TOOELE

VALLEY AIRPORT

Public Information Meeting

TVY Airport Master Plan

SLC DEPARTMENT OF AIRPORTS

SLC SVR TVY

RS&H

OCTOBER | 2022

Agenda

- Master Plan Overview
- Aviation Demand Forecast
- Facility Requirements
- Next Steps

MASTER PLAN OVERVIEW

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Master Plan Process

Inventory existing conditions
- Facilities and equipment

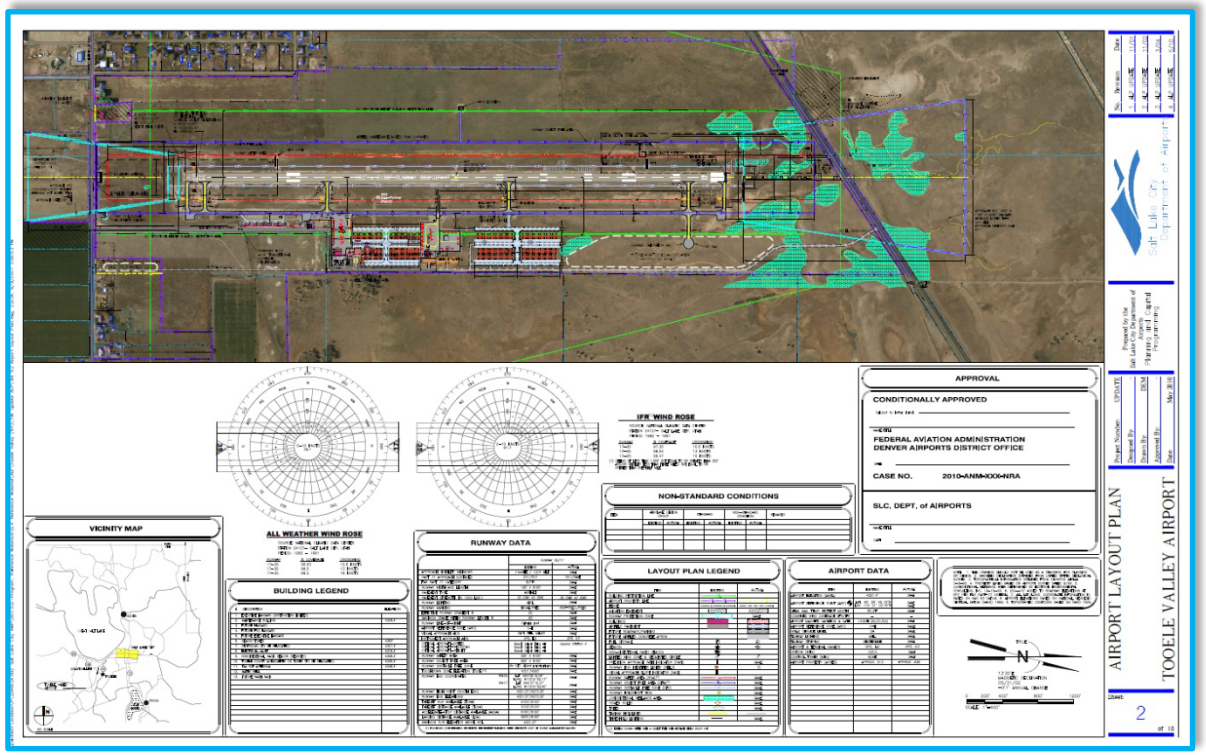
Forecast aviation demand
- Aircraft operations and based aircraft

Determine future facility requirements
- Airfield, navigational aids, and supporting facilities
- Aircraft parking/storage, access roads/parking, and utilities

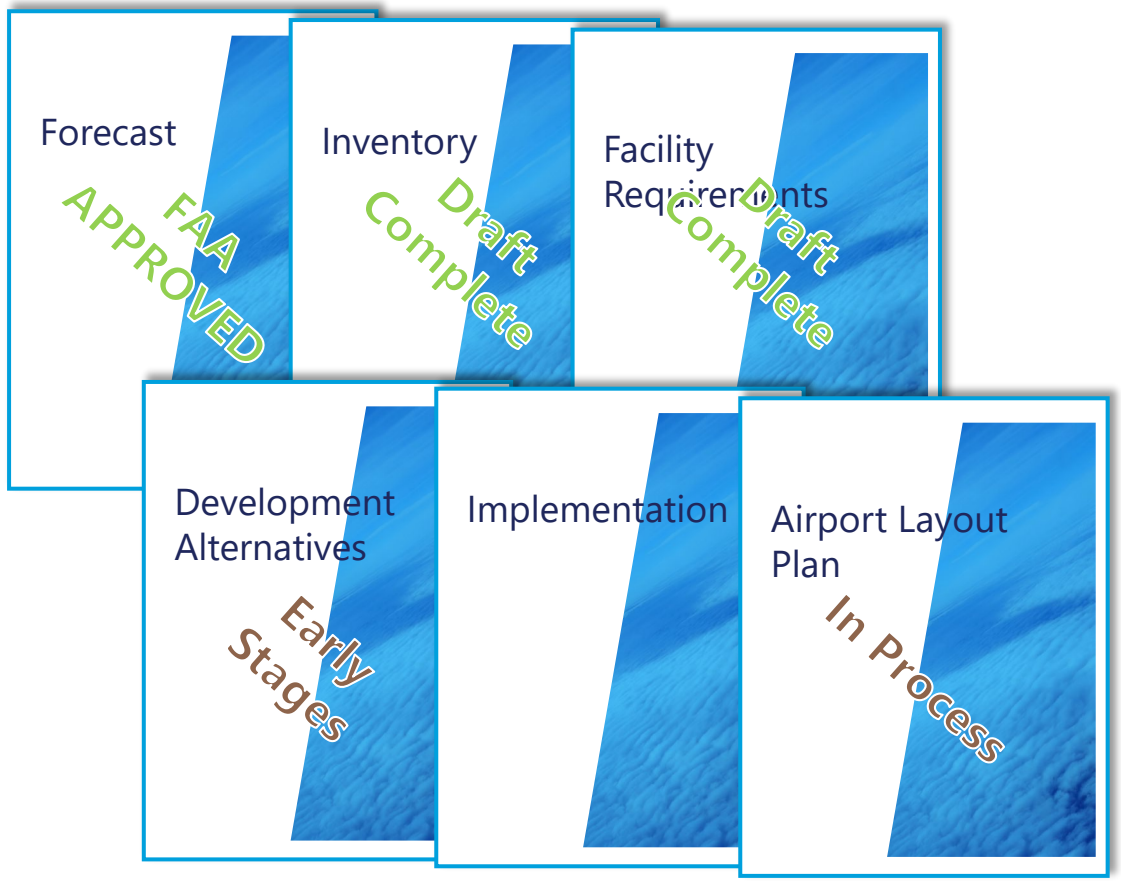
Identify and evaluate development alternatives
- Demand-driven solutions
- Financial feasibility

Master Plan Work Products

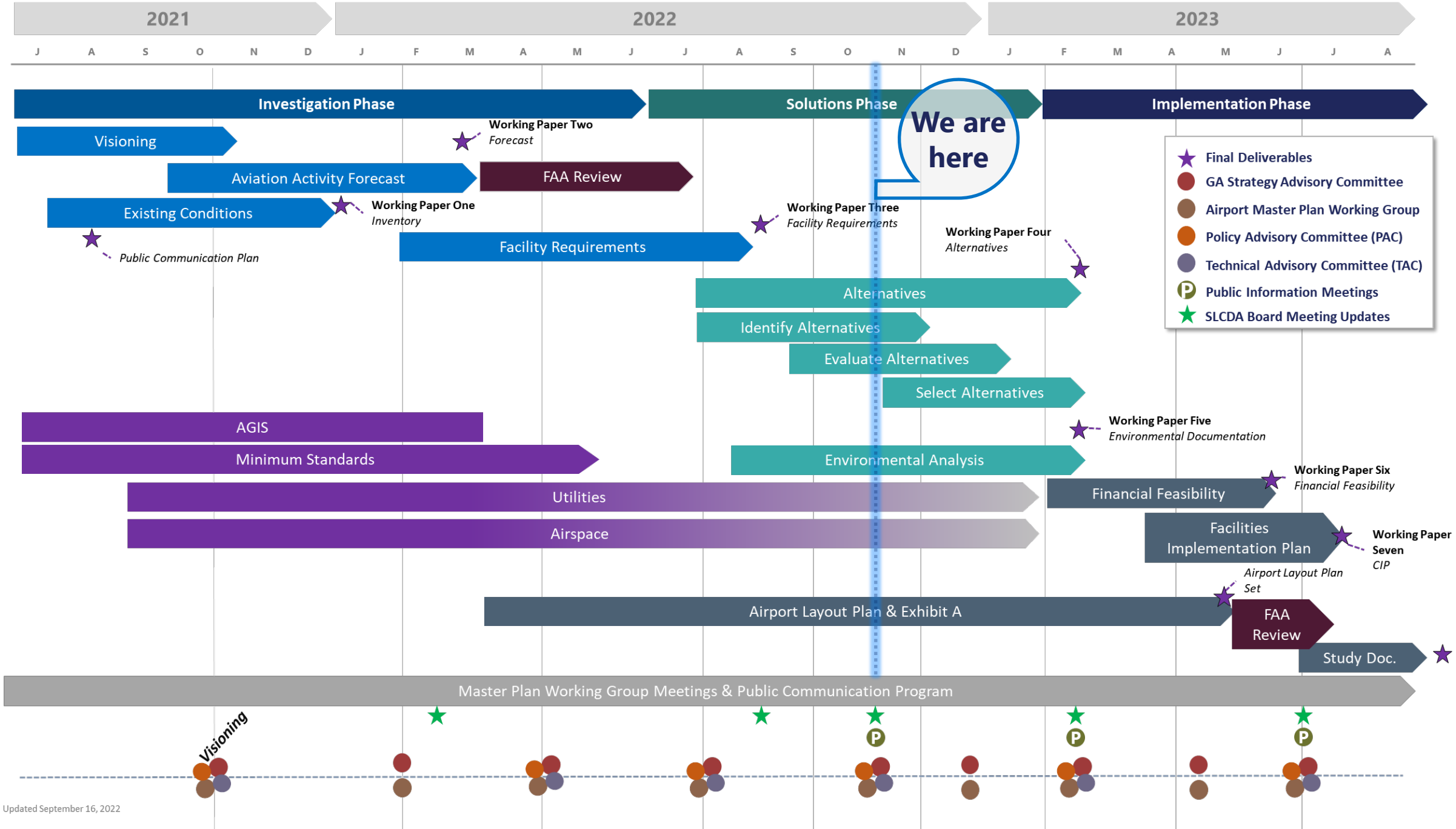
Airport Layout Plan:
(Illustrates the plan)



Technical Report:
(Documents the why and how)



Master Plan Schedule



Updated September 16, 2022

AVIATION DEMAND FORECAST

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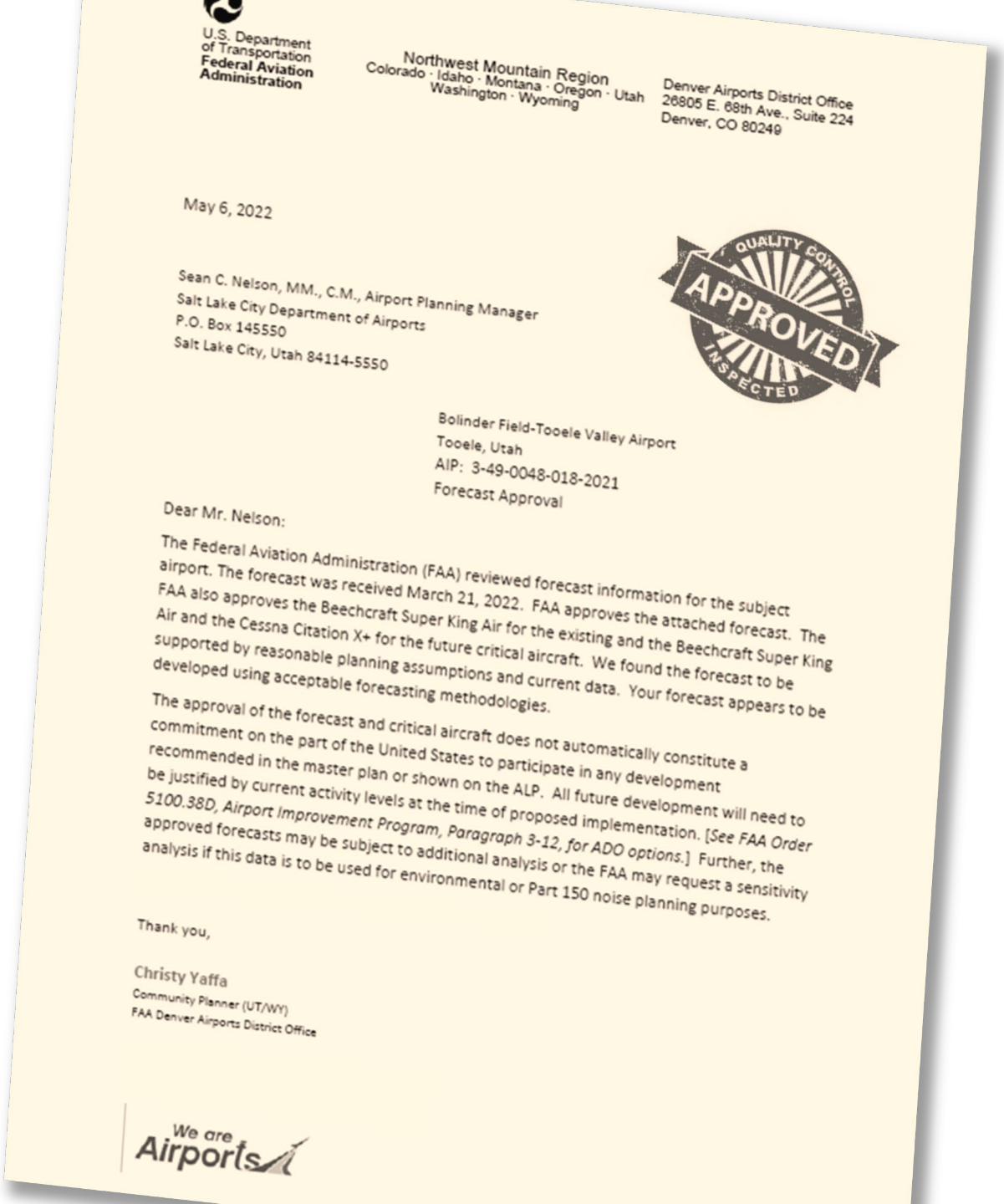
The Forecast Projects…

- Based aircraft
- Operations
- Critical aircraft



U.S. Department of Transportation
Federal Aviation Administration

Northwest Mountain Region
Colorado · Idaho · Montana · Oregon · Utah
Washington · Wyoming

Denver Airports District Office
26805 E. 68th Ave., Suite 224
Denver, CO 80249

May 6, 2022

QUALITY CONTROL APPROVED INSPECTED

Sean C. Nelson, MM., C.M., Airport Planning Manager
Salt Lake City Department of Airports
P.O. Box 145550
Salt Lake City, Utah 84114-5550

Bolinder Field-Tooele Valley Airport
Tooele, Utah
AIP: 3-49-0048-018-2021
Forecast Approval

Dear Mr. Nelson:

The Federal Aviation Administration (FAA) reviewed forecast information for the subject airport. The forecast was received March 21, 2022. FAA approves the attached forecast. The FAA also approves the Beechcraft Super King Air for the existing and the Beechcraft Super King Air and the Cessna Citation X+ for the future critical aircraft. We found the forecast to be supported by reasonable planning assumptions and current data. Your forecast appears to be developed using acceptable forecasting methodologies.

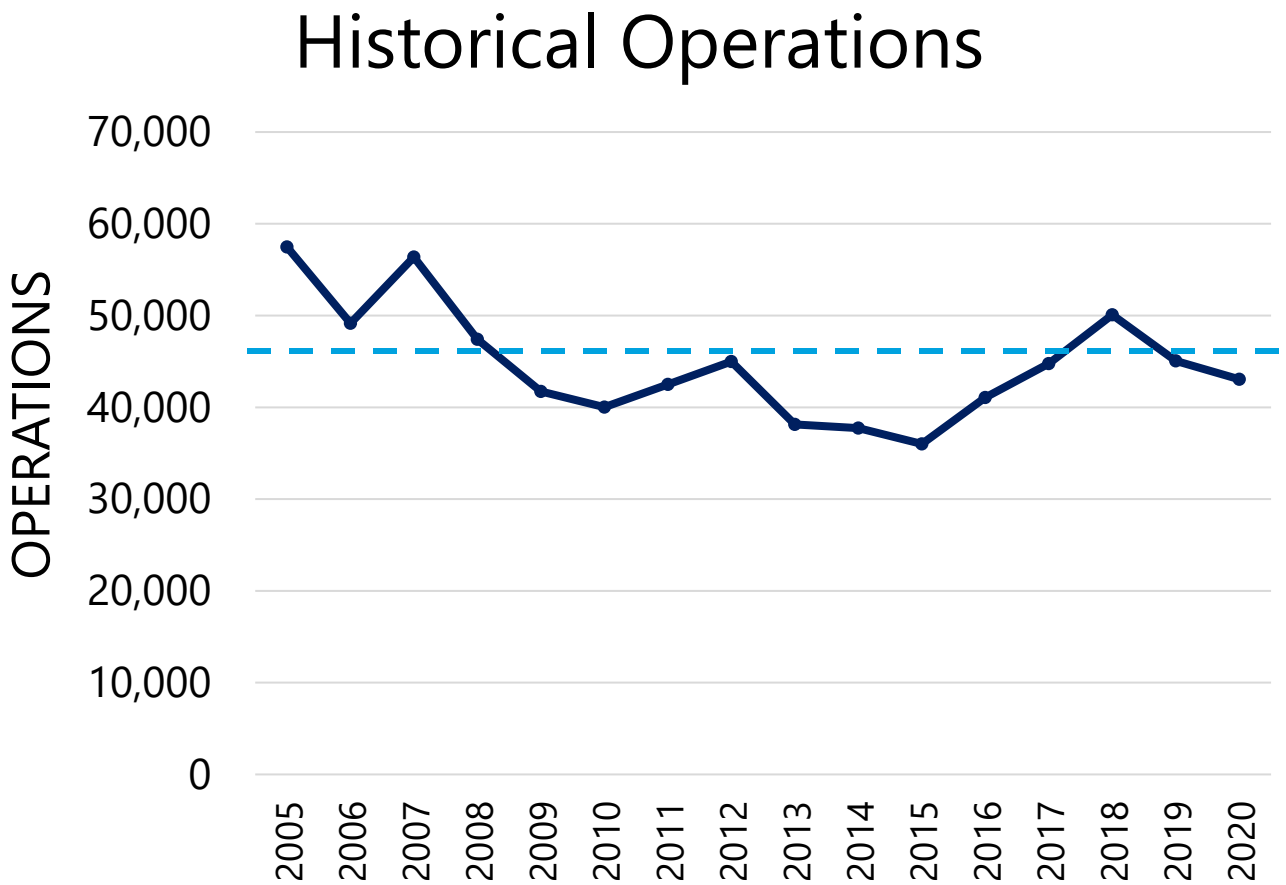
The approval of the forecast and critical aircraft does not automatically constitute a commitment on the part of the United States to participate in any development recommended in the master plan or shown on the ALP. All future development will need to be justified by current activity levels at the time of proposed implementation. [*See FAA Order 5100.38D, Airport Improvement Program, Paragraph 3-12, for ADO options.*] Further, the approved forecasts may be subject to additional analysis or the FAA may request a sensitivity analysis if this data is to be used for environmental or Part 150 noise planning purposes.

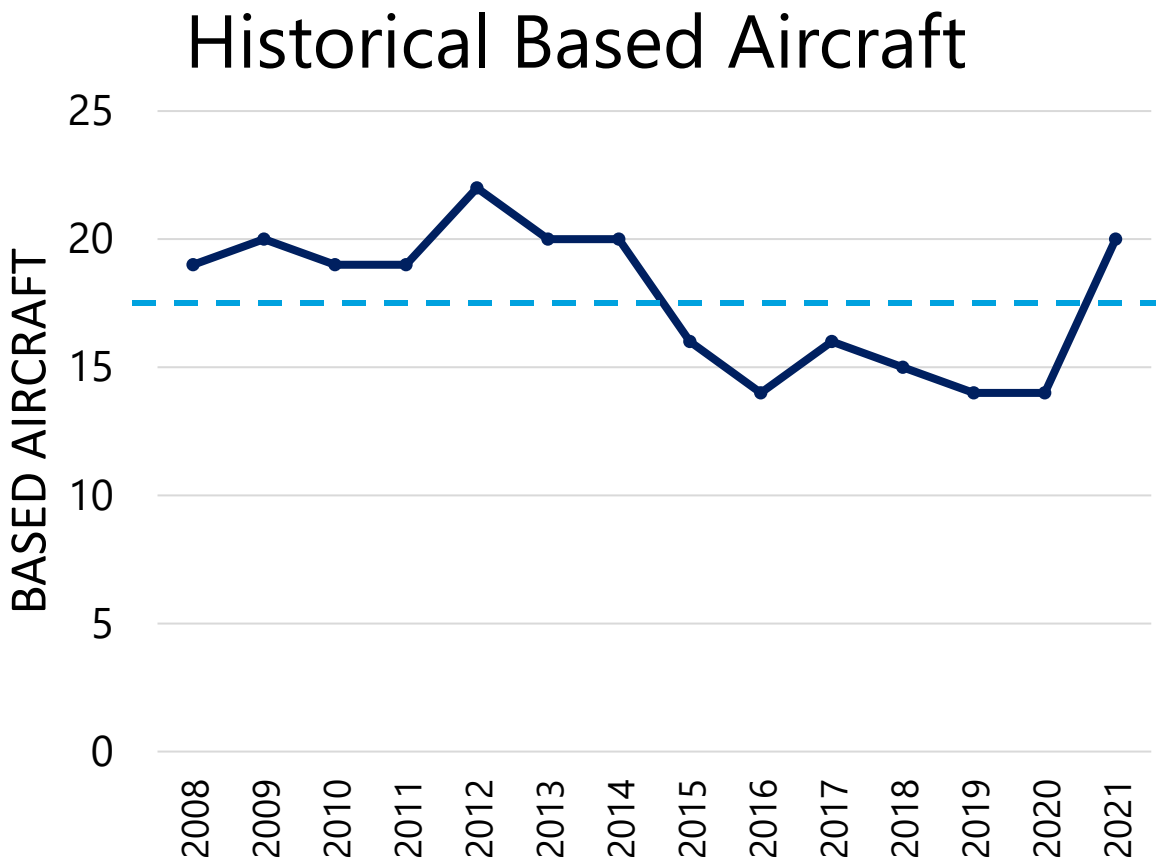
Thank you,

Christy Yaffa
Community Planner (UT/WY)
FAA Denver Airports District Office

We are Airports

Historically Level Activity





TVY Baseline Operations Forecast

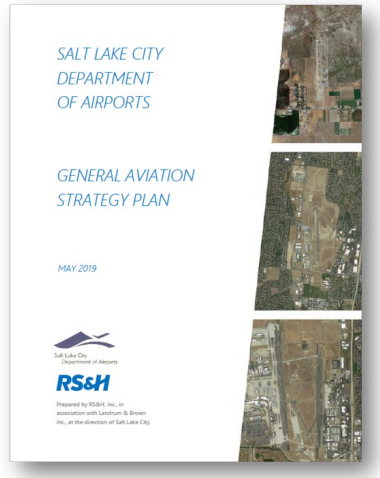
- Operations forecast correlates with based aircraft growth
  - 0.8% year-over-year growth
- Operations per Based Aircraft ~ 2,100 operations

Baseline Forecast

Year	Itinerant Air Taxi	Itinerant General Aviation	Itinerant Military	Local General Aviation	Local Military	Total Annual Operations	Based Aircraft
2020	244	27,738	0	15,066	0	43,048	20
2025	254	28,880	0	15,686	0	44,820	21
2030	264	30,069	0	16,332	0	46,665	22
2040	287	32,595	0	17,704	0	50,585	24
CAGR (2020-2040)	0.8%	0.8%	0.0%	0.8%	0.0%	0.8%	0.8%

TVY High Growth Forecast

- Based on GA Tenant Survey and GA Strategy Plan Forecast
- High growth forecast = 3.2%
  - Tenant survey validated GA Strategy Plan's aggressive scenario
  - Operations not forecast to be significantly affected



High Growth Based Aircraft Forecast

Year	Single Engine Piston	Multi-Engine Piston	Turboprop	Jet	Helicopter	Total
2020	19	0	1	0	0	**20**
2025	32	0	1	0	0	**33**
2030	32	0	2	0	0	**34**
2040	33	0	3	1	0	**37**
CAGR (2020-2040)	2.8%	-	5.6%	-	-	3.2%

Planning Activity Levels

Forecast Year	Planning Activity Level (PAL)	Operations	Based Aircraft No Action	Based Aircraft High Growth
2020	Base Year	43,048	20	20
2025	**PAL 1**	**44,820**	**21**	**33**
2030	**PAL 2**	**46,665**	**22**	**34**
2040	**PAL 3**	**50,585**	**24**	**37**

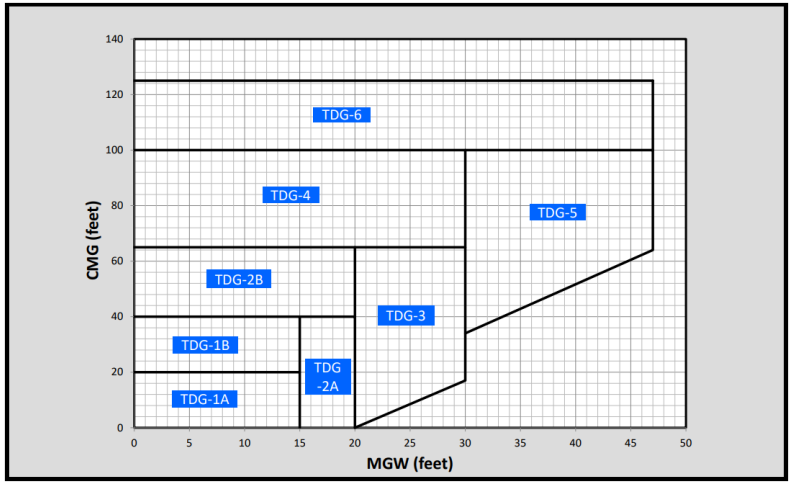
Airport Reference Code

- Aircraft Approach Category (AAC)
  - What is the landing speed?
- Airplane Design Group (ADG)
  - How much space does it take up?
  - Length? Wingspan? Tail height?
- Taxiway Design Group (TDG)
  - Landing gear dimensions?
  - Required turning radius?

FAA AC 150/5300-13B, *Airport Design*

AAC	Approach Speed
A	Approach speed less than 91 knots
B	Approach speed 91 knots or more but less than 121 knots
C	Approach speed 121 knots or more but less than 141 knots
D	Approach speed 141 knots or more but less than 166 knots
E	Approach speed 166 knots or more

Group #	Tail Height (ft)	Wingspan (ft)
I	< 20'	< 49'
II	20' - < 30'	49' - < 79'
III	30' - < 45'	49' - < 118'
IV	45' - < 60'	118' - < 171'
V	60' - < 66'	171' - < 214'
VI	66' - < 80'	214' - < 262'



Critical Aircraft Validated

	Critical Aircraft	AAC	ADG	TDG
Existing	Beechcraft Super King Air	B	II	2A
Future	Beechcraft Super King Air	B	II	2A
	Cessna Citation X+	C	II	1B
	Composite	**C**	**II**	**2A**

FACILITY REQUIREMENTS

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TOOELE VALLEY

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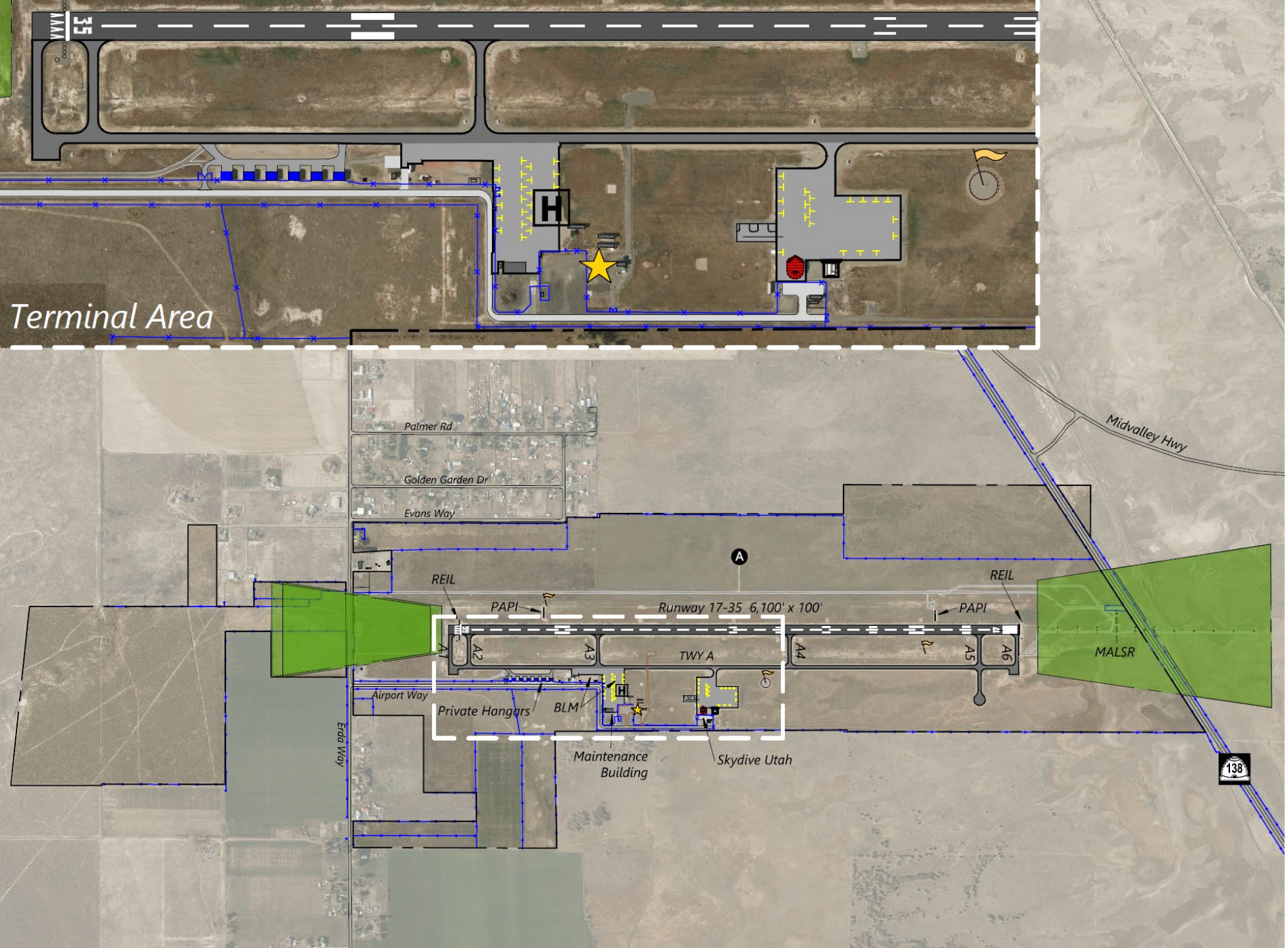

TOOELE VALLEY AIRPORT OVERVIEW

- Helipad
- Property Boundary
- Private Hangars
- Skydive Utah
- Runway Protection Zone (RPZ)
- Windcone
- Windcone w/Segmented Circle
- AWOS
- Beacon

Map Scale

1,200' 600' 0' 1,200'

Graphically represented

Detail Scale

400' 200' 0' 400'

Graphically represented

AIRSPACE AND NAVAIDS

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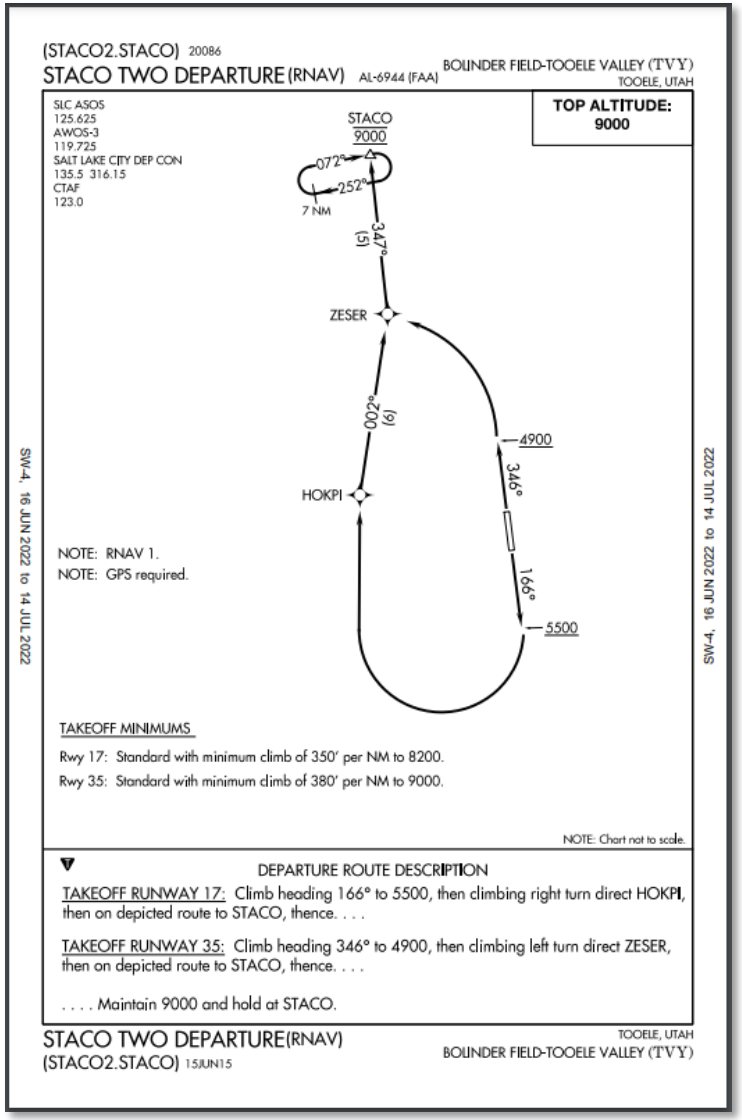
Airspace and Instrument Procedures

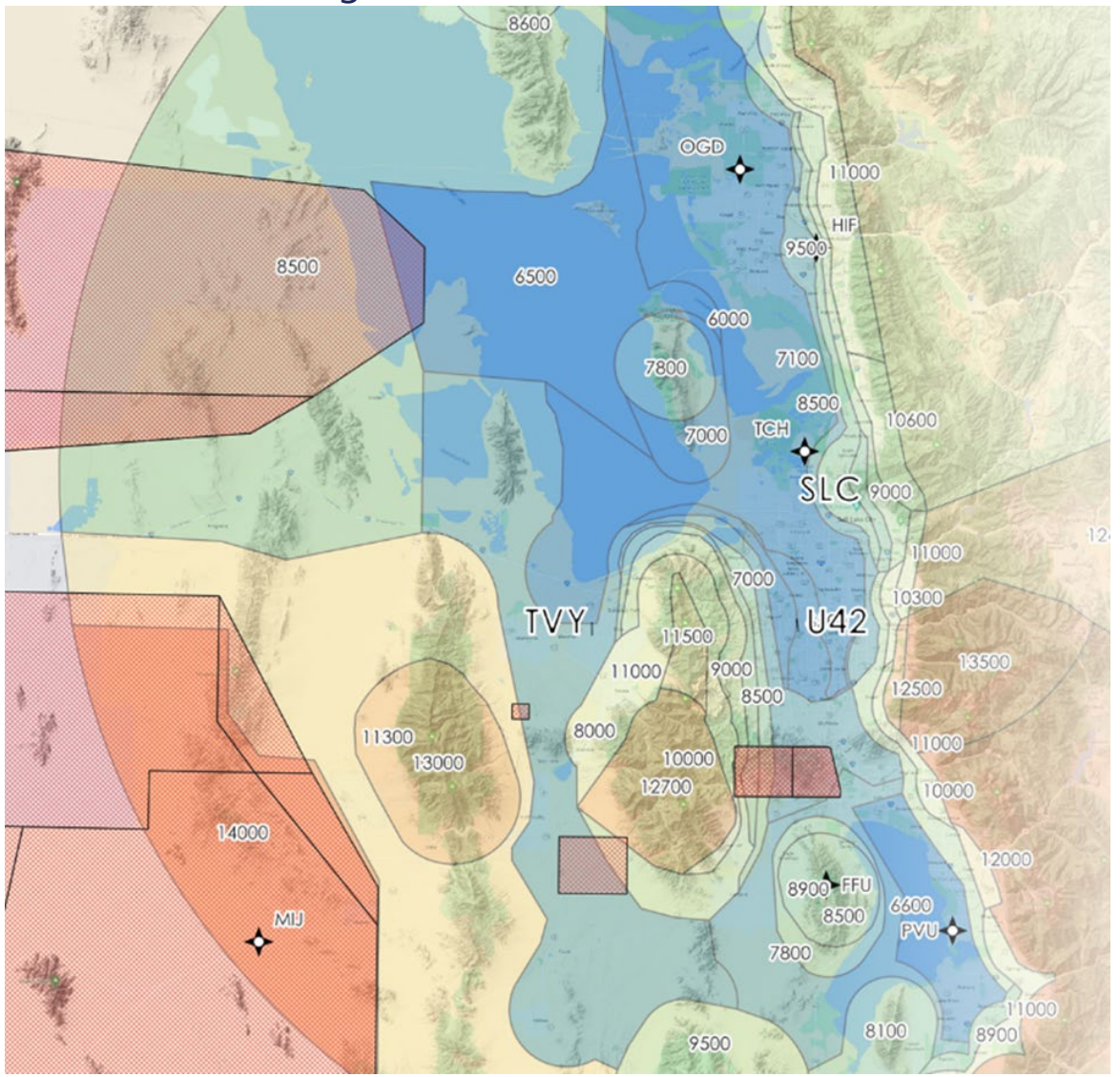
- **Airspace** - Restricted airspace to south affects runway alteration decisions/arrival procedures
- **Approaches** – Maintaining precision approaches is essential
- **Departures** – RNAV RWY 17 departure (STACO 2 RNAV SID) exceeds current FAA turning criteria (waivers in place)


(STACO2.STACO) 20086
STACO TWO DEPARTURE (RNAV) AL-6944 (FAA)
BOLINDER FIELD-TOOELE VALLEY (TVY)
TOOELE, UTAH
SLC ASOS
125.625
AWOS-3
119.725
SALT LAKE CITY DEP CON
135.5 316.15
CTAF
123.0
TOP ALTITUDE: 9000
STACO
9000
072°
252°
7 NM
347° (5)
ZESER
002° (6)
HOKPI
4900
346°
166°
5500
NOTE: RNAV 1.
NOTE: GPS required.
SW-4, 16 JUN 2022 to 14 JUL 2022
SW-4, 16 JUN 2022 to 14 JUL 2022
TAKEOFF MINIMUMS
Rwy 17: Standard with minimum climb of 350' per NM to 8200.
Rwy 35: Standard with minimum climb of 380' per NM to 9000.
NOTE: Chart not to scale.
DEPARTURE ROUTE DESCRIPTION
TAKEOFF RUNWAY 17: Climb heading 166° to 5500, then climbing right turn direct HOKPI, then on depicted route to STACO, thence. . . .
TAKEOFF RUNWAY 35: Climb heading 346° to 4900, then climbing left turn direct ZESER, then on depicted route to STACO, thence. . . .
. . . . Maintain 9000 and hold at STACO.
STACO TWO DEPARTURE (RNAV)
(STACO2.STACO) 15JUN15
TOOELE, UTAH
BOLINDER FIELD-TOOELE VALLEY (TVY)

Navigational Aids

- Critical to retain ILS & MALSR system for Runway 17
- Upgrade AWOS III to AWOS III P/T
  - Precipitation discrimination, thunderstorm detection, and better accuracy
- Install remote ADS-B receivers
  - Existing gap in radar coverage in Tooele Valley
- Modify Runway 35 PAPI

Minimum Vectoring Altitudes



RUNWAY AND TAXIWAYS

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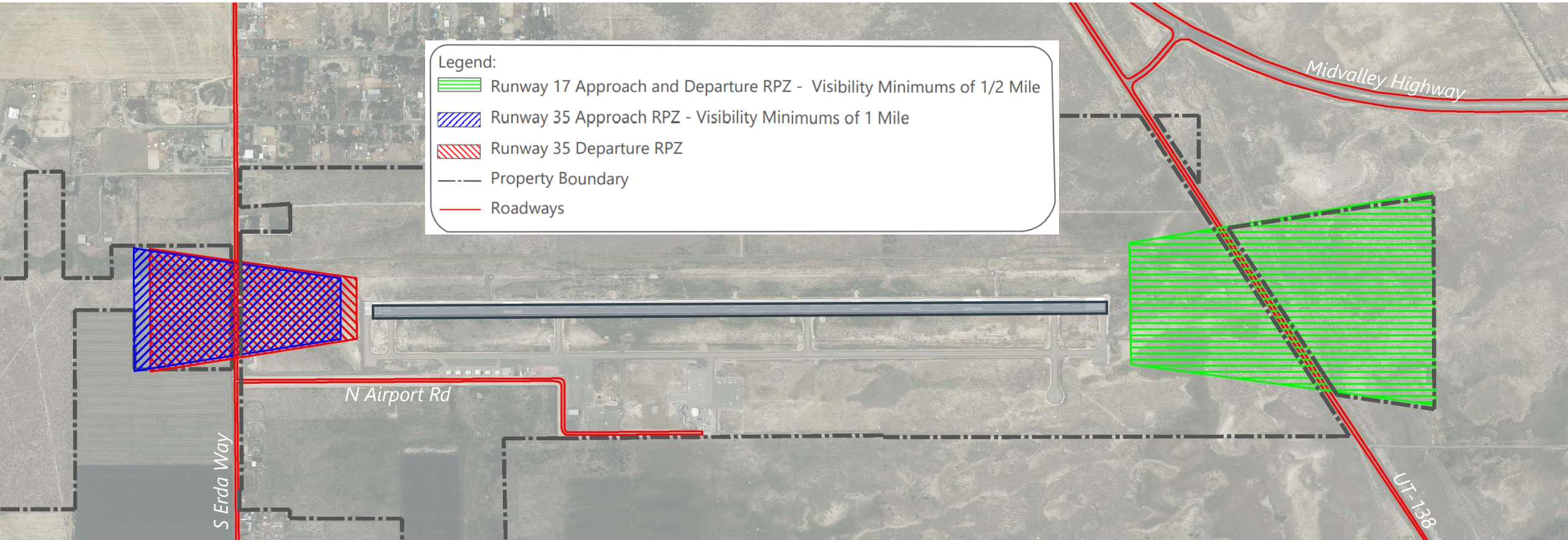
Runway

- No capacity issues forecasted
- Plan for ultimate up to 8,283 feet (Citation X)
- Wind cone in Runway Object Free Area (ROFA)

Aircraft	Required Runway Length	Current Runway Length 6,100' Adequate
Turboprops		
Pilatus PC-12NG	4,905'	Yes
Cessna 208 Caravan	3,796'	Yes
SOCATA TBM 850	3,965'	Yes
Mitsubishi MU-2	4,700'	Yes
Cessna 441 Conquest II	3,729'	Yes
Beechcraft King Air 200	4,410'	Yes
Business Jets		
Cessna Citation X	**8,283'**	**No**
Eclipse 500	4,514'	Yes
Cessna Sovereign	5,179'	Yes
Cessna CJ2+	5,905'	Yes
Falcon 900EX (East Coast)	5,630'	Yes
Falcon 900EX (Hawaii)	**7,266'**	**No**
Cessna 560XLS	**6,922'**	**No**

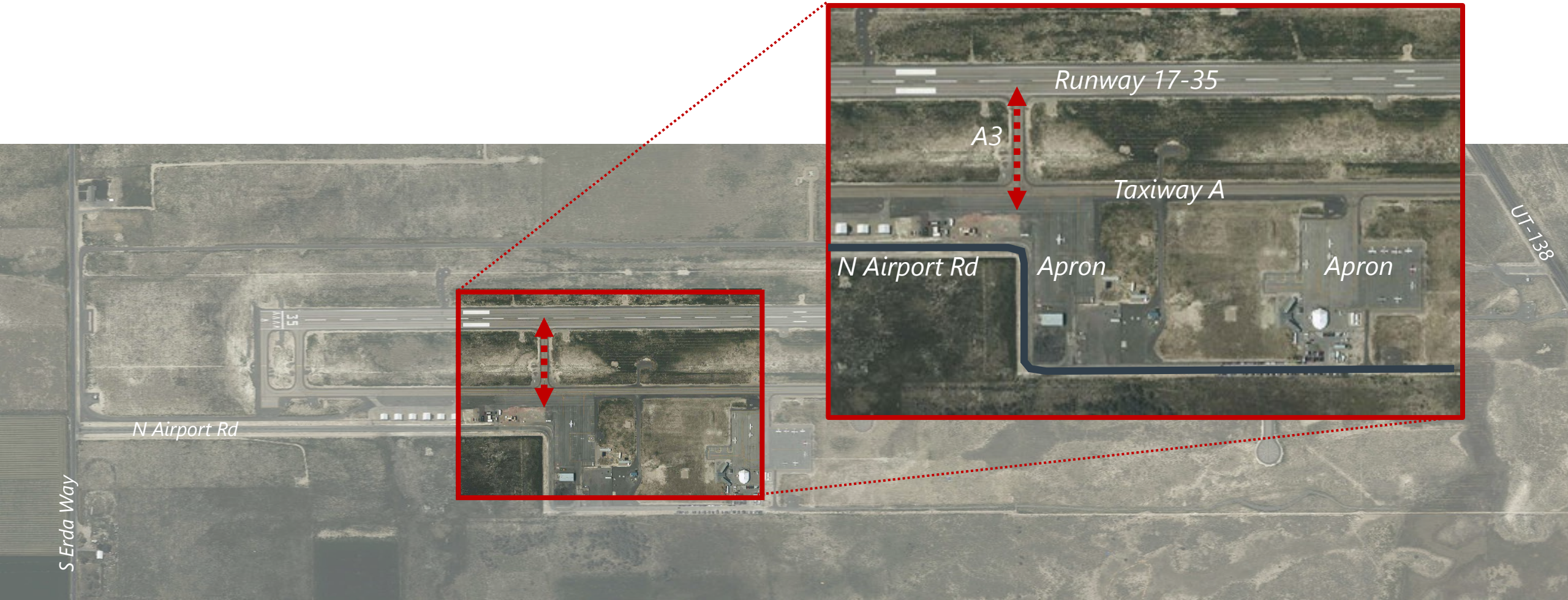
RPZ and Pavement Strength

- No issues with existing Runway Protection Zones (RPZ)
- Pavement strength of 30,000 lbs single wheel / 43,000 lbs dual wheel



Taxiways

» Direct access to runway from apron via Taxiway A3



LAND USE, HANGARS, ACCESS, AND UTILITIES

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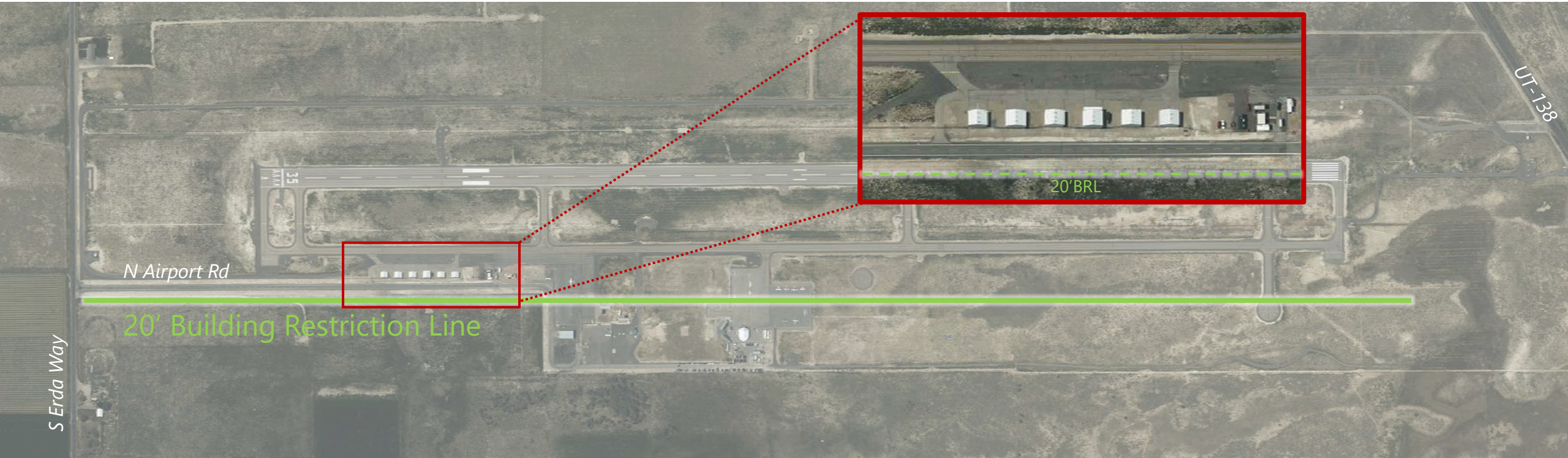
Hangars

» 6 existing hangars within 20’ BRL line (Part 77)



Tenant survey validated GA Strategy Plan

Hangar Type	Existing 2022	Aircraft Parking / Storage		
		PAL 1	PAL 2	PAL 3
Tie-Downs				
Positions Required	44	53	55	60
Square Footage Required	67,980	81,576	85,136	92,403
Surplus / (Deficit)		(13,596)	(17,156)	(24,423)
Total Additional Tie-Downs Required	**0**	**9**	**11**	**16**
T-Hangars				
Hangar Bays Required	0	11	24	26
Square Footage Required	0	15,400	33,169	37,088
Surplus / (Deficit)		(15,400)	(33,169)	(37,088)
Box Hangars				
Hangars[1] Required	6	8	10	11
Square Footage Required	7,200	16,900	26,600	31,450
Surplus / (Deficit)		(9,700)	(19,400)	(24,250)
Total Hangars Required	**6**	**19**	**34**	**37**

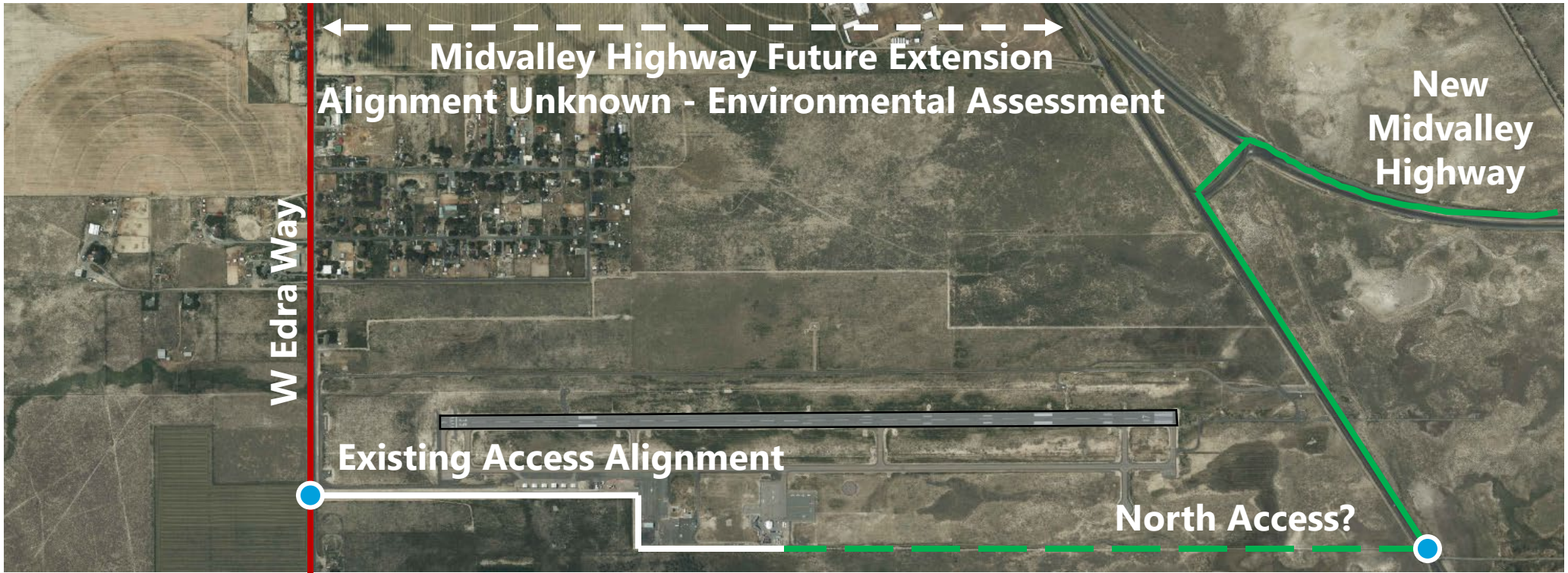
Source: RS&H Analysis, 2022

Notes: (1) Six existing box hangars are within the building restriction line and are recommended to be removed and replaced in an appropriate location.

Based aircraft tie-downs assumed to be 1,545 square feet. Covered tie-downs assumed to be 1,275 square feet. T-hangars assumed to be 1,400 square feet. Conventional hangars assumed to be 4,850 square feet. Corporate hangar assumed to be 30,000 square feet.

Landside Access

- W Erda Way not currently most optimal access point
- Midvalley Highway and SR-138 intersection makes north access viable
- Next extension of Midvalley Highway in environmental phase



FBO & Support Facilities

- Plan to accommodate future Fixed Base Operator (FBO)
- Plan for airport maintenance, equipment storage, and admin facility
- Plan for ~20,000 square feet - advanced air mobility (vertical takeoff)


Source: eVTOL.news

Fuel Storage

- Only option for fuel currently is self-serve 100LL, adequate capacity
- Jet A fuel for public in high demand (BLM)

Utilities

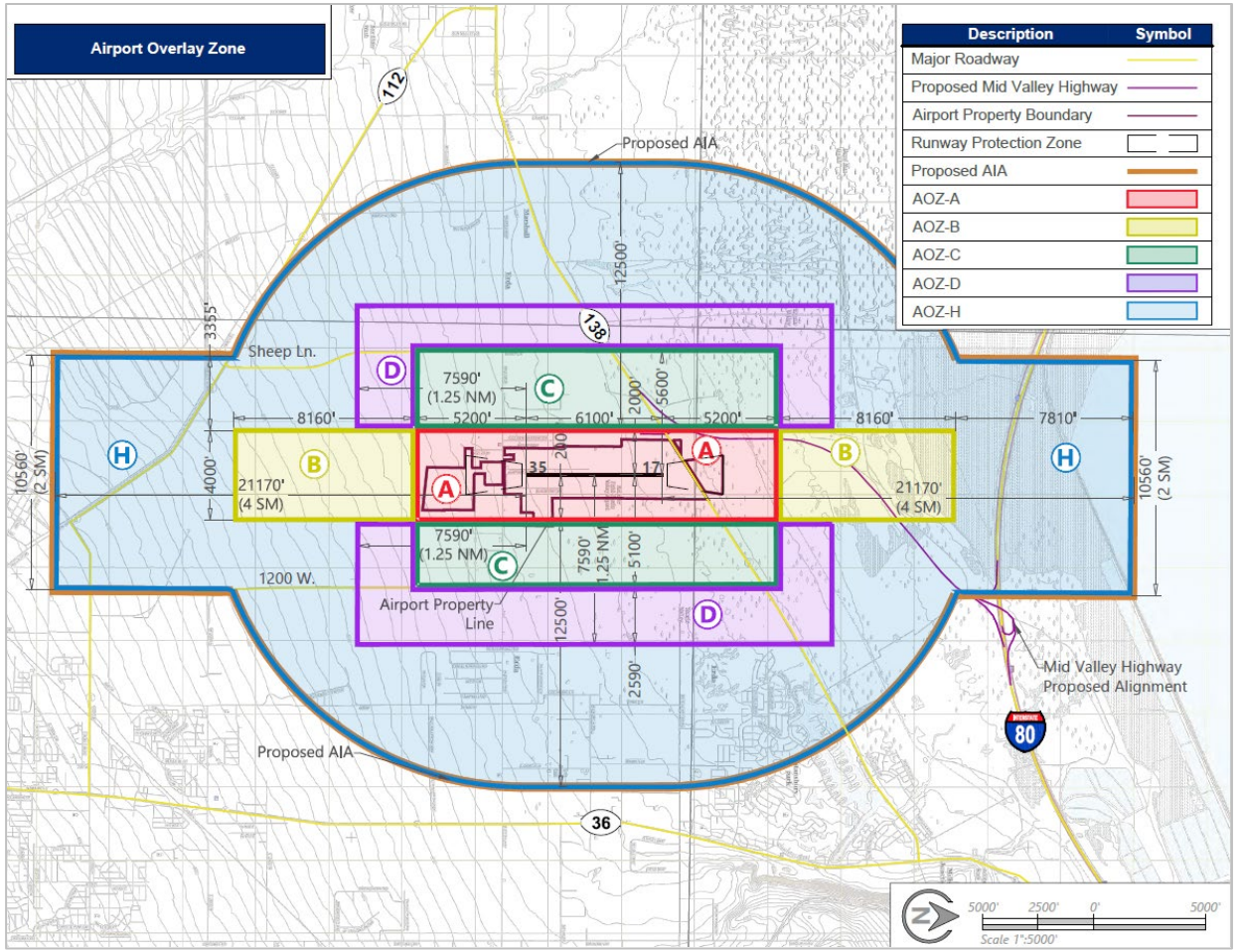
- Installing public water and sewer systems is essential
- Future electrical demand (EVs & eVTOL) under review

Source: PCI Construction

Source: Eaton

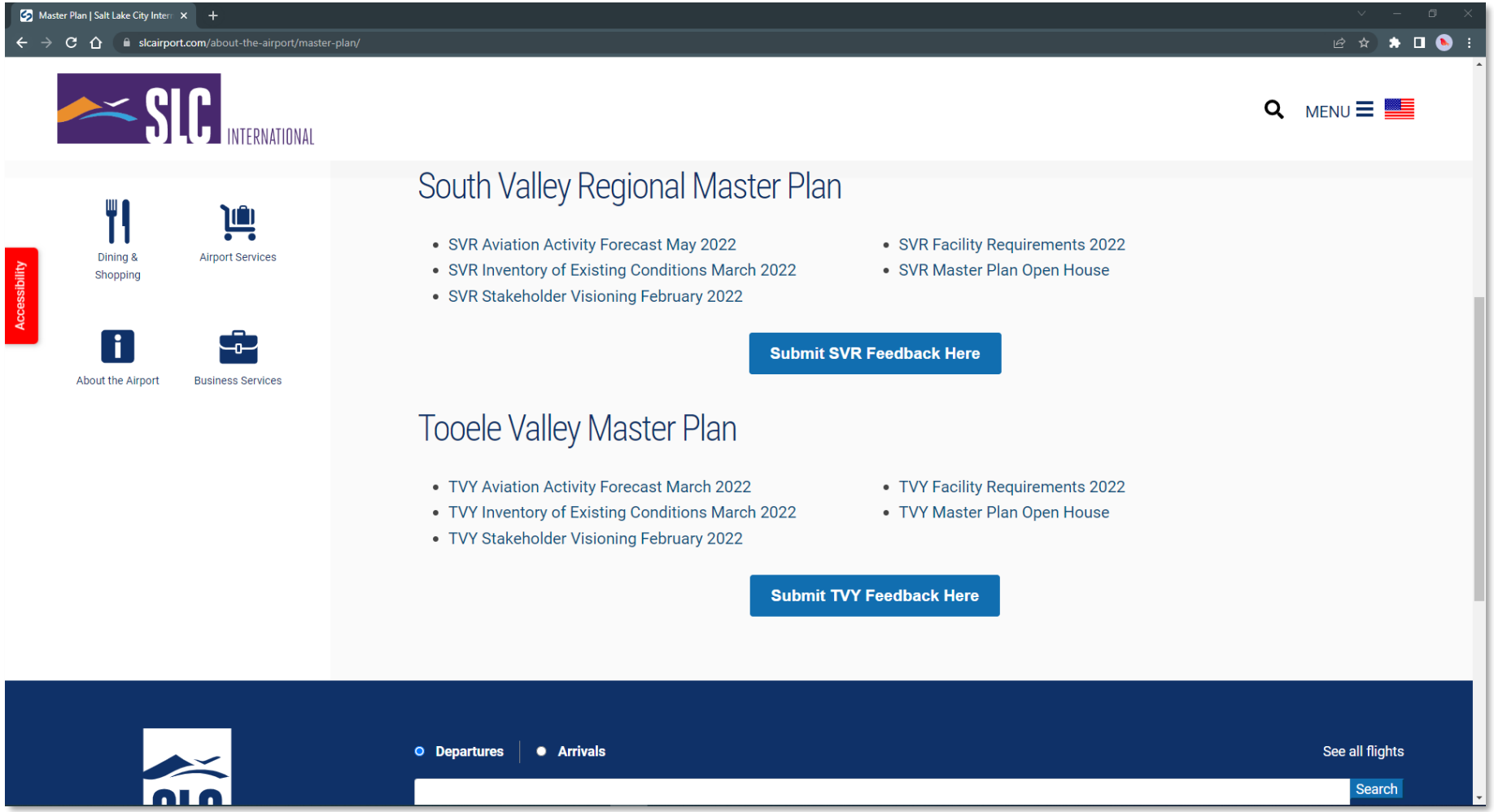
Land Use

» Airport Overlay Zone developed (2021 study) but not adopted



Draft Reports Available Online

» https://slcairport.com/about-the-airport/master-plan



Next Steps

- Alternatives development and evaluation
- Continue special emphasis studies
  - Minimum Standards
  - Utilities
  - Airspace
- Continue stakeholder advisory committee meetings
- Preferred alternative selection
- Implementation and financial planning

THANK YOU

ANY QUESTIONS?

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TOOELE VALLEY

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