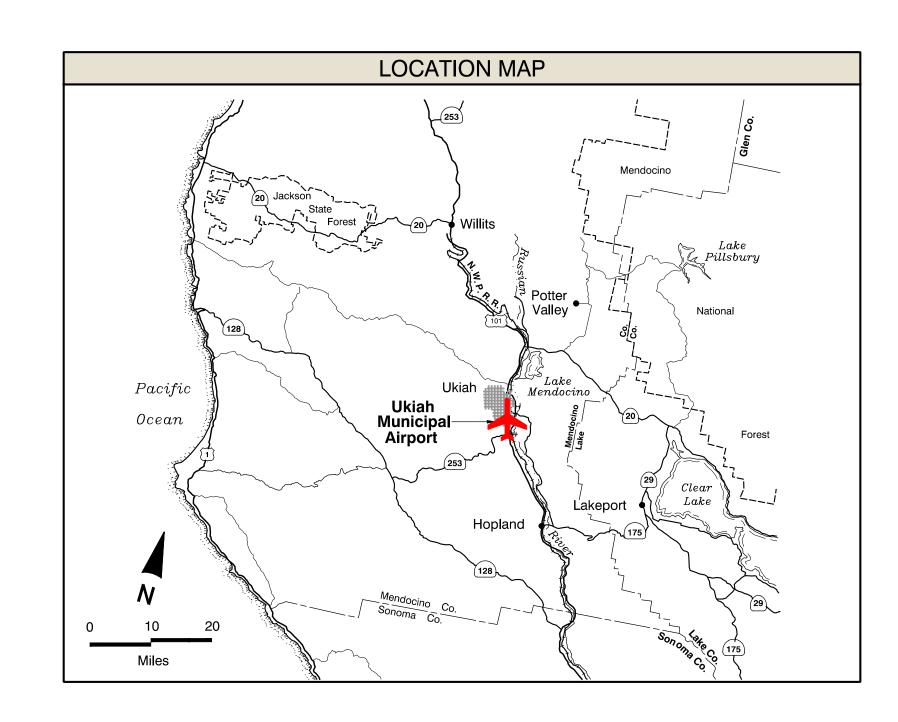
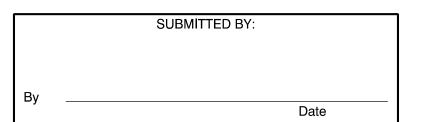
Ukiah Municipal Airport Airport Layout Plan

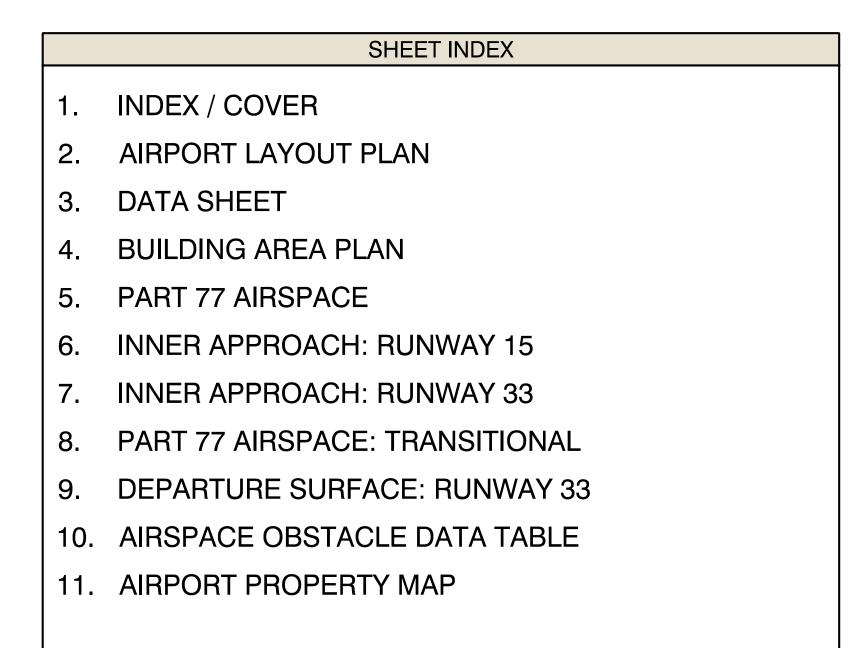
City of Ukiah April 2015

FAA AIP No. 3-06-0268-012

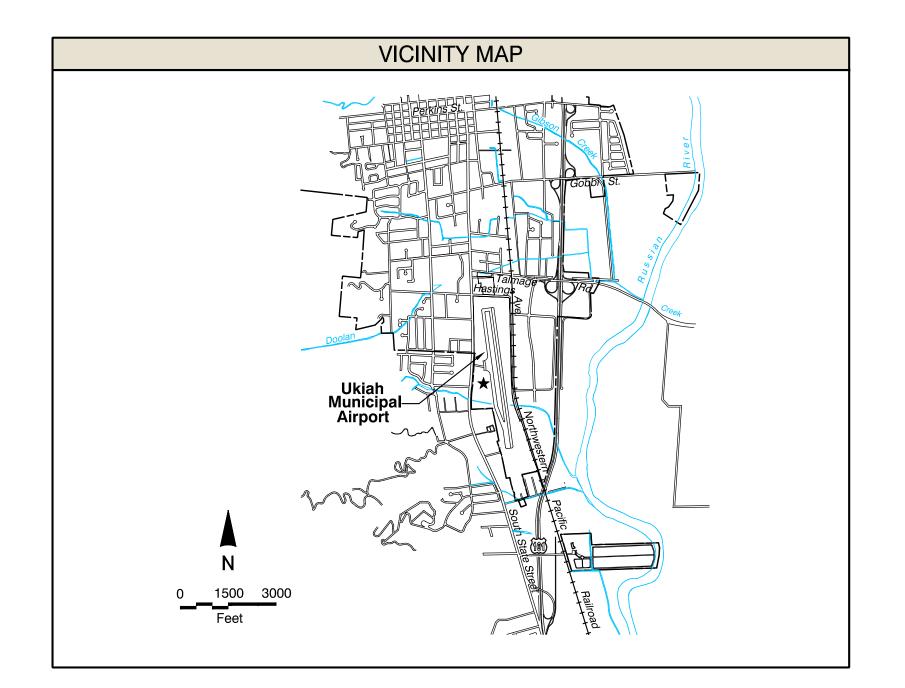


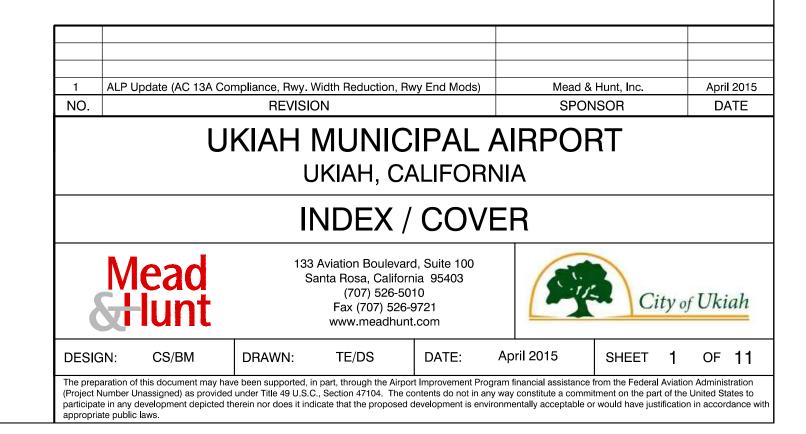


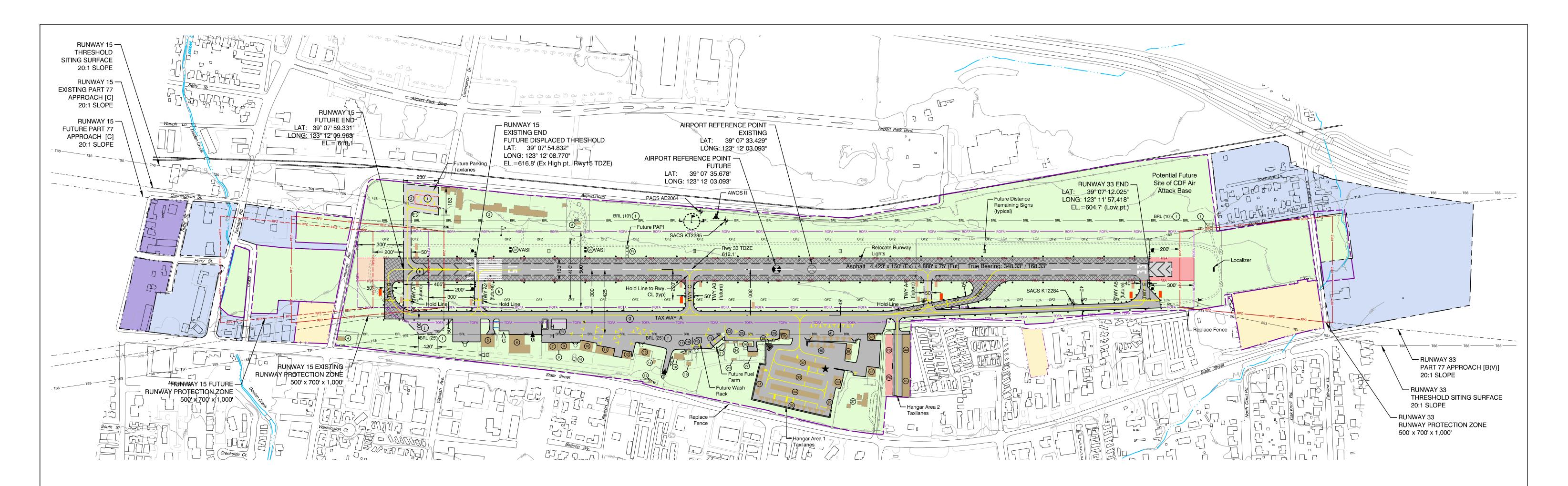
Jsers\870tme\appdata\local\temp\AcPublish_10468\UKI-ALP.Airport Layout-2015.dwg Feb 16, 2016 - 12:40pm









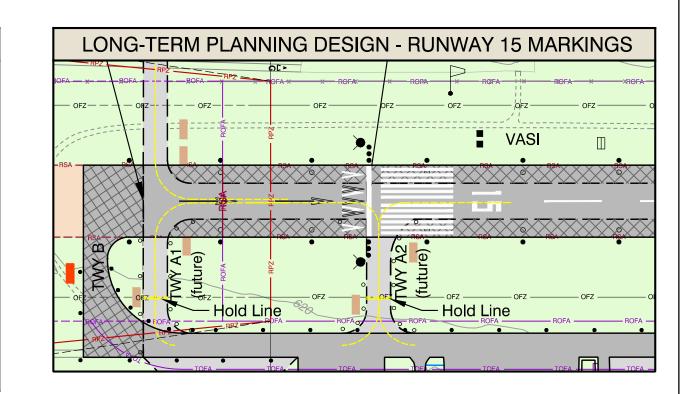


DRAWING LEGEND								
	EXISTING	FUTURE						
ACTIVE AIRFIELD PAVEMENT								
PAVEMENT TO BE REMOVED	N/A							
AIRPORT PROPERTY		++						
AVIGATION EASEMENT		+++						
EXISTING AV. EASEMENT / FUTURE PROPERTY		MIIIIIIIII						
AIRPORT REFERENCE POINT	\otimes	•						
RUNWAY SAFETY AREA	RSA	RSA — — — RSA						
RUNWAY PROTECTION ZONE	RPZ	——————————————————————————————————————						
RUNWAY OBJECT FREE AREA	ROFA	——————ROFA ———						
OBSTACLE FREE ZONE	——— OFZ ———	——— — — OFZ ———						
PART 77 RUNWAY APPROACH SURFACE								
THRESHOLD SITING SURFACE	TSS							
TAXIWAY OBJECT FREE AREA	TOFA	——————————————————————————————————————						
LOCALIZER CRITICAL AREA	LCA	N/A						
BUILDING RESTRICTION LINE		N/A						
BUILDING - ON AIRPORT								
BUILDING - OFF AIRPORT		N/A						
BUILDING - OFF AIRPORT, TO BE REMOVED	N/A							
PAVED ROAD								
AIRPORT SERVICE ROAD - PAVED		N/A						
AIRPORT SERVICE ROAD - GRAVEL		N/A						
FENCE	xx	xx						
VEHICLE GATE/PEDESTRIAN GATE	∢ G / ∢ P							
WIND CONE	}	Ρ.						
AIRFIELD SIGNS								
VASI (VISUAL APPROACH SLOPE INDICATOR)		N/A						
PAPI (PRECISION APPROACH PATH INDICATOR)	N/A	0000						
AIRFIELD LIGHTS: SINGLE/GROUP/REILS	• / •••• / «	o / ∞∞ / N/A						
BEACON	*	N/A						
YELLOW CHEVRON MARKINGS	N/A	> > >						
UTILITY POLE	+ + +	N/A						
SECURITY LIGHTING	N/A	\forall						
DISTANCE REMAINING SIGN	N/A							
TOPOGRAPHIC CONTOURS	XXX	N/A						
MONUMENT	+	N/A						
WATERWAY / CULVERT	<u> </u>	N/A						
HELICOPTER PAD	N/A	H						
SECTION CORNER	9 10 1615	N/A						

Users\870tme\appdata\local\temp\AcPublish_10468\UKI-ALP.Airport Layout-2015.dwg Feb 16, 2016 - 12:41pm

AIRPORT DATA										
	EXISTING									
AIRPORT REFERENCE CODE		B-II-5000	No Change							
MEAN MAX. TEMP. (Hottest Month	n) (d)	92.7° F (July)	No Change							
AIRPORT ELEVATION (Above Mea	an Sea Level) (c)	617.0'	618.1'							
AIRPORT NAVIGATIONAL AIDS	Localizer, Vortac, GPS, Beacon, VASI, REILs, ASOS	Same + PAPI replacing VASI								
AIDDODT DEFEDENCE DOINT (LATITUDE	39° 07' 33.429" N	39° 07' 35.678" N							
AIRPORT REFERENCE POINT (b)	LONGITUDE	123° 12' 03.093" W	123° 12' 03.093" W							
MISCELLANEOUS FACILITIES		Fuel (100LL+JetA), powerplant & airframe service, FBOs	No Change							
CRITICAL AIRCRAFT		Beech King Air 200	No Change							
MAGNETIC VARIATION (e)		14° 17' 35" E (April 2014)	Moving 0° 6.9' W / Year							
NPIAS SERVICE LEVEL	NPIAS SERVICE LEVEL									
STATE SERVICE LEVEL	STATE SERVICE LEVEL									
AIRPORT ACREAGE	Fee Simple	160.2 acres	166.9 acres							
AINFONT ACREAGE	Avigation Easement	40.9 acres	39.4 acres							

		EXISTING BUILDING AND FA	CILITY LEGEND		
EXISTING FACILITIES	ELEVATION	EXISTING FACILITIES	ELEVATION	EXISTING FACILITIES	ELEVATION
Localizer Equipment Building	614'	(17) Covered Picnic Area	635'	(33) T-hangars (10)	637'
2 City of Ukiah - Corporate Yard	632'	(18) Storage	625'	(34) Shade Hangars (14)	636'
3) Fuel Storage Tank	620'	(19) Commercial Building	640'	(35) Portable T-hangars	636'
4 Commercial Building	641'	20) Portable Office	636'	(36) Portable T-hangars	636'
5 Box Hangar	645'	(21) Storage	631'	(37) Oak Valley Nursery	635'
6 FBO (2)	642'	(22) VASI (visual approach slope indicator)	617'	(38) Box Hangar	650'
7 FBO	644'	(23) Covered Storage	627'	(39) Box Hangar (2)	638'
8 Portable Office	635'	(24) Electrical Vault	625'	(40) Portable T-hangars	630'
9 Box Hangar	644'	(25) Storage	623'	(41) Portable T-hangars	626'
10) Airport Maintenance	643'	(26) Fire Retardant Storage	625'	(42) FBO	631'
11) FBO (2)	642'	(27) FBO Offices	643'	(43) FBO	643'
12) Box Hangar	639'	(28) Portable T-hangar	630'	(44) Box Hangars (4)	640'
13) Airport Administration	644'	29) Storage	623'	(45) Box Hangars (4)	643'
14) Storage Building	644'	(30) Box Hangar	639'	46) Street Sweeper Fuel Station	634'
15) Electrical Vault and Future Standby Generator	641'	(31) Portable T-hangars	635'		
(16) Commercial Building	641'	(32) T-hangars (10)	634'		



LAYOUT PLAN NOTES

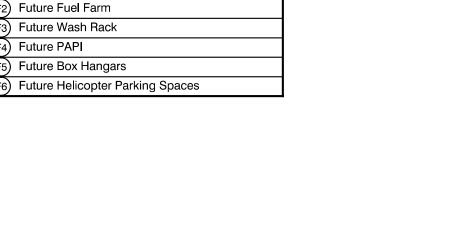
- ALP prepared using design criteria from FAA Advisory Circulars 150/5300-13A Change 1, "Airport Design", 150/5070-6A, "Airport Master Plans" and Part 77 of the Federal Aviation Regulations (FAR), "Safe, Efficient Use, and Preservation of the Navigable Airspace."
- (a) The proposed 465 foot runway extension project identified herein is for long-term planning purposes only. This proposed project shall not be undertaken without prior NEPA environmental processing and written FAA approval. Precondition will include FAA Forecast approval and FAA approval off airfield standard design.
- (b) All coordinates NAD83. Horizontal data source: AGIS Survey by Woolpert, March 2009.
- (c) All elevations NAVD88. Data source: AGIS Survey by Woolpert, March 2009.
- (d) Temperature Source: Western Regional Climate Center. Station #049122, Ukiah, California.
- (e) Magnetic Declination Source: NOAA, National Geophysical Data Center.
- f) The building restriction line (BRL) is based on a composite of airfield design setbacks such as the taxiway object free area (TOFA) and Part 77 airspace surfaces. Allowable building elevations above ground level are noted at each line: 25 feet above runway elevation on west side of runway, and 10 feet above runway elevation on east side of runway.
- g Taxiway object free area (TOFA) from Taxiway A centerline is based on critical aircraft wingspan. Taxiway centerline to object separation equal to 0.7 times the critical aircraft wingspan plus 10 feet. [0.7(54.5')+10']=49 feet. Wing tip clearance equal to 0.2 times the wingspan plus 10 feet. [0.2(54.5')+10']=21 feet.
- (h) Future chevrons shown as near-term marking solution. See inset below for long-term marking design.
- i) Proposed tie-down apron is depicted for long-term planning purposes only.
- (j) Proposed run-up apron is depicted for long-term planning purposes only.
- (k) Proposed New Taxiway A2 to existing Runway 15 end threshold and new chevrons aft of existing Runway 15 end will correct and eliminate the non-standard aligned taxiway design.

FUTURE FACILITIES

DECLINATION: 14° 17' 35" E

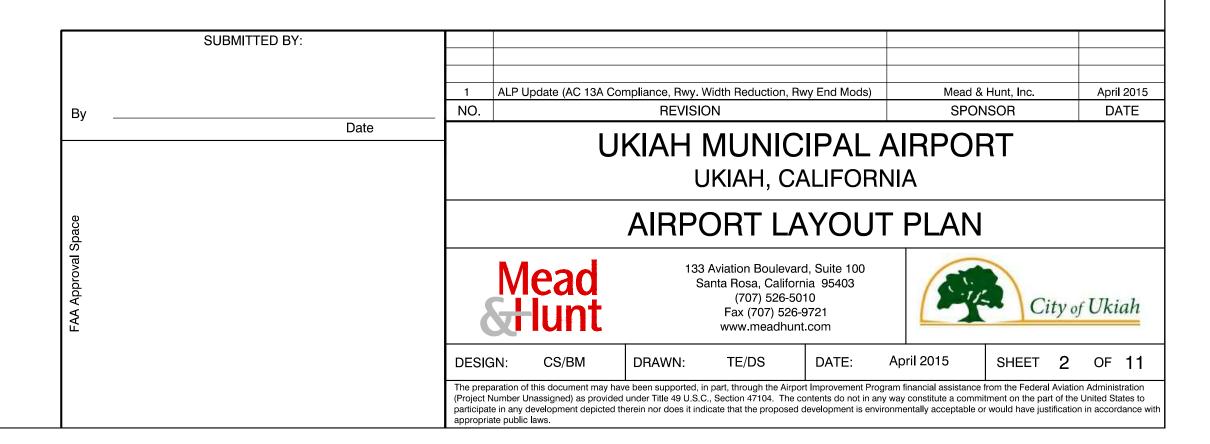
(April 2014)

ANNUAL RATE OF CHANGE: 6.9' W



Proposed Tiedown Apron

4) Future PAPI



	RUI	NWAY DA	T	4		
				RUNWA	Υ	
			EXISTING		FUTURE	
UTILITY / GREATER THAI		Gr	eater than Utility		No Change	
RUNWAY DESIGN CODE		L	B-II-5000		No Change	
APPROACH REFERENCE	CODE	15	B-II-5000	15	_	
			33	B-II-VIS	33	
DEPARTURE REFERENC				B-II		No Change
	AIRCRAFT		Be	ech King Air 200		No Change
	WINGSPAN			54.5'		No Change
	APPROACH S	` ,		<103'		No Change
CRITICAL AIRCRAFT	MAX. TAKEO	FF WT. (lbs.)		12,500'		No Change
	COCKPIT TO	MAIN GEAR		N/A		No Change
	MAIN GEAR V			17'-2"		No Change
	TAXIWAY DES	SIGN GROUP		2		No Change
PAVEMENT STRENGTH	SURFACE MA	ATERIAL		Asphalt		No Change
AND MATERIAL TYPE		TH (1,000#) - S/D/DT		28/-/-		No Change
(f)	STRENGTH E			None		No Change
	SURFACE TR	EATMENT		None		No Change
EFFECTIVE GRADIENT (%)			0.27		No Change
MAXIMUM GRADIENT (%	·)			0.36		No Change
VERTICAL LINE OF SIGH	T PROVIDED			Yes		No Change
RUNWAY LENGTH				4,423'		4,888'
RUNWAY WIDTH				150'		75'
DISPLACED THRESHOLI)		15	None	15	
cc.b mileonott	-		33	None	33	
RUNWAY END ELEVATIO	NS	(c)	15	616.8'	15	618.1' (est.)
			33	604.7'	33	No Change
DISPLACED THRESHOLE) El EMATIONS	(0)	15	None	15	616.8'
PIOI FUOED HUDEOUOFF		,	33	None	33	No Change
RUNWAY TOUCHDOWN	ZONE ELEVAT	IONS (15	616.8'	15	618.1' (est.)
HONWAT TOOCHDOWN	ZONE ELEVAT	IONS (c)	33	612.1'	33	No Change
RUNWAY HIGH POINT		0		616.8'		618.1' (est.)
RUNWAY LOW POINT		\odot		604.7'		No Change
		REQUIRED	15	300'	15	No Change
RUNWAY SAFETY AREA	(RSA)	NEQUINED	33	300'	33	No Change
LENGTH BEYOND RUNV	VAY END	AOTHAL	15	300'	15	No Change
		ACTUAL	33	300'	33	No Change
DUNIA/AV CAFETY ADEA	WIDTH	REQUIRED		150'		No Change
RUNWAY SAFETY AREA	WIDTH	ACTUAL	150'			No Change
RUNWAY EDGE LIGHTIN	G		Medium Intensity			No Change
RUNWAY PROTECTION 2	ZONE (RPZ)		15	15 500' x 700' x 1,000'		No Change
(Inner Width x Outer Widt	, ,		33	500' x 700' x 1,000'	33	No Change
DUBBANA A BANA			15	Nonprecision	15	No Change
RUNWAY MARKING			33	Visual	33	No Change
DADT 77 ADDDO AOU TV	\		15	Non-Precision [C]	15	No Change
PART 77 APPROACH TYP	'E		33	Visual [B(V)]	33	No Change
DADT == ADDDOAGU 01	205		15	34:1	15	No Change
PART 77 APPROACH SLO	JPE		33	20:1	33	No Change
ADDDOAGLAGODERT	IINIINAL INAC		15	1 ¼ Mile	15	No Change
APPROACH VISIBILITY M	IIINIIVIUMS		33	Visual	33	No Change
AERONAUTICAL SURVE	/ REQUIRED		15	Not Required	15	No Change
(VERTICALLY GUIDED O			33	Not Required	33	No Change
DUMANAN DEDARTS :== 1	UDEAGE		15	No	15	No Change
RUNWAY DEPARTURE S	UKFACE		33	40:1	33	No Change
RUNWAY OBJECT FREE	AREA	(ROFA)	15	300'	15	No Change
(Length Beyond Runway		. ,	33	300'	33	No Change
RUNWAY OBJECT FREE	AREA WIDTH		Г	500'		No Change
OBSTACLE FREE ZONE		(OFZ)	15	200'	15	No Change
(Length Beyond Runway	End)	` '	33	200'	33	No Change
OBSTACLE FREE ZONE	WIDTH		Г	400'		No Change
INNER-APPROACH OFZ			15	N/A	15	
(For Rwys w/ Approach Lighting Sy		om Rwy end @ 50:1	33	N/A	33	
INNER-APPROACH OFZ	WIDTH		Г	N/A		No Change
INNER-TRANSITIONAL O			15	N/A	15	No Change
(For Runways w/ <3/4-mile Approa		33	N/A	33	No Change	
PRECISION OBSTACLE I	EDEE ZONE (L	15	N/A	15	No Change	
	TEL ZONE OF	,	33	N/A	33	No Change
(For Rwys w/vert. guided approach	`	3/4 mile visibility)		20:1 - Expected to		
(For Rwys w/vert. guided approach	and <250' ceiling/<	·	15	support inst. night ops serving greater than approach Cat. B aircraft.	15	No Change
(For Rwys w/vert. guided approach	and <250' ceiling/<	·	33	serving greater than approach Cat. B aircraft. 20:1 - Expected to serve large airplanes (visual day/night); or instrument min. ≥ 1 statute mile	33	No Change
(For Rwys w/vert. guided approach	and <250' ceiling/<	·	33 15	serving greater than approach Cat. B aircraft. 20:1 - Expected to serve large airplanes (visual day/night); or instrument min. ≥ 1 statute mile GPS, VOR, Loc.	33 15	No Change
(For Rwys w/vert. guided approach THRESHOLD SITING SUI (Per AC 150/5300-13A, Table 3-2.	and <250' ceiling/<	·	33 15 33	serving greater than approach Cat. B aircraft. 20:1 - Expected to serve large airplanes (visual day/night); or instrument min. ≥ 1 statute mile GPS, VOR, Loc. None	33 15 33	No Change No Change No Change
(For Rwys w/vert. guided approach THRESHOLD SITING SUI (Per AC 150/5300-13A, Table 3-2.	and <250' ceiling/<	·	33 15	serving greater than approach Cat. B aircraft. 20:1 - Expected to serve large airplanes (visual day/night); or instrument min. ≥ 1 statute mile GPS, VOR, Loc.	33 15	No Change

AIRPORT DATA										
EXISTING FUTURE										
AIRPORT REFERENCE CODE		B-II-5000	No Change							
MEAN MAX. TEMP. (Hottest Month	n) (d)	92.7° F (July)	No Change							
AIRPORT ELEVATION (Above Me	an Sea Level) (c)	617.0'	618.1'							
AIRPORT NAVIGATIONAL AIDS		Localizer, Vortac, GPS, Beacon, VASI, REILs, ASOS	Same + PAPI replacing VASI							
AIRPORT REFERENCE POINT (b	LATITUDE	39° 07' 33.429" N	39° 07' 35.678" N							
AIRPORT REFERENCE POINT (b)	LONGITUDE	123° 12' 03.093" W	123° 12' 03.093" W							
MISCELLANEOUS FACILITIES		Fuel (100LL+JetA), powerplant & airframe service, FBOs	No Change							
CRITICAL AIRCRAFT		Beech King Air 200	No Change							
MAGNETIC VARIATION (e)		14° 17' 35" E (April 2014)	Moving 0° 6.9' W / Year							
NPIAS SERVICE LEVEL	General Aviation	No Change								
STATE SERVICE LEVEL	Regional	No Change								
AIRPORT ACREAGE	Fee Simple	160.2 acres	166.9 acres							
AINFONT ACREAGE	Avigation Easement	40.9 acres	39.4 acres							

	RUNWAY END COORDINATES @								
	EXISTING FUTURE								
	LATITUDE	39° 07' 54.832" N	39° 07' 59.331" N						
15	LONGITUDE	123° 12' 08.770" W	123° 12' 09.963" W						
	ELEVATION	616.8'	618.1' (est.)						
	LATITUDE	39° 07' 12.025" N	No Change						
33	LONGITUDE	123° 11' 57.418" W	No Change						
	ELEVATION	604.7'	No Change						
15	LATITUDE	None	39° 07' 54.832" N						
Displaced	LONGITUDE	None	123° 12' 08.770" W						
Threshold	ELEVATION	N/A	616.8'						

DECLARED DISTANCES								
	RUNW	/AY 15*	RUNW	/AY 33				
	EXISTING	FUTURE	EXISTING	FUTURE				
TAKEOFF RUN AVAILABLE (TORA)	4,423'	4,888'	4,423'	4,888'				
TAKEOFF DISTANCE AVAILABLE (TODA)	4,423'	4,888'	4,423'	4,888'				
ACCELERATE-STOP DISTANCE AVAILABLE (ASDA)	4,423'	4,888'	4,423'	4,888'				
LANDING DISTANCE AVAILABLE (LDA)	4,423'	4,423'	4,423'	4,888'				

TAXIWAY FILLET DATA											
Table 4-5. Stan	dard int	ersectio	n details	for TD	G 2			М			
	T	DG 2									
Dimension (See <u>Figure</u> 4-13, Figure 4-14, and <u>Figure</u> 4-15)											
Δ (degrees)	30	45	60	90	120	135	150				
W-0 (ft)	17.5	17.5	17.5	17.5	17.5	17.5	17.5				
W-1 (ft)	29	35	26	26	27	26	28				
W-2 (ft)	29	35	40	48	48	50	54	R-FILLET R-CL R-OUTER			
L-1 (ft)	192	228	183	185	192	183	194	*			
L-2 (ft)	0	0	60	75	65	75	71	_ w-o			
L-3 (ft)	8	14	23	48	117	170	279	W-1 W-2			
R-Fillet (ft)	0	0	0	0	25	25	25				
R-CL (ft)	75	75	75	60	75	75	80	L-1 L-3			
R-Outer (ft)	92	92	92	77	92	92	97	NOTE: RADII SHOWN ARE NOT CONCENTRIC.			

Note: Values in the table are rounded to the nearest foot. 1 foot = 0.305 meters.

Figure 4-13. Taxiway turn - 90 degree delta

Table 4-5 and Figure 4-13 from FAA Advisory Circular 150/5300-13A (Change 1) "Airport Design".

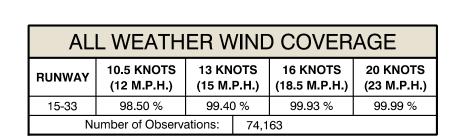
TAXIWAY / TAXILANE DATA TABLE																	
	PARALLEI	L TAXIWAY				CONNECTO	R TAXIWAYS	3					TAXII	ANES			NOTES
		4	В	A1 A2	С	A3	D	A 4	E	A5	Hangar Area	a 1 Taxilanes	Hangar Area	a 2 Taxilanes	Future Parki	ng Taxilanes	
	EXISTING	FUTURE	EXISTING	FUTURE	EXISTING	FUTURE	EXISTING	FUTURE	EXISTING	FUTURE	EXISTING	FUTURE	EXISTING	FUTURE	EXISTING	FUTURE	"Engineering Brief No. 89, Taxiway Nomenclature Convention".
TAXIWAY DESIGN GROUP	2	No Change	2	No Change	2	No Change	2	No Change	2	No Change	2	No Change	2	No Change	N/A	2	
AIRCRAFT DESIGN GROUP	II	No Change	II	No Change	II	No Change	II	No Change	II	No Change	II	No Change	II	No Change	N/A	II	 See Taxiway Fillet Data table for more detailed dimension data.
WIDTH	40'	No Change	50'	No Change	50'	No Change	50 [']	No Change	40'	No Change	35'	No Change	35'	No Change	N/A	35'	dotalled different data.
TAXIWAY SAFETY AREA WIDTH	79'	No Change	79'	No Change	79'	No Change	79'	No Change	79'	No Change	N/A	No Change	N/A	No Change	N/A	N/A	
TAXIWAY / TAXILANE OBJECT FREE AREA WIDTH (9)	98'	No Change	98'	No Change	98'	No Change	98'	No Change	98'	No Change	62' **	No Change	62' **	No Change	N/A	No Change	
DISTANCE from TWY. / TAXILANE Q to FIXED/MOVABLE OBJECT	49 ¹	No Change	49'	No Change	49'	No Change	49'	No Change	49'	No Change	31' **	No Change	31' **	No Change	N/A	89' *	*Based on critical aircraft (King Air 200)
TAXIWAY / TAXILANE WINGTIP CLEARANCE	21'	No Change	21'	No Change	21'	No Change	21'	No Change	21'	No Change	13' **	No Change	13' **	No Change	N/A	42' *	
DISTANCE from RUNWAY & to TAXIWAY / TAXILANE	300'	No Change	N/A	No Change	N/A	No Change	N/A	No Change	N/A	No Change	535'	No Change	N/A	No Change	N/A	383'	**Taxilane based on wingtip clearance critical aircraft for this area (C-172)
DISTANCE FROM RUNWAY & to HOLD BARS	200'	No Change	N/A	No Change	N/A	No Change	N/A	No Change	N/A	No Change	N/A	No Change	N/A	No Change	N/A	No Change	Grada anotal for this area (0-172)
TAXIWAY SURFACE TYPE	Asphalt	No Change	Asphalt	No Change	Asphalt	No Change	Asphalt	No Change	Asphalt	No Change	Asphalt	No Change	N/A	No Change	N/A	No Change	

DATA NOTES

- ALP prepared using design criteria from FAA Advisory Circulars 150/5300-13A Change 1, "Airport Design", 150/5070-6A, "Airport Master Plans" and Part 77 of the Federal Aviation Regulations (FAR), "Safe, Efficient Use, and Preservation of the Navigable Airspace."
- a The proposed 465 foot runway extension project identified herein is for long-term planning purposes only. This proposed project shall not be undertaken without prior NEPA environmental processing and written FAA approval. Precondition will include FAA Forecast approval and FAA approval off airfield standard design.
- b All coordinates NAD83. Horizontal data source: AGIS Survey by Woolpert, March 2009.
- © All elevations NAVD88. Data source: AGIS Survey by Woolpert, March 2009.
- d Temperature Source: Western Regional Climate Center. Station #049122, Ukiah, California.
- Magnetic Declination Source: NOAA, National Geophysical Data Center.
- f The building restriction line (BRL) is based on a composite of airfield design setbacks such as the taxiway object free area (TOFA) and Part 77 airspace surfaces. Allowable building elevations above ground level are noted at each line: 25 feet above runway elevation on west side of runway, and 10 feet above runway elevation on east side of runway.
- Taxiway object free area (TOFA) from Taxiway A centerline is based on critical aircraft wingspan. Taxiway centerline to object separation equal to 0.7 times the critical aircraft wingspan plus 10 feet. [0.7(54.5')+10']=49 feet. Wing tip clearance equal to 0.2 times the wingspan plus 10 feet. [0.2(54.5')+10']=21 feet.

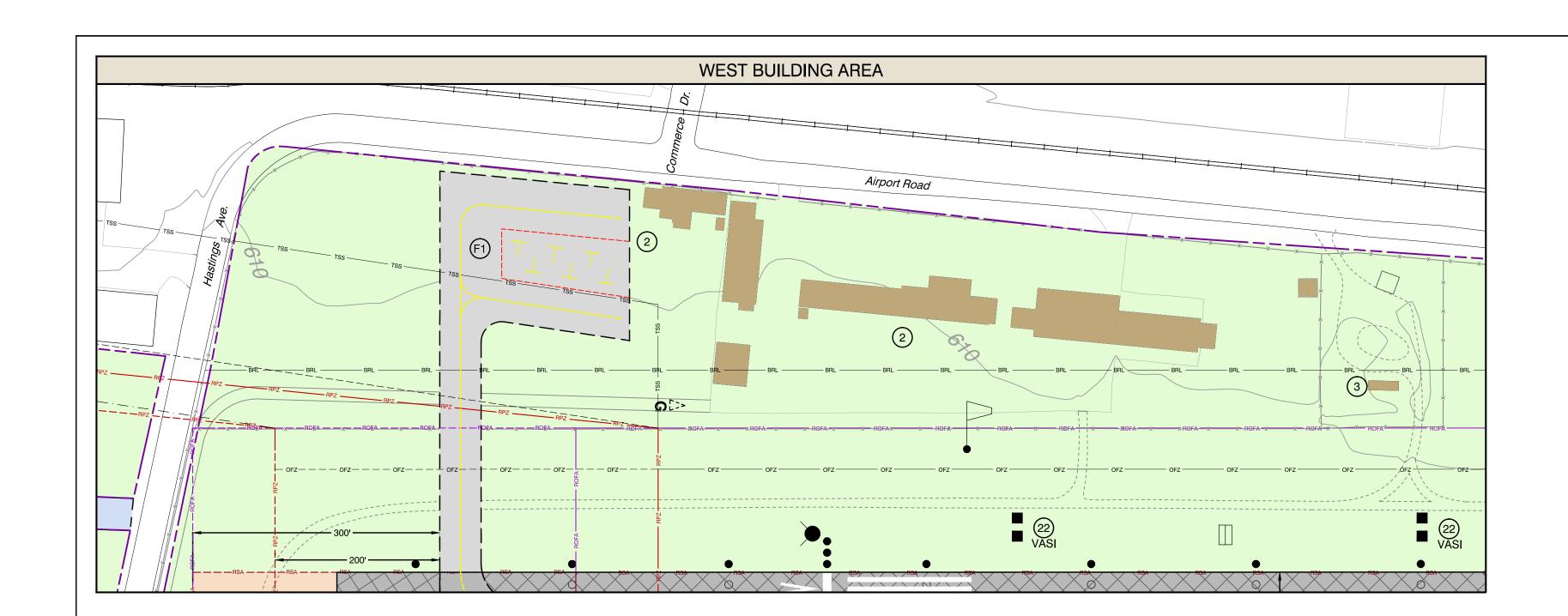
Magnetic heading = 151° True heading = 168° True heading = 168° ANNUAL MARKET STATE STA

ALL WEATHER WIND ROSE



Wind Data Source: NOAA Weather Station 72590, Ukiah, California
Period of Time: Jan. 1, 2000 - Dec. 31, 2009
Note: Windrose compass headings are true north.

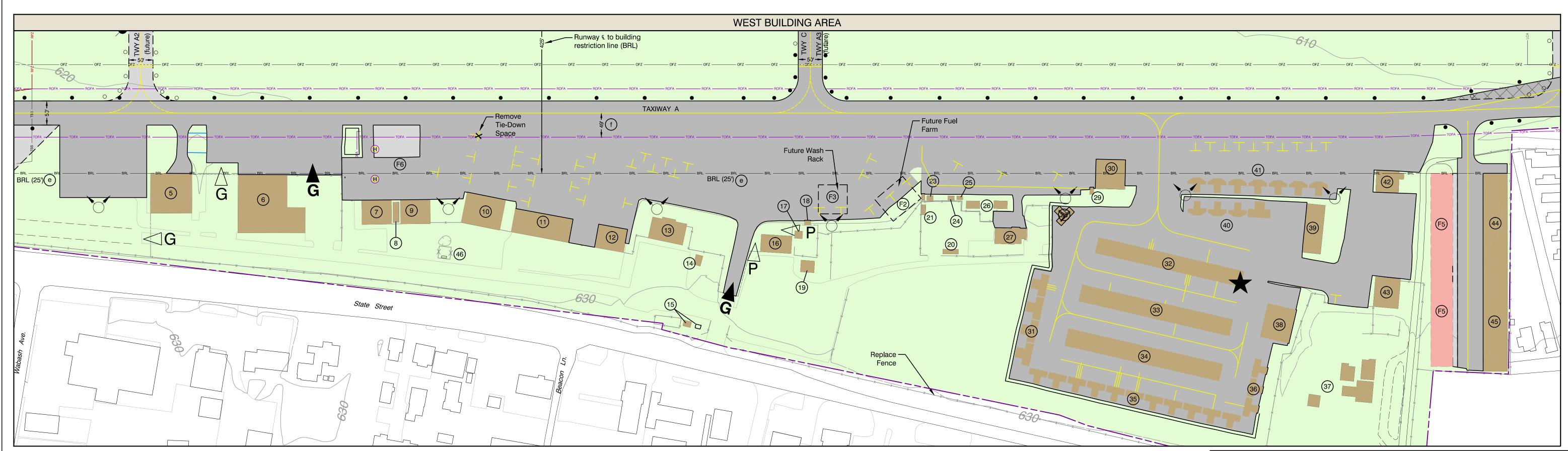
1	ALP Update (AC 13A Co	ompliance, Rwy. \	N	Mead & Hunt, Inc.	Apri	l 2015						
NO.		REVISION	NC			SPONSOR	D/	ATE				
	UKIAH MUNICIPAL AIRPORT UKIAH, CALIFORNIA											
	DATA SHEET											
(Mead Santa Rosa, California 95403 (707) 526-5010 Fax (707) 526-9721 www.meadhunt.com 133 Aviation Boulevard, Suite 100 Santa Rosa, California 95403 (707) 526-5010 Fax (707) 526-9721 www.meadhunt.com											
DESIG	GN: CS/BM	DRAWN:	TE/DS	DATE:	April 2015	SHEET (3 OF	11				
(Project I	paration of this document may he Number Unassigned) as provide te in any development depicted ate public laws.	d under Title 49 U.S.0	C, Section 47104. The	contents do not in a	any way constitute	a commitment on the part of	the United St	ates to				



LAYOUT PLAN NOTES

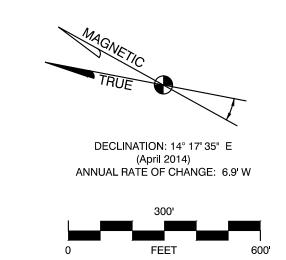
- ALP prepared using design criteria from FAA Advisory Circulars 150/5300-13A Change 1, "Airport Design", 150/5070-6A, "Airport Master Plans" and Part 77 of the Federal Aviation Regulations (FAR), "Safe, Efficient Use, and Preservation of the Navigable Airspace."
- (a) All coordinates NAD83. Horizontal data source: AGIS Survey by Woolpert, March 2009.
- (b) All elevations NAVD88. Data source: AGIS Survey by Woolpert, March 2009.
- © Temperature Source: Western Regional Climate Center. Station #049122, Ukiah, California.
- d Magnetic Declination Source: NOAA, National Geophysical Data Center.
- (e) The building restriction line (BRL) is based on a composite of airfield design setbacks such as the taxiway object free area (TOFA) and Part 77 airspace surfaces. Allowable building elevations above ground level are noted at each line: 25 feet above runway elevation on west side of runway, and 10 feet above runway elevation on east side of runway.
- Taxiway object free area (TOFA) from Taxiway A centerline is based on critical aircraft wingspan. Taxiway centerline to object separation equal to 0.7 times the critical aircraft wingspan plus 10 feet. [0.7(54.5')+10']=49 feet. Wing tip clearance equal to 0.2 times the wingspan plus 10 feet. [0.2(54.5')+10']=21 feet.

DRAWING LEGEND								
	EXISTING	FUTURE						
ACTIVE AIRFIELD PAVEMENT								
PAVEMENT TO BE REMOVED	N/A							
AIRPORT PROPERTY		++						
AVIGATION EASEMENT		+++						
EXISTING AV. EASEMENT / FUTURE PROPERTY	VIIIIIII							
HELICOPTER PAD	N/A	H						
RUNWAY SAFETY AREA	RSA	RSA RSA						
RUNWAY PROTECTION ZONE		——————————————————————————————————————						
RUNWAY OBJECT FREE AREA		——————ROFA ———						
OBSTACLE FREE ZONE	——— OFZ ———	——————————————————————————————————————						
PART 77 RUNWAY APPROACH SURFACE								
THRESHOLD SITING SURFACE	TSS	TSS						
TAXIWAY OBJECT FREE AREA	TOFA	——————————————————————————————————————						
LOCALIZER CRITICAL AREA	LCA	N/A						
BUILDING RESTRICTION LINE		N/A						
BUILDING - ON AIRPORT								
BUILDING - OFF AIRPORT		N/A						
BUILDING - OFF AIRPORT, TO BE REMOVED	N/A							
PAVED ROAD								
AIRPORT SERVICE ROAD - PAVED		N/A						
AIRPORT SERVICE ROAD - GRAVEL		N/A						
FENCE	xx							
VEHICLE GATE/PEDESTRIAN GATE	∢ G / ∢ P	⊲ G / ⊲ P						
WIND CONE	<u> </u>	<u> </u>						
VASI (VISUAL APPROACH SLOPE INDICATOR)	•	N/A						
PAPI (PRECISION APPROACH PATH INDICATOR)	N/A	0000						
AIRFIELD LIGHTS: SINGLE/GROUP/REILS	• / •••• / «	o / ∞∞ / N/A						
BEACON	*	N/A						
UTILITY POLE	+++	N/A						
SECURITY LIGHTING	N/A	7						
DISTANCE REMAINING SIGN	N/A							
TOPOGRAPHIC CONTOURS	XXX	N/A						
MONUMENT	+	N/A						



		EXISTING BUILDING AND FA	CILITY LEGEND		
EXISTING FACILITIES	ELEVATION	EXISTING FACILITIES	ELEVATION	EXISTING FACILITIES	ELEVATION
Localizer Equipment Building	614'	(17) Covered Picnic Area	635'	(33) T-hangars (10)	637'
City of Ukiah - Corporate Yard	632'	(18) Storage	625'	(34) Shade Hangars (14)	636'
3) Fuel Storage Tank	620'	(19) Commercial Building	640'	35) Portable T-hangars	636'
4) Commercial Building	641'	20) Portable Office	636'	36 Portable T-hangars	636'
5) Box Hangar	645'	(21) Storage	631'	(37) Oak Valley Nursery	635'
6) FBO (2)	642'	(22) VASI (visual approach slope indicator)	617'	(38) Box Hangar	650'
7) FBO	644'	23) Covered Storage	627'	(39) Box Hangar (2)	638'
8) Portable Office	635'	(24) Electrical Vault	625'	(40) Portable T-hangars	630'
9) Box Hangar	644'	(25) Storage	623'	(41) Portable T-hangars	626'
Airport Maintenance	643'	(26) Fire Retardant Storage	625'	(42) FBO	631'
1) FBO (2)	642'	(27) FBO Offices	643'	(43) FBO	643'
2) Box Hangar	639'	(28) Portable T-hangar	630'	(44) Box Hangars (4)	640'
3) Airport Administration	644'	(29) Storage	623'	(45) Box Hangars (4)	643'
4) Storage Building	644'	(30) Box Hangar	639'	(46) Street Sweeper Fuel Station	634'
5 Electrical Vault and Future Standby Generator	641'	(31) Portable T-hangars	635'		
16) Commercial Building	641'	(32) T-hangars (10)	634'		

	FUTURE FACILITIES
F1	Proposed Tiedown Apron
F2	Future Fuel Farm
F3	Future Wash Rack
F4	Future PAPI
(F5)	Future Box Hangars
(F6)	Future Helicopter Parking Spaces



1	ALP Update (AC 13A Compliance, Rwy. Width Reduction, Rwy End Mods)	Mead & Hunt, Inc.	April 2015
NO.	REVISION	SPONSOR	DATE

UKIAH MUNICIPAL AIRPORT UKIAH, CALIFORNIA

BUILDING AREA PLAN



133 Aviation Boulevard, Suite 100 Santa Rosa, California 95403 (707) 526-5010 Fax (707) 526-9721

www.meadhunt.com

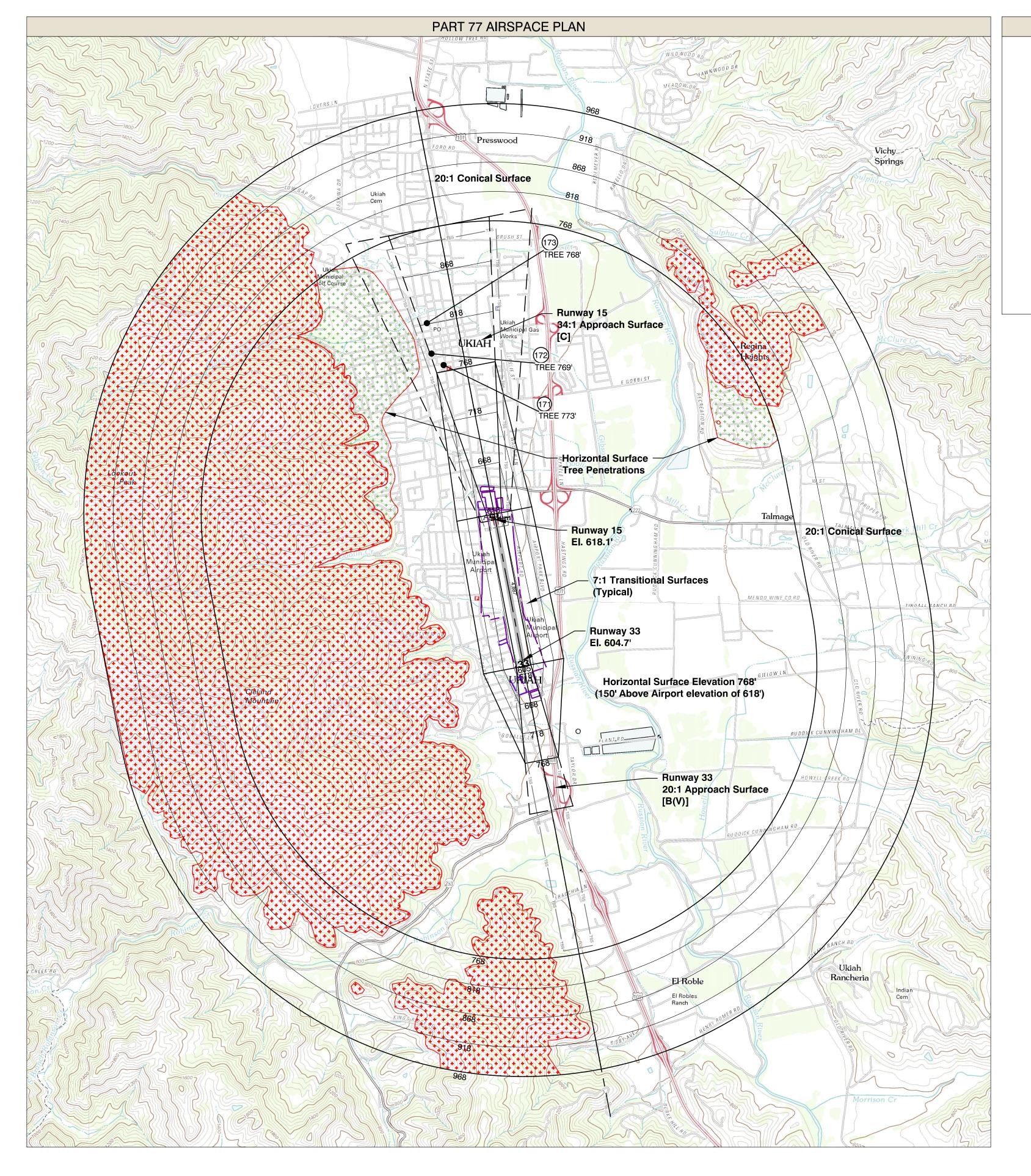


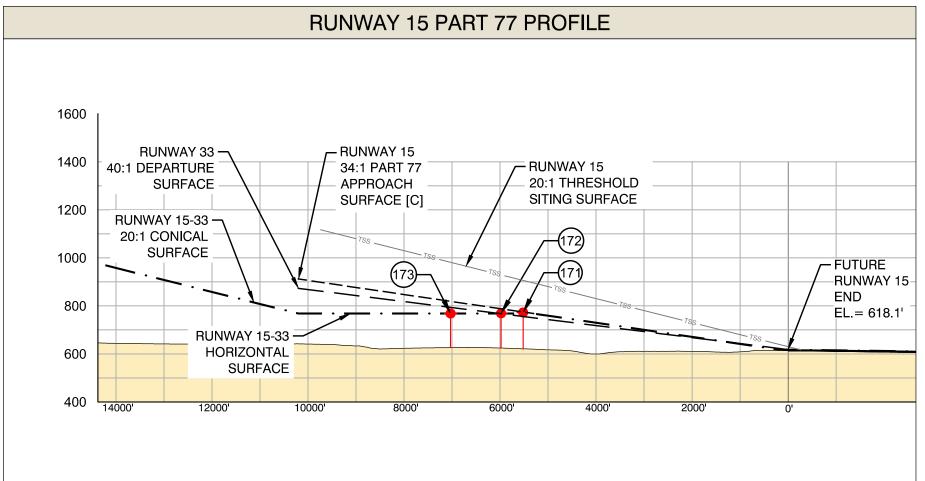
DESIGN:

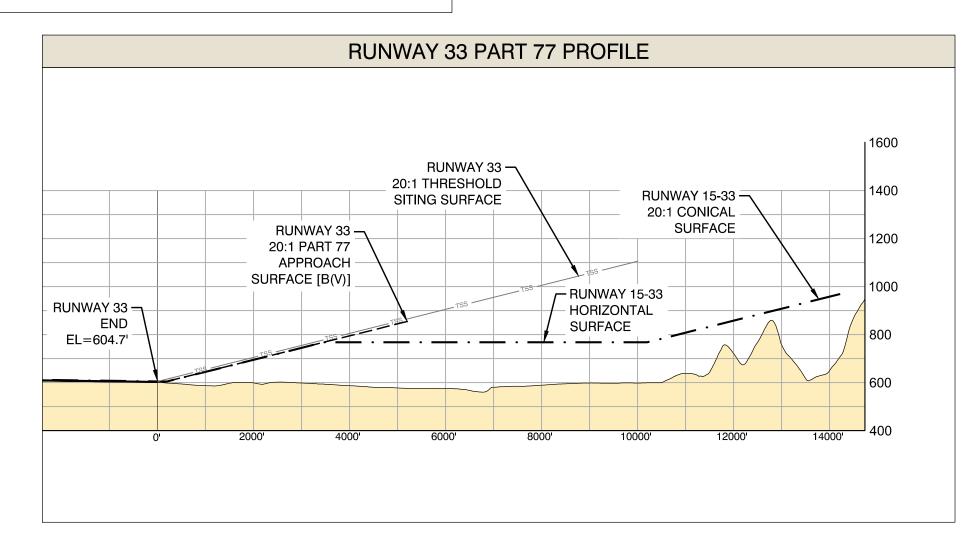
DATE:

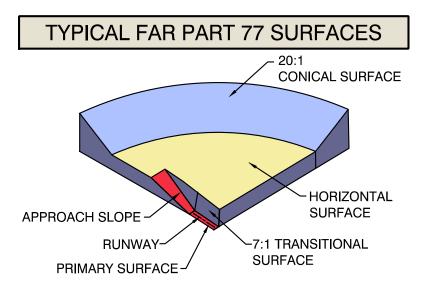
The preparation of this document may have been supported, in part, through the Airport Improvement Program financial assistance from the Federal Aviation Administration (Project Number Unassigned) as provided under Title 49 U.S.C., Section 47104. The contents do not in any way constitute a commitment on the part of the United States to participate in any development depicted therein nor does it indicate that the proposed development is environmentally acceptable or would have justification in accordance wit appropriate public laws.

::\Users\870tme\appdata\local\temp\AcPublish_10468\UKI-ALP.Airport Layout-2015.dwg Feb 16, 2016 - 12:42pm









LEGEND: PLAN VIEW Airport Property

Airport Property Boundary
Future Airport Property
Part 77 Surfaces
Part 77 Surface Contour
Threshold Siting Surface
Terrain Contours
Terrain Penetration
Tree Penetration

NOTES:

 Runway ends, Part 77 surface contours and obstruction elevations are shown in NAD83 and NAVD88. All elevations in feet above mean sea level (MSL).

 Runway elevation and object data source: AGIS survey by Woolpert, March 2009.

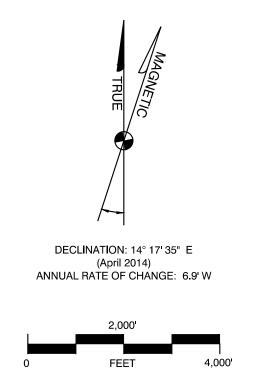
 Only airspace surfaces associated with ultimate runway configurations are illustrated. All objects are analyzed against the ultimate airspace surfaces.

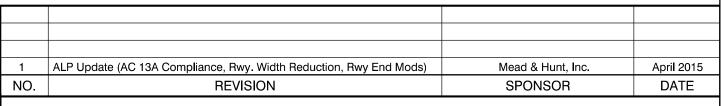
• Basemap source: USGS Topographic maps.

'Trees' indicate multiple trees within close proximity to each other.
 Most critical tree selected for airspace evaluation.

 See Inner-Approach Sheets 6 and 7 for close-in obstructions in RPZ areas and Sheet 8 for objects in the transitional surface.

* 15 feet vertical clearance added to road elevations, per Part 77.





UKIAH MUNICIPAL AIRPORT UKIAH, CALIFORNIA

PART 77 AIRSPACE



ppropriate public laws.

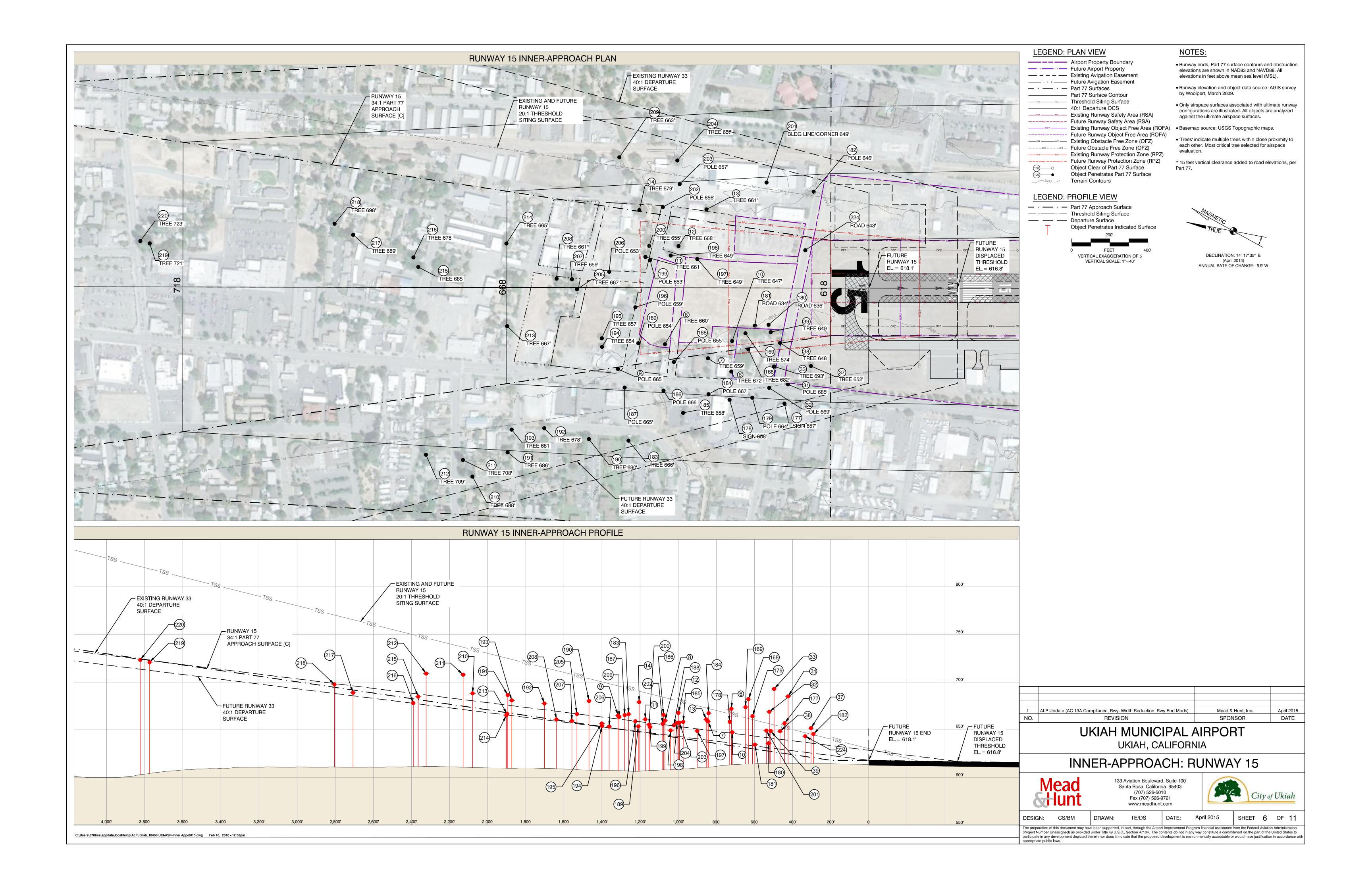
133 Aviation Boulevard, Suite 100 Santa Rosa, California 95403 (707) 526-5010 Fax (707) 526-9721

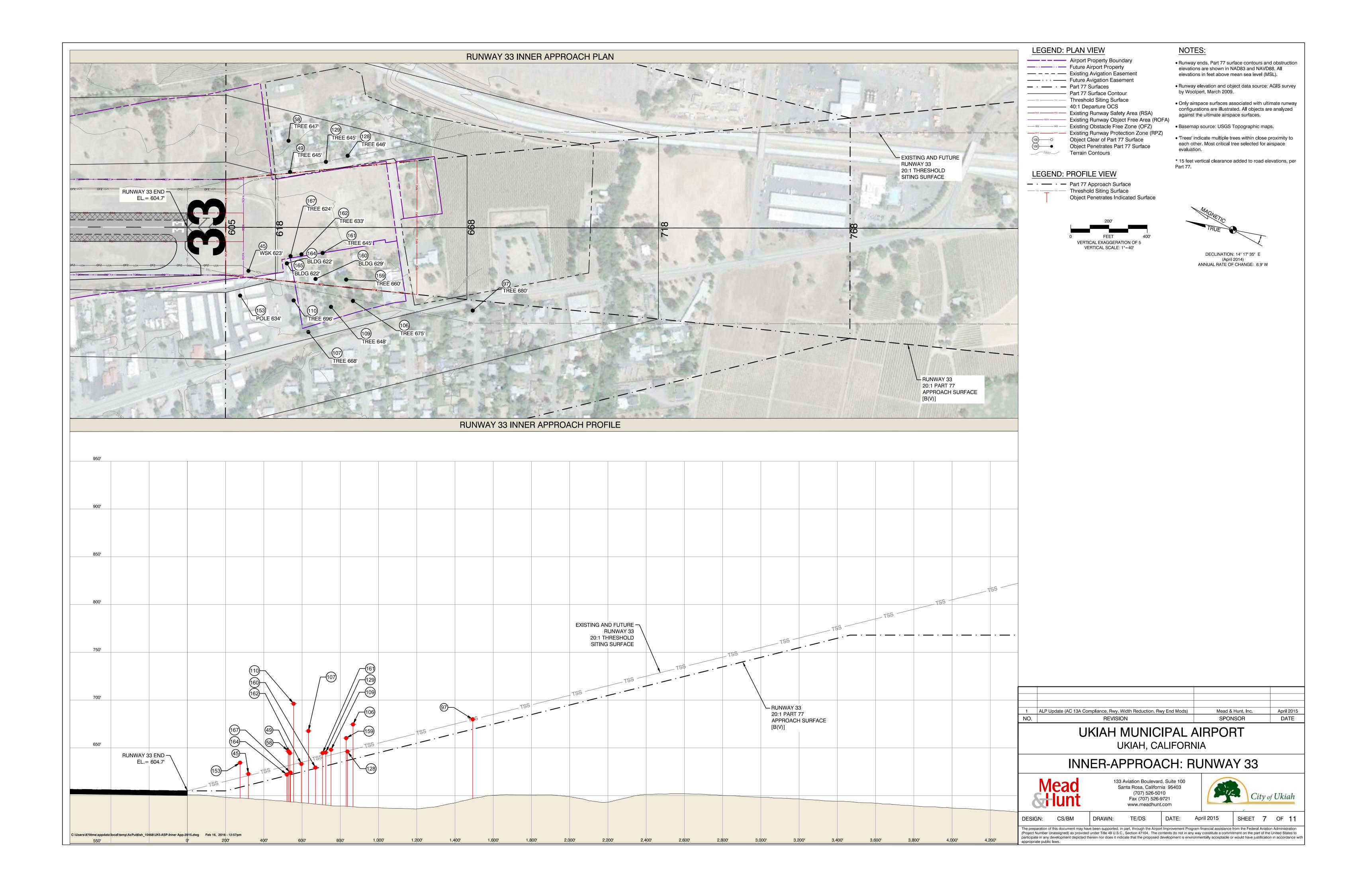
www.meadhunt.com

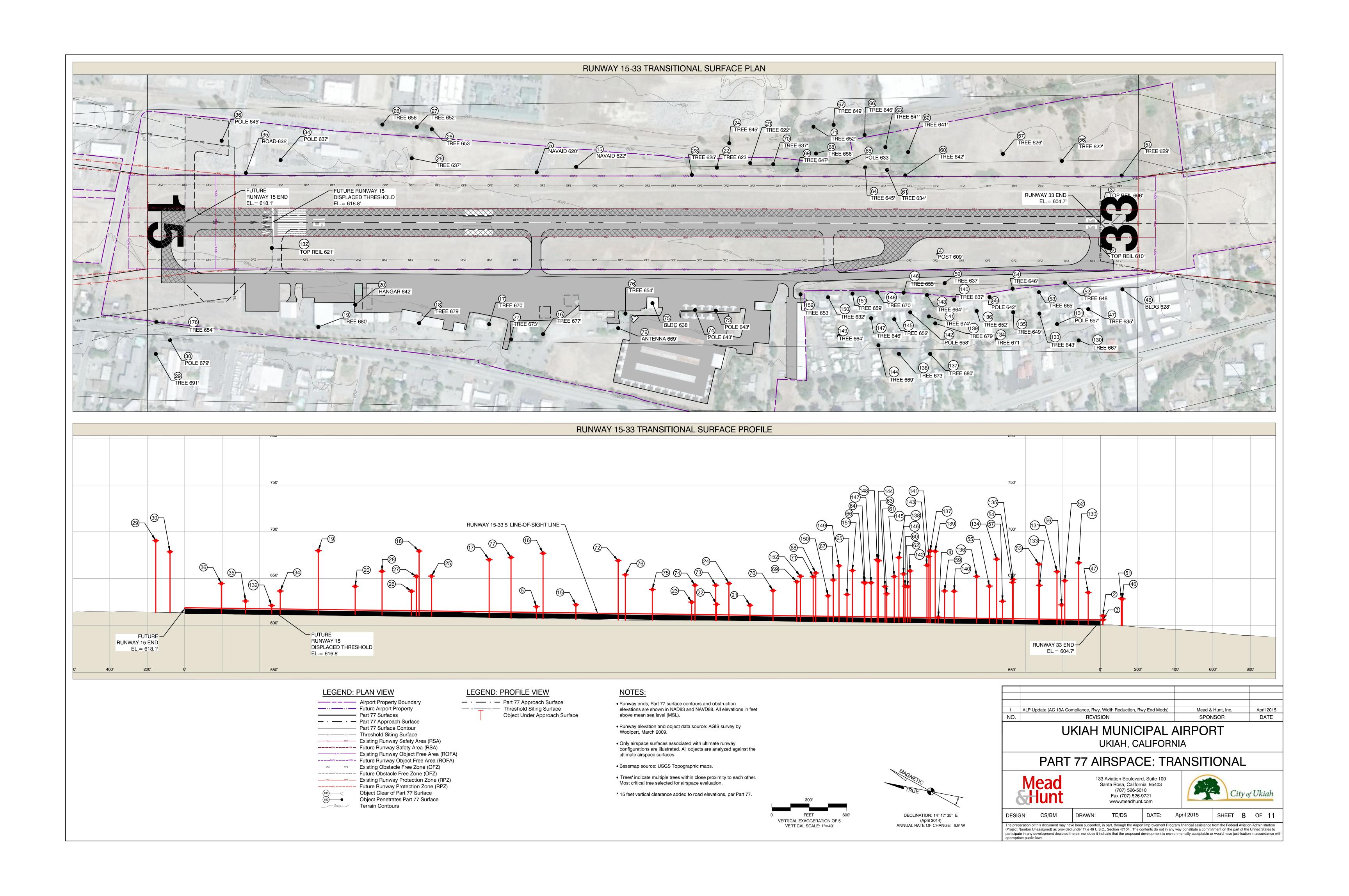


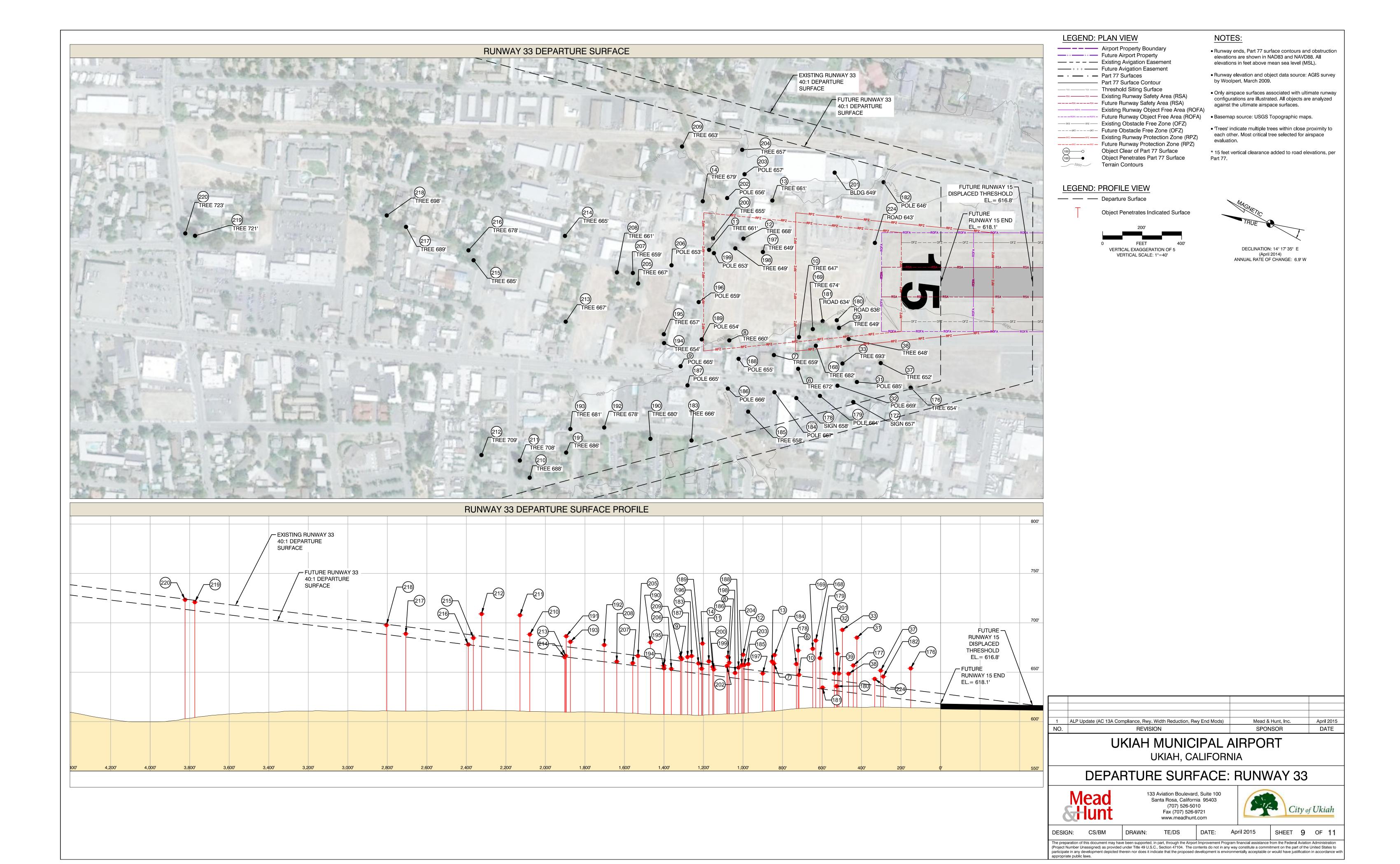
DESIGN: CS/BM DRAWN: TE/DS DATE: April 2015 SHEET 5 OF 11

The preparation of this document may have been supported, in part, through the Airport Improvement Program financial assistance from the Federal Aviation Administration (Project Number Unassigned) as provided under Title 49 U.S.C., Section 47104. The contents do not in any way constitute a commitment on the part of the United States to participate in any development depicted therein nor does it indicate that the proposed development is environmentally acceptable or would have justification in accordance with









2 3 4 5 6 7 8 9 10 11 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 51 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72	TOP REIL TOP REIL POST NAVAID TREE TREE	33 PRIMARY 33 PRIMARY 33 PRIMARY 15 PRIMARY 15 TRANS / TSS 15 APPROACH 15 TRANSITIONAL 15 TRANS / TSS 15 TRANS / TSS 15 TRANS / TSS 15 TRANS / TSS 15 TRANSITIONAL	610.33 606.06 608.77 620.02 672.05 658.75 659.63 664.94 647.34 660.97 667.74 660.88 679.06 622.10 677.13 670.26 679.44 679.79 641.76 621.60 622.66 624.95 644.89 652.71 636.61 652.43 657.85 690.54 678.65 684.99 668.88 692.86 636.76 626.07 644.79 651.70 648.46 648.71 614.58 614.58 614.58 614.58 615.49 616.55 622.73 628.27 636.61 644.79 651.70 648.46 648.71 614.58 614.58 614.58 615.49 616.55 622.73 628.27 636.61	605.47 605.47 605.47 607.65 615.69 651.95 649.61 656.26 663.50 645.88 659.29 654.18 649.88 660.24 619.93 662.12 655.38 655.62 659.96 641.10 620.11 617.06 611.75 635.59 649.79 627.93 651.64 653.95 685.16 673.99 659.06 662.54 646.29 628.11 618.72 643.91 644.38 638.49 639.93 614.59 614.50 614.93 614.92 614.83 608.51 619.68 635.26 661.68	4.86 0.59 1.12 4.33 20.10 9.14 3.37 1.44 1.46 1.68 13.56 11.00 18.82 2.17 15.01 14.88 23.82 19.83 0.66 1.50 5.59 13.21 9.30 2.92 8.68 0.79 3.90 5.38 4.66 25.93 6.34 46.56 8.65 7.35 0.88 7.32 9.97 8.78 -0.01 0.09 -1.48 0.57 1.72 14.22 8.59	N/A	N/A	N/A	PENETRATION N/A N/A N/A N/A 36.03 19.66 14.88 14.04 11.42 13.65 24.76 21.56 30.93 N/A N/A N/A N/A N/A N/A N/A N/	NONE NONE NONE NONE NONE NONE TOP/REMOVE OBST. LIGHT	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	52	
4 5 6 7 8 9 10 11 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71	POST NAVAID TREE TREE TREE TREE TREE TREE TREE TRE	33 PRIMARY 15 PRIMARY 15 PRIMARY 15 TRANS / TSS 15 APPROACH 15 PRIMARY TRANSITIONAL 15 TRANSITIONAL 15 TRANS / TSS 15 TRANS / TSS 15 TRANS / TSS 15 TRANS / TSS 15 TRANSITIONAL	608.77 620.02 672.05 658.75 659.63 664.94 647.34 660.97 667.74 660.88 679.06 622.10 677.13 670.26 679.44 679.79 641.76 621.60 622.66 624.95 644.89 652.71 636.61 652.43 657.85 690.54 678.65 684.99 668.88 692.86 636.76 626.07 644.79 651.70 648.46 648.71 614.58 614.58 613.45 615.49 616.55 622.73 628.27 635.18 616.40 644.53 628.76	607.65 615.69 651.95 649.61 656.26 663.50 645.88 659.29 654.18 649.88 660.24 619.93 662.12 655.38 655.62 659.96 641.10 620.11 617.06 611.75 635.59 649.79 627.93 651.64 653.95 685.16 673.99 659.06 662.54 646.29 628.11 618.72 643.91 644.38 638.49 639.93 614.50 614.92 614.83 608.51 619.68 635.26	1.12 4.33 20.10 9.14 3.37 1.44 1.46 1.68 13.56 11.00 18.82 2.17 15.01 14.88 23.82 19.83 0.66 1.50 5.59 13.21 9.30 2.92 8.68 0.79 3.90 5.38 4.66 25.93 6.34 46.56 8.65 7.35 0.88 7.32 9.97 8.78 -0.01 0.09 -1.48 0.57 1.72 14.22	N/A N/A 666.28 N/A	N/A N/A 5.77 N/A	N/A N/A 636.02 639.09 644.74 650.90 635.92 647.32 642.98 639.32 648.13 N/A	N/A N/A 36.03 19.66 14.88 14.04 11.42 13.65 24.76 21.56 30.93 N/A	NONE NONE TOP/REMOVE TOP/REMOVE TOP/REMOVE TOP/REMOVE OBST. LIGHT TOP/REMOVE OBST. LIGHT	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	159	
6	TREE TREE TREE TREE TREE TREE TREE TREE	15 TRANS / TSS 15 APPROACH 15 TRANSITIONAL 15 TRANSITIONAL 15 TRANS / TSS 15 TRANS / TSS 15 TRANS / TSS 15 TRANS / TSS TRANSITIONAL 15 APPROACH 33 APPROACH 34 APPROACH 35 APPROACH 36 APPROACH 37 APPROACH 38 APPROACH 39 APPROACH 40 AP	672.05 658.75 659.63 664.94 647.34 660.97 667.74 660.88 679.06 622.10 677.13 670.26 679.44 679.79 641.76 621.60 622.66 624.95 644.89 652.71 636.61 652.43 657.85 690.54 678.65 684.99 668.88 692.86 636.76 626.07 644.79 651.70 648.46 648.71 614.58 614.58 614.58 614.58 615.49 616.55 622.73 628.27 635.18 616.40 644.53 628.76	651.95 649.61 656.26 663.50 645.88 659.29 654.18 649.88 660.24 619.93 662.12 655.38 655.62 659.96 641.10 620.11 617.06 611.75 635.59 649.79 627.93 651.64 653.95 685.16 673.99 659.06 662.54 646.29 628.11 618.72 643.91 644.38 638.49 639.93 614.50 614.50 614.50 614.93 614.92 614.83 608.51 619.68	20.10 9.14 3.37 1.44 1.46 1.68 13.56 11.00 18.82 2.17 15.01 14.88 23.82 19.83 0.66 1.50 5.59 13.21 9.30 2.92 8.68 0.79 3.90 5.38 4.66 25.93 6.34 46.56 8.65 7.35 0.88 7.32 9.97 8.78 -0.01 0.09 -1.48 0.57 1.72 14.22	666.28 N/A N/A N/A N/A N/A N/A N/A N/	5.77 N/A N/A N/A N/A N/A N/A N/A N	636.02 639.09 644.74 650.90 635.92 647.32 642.98 639.32 648.13 N/A	36.03 19.66 14.88 14.04 11.42 13.65 24.76 21.56 30.93 N/A	TOP/REMOVE TOP/REMOVE TOP/REMOVE OBST. LIGHT TOP/REMOVE OBST. LIGHT	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	161	
8 9 10 11 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71	TREE POLE TREE TREE TREE TREE TREE TREE TREE TR	15 APPROACH 15 PRIMARY TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 TRANS / TSS 15 TRANS / TSS 15 TRANS / TSS 15 TRANSITIONAL TRANSITIONAL TRANSITIONAL 15 APPROACH 33 APPROACH 33 APPROACH 33 APPROACH 33 APPROACH 33 TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL	659.63 664.94 647.34 660.97 667.74 660.88 679.06 622.10 677.13 670.26 679.44 679.79 641.76 621.60 622.66 624.95 644.89 652.71 636.61 652.43 657.85 690.54 678.65 684.99 668.88 692.86 636.76 626.07 644.79 651.70 648.46 648.71 614.58 613.45 615.49 616.55 622.73 628.27 635.18 616.40 644.53 628.76	656.26 663.50 645.88 659.29 654.18 649.88 660.24 619.93 662.12 655.38 655.62 659.96 641.10 620.11 617.06 611.75 635.59 649.79 627.93 651.64 653.95 685.16 673.99 659.06 662.54 646.29 628.11 618.72 643.91 644.38 638.49 639.93 614.59 614.50 614.92 614.83 608.51 619.68	3.37 1.44 1.46 1.68 13.56 11.00 18.82 2.17 15.01 14.88 23.82 19.83 0.66 1.50 5.59 13.21 9.30 2.92 8.68 0.79 3.90 5.38 4.66 25.93 6.34 46.56 8.65 7.35 0.88 7.32 9.97 8.78 -0.01 0.09 -1.48 0.57 1.72 14.22	N/A	N/A	644.74 650.90 635.92 647.32 642.98 639.32 648.13 N/A	14.88 14.04 11.42 13.65 24.76 21.56 30.93 N/A	TOP/REMOVE OBST. LIGHT TOP/REMOVE TOP/REMOVE TOP/REMOVE TOP/REMOVE TOP/REMOVE TOP/REMOVE NONE TOP/REMOVE OBST. LIGHT OBST. LIGHT OBST. LIGHT OBST. LIGHT TOP/REMOVE TOP/REMOVE OBST. LIGHT	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	63 64 65 66 67 68 69 70 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193	
10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71	TREE	15 APPROACH 15 PRIMARY TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL 15 APPROACH 33 APPROACH 33 APPROACH 33 APPROACH 33 APPROACH 33 TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL	647.34 660.97 667.74 660.88 679.06 622.10 677.13 670.26 679.44 679.79 641.76 621.60 622.66 624.95 644.89 652.71 636.61 652.43 657.85 690.54 678.65 684.99 668.88 692.86 636.76 626.07 644.79 651.70 648.46 648.71 614.58 613.45 615.49 616.55 622.73 628.27 635.18 616.40 644.53 628.76	645.88 659.29 654.18 649.88 660.24 619.93 662.12 655.38 655.62 659.96 641.10 620.11 617.06 611.75 635.59 649.79 627.93 651.64 653.95 685.16 673.99 659.06 662.54 646.29 628.11 618.72 643.91 644.38 638.49 639.93 614.50 614.50 614.93 614.92 614.83 608.51 619.68 635.26	1.46 1.68 13.56 11.00 18.82 2.17 15.01 14.88 23.82 19.83 0.66 1.50 5.59 13.21 9.30 2.92 8.68 0.79 3.90 5.38 4.66 25.93 6.34 46.56 8.65 7.35 0.88 7.32 9.97 8.78 -0.01 0.09 -1.48 0.57 1.72 14.22	N/A	N/A	635.92 647.32 642.98 639.32 648.13 N/A	11.42 13.65 24.76 21.56 30.93 N/A	TOP/REMOVE TOP/REMOVE TOP/REMOVE TOP/REMOVE TOP/REMOVE NONE TOP/REMOVE OBST. LIGHT OBST. LIGHT OBST. LIGHT OBST. LIGHT OBST. LIGHT TOP/REMOVE	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	65 66 66 66 66 67 68 68 69 70 68 69 70 67 70 67 72 67 74 67 75 76 67 77 78 67 79 68 79 79 88 79 88 88 88 88 89 89 90 69 191 692 993	
11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66	TREE TREE TREE TREE TREE TREE TREE TREE	15 APPROACH 15 APPROACH 15 APPROACH 15 APPROACH 15 APPROACH 15 PRIMARY TRANSITIONAL 15 TRANSITIONAL 15 TRANS/TSS 15 TRANS/TSS 15 TRANS/TSS 15 TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL 15 APPROACH 33 TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL	660.97 667.74 660.88 679.06 622.10 677.13 670.26 679.44 679.79 641.76 621.60 622.66 624.95 644.89 652.71 636.61 652.43 657.85 690.54 678.65 684.99 668.88 692.86 636.76 626.07 644.79 651.70 648.46 648.71 614.58 614.58 613.45 615.49 616.55 622.73 628.27 635.18 616.40 644.53 628.76	659.29 654.18 649.88 660.24 619.93 662.12 655.38 655.62 659.96 641.10 620.11 617.06 611.75 635.59 649.79 627.93 651.64 653.95 685.16 673.99 659.06 662.54 646.29 628.11 618.72 643.91 644.38 638.49 639.93 614.59 614.50 614.93 614.92 614.83 608.51 619.68 635.26	1.68 13.56 11.00 18.82 2.17 15.01 14.88 23.82 19.83 0.66 1.50 5.59 13.21 9.30 2.92 8.68 0.79 3.90 5.38 4.66 25.93 6.34 46.56 8.65 7.35 0.88 7.32 9.97 8.78 -0.01 0.09 -1.48 0.57 1.72 14.22	N/A	N/A	647.32 642.98 639.32 648.13 N/A	13.65 24.76 21.56 30.93 N/A	TOP/REMOVE TOP/REMOVE TOP/REMOVE TOP/REMOVE NONE TOP/REMOVE OBST. LIGHT	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	666 667 668 669 700 710 72 73 74 75 76 77 78 79 80 81 82 83 84 85 866 87 88 89 90 191 192 93 93 93 93 94 95 95	
13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68	TREE TREE NAVAID TREE TREE TREE TREE TREE HANGAR TREE TREE TREE TREE TREE TREE TREE TR	15 APPROACH 15 APPROACH 15 PRIMARY TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL 15 APPROACH 33 APPROACH 33 APPROACH 33 APPROACH 33 APPROACH 33 APPROACH 33 TRANSITIONAL	660.88 679.06 622.10 677.13 670.26 679.44 679.79 641.76 621.60 622.66 624.95 644.89 652.71 636.61 652.43 657.85 690.54 678.65 684.99 668.88 692.86 636.76 626.07 644.79 651.70 648.46 648.71 614.58 614.58 613.45 615.49 616.55 622.73 628.27 635.18 616.40 644.53 628.76	649.88 660.24 619.93 662.12 655.38 655.62 659.96 641.10 620.11 617.06 611.75 635.59 649.79 627.93 651.64 653.95 685.16 673.99 659.06 662.54 646.29 628.11 618.72 643.91 644.38 638.49 639.93 614.59 614.50 614.93 614.92 614.83 608.51 619.68	11.00 18.82 2.17 15.01 14.88 23.82 19.83 0.66 1.50 5.59 13.21 9.30 2.92 8.68 0.79 3.90 5.38 4.66 25.93 6.34 46.56 8.65 7.35 0.88 7.32 9.97 8.78 -0.01 0.09 -1.48 0.57 1.72 14.22	N/A	N/A	639.32 648.13 N/A	21.56 30.93 N/A	TOP/REMOVE TOP/REMOVE NONE TOP/REMOVE TOP/REMOVE TOP/REMOVE TOP/REMOVE TOP/REMOVE OBST. LIGHT TOP/REMOVE OBST. LIGHT OBST. LIGHT OBST. LIGHT OBST. LIGHT TOP/REMOVE OBST. LIGHT	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	68	
15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71	NAVAID TREE TREE TREE TREE TREE TREE TREE TRE	15 PRIMARY TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 TRANS / TSS 15 TRANS / TSS TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 APPROACH 33 TRANSITIONAL	622.10 677.13 670.26 679.44 679.79 641.76 621.60 622.66 624.95 644.89 652.71 636.61 652.43 657.85 690.54 678.65 684.99 668.88 692.86 636.76 626.07 644.79 651.70 648.46 648.71 614.58 614.58 613.45 615.49 616.55 622.73 628.27 635.18 616.40 644.53 628.76	619.93 662.12 655.38 655.62 659.96 641.10 620.11 617.06 611.75 635.59 649.79 627.93 651.64 653.95 685.16 673.99 659.06 662.54 646.29 628.11 618.72 643.91 644.38 638.49 639.93 614.50 614.92 614.83 608.51 619.68 635.26	2.17 15.01 14.88 23.82 19.83 0.66 1.50 5.59 13.21 9.30 2.92 8.68 0.79 3.90 5.38 4.66 25.93 6.34 46.56 8.65 7.35 0.88 7.32 9.97 8.78 -0.01 0.09 -1.48 0.57 1.72 14.22	N/A	N/A	N/A	N/A	NONE TOP/REMOVE TOP/REMOVE TOP/REMOVE TOP/REMOVE OBST. LIGHT TOP/REMOVE OBST. LIGHT	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	170	
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71	TREE TREE TREE TREE TREE TREE TREE TREE	TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 TRANS / TSS 15 TRANS / TSS TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 APPROACH 33 TRANSITIONAL	670.26 679.44 679.79 641.76 621.60 622.66 624.95 644.89 652.71 636.61 652.43 657.85 690.54 678.65 684.99 668.88 692.86 636.76 626.07 644.79 651.70 648.46 648.71 614.58 614.58 613.45 615.49 616.55 622.73 628.27 635.18 616.40 644.53 628.76	655.38 655.62 659.96 641.10 620.11 617.06 611.75 635.59 649.79 627.93 651.64 653.95 685.16 673.99 659.06 662.54 646.29 628.11 618.72 643.91 644.38 638.49 639.93 614.59 614.50 614.93 614.92 614.83 608.51 619.68 635.26	14.88 23.82 19.83 0.66 1.50 5.59 13.21 9.30 2.92 8.68 0.79 3.90 5.38 4.66 25.93 6.34 46.56 8.65 7.35 0.88 7.32 9.97 8.78 -0.01 0.09 -1.48 0.57 1.72 14.22	N/A	N/A	N/A	N/A	TOP/REMOVE TOP/REMOVE TOP/REMOVE OBST. LIGHT TOP/REMOVE OBST. LIGHT	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	172	
18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71	TREE TREE HANGAR TREE TREE TREE TREE TREE TREE TREE TR	TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 APPROACH 33 TRANSITIONAL	679.44 679.79 641.76 621.60 622.66 624.95 644.89 652.71 636.61 652.43 657.85 690.54 678.65 684.99 668.88 692.86 636.76 626.07 644.79 651.70 648.46 648.71 614.58 614.58 613.45 615.49 616.55 622.73 628.27 635.18 616.40 644.53 628.76	655.62 659.96 641.10 620.11 617.06 611.75 635.59 649.79 627.93 651.64 653.95 685.16 673.99 659.06 662.54 646.29 628.11 618.72 643.91 644.38 638.49 639.93 614.59 614.50 614.93 614.92 614.83 608.51 619.68 635.26	23.82 19.83 0.66 1.50 5.59 13.21 9.30 2.92 8.68 0.79 3.90 5.38 4.66 25.93 6.34 46.56 8.65 7.35 0.88 7.32 9.97 8.78 -0.01 0.09 -1.48 0.57 1.72 14.22	N/A	N/A	N/A	N/A	TOP/REMOVE TOP/REMOVE OBST. LIGHT TOP/REMOVE OBST. LIGHT	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	173	
20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71	HANGAR TREE POLE POLE POLE POLE ROAD POLE TREE	TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 TRANS / TSS 15 TRANS / TSS TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 APPROACH 33 TRANSITIONAL	641.76 621.60 622.66 622.66 624.95 644.89 652.71 636.61 652.43 657.85 690.54 678.65 684.99 668.88 692.86 636.76 626.07 644.79 651.70 648.46 648.71 614.58 614.58 613.45 615.49 616.55 622.73 628.27 635.18 616.40 644.53 628.76	641.10 620.11 617.06 611.75 635.59 649.79 627.93 651.64 653.95 685.16 673.99 659.06 662.54 646.29 628.11 618.72 643.91 644.38 638.49 639.93 614.59 614.50 614.93 614.92 614.83 608.51 619.68 635.26	0.66 1.50 5.59 13.21 9.30 2.92 8.68 0.79 3.90 5.38 4.66 25.93 6.34 46.56 8.65 7.35 0.88 7.32 9.97 8.78 -0.01 0.09 -1.48 0.57 1.72 14.22	N/A	N/A	N/A	N/A	OBST. LIGHT TOP/REMOVE OBST. LIGHT OBST. LIGHT OBST. LIGHT OBST. LIGHT TOP/REMOVE OBST. LIGHT	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	175	
22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71	TREE TREE TREE TREE TREE TREE TREE TREE	TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 TRANS / TSS 15 TRANS / TSS 15 TRANS / TSS TRANSITIONAL TRANSITIONAL TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 APPROACH 33 TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL	622.66 624.95 644.89 652.71 636.61 652.43 657.85 690.54 678.65 684.99 668.88 692.86 636.76 626.07 644.79 651.70 648.46 648.71 614.58 614.58 614.58 615.49 616.55 622.73 628.27 635.18 616.40 644.53 628.76	617.06 611.75 635.59 649.79 627.93 651.64 653.95 685.16 673.99 659.06 662.54 646.29 628.11 618.72 643.91 644.38 638.49 639.93 614.59 614.50 614.93 614.92 614.83 608.51 619.68 635.26	5.59 13.21 9.30 2.92 8.68 0.79 3.90 5.38 4.66 25.93 6.34 46.56 8.65 7.35 0.88 7.32 9.97 8.78 -0.01 0.09 -1.48 0.57 1.72 14.22	N/A	N/A	N/A	N/A	TOP/REMOVE OBST. LIGHT OBST. LIGHT OBST. LIGHT TOP/REMOVE OBST. LIGHT TOP/REMOVE OBST. LIGHT TOP/REMOVE TOP/REMOVE TOP/REMOVE OBST. LIGHT	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	177	
24 25 26 27 28 29 30 31 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71	TREE TREE TREE TREE TREE TREE POLE POLE POLE POLE ROAD POLE TREE TREE TREE TREE TREE TREE TREE TR	TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 TRANS / TSS 15 TRANS / TSS 15 TRANS / TSS TRANSITIONAL TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 APPROACH 33 TRANSITIONAL	644.89 652.71 636.61 652.43 657.85 690.54 678.65 684.99 668.88 692.86 636.76 626.07 644.79 651.70 648.46 648.71 614.58 614.58 613.45 615.49 616.55 622.73 628.27 635.18 616.40 644.53 628.76	635.59 649.79 627.93 651.64 653.95 685.16 673.99 659.06 662.54 646.29 628.11 618.72 643.91 644.38 638.49 639.93 614.59 614.50 614.93 614.92 614.83 608.51 619.68 635.26	9.30 2.92 8.68 0.79 3.90 5.38 4.66 25.93 6.34 46.56 8.65 7.35 0.88 7.32 9.97 8.78 -0.01 0.09 -1.48 0.57 1.72 14.22	N/A	N/A N/A N/A N/A N/A N/A N/A N/A N/A 33.57 12.54 37.78 N/A	N/A	N/A	TOP/REMOVE TOP/REMOVE TOP/REMOVE TOP/REMOVE TOP/REMOVE TOP/REMOVE TOP/REMOVE OBST. LIGHT OBST. LIGHT TOP/REMOVE OBST. LIGHT TOP/REMOVE OBST. LIGHT TOP/REMOVE TOP/REMOVE TOP/REMOVE TOP/REMOVE TOP/REMOVE TOP/REMOVE TOP/REMOVE OBST. LIGHT	1 1 1 1 1 1 1 1 1 1 1 1	179	
25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71	TREE TREE TREE TREE TREE POLE POLE POLE POLE ROAD POLE TREE TREE TREE TREE TREE TREE TREE BLDG BLDG BLDG BLDG BLDG BLDG TREE TREE TREE TREE TREE TREE TREE TRE	TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 TRANS / TSS 15 TRANS / TSS 15 TRANS / TSS TRANSITIONAL TRANSITIONAL TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 APPROACH 33 TRANSITIONAL	652.71 636.61 652.43 657.85 690.54 678.65 684.99 668.88 692.86 636.76 626.07 644.79 651.70 648.46 648.71 614.58 614.58 613.45 615.49 616.55 622.73 628.27 635.18 616.40 644.53 628.76	649.79 627.93 651.64 653.95 685.16 673.99 659.06 662.54 646.29 628.11 618.72 643.91 644.38 638.49 639.93 614.59 614.50 614.93 614.92 614.83 608.51 619.68 635.26	2.92 8.68 0.79 3.90 5.38 4.66 25.93 6.34 46.56 8.65 7.35 0.88 7.32 9.97 8.78 -0.01 0.09 -1.48 0.57 1.72 14.22	N/A	N/A N/A N/A N/A N/A N/A N/A N/A 33.57 12.54 37.78 N/A	N/A N/A N/A N/A N/A N/A N/A N/A 628.59 631.05 630.42 N/A N/A N/A 625.58 629.64 630.87 N/A	N/A N/A N/A N/A N/A N/A N/A N/A 56.40 37.83 62.43 N/A	TOP/REMOVE TOP/REMOVE TOP/REMOVE TOP/REMOVE TOP/REMOVE TOP/REMOVE OBST. LIGHT OBST. LIGHT TOP/REMOVE OBST. LIGHT TOP/REMOVE OBST. LIGHT TOP/REMOVE TOP/REMOVE TOP/REMOVE TOP/REMOVE TOP/REMOVE TOP/REMOVE OBST. LIGHT	1 1 1 1 1 1 1 1 1 1 1 1	80 181 82 83 84 85 86 87 88 89 90 191 192	
27 28 29 30 31 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71	TREE TREE POLE POLE POLE TREE POLE ROAD POLE TREE TREE TREE TREE TREE BLDG BLDG BLDG BLDG BLDG BLDG BLDG TREE TREE TREE TREE TREE TREE TREE TRE	TRANSITIONAL TRANSITIONAL 15 TRANSITIONAL 15 TRANS / TSS 15 TRANS / TSS 15 TRANS / TSS TRANSITIONAL TRANSITIONAL TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 APPROACH 33 TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL	652.43 657.85 690.54 678.65 684.99 668.88 692.86 636.76 626.07 644.79 651.70 648.46 648.71 614.58 614.58 615.49 616.55 622.73 622.73 628.27 635.18 616.40 644.53 628.76	651.64 653.95 685.16 673.99 659.06 662.54 646.29 628.11 618.72 643.91 644.38 638.49 639.93 614.59 614.50 614.92 614.83 608.51 619.68 635.26	0.79 3.90 5.38 4.66 25.93 6.34 46.56 8.65 7.35 0.88 7.32 9.97 8.78 -0.01 0.09 -1.48 0.57 1.72 14.22	N/A N/A N/A N/A N/A N/A N/A 651.42 656.34 655.08 N/A	N/A N/A N/A N/A N/A 33.57 12.54 37.78 N/A	N/A N/A N/A N/A N/A N/A 628.59 631.05 630.42 N/A N/A N/A 625.58 629.64 630.87 N/A	N/A N/A N/A N/A N/A S6.40 37.83 62.43 N/A N/A N/A 1.04 N/A 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05	TOP/REMOVE TOP/REMOVE TOP/REMOVE OBST. LIGHT OBST. LIGHT OBST. LIGHT TOP/REMOVE OBST. LIGHT OBST. LIGHT OBST. LIGHT OBST. LIGHT OBST. LIGHT OBST. LIGHT TOP/REMOVE TOP/REMOVE TOP/REMOVE OBST. LIGHT OBST. LIGHT	1 1 1 1 1 1 1 1 1	82 83 84 85 86 87 88 89 90 191	
29 30 31 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71	TREE POLE POLE POLE TREE POLE ROAD POLE TREE TREE TREE TREE BLDG BLDG BLDG BLDG BLDG BLDG TREE BLDG TREE TREE TREE TREE TREE TREE TREE TRE	15 TRANSITIONAL 15 TRANS / TSS 15 TRANS / TSS 15 TRANS / TSS 15 TRANS / TSS TRANSITIONAL TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 APPROACH 15 APPROACH 33 TRANSITIONAL	690.54 678.65 684.99 668.88 692.86 636.76 626.07 644.79 651.70 648.46 648.71 614.58 614.58 615.49 616.55 622.73 628.27 635.18 616.40 644.53 628.76	685.16 673.99 659.06 662.54 646.29 628.11 618.72 643.91 644.38 638.49 639.93 614.59 614.50 614.93 614.92 614.83 608.51 619.68 635.26	5.38 4.66 25.93 6.34 46.56 8.65 7.35 0.88 7.32 9.97 8.78 -0.01 0.09 -1.48 0.57 1.72 14.22	N/A N/A N/A 651.42 656.34 655.08 N/A	N/A N/A 33.57 12.54 37.78 N/A	N/A N/A 628.59 631.05 630.42 N/A N/A N/A 625.58 629.64 630.87 N/A	N/A N/A 56.40 37.83 62.43 N/A N/A N/A 26.12 18.82 17.84 N/A N/A	TOP/REMOVE OBST. LIGHT OBST. LIGHT OBST. LIGHT TOP/REMOVE OBST. LIGHT OBST. LIGHT OBST. LIGHT TOP/REMOVE TOP/REMOVE TOP/REMOVE TOP/REMOVE OBST. LIGHT OBST. LIGHT	1 1 1 1 1 1 1 1	84 85 86 87 88 89 90 90 9191 92 93	
31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71	POLE POLE TREE POLE ROAD POLE TREE TREE TREE TREE BLDG BLDG BLDG BLDG BLDG BLDG BLDG TREE BLDG TREE TREE TREE TREE TREE TREE TREE TRE	15 TRANS / TSS 15 TRANS / TSS 15 TRANS / TSS TRANSITIONAL TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 APPROACH 15 APPROACH 33 TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL	684.99 668.88 692.86 636.76 626.07 644.79 651.70 648.46 648.71 614.58 614.58 613.45 615.49 616.55 622.73 628.27 635.18 616.40 644.53 628.76	659.06 662.54 646.29 628.11 618.72 643.91 644.38 638.49 639.93 614.59 614.50 614.93 614.92 614.83 608.51 619.68 635.26	25.93 6.34 46.56 8.65 7.35 0.88 7.32 9.97 8.78 -0.01 0.09 -1.48 0.57 1.72	651.42 656.34 655.08 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A	33.57 12.54 37.78 N/A	628.59 631.05 630.42 N/A N/A N/A 625.58 629.64 630.87 N/A	56.40 37.83 62.43 N/A N/A N/A 26.12 18.82 17.84 N/A	OBST. LIGHT OBST. LIGHT TOP/REMOVE OBST. LIGHT OBST. LIGHT OBST. LIGHT TOP/REMOVE TOP/REMOVE TOP/REMOVE OBST. LIGHT OBST. LIGHT	1 1 1 1 1 1 1	86 87 88 89 90 191 92	
32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71	POLE TREE POLE ROAD POLE TREE TREE TREE BLDG BLDG BLDG BLDG BLDG BLDG TREE BLDG TREE TREE TREE TREE TREE TREE TREE TRE	15 TRANS / TSS 15 TRANS / TSS TRANSITIONAL TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 APPROACH 15 APPROACH 33 APPROACH 37 APPROACH 38 APPROACH 39 APPROACH 31 APPROACH 31 APPROACH 32 APPROACH 33 TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL	668.88 692.86 636.76 626.07 644.79 651.70 648.46 648.71 614.58 614.58 613.45 615.49 616.55 622.73 628.27 635.18 616.40 644.53 628.76	662.54 646.29 628.11 618.72 643.91 644.38 638.49 639.93 614.59 614.50 614.93 614.92 614.83 608.51 619.68 635.26	6.34 46.56 8.65 7.35 0.88 7.32 9.97 8.78 -0.01 0.09 -1.48 0.57 1.72 14.22	656.34 655.08 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A	12.54 37.78 N/A N/A N/A N/A N/A N/A N/A N/A	631.05 630.42 N/A N/A N/A 625.58 629.64 630.87 N/A	37.83 62.43 N/A N/A N/A 26.12 18.82 17.84 N/A	OBST. LIGHT TOP/REMOVE OBST. LIGHT OBST. LIGHT OBST. LIGHT TOP/REMOVE TOP/REMOVE TOP/REMOVE OBST. LIGHT	1 1 1 1 1 1	88 88 89 190 191 192 193	
34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71	POLE ROAD POLE TREE TREE TREE BLDG BLDG BLDG BLDG BLDG BLDG TREE BLDG TREE TREE TREE TREE TREE	TRANSITIONAL TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 TRANSITIONAL 15 APPROACH 15 APPROACH 33 TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL	636.76 626.07 644.79 651.70 648.46 648.71 614.58 614.58 613.45 615.49 616.55 622.73 628.27 635.18 616.40 644.53 628.76	628.11 618.72 643.91 644.38 638.49 639.93 614.59 614.50 614.93 614.92 614.83 608.51 619.68 635.26	8.65 7.35 0.88 7.32 9.97 8.78 -0.01 0.09 -1.48 0.57 1.72 14.22	N/A	N/A	N/A N/A N/A 625.58 629.64 630.87 N/A	N/A N/A N/A 26.12 18.82 17.84 N/A	OBST. LIGHT OBST. LIGHT OBST. LIGHT TOP/REMOVE TOP/REMOVE TOP/REMOVE OBST. LIGHT OBST. LIGHT	1 1 1 1 1	89 90 191 92 193	
36 37 38 39 40 41 42 43 44 45 46 47 48 49 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71	POLE TREE TREE TREE BLDG BLDG BLDG BLDG BLDG TREE BLDG TREE BLDG TREE TREE TREE TREE TREE TREE TREE TRE	15 TRANSITIONAL 15 TRANSITIONAL 15 APPROACH 15 APPROACH 33 APPROACH TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL	644.79 651.70 648.46 648.71 614.58 614.58 613.45 615.49 616.55 622.73 628.27 635.18 616.40 644.53 628.76	643.91 644.38 638.49 639.93 614.59 614.50 614.93 614.92 614.83 608.51 619.68 635.26	0.88 7.32 9.97 8.78 -0.01 0.09 -1.48 0.57 1.72 14.22	N/A	N/A N/A N/A N/A N/A N/A	N/A 625.58 629.64 630.87 N/A	N/A 26.12 18.82 17.84 N/A	OBST. LIGHT TOP/REMOVE TOP/REMOVE TOP/REMOVE OBST. LIGHT OBST. LIGHT	1 1 1	191 192 193	
37 38 39 40 41 42 43 44 45 46 47 48 49 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71	TREE TREE TREE BLDG BLDG BLDG BLDG BLDG BLDG TREE BLDG TREE TREE TREE TREE TREE TREE TREE TRE	15 TRANSITIONAL 15 APPROACH 15 APPROACH 33 APPROACH TRANSITIONAL	651.70 648.46 648.71 614.58 614.58 613.45 615.49 616.55 622.73 628.27 635.18 616.40 644.53 628.76	644.38 638.49 639.93 614.59 614.50 614.93 614.92 614.83 608.51 619.68 635.26	7.32 9.97 8.78 -0.01 0.09 -1.48 0.57 1.72 14.22	N/A	N/A N/A N/A N/A N/A	625.58 629.64 630.87 N/A	26.12 18.82 17.84 N/A N/A	TOP/REMOVE TOP/REMOVE TOP/REMOVE OBST. LIGHT OBST. LIGHT	1 1 1	92	
39 40 41 42 43 44 45 46 47 48 49 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71	TREE BLDG BLDG BLDG BLDG BLDG WSK BLDG TREE BLDG TREE TREE TREE TREE TREE TREE TREE TRE	15 APPROACH 33 APPROACH/TSS TRANSITIONAL TRANSITIONAL 33 TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL	648.71 614.58 614.58 613.45 615.49 616.55 622.73 628.27 635.18 616.40 644.53 628.76	639.93 614.59 614.50 614.93 614.92 614.83 608.51 619.68 635.26	8.78 -0.01 0.09 -1.48 0.57 1.72	N/A N/A N/A N/A N/A N/A	N/A N/A N/A N/A	630.87 N/A	17.84 N/A N/A	TOP/REMOVE OBST. LIGHT OBST. LIGHT	1		
41 42 43 44 45 46 47 48 49 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71	BLDG BLDG BLDG BLDG WSK BLDG TREE BLDG TREE TREE TREE TREE TREE TREE TREE TRE	33 APPROACH 33 APPROACH 33 APPROACH 33 APPROACH 33 APPROACH 33 APPROACH/TSS TRANSITIONAL TRANSITIONAL 33 APPROACH 33 TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL	614.58 613.45 615.49 616.55 622.73 628.27 635.18 616.40 644.53 628.76	614.50 614.93 614.92 614.83 608.51 619.68 635.26	0.09 -1.48 0.57 1.72 14.22	N/A N/A N/A N/A	N/A N/A		N/A	OBST. LIGHT	<u> </u>	194	_
43 44 45 46 47 48 49 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71	BLDG BLDG WSK BLDG TREE BLDG TREE TREE TREE TREE TREE TREE TREE TRE	33 APPROACH 33 APPROACH 33 APPROACH/TSS TRANSITIONAL TRANSITIONAL 33 APPROACH 33 TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL	615.49 616.55 622.73 628.27 635.18 616.40 644.53 628.76	614.92 614.83 608.51 619.68 635.26	0.57 1.72 14.22	N/A N/A						195 196	—
44 45 46 47 48 49 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71	BLDG WSK BLDG TREE BLDG TREE TREE TREE TREE TREE TREE TREE TRE	33 APPROACH 33 APPROACH/TSS TRANSITIONAL TRANSITIONAL 33 APPROACH 33 TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL	616.55 622.73 628.27 635.18 616.40 644.53 628.76	614.83 608.51 619.68 635.26	1.72 14.22	N/A	I IN/A	N/A N/A	N/A N/A	OBST. LIGHT OBST. LIGHT		197 198	
46 47 48 49 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71	BLDG TREE BLDG TREE TREE TREE TREE TREE TREE TREE TRE	TRANSITIONAL TRANSITIONAL 33 APPROACH 33 TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL	628.27 635.18 616.40 644.53 628.76	619.68 635.26			N/A	N/A	N/A	OBST. LIGHT	1	199	
48 49 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71	BLDG TREE TREE TREE TREE TREE TREE TREE POLE	33 APPROACH 33 TRANSITIONAL TRANSITIONAL TRANSITIONAL TRANSITIONAL	616.40 644.53 628.76		0.00	620.97 N/A	1.76 N/A	N/A N/A	N/A N/A	NONE OBST. LIGHT		200	_
51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71	TREE TREE TREE TREE POLE	TRANSITIONAL TRANSITIONAL TRANSITIONAL	628.76		-0.08 1.58	N/A N/A	N/A N/A	N/A N/A	N/A N/A	TOP/REMOVE OBST. LIGHT		202	
52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71	TREE TREE TREE POLE	TRANSITIONAL TRANSITIONAL		614.89 606.15	29.64 22.61	N/A N/A	N/A N/A	N/A N/A	N/A N/A	TOP/REMOVE TOP/REMOVE		204	
54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71	TREE POLE		647.74	615.43	32.31	N/A	N/A	N/A	N/A	TOP/REMOVE	2	206	
56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71		HANOHIUNAL	665.39 646.04	623.07 620.74	42.33 25.30	N/A N/A	N/A N/A	N/A N/A	N/A N/A	TOP/REMOVE TOP/REMOVE		207	
58 59 60 61 62 63 64 65 66 67 68 69 70 71	INCE	TRANSITIONAL TRANSITIONAL	642.02 622.03	627.43 618.02	14.58 4.01	N/A N/A	N/A N/A	N/A N/A	N/A N/A	OBST. LIGHT TOP/REMOVE		209	
59 60 61 62 63 64 65 66 67 68 69 70 71	TREE TREE	TRANSITIONAL 33 TRANSITIONAL	625.91 646.62	624.10 636.61	1.81 10.01	N/A N/A	N/A N/A	N/A N/A	N/A N/A	TOP/REMOVE TOP/REMOVE	2	211	
61 62 63 64 65 66 67 68 69 70	TREE	TRANSITIONAL	636.82	617.50	19.32	N/A	N/A	N/A	N/A	TOP/REMOVE	2	213	_
63 64 65 66 67 68 69 70 71	TREE TREE	TRANSITIONAL TRANSITIONAL	642.02 633.78	608.87 613.31	33.16 20.47	N/A N/A	N/A N/A	N/A N/A	N/A N/A	TOP/REMOVE TOP/REMOVE		214 215	
65 66 67 68 69 70 71	TREE TREE	TRANSITIONAL TRANSITIONAL	641.47 641.47	626.64 630.66	14.83 10.81	N/A N/A	N/A N/A	N/A N/A	N/A N/A	TOP/REMOVE TOP/REMOVE		216 217	_
66 67 68 69 70 71	TREE POLE	TRANSITIONAL TRANSITIONAL	645.28 633.06	615.35 620.02	29.93 13.03	N/A N/A	N/A N/A	N/A N/A	N/A N/A	TOP/REMOVE OBST. LIGHT		218 219	_
68 69 70 71	TREE	TRANSITIONAL	646.28	640.17	6.11	N/A	N/A	N/A	N/A	TOP/REMOVE	2	220	_
70 71	TREE TREE	TRANSITIONAL TRANSITIONAL	648.58 656.06	648.20 626.62	0.38 29.44	N/A N/A	N/A N/A	N/A N/A	N/A N/A	TOP/REMOVE TOP/REMOVE	2	224	
	TREE TREE	TRANSITIONAL TRANSITIONAL	646.67 637.24	614.19 618.98	32.48 18.26	N/A N/A	N/A N/A	N/A N/A	N/A N/A	TOP/REMOVE TOP/REMOVE			
1 4	TREE ANTENNA	TRANSITIONAL TRANSITIONAL	652.16 669.22	647.09 656.55	5.07 12.67	N/A N/A	N/A N/A	N/A N/A	N/A N/A	TOP/REMOVE OBST. LIGHT			
73	POLE	TRANSITIONAL	643.00	641.72	1.28	N/A	N/A	N/A	N/A	OBST, LIGHT			
74 75	POLE BLDG	TRANSITIONAL TRANSITIONAL	643.00 638.37	641.58 636.97	1.42 1.40	N/A N/A	N/A N/A	N/A N/A	N/A N/A	OBST. LIGHT OBST. LIGHT			
76 77	TREE TREE	TRANSITIONAL TRANSITIONAL	654.08 672.69	645.35 666.64	8.73 6.05	N/A N/A	N/A N/A	N/A N/A	N/A N/A	TOP/REMOVE TOP/REMOVE			
97	TREE	33 APPROACH/TSS 33 TRANSITIONAL	679.85 674.52	643.02 629.52	36.82 45.00	N/A N/A	N/A N/A	N/A N/A	N/A N/A	TOP/REMOVE TOP/REMOVE			
107	TREE	33 TRANSITIONAL	667.71	650.94	16.77	N/A	N/A	N/A	N/A	TOP/REMOVE			
109 110	TREE TREE	33 TRANSITIONAL 33 TRANSITIONAL	648.04 696.23	633.05 626.73	14.99 69.50	N/A N/A	N/A N/A	N/A N/A	N/A N/A	TOP/REMOVE TOP/REMOVE			
112 113	BLDG BLDG	33 APPROACH 33 APPROACH	615.49 616.02	615.10 615.34	0.40 0.68	N/A N/A	N/A N/A	N/A N/A	N/A N/A	OBST. LIGHT OBST. LIGHT			
114	BLDG	33 APPROACH	615.72	615.09	0.63	N/A	N/A	N/A	N/A	OBST. LIGHT			
115	BLDG BLDG	33 APPROACH 33 APPROACH	621.01 616.40	615.32 615.29	5.70 1.11	N/A N/A	N/A N/A	N/A N/A	N/A N/A	OBST. LIGHT OBST. LIGHT			
119 128	TREE TREE	33 APPROACH 33 TRANSITIONAL	628.37 646.19	627.47 627.97	0.91 18.22	N/A N/A	N/A N/A	N/A N/A	N/A N/A	TOP/REMOVE TOP/REMOVE			
129 130	TREE TREE	33 TRANSITIONAL TRANSITIONAL	645.18 666.91	622.48 659.21	22.70 7.70	N/A N/A	N/A N/A	N/A N/A	N/A N/A	TOP/REMOVE TOP/REMOVE			
131	POLE	TRANSITIONAL	657.44	647.08	10.36	N/A	N/A	N/A	N/A	OBST. LIGHT			
132 133	TOP REIL TREE	15 PRIMARY TRANSITIONAL	621.26 642.93	616.40 639.36	4.86 3.57	N/A N/A	N/A N/A	N/A N/A	N/A N/A	NONE TOP/REMOVE			
134 135	TREE TREE	TRANSITIONAL TRANSITIONAL	670.86 649.23	660.00 638.72	10.86 10.51	N/A N/A	N/A N/A	N/A N/A	N/A N/A	TOP/REMOVE TOP/REMOVE			
136	TREE	TRANSITIONAL	652.34	638.24	14.10	N/A	N/A	N/A	N/A	TOP/REMOVE			
137 138	TREE TREE	TRANSITIONAL TRANSITIONAL	679.59 672.52	671.62 672.06	7.97 0.46	N/A N/A	N/A N/A	N/A N/A	N/A N/A	TOP/REMOVE TOP/REMOVE			
139 140	TREE TREE	TRANSITIONAL TRANSITIONAL	679.21 636.59	648.28 629.98	30.92 6.61	N/A N/A	N/A N/A	N/A N/A	N/A N/A	TOP/REMOVE TOP/REMOVE			
141	TREE POLE	TRANSITIONAL TRANSITIONAL	673.59 658.26	643.09 640.22	30.50 18.04	N/A N/A	N/A N/A	N/A N/A	N/A N/A	TOP/REMOVE OBST. LIGHT			
143	TREE	TRANSITIONAL	664.30	626.74	37.56	N/A	N/A	N/A	N/A	TOP/REMOVE			
144 145	TREE TREE	TRANSITIONAL TRANSITIONAL	669.04 652.19	665.81 645.72	3.23 6.47	N/A N/A	N/A N/A	N/A N/A	N/A N/A	TOP/REMOVE TOP/REMOVE			
146 147	TREE TREE	TRANSITIONAL TRANSITIONAL	655.04 645.59	625.31 645.28	29.73 0.30	N/A N/A	N/A N/A	N/A N/A	N/A N/A	TOP/REMOVE TOP/REMOVE			
148		TRANSITIONAL	670.14	625.51	44.63	N/A	N/A	N/A	N/A	TOP/REMOVE			
149 150 151	TREE TREE	TRANSITIONAL TRANSITIONAL TRANSITIONAL	663.72 631.62 658.62	659.23 629.98 626.82	4.50 1.64 31.80	N/A N/A N/A	N/A N/A N/A	N/A N/A N/A	N/A N/A N/A	TOP/REMOVE TOP/REMOVE TOP/REMOVE			

POINT NUMBER	OBJECT DESCRIPTION	PART 77 SURFACE	OBJECT ELEVATION	PART 77 SURFACE ELEVATION	PART 77 PENETRATION	TSS SURFACE ELEVATION	TSS PENETRATION	FUTURE RUNWAY 33 DEPARTURE SURFACE ELEVATION	FUTURE RUNWAY 33 DEPARTURE SURFACE PENETRATION	DISPOSITION
152	TREE	TRANSITIONAL	652.57	628.11	24.46	N/A	N/A	N/A	N/A	TOP/REMOVE
153	POLE	33 TRANSITIONAL	634.48	620.93	13.55	N/A	N/A	N/A	N/A	OBST. LIGHT
159	TREE	33 APPROACH/TSS	660.22	623.55	36.67	646.53	13.69	N/A	N/A	TOP/REMOVE
160	BLDG	33 APPROACH	629.41	618.83	10.57	N/A	N/A	N/A	N/A	OBST. LIGHT
161	TREE	33 APPROACH/TSS	644.56	619.92	24.65	640.36	4.20	N/A	N/A	TOP/REMOVE
162	TREE	33 APPROACH	633.21	616.66	16.55	N/A	N/A	N/A	N/A	TOP/REMOVE
163	BLDG	33 APPROACH	621.54	615.02	6.52	N/A	N/A	N/A	N/A	OBST. LIGHT
164	BLDG	33 APPROACH	622.01	614.44	7.57	N/A	N/A	N/A	N/A	OBST. LIGHT
165	BLDG	33 APPROACH	621.77	614.42	7.35	N/A	N/A	N/A	N/A	OBST. LIGHT
166	BLDG	33 APPROACH	616.32	614.37	1.95	N/A	N/A	N/A	N/A	OBST. LIGHT
167	TREE	33 APPROACH	624.21	614.99	9.23	N/A	N/A	N/A	N/A	TOP/REMOVE
168	TREE	15 APPROACH/TSS	682.12	643.38	38.74	661.83	20.29	633.80	48.32	TOP/REMOVE
169	TREE	15 APPROACH/TSS	673.74	643.83	29.91	662.59	11.15	634.18	39.56	TOP/REMOVE
170	TREE	33 DEPARTURE	767.32	768.00	-0.68	N/A	N/A	768.00	-0.68	TOP/REMOVE
171	TREE	HORIZONTAL	769.26	768.00	1.26	N/A	N/A	768.00	1.26	TOP/REMOVE
172	TREE	HORIZONTAL	769.39	768.00	1.39	N/A	N/A	768.00	1.39	TOP/REMOVE
173	TREE	HORIZONTAL	772.54	768.00	4.54	N/A	N/A	768.00	4.54	TOP/REMOVE
174 175	TREE TREE	HORIZ/33 DEPART 33 DEPARTURE	782.84 769.04	768.00 768.00	14.84 1.04	N/A N/A	N/A N/A	768.00 768.00	14.84 1.04	TOP/REMOVE TOP/REMOVE
	TREE				<u> </u>		<u> </u>	621.79		
176 177	SIGN	33 DEPARTURE 33 DEPARTURE	653.91 656.87	658.47 670.97	-4.55 -14.10	N/A N/A	N/A N/A	621.79	32.13 27.82	TOP/REMOVE NONE
178	SIGN	33 DEPARTURE	658.32	670.49	-14.10	N/A N/A	N/A N/A	636,25	22.07	NONE
178	POLE	33 DEPARTURE	664.26	667.91	-3.66	N/A N/A	N/A N/A	633.27	30.99	OBST. LIGHT
180	ROAD	33 DEPARTURE	635.84	627.59	8.25	N/A N/A	N/A	631.15	4.69	NONE
181	ROAD	33 DEPARTURE	634.41	629.69	4,73	N/A N/A	N/A	632,93	1,48	NONE
182	POLE	33 DEPARTURE	645.65	655,22	-9.58	N/A	N/A	625.25	20.39	OBST. LIGHT
183	TREE	33 DEPARTURE	666.40	705.50	-39.09	N/A	N/A	649.50	16.90	TOP/REMOVE
184	POLE	33 DEPARTURE	667.43	667.15	0.28	N/A	N/A	639.02	28.41	OBST, LIGHT
185	TREE	33 DEPARTURE	658.26	682.28	-24.02	N/A	N/A	642.34	15.92	TOP/REMOVE
186	POLE	33 DEPARTURE	665,66	666.48	-0.82	N/A	N/A	644.92	20.74	OBST. LIGHT
187	POLE	33 DEPARTURE	665.43	665,81	-0.37	N/A	N/A	650.02	15,41	OBST_LIGHT
188	POLE	33 DEPARTURE	654.74	644,50	10.24	N/A	N/A	643.56	11.18	OBST. LIGHT
189	POLE	33 DEPARTURE	653.59	647.69	5.90	N/A	N/A	648.23	5.36	OBST. LIGHT
190	TREE	33 DEPARTURE	680.27	706.01	-25.74	N/A	N/A	654.70	25.57	TOP/REMOVE
191	TREE	33 DEPARTURE	686,46	719.44	-32.99	N/A	N/A	665.36	21.10	TOP/REMOVE
192	TREE	33 DEPARTURE	677.59	699.75	-22.16	N/A	N/A	660.55	17.03	TOP/REMOVE
193	TREE	33 DEPARTURE	680.79	702.24	-21.45	N/A	N/A	664.84	15.95	TOP/REMOVE
194	TREE	33 DEPARTURE	654.02	653.29	0.73	N/A	N/A	652.99	1.03	TOP/REMOVE
195	TREE	33 DEPARTURE	656.58	653.32	3.26	N/A	N/A	653.03	3.56	TOP/REMOVE
196	POLE	33 DEPARTURE	658.94	648.15	10.79	N/A	N/A	648.63	10.31	OBST. LIGHT
197	TREE	33 DEPARTURE	648,78	638.60	10.18	N/A	N/A	640,51	8.27	TOP/REMOVE
198	TREE	33 DEPARTURE	649.28	642.71	6.57	N/A	N/A	644.00	5.28	TOP/REMOVE
199	POLE	33 DEPARTURE	652.88	645.88	6.99	N/A	N/A	646.70	6.18	OBST. LIGHT
200	TREE	33 DEPARTURE	655.41	646.03	9.38	N/A	N/A	646.82	8.59	TOP/REMOVE
201	BLDG	33 DEPARTURE	649.09	664.04	-14.94	N/A	N/A	631.45	17.65	OBST. LIGHT
202	POLE	33 DEPARTURE	656.25	649.87	6.38	N/A	N/A	645.04	11.21	OBST. LIGHT
203	POLE	33 DEPARTURE	657.39	666.41	-9.02	N/A	N/A	642.85	14.54	OBST. LIGHT
204	TREE	33 DEPARTURE	657,25	684.19	-26.94	N/A	N/A	643.15	14.10	TOP/REMOVE
205	TREE	33 DEPARTURE	666.51	657.16	9.35	N/A	N/A	656.29	10.23	TOP/REMOVE
206	POLE	33 DEPARTURE	653.34	652.20	1.15	N/A	N/A	652.07	1.28	OBST. LIGHT
207	TREE	33 DEPARTURE	659.24	657.95	1.30	N/A	N/A	656,95	2.29	TOP/REMOVE
208	TREE	33 DEPARTURE	660.74	660.32	0.42	N/A	N/A	658.97	1.77	TOP/REMOVE
209	TREE	33 DEPARTURE	663.35	688.92	-25.57	N/A	N/A	650.76	12.59	TOP/REMOVE
210	TREE	33 DEPARTURE	688.25	739.11	-50.86	N/A	N/A	669.97	18.28	TOP/REMOVE
211	TREE	33 DEPARTURE	707.78	727.10	-19.32	N/A	N/A	671.22	36.56	TOP/REMOVE
212	TREE	33 DEPARTURE	708.97	724.72	-15.74	N/A	N/A	676.07	32.90	TOP/REMOVE
213	TREE	33 DEPARTURE	666.59	667.93	-1.35	N/A	N/A	665.44	1.14	TOP/REMOVE
214	TREE	33 DEPARTURE	665.27	668.07	-2.80	N/A	N/A	665.56	-0.29	TOP/REMOVE
215	TREE	33 DEPARTURE	684.69	681.66	3.03	N/A	N/A	677.11	7.58	TOP/REMOVE
216	TREE	33 DEPARTURE	678.07	682.42	-4.35	N/A	N/A	677.76	0.31	TOP/REMOVE
217	TREE	33 DEPARTURE	688.89	691.72	-2.83	N/A	N/A	685.67	3.23	TOP/REMOVE
218	TREE	33 DEPARTURE	697.72	694.60	3.13	N/A	N/A	688.11	9.62	TOP/REMOVE
210	TDEE	22 DEDARTURE	720.04	702.40	2.40	I NI/A	NI/A	712.26	0.50	TOD/DEMOVE

-2.18

-1.21

21.28

N/A

N/A

N/A

33 DEPARTURE

33 DEPARTURE

15 APP / 33 DEP

TREE

TREE

ROAD

720.94

723.36

643.21

723.12

724.57

621.93

Note: A Negative Penetration Number Indicates Distance Object is Below Surface.

N/A

1	ALP Update (AC 13A Compliance, Rwy. Width Reduction, Rwy End Mods)	Mead & Hunt, Inc.	April 2015
NO.	REVISION	SPONSOR	DATE

712.36

713.59

626.34

8.59

9.78

16.87

TOP/REMOVE

TOP/REMOVE

NONE

UKIAH MUNICIPAL AIRPORT UKIAH, CALIFORNIA

AIRSPACE OBSTACLE DATA TABLE



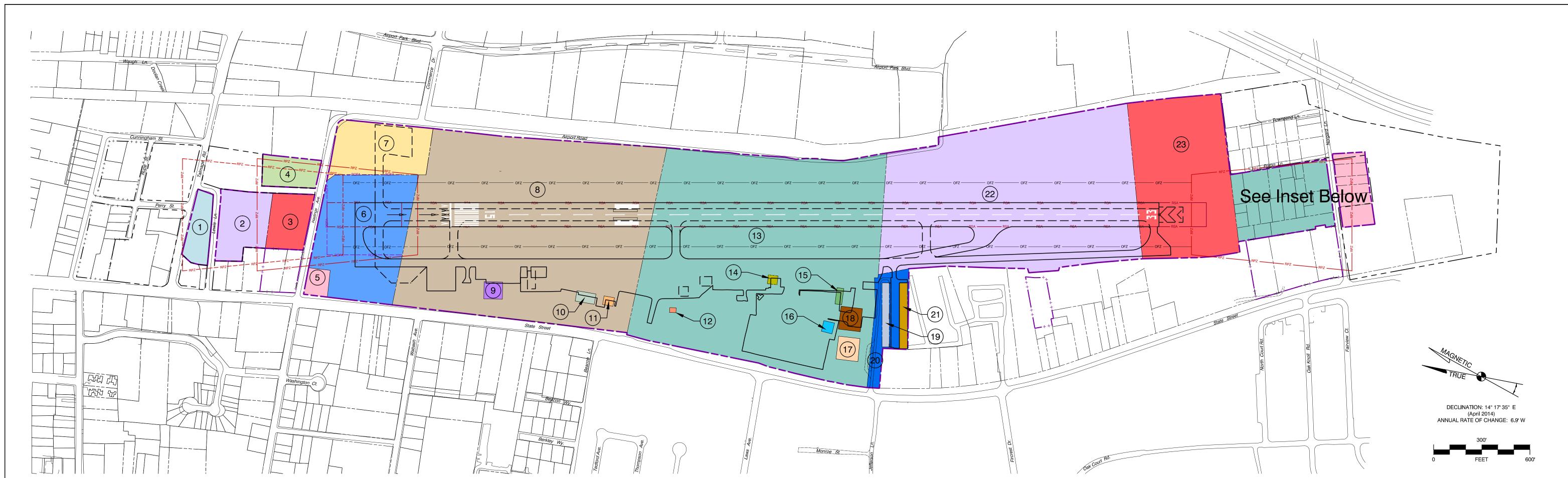
133 Aviation Boulevard, Suite 100 Santa Rosa, California 95403 (707) 526-5010 Fax (707) 526-9721

www.meadhunt.com

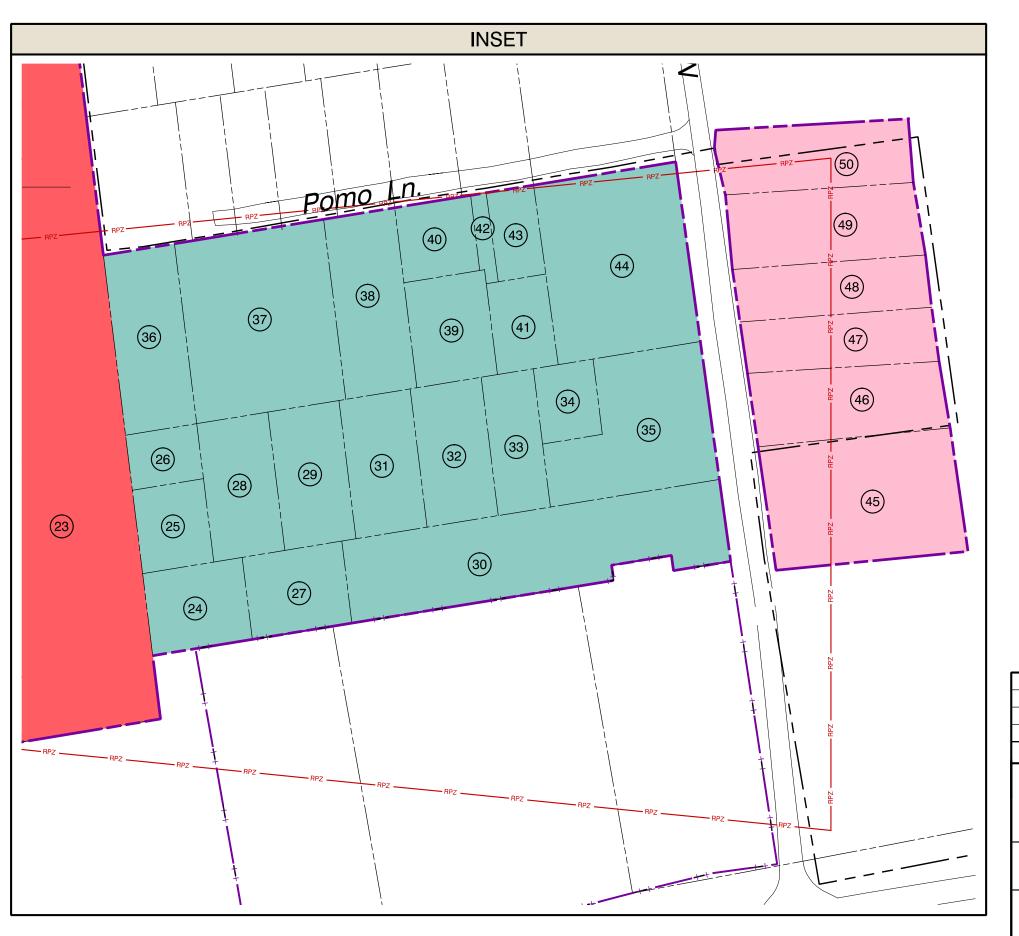


DESIGN: CS/BM DRAWN: TE/DS DATE: April 2015 SHEET 10 OF 11

The preparation of this document may have been supported, in part, through the Airport Improvement Program financial assistance from the Federal Aviation Administration (Project Number Unassigned) as provided under Title 49 U.S.C., Section 47104. The contents do not in any way constitute a commitment on the part of the United States to participate in any development depicted therein nor does it indicate that the proposed development is environmentally acceptable or would have justification in accordance with appropriate public laws.



	AIRPORT PROPERTY DATA										
PARCEL ID	ACRES	ASSESSORS PARCEL #	TYPE OF INTEREST	GRANTOR	DATE ACQUIRED	CONVEYANCE	BOOK/PAGE NUMBER	TYPE OF ACQUISTION	FAA GRANT NUMBER	NOTES	
1	1.40	003-140-42	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
2	2.86	003-140-41	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
3	1.98	003-230-04	Fee Simple	Sword	1937	Data N/A	470/295	Fee Simple	Data N/A		
4	1.50	003-230-31	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
5	0.55	003-230-23	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
6	9.54	003-230-22	Fee Simple	Linn	1941	Data N/A	152/341-342	Fee Simple	Data N/A		
7	4.43	003-230-26	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
8	37.97	003-280-05	Fee Simple	Linn	1941	Data N/A	152/343-344	Fee Simple	Data N/A		
9	0.28	003-280-06	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
10	0.18	003-280-07	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
11	0.08	003-280-08	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
12	0.03	003-310-03	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
13	42.19	003-310-08	Fee Simple	Cox	1941	Data N/A	152/347-348	Fee Simple	Data N/A		
14	0.08	003-310-10	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
15	0.10	003-310-04	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
16	0.10	003-310-09	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
17	0.45	003-310-07	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
18	0.45	003-310-06	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
19	0.41	003-330-69	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
20	1.90	003-330-68	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
21	0.47	003-330-70	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
22	31.7	003-330-62	Fee Simple	Gordon Ball	1965	Data N/A	699/538-539	Fee Simple	Data N/A		
23	13.62	180-120-03	Fee Simple	Data N/A	Data N/A	Data N/A Data N/A	Data N/A	Data N/A	Data N/A Data N/A		
24		184-061-03	Fee Simple		_	Data N/A Data N/A		+			
25	0.21 0.15		Fee Simple Fee Simple	Data N/A	Data N/A		Data N/A	Data N/A Data N/A	Data N/A Data N/A		
		184-061-04	 	Data N/A	Data N/A	Data N/A	Data N/A	· · · · · · · · · · · · · · · · · · ·	· ·		
26	0.10	184-061-05 184-061-07	Fee Simple	Data N/A	Data N/A Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
27	0.21		Fee Simple	Data N/A	_	Data N/A	Data N/A	Data N/A	Data N/A		
28	0.25	184-061-08	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
29	0.25	184-061-09	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
30	0.76	184-061-12	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
31	0.25	184-061-13	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
32	0.25	184-061-14	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
33	0.18	184-061-15	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
34	0.11	184-061-16	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
35	0.48	184-061-17	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
36	0.33	184-062-01	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
37	0.68	184-062-03	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
38	0.33	184-062-07	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
39	0.21	184-062-09	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
40	0.14	184-062-10	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
41	0.14	184-062-12	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
42	0.04	184-062-13	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
43	0.11	184-062-14	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
44	0.65	184-062-16	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
45	0.60	184-070-02	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
46	0.34	184-070-03	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
47	0.25	184-070-04	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
48	0.25	184-070-05	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
49	0.35	184-070-06	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
50	0.31	184-070-07	Fee Simple	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A	Data N/A		
					1			ļ			
					1	ī	1	i		i de la companya del companya de la companya del companya de la co	



NOTES
a Information contained in the Airport Property Data block reflects available information from the City of Ukiah. The City will add a detailed property inventory to the ACIP.

DRAWING LEGEND						
EXISTING FU						
AIRPORT PROPERTY		++				
AVIGATION EASEMENT		+++				
RUNWAY SAFETY AREA		——————————————————————————————————————				
RUNWAY PROTECTION ZONE		——————————————————————————————————————				
RUNWAY OBJECT FREE AREA		—————ROFA ———				
OBSTACLE FREE ZONE	———— OFZ ————	—————OFZ ———				
BUILDING RESTRICTION LINE		N/A				

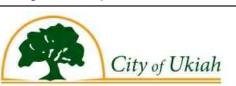
1	ALP Update (AC 13A Compliance, Rwy. Width Reduction, Rwy End Mods)	Mead & Hunt, Inc.	April 2015
NO.	REVISION	SPONSOR	DATE

UKIAH MUNICIPAL AIRPORT UKIAH, CALIFORNIA

Exhibit "A" Airport Inventory Map



133 Aviation Boulevard, Suite 100 Santa Rosa, California 95403 (707) 526-5010 Fax (707) 526-9721 www.meadhunt.com



DESIGN: CS/BM DRAWN: TE/DS DATE: April 2015 SHEET 11 OF 11

The preparation of this document may have been supported, in part, through the Airport Improvement Program financial assistance from the Federal Aviation Administration (Project Number Unassigned) as provided under Title 49 U.S.C., Section 47104. The contents do not in any way constitute a commitment on the part of the United States to participate in any development depicted therein nor does it indicate that the proposed development is environmentally acceptable or would have justification in accordance with appropriate public laws.

UKIAH MUNICIPAL AIRPORT ALP Narrative Report









Prepared for the City of Ukiah, California

City of Ukiah

May 2015 Final

INTRODUCTION

This document details the changes to the Airport Layout Plan (ALP) for Ukiah Municipal Airport (the Airport) since the previous ALP was approved by the Federal Aviation Administration (FAA) in 2006. An approved plan is necessary for an airport to receive grant funding for eligible capital improvements under the terms of the FAA's Airport Improvement Program. An ALP creates a blueprint for airport development by depicting proposed facility improvements. Typically updated every 5 to 10 years, the ALP incorporates recent construction, reflects new documentation requirements and illustrates future projects anticipated to occur over the next 20 years. This ALP was prepared in accordance with the applicable elements specified in FAA Advisory Circulars 150/5070-6B, *Airport Master Plans* and 150/5300-13A, *Airport Design*.

Publicly-owned and operated by the City of Ukiah, the Airport is located within Ukiah city limits in southern Mendocino County. Ukiah Municipal Airport is

The ALP set is provided in its entirety at the end of this report. The eleven individual sheets in the set are as follows:

- 1. Index/Cover Sheet
- 2. Airport Layout Plan
- 3. Data Sheet
- 4. Building Area Plan
- 5. Part 77 Airspace
- 6. Inner Approach: Runway 15
- 7. Inner Approach: Runway 33
- 8. Part 77 Airspace: Transitional
- 9. Departure Surface: Runway33
- 10. Airspace Obstacle Data Table
- 11. Airport Property Map

located approximately 20 miles south of Willits and 24 miles north of Cloverdale. A location map for the Airport and its surrounding vicinity is illustrated in **Exhibit 1**.

AIRPORT ROLE AND EXISTING CONDITIONS

Ukiah Municipal Airport is a public-use, General Aviation (GA) airport serving the communities surrounding the City of Ukiah. The Airport is expected to retain this role throughout the 20-year planning horizon. Although this update did not include a forecasting element, it is expected that the Airport will experience slight growth in general aviation activity. The changes proposed on this ALP would allow the Airport to continue to adequately serve the GA population while meeting FAA safety and design standards.

Ukiah Municipal Airport has one asphalt runway, Runway 15-33, which is currently 4,423 feet in length and 150 feet wide. The Airport has three instrument approach procedures:

- RNAV(GPS) Procedure Circling (as low as 1 ¼ mile visibility minimums)
- VOR procedure Circling (as low as 1 ¼ mile visibility minimums)
- Localizer Procedure Runway 15 (as low as 1 ¼ mile visibility minimums)

The existing Airport Reference Code (ARC) at Ukiah Municipal Airport is B-II. The ARC is based on the largest aircraft that operates at least 500 times per year at the Airport. For Ukiah Municipal Airport, the aircraft meeting that requirement is the Beechcraft King Air. The Airport's existing layout satisfies safety standards for a B-II airport. This ALP effort did not analyze proposed changes in the ARC.

The Runway Design Code (RDC) consists of the Aircraft Approach Category, Aircraft Design Group, and the approach visibility minimums. For Ukiah Municipal Airport, the Runway Design Code is B-II-5000.



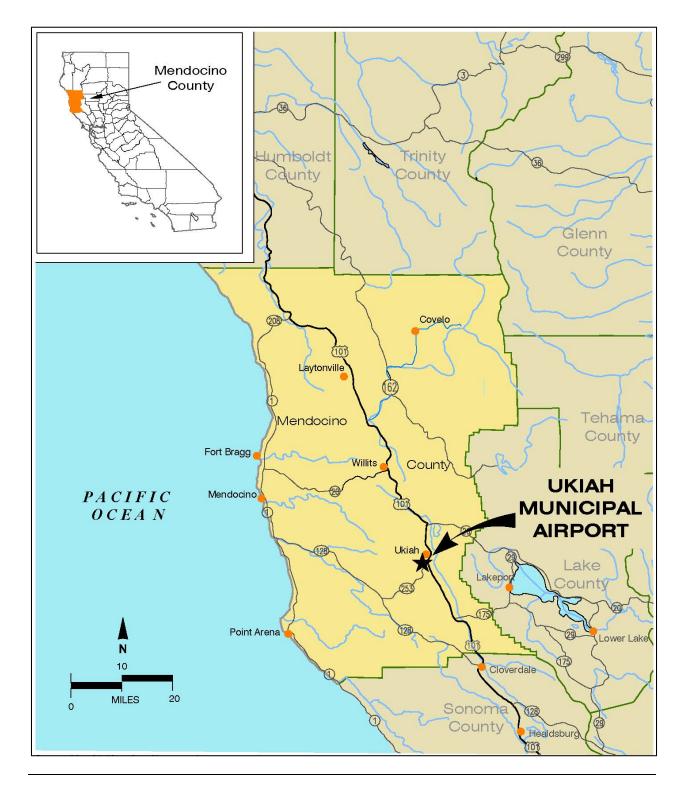


Exhibit 1

Airport Location

Ukiah Municipal Airport

The last update of the Ukiah Municipal Airport's ALP was completed in 2006. No major changes to the airfield have occurred since 2006. This current update effort was required by the FAA in order to bring the ALP set up to current standards prior to issuance of a runway rehabilitation grant.

In addition to complying with current ALP standards, technical analysis was conducted on various facilities that the City would like to incorporate to better serve airport users. Major changes to this updated ALP set include the following features:

- · Relocated north runway end
- Northeast transient parking apron
- Runway width reduction
- Parallel taxiway holding bay
- Taxiway D (A4) connector replacement
- Helicopter parking positions
- Wash rack and fuel farm locations
- Security lighting
- Fencing replacement/upgrades
- Future supplemental windcone
- Creation of Airspace Plan Sheets
- Creation of an Airport Property Map

Object Free Area (OFA): A two-dimensional ground area centered on a runway, taxiway, or taxilane centerline which is clear of objects, except for objects that need to be located in the OFA for air navigation or aircraft groundmaneuvering purposes.

Obstacle Free Zone (OFZ): is the airspace below 150 feet above the established airport elevation and along the runway and extended runway centerline that is required to be clear of all objects, except for the frangible visual NAVAID's that need to be located in the OFZ because of their function, in order to provide clearance protection for the aircraft landing or taking off from the runway, and for missed approaches.

Declared Distances: The distances the airport owner declares available for a turbine powered aircraft's takeoff run, takeoff distance, accelerate-stop distance and landing distance requirements.

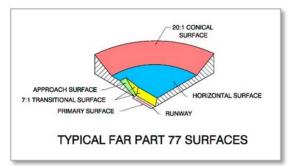
Runway Safety Area (RSA): A defined surface surrounding the runway prepared or suitable for reducing the risk of damage to airplanes in the event of an overshoot, undershoot or excursion from the runway and provides greater accessibility for fire-fighting and rescue equipment during such incidents.

TECHNICAL JUSTIFICATION

Relocated North Runway End

The history as to when and why the north runway end was shifted south is not well documented. Available information suggests that it was shifted to provide standard clearances over the adjacent street (Hastings Avenue). It is not known why a displaced threshold was not used. As part of this update an analysis was conducted to determine whether any of the currently aligned taxiway pavement could be reclaimed as runway. The FAA has held steady on the determination that declared distances should not be applied to airports which are not regularly used by turbine powered aircraft. Even if airports do experience some operations by turbine powered aircraft, the use must meet the *National Plan of Integrated Airport Systems* (NPIAS) criteria to be considered the critical aircraft. Without the use of declared distances the runway end's location will be set to provide standard runway Object Free Area (OFA) clearances.

The Airport's northern section of perimeter fence (along Hastings Avenue) is the critical constraint to siting the new



runway end. The runway end could be extended a maximum of 465' north of its present location while still providing a standard OFA. The landing threshold for Runway 15 would remain in the current runway end location. This runway extension will not change the threshold siting surfaces currently established for the Airport. The Part 77 Approach Surface for the runway will shift north with the relocated end due to the fact that the Approach Surface is based on the

physical end of the runway regardless of any displaced threshold location (Exhibit 2).

At this time, the 465-foot runway extension is being shown (**Exhibit 2**) for planning purposed only. At point in the future when documented operational demands necessitate a runway extension, this will be reanalyzed.

In the near-term the north end of the runway will be marking as shown in **Exhibit 3.** The existing connector Taixway B will be removed and the pavement aft of the Runway 15 landing threshold and end will be marked with yellow chevrons, indicating non-usable pavement. The future Taxiway A2 will be constructed to connect to the Runway 15 end.

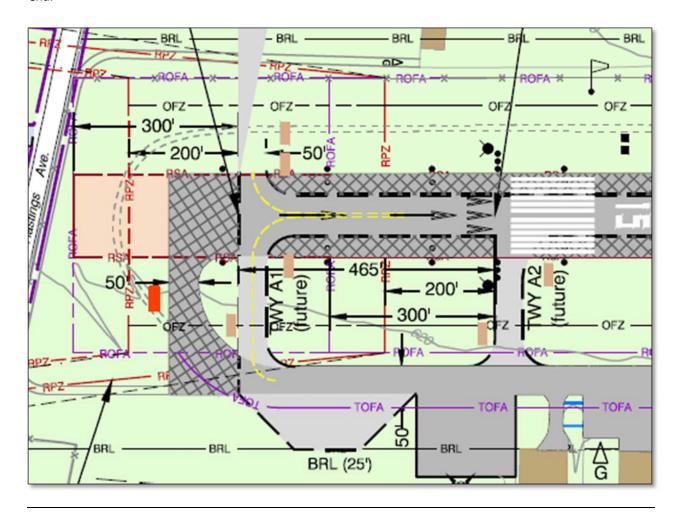


Exhibit 2

Long-Term Planning Design - Relocated Runway End Ukiah Municipal Airport

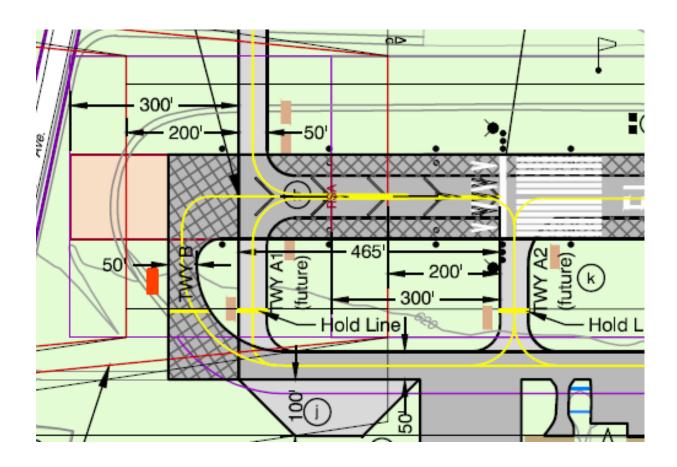


Exhibit 3

Near-Term Design - North Runway End

Ukiah Municipal Airport

As shown on the accompanying Inner Approach Plan (**Sheet 6**), existing objects do penetrate this future approach surface to Runway 15. Many of these objects currently penetrate the existing Part 77 surfaces as well, but were unknown prior to the completion of the AGIS obstruction survey. The Airport does acknowledge that before the runway shift to the north can occur, an obstruction removal program will be required along with meeting National Environmental Policy Act (NEPA) requirements, and the establishment of a project timeline. Specific details about the airspace penetrations and the future disposition can be found on **Sheet 10** of the ALP set.

Northeast Transient Parking Apron

In order to provide transient aircraft convenient access to the business district located east of the Airport, a transient parking apron has been designed in the Airport's northeast corner. The size and location of this transient parking apron is dictated by the existing and future 40:1 Departure Surface and the existing and future 20:1 Threshold siting surface. The timing of this project would require the runway to be extended north before the apron could be constructed. Extending the runway would shift the location of the 40:1 Departure Surface and allow parked aircraft to remain outside of both critical surfaces. An alternative option which the airport may explore in the future is the

raising of the departure surface elevation. This would require consultation with the FAA's Air Traffic Organization and is not guaranteed to allow the parking apron to move forward. All aircraft parking positions were designed to remain clear of the Runway Object Free Area (OFA), and Obstacle Free Zone (OFZ). The future transient apron is illustrated in **Exhibit 4**.

Runway Width Reduction

The FAA has required that the runway be shown as ultimately reduced to the standard width for B-II aircraft (75 feet). Although larger aircraft such as the CalFire S-2T Air Tanker do operate at the Airport, the FAA does not consider other government agency aircraft operations when determining the critical aircraft. Therefore the FAA views the runway width standard to be 75 feet. The FAA would allow the City of Ukiah to contribute local funds in order to fund the maintenance of an additional 25 feet of runway width for a total of 100 feet. However, it is understood



that the level of funds required for the additional 25 feet are not likely to be available from the City. Consequently, the ALP shows a runway width reduction to 75 feet in the future.

Parallel Taxiway Holding Bay

Based on observations from airport management and users, a hold apron at the north end of Taxiway A would benefit the flow of aircraft. This holding apron has been designed to permit aircraft to perform run-ups while remaining clear of the taxiway OFA (a setback of 49 feet from the taxiway centerline).

Taxiway D Connector Replacement

Taxiway D (future A4) is a non-standard design. It is neither a high-speed exit taxiway nor a 90 degree exit taxiway. In the future it will be replaced with a standard 90 degree exit taxiway. The location of the future taxiway was shifted northwards to be more readily usable for aircraft landing on Runway 33.

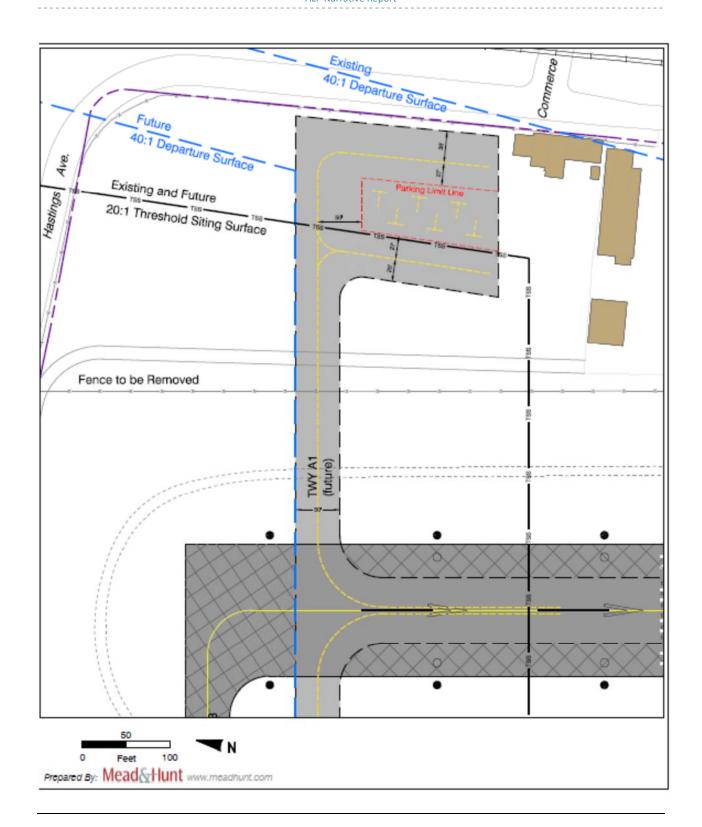


Exhibit 4

Transient Parking Apron

Ukiah Municipal Airport

Helicopter Parking Positions

The current medical helicopter operator at the Airport uses an apron area in front of their hangar for parking and staging the helicopters. The Airport and the operator would like to see a designated parking area for the helicopters which would not block access to taxiways or hangars. Two sites were analyzed on the east side of the airfield for standalone helicopter facilities. They were dismissed due to the fact that any location on the east side of the airfield would require dedicated taxiway access. Construction of a taxiway for a single tenant or airport user would not be eligible for FAA funding, thus prohibitively expensive for the City of Ukiah.



The design as shown on the ALP will accommodate two AgustaWestland AW109 helicopters (36-foot rotor diameter) parked near the medical operator staging area. The helicopter parking position design is illustrated in **Exhibit 5**.

Removal of Aligned Taxiway

Currently an aligned taxiway leads into the Runway 15 end. This is a nonstandard condition and will be removed for safety reasons as part of the upcoming runway pavement rehabilitation project. The existing connector taxiway providing access to the aligned taxiway will be removed and new taxiway connector will be constructed at the runway end.

Wash Rack and Fuel Farm Locations

In order to better serve the Airport's tenants, future locations for an aircraft wash rack and fuel farm location are shown on the ALP (see callouts F2 and F3) south of the airport administration building.

Miscellaneous

As future improvement projects at the Airport, the City included the following additional items on the ALP:

- Security lighting throughout the hangar and apron area
- Fencing replacement/upgrades
- Future supplemental windcone

A component of this ALP update was to develop Airspace Plan Sheets and an Airport Property Map Sheet. The Airspace Plan incorporates all of the data obtained through the Airports GIS survey which was completed in March of 2009. The Airport Property Map Sheet reflects available data from the City regarding the history and location of the parcels which make up the Airport property.



UKIAH MUNICIPAL AIRPORT ALP Narrative Report

List of Upcoming Projects

•	Runway rehabilitation and taxiway realignment (design)	\$190,000
•	Runway rehabilitation and taxiway realignment (construction)	\$2,200,000
•	FAA reimbursable agreements for PAPO and PAPI Flight Check	\$315,000
•	Runup Apron Design	\$40,000
•	Runup Apron Construction	\$250,000
•	Transient Apron Design	\$110,000
•	Transient Apron Construction	\$1,100,000

Pavement Condition

A graphic depicting the most current (2011) pavement condition index is included for reference following page 10.

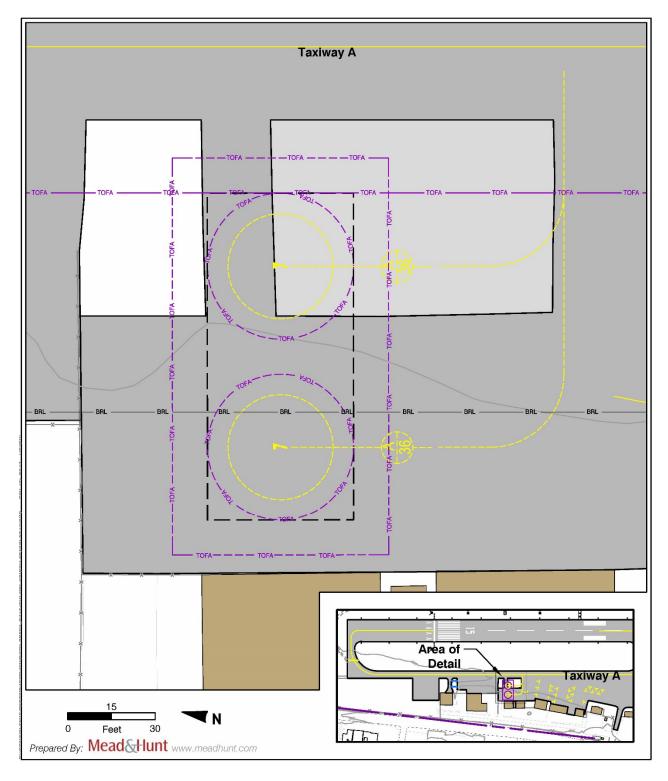


Exhibit 5

Helicopter Parking Positions

Ukiah Municipal Airport

