

**PUBLIC INFORMATION  
WORKSHOP  
FOR PROPOSED  
RUNWAY SAFETY AREA IMPROVEMENTS**



**MONTEREY PENINSULA AIRPORT DISTRICT**

**THIS WORKSHOP IS STRUCTURED IN AN OPEN  
HOUSE FORMAT. FEEL FREE TO SEEK OUT ONE OF THE  
CONSULTANTS WITH ANY QUESTIONS OR COMMENTS.**



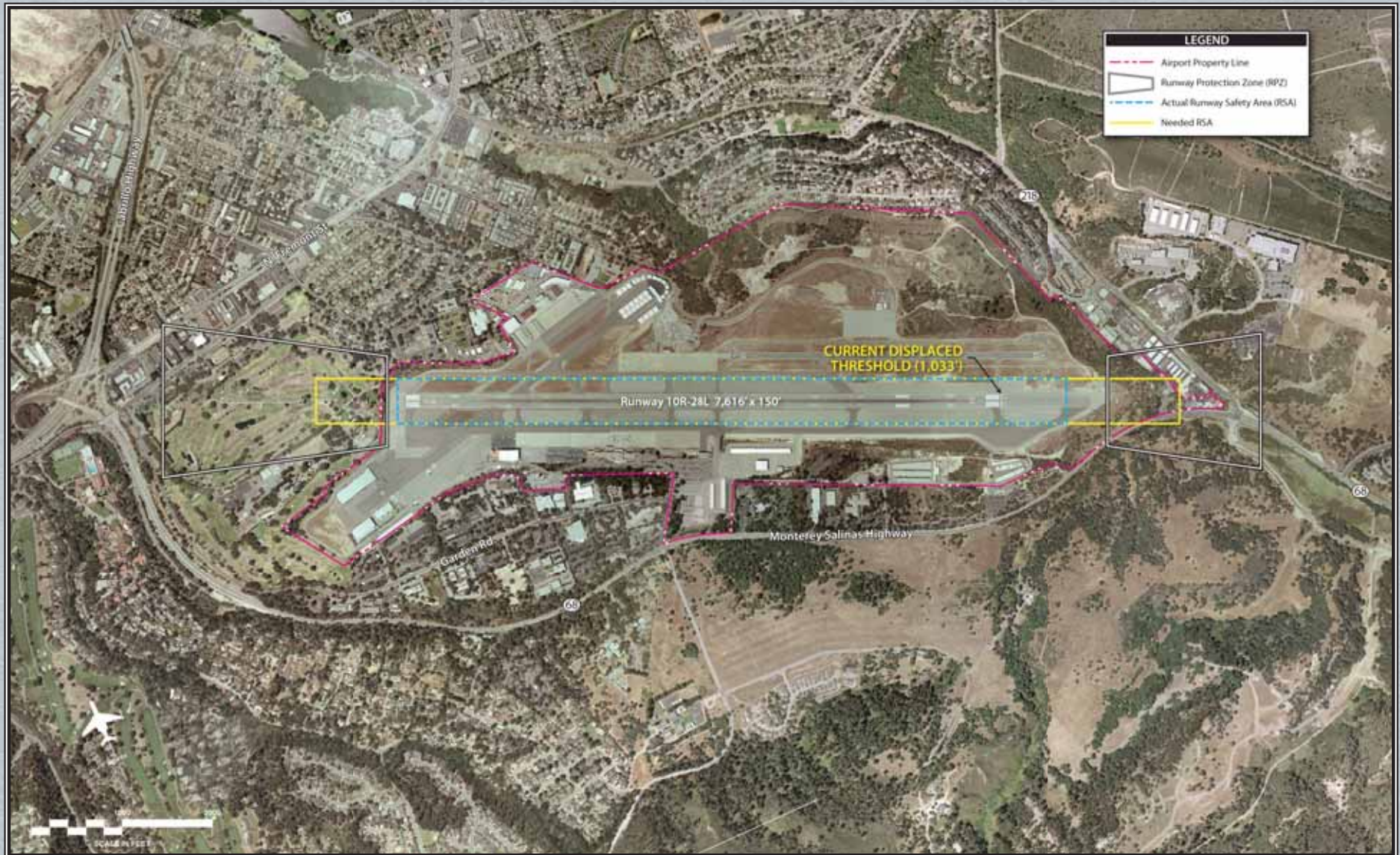
# What is a Runway Safety Area?

A Runway Safety Area (RSA) is defined as “the surface surrounding the runway prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway.”

Runway 10L-28R currently meets RSA requirements. Based on the types of aircraft utilizing Runway 10R-28L, the RSA for this runway should be 500' wide and extend 1,000' beyond the runway ends and 600' prior to the landing threshold. Runway 10R-28L does not meet RSA requirements



# CURRENT RSA CONDITION



# PRELIMINARY ALTERNATIVES SUMMARY

**Alternative 7** – Improvements to the east end of the runway including a retaining wall system, relocated access road, and fill to provide additional RSA. This alternative would meet 95-98% of the RSA standard.

**Alternative 8** – Same improvements to the east end of runway as Alternative 7. On the west end a 400 foot EMAS bed with 200 foot setback would be installed. This bed would stop the following aircraft exiting the runway at 70 kts at MTOW: 757-200, 737-800, MD-83, CRJ-200, CRJ-700, ERJ-145, Lear 35. This alternative would fully meet RSA standards for the airports current (727/737) and future (757) critical aircraft.

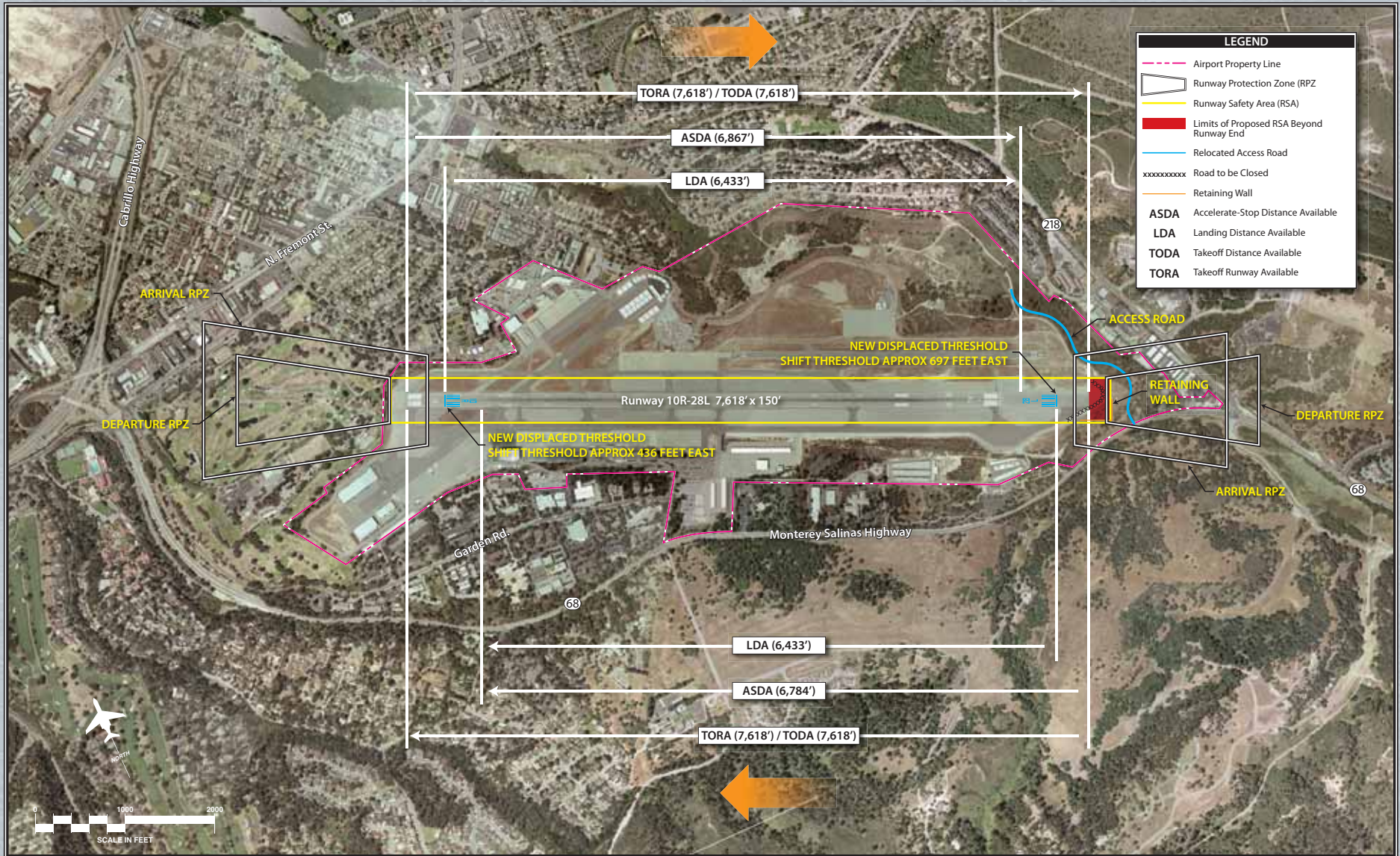
**Alternative 9** – Same improvements to the east end of runway as Alternative 7. On the west end a 300 ft EMAS bed with 300 ft setback would be installed. This bed would stop the same aircraft as Alternative 8 exiting the runway at 70 kts at MTOW except for the 757-200. This alternative fully meets the RSA standards for the airport's current critical aircraft (727/737). Should 500 operations per year by larger and heavier aircraft such as the 757 occur, additional EMAS would be needed.

**Alternative 10** - Same improvements to the east end of runway as Alternative 7. On the west end a 460 ft EMAS bed with 35 ft setback would be installed. The increased EMAS bed size accounts for the minimized runway safety area ahead of the EMAS bed. This EMAS bed would stop the airports current and future critical aircraft travelling at 70 kts at MTOW. This RSA improvement is, for lack of a better term, considered “non-standard”; however, the RSA is considered to be equivalent to a full 1,000 foot RSA.

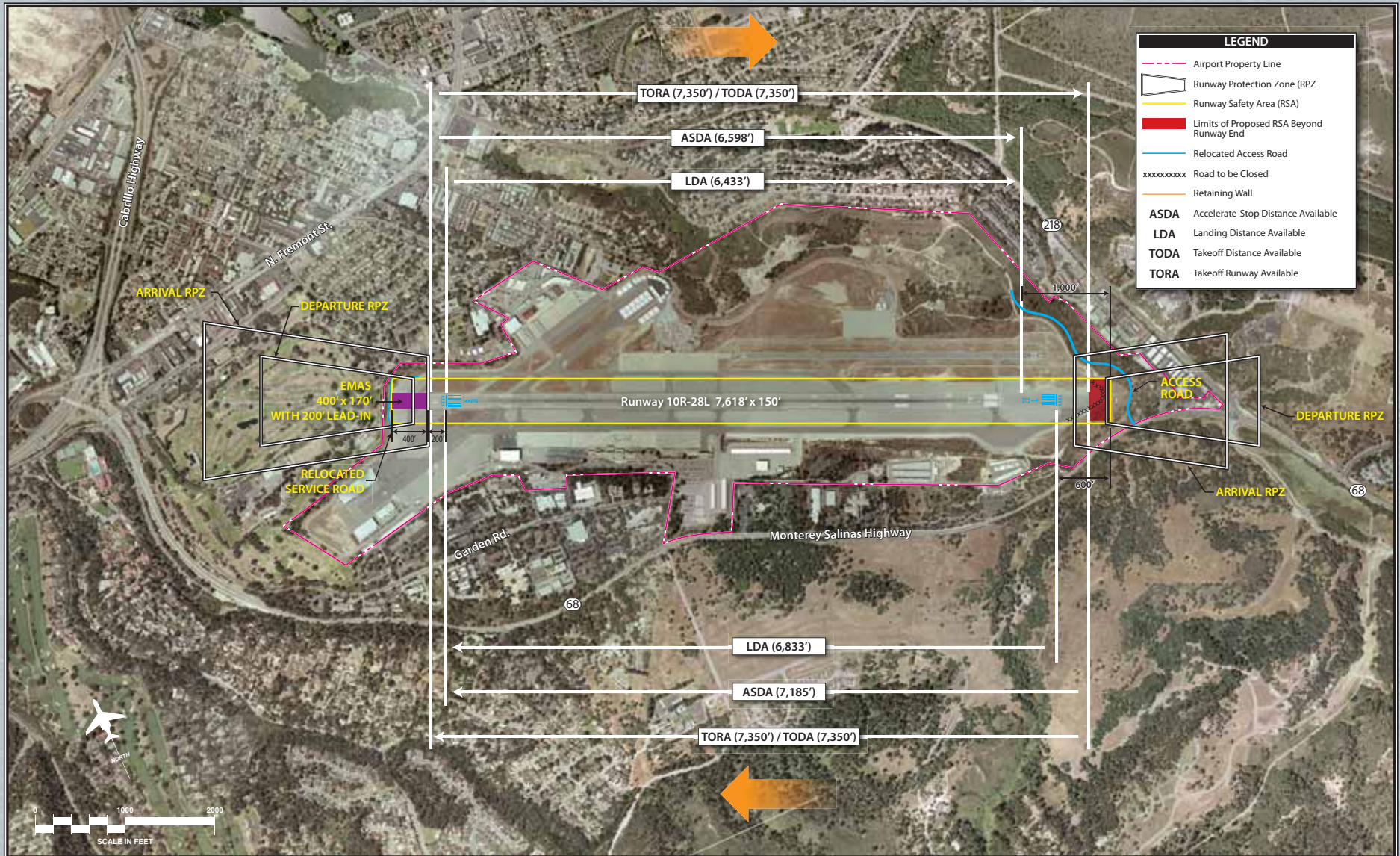
**Alternative 11** - Same improvements to the east end of runway as alternative 7. On the west end a 390 ft EMAS bed with 35 ft setback would be installed. The increased EMAS bed size accounts for the smaller runway lead in distance. This EMAS would stop the airports current critical aircraft travelling at 70 kts at MTOW. Should a heavier/larger aircraft become the critical aircraft additional EMAS would be needed at that time. Cost estimate at \$6.10M. This RSA improvement is, for lack of a better term, considered “non-standard”; however, the RSA is considered to be equivalent to a full 1,000 foot RSA.

	RUNWAY 10R			RUNWAY 28L			Limitations
	ASDA	LDA	TORA/TODA	ASDA	LDA	TORA/TODA	
Existing	7,616	6,616	7,616	7,616	6,616	7,616	Deficient RSA
Alternative 7	6,867	6,433	7,616	6,784	6,433	7,616	95-98% RSA
Alternative 8	6,598	6,433	7,350	7,150	6,750	7,350	100% RSA
Alternative 9	6,698	6,433	7,450	7,185	6,833	7,450	100% RSA. No 757
Alternative 10	6,538	6,433	7,290	7,290	6,890	7,290	Technically non-standard, but equivalent to 1,000 ft RSA
Alternative 11	6,608	6,433	7,360	7,360	7,008	7,360	Technically non-standard, but equivalent to 1,000 ft RSA. No 757

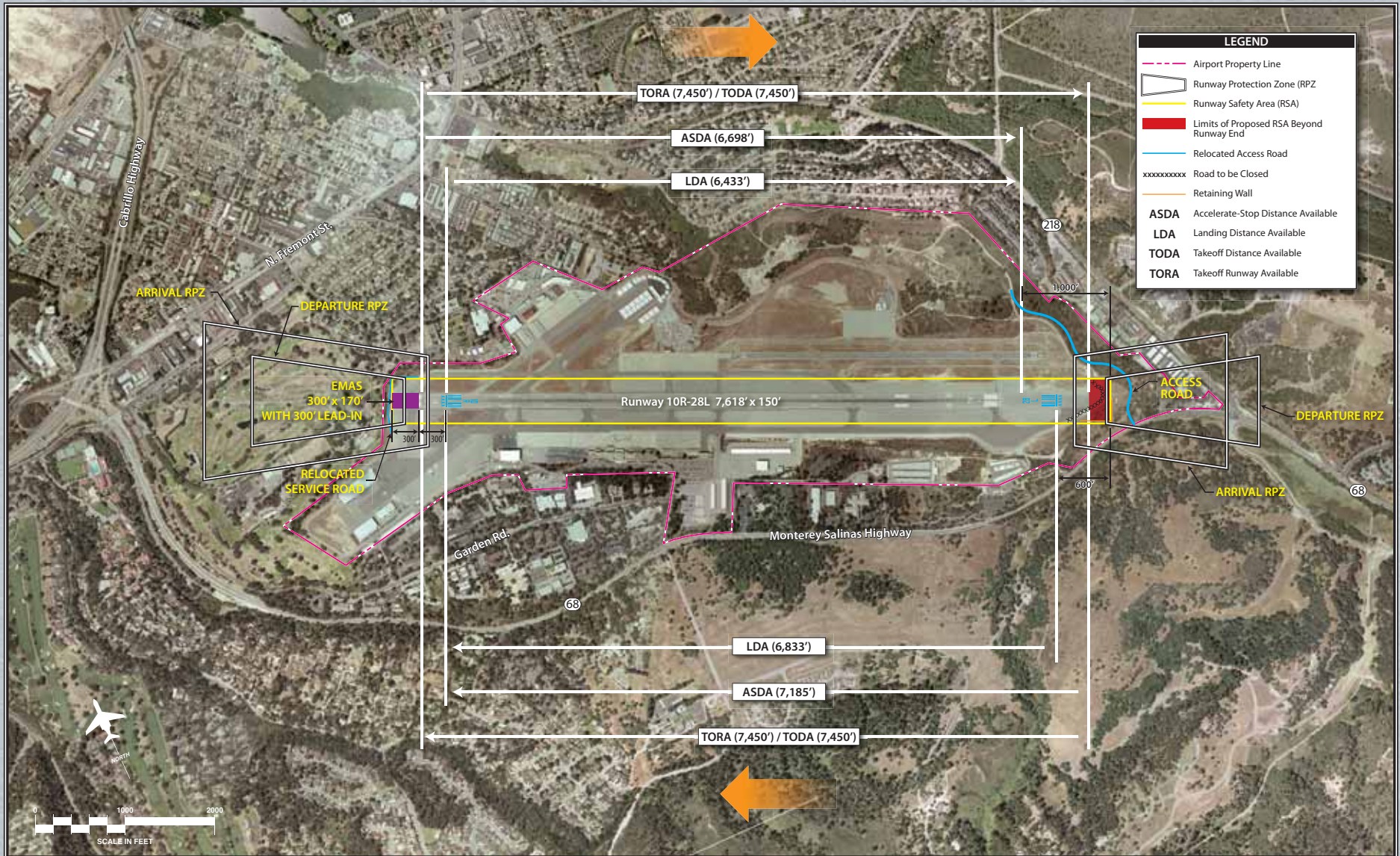
# ALTERNATIVE 7



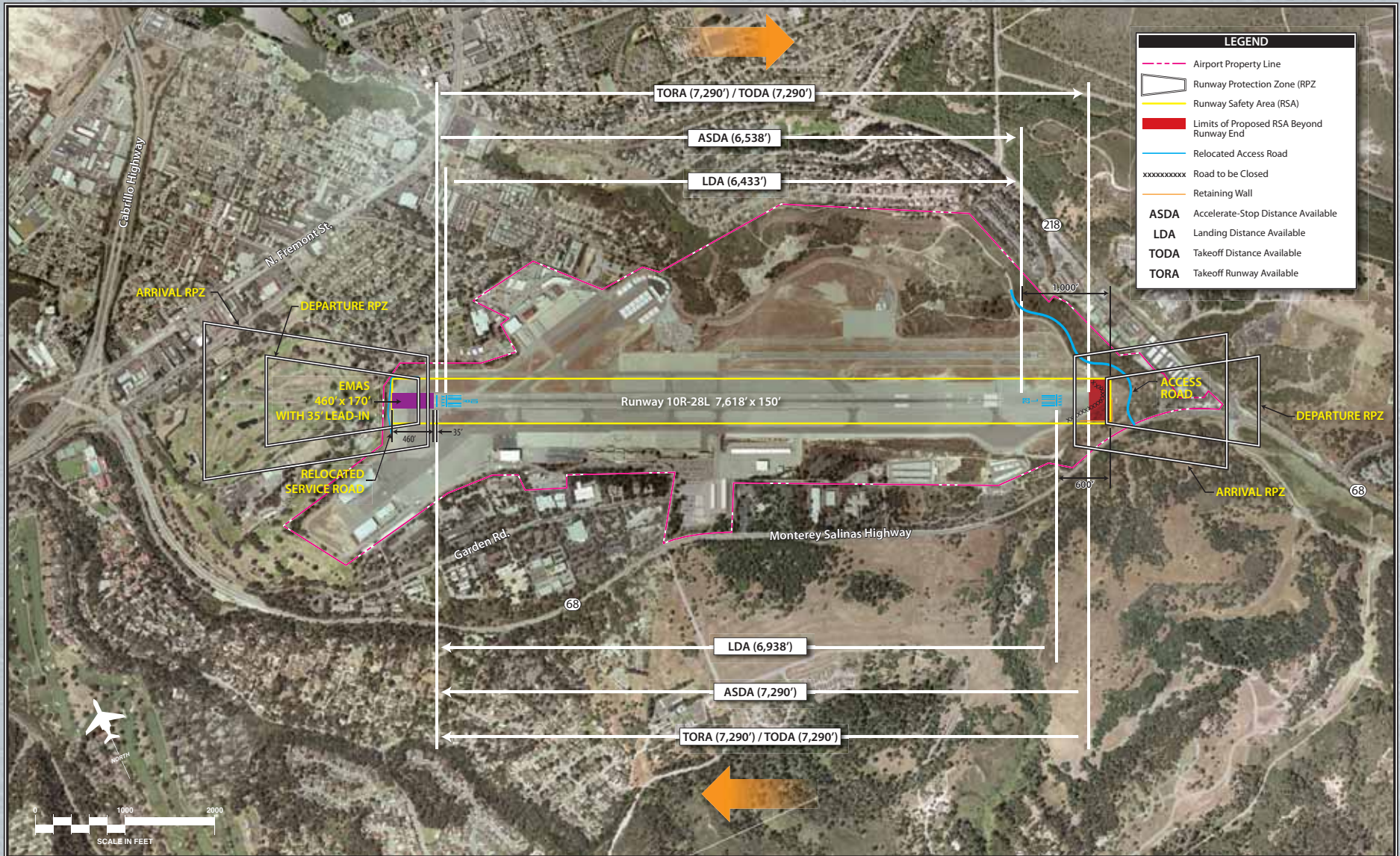
# ALTERNATIVE 7a



# ALTERNATIVE 7b



# ALTERNATIVE 7c



# ALTERNATIVE 7d



# What is EMAS?

- EMAS "Engineered Material Arresting System"
- A bed of pre-cast 4'x4' concrete blocks placed at the end of a RW to decelerate an overrunning aircraft in an emergency
- Passive system that will reliably and predictably crush under the weight of an aircraft



Boston, MA

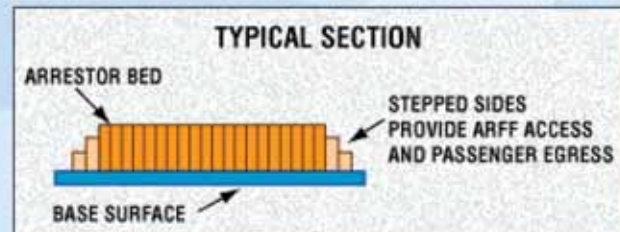
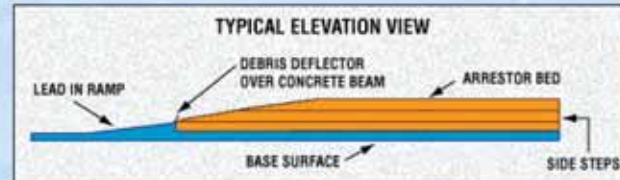
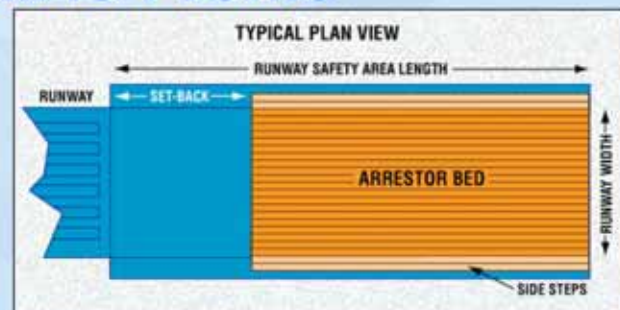
Aerosafety Systems



EMAS

## Typical EMAS Profile

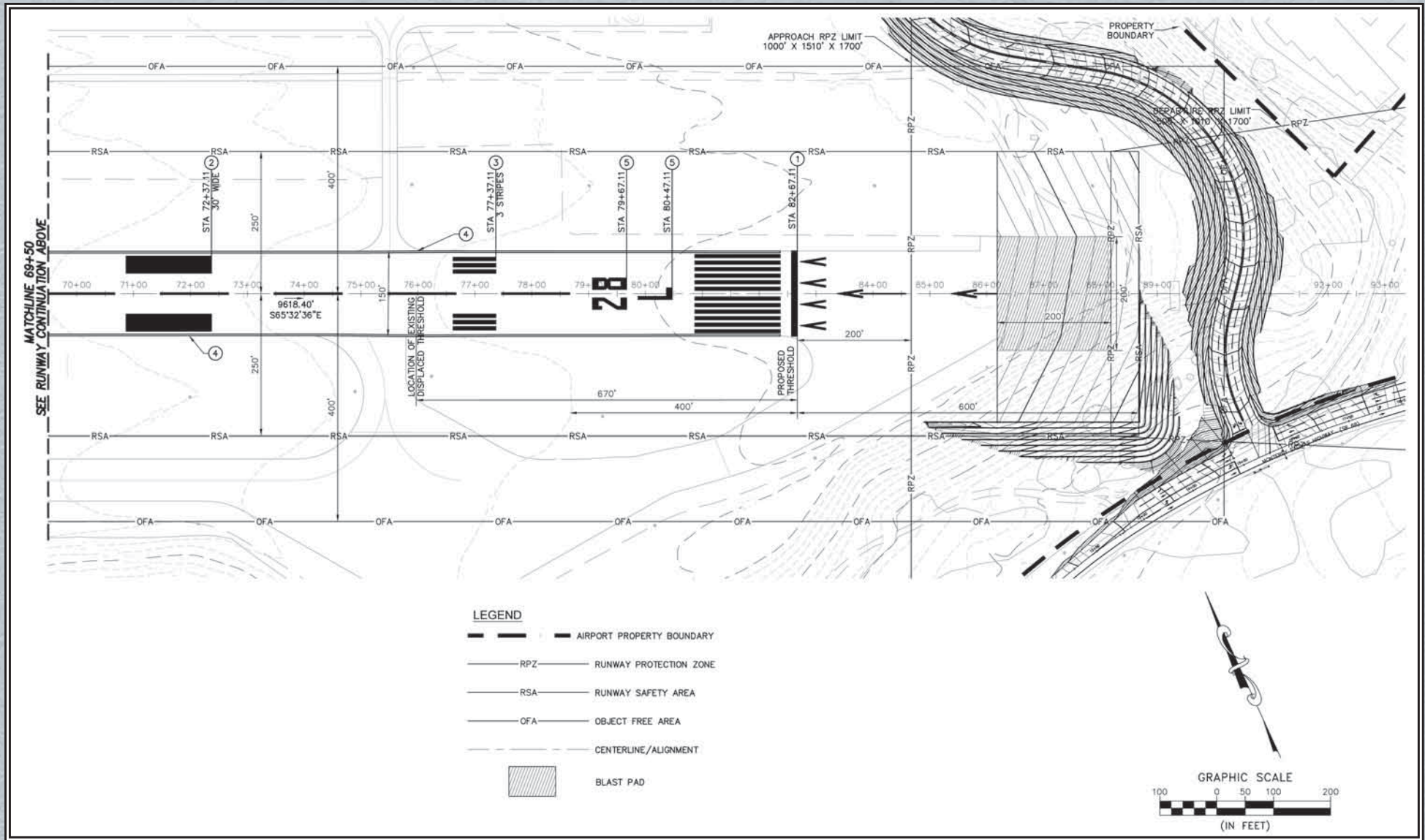
- Typical bed is width of the RW plus side steps for ARFF access and passenger egress
- Arrestor bed length sized to achieve desired performance & set back from RW end to provide buffer for jet blast debris.
- Front is ramped for smooth transition
- Rear is deeper for maximum deceleration



Aerosafety Systems

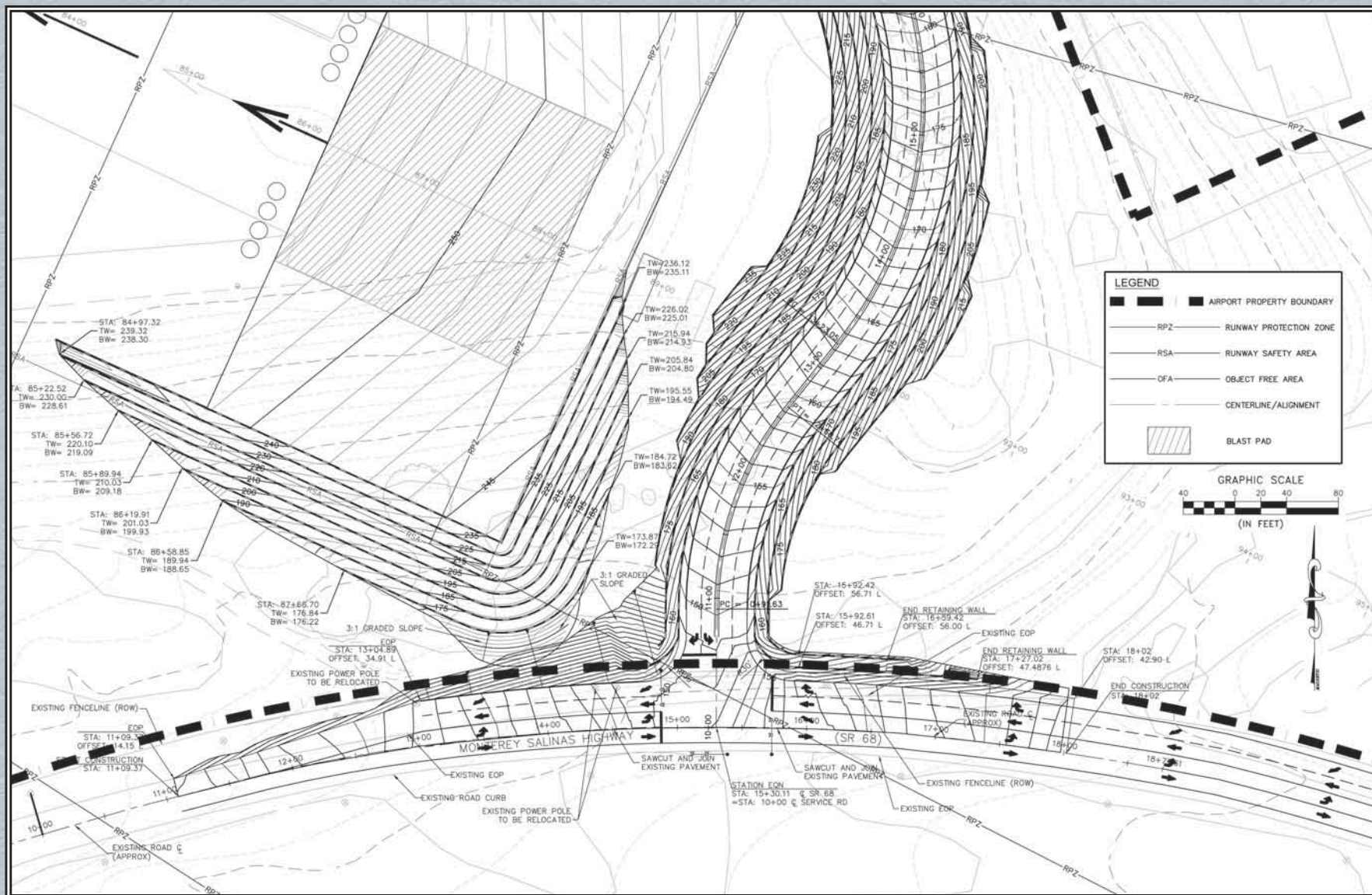


# LAYOUT PLAN RUNWAY 28L

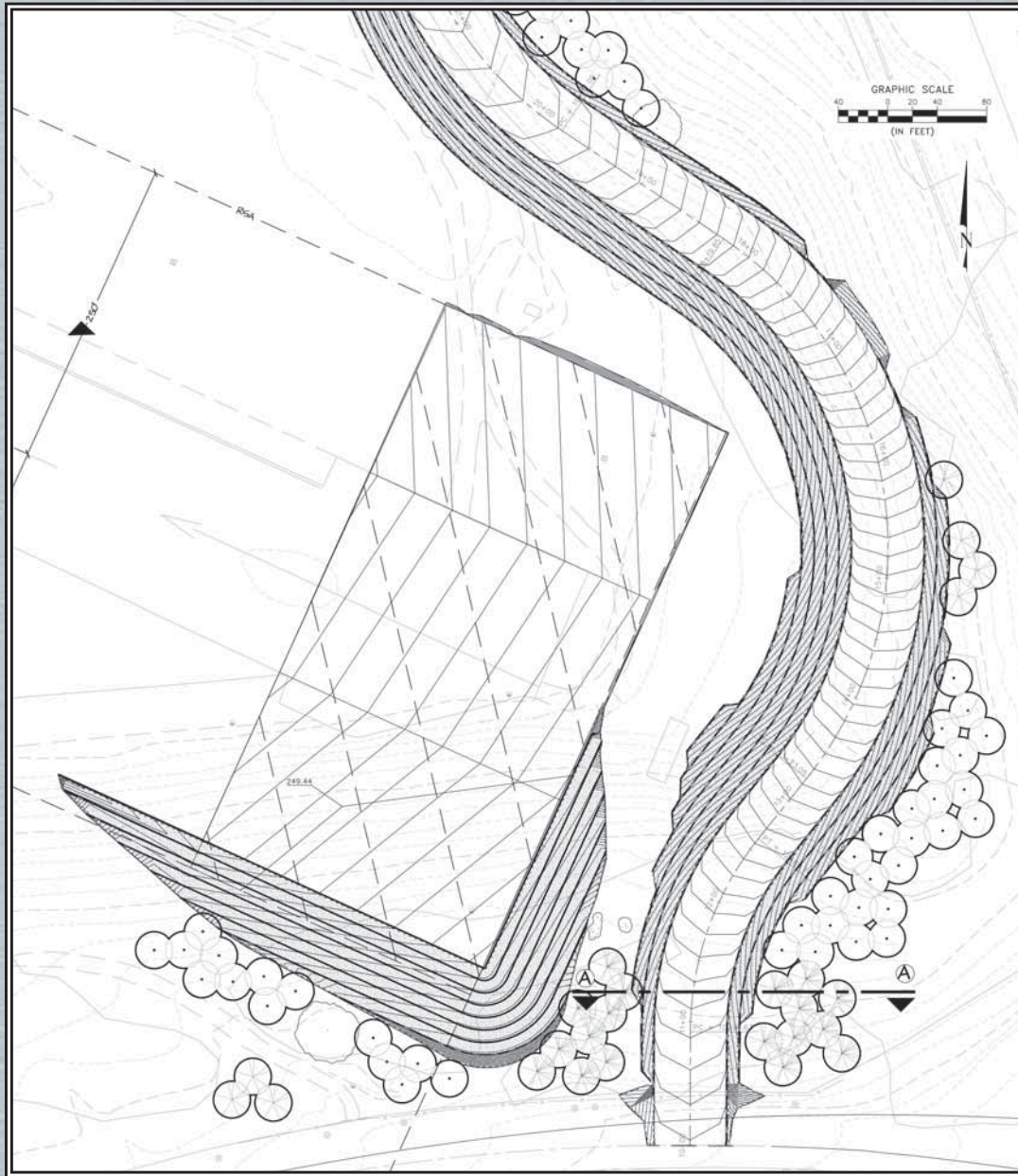


# RUNWAY SAFETY AREA ROADWAY INTERSECTION

Monterey Peninsula  
Airport



# LANDSCAPE PLAN



TOP VIEW OF  
RETAINING WALL  
AND ACCESS  
ROAD

CUT-AWAY VIEW  
OF EXCAVATED  
ACCESS ROAD

