Tri-Cities Airport Master Plan

Technical and Community Advisory Committee Meeting

April 23, 2025

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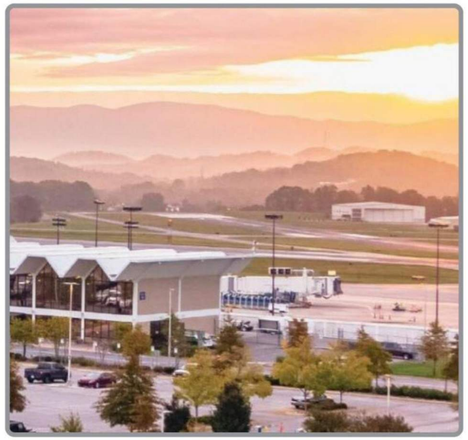

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Alternatives Development Recap

Preferred Alternative

SUMMARY OF CHANGES

I. AIRSIDE

a. Realignment and extension of future Taxiway Bravo to meet runway separation standards per FAA AC 150/5300 13-B.
b. Removal of Runway 9-27.
c. Removal of existing Taxiway Bravo.
d. Addition of GA development areas.
e. Addition of MRO/Industrial/Commercial areas.
f. Addition of new Taxiway Alpha 1 from Taxiway Alpha to hangar area.
g. Relocation of wind cone and segmented circle.
h.1,000 ft. future extension / Additional 1,000 ft. ultimate extension of Runway 5L-23R.
i. Proposed employee lot expansion.
j. Addition and extension of airport service road.
k. Addition of Taxiway Delta parallel to Runway 27 end.
l. Addition of 6,824 ft. parallel Runway 5R-23L and associated taxiway infrastructure.
m. Expansion of Air Cargo Logistics Center.
n. Addition of parallel Taxiway Charlie to Runways 5L-23R and 5R-23L.
o. Update all pavement per Taxiway Design Standards, AC 150/5300-13B.
p. Addition of Taxiway Hotel perpendicular to Runway 23L end.
q. Addition of Glide Slope for Runway 23R approach.
r. Addition of Taxiway Alpha 2 from Taxiway Alpha to Taxiway Bravo.
s. Extension of Taxiway Alpha.
t. Additional Fuel Storage

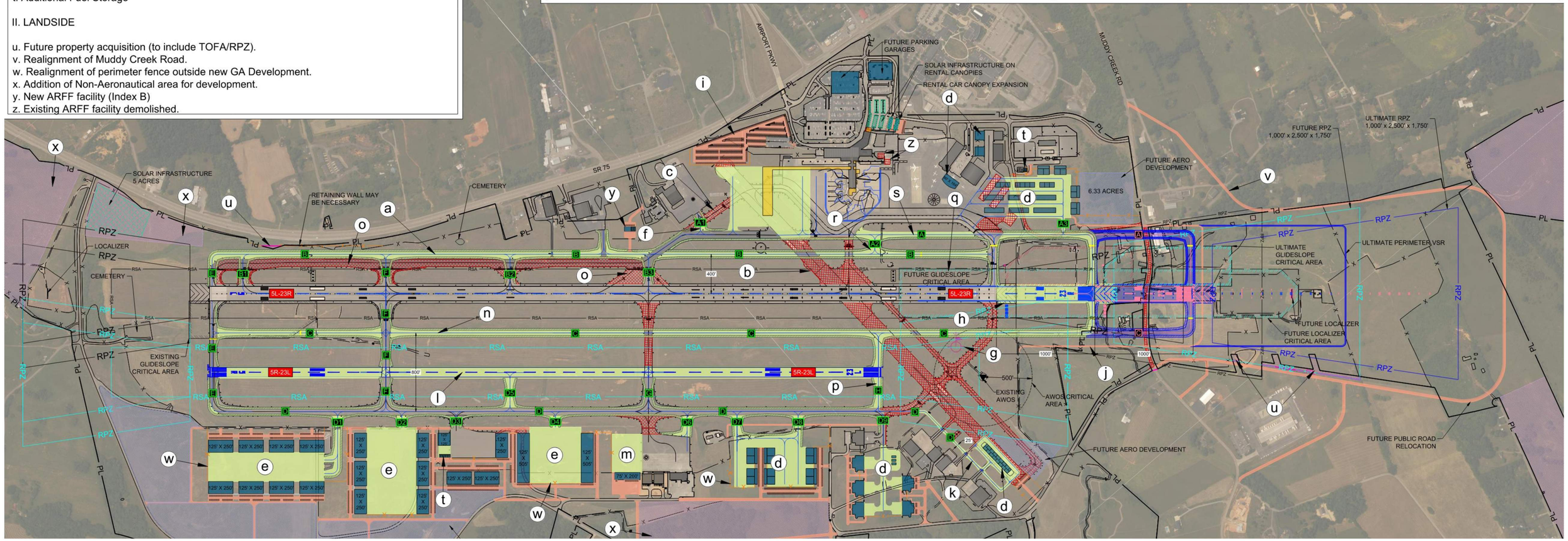
II. LANDSIDE

u. Future property acquisition (to include TOFA/RPZ).
v. Realignment of Muddy Creek Road.
w. Realignment of perimeter fence outside new GA Development.
x. Addition of Non-Aeronautical area for development.
y. New ARFF facility (Index B)
z. Existing ARFF facility demolished.

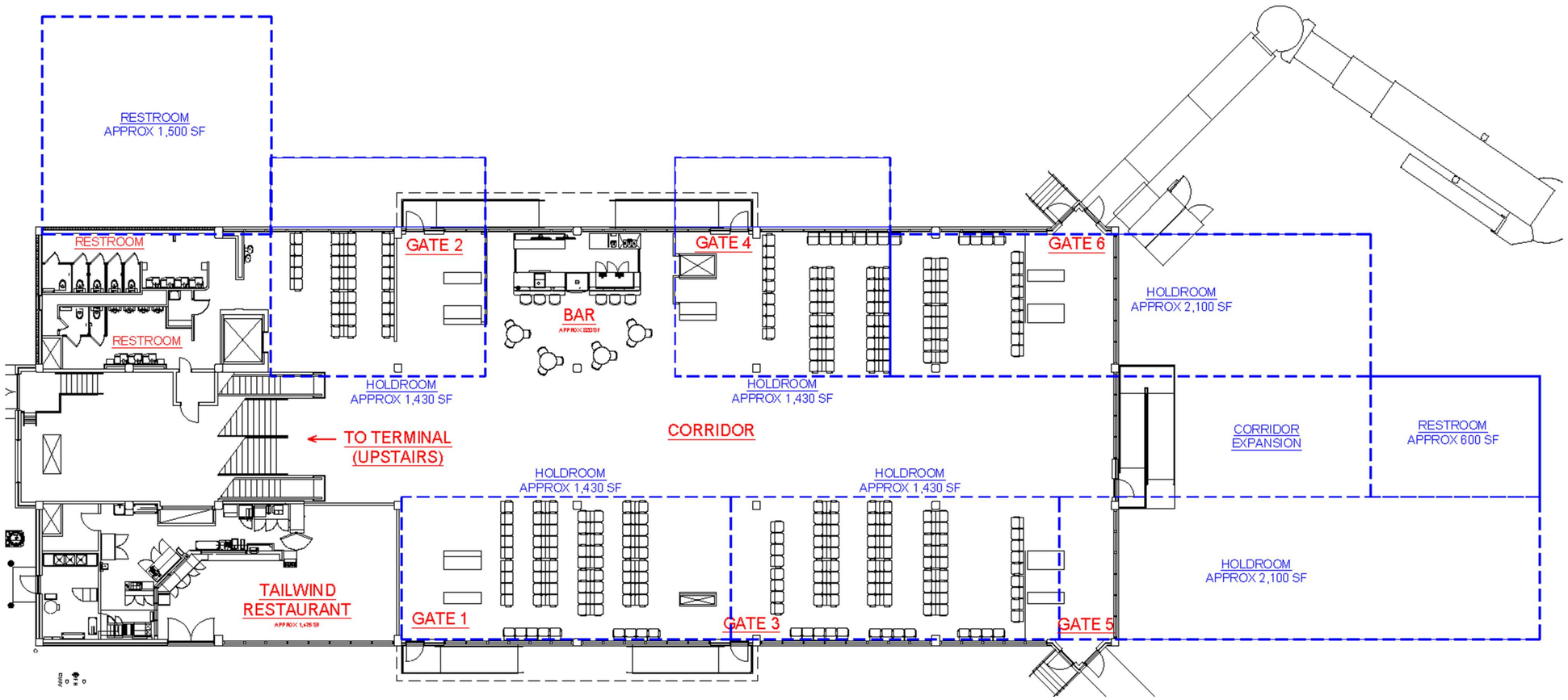
LEGEND

DESCRIPTION	EXISTING	PROPOSED	ULTIMATE	DESCRIPTION	EXISTING	PROPOSED	ULTIMATE
RUNWAY IDENTIFIER	9-27	5R-23L	N/A	NON-AERONAUTICAL DEVELOPMENT	N/A		N/A
TAXIWAY IDENTIFIER	A	B	C	AERONAUTICAL DEVELOPMENT	N/A		N/A
AIRFIELD PAVEMENT	N/A			INELIGIBLE EXCESSIVE PAVEMENT[1]	N/A		N/A
TAXIWAY SHOULDER PAVEMENT	N/A			RUNWAY MARKINGS			
DEMOLITION			N/A	ROADWAY/PARKING	N/A		
AIRPORT BUILDING			N/A	NAVAID CRITICAL AREA			
TAXIWAY/LANE CENTERLINE & PVMT MARKINGS				AIRPORT PROPERTY LINE	PL	FPL	N/A
FENCELINE	x	x	x	DRAINAGE POND	N/A		N/A
PRECISION APPROACH PATH INDICATOR (PAPI)				LOCALIZER ANTENNA (LOC)			N/A
APPROACH LIGHTING SYSTEM				TERMINAL EXPANSION	N/A		N/A
ILS HOLDING POSITION MARKING			N/A	GLIDESLOPE SHELTER			
LIGHTED WIND CONE	N/A			COMPASS CALIBRATION PAD		N/A	N/A
SEGMENTED CIRCLE	N/A			LAND ACQUISITION	N/A		N/A
RUNWAY PROTECTION ZONE (RPZ)	RPZ	RPZ	RPZ	SOLAR FARM/INFRASTRUCTURE	N/A		N/A
AWOS/AWOS CRITICAL AREA		N/A	N/A				

LEGEND NOTES:
1/ INELIGIBLE EXCESSIVE PAVEMENT PER TAXIWAY DESIGN STANDARDS, A/C 150/5300-13B.



Proposed Concourse Expansion



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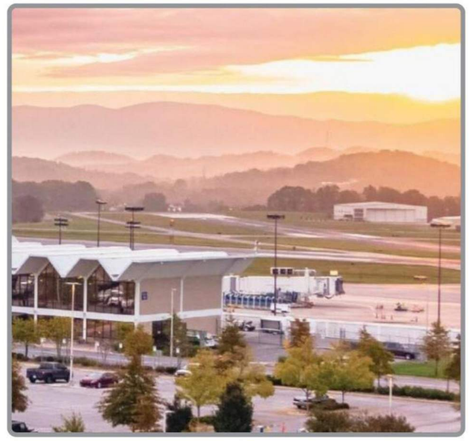

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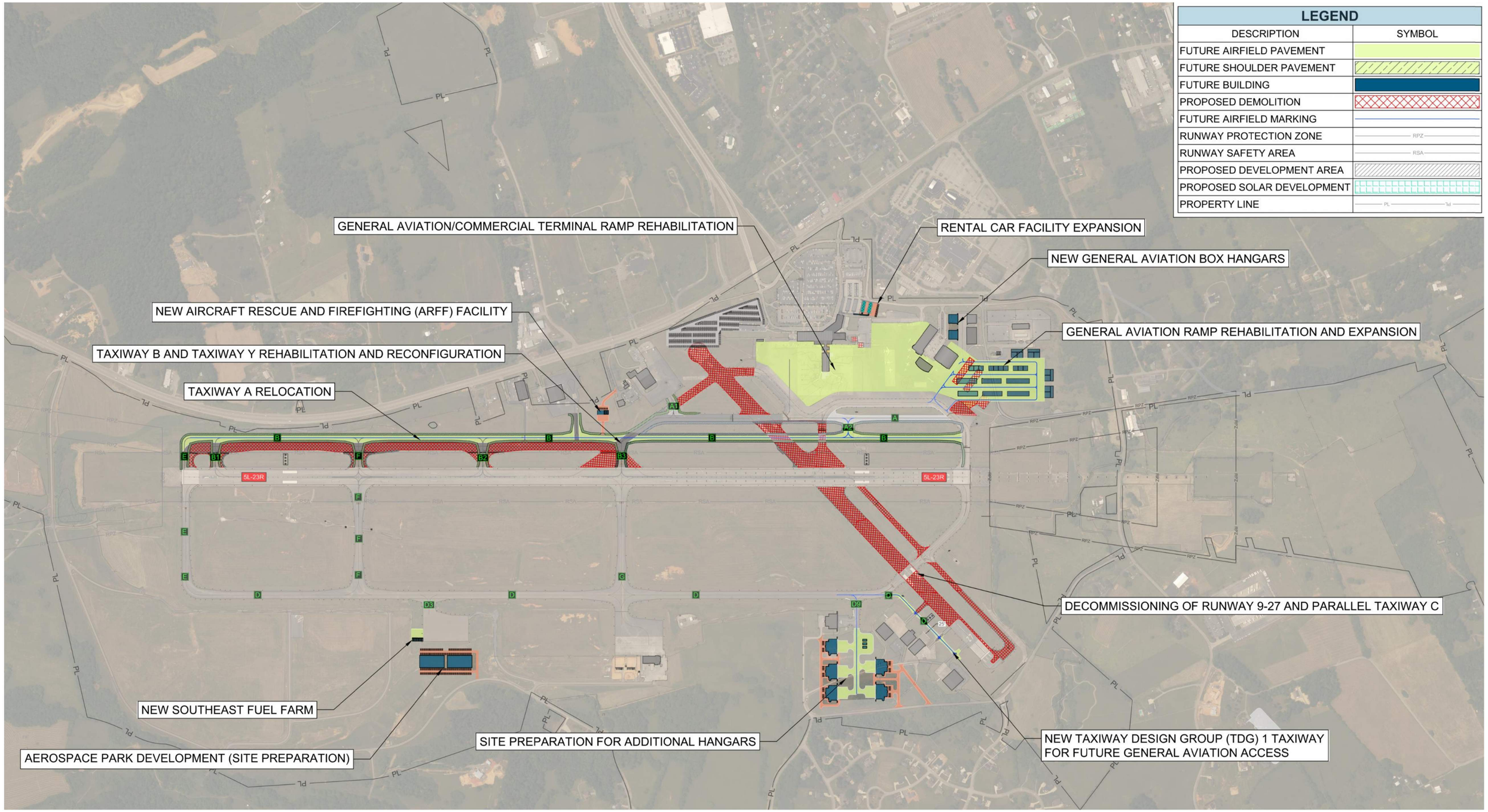
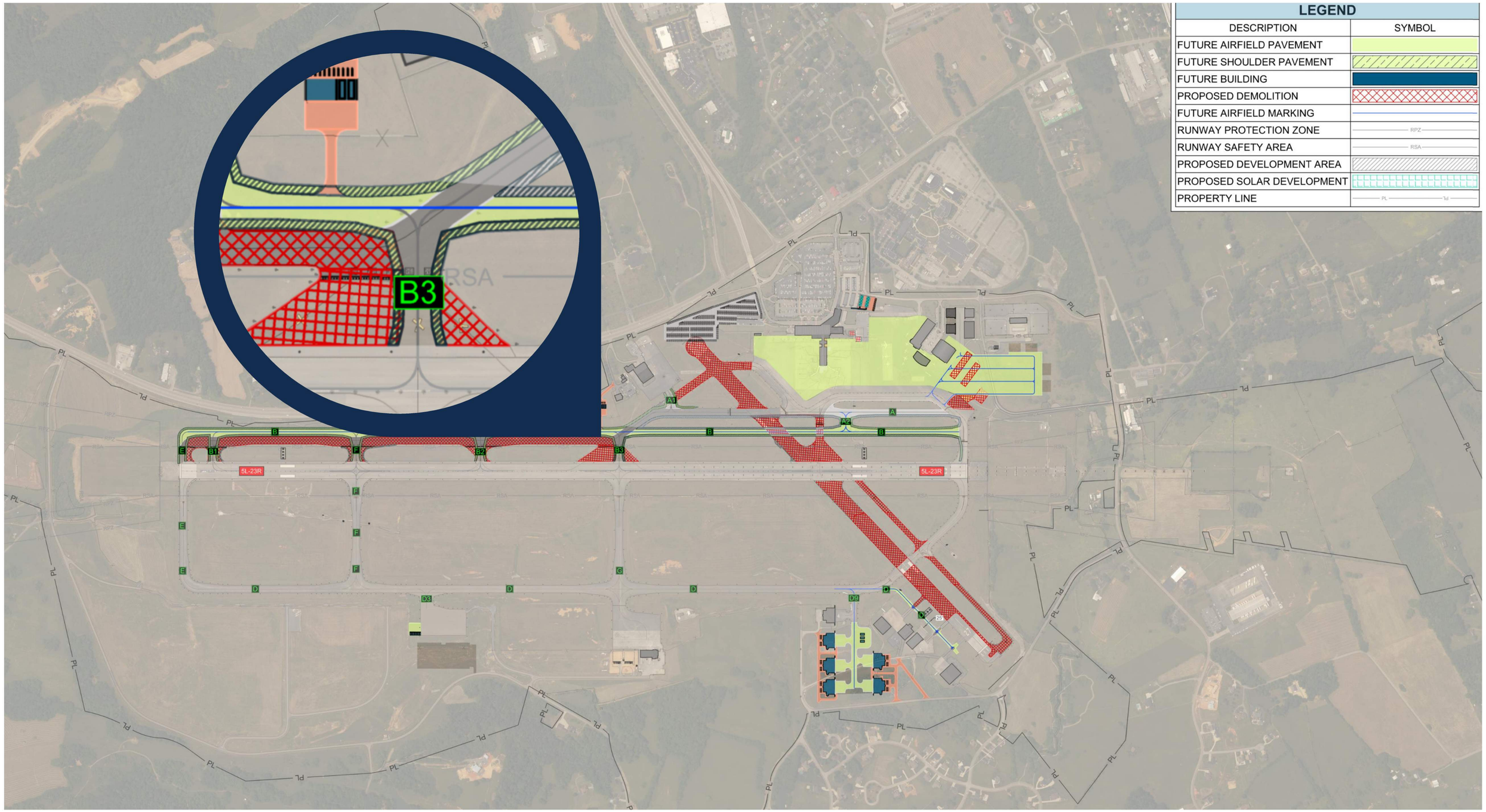
Capital Improvement Plan

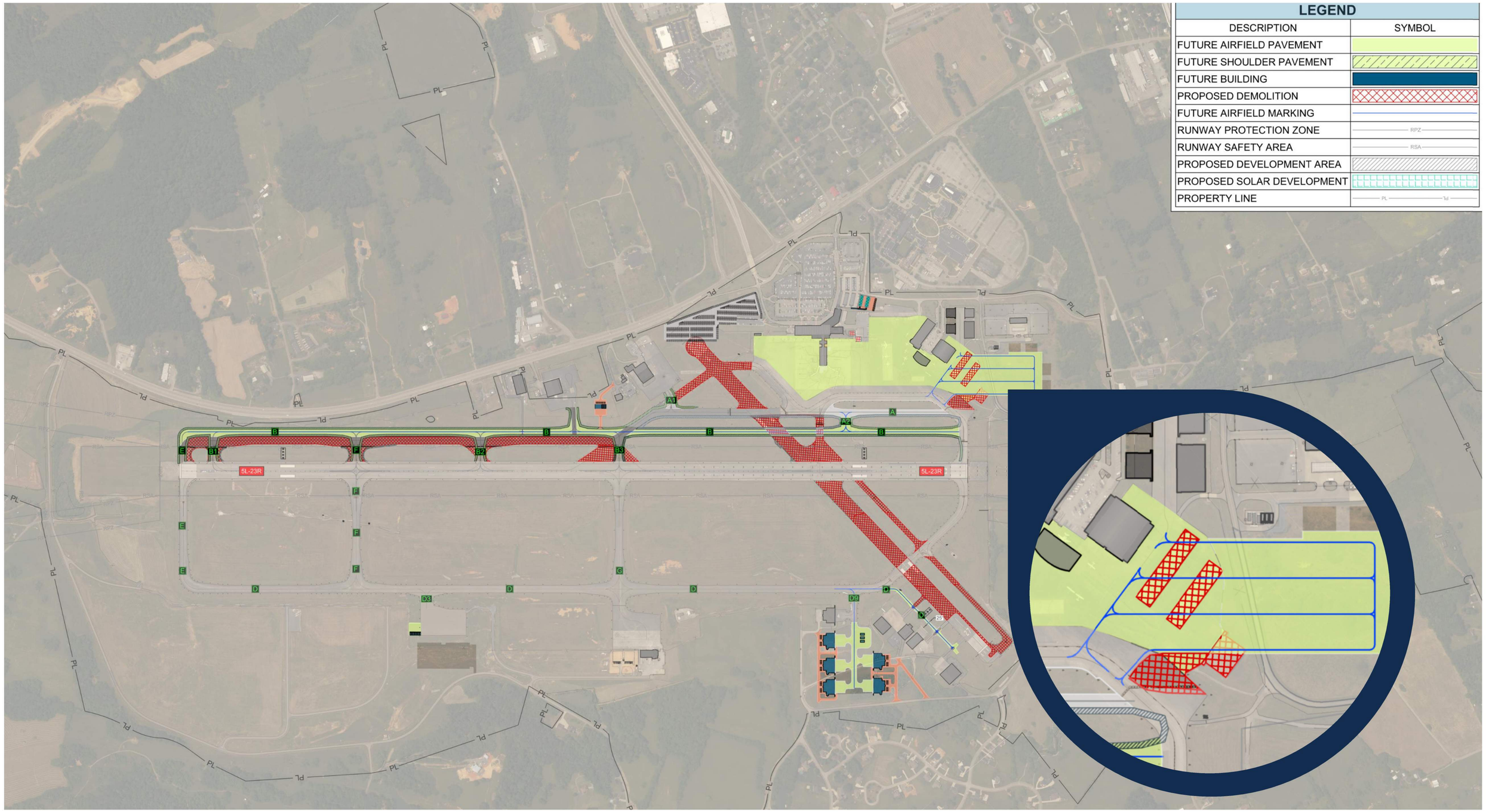
CIP - Short Term Major Projects



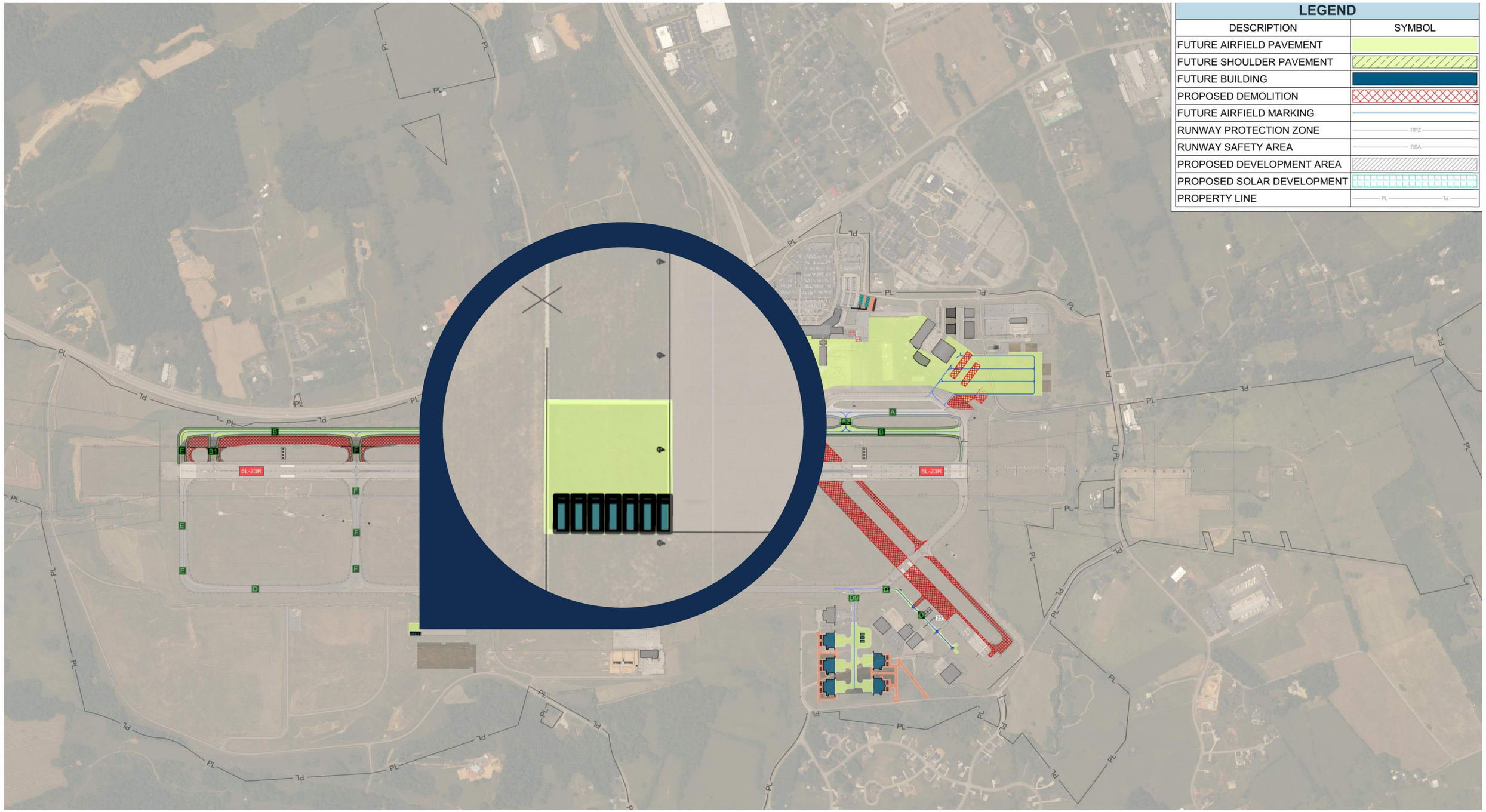
CIP – Taxiway B & Taxiway Y Reconfiguration



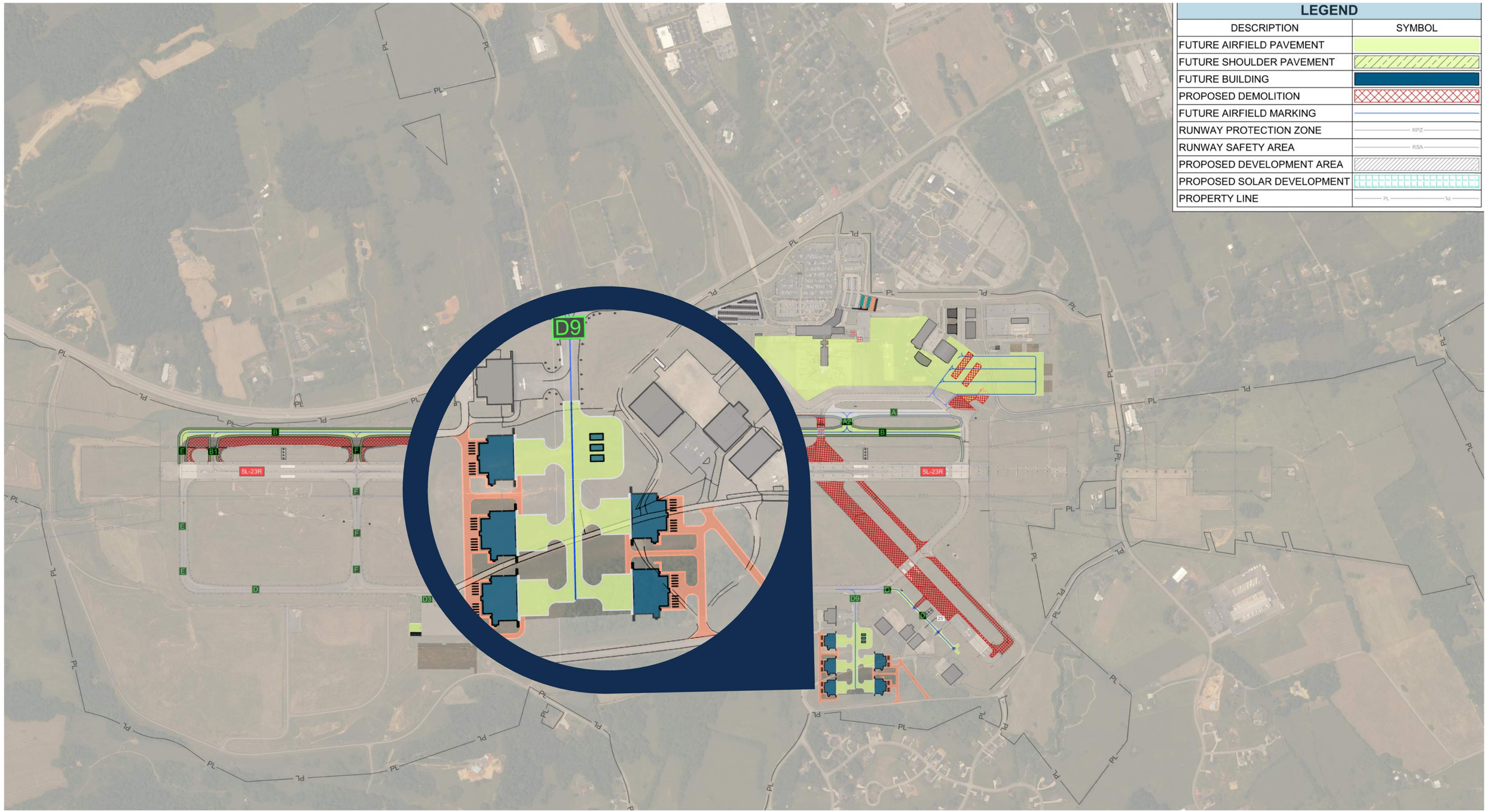
CIP – General Aviation Ramp Expansion



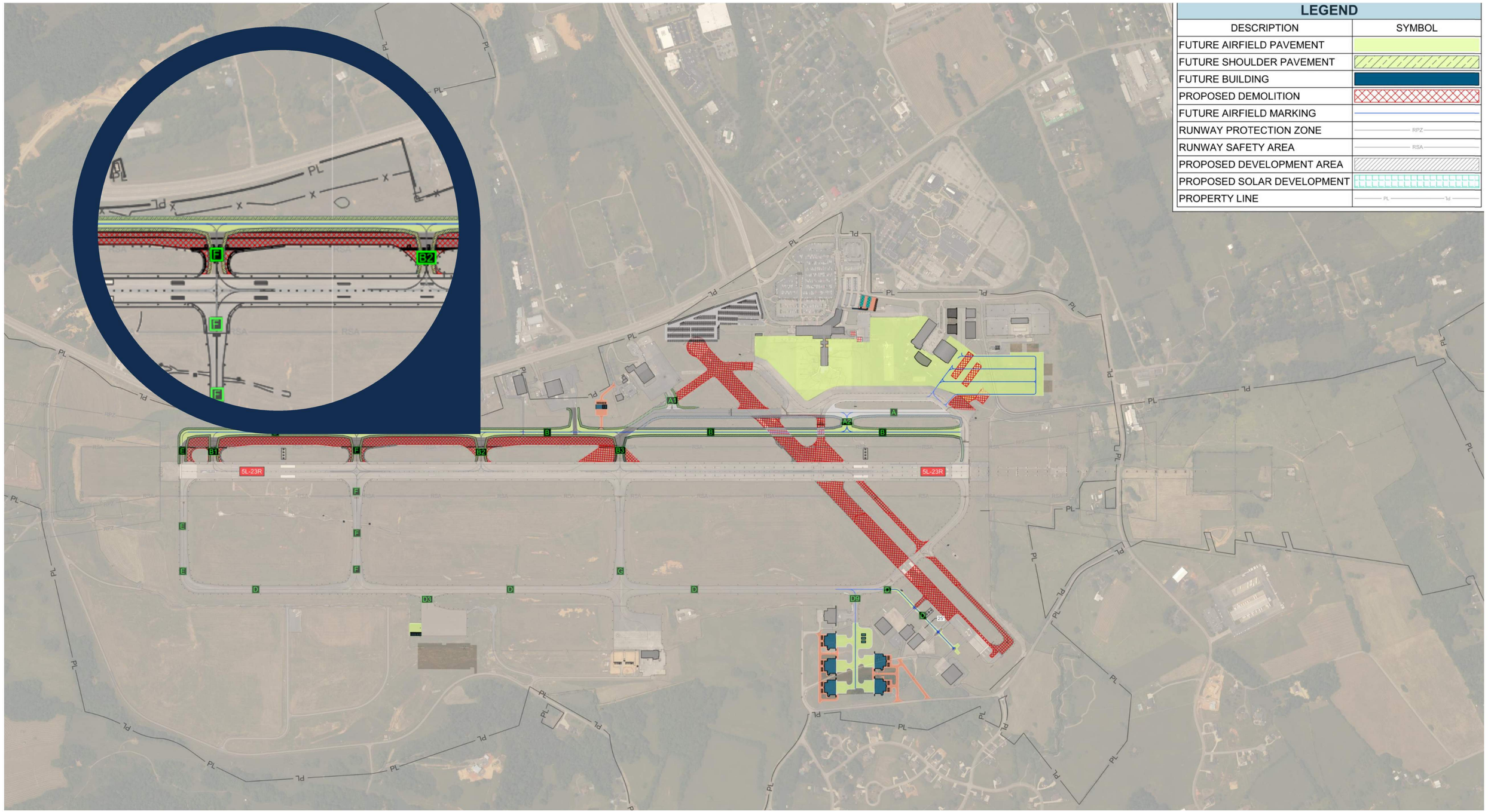
CIP – Southeast Fuel Farm



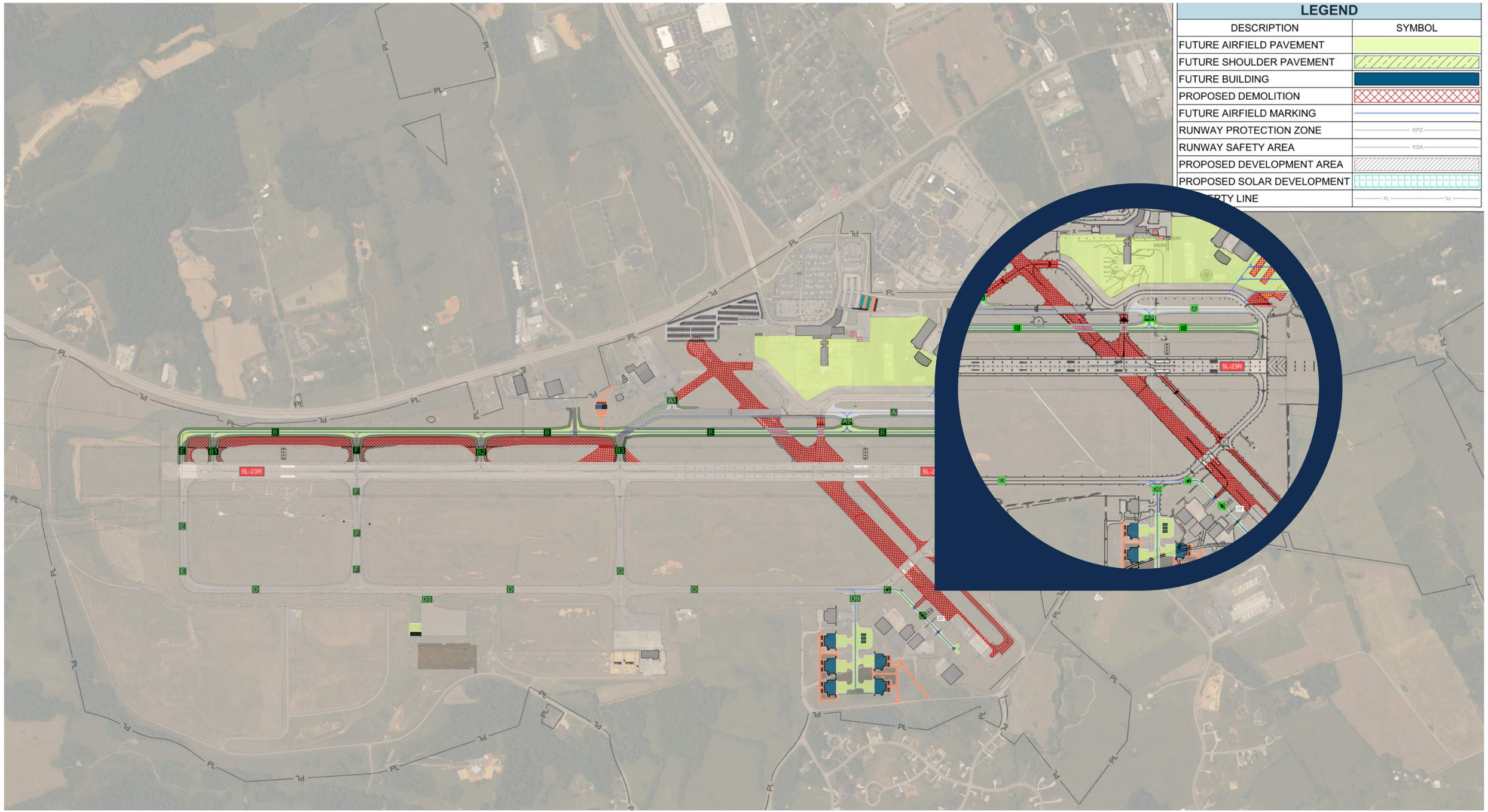
CIP – Taxiway R1 Hangar Facility Site Prep



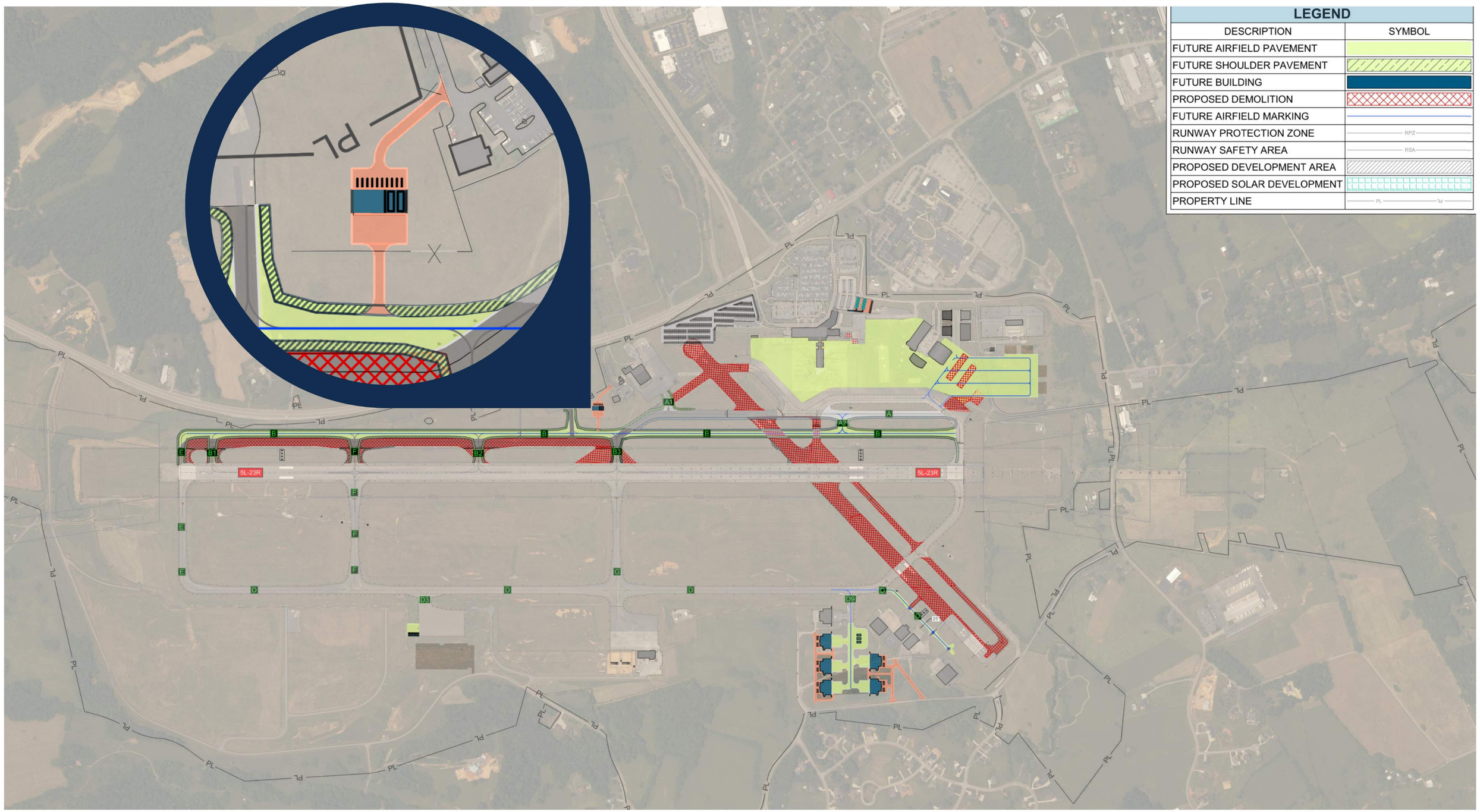
CIP – Taxiway A Relocation & Extension



CIP – Decommissioning of Runway 9/27 & Taxiway C



CIP – New ARFF Facility



CIP – Rental Car Reconfiguration & Expansion

CIP – Additional TDG 1 Taxiway for Future Development

Business Plan

Purpose:

Examine industry best practices that TRI could implement or enhance to assist in maximizing airport revenue.

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Business Plan – General Aviation Opportunities

- TRI plans to assume ownership of FBO (Tri-City Aviation)
  - Additional revenue generating opportunity.
  - Acquisition would allow TRI to control the customer service provisions enabling potential growth in the high-end GA market.
  - Airports with owned FBOs and preferably with recent transition to airport ownership.

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Business Plan – Air Cargo Opportunities

- Have a clear set of objectives and comprehensive air cargo marketing and business development plan.
  - If possible, initiate a regional cargo logistics study to better understand where and how potential air cargo shipments are being handled.
  - Identify strengths and weaknesses of the region, facilities, and service infrastructure.
  - Identify your target audience.
  - Design a marketing strategy to reach your customers and achieve your goals.

In 2023, the Bristol/Kingsport/ Johnson City metropolitan areas exported **$4.3B** in goods.

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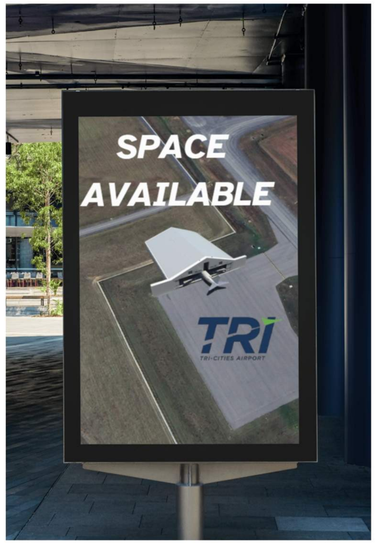
Business Plan – Property Development Opportunities

- Primary components of a successful Property Development Program
  - Broker Policy
  - Land Use considerations
  - Marketing Airport Property
  - Relationship with local economic development group



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Key Financial Trends

- Operating Revenues: Grew from $7.27M in FY 2019 to $8.76M in FY 2024

- Operating Expenses: Increased significantly from $6.63M in FY 2019 to $8.49M in FY 2024

- Net Position: Lower in FY 2024 compared to FY 2022-23 due to higher expenses and reduced federal support

- Impact of COVID-19: Revenues dropped in FY 2020-21 but recovered in DY 2022-23

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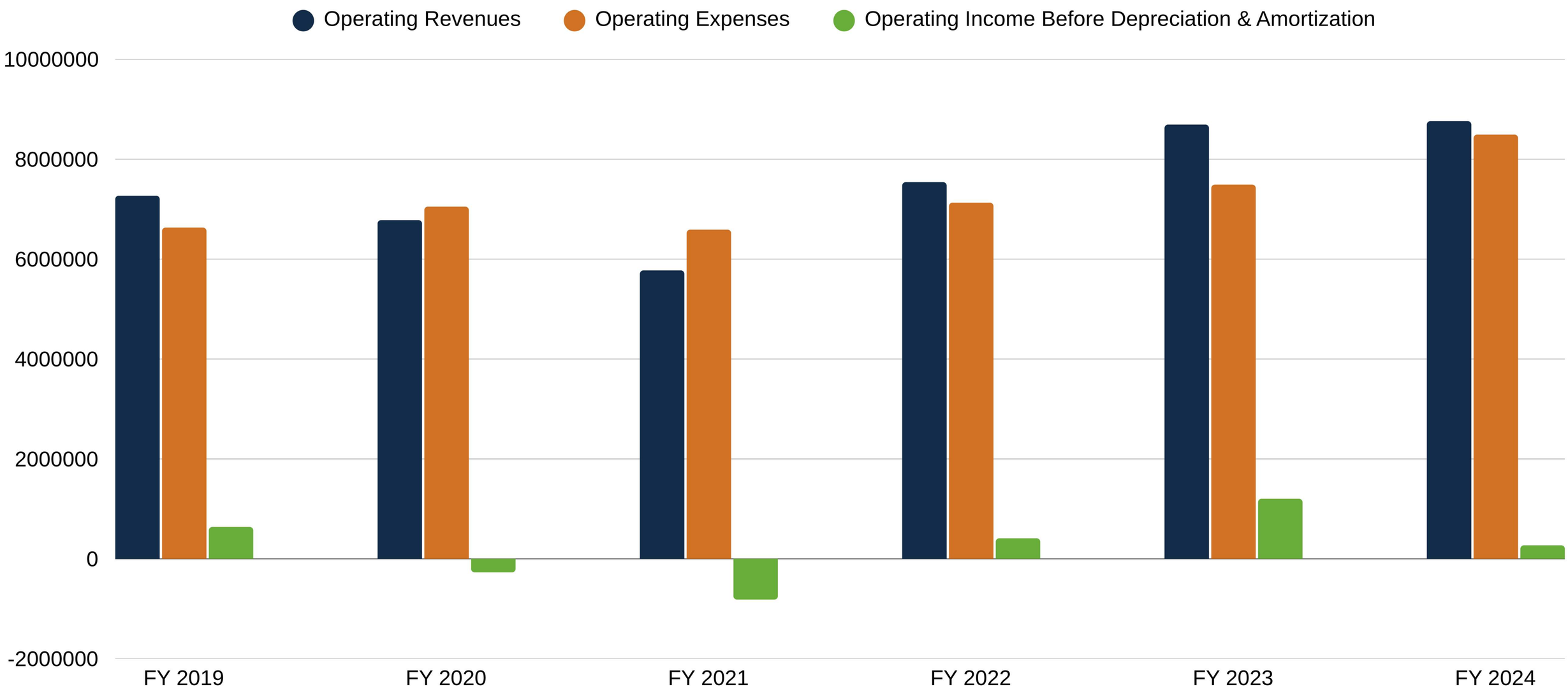
Historical Financial Performance (FY 2019 - FY 2024)



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Airport Revenue Trends

- Airline Revenues: Grew slightly from $2.36M in FY 2019 to $2.52M in FY 2024
- ▪Non-Airline Revenues: Major growth driver, rising from $4.91M in FY 2019 to $6.24M in FY 2024
- ▪Non-Operating Revenues: Fluctuated due to CARES Act funds in FY 2021-23, declining significantly in FY 2024

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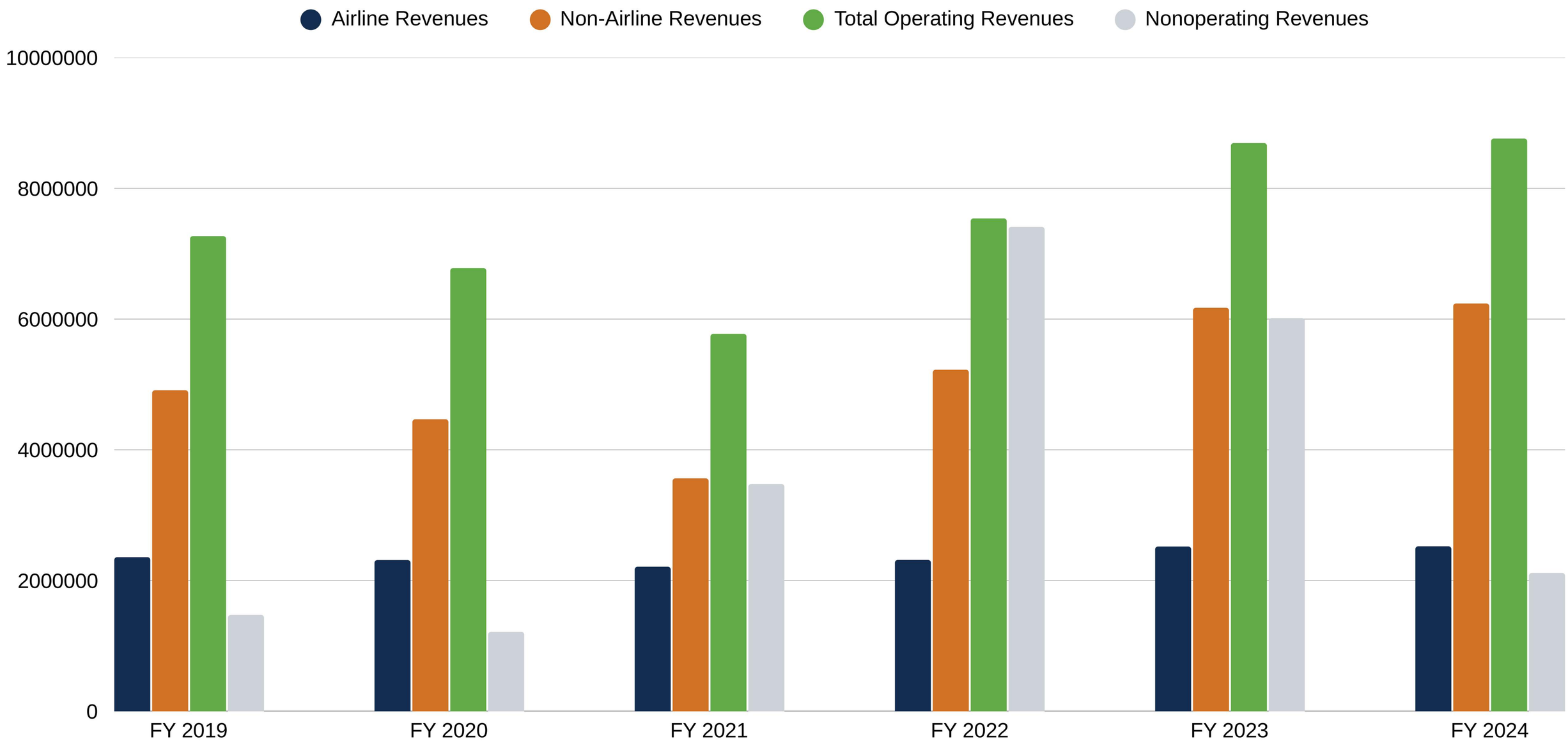
Airport Revenue Trends



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Operating Expense Trends

Key Expense Trends (FY 2019 – FY 2024):

- FY 2024 saw the highest expense increase ($1M+), driven by:
  - Administrative & Marketing Costs: Rose to $3.15M (+$763K YoY)
  - Air Cargo & Trade Expenses: Increased to $183K (+$57K YoY)
  - Parking & Ground Services: Grew to $679K (+$44K YoY)

Terminal Costs: Declined slightly to $912K, indicating stabilization post-COVID

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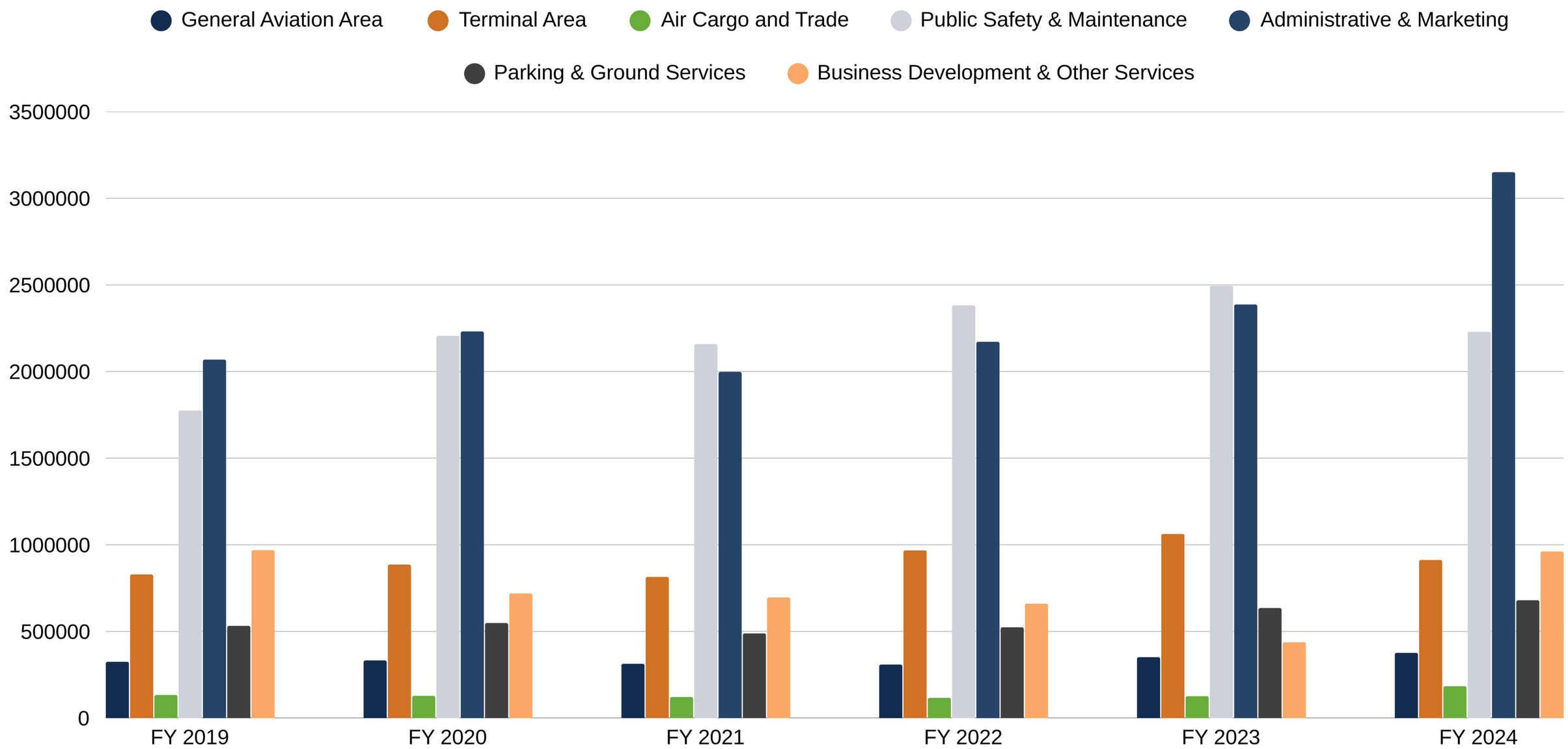
Operating Expense Trends



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Financial Forecasts (FY 2025 – FY 2043)

Projected Growth in Revenue and Expenses:

- Revenue: Expected to increase from $8.76M in FY 2024 to $22.02M by FY 2043 (251% increase)
- Expenses: Projected to grow from $8.49M in FY 2024 to $18.22M by FY 2043

Key Growth Drivers:

- FBO Operations (starting FY 2028): Adds fuel sales, hangar rentals, and ground services
- Aerospace Park Development: 160 acres for aviation tenants
- Non-Aviation Development: Leased land for distillery expansion

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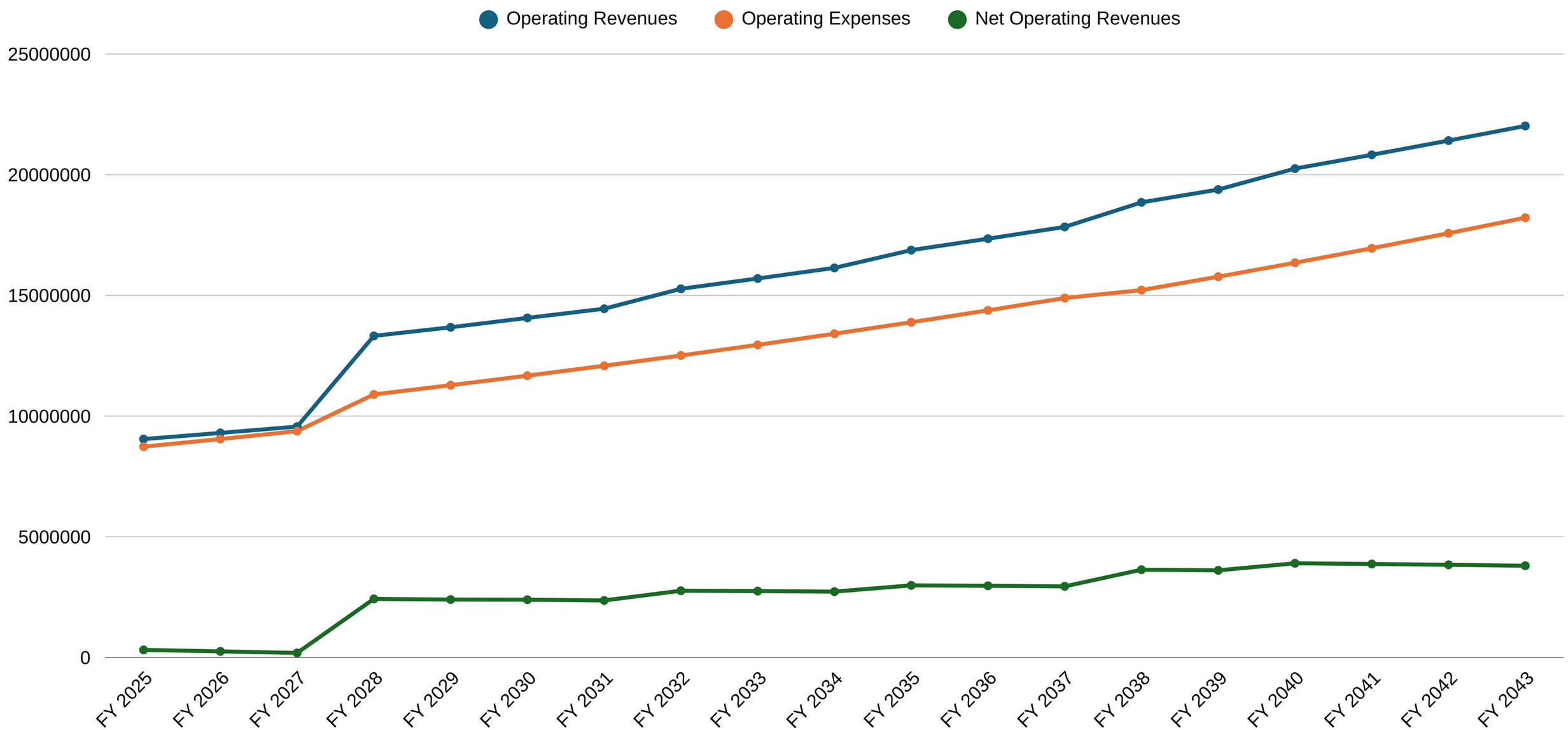
Projected Growth in Revenue and Expenses



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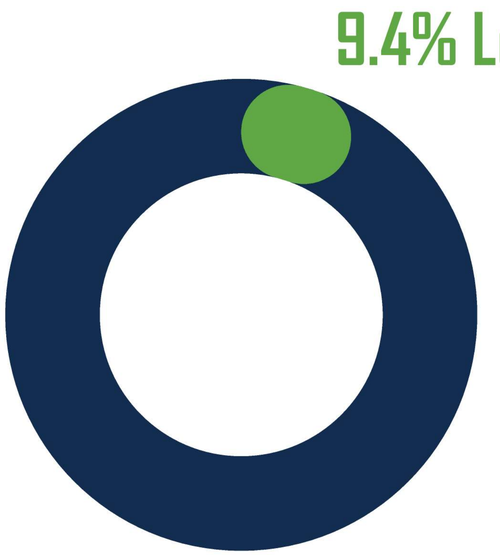
Local Share CIP Requirements

- Capital Improvement Program (CIP):
  - Total 20-Year CIP: $245.4 million
  - Local Share Requirement: $23.15 million (9.4%)
    - Local Share by Phase:
      - Phase 1 (2025–2029): $12.97M
      - Phase 2 (2030–2035): $3.89M
      - Phase 3 (2036–2043): $6.29M
- Funding Strategy:
  - Phases 2 and 3 funded on a Pay-As-You-Go basis from net revenue surpluses.
  - Phase 1 requires external borrowing to cover local share shortfalls.



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Phase 1 Borrowing Strategy

Loan Components:

- Phase 1 Shortfall: $5.04 million
- Revenue Cushion (Contingency Buffer): $4.00 million
- 1-Year Debt Service Reserve: $0.96 million
- Total Borrowed: $10.00 million

Loan Structure:

- Term: 15 years
- Interest Rate: 5.0%
- Annual Debt Service: $963,800
- Full Early Years Funding Gap Coverage (2025-2029)
- Pay-As-You-Go Achieved by 2030 Forward

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Debt Service Strategy

Year	Net Revenues	Loan Proceeds Applied	Total Available	Local Capital Need	Debt Service	Surplus / (Deficit)
2025	$764,014	$3,510,442	$4,274,456	$3,116,206	$1,158,250	$0
2026	$711,954	$1,498,571	$2,210,525	$1,052,275	$1,158,250	$0
2027	$657,528	$3,440,613	$4,098,141	$2,939,891	$1,158,250	$0
2028	$2,907,965	$1,655,502	$4,563,467	$3,405,217	$1,158,250	$0
2029	$2,896,695	$722,272	$3,618,967	$2,460,717	$1,158,250	$0
2030	$2,898,373	$0	$2,898,373	$485,750	$1,158,250	$1,254,373
2031	$2,875,309	$0	$2,875,309	$610,500	$1,158,250	$1,106,559
2032	$3,290,843	$0	$3,290,843	$871,500	$1,158,250	$1,261,093
2033	$3,290,687	$0	$3,290,687	$415,500	$1,158,250	$1,716,937
2034	$3,283,501	$0	$3,283,501	$1,389,000	$1,158,250	$736,251
2035	$3,554,131	$0	$3,554,131	$121,250	$1,158,250	$2,274,631
2036	$3,551,894	$0	$3,551,894	$341,925	$1,158,250	$2,051,719
2037	$3,541,080	$0	$3,541,080	$303,800	$1,158,250	$2,079,030
2038	$4,239,440	$0	$4,239,440	$902,500	$1,158,250	$2,178,690
2039	$4,692,436	$0	$4,692,436	$721,300	$1,158,250	$2,812,886

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Key Performance Indicators

Financial KPIs:

- Operating Revenue per Enplaned Passenger: $39.29 in FY 2024
- Net Operating Income Margin: 3.1% (expected to reach 17.3% by 2043)
- Cost per Enplaned Passenger (CPE): $11.31 in FY 2024

Capital Development KPIs:

- Capital Project Completion Rate: Target = 100%
- Grant Utilization Efficiency: Target ≥ 95%

Operational KPIs:

- On-Time Departure Rate: Target ≥ 85%
- Hangar Occupancy Rate: Target = 100%

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Key Performance Indicators (KPI) Dashboard

KPI	Value/Target
Operating Revenue per Enplaned Passenger	$39.29
Net Operating Income Margin	3.1% / 17.3% by 2043
Cost per Enplaned Passenger (CPE)	$11.31
Capital Project Completion Rate	100%
Grant Utilization Efficiency	95%
On-Time Departure Rate	85%
Hangar Occupancy Rate	100%

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Conclusion: Financial Feasibility of Master Plan

Financial Analysis Confirms the Master Plan Is Feasible and Fiscally Sustainable

A 15-year Borrowing Strategy Addresses Early Funding Gaps, Including:

- Local Capital Match Obligations
- Debt Service
- Modest Operating Cushion
- Phase 1 Implementation Is Fully Supported Without Straining TRI's Financial Position
- From 2030 Onward, Net Revenues Exceed Debt Service and Capital Needs, Enabling Pay-As-You-Go Funding
- Ongoing Monitoring and Annual Capital Planning Needed

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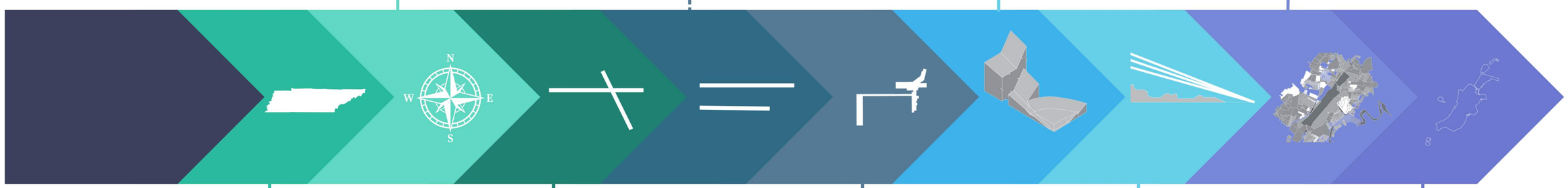
Airport Layout Plan Set



DATA SHEET

Consolidated data that lists technical and operational information for the airport.

ALP

Illustrates proposed developments and improvements to meet the airports current and future needs.

PART 77

Identifies FAA Part 77 Imaginary Surfaces and obstructions around the Airport.

EXISTING/FUTURE LAND USE PLAN

Identifies current and future land use categories surrounding the airport.

COVER SHEET

Provides a quick overview of the ALP set contents and helps orient reviewers to the airports location.

EXISTING ALP

Provides graphical representation of current airport facilities and infrastructure.

TAP

Focuses on the terminal area and how it will develop to meet future operational needs.

INNER APPROACH/ DEPARTURE

Provides detailed views of the critical areas near runway ends, and any potential obstructions.

EXHIBIT A PROPERTY MAP

Serves as the official property record, depicting owners and areas of surrounding properties.

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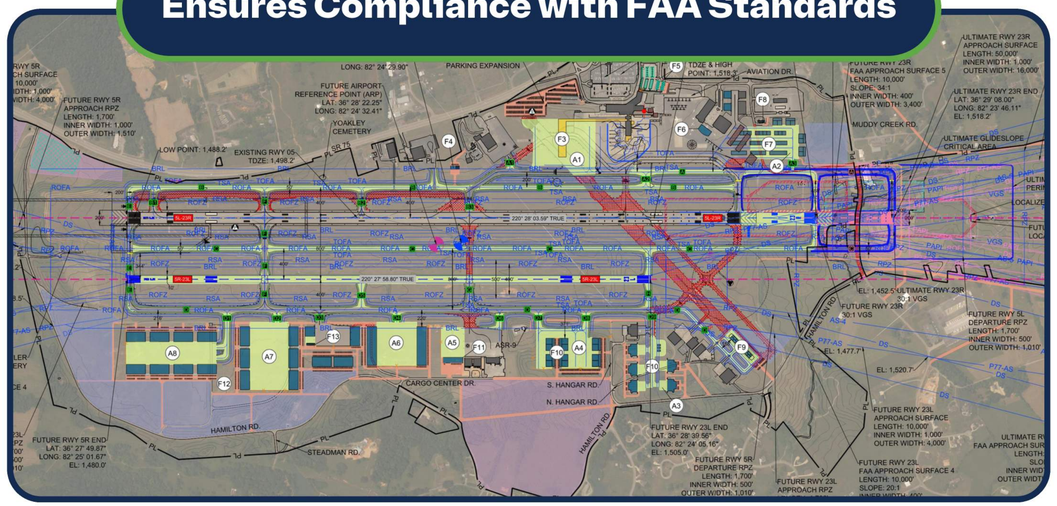
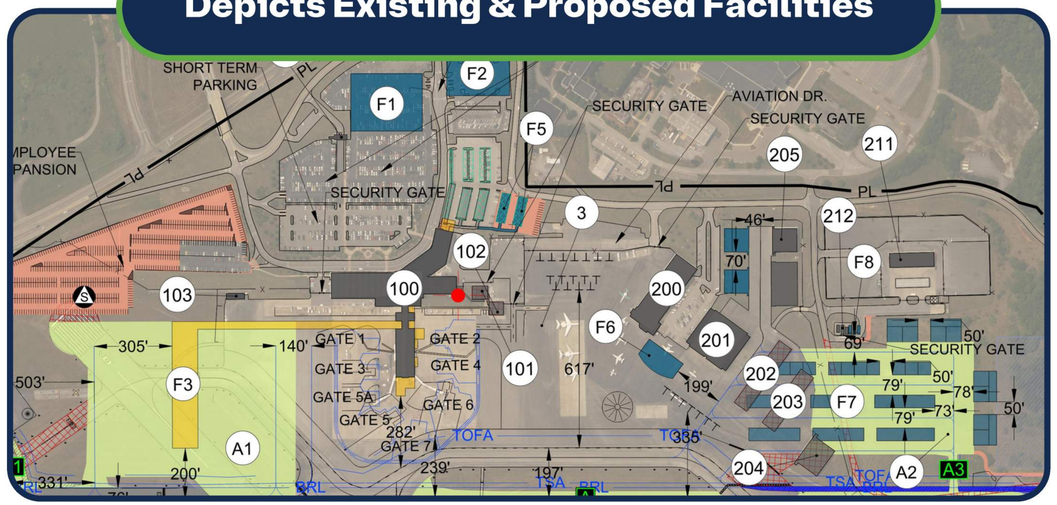
Airport Layout Plan Set

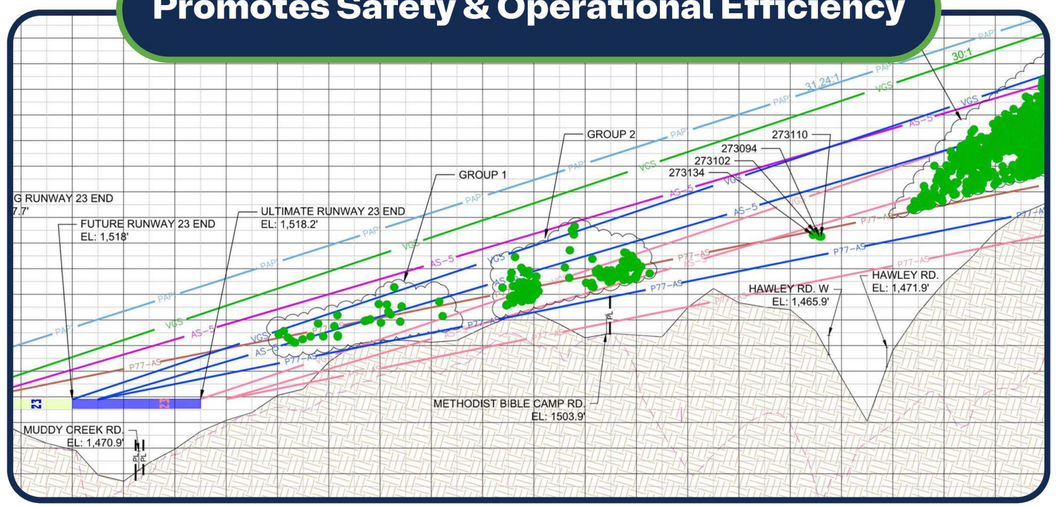
Ensures Compliance with FAA Standards



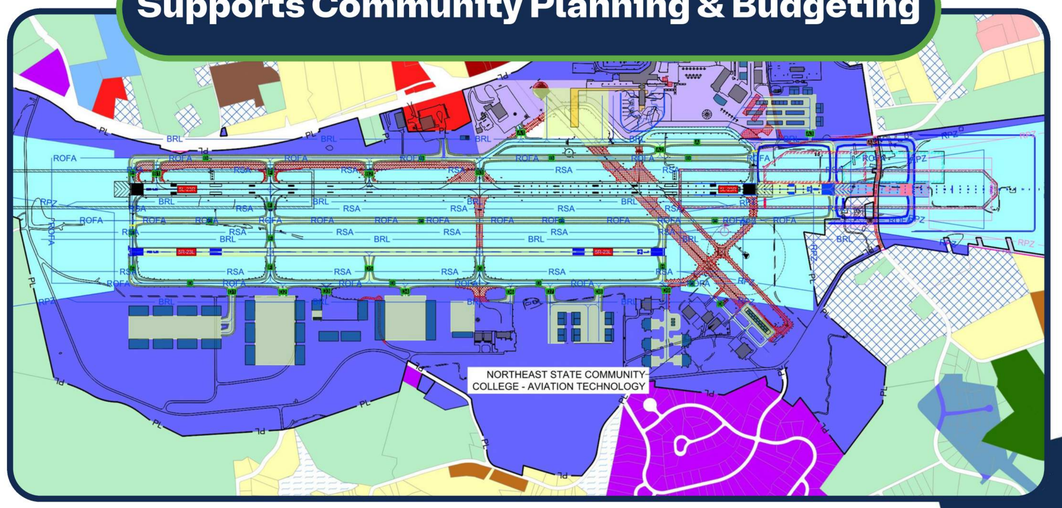
Depicts Existing & Proposed Facilities



Promotes Safety & Operational Efficiency



Supports Community Planning & Budgeting



An ALP sheet is required for Federal Funding

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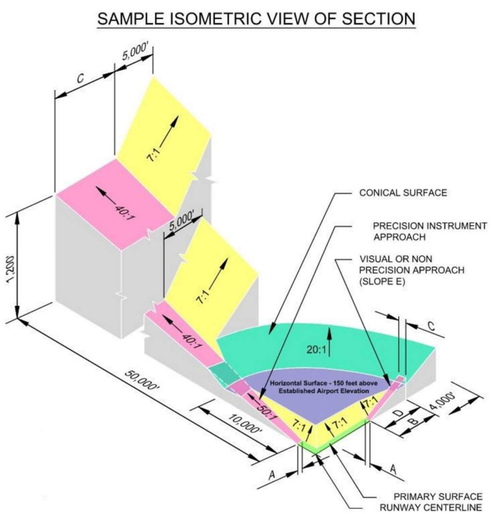
Part 77 Imaginary Surfaces

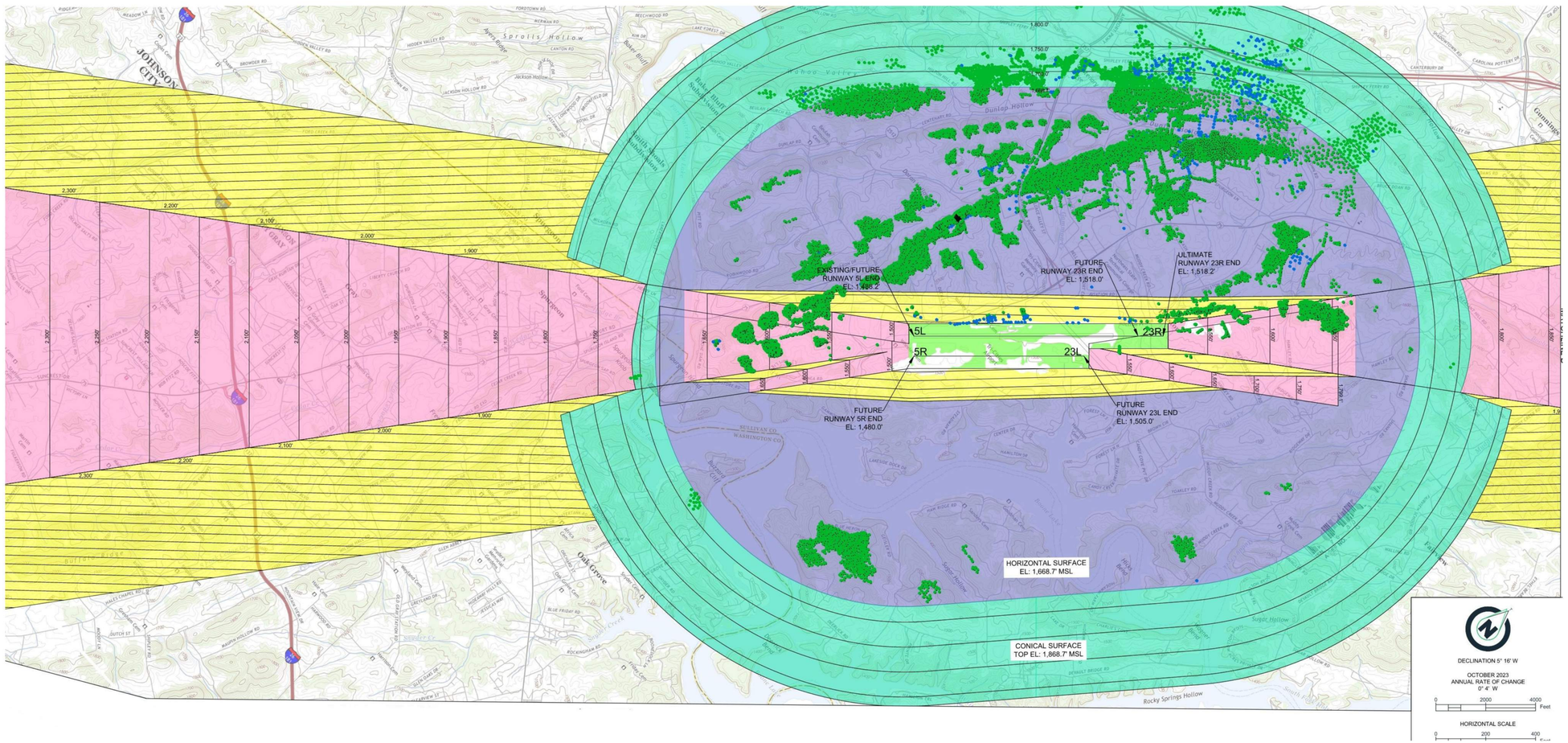
Safeguarding Airspace with Imaginary Surfaces

Part 77 Imaginary Surfaces are invisible airspace areas established around airports to protect navigable airspace and ensure safe aircraft operations. These surfaces are designed to protect aircraft from potential hazards during take-off, landing, and approach phases by ensuring that structures and natural features do not encroach into the airspace used by aircraft.



14 CFR PART 77 SURFACES

- Primary Surface
- Approach Surface
- Transitional Surface
- Horizontal Surface
- Conical Surface



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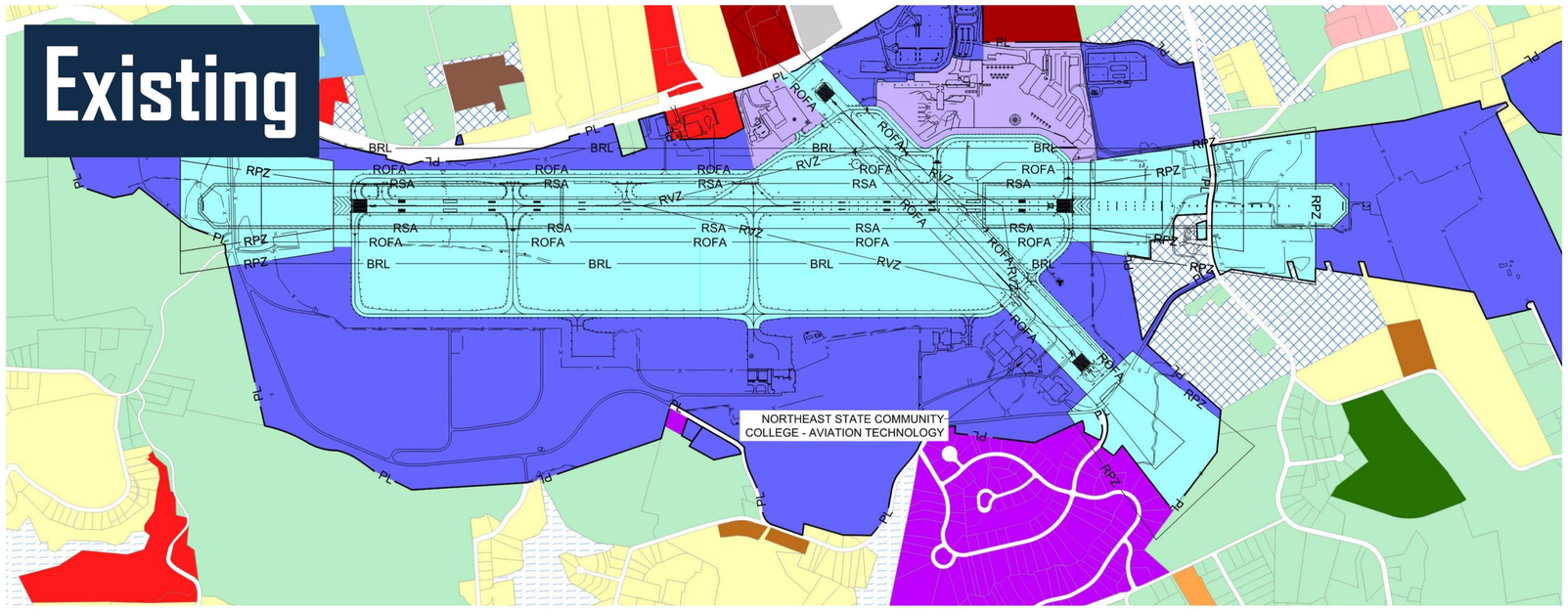
Land Use Plans



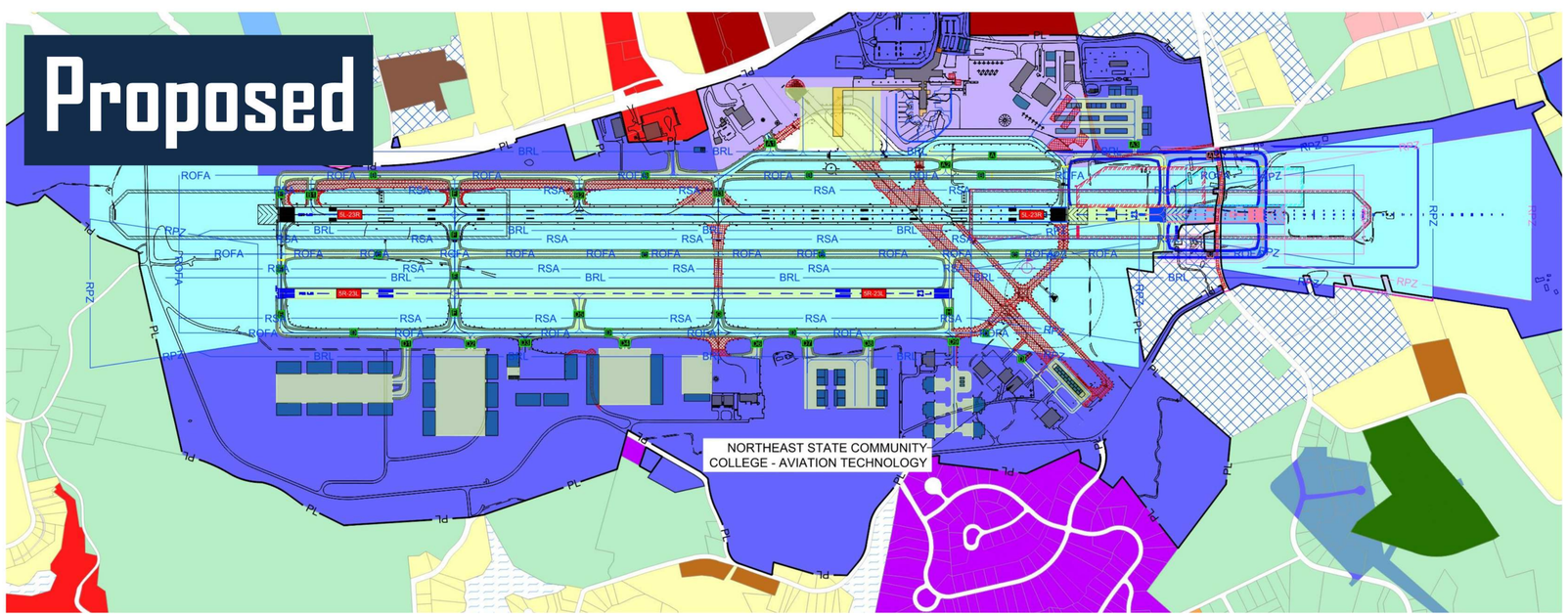


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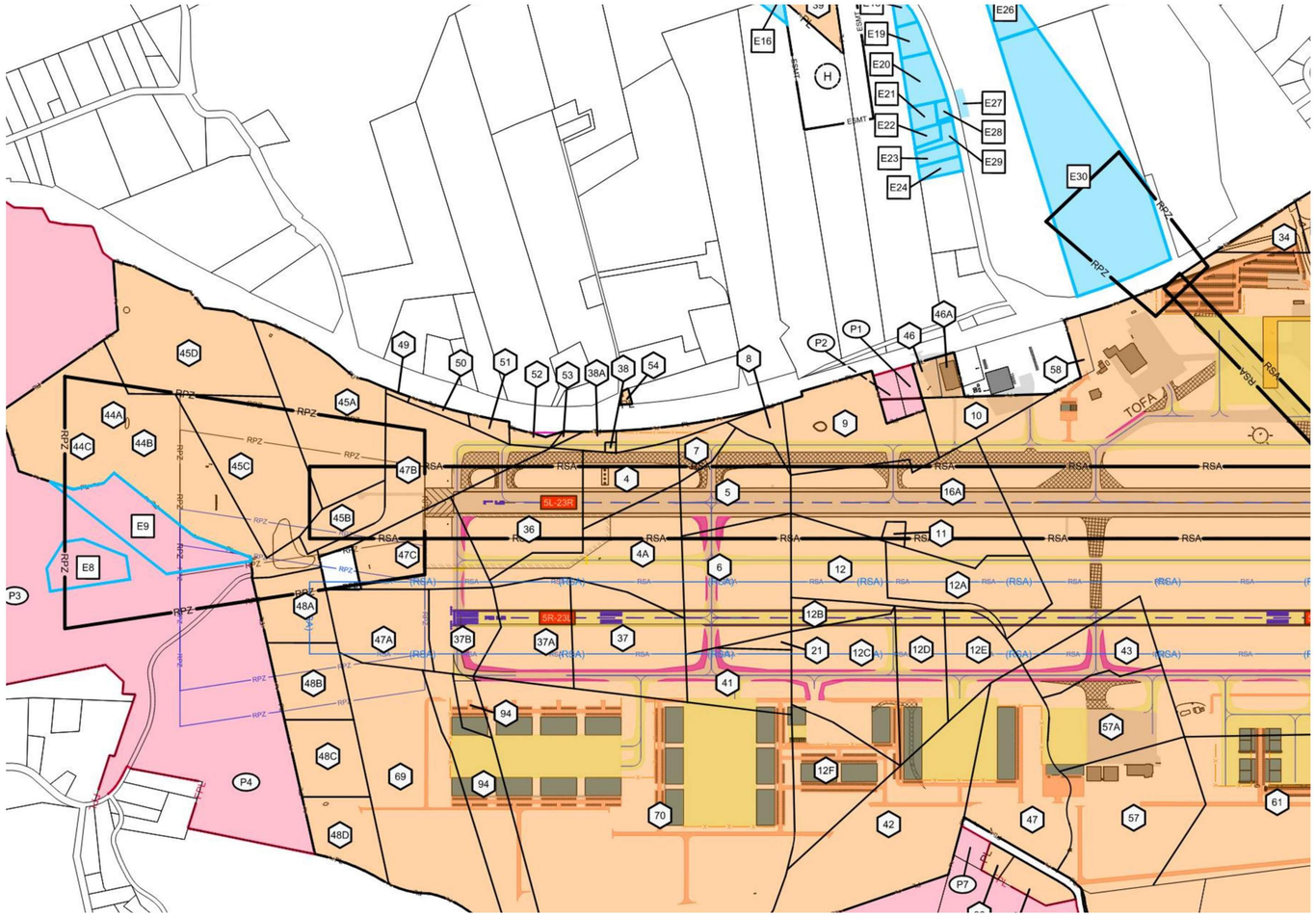
Exhibit 'A' Property Map



EXISTING AIRPORT PARCEL DATA							
PARCEL NO.	TYPE OF ACQUISITION	ACREAGE	NAME	DATE AQUIRED	Book/Page	AQUIRED UNDER	NOTES
58	FEE SIMPLE	1.05	EASTMAN KODAK CO.	5/16/1984	426-C p509	N/A	
60	FEE SIMPLE	25.95	MAPLE VIEW FARMS	9/26/1984	414-C p773	AIP-07	
60A	FEE SIMPLE	3.70	MAPLE VIEW FARMS	9/26/1984	414-C p773	AIP-06	
61	FEE SIMPLE	2.83	MAPLE VIEW FARMS	9/26/1984	414-C p773	AIP-07	
62	FEE SIMPLE	0.72	MAPLE VIEW FARMS	6/18/1987	572-C p565	AIP-12	
63	FEE SIMPLE	0.87	T.M. CROSS	7/24/1987	572-C p568	AIP-12	
64	FEE SIMPLE	2.54	T.M. CROSS	7/24/1987	572-C p568	AIP-12	
65	FEE SIMPLE	0.83	MAPLE VIEW FARMS	6/18/1987	572-C p565	AIP-12	SEE PARCEL 62. PARCELS 65 AND 62 ARE TWO SEPARATE PARCELS, BUT HAVE
66	FEE SIMPLE	6.84	T.M. CROSS	7/18/1988	632-C p623	AIP-12	
67	FEE SIMPLE	2.42	MAPLE VIEW FARMS	7/14/1988	632-C p620	AIP-12	
69	FEE SIMPLE	13.80	J.C. SMITH	8/28/1990	741-C p256	AIP - 12	
70	FEE SIMPLE	65.42	T.L. DUNCAN	12/31/1993	964-C p126	AIP-16	
74	FEE SIMPLE	2.07	FIRST TN BANK	3/26/1996	1123-C p55	AIP-21	
80	FEE SIMPLE	21.10	SPEARS/HAMILTON	5/6/1997	1219-C p320	AIP-22	
81	FEE SIMPLE	0.46	WILLIAM WAGNER	6/18/1998	1319-C p530	AIP-22	
82	FEE SIMPLE	21.27	MAPLE VIEW FARMS	6/30/1993	923-C p349	AIP-16	
83	FEE SIMPLE	0.46	HAROLD WAGNER	9/30/1993	944-C p400	AIP-21	
84	FEE SIMPLE	0.92	A.K. WAGNER JR	11/12/1993	953-C p508	AIP-21	
85	FEE SIMPLE	6.11	STATE OF TENNESSEE	9/26/2000	1566-C p650	AIP-29	
86	FEE SIMPLE	0.75	S.A.HOLLEY	11/17/2000	1567-C p386	AIP-29	
87	FEE SIMPLE	1.38	J. WIMBERLY	1/31/2001	1585-C p340	AIP-23	
88	FEE SIMPLE	0.68	SUN TRUST BANK	4/30/2001	1613-C p248	AIP-29	
89	FEE SIMPLE	25.54	T.M. CROSS	4/23/2004	2101-C p551	AIP-39	
90A/B*	SWAP	0.36	STATE OF TENESSEE	2/25/2004	2128-C p310	N/A	
91	FEE SIMPLE	30.29	GRANDE HARBOR, LLC	6/8/2006	2408-C p685	AIP-43	
92	FEE SIMPLE	6.27	MAPLE VIEW FARMS	7/31/2006	2429-C p188	N/A	
93	FEE SIMPLE	39.00	MAPLE VIEW FARMS	10/26/2006	2464-C p278	N/A	
94	FEE SIMPLE	12.87	E.B.CROSS	6/28/2007	2555-C p384	AIP-45	
94	FEE SIMPLE	1.51	E.B.CROSS	6/28/2007	2555-C p384	AIP-45	
95	FEE SIMPLE	25.95	MAPLE VIEW FARMS	9/5/2007	2582-C p702	AIP-47	
96	FEE SIMPLE	5.85	MAPLE VIEW FARMS	8/29/2008	2700-C p145	AIP-49	
97	FEE SIMPLE	13.74	EVANGELICAL METHODIST CHURCHES	11/24/2009	2833-C p562	AIP-51	
98	FEE SIMPLE	9.77	MAPLE VIEW FARMS	5/25/2010	2877-C p672	AIP-59	
99	QUIT CLAIM	0.59	GRANDE HARBOR, LLC	10/23/2012	3054 p973-978	AIP-63	
100	QUIT CLAIM	0.41	GRANDE HARBOR, LLC	10/23/2012	3054 p973-978	AIP-63	
101	QUIT CLAIM	0.52	GRANDE HARBOR, LLC	10/23/2012	3054 p973-978	AIP-63	
102	QUIT CLAIM	0.53	GRANDE HARBOR, LLC	10/23/2012	3054 p973-978	AIP-63	
103	QUIT CLAIM	0.60	GRANDE HARBOR, LLC	10/23/2012	3054 p973-978	AIP-63	
104	QUIT CLAIM	0.41	GRANDE HARBOR, LLC	10/23/2012	3054 p973-978	AIP-63	
105	FEE SIMPLE	2.44	METHODIST BIBLE CAMP**	6/30/2017		PFC #7	
106	FEE SIMPLE	23.44	BASLER WAYNE G	8/14/2020	3397 p1430-1434	AIP-74	

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