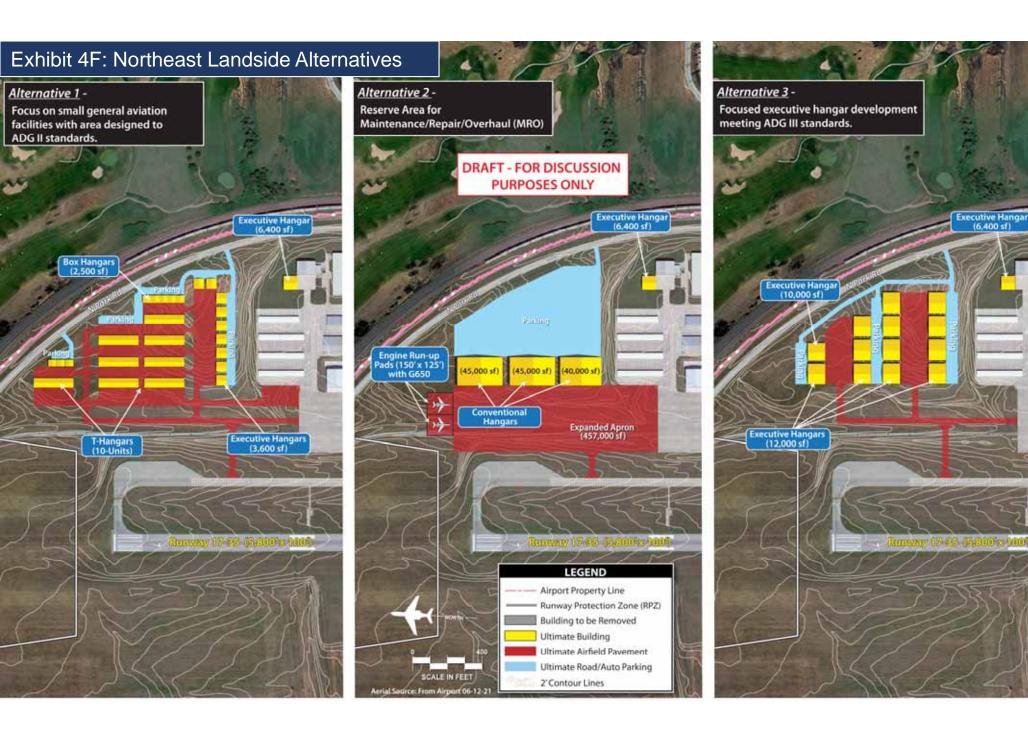
Figures 4D/4E: Terminal Parking Alternatives

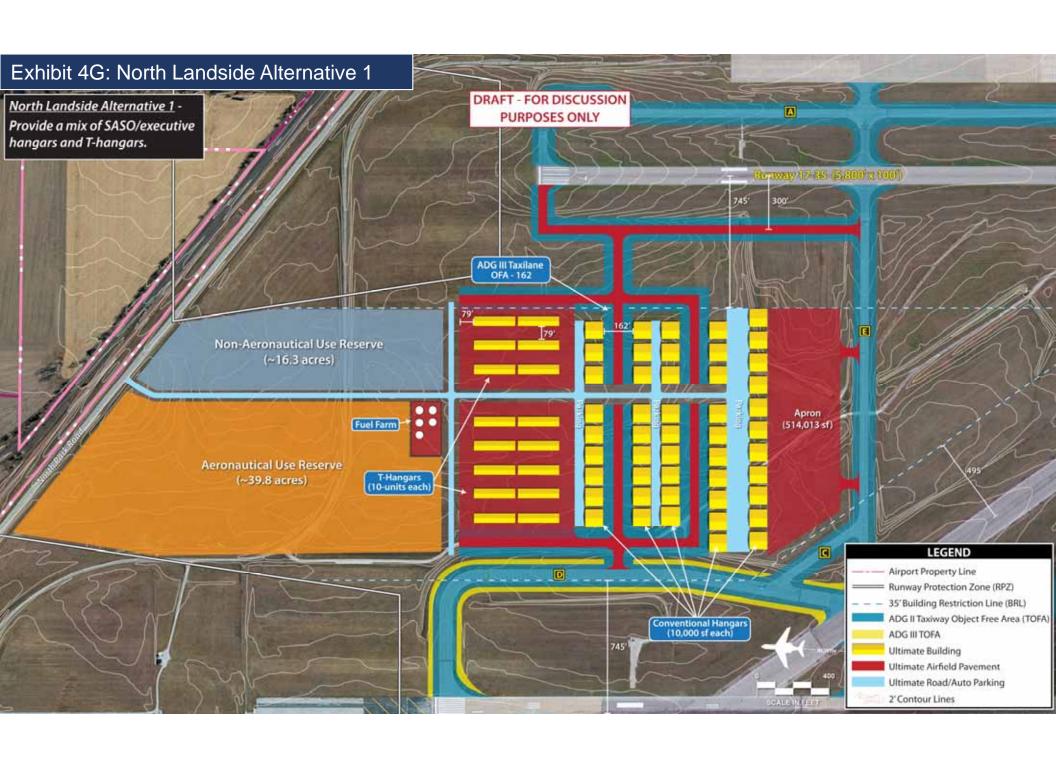


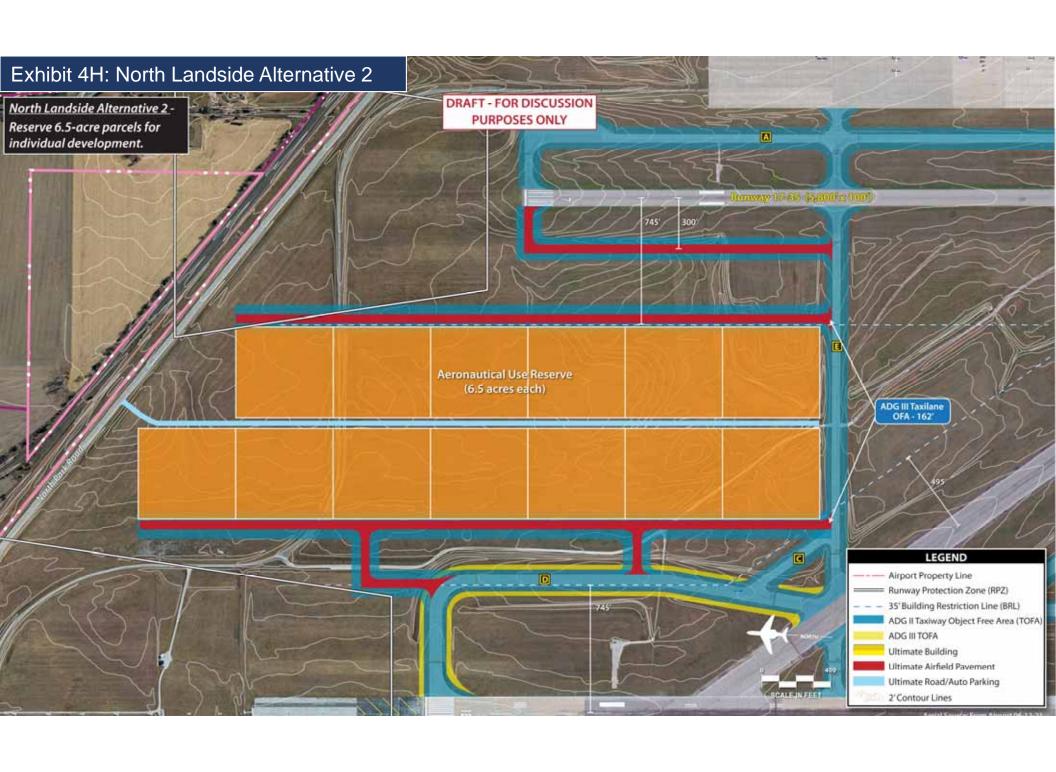


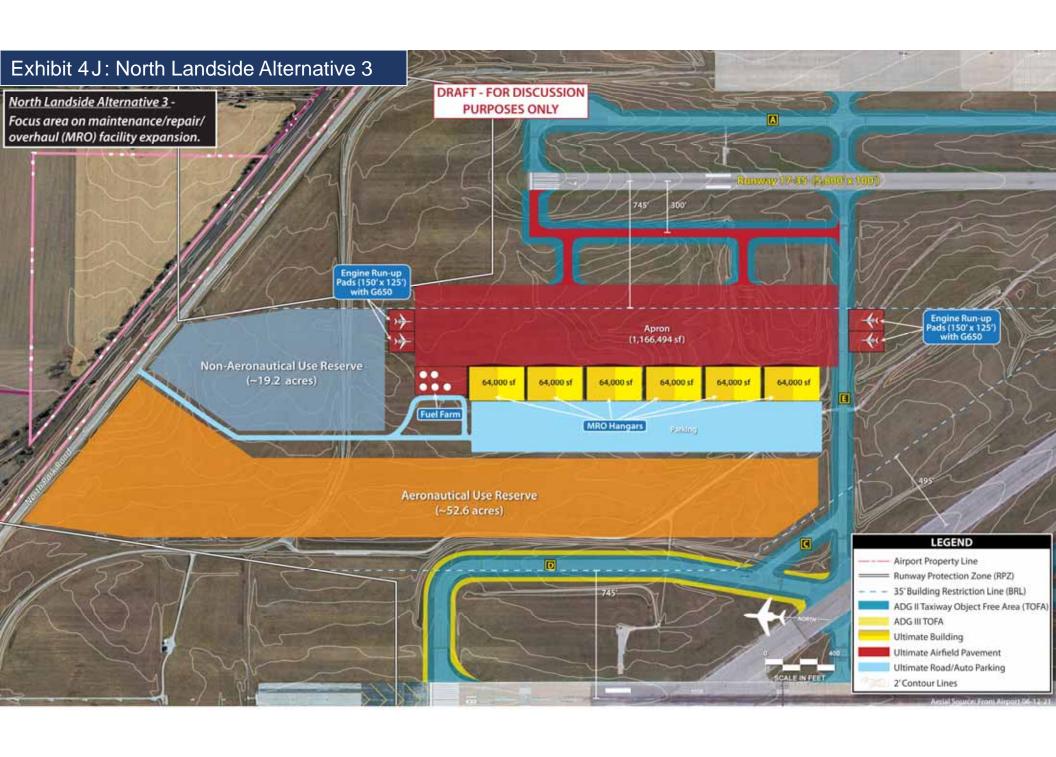


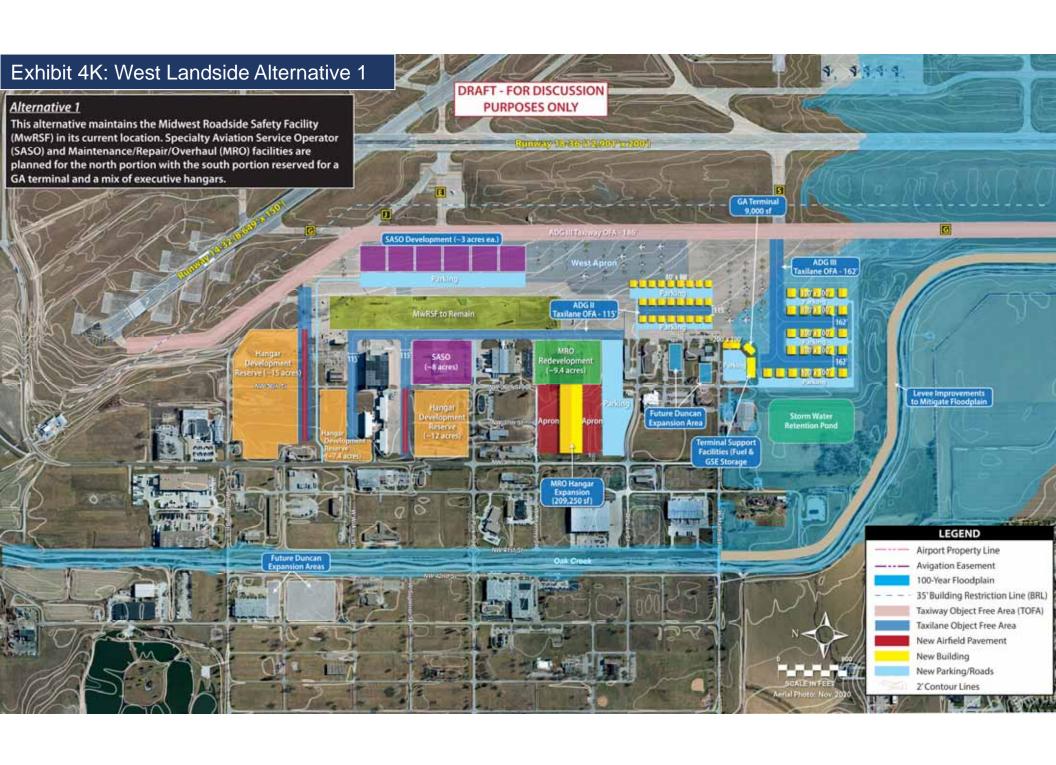


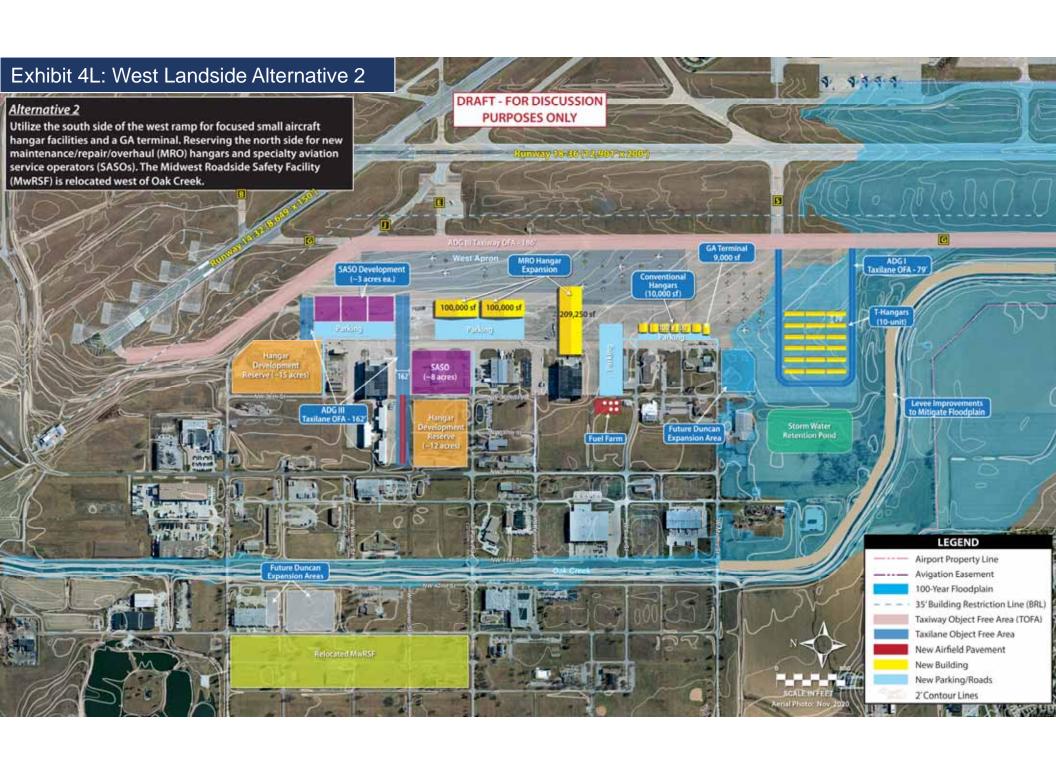


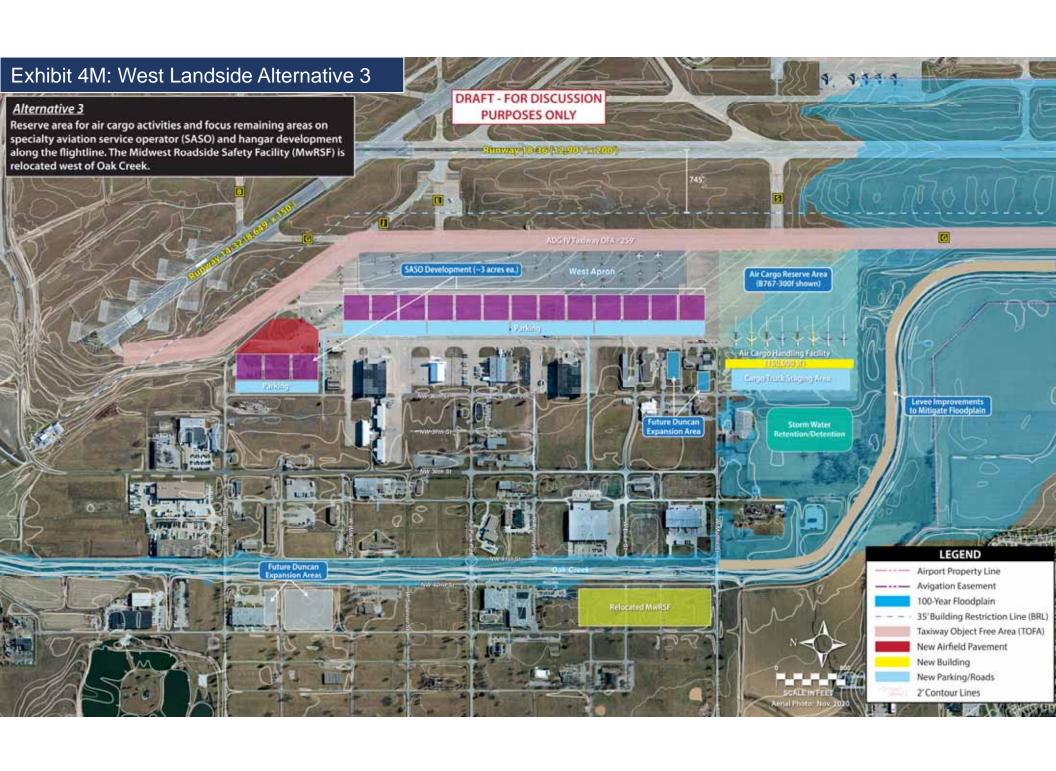














NEXT STEPS





- 1. Recommended Concept
- 2. Capital Improvement Program





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