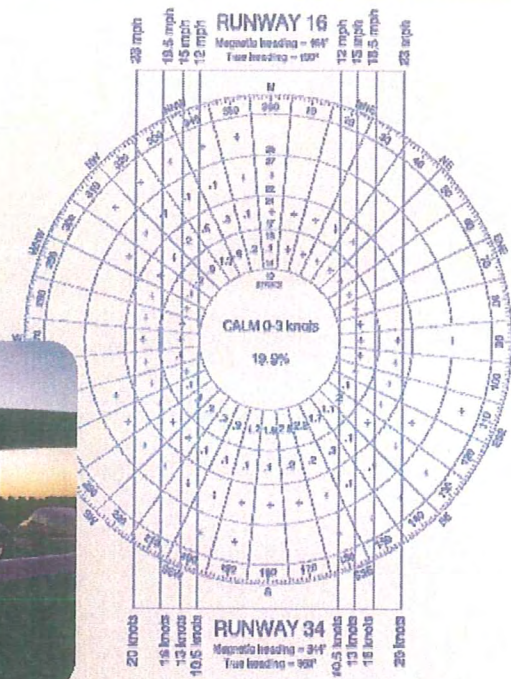




Yolo County Airport

AIRPORT LAYOUT PLAN NARRATIVE REPORT

June 2009



Yolo County Airport

Airport Layout Plan Narrative Report

June 2009

Prepared for
County of Yolo
General Services Department



Prepared by



INTRODUCTION

This document details the changes to the Airport Layout Plan (ALP) for Yolo County Airport since the previous ALP was adopted by the Federal Aviation Administration (FAA) in 2004. ALPs are required by the FAA as an element in assisting the administration of the Airport Improvement Programs grants for funding eligible capital improvement programs. ALPs are typically updated every 5 to 10 years to incorporate recent construction, reflect new documentation requirements, and illustrate 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 150/5070-6A, *Airport Master Plans*, and 150/5300-13, *Airport Design*. The ALP drawing set is located at the end of this report.

Yolo County Airport is located in an unincorporated area of Yolo County in Northern California. The Airport is located approximately 5 miles west from the center of the City of Davis and about 20 miles west of the center of Sacramento. The location of Yolo County Airport is illustrated in **Figure A**. Yolo County Airport is publicly owned and operated by the County's Department of General Services. The day-to-day management and operational requirements of the Airport are performed by an Airport Manager.





Figure A
Location Map

Airport Role and Exiting Conditions

Yolo County Airport is the primary General Aviation (GA) airport for the County of Yolo. The Airport is expected to retain this role throughout the planning period. Yolo County Airport should expect to experience moderate growth in general aviation activity and a continuing increase in business jet activity due to the presence of Davis Flight Support (DFS). This includes government and executive business jet activity into the Sacramento area. The changes proposed on this ALP would allow the Airport to continue to adequately serve the anticipated increase in GA activity.

Yolo County Airport has one asphalt runway, Runway 16-34 which is 6,000 feet in length and 100 feet wide. Runway 16 is equipped with a GPS instrument approach with visibility minimums as low as one statute mile. Runway 34 is also equipped with a GPS instrument approach and a VOR instrument approach. Both instrument approaches for Runway 34 have visibility minimums of one statute mile.

The existing Airport Reference Code (ARC) at Yolo County Airport is B-II. The Airport's existing layout satisfies safety standards for a B-II airport. The addition of Davis Flight Support (DFS) has increased the amount of activity at Yolo County Airport by aircraft categorized as larger than B-II. However, operations by aircraft classified as B-II or larger does not currently exceed 500 per year. An increasing trend in activity by aircraft larger than B-II is expected to continue at Yolo County Airport, and the ultimate ARC of C-II is depicted on this updated ALP. This ultimate ARC is consistent with what was presented on the previously adopted ALP. Ultimate runway safety areas and setbacks on the ALP reflect C-II airport standards. If the airport were to become a C-II facility, many of the existing conditions would conform to these standards. However, a few facilities would need to be relocated or modified. These issues are addressed later in this report.

Airport Reference Code Criteria		
Approach Category	Approach Speed Range	
B	≥ 91 kts	< 121 kts
C	≥ 121 kts	< 141 kts
Design Group	Wingspan Range	
I		< 49 feet
II	≥ 49 feet	< 79 feet

The last major update of the Yolo County Airport's ALP was completed in 1998 and updated in 2001 and 2004 to account for new lease area and hangar storage, respectively. Major changes to Yolo County Airport since 2004 include the following:

- GPS-approach procedure
- Revisions to pavement strength
- Drainage infrastructure

These changes are reflected in this updated ALP. In addition to these changes, technical analysis was conducted on various facilities that airport management believe would need improvements as the airport experiences growth in operations and based aircraft. Facilities of significance which were added or modified on this updated ALP include the following features:

- Hangar and Apron Area – east of the parallel taxiway and north of existing hangars
- Transient Parking Apron – east of parallel taxiway, near DFS
- Parallel Taxiway – located between the existing taxiway and runway
- Helicopter Parking – located near the center of the existing parallel taxiway
- Airport Beacon
- Perimeter Fence

TECHNICAL JUSTIFICATION

Factors considered when analyzing the need for new facilities, taxiways, and aprons include: Federal Aviation Administration (FAA) design standards in Advisory Circular 150/5300-13, the safety and efficient movement of aircraft, and planned improvements.

Hangar Area

General aviation based aircraft and operations have grown at a modest rate at Yolo County Airport, comparable to national trends in recent years. Large hangars have recently been constructed in the general aviation area to accommodate this growth in based aircraft. Airport management expressed the need to reserve an area for future hangars and apron area.

The existing hangar area north of the Automated Weather Observing System (AWOS) and south of the PreStar Skydiving facility was identified by airport management as an area suitable for future general aviation hangar construction and apron expansion. This area was chosen for future development because of its proximity to existing facilities and utilities. Airport management expressed a desire to continue hangar expansion in this area with an emphasis on filling in vacant space between existing hangars.

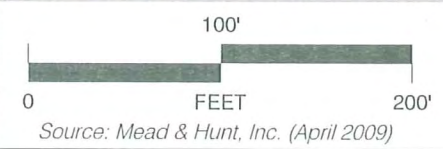
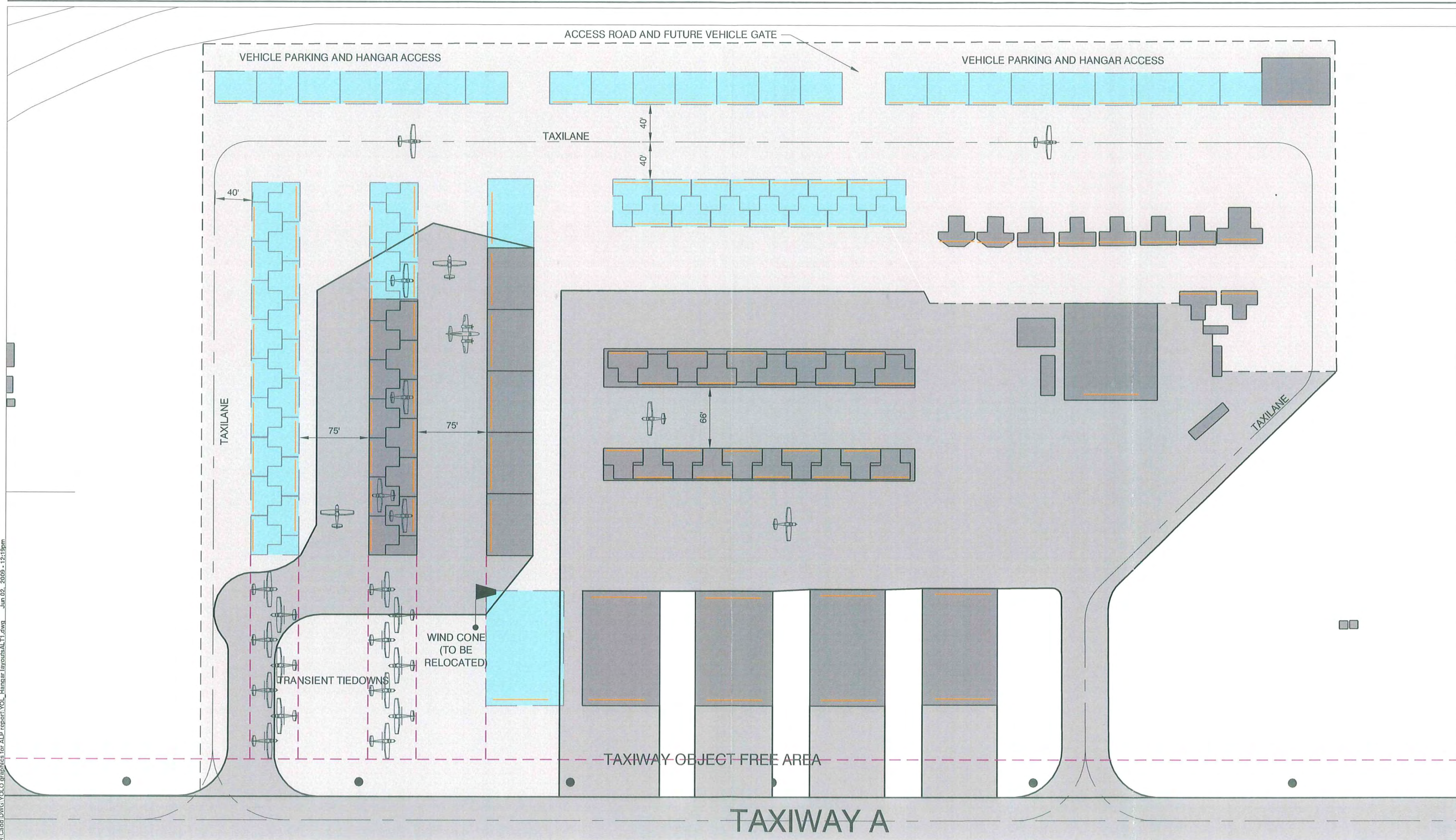
Multiple hangar and apron layouts were formulated and presented to airport management. The selected layout is presented in **Figure B**. This layout was selected for a variety of reasons. It maximizes the amount of hangar and tiedown space for the range of aircraft sizes anticipated to be using Yolo County Airport. In addition, the selected hangar layout allows traffic to flow with multiple taxilanes to hangars located furthest from Taxiway A.



A design feature of the general aviation hangar area is placing the hangars for larger aircraft closest to Taxiway A, and hangars for aircraft with smaller wingspans are located behind the larger hangars, furthest from Taxiway A. The general aviation hangar area will accommodate small aircraft only. As depicted, this area will accommodate Group I aircraft, with wingspans up to 49 feet in total length. Forty feet of separation is provided from fixed or moveable objects to the taxilane centerline, which is standard for B-I aircraft. Another large hangar matching the size of the other four is also shown should any aircraft with wingspans over 49 feet wish to base there. An apron is also provided for ten transient aircraft.



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- Existing Pavement
- Existing Structure/Hangar
- Object Free Area
- Future Hangar
- Hangar Door
- Future Pavement

Figure B
G.A. Hangar/Apron Development
 Yolo County Airport

Source: Mead & Hunt, Inc. (April 2009)

Transient Parking Area

An area near Davis Flight Support (DFS) was identified by airport management as a potential area for apron expansion. Aircraft currently using DFS area are not provided an apron to park on and must park on the taxilane in front of the hangar. This creates a single taxilane with one-way traffic. If three or more aircraft wish to park in front of DFS, the middle aircraft may be trapped.

The proposed solution to the limited amount of apron space in front of DFS is to infill the existing taxilane area with pavement suitable for the ultimate design aircraft weight. This will create an apron with room to park multiple aircraft with varying wingspans. The specific layout of apron parking area is presented in **Figure C**.



The edges of the painted parking area represent the taxilane object free areas (OFA). The distance from OFA to the centerline of Taxiway A is 65 feet, and 58 feet the centerline of the taxilanes. Aircraft would enter the parking areas from one of the three taxilanes and park anywhere inside the painted box. After use of the DFS facilities, aircraft will be able to pull through the parking area and turn onto a taxilane and then onto Taxiway A. This allows for the efficient flow of traffic through the apron area.

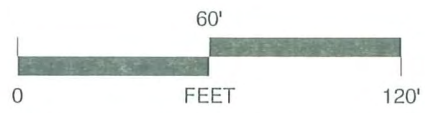
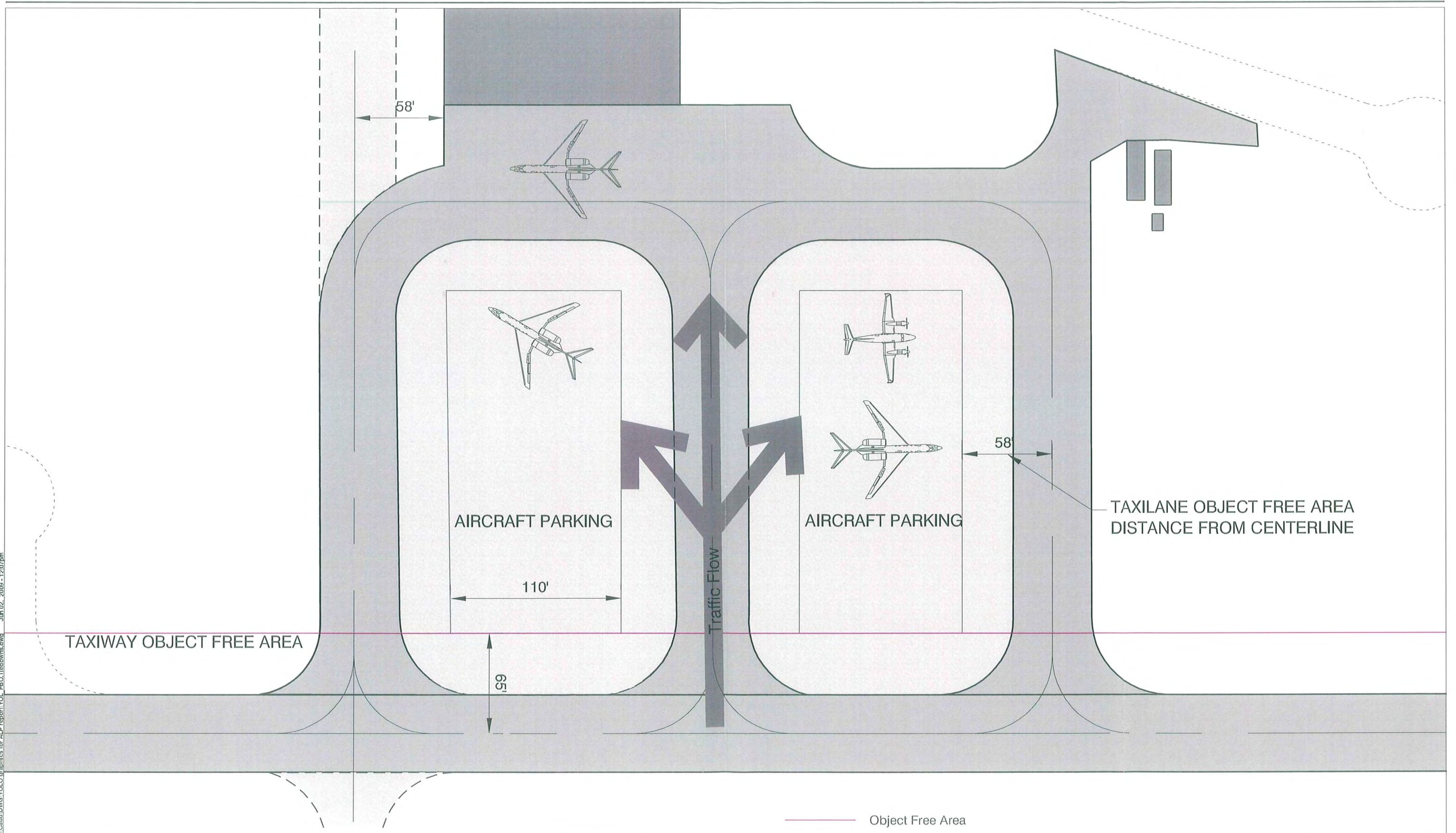
Parallel Taxiway

The parallel taxiway detailed in **Figure D** is similar to the parallel taxiway presented in the previously adopted ALP. This design supports ARC C-II aircraft and improves traffic flow around the airport. Additional exit taxiways eliminate the need for aircraft to taxi to the end of the runway and improve both the safety and operational efficiency of the airport.

Yolo County Airport is equipped with ample space for adding an additional parallel taxiway. The separation of runway to the existing parallel taxiway is 550 feet. The separation between the runway and the new parallel taxiway would be 300 feet, conforming to C-II standards. Adequate space exists for the proper runway to parallel taxiway separation, while maintaining the existing Taxiway A and improving circulation. Additionally, 84 feet of area outside of the object free areas between each taxiway will be available for hangar or apron area parking.

At this time, only one exit taxiway exists at midfield. This existing mid-field exit taxiway gives arriving aircraft only one option to exit the runway. Not all aircraft will be able to adequately slow down at this point and be able to use this exit. These aircraft are forced to taxi the remainder of the runway to exit or turnaround on the runway, increasing runway occupancy time. The intended runway occupancy time affects both the safety and efficiency of airport operations. These trends will worsen as airport activity increases and larger aircraft, as indicated in the approved forecasts and FBO development plans, increase use of the airport. Two new exit taxiways will be added and located approximately halfway between the existing exit taxiway at midfield and the runway ends.

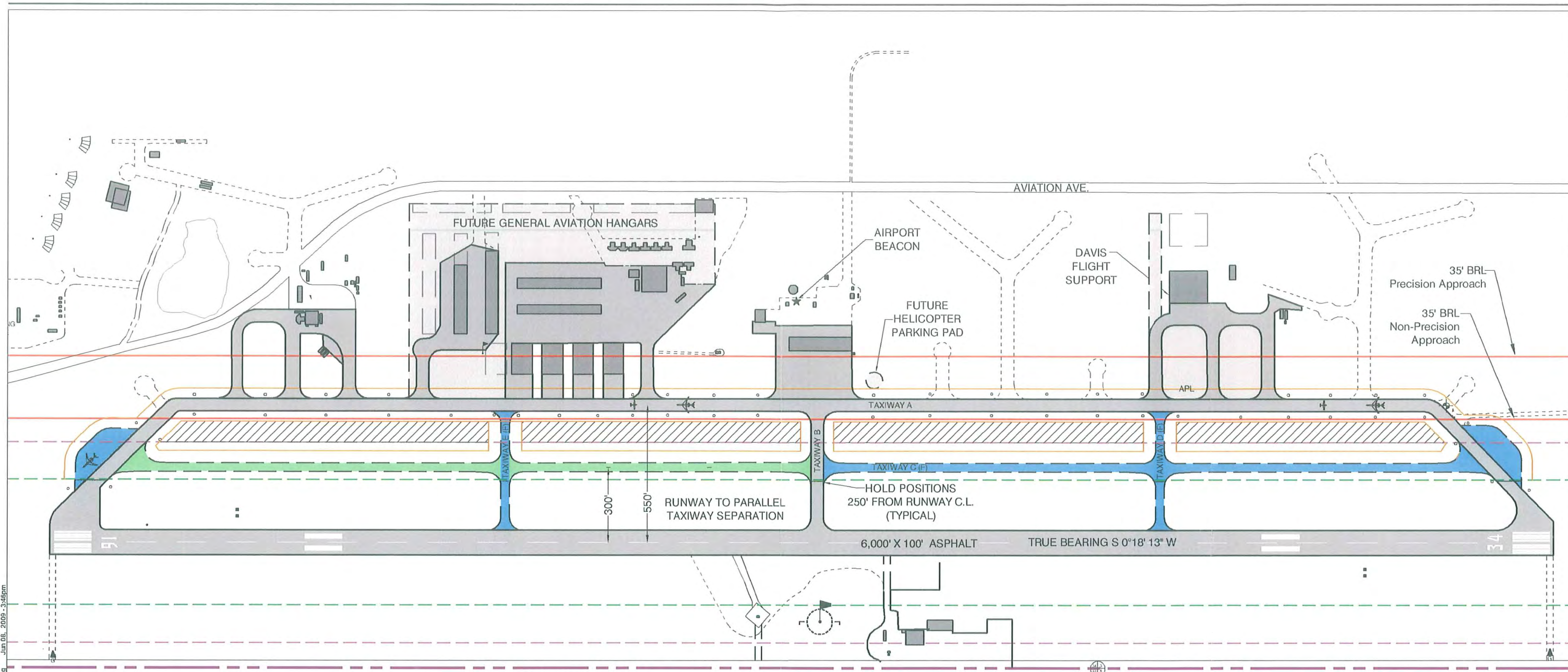
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Source: Mead & Hunt, Inc. (April 2009)

- Existing Pavement
- Future Pavement
- Object Free Area
- Taxiway/lane Centerline
- Existing Structure/Hangar

Figure C
FBO Parking Layout
 Yolo County Airport



COUNTY ROAD 95

- | | | | |
|---|---|---|--------------------------------|
|  | Existing Pavement |  | Future Building |
|  | Future Parallel Taxiway Phase 1 |  | Taxiway Object Free Area (OFA) |
|  | Future Parallel Taxiway Phase 2 |  | Future Runway OFA |
|  | Other Future Pavement |  | Future Runway Safety Area |
|  | Space Available for Future Aviation Use |  | Building Restriction Line |
|  | Existing Building |  | Airport Property Line |
|  | Gravel | | |



Source: Mead & Hunt, Inc. (April 2009)

Figure D
Future Parallel Taxiway
 Yolo County Airport

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The existing parallel taxiway is directly adjacent to existing apron, tiedowns, and hangars. The primary problem that arises with the existing configuration is that only one aircraft may use this taxiway at a time. For instance, aircraft taxiing from the Davis Flight Support (DFS) to the end of Runway 16 for departure must taxi by the general aviation apron and hangar area. If any aircraft is taxiing in the opposite direction, one aircraft must pull off the taxiway to let the other pass. Aircraft using the general aviation hangars on the north side of the airfield will be able to taxi south for departures from Runway 34 using the new parallel taxiway. This will allow these aircraft to avoid the DFS area and any aircraft associated with DFS. Likewise, any aircraft using DFS that would be departing from Runway 16 could avoid the general aviation hangar area using the new parallel taxiway.

Airport management indicated the need for run-up aprons near the ends of each runway. Occasional demand will see aircraft backed up on the taxiway. Run-up aprons are shown at each end of the future parallel taxiway. These aprons are sized to hold two C-II aircraft. The run-up aprons have been located behind the ultimate hold bars.

It is anticipated that the exit taxiways will be built first to enhance safety and circulation, and the future parallel taxiway will be phased as funds and demand allow. The south portion of the future parallel taxiway would be built first to accommodate demand at DFS.

Helicopter Parking

Yolo County Airport staff asked that a permanent parking position for rotorcraft be evaluated. Management has witnessed a slight increase in rotorcraft operations from PG&E. This activity is expected to increase with the presence of Davis Flight Support, and from Life-Flight and Indian casino activity. The location chosen for the helicopter parking pad is shown in Figure D. The following factors were considered when determining a location for the helicopter parking pad:

On-airport destination – The helicopter parking pad is located at a central location, near the middle of Taxiway A and in the proximity of existing facilities and utilities. This allows users of the helicopter parking pad to access the general aviation area to the north and DFS to the south.

Type of rotorcraft activity – The ultimate size of the helicopter parking position is designed for the critical helicopter expected to be using the pad. The exact dimensions of the parking position are determined by the size of the rotor of the critical helicopter. No portion of the parking position should be located within any taxiway or taxilane OFA. Further study of a specific design helicopter should be conducted prior to design of the parking position, and proper setbacks should be provided based on the critical rotorcraft.

Airport Beacon

The existing airport beacon is located on top of a wooden pole, which is in poor condition and requires replacement. With the apparent need for a new support pole, Yolo County Airport management also requested that the location of the beacon be analyzed to ensure it is located in an appropriate location, visible and clear of airspace surfaces. The existing beacon is located near the County operations yard, south of the Experimental Aircraft Association and north of the electrical building. The



beacon is 125 feet above mean sea level (MSL) and approximately 35 feet above ground level (AGL) and located 1,020 feet from the centerline of the runway.

Factors considered when determining a need for beacon relocation include: airspace clearances, clear line-of sight of in-flight operations, and any impacts to current or planned improvements. After analysis and consultation with airport management, the existing location of the beacon was determined to be adequate. The location of the beacon is also illustrated on Figure D. The following issues were analyzed to determine the suitability of this site:

Airspace clearances - The beacon is located under the F.A.R. Part 77 transitional surface, east of the runway. The transitional surface rises at a 7:1 slope away from the runway, starting at the edge of the primary surface. The primary surface is 500 feet wide, centered on the runway centerline. At the location of the beacon, the 7:1 transitional surface is 209 feet MSL. The top of the existing beacon is located approximately 35 feet above the elevation of the nearest point on the runway. The existing beacon is clear of the transitional surface by 75 feet at its current location and height.

Line-of-sight – The beacon is taller than any structure on airport property with the exception of Davis Flight Support (DFS) hangar, located about 1,500 feet away. The top of the DFS hangar is six feet higher than the existing beacon. The difference in elevation between the beacon and DFS is equal to 0.2 degrees. According to the FAA's *Aeronautical Information Manual*, beacons are required to "have a vertical light distribution to make them most effective from one to ten degrees above the horizon." If improvements are made to the beacon pole, the elevation of the beacon should remain at the existing elevation or higher to avoid any line-of-sight issues with nearby structures.

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 ground-maneuvering purposes.

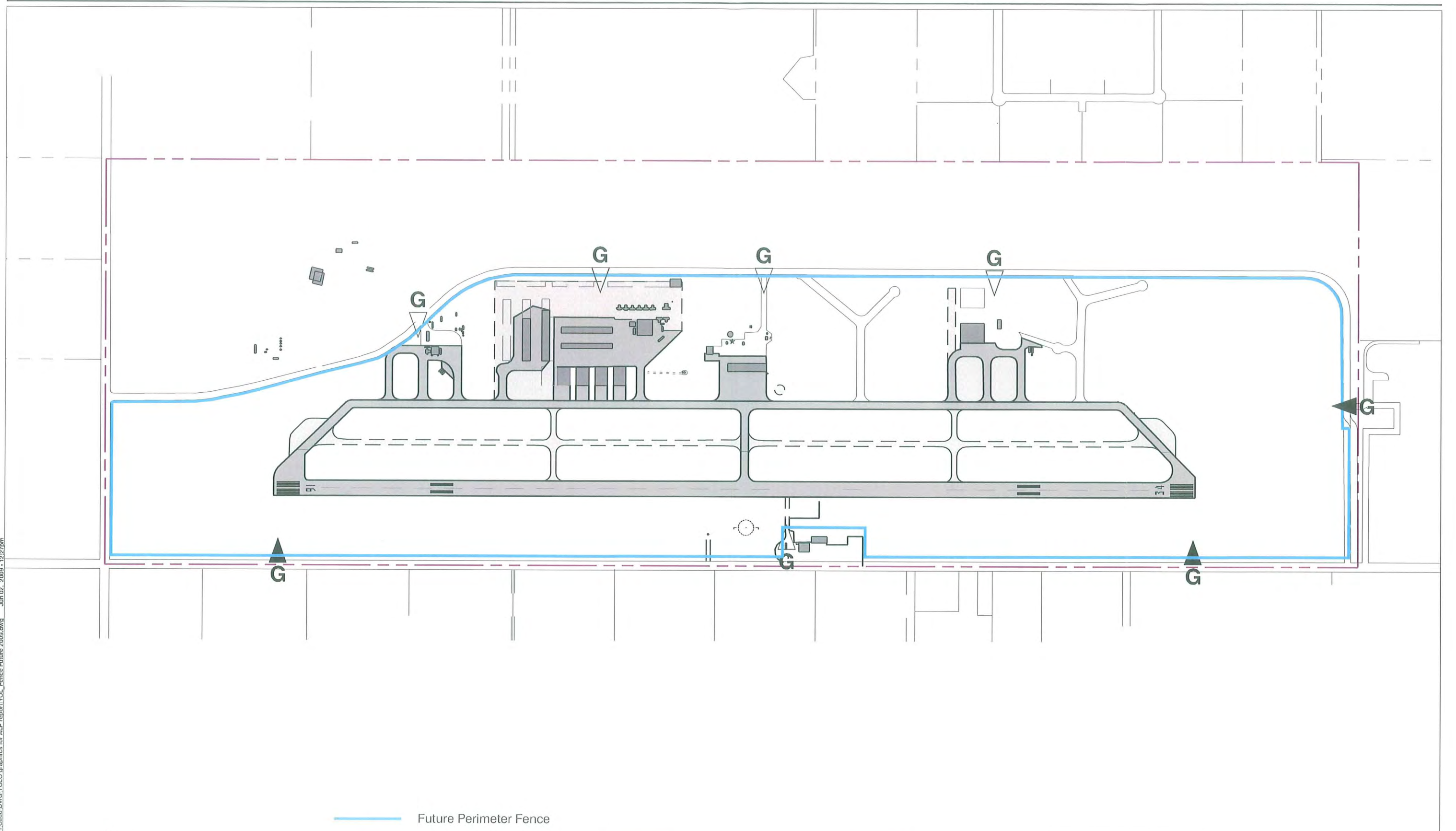
Runway Safety Area (RSA): A defined surface surrounding the runway prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway and provides greater accessibility for fire fighting and rescue equipment during such incidents.

Impact on current or planned operations – Aircraft taxiing to and from the nearest hangars are not currently affected by the location of the beacon. No future hangars are planned for this area, as the vicinity is occupied by other county facilities essential to airport operation.

Perimeter Fence

A fence surrounding the entire airport does not currently exist at Yolo County Airport. Cattle fencing currently exists along County Road 95, on the western boundary of the airport. A perimeter fence will likely be required by the FAA should Yolo County Airport choose to invest the monetary resources into upgrading facilities as presented in this report. **Figure E** shows a conceptual fence layout with access gates. The gates are located at existing points of access to the airfield and near locations which may see an increase in demand, such as the conceptual hangar layout area and Davis Flight Support, and any other future FBO's.

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- Future Perimeter Fence
- Airport Property
- Existing Gate
- Future Gate
- Existing Pavement
- Future Pavement
- Existing Building
- Future Building

Figure E
Future Perimeter Fence
Yolo County Airport

The ultimate fence design would need to be located outside of the ultimate runway safety area (RSA) and object free area (OFA). This would require the realignment of Aviation Avenue as discussed later in this report. The fence would be located between Aviation Avenue and the edge of the RSA and the OFA, 1,000 feet from the end of the runway. Based on a 34:1 Part 77 approach slope, the acceptable height of fencing 1,000 feet from the approach end of Runway 34 would be 23 feet AGL. This assumes the ground elevation at the fence is the same elevation as the runway end. The existing slope for the threshold siting surface is less critical at 20:1. Should visibility minimums decrease and a 50:1 approach slope is required, the maximum fence height at 1,000 feet is 16 feet AGL. A fence that is 6 or 8 feet AGL would satisfy security requirements and remain below any existing or future critical approach surfaces.



OTHER ANALYSIS

During the course of ALP preparation, the airport required the need for further analysis not anticipated when the ALP update began. These include obstructions to airspace and the need for additional visual aids, and further analysis was conducted by Mead & Hunt for the airport to help identify obstructions, and assist in siting visual aids.

Part 77 Obstructions

Surveys by Mead & Hunt and a supplemental obstruction chart produced by W.H. Pacific revealed numerous obstructions to the F.A.R. Part 77 approach and transitional surfaces and the threshold siting surface at each end of the runway. Additional analysis was provided to assist the airport in properly identifying the obstructions. At the time of his report, the County of Yolo is in the process of removing these airspace obstructions.

Additional study will be required should the airport wish to obtain an approach with visibility minimums as low as $\frac{3}{4}$ statute mile. An approach with visibility minimums as low as $\frac{3}{4}$ mile would double the width of the primary surface from 500 feet to 1,000 feet. A building restriction line (BRL) estimating 35 feet of clearance under the transitional surface is presented on Figure D. It appears this would not affect the building area on the east side of the airport. However, the primary surface would nearly extend to County Road 95 on the west side of the airport. This would place the Fire Station buildings in the primary surface. Also, additional control through aviation easements may be required to limit the heights of trees located west of County Road 95 off of airport property.

Segmented Circle

The California Division of Aeronautics requires a segmented circle to be located at Yolo County Airport because of the right-hand traffic pattern serving Runway 16. The FAA's Advisory Circular (AC) 150/5340-5C provides guidelines for siting a segmented circle at airports which receive funding under a Federal grant assistance program. AC 150/5340-5C proposes a segmented

circle be located in an area of maximum visibility to pilots in the air. A location near the center of the airfield was selected, away from structures which may limit visibility of the circle from the air.

AC 150/5340-5C also recommends that the primary wind indicator be located in the center of the segmented circle. The existing primary wind indicator, a lighted wind cone, does not conform to standards set forth in AC 150/5340-23B which requires 250 feet of separation between the runway centerline and the wind cone. The existing primary wind indicator is also located within the ultimate RSA.

Further analysis shows a drainage ditch runs parallel to the runway about 250 feet from the runway centerline at the ideal location of the wind indicator. The segmented circle would need to be constructed at a level location, away from any grade changes from the ditch. The segmented circle's radius is 50 feet. Therefore, the center of the circle would need to be at least 50 feet from the edge of the ditch. A location about 325 feet west of the runway centerline is suggested for the center of the circle. This location would provide the level ground necessary for minimal grading during construction of the segmented circle, and would locate the wind cone the necessary 250 feet from the runway centerline.

Projects Requiring Further Analysis for Ultimate ARC

Preliminary analysis of the ultimate safety area setbacks revealed some facilities would need to be removed, relocated, or modified for the airport to conform to ultimate C-II standards. These items were not addressed on previous ALPs. The majority of airfield facilities would conform to the ultimate C-II ARC as they exist today. The items which would need to be modified include:

- The existing alignment of Aviation Avenue would infringe upon the ultimate RSA and OFA south of the approach end of Runway 34.
- The building area west of the runway, which include the Fire Station and Willard Hall would be located within the ultimate OFA and would penetrate the F.A.R. Part 77 transitional surface.
- Pleasant Prairie Canal north of the approach end of Runway 16 flows into the ultimate RSA.

Aviation Avenue – South of the approach end of Runway 34, Aviation Avenue runs east and west, connecting airport facilities on the east side of the airport to County Road 95. Should the RSA and OFA be extended 1,000 feet beyond the end of the runway to conform to C-II standards, Aviation Avenue, at its current location, would be located within the OFA and RSA. Aviation Avenue will need to be realigned to the south while providing space for the perimeter fence between the road and the ultimate RSA and OFA.

The finished grade of the realigned road should not be greater than eight feet above the elevation of the approach end of Runway 34. This would allow the required 15 feet of clearance for vehicles to pass under the 34:1 approach slope. Should visibility minimums decrease and a 50:1 approach slope is required, the finished grade of the road would need to be no more than one foot above the approach end of Runway 34 elevation to allow the required 15 feet of clearance.

Fire Station – The buildings and facilities associated with the Fire Station and Willard Hall are located in the ultimate object free area. This includes the siren tower, caretaker's quarters, and the crop duster loading area.



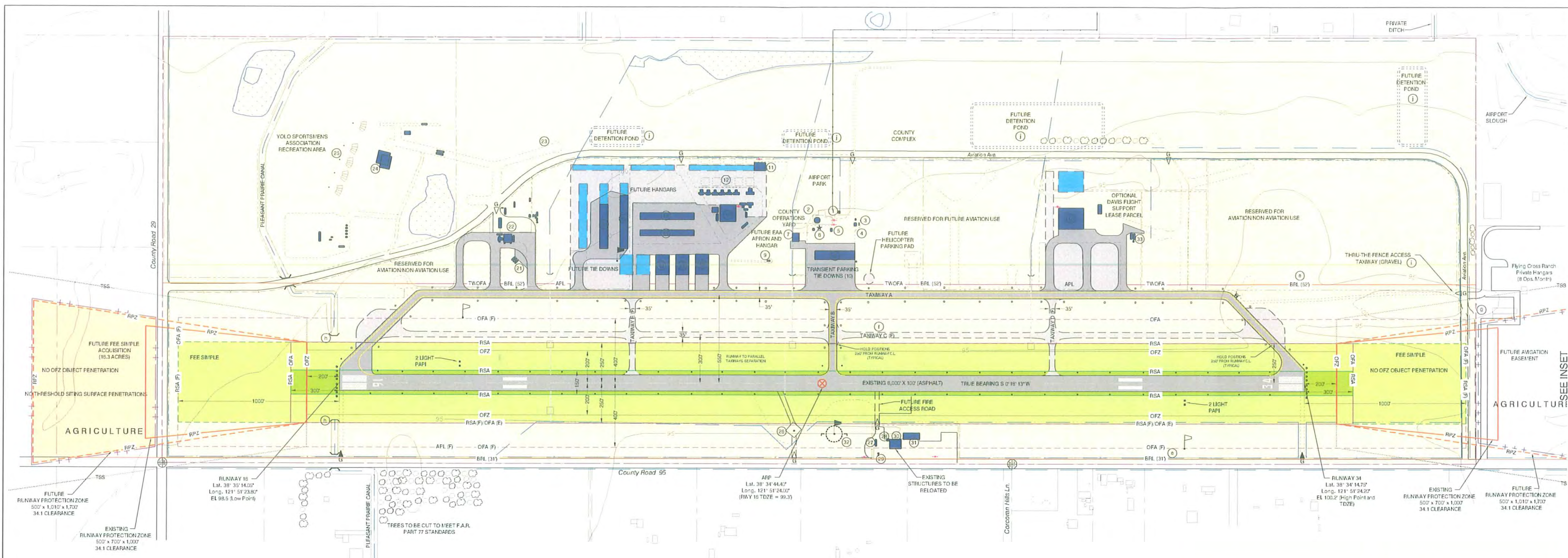
Also, each of the structures are existing penetrations to the FAR Part 77 transitional surface. Should Yolo County Airport ever receive a precision approach, the primary surface would double in width from 500 feet to 1,000 feet and these buildings would be located within the ultimate primary surface.

Pleasant Prairie Canal – The existing location of this Canal would be located within the ultimate RSA, north of the approach end of Runway 16. The RSA is required to be graded and have no potentially hazardous depressions or other surface variations. The culvert would need to be extended approximately 30 feet west. A comprehensive survey would need to be required for the exact length of the extended culvert and the acceptable grade, for this area to conform to proper RSA standards.

Airport Layout Plan Drawings

- Sheet 1: Airport Layout Plan
- Sheet 2: Data Sheet
- Sheet 3: Exhibit "A" Property Map
- Sheet 4: Airspace Map





BUILDING AND FACILITY LEGEND

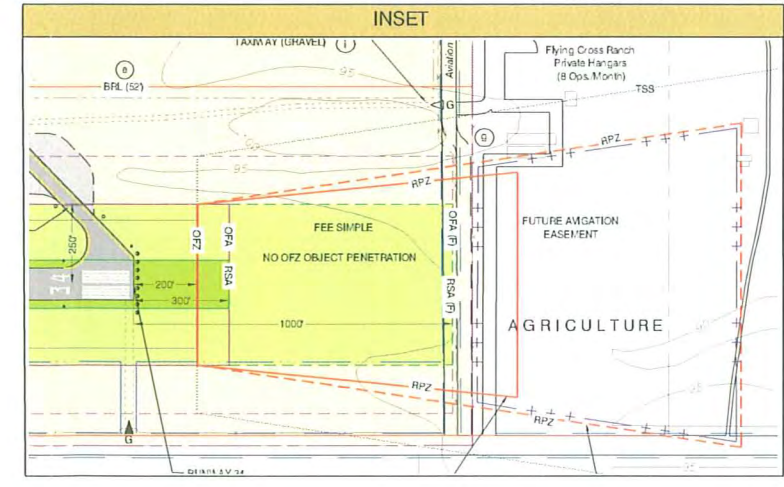
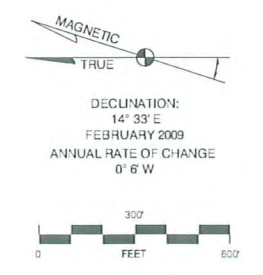
Symbol	Description	ELEVATION (ft)
1	Water Pump	N/A
2	Water Tank	111.1'
3	Restrooms	N/A
4	Caretaker Facilities	N/A
5	Electrical Building	N/A
6	Rotating Beacon	124.9'
7	EAA Hangar	106.0'
8	Hangars	111.9'
9	AWOS	124.3'
10	Davis Flight Support FBO	131.9'
11	Private Hangar	107.6'
12	T-Hangars (12)	107.5'
13	Yolo Aviation Private Hangar	117.7'
14	Hangars	108.9'
15	Hangars	103.4'
16	Box Hangar (83' x 123')	123.0'
17	Box Hangar (83' x 123')	122.9'
18	Box Hangar (83' x 123')	123.1'
19	Hangars	131.4'
20	Hangars	110.3'
21	Fuel Tanks	103.1'
22	Pre Star Hangars / Offices	111.0'
23	Balloon Launch Area	N/A
24	Club House	N/A
25	Trap & Skeeet Range	N/A
26	Crop Duster Loading Area / Concrete Pad	N/A
27	Fire Station Caretaker Quarters (to be relocated)	105.0' (est.)
28	Lighted 38 Ft. Siren Tower (to be relocated)	135.8'
29	Well and Pump	N/A
30	Fire Station (to be relocated)	113.8'
31	Lillard Hall (to be relocated)	112.9'
32	Wind Cone / Segmented Circle	117.0' (est.)
33	Davis Fuel Farm	105.0'

DRAWING LEGEND

Symbol	EXISTING	FUTURE
Active Airfield Pavement	[Symbol]	[Symbol]
Other Pavement in Use	[Symbol]	[Symbol]
DirT or Gravel Road	[Symbol]	[Symbol]
Airport Property	[Symbol]	[Symbol]
Other Property Lines	[Symbol]	[Symbol]
Aviation Easement	[Symbol]	[Symbol]
Internal Boundary (lease, R.O.W., etc.)	[Symbol]	[Symbol]
Runway Safety Area	[Symbol]	[Symbol]
Building Restriction Line	[Symbol]	[Symbol]
Runway Protection Zone	[Symbol]	[Symbol]
Object Free Area (Runway)	[Symbol]	[Symbol]
Obstacle Free Zone	[Symbol]	[Symbol]
Object Free Area (Taxiway)	[Symbol]	[Symbol]
Aircraft Parking Limit	[Symbol]	[Symbol]
Threshold Siting Surface	[Symbol]	[Symbol]
Building on Airport	[Symbol]	[Symbol]
Building off Airport	[Symbol]	[Symbol]
Building to be Removed	[Symbol]	[Symbol]
Fence	[Symbol]	[Symbol]
Vehicle Gate	[Symbol]	[Symbol]
Wind Cone	[Symbol]	[Symbol]
Segmented Circle	[Symbol]	[Symbol]
Visual Aids (PAPI)	[Symbol]	[Symbol]
Airfield Lights: Single Group Flashing	[Symbol]	[Symbol]
Rotating Beacon	[Symbol]	[Symbol]
Topographic Contours	[Symbol]	[Symbol]
Vegetation / Trees	[Symbol]	[Symbol]
Utility Pole	[Symbol]	[Symbol]
Monument	[Symbol]	[Symbol]
Airport Reference Point	[Symbol]	[Symbol]
Waterway / Channel / Culvert	[Symbol]	[Symbol]
Underground Storm Drain / Catch Basin	[Symbol]	[Symbol]
Wetland	[Symbol]	[Symbol]
Detention Water Quality Pond	[Symbol]	[Symbol]
Section Corner	[Symbol]	[Symbol]

ALP NOTES

- (a) Elevation Source: Mead & Hunt, Inc. survey; June, 2008. All data in NAVD83. All vertical data is in feet above mean sea level (MSL).
- (b) Coordinate Source: Airport 5010, November 20, 2008. All data is in NAD83.
- (c) Climate data provided by the Western Regional Climate Center, www.wrcc.or.edu.
- (d) Airport Property Boundary Source: Yolo County, 2008.
- (e) Vertical clearance of 52' is provided at the Building Restriction Line (BRL) east of Taxiway A, BRL west of Runway B located at County Road 95 to restrict development of any potential Part 77 transitional surface obstructions and structures in the ultimate OFA. Existing buildings west of Runway to be relocated.
- (f) Proposed Taxiway C is for long term planning purposes only. This proposed project shall not be undertaken without prior NEPA environmental processing and written FAA approval. Prerequisite will include FAA forecast approval, FAA approval of the critical aircraft required for change to ARC C-II, and FAA approval of the applied airfield design standards. Future parallel Taxiway C will likely be constructed in two phases: Phase 1 will include the portion south of Taxiway B, and Phase 2 will include the portion north of Taxiway B.
- (g) Aviation Avenue to be realigned to meet future RSA and OFA standards.
- (h) Culvert may have to be extended to conform to future RSA and OFA standards.
- (i) An "Off Airport Runway Access" agreement was approved by Yolo County in February 1993 (#33-23) permitting thru-the-fence access to Flying Cross Ranch. The users are active in airfield operations and the County Board of Supervisors continues to approve this use.
- (j) Future detention ponds will be created to alleviate persistent flooding on the airfield. The Yolo County Airport Drainage Plan Update (December 2005) provides further documentation on the justification for multiple Detention Ponds located on Dedicated Airport Property.



SUBMITTED BY:
County of Yolo, California

By _____ Date _____

FAA Approval Stamp

1	Woodland Aviation Lease Area	April 2001
2	Yolo aircraft storage, Aviation	May 2004
3	Ultimate ARC change from B-II to C-II: Future parallel taxiway	Mead & Hunt January 2009

NO.	REVISION	SPONSOR	DATE
YOLO COUNTY AIRPORT DAVIS/WOODLAND/WINTERS, CALIFORNIA AIRPORT LAYOUT PLAN			
		133 Aviation Boulevard, Suite 103 Santa Rosa, California 95403 (707) 526-5010 Fax (707) 526-9121 www.meachunt.com	
DESIGN:	TT/MB	DRAWN:	TE/H/MB
DATE:	August 2009	SHEET:	1 OF 4

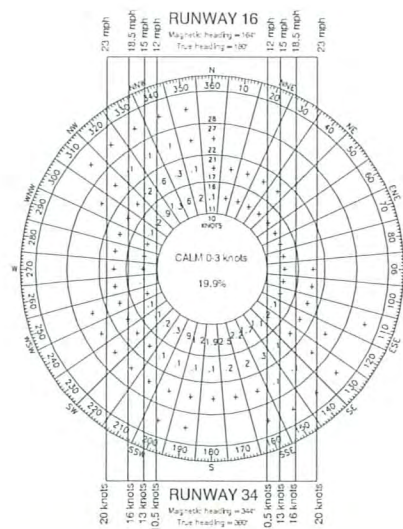
The preparation of these documents was financed in part through a planning grant from the Federal Aviation Administration provided under Section 501 of the Airport and Airway Development Act of 1992. In any event, the contents do not necessarily reflect the official views or policies of the FAA. Acceptance of these documents by the FAA does not in any way constitute a commitment on the part of the United States to participate in any development project herein nor does it indicate that the proposed development is necessarily consistent with the FAA's policies.

RUNWAY DATA		RUNWAY 16-34	
		EXISTING	FUTURE
AIRPORT REFERENCE CODE		B-II	C-II
CRITICAL AIRCRAFT		Super King Air B200	Gulfstream III
WINGSPAN		54.5'	77.8'
UNDERCARRIAGE WIDTH		17.2'	13.7'
APPROACH SPEED		103 knots	136 knots
MAX. TAKEOFF WEIGHT		12,500 Lbs.	68,700 Lbs.
EFFECTIVE GRADIENT (%)		0.12	No Change
MAXIMUM GRADIENT (%)		0.30	No Change
PAVEMENT DESIGN STRENGTH (1,000#) - S/D/D/T		30/36/-	75/85/-
APPROACH VISIBILITY (Minimums)		16 1-Mile	16 No Change
		34 1-Mile	34 No Change
RUNWAY SAFETY AREA (Length Beyond Runway End)		16 300'	16 1,000'
		34 300'	34 1,000'
RUNWAY SAFETY AREA WIDTH		150'	500'
OBJECT FREE AREA (Length Beyond Runway End)		16 300'	16 1,000'
		34 300'	34 1,000'
OBJECT FREE AREA WIDTH		500'	800'
OBSTACLE FREE ZONE (Length Beyond Runway End)		16 200'	16 No Change
		34 200'	34 No Change
OBSTACLE FREE ZONE WIDTH		400'	No Change
DISTANCE FROM RWY. ϕ TO HOLD BARS		16 250'	16 No Change
		34 250'	34 No Change
RUNWAY MARKING		16 Nonprecision	16 No Change
		34 Nonprecision	34 No Change
APPROACH TYPE (FAA Part 77 Category)		16 Nonprecision [C]	16 No Change
		34 Nonprecision [C]	34 No Change
DISTANCE FROM RWY. ϕ TO PARALLEL TWY. ϕ		550'	300'
DISTANCE FROM TWY. ϕ TO FIXED or MOVABLE OBJECT		66'	No Change
TAXIWAY OBJECT FREE AREA WIDTH		131'	No Change
TAXIWAY SAFETY AREA WIDTH		79'	No Change
TAXIWAY WINGTIP CLEARANCE		26'	No Change
RUNWAY END ELEVATIONS a		16 98.5'	16 No Change
		34 100.2'	34 No Change
RUNWAY TOUCHDOWN ZONE ELEVATIONS (TDZ) a		16 99.3'	16 No Change
		34 100.2'	34 No Change
RUNWAY HIGH POINT a		98.5'	No Change
RUNWAY LOW POINT a		100.2'	No Change
VERTICAL LINE OF SIGHT PROVIDED		Yes	No Change
RUNWAY LENGTH		6,000'	No Change
RUNWAY WIDTH		100'	No Change
RUNWAY SURFACE TYPE		Asphalt	No Change
TAXIWAY SURFACE TYPE		Asphalt	No Change
APPROACH SLOPE (Required/Clear)		16 34:1/-	16 No Change
		34 34:1/>34:1	34 No Change
RUNWAY EDGE LIGHTING		MIRL	No Change
NAVIGATION AIDS		16 GPS	16 No Change
		34 GPS/VOR	34 No Change
VISUAL AIDS		16 2 Light PAPI	16 No Change
		34 2 Light PAPI	34 No Change

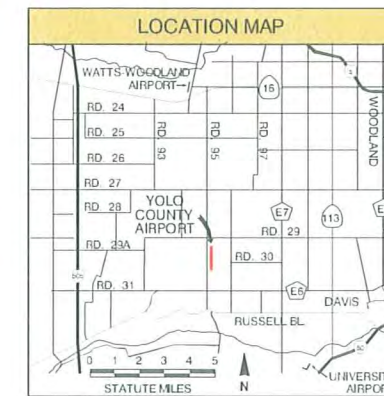
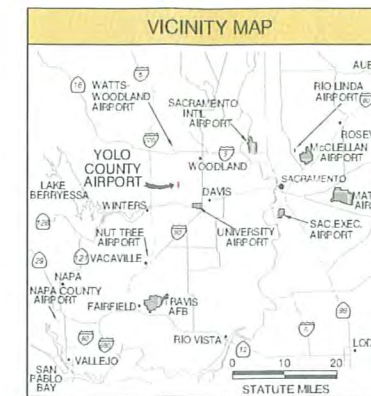
AIRPORT DATA		EXISTING	FUTURE
AIRPORT REFERENCE CODE		B-II	C-II
CRITICAL AIRCRAFT		Super King Air B200	Gulfstream III
AIRPORT REFERENCE POINT d	Latitude	38° 34' 44.00" N	No Change
	Longitude	121° 51' 24.00" W	No Change
AIRPORT ELEVATION (Above Mean Sea Level) a		100.2'	No Change
MEAN MAX. TEMP. (Hottest Month) c		96.4° F (July)	No Change
AIRPORT AND TERMINAL NAVIGATIONAL AIDS		Beacon/GPS/VOR	No Change
GPS APPROACH ESTABLISHED		Yes	No Change
AIRPORT ACREAGE d	Fee Simple	434.64	510.93
	Aviation Easement	0	15.92
	Tieowns	10	24
	Hangar Units	68	131
	Helicopter	0	1
AIRCRAFT PARKING SPACES			

MONUMENTS e				
ID #	LATITUDE	LONGITUDE	ELEVATION	DESCRIPTION
DE9129	38° 34' 20.350" N	121° 51' 18.373" W	97.1'	Brass Disk - located near 45' bend at south end of Taxiway A

RUNWAY END COORDINATES NAD83 e				
	EXISTING		FUTURE	
16	LAT. 38° 35' 14.05" N	16	No Change	
	LONG. 121° 51' 23.80" W		No Change	
34	LAT. 38° 34' 14.75" N	34	No Change	
	LONG. 121° 51' 24.20" W		No Change	



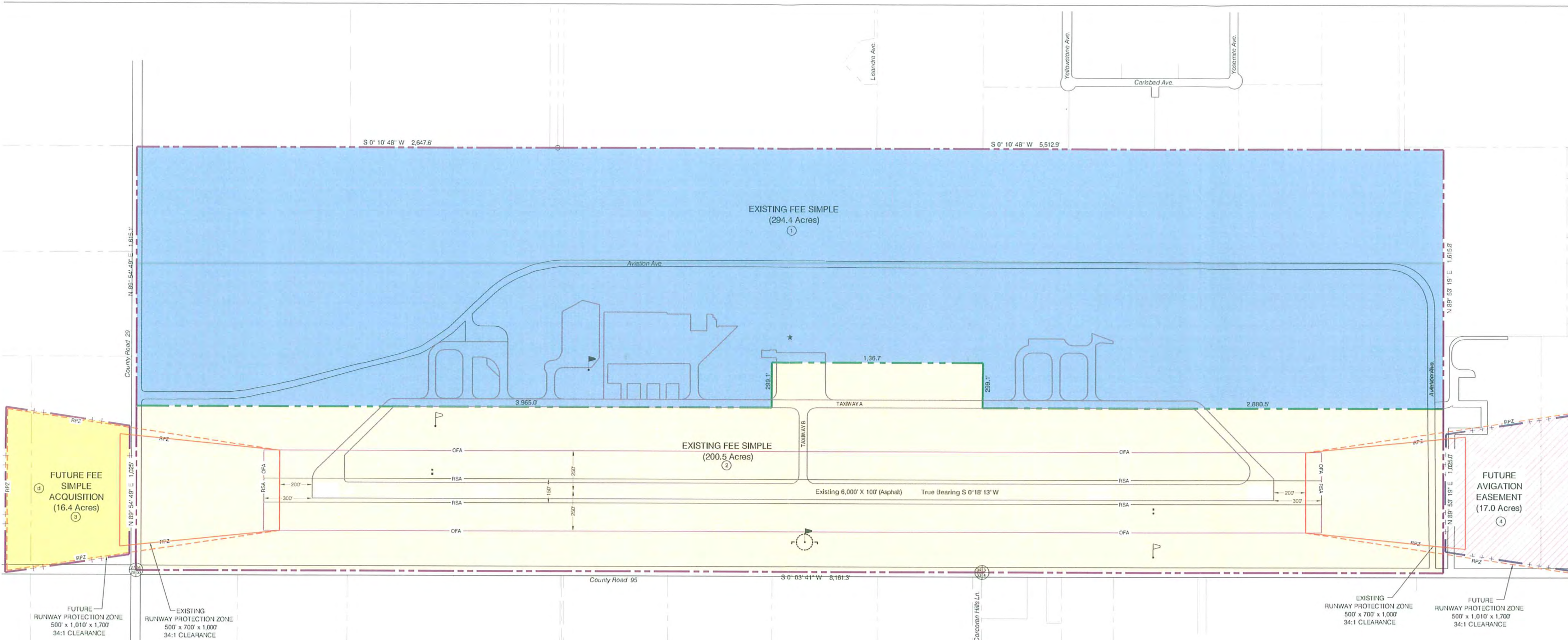
WIND COVERAGE (All Weather)				
RUNWAY	10.5 KNOTS (12 M.P.H.)	13 KNOTS (15 M.P.H.)	16 KNOTS (18.5 M.P.H.)	20 KNOTS (23 M.P.H.)
16-34	97.96%	99.28%	99.82%	99.97%
Wind Data Source: Sacramento International Airport				
Period of Time: Jan. 1998 - Dec. 2007				
Number of Observations: 79,825				
Note: Windrose compass headings are true north.				



ALP NOTES	
a	Elevation Source: Mead & Hunt, Inc. survey; June, 2008. All data in NAVD83. All vertical data is in feet above mean sea level (MSL).
b	Coordinate Source: Airport 5010, November 20, 2008. All data is in NAVD83.
c	Climate data provided by the Western Regional Climate Center, www.wrcc.dri.edu.
d	Airport Property Boundary Source: Yolo County, 2008.
e	Vertical clearance of 52' is provided at the Building Restriction Line (BRL) east of Taxiway A. BRL west of Runway is located at County Road 35 to restrict development of any potential Part 77 transitional surface obstructions and structures in the ultimate OFA. Existing buildings west of Runway to be relocated.
f	Proposed Taxiway C is for long term planning purposes only. This proposed project shall not be undertaken without prior NEPA environmental processing and written FAA approval. Prerequisite will include FAA Forecast approval, FAA approval of the critical aircraft required for change to ARC C-II, and FAA approval of the applied airfield design standards. Future parallel Taxiway C will likely be constructed in two phases: Phase 1 will include the portion south of Taxiway B, and Phase 2 will include the portion north of Taxiway B.
g	Aviation Avenue to be realigned to meet future RSA and OFA standards.
h	Culvert may have to be extended to conform to future RSA and OFA standards.
i	An "Off Airport Runway Access" agreement was approved by Yolo County in February 1993 (#93-29) permitting thru-fence access to Flying Cross Ranch. The users are active in airfield operations and the County Board of Supervisors continues to approve this use.
j	Future detention ponds will be created to alleviate persistent flooding on the airfield. The Yolo County Airport Drainage Plan Update (December 2005) provides further documentation on the justification for multiple Detention Ponds located on Dedicated Airport Property.

TAXIWAY DATA																							
TAXIWAY	DESIGN GROUP		WIDTH		SURFACE TYPE		STRENGTH (1,000#) S/D/D/T		SHOULDERS		LIGHTING		RWY CL. TO TWY CL.		TAXIWAY SAFETY AREA WIDTH		TAXIWAY OBJECT FREE AREA WIDTH		TWY. CL. TO FIXED or MOVEABLE OBJECT		TAXIWAY WINGTIP CLEARANCE		NOTES
	EXISTING	FUTURE	EXISTING	FUTURE	EXISTING	FUTURE	EXISTING	FUTURE	EXISTING	FUTURE	EXISTING	FUTURE	EXISTING	FUTURE	EXISTING	FUTURE	EXISTING	FUTURE	EXISTING	FUTURE	EXISTING	FUTURE	
A	B-II	C-II	35'	No Change	Asphalt	No Change	30/36/-	75/85/-	Asphalt	No Change	N/A	MITL	550'	No Change	79'	No Change	132'	No Change	66'	No Change	26'	No Change	
B	B-II	C-II	35'	No Change	Asphalt	No Change	30/36/-	75/85/-	Asphalt	No Change	N/A	MITL	N/A	No Change	79'	No Change	132'	No Change	66'	No Change	26'	No Change	
C	N/A	C-II	N/A	35'	N/A	Asphalt	N/A	75/85/-	N/A	Asphalt	N/A	MITL	N/A	300'	N/A	79'	N/A	132'	N/A	66'	N/A	26'	
D	N/A	C-II	N/A	35'	N/A	Asphalt	N/A	75/85/-	N/A	Asphalt	N/A	MITL	N/A	No Change	N/A	79'	N/A	132'	N/A	66'	N/A	26'	
E	N/A	C-II	N/A	35'	N/A	Asphalt	N/A	75/85/-	N/A	Asphalt	N/A	MITL	N/A	No Change	N/A	79'	N/A	132'	N/A	66'	N/A	26'	

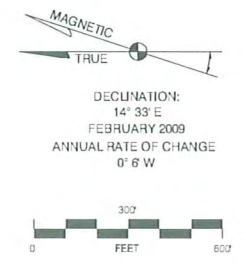
NO.	REVISION	SPONSOR	DATE
YOLO COUNTY AIRPORT DAVIS/WOODLAND/WINTERS, CALIFORNIA DATA SHEET			
		133 Aviation Boulevard, Suite 100 Santa Rosa, California 95403 (707) 526-5010 Fax (707) 526-9121 www.mechunt.com	
DESIGN:	TT/BM	DRAWN:	TE/HH/BM
DATE:	August 2009	SHEET:	2 OF 4



AIRPORT PROPERTY DATA						
PARCEL NUMBER	ACRES (c)	DATE ACQUIRED	SOURCE OF FUNDS	FAA GRANT NO.	FAA RELEASE DATE (d)	PROPERTY INTEREST
1	294.4	7-9-48	(e)	(e)	N/A	FEE SIMPLE
2	200.5	UNKNOWN	UNKNOWN	UNKNOWN	N/A	FEE SIMPLE
3	16.4	N/A	N/A	N/A	N/A	FEE SIMPLE (TO BE ACQUIRED)
4	17.0	N/A	N/A	N/A	N/A	AVIGATION EASEMENT (TO BE ACQUIRED)

LEGEND		
	EXISTING	PROPOSED
AIRPORT PROPERTY (a, d)	--- --	--- --
PARCEL BOUNDARY	--- --	N/A
AVIGATION EASEMENT	N/A	--- --
OTHER PROPERTY LINES	---	---
RUNWAY SAFETY AREA	--- RSA ---	N/A
OBJECT FREE AREA	--- OFA ---	N/A
RUNWAY PROTECTION ZONE	--- RPZ ---	--- RPZ ---
ACTIVE AIRFIELD PAVEMENT	---	N/A
PRECISION APPROACH PATH INDICATOR (2-LIGHT PAPI)	■ ■	N/A
BEACON	★	N/A
WINDCONE	⊙	N/A
SEGMENTED CIRCLE	⊙	N/A
SECTION CORNER	⊕	N/A

- PROPERTY MAP NOTES**
- (a) Airport property boundary source: County of Yolo 2008. Airport boundary is not surveyed and therefore should not be considered a precise legal description. Best available data used including quitclaim deed for Parcel 1 and Yolo County assessor's maps.
 - (b) No property has been released from the airport.
 - (c) Total existing airport property is 494.9 acres. Total from individual parcels may not equal this due to rounding.
 - (d) Total future airport property shown equals 511.3 acres. Total future aviation easements equal 17.0 acres.
 - (e) Parcel acquired through the Surplus Property Act of 1944. Quitclaim Deed; County of Yolo, Book 285, Page 35



SUBMITTED BY: County of Yolo		NO.	REVISION	SPONSOR	DATE
By _____ Date _____					
YOLO COUNTY AIRPORT DAVIS/WOODLAND/WINTERS, CALIFORNIA EXHIBIT "A" - PROPERTY MAP					
		133 Aviation Boulevard, Suite 100 Santa Rosa, California 95433 (707) 526-5010 Fax (707) 526-9721 www.mechunt.com			
		DESIGN: TT/BM	DRAWN: BM/HH		

