



LAKE CHELAN AIRPORT ENVIRONMENTAL ASSESSMENT PROJECT UPDATE

December 2023



- ALP approved November 2021
- Began EA in Fall 2022
- Sent initial postcard/notification
- Working on FAA forecast approval
- Sent property/hangar owner letters
- Scheduling field work
 - Cultural
 - Phase 1 ESA
 - Biological
- Begin EA documentation

SAFETY AND NONSTANDARD CONDITIONS



- Roads off either runway create nonstandard conditions
 - Displaced thresholds required
 - RSA beyond RWY 2 End is 60' vs. 240' standard
 - RSA beyond RWY 20 End 50' vs. 240' standard
 - ROFA beyond RWY 2 End 0' vs. 240' standard
 - OFZ Length is 0' beyond RWY 2 End vs. 200' standard
 - TSA width is 46' vs. 49' standard
 - Runway to Holdline distance on RWY 20 end is 73' vs. 125' standard
- Direct access to runway

MASTER PLAN FORECASTING

Short and Intermediate Term Critical/Design Aircraft

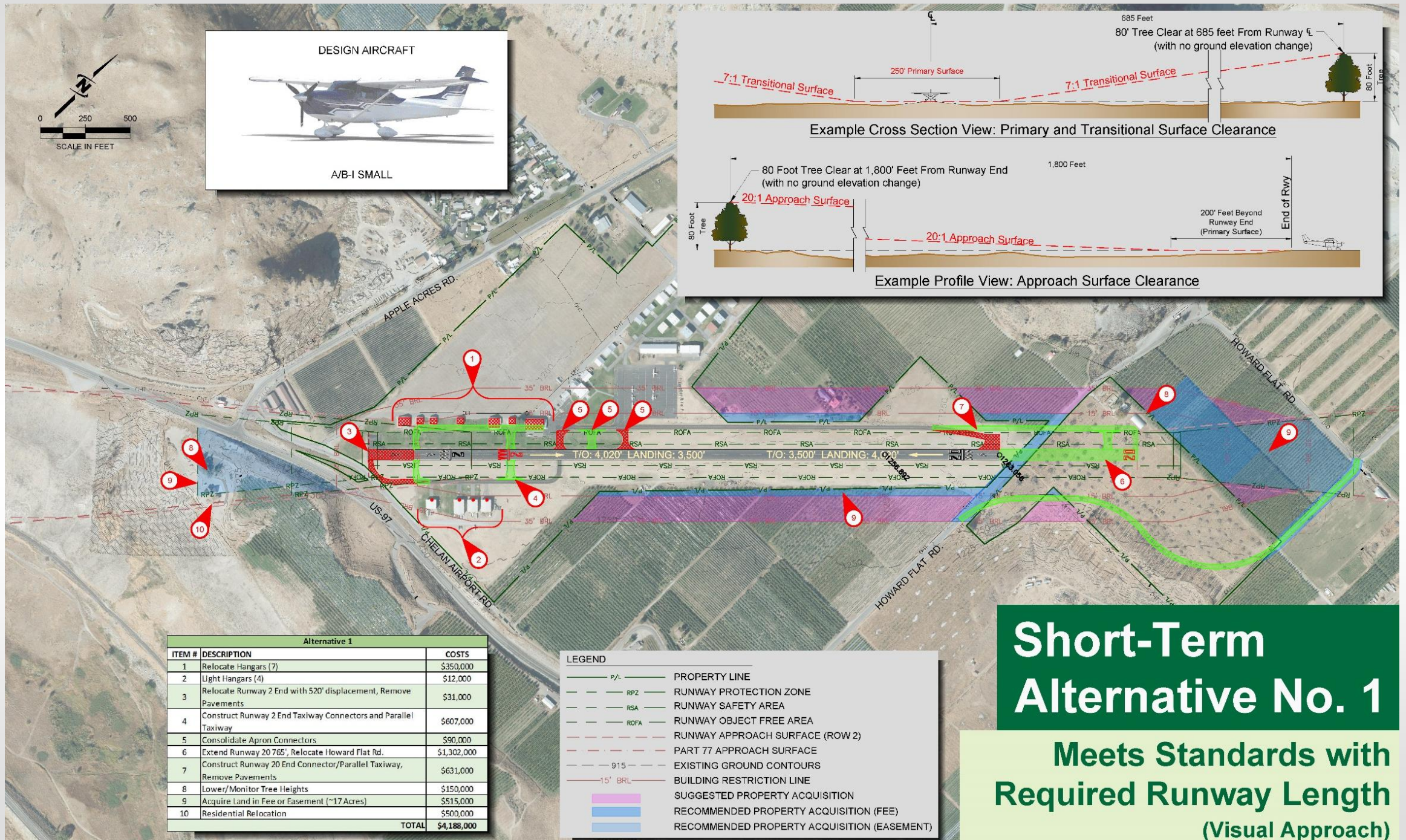
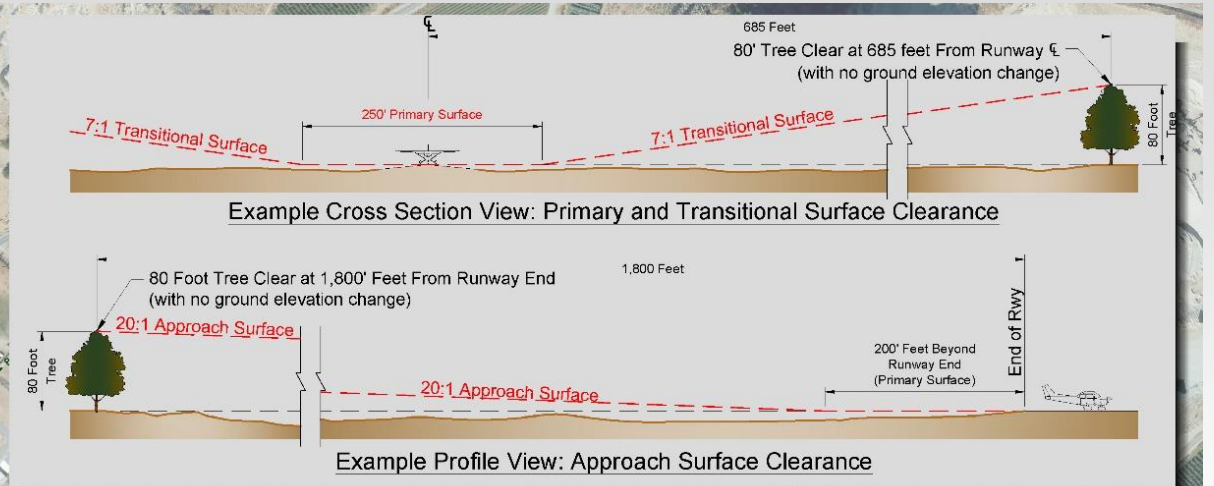
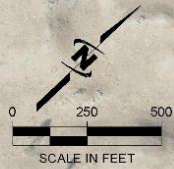


Long-Term Critical/Design Aircraft



Critical Aircraft

The most demanding aircraft or group of aircraft (in terms of size and/or speed) that contributes to over **500** operations annually

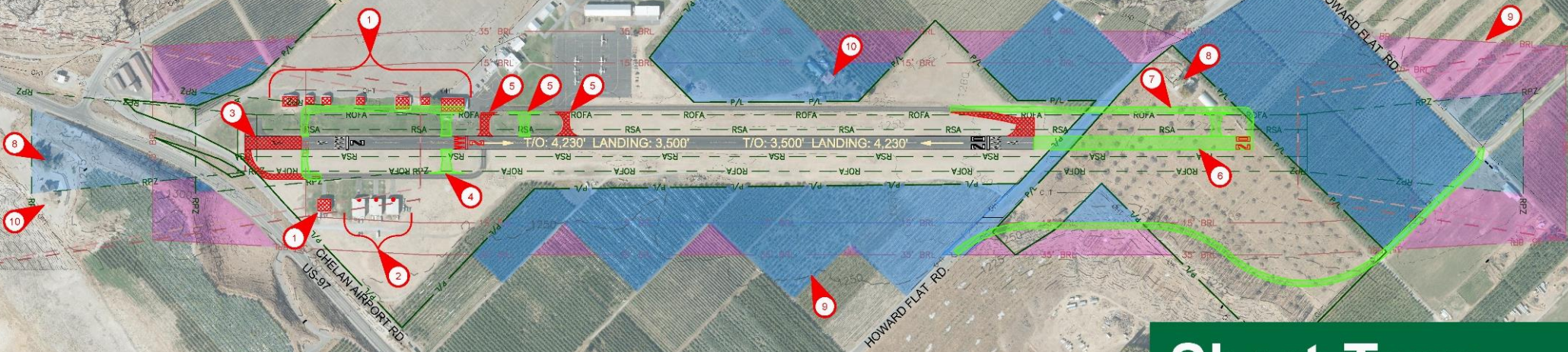
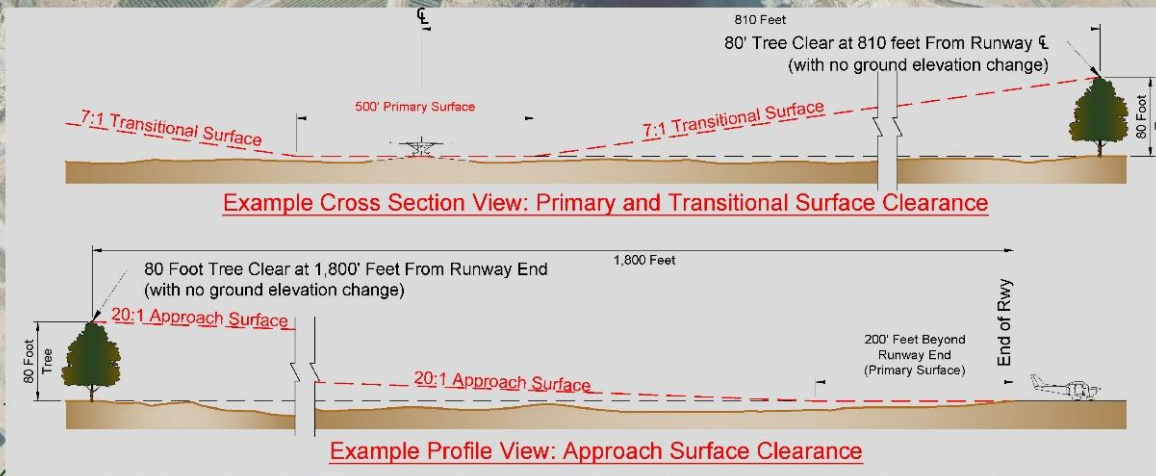
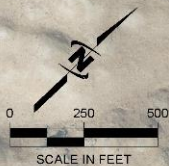


Alternative 1		
ITEM #	DESCRIPTION	COSTS
1	Relocate Hangars (7)	\$350,000
2	Light Hangars (4)	\$12,000
3	Relocate Runway 2 End with 520' displacement, Remove Pavements	\$31,000
4	Construct Runway 2 End Taxiway Connectors and Parallel Taxiway	\$607,000
5	Consolidate Apron Connectors	\$90,000
6	Extend Runway 20 765', Relocate Howard Flat Rd.	\$1,302,000
7	Construct Runway 20 End Connector/Parallel Taxiway, Remove Pavements	\$631,000
8	Lower/Monitor Tree Heights	\$150,000
9	Acquire Land in Fee or Easement (~17 Acres)	\$515,000
10	Residential Relocation	\$500,000
TOTAL		\$4,188,000

LEGEND	
	PROPERTY LINE
	RUNWAY PROTECTION ZONE
	RUNWAY SAFETY AREA
	RUNWAY OBJECT FREE AREA
	RUNWAY APPROACH SURFACE (ROW 2)
	PART 77 APPROACH SURFACE
	EXISTING GROUND CONTOURS
	BUILDING RESTRICTION LINE
	SUGGESTED PROPERTY ACQUISITION
	RECOMMENDED PROPERTY ACQUISITION (FEE)
	RECOMMENDED PROPERTY ACQUISITION (EASEMENT)

Short-Term Alternative No. 1

Meets Standards with
Required Runway Length
(Visual Approach)

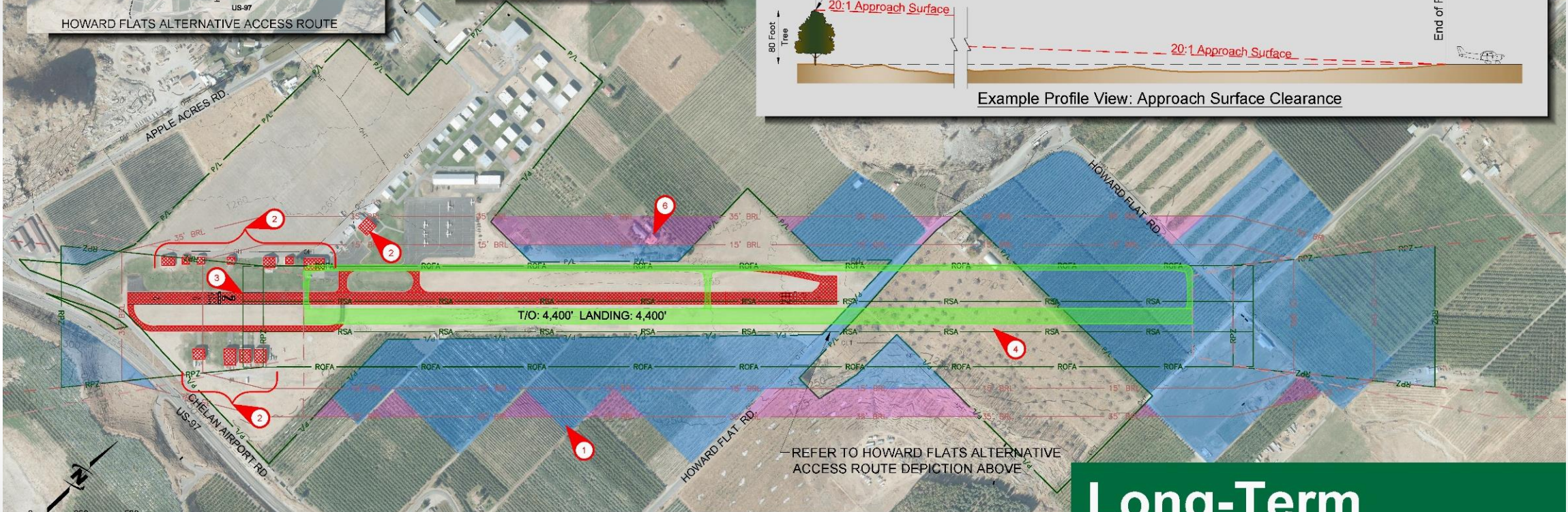
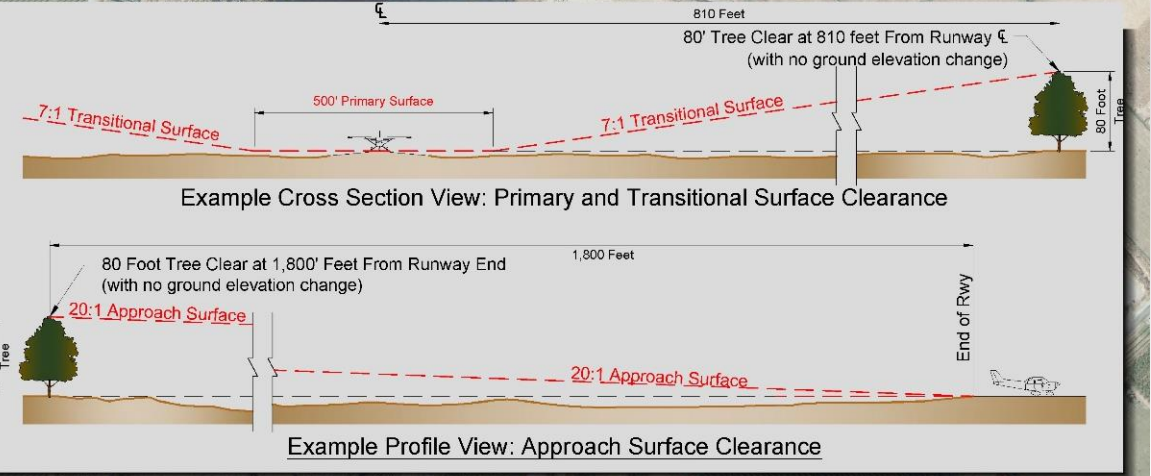
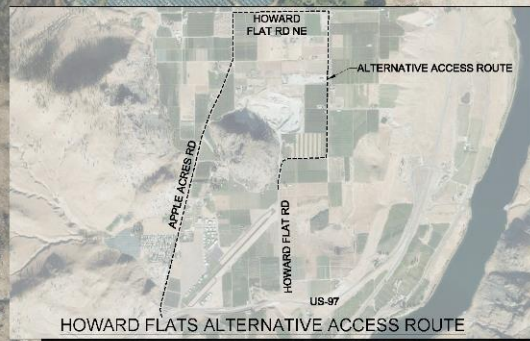


Alternative 2		
ITEM #	DESCRIPTION	COSTS
1	Relocate Hangars (8)	\$400,000
2	Light Hangars (4)	\$12,000
3	Relocate Runway 2 End with 730' displacement, Remove Pavements	\$16,000
4	Construct Runway 2 End Taxiway Connectors and Parallel Taxiway	\$607,000
5	Consolidate Apron Connectors	\$90,000
6	Extend Runway 20 970', Relocate Howard Flat Rd.	\$1,523,000
7	Construct Runway 20 End Connector/Parallel Taxiway, Remove Pavements	\$696,000
8	Lower/Monitor Tree Heights	\$150,000
9	Acquire Land in Fee or Easement (~55 Acres)	\$2,103,000
10	Residential Relocation	\$1,000,000
TOTAL		\$6,597,000



Short-Term Alternative No. 2

Meets Standards with Required
Runway Length and Approach
(Non-Precision Instrument Approach)

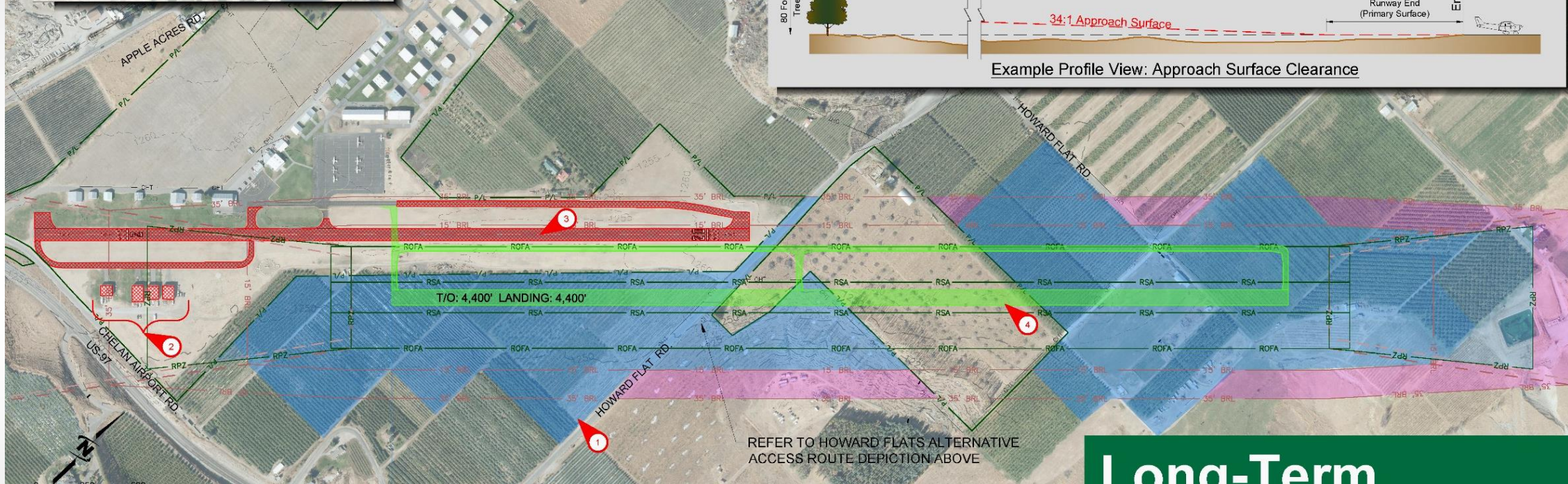
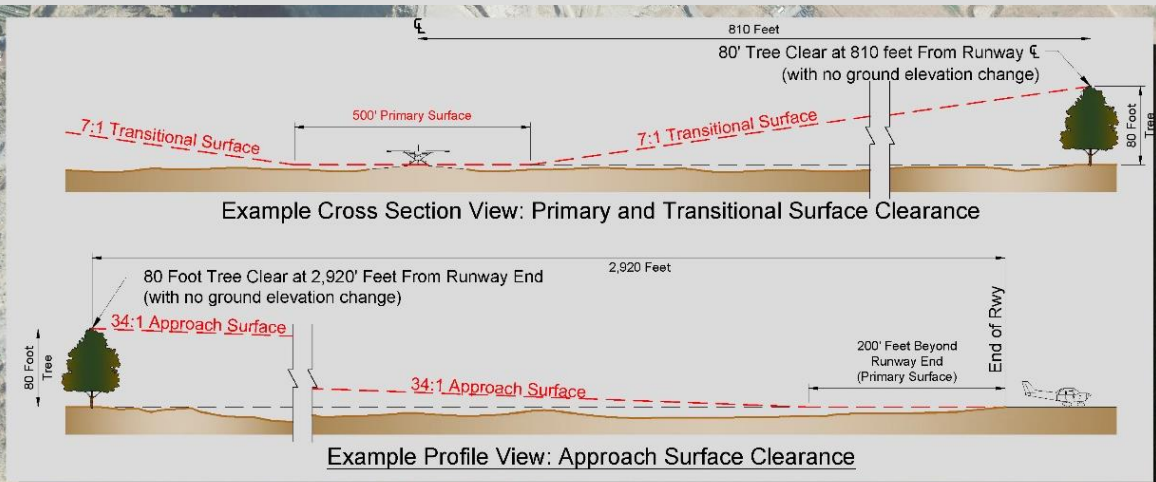
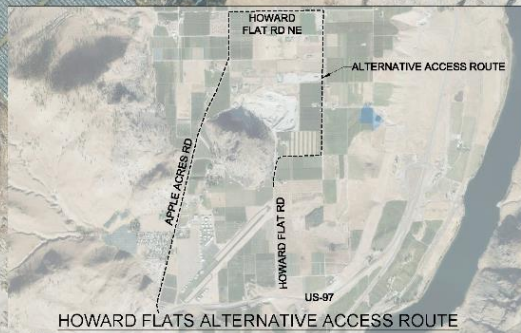


Alternative 3		
ITEM #	DESCRIPTION	COSTS
1	Acquire Land in Fee or Easement (~73 Acres)	\$2,785,000
2	Relocate Hangars (12)	\$600,000
3	Demolish Existing Runway and Taxiway Pavements	\$139,000
4	Construct Runway and Parallel Taxiway to B-II Standards	\$7,602,000
5	Lower/Monitor Tree Heights	\$150,000
6	Residential Relocation	\$500,000
7	Irrigation Modifications	\$500,000
TOTAL		\$12,276,000

LEGEND	
P/L	PROPERTY LINE
RPZ	RUNWAY PROTECTION ZONE
RSA	RUNWAY SAFETY AREA
ROFA	RUNWAY OBJECT FREE AREA
---	RUNWAY APPROACH SURFACE (ROW 2)
---	PART 77 APPROACH SURFACE
---	EXISTING GROUND CONTOURS
---	BUILDING RESTRICTION LINE
---	SUGGESTED PROPERTY ACQUISITION
---	RECOMMENDED PROPERTY ACQUISITION (FEE)
---	RECOMMENDED PROPERTY ACQUISITION (EASEMENT)

Long-Term Alternative No. 3

**RUNWAY RELOCATED
FOR STANDARDS**
(Visual Approach)

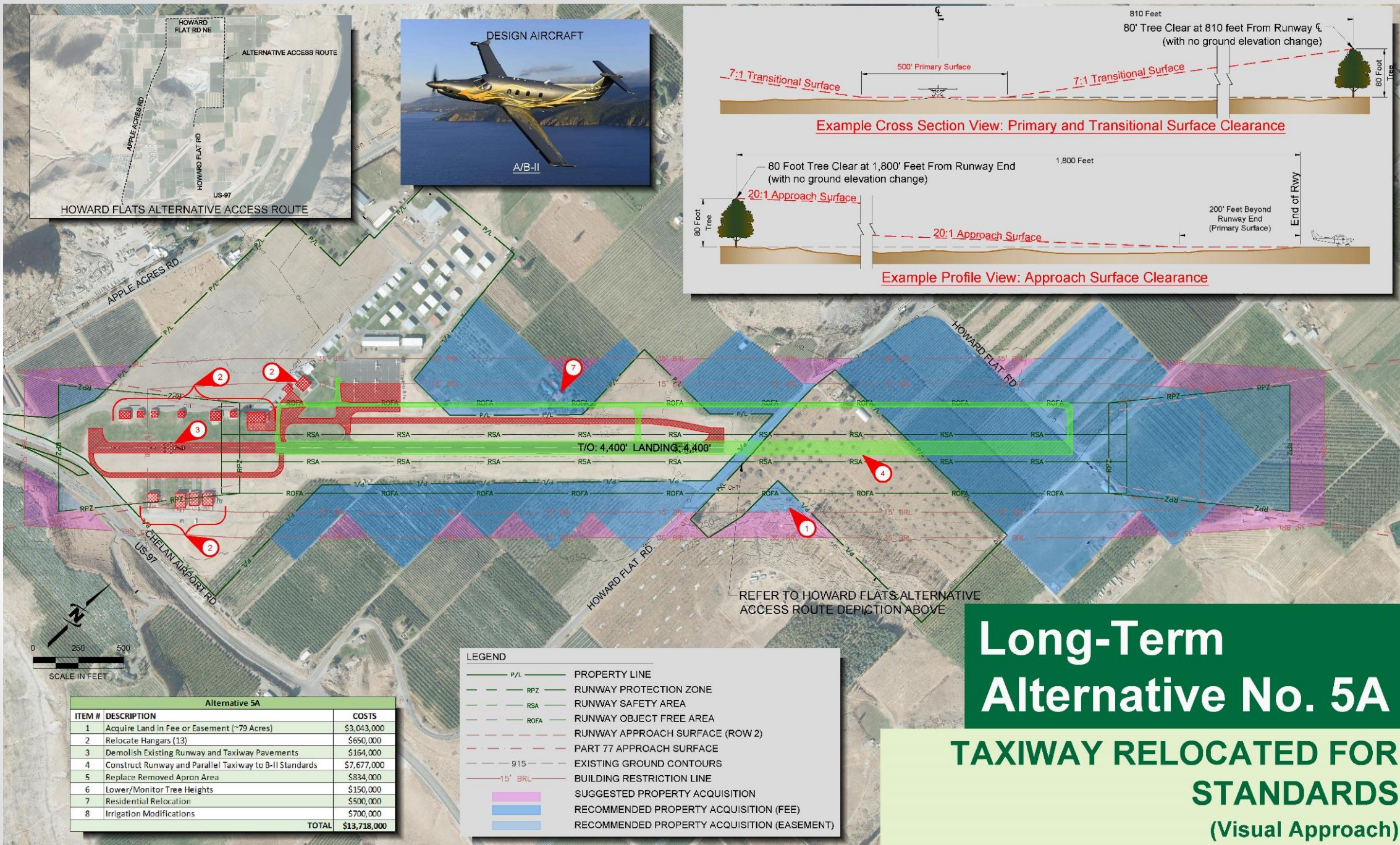


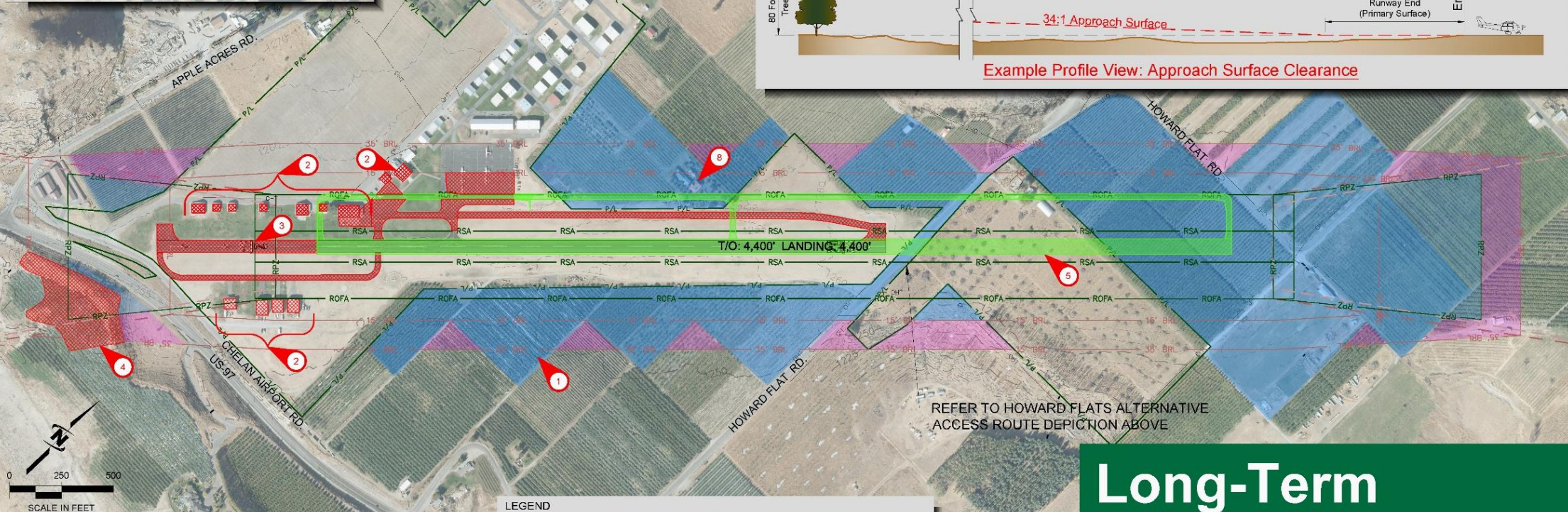
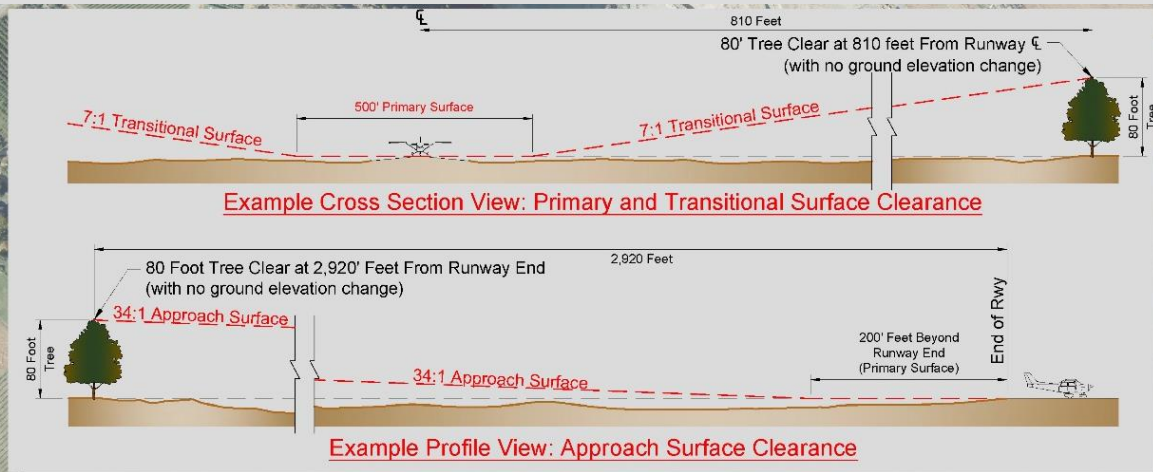
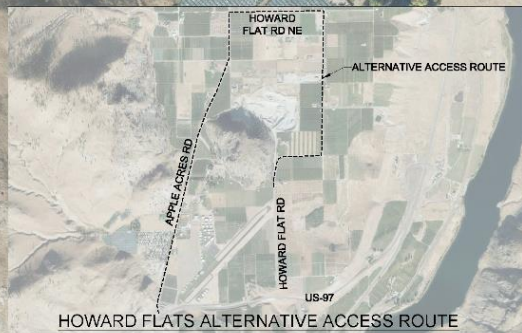
Long-Term Alternative No. 4

**RUNWAY AND TAXIWAY RELOCATED
FOR STANDARDS AND APPROACH**
(Non-Precision Instrument Approach)

Alternative 4		
ITEM #	DESCRIPTION	COSTS
1	Acquire Land in Fee or Easement (~89 Acres)	\$3,439,000
2	Relocate Hangars (4)	\$200,000
3	Demolish Existing Runway and Taxiway Pavements	\$203,000
4	Construct Runway and Parallel Taxiway to B-II Standards	\$7,603,000
5	Lower/Monitor Tree Heights	\$150,000
6	Irrigation Modifications	\$1,000,000
TOTAL		\$12,595,000

LEGEND	
— P/L	PROPERTY LINE
--- RPZ	RUNWAY PROTECTION ZONE
--- RSA	RUNWAY SAFETY AREA
--- ROFA	RUNWAY OBJECT FREE AREA
--- ROW 2	RUNWAY APPROACH SURFACE (ROW 2)
--- PART 77	PART 77 APPROACH SURFACE
--- 915	EXISTING GROUND CONTOURS
--- 15' BRL	BUILDING RESTRICTION LINE
■	SUGGESTED PROPERTY ACQUISITION
■	RECOMMENDED PROPERTY ACQUISITION (FEE)
■	RECOMMENDED PROPERTY ACQUISITION (EASEMENT)





REFER TO HOWARD FLATS ALTERNATIVE ACCESS ROUTE DEPICTION ABOVE

Alternative 5B		
ITEM #	DESCRIPTION	COSTS
1	Acquire Land in Fee or Easement (~77 Acres)	\$2,979,000
2	Relocate Hangars (13)	\$650,000
3	Demolish Existing Runway and Taxiway Pavements	\$154,000
4	Acquire Easement (~3 Acres) and Clear Terrain (~50,000 CY)	\$652,000
5	Construct Runway and Parallel Taxiway to B-II Standards	\$7,604,000
6	Replace Removed Apron Area	\$834,000
7	Lower/Monitor Tree Heights	\$150,000
8	Residential Relocation	\$500,000
9	Irrigation Modifications	\$700,000
TOTAL		\$14,223,000

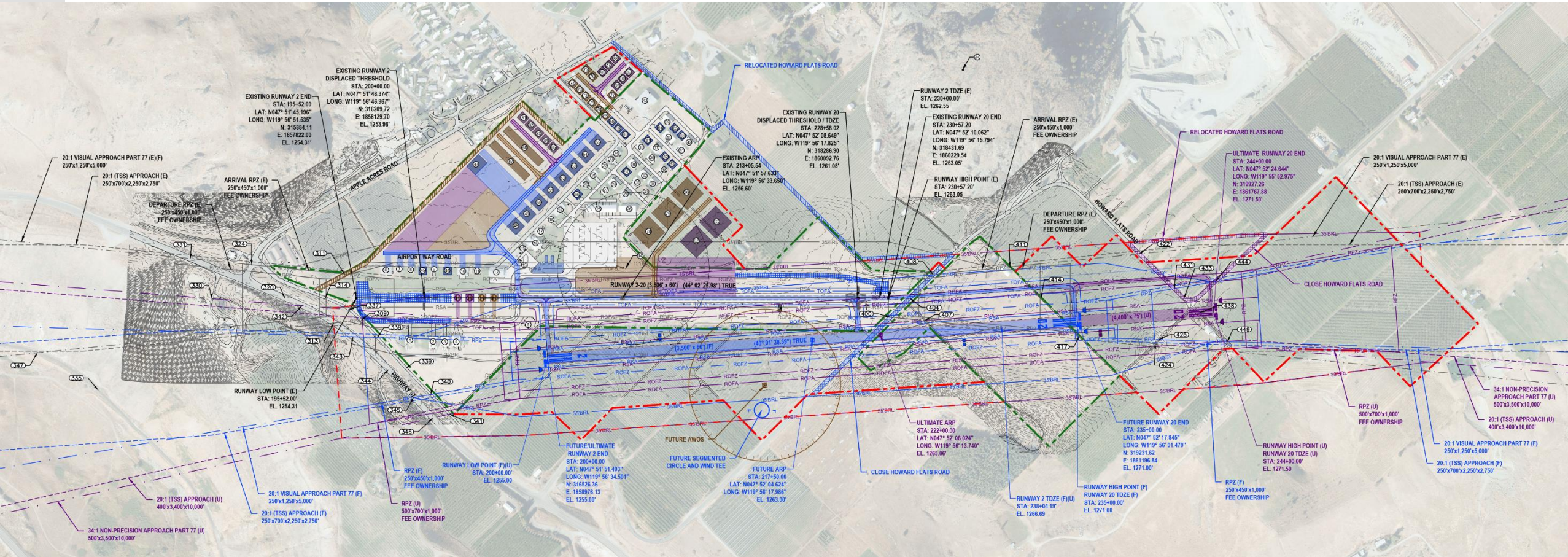
LEGEND	
P/L	PROPERTY LINE
RPZ	RUNWAY PROTECTION ZONE
RSA	RUNWAY SAFETY AREA
ROFA	RUNWAY OBJECT FREE AREA
---	RUNWAY APPROACH SURFACE (ROW 2)
---	PART 77 APPROACH SURFACE
915	EXISTING GROUND CONTOURS
15' BRL	BUILDING RESTRICTION LINE
	SUGGESTED PROPERTY ACQUISITION
	RECOMMENDED PROPERTY ACQUISITION (FEE)
	RECOMMENDED PROPERTY ACQUISITION (EASEMENT)

Long-Term Alternative No. 5B

TAXIWAY RELOCATED FOR STANDARDS AND APPROACH

(Non-Precision Instrument Approach)

AIRPORT LAYOUT PLAN



- Acquisition of 116 acres in fee easement
- Removal of orchard trees
- Relocation of existing runway and taxiways
- Relocation of Howard Flats Road
- Taxiway Construction

- Fuel system relocation
- Relocation of existing hangars
- Modifications to existing irrigation systems
- AWOS installation

ENVIRONMENTAL ASSESSMENT

- **WHAT** is an Environmental Assessment?
 - Defines the purpose and need for a project
 - Considers a range of reasonable alternatives
 - Analyzes potential impacts
 - Identifies measures that may mitigate the effects
 - An EA also considers a “no action” alternative
- Evaluate the potential direct, indirect, and cumulative environmental impacts
 - Air quality
 - Biological resources
 - Climate
 - Resources protected under the Department of Transportation Act
 - Farmlands
 - Ground transportation
 - Hazardous materials, solid waste, and pollution prevention
 - Historical, architectural, archeological, and cultural resources
 - Land use

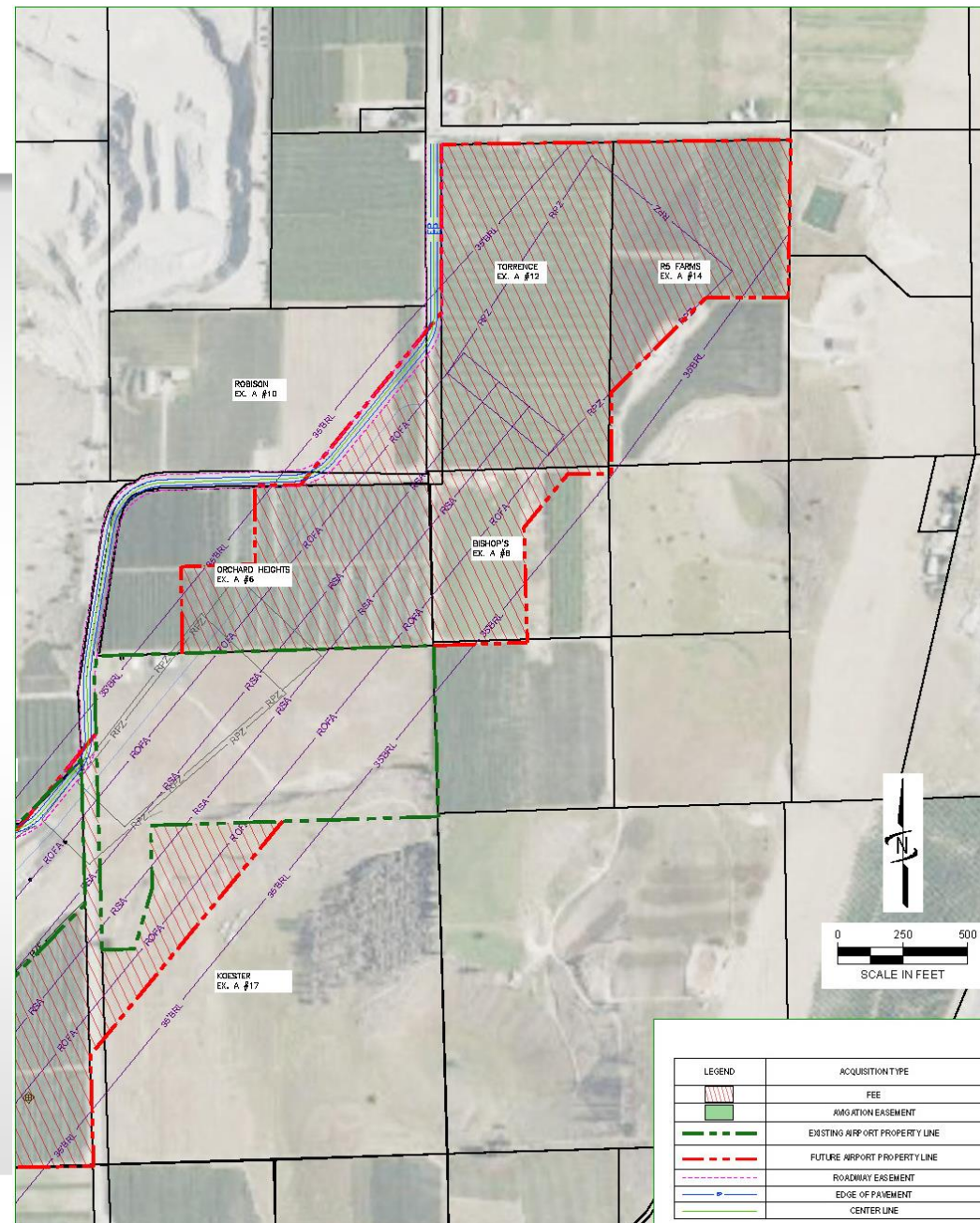
ANTICIPATED SCHEDULE



GENERAL LAND ACQUISITION PROCESS

- Uniform Relocation Assistance and Real Property Acquisition Policies Act
- FAA Advisory Circular 150/5100-17
- Land Acquisition for Public Airports
 - Appraisal
 - Review Appraisal
 - Determination of Value
 - Offer & Negotiations
 - FAA Grant Offer
 - Closing
 - Relocation Assistance
- FAA “Land Acquisition for Public Airports”
 - Good resource describing general process
- Home/Airports/Airport Compliance/Acquiring Land and Relocation Assistance

NORTHEAST LAND ACQUISITIONS



SOUTHWEST LAND ACQUISITIONS

