

CHAPTER E.

Airport Plans

INTRODUCTION. The plan for the future development of Olympia Regional Airport has evolved from an analysis of many considerations. Among these are: aviation demand forecasts; facility requirements; aircraft operational characteristics; environmental considerations; and, the general direction of future airport development, as expressed by the Port of Olympia. The various landside and airside development options that were presented in the previous chapter provided a variety of options for future facility expansion. Following a careful assessment of the potential impacts of each development option, the Airport Sponsor selected components of a recommended Conceptual Development Plan, which was presented at the conclusion of the previous chapter.

Because previous chapters have established and quantified the future development needs of the Airport, the various elements of the selected plan are categorically reviewed here in an outline and graphic format. A brief written description of the individual elements, represented in the set of *Airport Plans* for Olympia Regional Airport, is accompanied by a graphic description presented in the form of the *Airport Layout Plan*, *Airspace Plans*, *Approach Profiles and Inner Approach Surface Drawing*, *Terminal Area Development Plans*, *Land Use Plan*, and the *Property Map*.

It is recognized that future demand for facilities cannot be totally predicted at the Airport, particularly during the latter stages of the 20-year planning period. Therefore, particular emphasis is placed on the initial portion of the planning period, the first five years. Here, the projections are more definable and the magnitude of program accomplishment is more pronounced. Furthermore, carefully guided development within the initial years of the planning period is essential to the future expansion of this facility and the continued enhancement of aviation development.

MASTER PLAN UPDATE



**Port of Olympia/
Olympia Regional Airport**

E.1

Airport Layout Plan

The Airport Layout Plan (ALP), which illustrates both airside and landside facilities, is a graphic depiction of the existing and ultimate airport facilities that will be required for the Airport to properly accommodate the forecast future demand. Additionally, the ALP provides detailed information on both airport and runway design criteria, which is necessary to define relationships with applicable standards. The following illustration, entitled *AIRPORT LAYOUT PLAN*, and the following paragraphs describe the major components of the future Airport Development Plan.

Runway System

The development recommendations for the runway system are presented in the following narrative.

Runway 17/35.

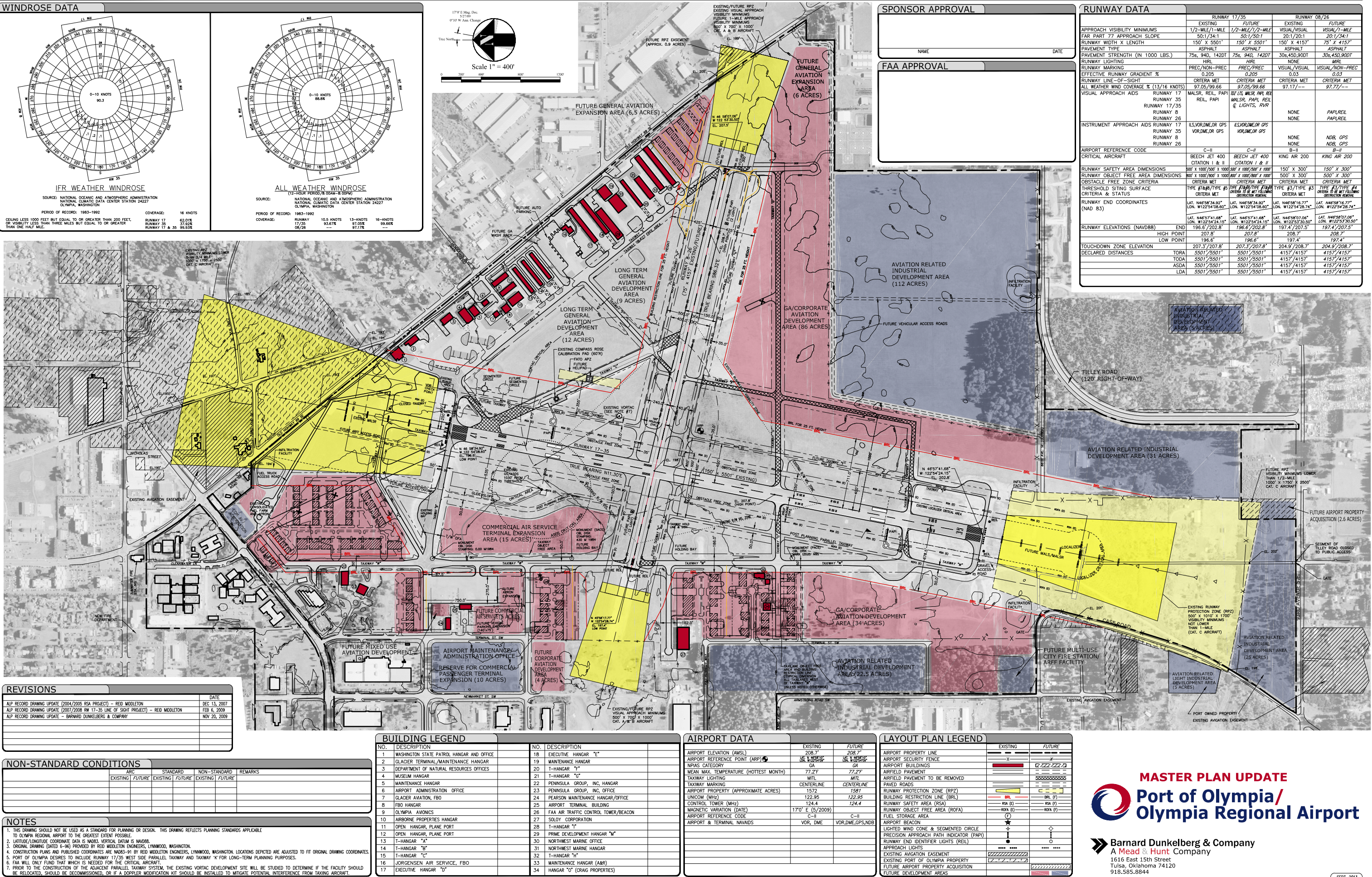
Airport Reference Code (ARC) Dimensional Criteria. As described in previous chapters, this runway is currently designed to Airport Reference Code (ARC) C-II design criteria. The ALP will continue to illustrate and the Airport will maintain standards in accordance with this ARC criteria.

Dimensions. The existing dimensions of this runway will be maintained at 150 feet in width and 5,501 feet in length. No changes to the width or length of this runway are proposed.

Pavement Strength. The runway's existing published gross weight bearing capacity (i.e., 75,000 pounds single wheel, 94,000 pounds dual wheel, and 142,000 pounds dual-tandem wheel main landing gear configuration) will be maintained.

Instrument Approach Procedures (IAPs). As presented in the previous chapters, it is recommended that the Runway 17 Instrument Approach Procedure (IAP) be upgraded to 1,800 feet Runway Visual Range (RVR) approach visibility minimums. The Airport will continue to plan and protect for a GPS (LPV) IAP providing ½-statute mile visibility minimums to Runway 35.





Runway Protection Zone (RPZ). When the Runway 35 GPS (LPV) IAP is designed and published, the size of the Runway Protection Zone (RPZ) associated with this runway end will increase to 1,000 feet x 1,750 feet x 2,500 feet. The existing Runway 17 RPZ will be maintained at 1,000 feet x 1,750 feet x 2,500 feet.

Lighting and Navigation Aids. It is proposed that this runway's existing High Intensity Runway Lights (HIRL), Precision Approach Path Indicator (PAPI) lights, and the Runway 17 Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights (MALSR) be maintained. Touchdown Zone (TDZ) lights and Runway Centerline Lights (RCL) are required when the Runway 17 IAP upgrade to 1,800 feet RVR approach minimums is implemented. A single RVR TDZ sensor will also be required. When the Runway 35 GPS (LPV) IAP is designed and published, MALSR will be required to support the approach minimums.

Runway 08/26.

ARC Dimensional Criteria. Runway 08/26 will be maintained to ARC B-II dimensional criteria.

Dimensions. The existing runway width of 150 feet exceeds the ARC B-II dimensional criteria of 75 feet. Therefore, in accordance with ARC B-II dimensional criteria, the Runway 08/26 width will be decreased to 75 feet.

Pavement Strength. The existing Runway 08/26 published gross weight bearing capacity (i.e., 30,000 pounds single wheel, 45,000 pounds dual wheel, and 90,000 pounds dual-tandem wheel main landing gear configuration) will be maintained.

Instrument Approach Procedures (IAPs). As recommended in the previous chapters, an IAP with visibility minimums of 1-statute mile should be designed and published for Runway 26.

Runway Protection Zone (RPZ). The existing RPZs for this runway are adequate in size for the recommended ARC and IAPs. No changes are recommended.

Lighting and Navigation Aids. Because the IAP with approach visibility minimums of 1-statute mile is proposed for Runway 26, it is recommended that Medium Intensity

Runway Lights (MIRL) be installed to support night minimums. Additionally, PAPI are recommended for installation to Runway 26.

Taxiway System

The development recommendations for the airport's taxiway system are presented in the following narrative.

Runway 17/35 Taxiway System.

Dimensions. The Airport Layout Drawing will continue to reflect the provision of an ultimate dual parallel taxiway system to both the east and west of the runway. Taxiway “W” will continue to be maintained to ARC C-III dimensional standards to preserve future opportunities for serving larger commercial service passenger aircraft and to accommodate occasional large business jets.

Configuration. As presented in the previous chapters, Taxiways “G” and “L” are programmed for realignment to intersect the runway at 90° angles. The provision of an east side parallel taxiway will alleviate the non-standard taxiway intersections of Taxiways “C” and “D”.

Pavement Strength. The existing gross weight bearing capacity of Taxiways “F”, “C”, and “W” will be evaluated and confirmed in conjunction with the specified design/engineering of the various taxiway development projects.

Taxiway Lighting. The provision of Medium Intensity Taxiway Lights (MITL) on Taxiway “E”, “F”, and “L” is recommended. All future taxiways constructed at the Airport should include MITL and signage, as appropriate.

Runway 08/26 Taxiway System.

Dimensions. The Airport Layout Drawing will continue to reflect the provision of an ultimate dual parallel taxiway system to both the north and south ends of Runway 08/26, implemented to ARC B-II dimensional standards.

Configuration. As presented in the previous chapters, Taxiways “C”, “E”, “F”, “G” and “W” are programmed for realignment to intersect the runway at 90° angles.

Pavement Strength. The proposed taxiway improvements should be designed, engineered, and constructed commensurate with the design pavement strength determined at the next pavement reconstruction interval based on the future design aircraft.

Taxiway Lighting. All future taxiways constructed at the Airport should include MITL and signage, as appropriate.

Property/Easement Acquisition

The Airport presently owns the majority of the property associated with the existing RPZs at each runway end. However, it is proposed that the Port of Olympia acquire one parcel of property (approximately 2.6 acres) located at the southeast corner of the future Runway 35 RPZ. Additionally, the acquisition of easements within the Runways 35 and 26 approach areas will be required to remove obstructions before implementing the IAP upgrades proposed for the runways.

Airspace Drawing

In order to protect the airport's airspace and approaches from hazards that could affect the safe and efficient operation of aircraft, federal criteria contained in the Federal Aviation Regulations (FAR) Part 77, *Objects Affecting Navigable Airspace*, have been established to provide guidance in controlling the height of objects near airports. The Airspace Drawing for Olympia Regional Airport is based upon Part 77 criteria and specifies a set of imaginary surfaces that, when penetrated, designates an object as being an obstruction. However, some obstructions can be determined to be non-hazardous by an aeronautical study by virtue of their location and/or marked and lighted as specified in the aeronautical study determination. Airfield navigational aids, as well as lighting and visual aids, by nature of their function and location, may constitute obstructions, but these objects do not violate Part 77 criteria, since they are essential to the operation of the Airport.

The *AIRPORT AIRSPACE DRAWINGS*, illustrated in the following figures, provide plan and profile views depicting the FAR Part 77 criteria as they specifically relate to Olympia Regional Airport. The criteria are based on the ultimate planned runway lengths, the ultimate planned IAP to each runway end, and the ultimate planned airport elevation. Therefore, Runway 17/35 criteria are based on the larger-than-utility aircraft category (i.e., runways designated for aircraft weighing in



PLAN VIEW NORTH
1" = 2000'

PART 77 OBSTRUCTIONS					
No.	ITEM	ELEV.	AMOUNT OF PENETRATION	AFFECTED SURFACE	DISPOSITION
1	TREE	393'	34'	HORIZONTAL	TO REMAIN
2	TREE	493'	134'	HORIZONTAL	TO REMAIN
3	TREE	508'	149'	HORIZONTAL	TO REMAIN
4	TREE	483'	107'	CONICAL	TO REMAIN
5	TREE	502'	138'	CONICAL	TO REMAIN
6	TREE	527'	109'	CONICAL	TO REMAIN
7	TREE	534'	79'	CONICAL	TO REMAIN
8	TREE	547'	103'	CONICAL	TO REMAIN
9	TREE	423'	64'	HORIZONTAL	TO REMAIN
10	TREE	416'	57'	HORIZONTAL	TO REMAIN
11	NOT USED				
12	NOT USED				
13	NOT USED				
14	NOT USED				
15	GROUND	209'	2'	PRIMARY	VERIFY AND REMOVE
16	TREE	264'	12'	INNER TRANSITIONAL	VERIFY AND REMOVE
17	OL ON VORTAC	236'	37'	PRIMARY	TO REMAIN
18	OL ON LIGHTED WINDSOCK	224'	17'	PRIMARY	TO REMAIN

PART 77 OBSTRUCTIONS					
No.	ITEM	ELEV.	AMOUNT OF PENETRATION	AFFECTED SURFACE	DISPOSITION
19	ANTENNA ON OL TOWER	505'	1'	CONICAL	TO REMAIN
20	OL ON GLIDESLOPE	228'	31'	PRIMARY	TO REMAIN
21	ANTENNA ON OL AIR TRAFFIC CONTROL TOWER	287'	3'	INNER TRANSITIONAL	TO REMAIN
22	OL AIRPORT BEACON ON WATER TANK	362'	3'	HORIZONTAL	TO REMAIN
23	NOT USED				
24	NOT USED				
25	NOT USED				
26	NOT USED				
27	NOT USED				
28	TREE	312'	NONE	R/W OB APPROACH	TO REMAIN
29	NOT USED				
30	TREE	270'	21'	R/W 26 APPROACH	VERIFY AND REMOVE
31	TREE	264'	2'	R/W 26 APPROACH	VERIFY AND REMOVE
32	TREE	278'	10'	R/W 26 APPROACH	VERIFY AND REMOVE
33	TREE	323'	36'	R/W 26 APPROACH	VERIFY AND REMOVE
34	TREE	314'	20'	R/W 26 APPROACH	VERIFY AND REMOVE
35	TREE	304'	3'	R/W 26 APPROACH	VERIFY AND REMOVE
36	HANGAR	229'	24'	INNER TRANSITIONAL	TO BE LIGHTED

PART 77 OBSTRUCTIONS					
No.	ITEM	ELEV.	AMOUNT OF PENETRATION	AFFECTED SURFACE	DISPOSITION
37	NOT USED				
38	TREES	251.9'	5'±	R/W 35 APPROACH	VERIFY AND REMOVE
39	TREES	256.4'	7'±	R/W 35 APPROACH	VERIFY AND REMOVE
350	WINDCONE	212'	10.5'	PRIMARY	TO REMAIN
CONTINUATION OF TABLE ON SHEET 6 OF 11					

REVISIONS

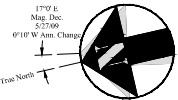
ALP RECORD DRAWING UPDATE - BARNARD DUNKELBERG & COMPANY	DATE
	NOV 20, 2009

LAYOUT PLAN LEGEND

AIRPORT PROPERTY LINE	---
PART 77 PRIMARY SURFACE	---
PART 77 APPROACH SURFACE	---
PART 77 HORIZONTAL SURFACE	---
PART 77 CONICAL SURFACE	---
PART 77 TRANSITIONAL SURFACE	---
TERRAIN OR TREE OBSTRUCTION	---

NOTES:

1. IMAGINARY SURFACES TAKEN FROM FAR PART 77 "OBJECTS AFFECTING NAVIGABLE AIRSPACE".
2. TOPOGRAPHICAL MAPS SHOWN ARE USGS QUADRANGLE MAPS "EAST OLYMPIA," "BUCCODA," "LACEY," "LITTLE ROCK," "MAYTOWN," "ROCHESTER," "SUMMIT LAKE," "TUMWATER," AND "VIOLET PRAIRIE" IN WASHINGTON STATE.
3. OBSTRUCTION SURVEY BY REID MIDDLETON, EVERETT, WA 03/09/2009.
4. REFER TO INNER APPROACH DRAWINGS FOR CLOSE IN OBSTRUCTIONS.
5. ELEVATIONS ARE NAVD88.



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 **Port of Olympia/
Olympia Regional Airport**

 **Barnard Dunkelberg & Company**
A Mead & Hunt Company

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Tulsa, Oklahoma 74120
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Figure E2 Airport Airspace North Approach Plan

$1^{\text{er}} = 2000$








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19	ANTENNA ON OL TOWER	505'	1'	CONICAL	TO REMAIN
20	OL ON GLIDESLOPE	228'	31'	PRIMARY	TO REMAIN
21	ANTENNA ON OL AIR TRAFFIC CONTROL TOWER	287'	3'	INNER TRANSITIONAL	TO REMAIN
22	OL AIRPORT BEACON ON WATER TANK	362'	3'	HORIZONTAL	TO REMAIN
23	NOT USED				
24	NOT USED				
25	NOT USED				
26	NOT USED				
27	NOT USED				
28	TREE	312'	NONE	R/W DB APPROACH	TO REMAIN
29	NOT USED				
30	TREE	270'	21'	R/W 26 APPROACH	VERIFY AND REMOVE
31	TREE	264'	2'	R/W 26 APPROACH	VERIFY AND REMOVE
32	TREE	278'	10'	R/W 26 APPROACH	VERIFY AND REMOVE
33	TREE	323'	36'	R/W 26 APPROACH	VERIFY AND REMOVE
34	TREE	314'	20'	R/W 26 APPROACH	VERIFY AND REMOVE
35	TREE	304'	3'	R/W 26 APPROACH	VERIFY AND REMOVE
36	HANGAR	229'	24'	INNER TRANSITIONAL	TO BE LIGHTED

REVISIONS		DATE
ALP RECORD DRAWING UPDATE - BARNARD DUNKELBERG & COMPANY		NOV 26, 2009

LAYOUT PLAN LEGEND	
AIRPORT PROPERTY LINE	
PART 77 PRIMARY SURFACE	
PART 77 APPROACH SURFACE	
PART 77 HORIZONTAL SURFACE	
PART 77 CONICAL SURFACE	
PART 77 TRANSITIONAL SURFACE	
TERRAIN OR TREE OBSTRUCTION	

NOTES:

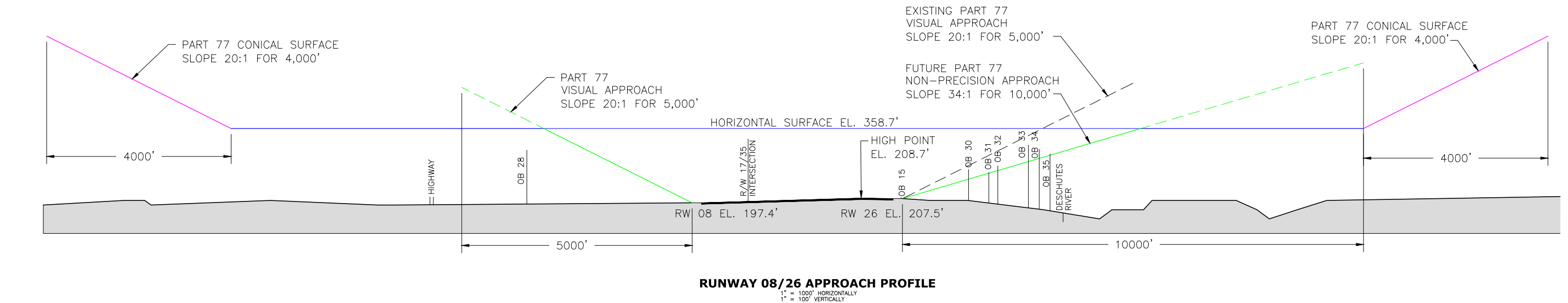
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2. TOPOGRAPHICAL MAPS SHOWN ARE USGS QUADRANGLE MAPS
"CAST OLYMPIA," "BUGODA," "LACEY," "LITTLE ROCK," "MAYTOWN,"
"ROCHESTER," "SUMMIT LAKE," "TUMWATER," AND "VIOLET PRAIRIE"
IN WASHINGTON STATE.
3. OBSTRUCTION SURVEY BY REID MIDDLETON, EVERETT, WA 03/09/2009.
4. FROM TO INNER APPROACH DRAWINGS FOR CLOSE IN OBSTRUCTIONS.
5. ELEVATIONS ARE NAVD88.














LAYOUT PLAN LEGEND	
AIRPORT PROPERTY LINE	
PART 77 PRIMARY SURFACE	
PART 77 APPROACH SURFACE	
PART 77 HORIZONTAL SURFACE	
PART 77 CONICAL SURFACE	
PART 77 TRANSITIONAL SURFACE	
TERRAIN OR TREE OBSTRUCTION	

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 2. TOPOGRAPHICAL MAPS SHOWN ARE USGS QUADRANGLE MAPS "EAST OLYMPIA," "BUCCODA," "LACEY," "LITTLEROCK," "MAYTOWN," "ROCHESTER," "SUMIT LAKE," "TUMWATER," AND "VIOLET PRAIRIE" IN WASHINGTON STATE.
 3. OBSTRUCTION SURVEY BY REID MIDDLETON, EVERETT, WA 03/09/2009.
 4. REFER TO INNER APPROACH DRAWINGS FOR CLOSE IN OBSTRUCTIONS.
 5. ELEVATIONS ARE NAVD83.



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REVISONS		DATE
ALP RECORD DRAWING UPDATE - BARNARD DUNKELBERG & COMPANY		NOV 20, 2009
LAYOUT PLAN LEGEND		
AIRPORT PROPERTY LINE		     
PART 77 PRIMARY SURFACE		
PART 77 APPROACH SURFACE		
PART 77 HORIZONTAL SURFACE		
PART 77 CONICAL SURFACE		
PART 77 TRANSITIONAL SURFACE		
NOTES:		
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3. OBSTRUCTION SURVEY BY REID MIDDLETON, EVERETT, WA 03/09/2009		
4. REFER TO INNER APPROACH DRAWINGS FOR CLOSE IN OBSTRUCTIONS.		
5. ELEVATIONS ARE NAVD83.		

PART 77 OBSTRUCTIONS					DISPOSITION
OBJ#	DESC	ELEV	SURFACE	PENETRATION	
39	TREE	350.6'	RW17 APP	6.4'	***
41	TREE	320.6'	RW17 APP	1.4'	***
42	TREE	319.1'	RW17 APP	5.2'	***
43	TREE	311.2'	RW17 APP	6.4'	***
44	TREE	306.5'	RW17 APP	1.4'	***
45	TREE	320.4'	RW17 APP	24.5'	***
46	TREE	306.0'	RW17 APP	13.8'	***
47	TREE	296.0'	RW17 APP	1.9'	***
48	TREE	300.2'	RW17 APP	10.5'	***
49	TREE	292.6'	RW17 APP	1.6'	***
50	TREE	284.5'	RW17 APP	4.6'	***
51	TREE	313.4'	RW17 APP	35.3'	***
52	TREE	278.8'	RW17 APP	2.8'	***
53	TREE	316.7'	RW17 APP	41.9'	***
54	TREE	283.2'	RW17 APP	1.5'	***
55	TREE	300.7'	RW17 APP	26.3'	***
56	TREE	282.1'	RW17 APP	10.3'	***
57	TREE	271.1'	RW17 APP	0.1'	***
58	TREE	303.9'	RW17 APP	31.8'	***
59	TREE	263.3'	RW17 APP	11.7'	***
60	TREE	268.0'	RW17 APP	12.6'	***
61	TREE	266.5'	RW17 APP	10.4'	***
62	TREE	295.9'	INNER TRANS.	19.1'	***
63	TREE	311.6'	INNER TRANS.	8.1'	***
64	TREE	313.9'	INNER TRANS.	17.7'	***
65	TREE	284.8'	INNER TRANS.	10.2'	***
66	TREE	299.4'	INNER TRANS.	1.2'	***
67	TREE	293.6'	INNER TRANS.	16.0'	***
68	TREE	279.8'	INNER TRANS.	3.2'	***
69	TREE	287.5'	INNER TRANS.	23.6'	***
70	TREE	265.4'	INNER TRANS.	16.1'	***
71	TREE	268.5'	INNER TRANS.	14.2'	***
72	TREE	291.7'	INNER TRANS.	21.4'	***
73	TREE	261.9'	INNER TRANS.	11.8'	***
74	TREE	265.3'	INNER TRANS.	18.4'	***
75	TREE	296.6'	INNER TRANS.	28.2'	***
76	TREE	304.4'	INNER TRANS.	23.2'	***
77	TREE	298.0'	INNER TRANS.	16.7'	***
78	TREE	274.8'	INNER TRANS.	2.5'	***
79	TREE	294.2'	INNER TRANS.	36.4'	***
80	TREE	295.9'	INNER TRANS.	40.3'	***
81	TREE	249.3'	RW17 APP	28.7'	***
82	TREE	255.0'	RW17 APP	10.7'	***
83	TREE	243.3'	RW17 APP	2.9'	***
84	TREE	243.9'	RW17 APP	4.5'	***
85	TREE	272.3'	INNER TRANS.	28.0'	***
86	TREE	254.3'	INNER TRANS.	0.8'	***
87	TREE	248.7'	INNER TRANS.	0.0'	***
88	TREE	366.4'	HORIZONTAL	7.7'	***
89	TREE	366.4'	HORIZONTAL	7.7'	***
90	TREE	368.8'	HORIZONTAL	10.1'	***
91	TREE	364.9'	HORIZONTAL	6.2'	***
92	TREE	422.3'	HORIZONTAL	62.7'	***
93	TREE	366.4'	HORIZONTAL	7.7'	***
94	TREE	369.4'	HORIZONTAL	9.8'	***
95	TREE	367.0'	HORIZONTAL	7.3'	***
96	TREE	372.3'	HORIZONTAL	12.6'	***
97	TREE	381.2'	HORIZONTAL	21.6'	***
98	TREE	386.8'	HORIZONTAL	27.1'	***
99	TREE	390.4'	HORIZONTAL	30.8'	***
100	TREE	361.7'	HORIZONTAL	2.1'	***
101	TREE	368.6'	HORIZONTAL	9.0'	***
102	TREE	366.1'	HORIZONTAL	6.4'	***
103	TREE	365.6'	HORIZONTAL	5.9'	***
104	TREE	363.1'	HORIZONTAL	3.4'	***
105	TREE	360.2'	HORIZONTAL	0.5'	***
106	TREE	363.1'	HORIZONTAL	3.5'	***
107	TREE	360.1'	HORIZONTAL	0.4'	***
108	TREE	378.1'	HORIZONTAL	18.4'	***
109	TREE	378.5'	HORIZONTAL	18.9'	***
110	TREE	382.2'	HORIZONTAL	22.5'	***
111	TREE	365.7'	HORIZONTAL	6.0'	***
112	TREE	362.9'	HORIZONTAL	3.2'	***
113	TREE	364.7'	HORIZONTAL	5.0'	***
114	TREE	377.3'	HORIZONTAL	17.7'	***
115	TREE	385.4'	HORIZONTAL	25.8'	***
116	TREE	362.2'	HORIZONTAL	2.6'	***
117	TREE	376.3'	HORIZONTAL	16.6'	***
118	TREE	378.0'	HORIZONTAL	18.3'	***
119	TREE	373.4'	HORIZONTAL	13.8'	***
120	TREE	409.2'	HORIZONTAL	49.5'	***
121	TREE	387.4'	HORIZONTAL	27.8'	***
122	TREE	390.3'	HORIZONTAL	30.7'	***
123	TREE	378.8'	HORIZONTAL	18.8'	***
124	TREE	386.2'	HORIZONTAL	26.6'	***
125	TREE	366.8'	HORIZONTAL	7.1'	***
126	TREE	385.7'	HORIZONTAL	26.1'	***
127	TREE	385.3'	HORIZONTAL	25.6'	***
128	TREE	392.4'	HORIZONTAL	32.8'	***
129	TREE	366.5'	HORIZONTAL	6.9'	***
130	TREE	359.8'	HORIZONTAL	0.2'	***
131	TREE	376.5'	HORIZONTAL	16.8'	***
132	TREE	365.2'	HORIZONTAL	5.6'	***
133	TREE	360.3'	HORIZONTAL	0.7'	***
134	TREE	387.0'	HORIZONTAL	27.3'	***
135	TREE	390.6'	HORIZONTAL	30.9'	***
136	TREE	382.8'	HORIZONTAL	23.1'	***
137	TREE	398.3'	HORIZONTAL	38.6'	***
138	TREE	364.7'	HORIZONTAL	5.1'	***
139	TREE	360.4'	HORIZONTAL	0.7'	***
140	TREE	361.8'	HORIZONTAL	2.2'	***
141	TREE	364.9'	HORIZONTAL	5.3'	***
142	TREE	357.6'	INNER TRANS.	10.7'	***
143	TREE	391.2'	INNER TRANS.	48.2'	***
144	TREE	369.7'	HORIZONTAL	10.0'	***
145	TREE	361.4'	HORIZONTAL	1.8'	***
146	TREE	245.2'	INNER TRANS.	3.1'	***
147	TREE	242.3'	INNER TRANS.	7.5'	***
148	TREE	342.3'	INNER TRANS.	26.9'	***
149	TREE	352.4'	INNER TRANS.	30.1'	***
150	TREE	337.5'	INNER TRANS.	3.4'	***
151	TREE	336.7'	INNER TRANS.	9.3'	***
152	TREE	355.3'	INNER TRANS.	38.8'	***
153	TREE	341.8'	INNER TRANS.	12.9'	***
154	TREE	354.0'	INNER TRANS.	12.8'	***
155	TREE	372.6'	INNER TRANS.	38.2'	***
156	TREE	316.0'	INNER TRANS.	4.5'	***
157	TREE	317.8'	INNER TRANS.	0.4'	***
158	TREE	336.6'	INNER TRANS.	0.7'	***
159	TREE	360.2'	INNER TRANS.	6.4'	***
160	TREE	298.3'	INNER TRANS.	4.2'	***
161	TREE	329.8'	INNER TRANS.	5.4'	***
162	TREE	303.8'	INNER TRANS.	4.0'	***
163	TREE	295.5'	INNER TRANS.	32.1'	***
164	TREE	326.1'	INNER TRANS.	66.0'	***
165	TREE	348.6'	INNER TRANS.	71.1'	***
166	TREE	321.3'	INNER TRANS.	27.6'	***
167	TREE	318.4'	INNER TRANS.	0.1'	***
168	TREE	305.7'	INNER TRANS.	60.5'	***
169	TREE	281.4'	INNER TRANS.	40.0'	***
170	TREE	329.9'	INNER TRANS.	62.8'	***
171	TREE	342.5'	INNER TRANS.	65.9'	***

PART 77 OBSTRUCTIONS					DISPOSITION
OBJ#	DESC	ELEV	SURFACE	PENETRATION	
172	TREE	350.6'	INNER TRANS.	46.9'	***
173	TREE	342.9'	INNER TRANS.	36.2'	***
174	TREE	344.1'	INNER TRANS.	33.2'	***
175	TREE	329.7'	INNER TRANS.	26.1'	***
176	TREE	309.4'	INNER TRANS.	52.1'	***
177	TREE	319.5'	INNER TRANS.	53.3'	***
178	TREE	290.9'	INNER TRANS.	15.6'	***
179	TREE	265.3'	RW35 APP	0.8'	***
180	TREE	369.6'	INNER TRANS.	9.9'	***
181	TREE	367.4'	INNER TRANS.	7.8'	***
182	TREE	331.6'	RW35 APP	3.0'	***
183	TREE	319.5'	RW35 APP	19.6'	***
184	TREE	341.0'	RW35 APP	6.3'	***
185	TREE	316.3'	RW35 APP	2.4'	***
186	TREE	336.9'	RW35 APP	41.8'	***
187	TREE	311.8'	RW35 APP	14.8'	***
188	TREE	312.0'	RW35 APP	6.0'	***
189	TREE	319.8'	RW35 APP	11.0'	***
190	TREE	330.5'	RW35 APP	10.7'	***
191	TREE	350.0'	RW35 APP	29.0'	***
192	TREE	329.4'	RW35 APP	4.8'	***
193	TREE	340.8'	RW35 APP	13.1'	***
194	TREE	343.1'	RW35 APP	18.6'	***
195	TREE	345.3'	RW35 APP	17.2'	***
196	TREE	327.6'	RW35 APP	13.2'	***
197	TREE	320.0'	RW35 APP	8.5'	***
198	TREE	338.6'	RW35 APP	32.0'	***
199	TREE	311.1'	RW35 APP	13.7'	***
200	TREE	330.6'	RW35 APP	36.4'	***
201	TREE	377.3'	INNER TRANS.	18.7'	***
202	TREE	387.6'	INNER TRANS.	36.1'	***
203	TREE	360.6'	HORIZONTAL	1.0'	***
204	TREE	366.7'	HORIZONTAL	7.1'	***
205	TREE	367.9'	HORIZONTAL	8.3'	***
206	TREE	369.3'	HORIZONTAL	9.7'	***
207	TREE	368.8'	HORIZONTAL	36.2'	***
208	TREE	392.2'	HORIZONTAL	32.6'	***
209	TREE	367.8'	HORIZONTAL	8.1'	***
210	TREE	371.6'	HORIZONTAL	11.9'	***
211	TREE	373.0'	HORIZONTAL	13.4'	***
212	TREE	398.3'	HORIZONTAL	38.6'	***
213	TREE	381.3'	HORIZONTAL	21.7'	***
214	TREE	360.4'	HORIZONTAL	0.7'	***
215	TREE	379.5'	HORIZONTAL	19.8'	***
216	TREE	365.6'	HORIZONTAL	5.9'	***
217	TREE	383.0'	HORIZONTAL	23.3'	***
218	TREE	363.8'	HORIZONTAL	4.1'	***
219	TREE	367.9'	HORIZONTAL	8.3'	***
220	TREE	376.5'	HORIZONTAL	16.8'	***
221	TREE	373.2'	HORIZONTAL	13.6'	***
222	TREE	375.3'	HORIZONTAL	15.7'	***
223	TREE	369.0'	HORIZONTAL	9.3'	***
224	TREE	360.4'	HORIZONTAL	0.7'	***
225	TREE	384.4'	HORIZONTAL	24.7'	***
226	TREE	382.6'	HORIZONTAL	23.0'	***
227	TREE	400.4'	HORIZONTAL	40.7'	***
228	TREE	380.6'	HORIZONTAL	21.0'	***
229	TREE	360.2'	HORIZONTAL	0.6'	***
230	TREE	397.4'	HORIZONTAL	37.8'	***
231	TREE	390.2'	HORIZONTAL	30.6'	***
232	TREE	412.6'	HORIZONTAL	52.9'	***
233	TREE	364.1'	HORIZONTAL	4.5'	***
234	TREE	382.2'	HORIZONTAL	22.6'	***
235	TREE	391.8'	HORIZONTAL	32.2'	***
236	TREE	406.6'	HORIZONTAL	46.9'	***
237	TREE	393.0'	HORIZONTAL	33.4'	***
238	TREE	373.1'	HORIZONTAL	11.5'	***
239	TREE	399.8'	HORIZONTAL	40.1'	***
240	TREE	370.5'	HORIZONTAL	10.8'	***
241	TREE	369.0'	HORIZONTAL	9.3'	***
242	TREE	364.9'	HORIZONTAL	5.3'	***
243	TREE	375.2'	HORIZONTAL	5.9'	***
244	TREE	378.1'	HORIZONTAL	18.5'	***
245	TREE	395.7'	HORIZONTAL	36.1'	***
246	TREE	375.5'	HORIZONTAL	15.9'	***
247	TREE	389.5'	HORIZONTAL	29.8'	***
248	TREE	372.8'	HORIZONTAL	13.2'	***
249	TREE	422.4'	HORIZONTAL	62.7'	***
250	TREE	427.4'	HORIZONTAL	67.7'	***
251	TREE	374.5'	HORIZONTAL	14.8'	***
252	TREE	389.7'	CONICAL	24.2'	***
253	TREE	397.0'	HORIZONTAL	37.3'	***
254	TREE	415.3'	HORIZONTAL	55.7'	***
255	TREE	413.7'	HORIZONTAL	54.1'	***
256	TREE	412.6'	HORIZONTAL	52.9'	***
257	TREE	381.7'	HORIZONTAL	22.0'	***
258	TREE	426.2'	HORIZONTAL	66.5'	***
259	TREE	387.9'	HORIZONTAL	28.3'	***
260	TREE	410.7'	HORIZONTAL	51.0'	***
261	TREE	388.4'	HORIZONTAL	28.7'	***
262	TREE	431.4'	HORIZONTAL	71.7'	***
263	TREE	422.1'	HORIZONTAL	62.5'	***
264	TREE	425.0'	HORIZONTAL	65.3'	***
265	TREE	421.1'	HORIZONTAL	61.5'	***
266	TREE	434.8'	HORIZONTAL	75.2'	***
267	TREE	452.2'	HORIZONTAL	92.5'	***
268	TREE	413.0'	HORIZONTAL	53.4'	***
269	TREE	426.9'	HORIZONTAL	67.2'	***
270	TREE	392.6'	HORIZONTAL	32.9'	***
271	TREE	373.9'	HORIZONTAL	14.2'	***
272	TREE	374.4'	HORIZONTAL	14.8'	***
273	TREE	424.6'	HORIZONTAL	64.9'	***
274	TREE	448.1'	HORIZONTAL	88.5'	***
275	TREE	442.2'	HORIZONTAL	82.6'	***
276	TREE	415.1'	HORIZONTAL	55.5'	***
277	TREE	442.2'	HORIZONTAL	82.5'	***
278	TREE	426.2'	HORIZONTAL	66.6'	***
279	TREE	419.3'	HORIZONTAL	52.2'	***

excess of 12,500 pounds gross weight) and having precision IAPs with visibility minimums less than $\frac{3}{4}$ -statute mile. Runway 08/26 criteria are based on the larger-than-utility aircraft category, and having a non-precision IAP with visibility minimums greater than $\frac{3}{4}$ -statute mile to Runway 26 and a visual approach to Runway 08.

FAR Part 77 Surfaces

As specified by FAR Part 77 Regulations, there are five defined imaginary surfaces, which include, the primary, the transitional, the horizontal, the conical, and the approach. Each imaginary surface is briefly defined in the following narrative.

Primary Surface. The primary surface is longitudinally centered on each runway and extends 200 feet beyond each runway end. The elevation of any point on the primary surface is the same as the nearest point on the runway centerline. Based upon the existing/future approach visibility minimums for each runway, the primary surface width for Runway 17/35 is 1,000 feet and 500 feet for Runway 08/26.

Transition Surface. Transitional surfaces extend upward and outward at right angles to the runway centerline, and the extended runway centerline, at the edges of the primary surface. A slope of 7 to 1 (i.e. one foot in elevation for every seven feet of horizontal distance) is applied to the transitional surfaces.

Horizontal Surface. The horizontal surface is a horizontal plane established at an elevation of 150 feet above the ultimate airport elevation. The perimeter of the horizontal surface is established by swinging arcs from the center of each end of the primary surface and connecting the arcs with tangent lines. The radii of the arcs at Olympia Regional Airport are 10,000 feet.

Conical Surface. The conical surface begins at the periphery of the horizontal surface and extends outward and upward at a slope of 20 to 1 (i.e., one foot in elevation for every 20 feet of horizontal distance). This surface extends for a horizontal distance of 4,000 feet.

Approach Surfaces. Approach surfaces are longitudinally centered on the extended runway centerlines. They extend outward and upward from each end of the primary surface. The inner edges are the same width as the primary surfaces (e.g., 1,000 feet for Runway 17/35). The horizontal distance of the approach surfaces is determined by the visibility minimums associated with each runway end. This translates into a distance of 50,000 feet for Runways 17 and 35, 10,000 feet for Runway 26, and 5,000 feet for Runway 08. Approach surfaces expand uniformly



along their entire length until reaching an outer edge width, which, again, is determined by the visibility minimums associated with each runway end. The outer edge width of Runways 17 and 35 is 16,000 feet, for Runway 26 it is 3,500 feet, and for Runway 08, it is 1,500 feet. The Runway 17 and 35 approach surfaces slope upward at a ratio of 50 to 1 for a horizontal distance of 10,000 feet, and an additional horizontal distance of 40,000 feet at a ratio of 40 to 1. For Runway 26, the approach surface slope is 34 to 1, which compares to 20 to 1 for Runway 08.

FAR Part 77 Obstructions

According to the application of the FAR Part 77 criteria, 356 obstructions are identified and distributed within the specified surfaces, of which, six are already equipped with obstruction lighting. It should be noted that these identified obstructions will be evaluated by the FAA through the airspace review process (i.e., an aeronautical study) to reach a hazard/no hazard determination and proposed disposition for each obstruction.

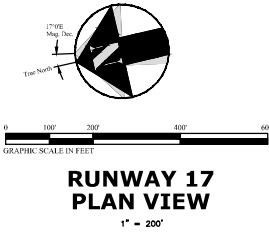
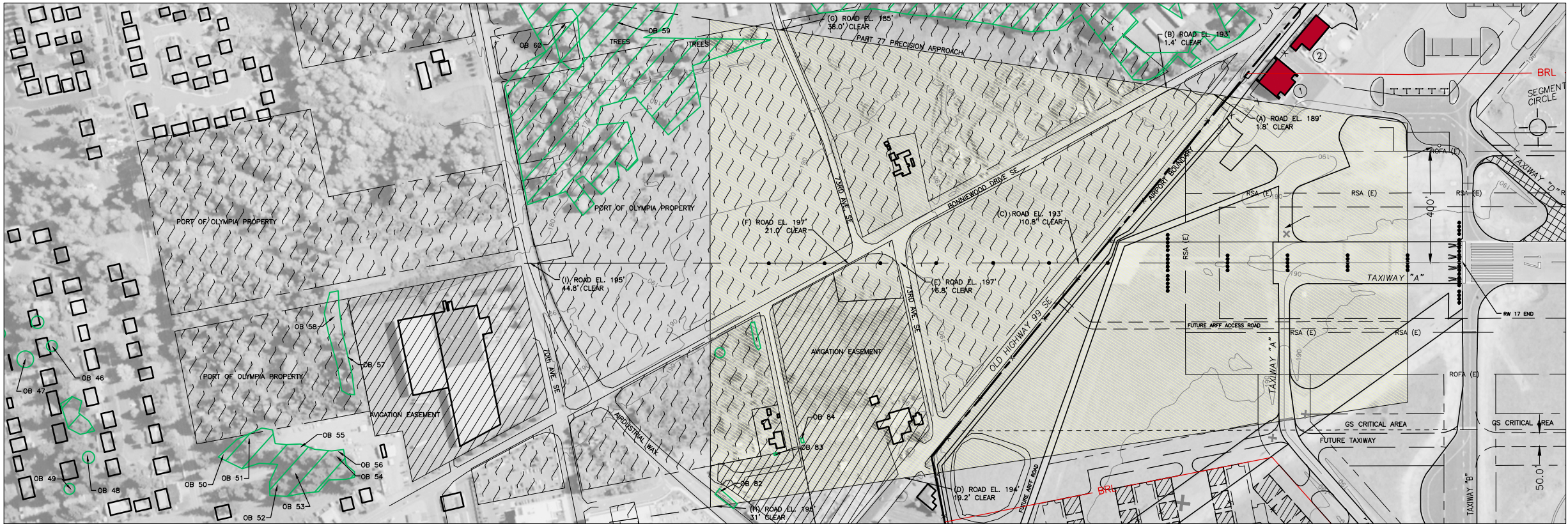
Inner Portion of the Approach Surface Drawings

To provide a more detailed view of the inner portion of the FAR Part 77 imaginary approach surfaces, the following drawings are provided that illustrate in greater detail the close-in portion of the approach surfaces associated with each runway end. Thus, the *INNER PORTION OF THE APPROACH SURFACE DRAWINGS* that follow provide large scale plan and profile delineation of the approach surfaces out to a distance where the surface is 100 feet above the runway end elevation. They are intended to facilitate identification of roads, utility lines, railroads, structures, trees, and other possible obstructions that may lie within the confines of, or near, the approach surfaces close to the runway ends.

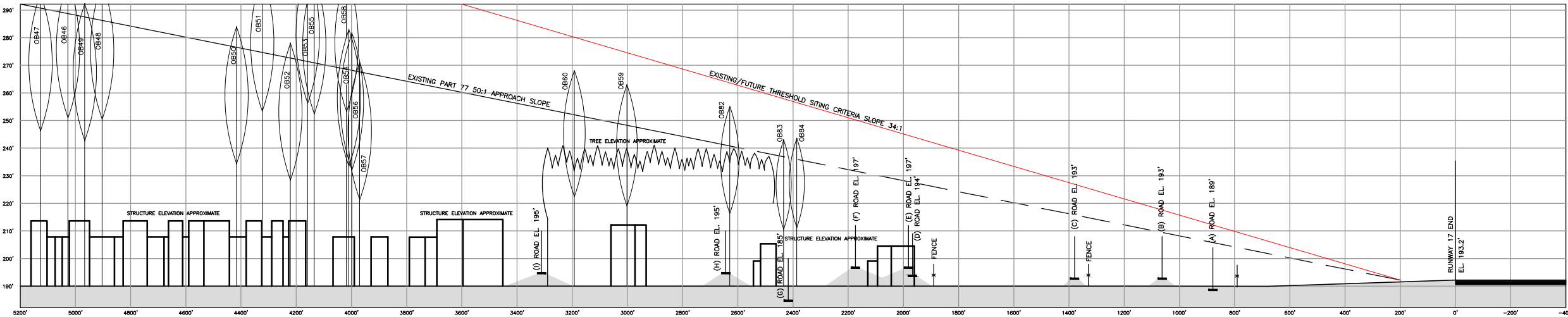
As with the Airport Airspace Drawing, the Inner Portion of the Approach Surface Drawings are based upon the ultimate planned runway lengths, the ultimate planned approaches to each runway end, and the ultimate runway end elevations. Again, the Runways 17 and 35 criteria are based on larger-than-utility aircraft category with precision IAP having visibility minimums lower than $\frac{3}{4}$ -statute mile. The Runway 08 criteria are based on larger-than utility aircraft category with visual approaches only. The Runway 26 criteria are based on larger-than-utility aircraft category with non-precision IAP having visibility minimums greater than $\frac{3}{4}$ -statute mile.

These drawings also illustrate the approach clearance requirements specified by threshold siting criteria contained in Appendix Two of FAA Advisory Circular (AC) 150/5300-13. According to this information, “The standard shape, dimensions, and slope of the surface used for locating a





**RUNWAY 17
PLAN VIEW**
1" = 200'



**RUNWAY 17
PROFILE VIEW**
1" = 200' HORIZONTALLY
1" = 20' VERTICALLY

REVISIONS	
NO.	DATE
1.	DEC 13, 2007
2.	FEB 6, 2009
3.	NOV 20, 2009

- NOTES**
1. THIS DRAWING SHOULD NOT BE USED AS A STANDARD FOR PLANNING OR DESIGN. THIS DRAWING REFLECTS PLANNING STANDARDS APPLICABLE TO OLYMPIA REGIONAL AIRPORT TO THE GREATEST EXTENT POSSIBLE. THIS DRAWING SHOULD NOT BE USED AS A STANDARD FOR PLANNING OR DESIGN.
 2. OBSTRUCTIONS TAKEN FROM 02/04/05 OLYMPIA AIRPORT, OLYMPIA, WASHINGTON & OBSTRUCTION SURVEY BY REID MIDDLETON, EVERETT, WA-MARCH 9, 2009. SOME OBSTRUCTING TREES AND BUSHES WERE REMOVED ACCORDING TO PROFESSIONAL FORESTRY SERVICES, INC. DOCUMENT PREPARED 02/03/05.
 3. OBSTRUCTION NUMBERS FROM AIRPORT AIRSPACE MAPS SHEETS 2 THRU 5.
 4. LATITUDE/LONGITUDE COORDINATE DATA IS NAD83. VERTICAL DATUM IS NAVD83.
 5. ORIGINAL DRAWING (DATED 6-96) PROVIDED BY REID MIDDLETON ENGINEERS, LYNEWOOD, WASHINGTON.

PART 77 OBSTRUCTIONS						LAYOUT PLAN LEGEND	
NO.	ITEM	ELEV.	SURFACE	PENETRATION	DISPOSITION	EXISTING	FUTURE
46	TREE	308.0'	RW17 APP	13.8'	AIRSPACE DETERMINATION REQUIRED		
47	TREE	296.0'	RW17 APP	1.9'	AIRSPACE DETERMINATION REQUIRED		
48	TREE	302.5'	RW17 APP	10.5'	AIRSPACE DETERMINATION REQUIRED		
49	TREE	292.8'	RW17 APP	1.6'	AIRSPACE DETERMINATION REQUIRED		
50	TREE	284.5'	RW17 APP	4.8'	AIRSPACE DETERMINATION REQUIRED		
51	TREE	313.4'	RW17 APP	35.3'	AIRSPACE DETERMINATION REQUIRED		
52	TREE	278.8'	RW17 APP	2.8'	AIRSPACE DETERMINATION REQUIRED		
53	TREE	318.3'	RW17 APP	41.9'	AIRSPACE DETERMINATION REQUIRED		
54	TREE	283.2'	RW17 APP	1.5'	AIRSPACE DETERMINATION REQUIRED		
55	TREE	305.7'	RW17 APP	26.3'	AIRSPACE DETERMINATION REQUIRED		
56	TREE	292.1'	RW17 APP	10.3'	AIRSPACE DETERMINATION REQUIRED		
57	TREE	271.1'	RW17 APP	0.1'	AIRSPACE DETERMINATION REQUIRED		
58	TREE	303.9'	RW17 APP	31.8'	AIRSPACE DETERMINATION REQUIRED		
59	TREE	263.3'	RW17 APP	11.7'	AIRSPACE DETERMINATION REQUIRED		
60	TREE	288.0'	RW17 APP	12.8'	AIRSPACE DETERMINATION REQUIRED		
62	TREE	255.0'	RW17 APP	15.7'	AIRSPACE DETERMINATION REQUIRED		
63	TREE	243.3'	RW17 APP	2.3'	AIRSPACE DETERMINATION REQUIRED		
64	TREE	243.9'	RW17 APP	4.5'	AIRSPACE DETERMINATION REQUIRED		
SEE NOTES FOR SOURCE INFORMATION							
TERMIN OR TREE OBSTRUCTION							

MASTER PLAN UPDATE

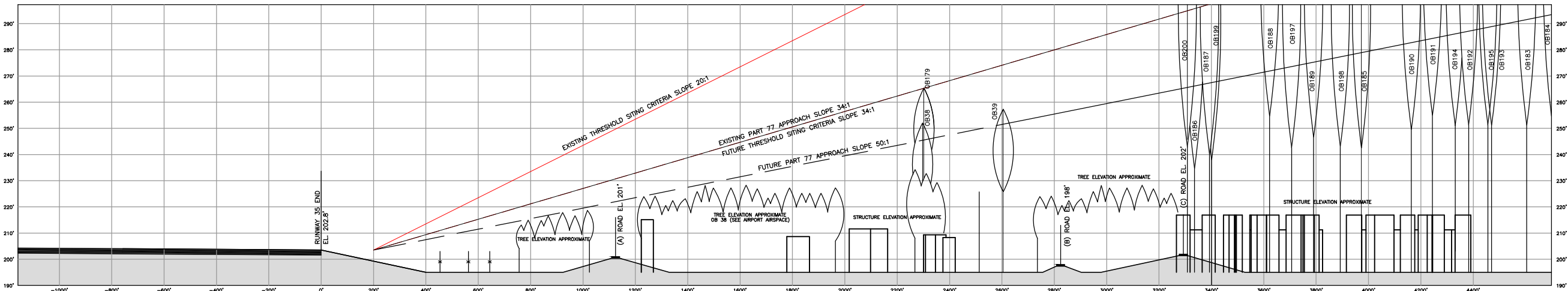
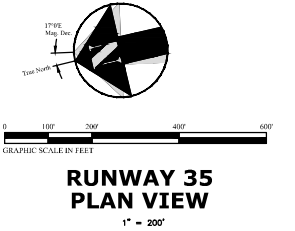
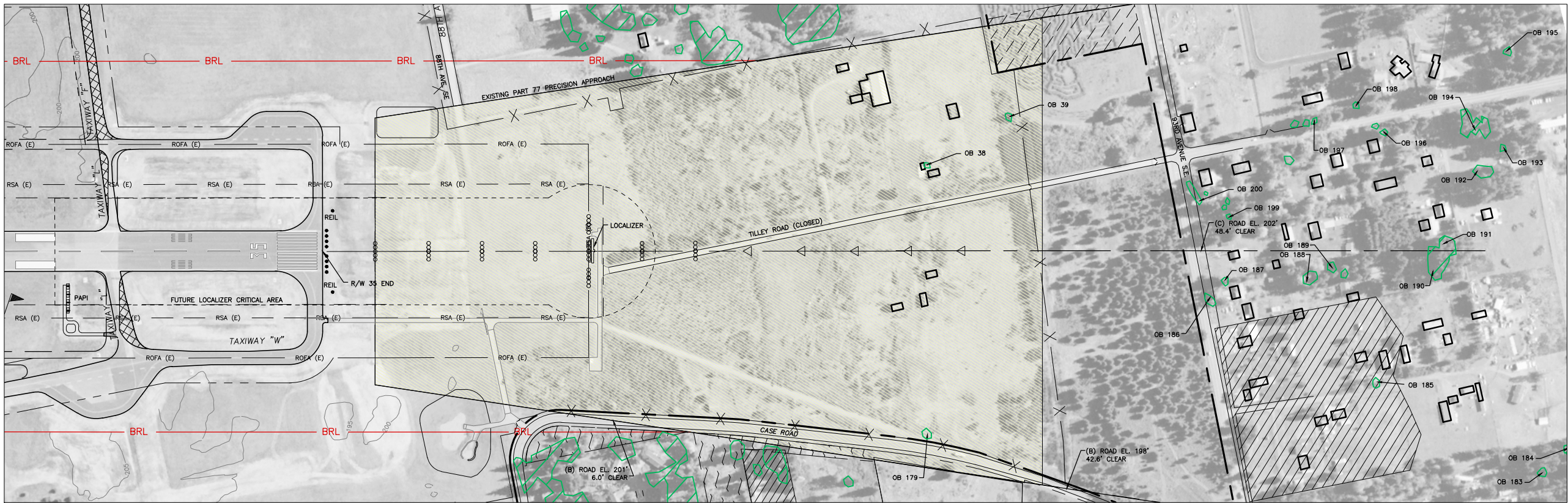
**Port of Olympia/
Olympia Regional Airport**

Barnard Dunkelberg & Company
A Mead & Hunt Company

1616 East 15th Street
Tulsa, Oklahoma 74120
918.585.8844

Figure E7 Runway 17 Inner Portion of the Approach Surface Drawing

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**RUNWAY 35
PROFILE VIEW**
1" = 200' HORIZONTALLY
1" = 20' VERTICALLY

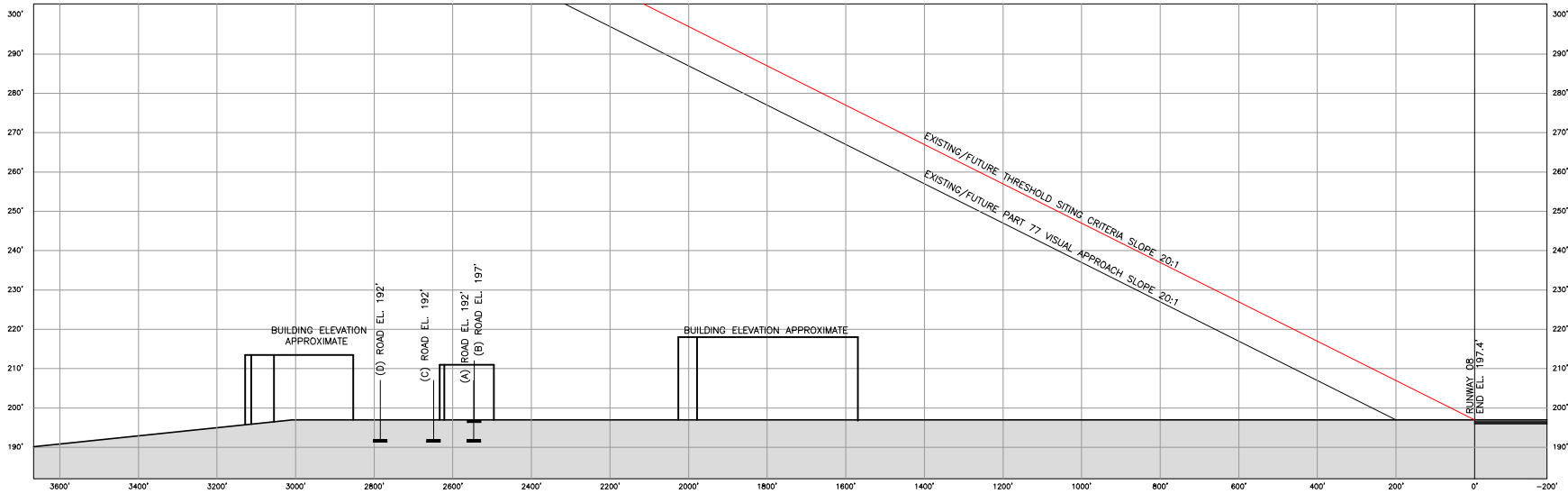
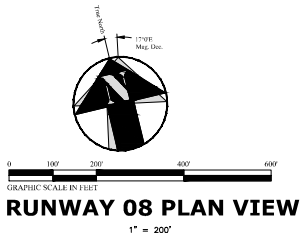
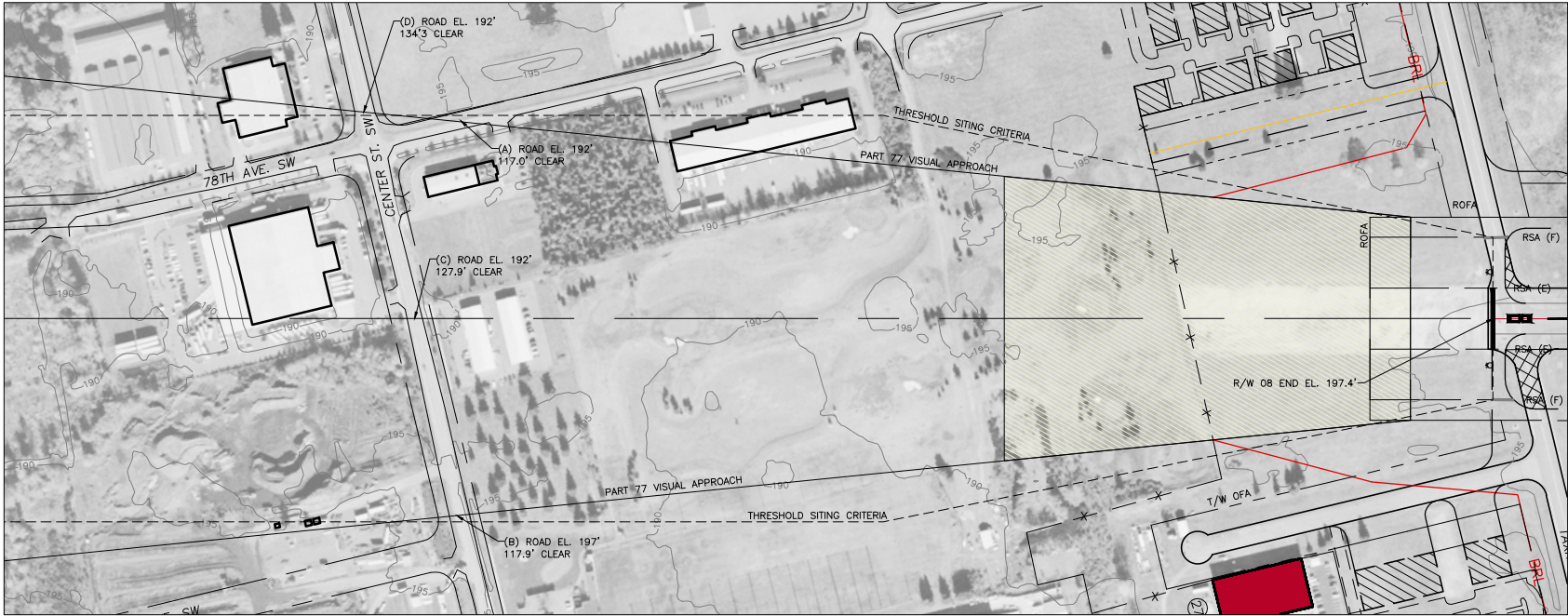
REVISIONS	
ALP RECORD DRAWING UPDATE (2004/2005 RSA PROJECT) - REID MIDDLETON	DATE
ALP RECORD DRAWING UPDATE (2007/2008 RW 17-35 LINE OF SIGHT PROJECT) - REID MIDDLETON	DEC 13, 2007
ALP RECORD DRAWING UPDATE - BARNARD DUNKELBERG & COMPANY	FEB 6, 2009
	NOV 20, 2009

NOTES	
1. THIS DRAWING SHOULD NOT BE USED AS A STANDARD FOR PLANNING OR DESIGN. THIS DRAWING REFLECTS PLANNING STANDARDS APPLICABLE TO OLYMPIA REGIONAL AIRPORT TO THE GREATEST EXTENT POSSIBLE. THIS DRAWING SHOULD NOT BE USED AS A STANDARD FOR PLANNING OR DESIGN.	
2. OBSTRUCTIONS TAKEN FROM C2644 OLYMPIA AIRPORT, OLYMPIA, WASHINGTON & OBSTRUCTION SURVEY BY REID MIDDLETON, EVERETT, WA-MARCH 9, 2009. SOME OBSTRUCTING TREES AND BUSHES WERE REMOVED ACCORDING TO PROFESSIONAL FORESTRY SERVICES, INC. DOCUMENT PREPARED 02/03/95.	
3. OBSTRUCTION NUMBERS FROM AIRPORT AIRSPACE MAPS SHEETS 2 THRU 5.	
4. LATITUDE/LONGITUDE COORDINATE DATA IS NAD83. VERTICAL DATUM IS NAVD83.	
5. ORIGINAL DRAWING (DATED 6-96) PROVIDED BY REID MIDDLETON ENGINEERS, LYNEWOOD, WASHINGTON.	

PART 77 OBSTRUCTIONS				
NO.	ITEM	ELEV.	SURFACE	PENETRATION
38	TREE	251.9'	RW35 APP	5.0'
39	TREE	256.4'	RW35 APP	7.0'
179	TREE	263.7'	RW35 APP	0.8'
185	TREE	316.3'	RW35 APP	2.4'
186	TREE	336.9'	RW35 APP	41.8'
187	TREE	311.8'	RW35 APP	14.8'
188	TREE	312.0'	RW35 APP	6.0'
189	TREE	319.8'	RW35 APP	11.0'
190	TREE	330.5'	RW35 APP	10.7'
191	TREE	350.0'	RW35 APP	29.0'
192	TREE	352.4'	RW35 APP	4.9'
193	TREE	340.8'	RW35 APP	13.1'
194	TREE	343.1'	RW35 APP	18.0'
195	TREE	345.3'	RW35 APP	17.2'
196	TREE	327.6'	RW35 APP	13.2'
197	TREE	320.0'	RW35 APP	8.5'
198	TREE	338.8'	RW35 APP	32.0'
199	TREE	311.1'	RW35 APP	13.7'
200	TREE	330.6'	RW35 APP	36.4'

LAYOUT PLAN LEGEND	
EXISTING	FUTURE
AIRPORT PROPERTY LINE	---
AIRPORT SECURITY FENCE	X
AIRPORT BUILDINGS	■
AIRFIELD PAVEMENT	▨
AIRFIELD PAVEMENT TO BE REMOVED	▨
PAVED ROADS	---
RUNWAY PROTECTION ZONE (RPZ)	---
BUILDING RESTRICTION LINE (BRL)	---
RUNWAY SAFETY AREA (RSA)	---
RUNWAY OBJECT FREE AREA (ROFA)	---
FUEL STORAGE AREA	---
AIRPORT BEACON	●
LIGHTED WIND CONE & SEGMENTED CIRCLE	●
PRECISION APPROACH PATH INDICATOR (PAPI)	---
RUNWAY END IDENTIFIER LIGHTS (REIL)	---
APPROACH LIGHTS	---
EXISTING AVIATION EASEMENT	---
EXISTING PORT OF OLYMPIA PROPERTY	---
FUTURE AIRPORT PROPERTY ACQUISITION	---

Figure E8 Runway 35 Inner Portion of the Approach Surface Drawing



**RUNWAY 08
PROFILE VIEW**
1" = 200' HORIZONTALLY
1" = 20' VERTICALLY

REVISIONS	
	DATE
ALP RECORD DRAWING UPDATE (2004/2005 RSA PROJECT) - RED MIDDLETON	DEC 13, 2007
ALP RECORD DRAWING UPDATE (2007/2008 RW 17-35 LINE OF SIGHT PROJECT) - RED MIDDLETON	FEB 6, 2009
ALP RECORD DRAWING UPDATE - BARNARD DUNKELBERG & COMPANY	NOV 20, 2009

NOTES	
1. THIS DRAWING SHOULD NOT BE USED AS A STANDARD FOR PLANNING OR DESIGN. THIS DRAWING REFLECTS PLANNING STANDARDS APPLICABLE TO OLYMPIA REGIONAL AIRPORT TO THE GREATEST EXTENT POSSIBLE. THIS DRAWING SHOULD NOT BE USED AS A STANDARD FOR PLANNING OR DESIGN.	
2. OBSTRUCTIONS TAKEN FROM C2644 OLYMPIA AIRPORT, OLYMPIA, WASHINGTON & OBSTRUCTION SURVEY BY RED MIDDLETON, EVERETT, WA-March 9, 2009. SOME OBSTRUCTING TREES AND BUSHES WERE REMOVED ACCORDING TO PROFESSIONAL FORESTRY SERVICES, INC. DOCUMENT PREPARED 02/03/95.	
3. OBSTRUCTION NUMBERS FROM AIRPORT AIRSPACE MAPS, SHEETS 2 THRU 5.	
4. LATITUDE/LONGITUDE COORDINATE DATA IS NAD83. VERTICAL DATUM IS NAVD88.	
5. ORIGINAL DRAWING (DATED 6-96) PROVIDED BY RED MIDDLETON ENGINEERS, LYNEWOOD, WASHINGTON.	

LAYOUT PLAN LEGEND		
	EXISTING	FUTURE
AIRPORT PROPERTY LINE	---	---
AIRPORT SECURITY FENCE	-X-	-X-
AIRPORT BUILDINGS	■	■
AIRFIELD PAVEMENT	▨	▨
AIRFIELD PAVEMENT TO BE REMOVED	▨	▨
PAVED ROADS	▨	▨
RUNWAY PROTECTION ZONE (RPZ)	▨	▨
BUILDING RESTRICTION LINE (BRL)	▨	▨
RUNWAY SAFETY AREA (RSA)	▨	▨
RUNWAY OBJECT FREE AREA (ROFA)	▨	▨
FUEL STORAGE AREA	▨	▨
AIRPORT BEACON	●	●
LIGHTED WIND CONE & SEGMENTED CIRCLE	●	●
PRECISION APPROACH PATH INDICATOR (PAPI)	●	●
RUNWAY END IDENTIFIER LIGHTS (REIL)	●	●
APPROACH LIGHTS	●	●
EXISTING AVIGATION EASEMENT	▨	▨
EXISTING PORT OF OLYMPIA PROPERTY	▨	▨
FUTURE AIRPORT PROPERTY ACQUISITION	▨	▨



MASTER PLAN UPDATE

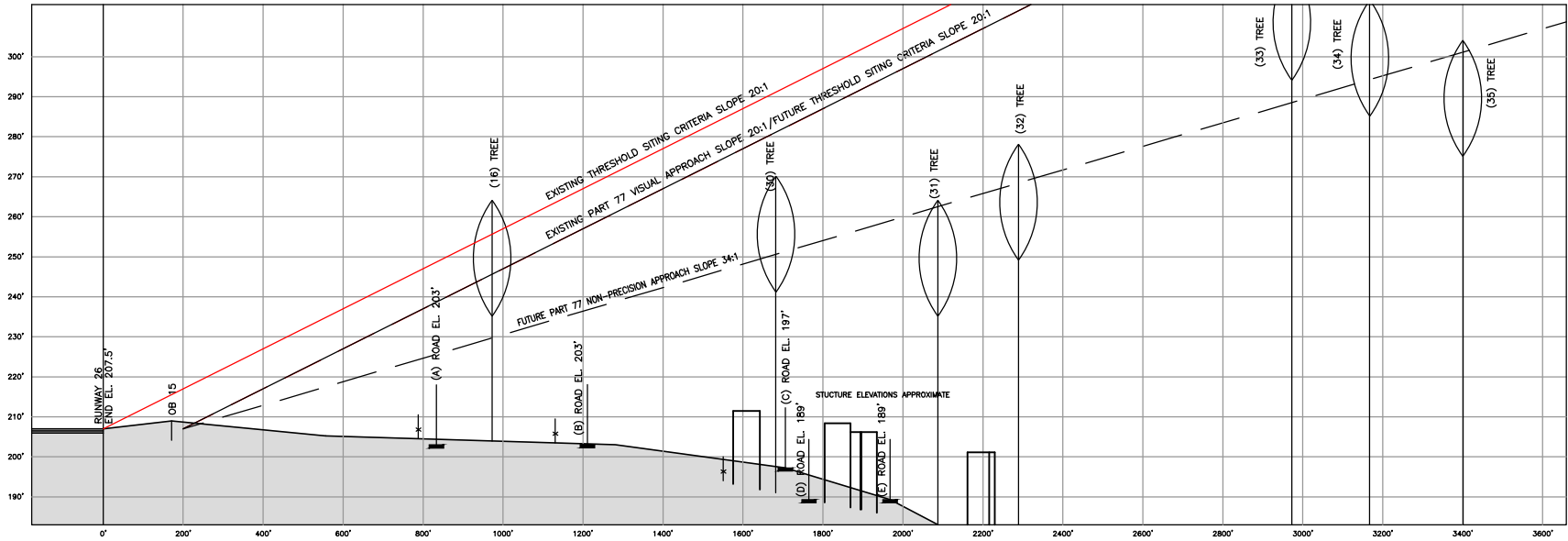
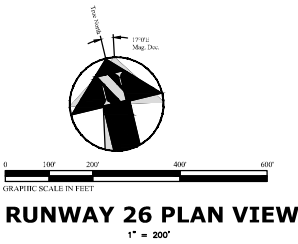
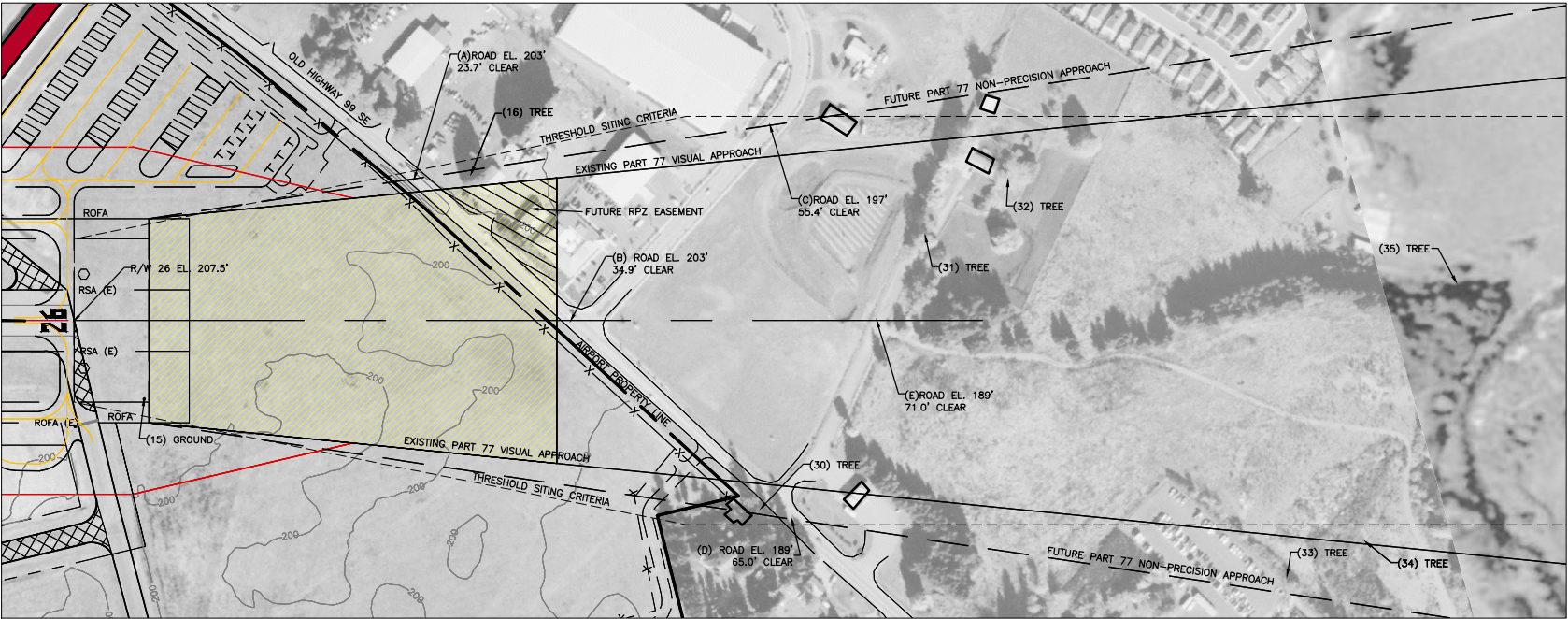
**Port of Olympia/
Olympia Regional Airport**



Barnard Dunkelberg & Company
A Mead & Hunt Company

1616 East 15th Street
Tulsa, Oklahoma 74120
918.585.8844

Figure E9 Runway 08 Inner Portion of the Approach Surface Drawing



**RUNWAY 26
PROFILE VIEW**
1" = 200' HORIZONTALLY
1" = 20' VERTICALLY

REVISIONS		DATE
ALP RECORD DRAWING UPDATE (2004/2005 RSA PROJECT) - REID MIDDLETON		DEC 13, 2007
ALP RECORD DRAWING UPDATE (2007/2008 RW 17-35 LINE OF SIGHT PROJECT) - REID MIDDLETON		FEB 6, 2009
ALP RECORD DRAWING UPDATE - BARNARD DUNKELBERG & COMPANY		NOV 20, 2009

NOTES	
1. THIS DRAWING SHOULD NOT BE USED AS A STANDARD FOR PLANNING OR DESIGN. THIS DRAWING REFLECTS PLANNING STANDARDS APPLICABLE TO OLYMPIA REGIONAL AIRPORT TO THE GREATEST EXTENT POSSIBLE. THIS DRAWING SHOULD NOT BE USED AS A STANDARD FOR PLANNING OR DESIGN.	
2. OBSTRUCTIONS TAKEN FROM C2643 OLYMPIA AIRPORT, OLYMPIA, WASHINGTON & OBSTRUCTION SURVEY BY REID MIDDLETON, EVERETT, WA-March 9, 2009. SOME OBSTRUCTING TREES AND BUSHES WERE REMOVED ACCORDING TO PROFESSIONAL FORESTRY SERVICES, INC. DOCUMENT PREPARED 02/03/95.	
3. OBSTRUCTION NUMBERS FROM AIRPORT AIRSPACE MAPS SHEETS 2 THRU 5.	
4. LATITUDE/LONGITUDE COORDINATE DATA IS NAD83. VERTICAL DATUM IS NAVD83.	
5. ORIGINAL DRAWING (DATED 6-96) PROVIDED BY REID MIDDLETON ENGINEERS, LYNEWOOD, WASHINGTON.	

PART 77 OBSTRUCTIONS					
NO.	ITEM	ELEV.	PENETRATION	SURFACE	DISPOSITION
15	GROUND	209'	2'	PRIMARY	VERIFY AND REMOVE
16	TREE	264'	12'	RW 26 APPROACH	VERIFY AND REMOVE
30	TREE	270'	21'	RW 26 APPROACH	VERIFY AND REMOVE
31	TREE	264'	2'	RW 26 APPROACH	VERIFY AND REMOVE
32	TREE	278'	10'	RW 26 APPROACH	VERIFY AND REMOVE
33	TREE	323'	36'	RW 26 APPROACH	VERIFY AND REMOVE
34	TREE	314'	20'	RW 26 APPROACH	VERIFY AND REMOVE
35	TREE	304'	3'	RW 26 APPROACH	VERIFY AND REMOVE

THRESHOLD SITING OBSTRUCTIONS					
NO.	ITEM	ELEV.	PENETRATION	SURFACE	DISPOSITION
16	TREE	261'	12'	RW 26 TSS	VERIFY AND REMOVE

LAYOUT PLAN LEGEND			EXISTING	FUTURE
AIRPORT PROPERTY LINE			---	---
AIRPORT SECURITY FENCE			X	X
AIRPORT BUILDINGS			=====	=====
AIRFIELD PAVEMENT			=====	=====
AIRFIELD PAVEMENT TO BE REMOVED			=====	=====
PAVED ROADS			=====	=====
RUNWAY PROTECTION ZONE (RPZ)			=====	=====
BUILDING RESTRICTION LINE (BRL)			=====	=====
RUNWAY SAFETY AREA (RSA)			=====	=====
RUNWAY OBJECT FREE AREA (ROFA)			=====	=====
FUEL STORAGE AREA			=====	=====
AIRPORT BEACON			★	★
LIGHTED WIND CONE & SEGMENTED CIRCLE			=====	=====
PRECISION APPROACH PATH INDICATOR (PAPI)			=====	=====
RUNWAY END IDENTIFIER LIGHTS (REIL)			=====	=====
APPROACH LIGHTS			=====	=====
EXISTING AVIGATION EASEMENT			=====	=====
EXISTING PORT OF OLYMPIA PROPERTY			=====	=====
FUTURE AIRPORT PROPERTY ACQUISITION			=====	=====
FUTURE DEVELOPMENT AREAS			=====	=====

MASTER PLAN UPDATE

 **Port of Olympia/
Olympia Regional Airport**

 **Barnard Dunkelberg & Company**
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Figure E10 Runway 26 Inner Portion of the Approach Surface Drawing

threshold are dependent upon the type of aircraft operations currently conducted or forecasted, the landing visibility minimums desired, and the types of instrumentation available or planned for that runway end.” For Olympia Regional Airport, the following threshold siting surfaces were identified for evaluation:

Runways 17 and 35. Runway Type “9” [Approach end of runways expected to accommodate approaches with vertical guidance (Glideslope Qualification Surface (GQS))].

Runway 08. Runway Type “3” (Approach end of runways expected to accommodate large aircraft and visual approaches, or instrument approaches having visibility minimums of greater than or equal to one-statute mile, day only).

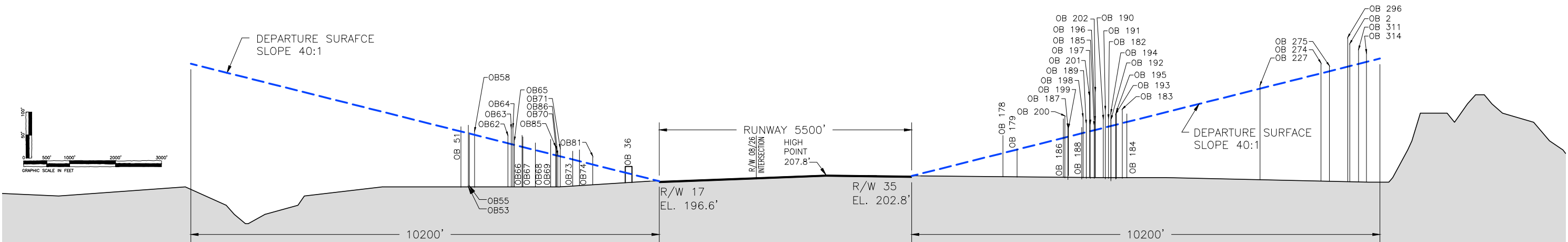
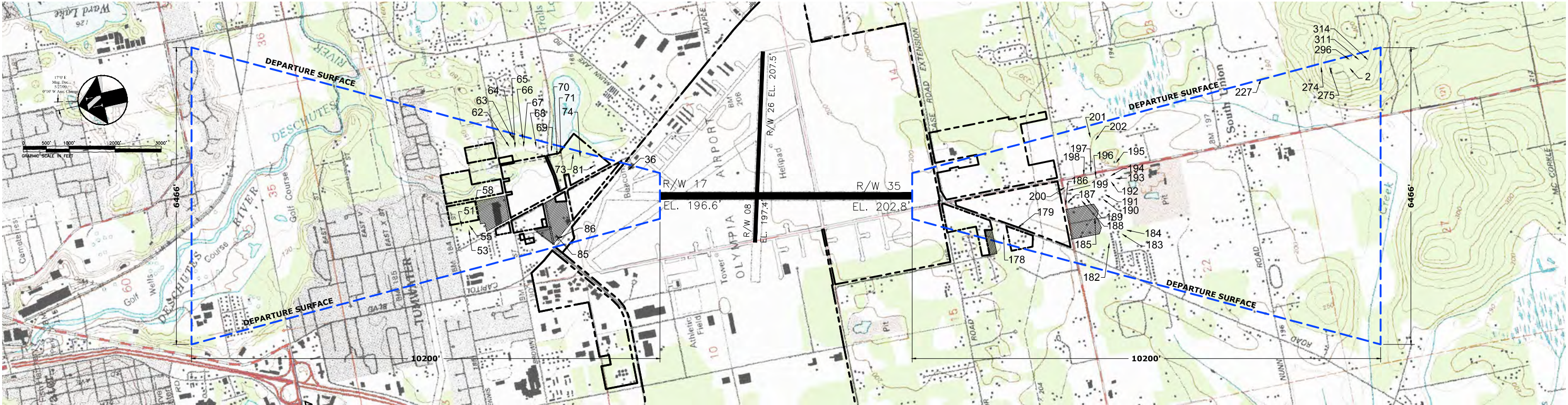
Runway 26. Runway Type “4” (Approach end of runways expected to support instrument night operations, serving approach category A and B aircraft only).

Runway Departure Surface Drawing

The following figure, entitled *RUNWAY 17/35 DEPARTURE SURFACE DRAWING*, is a large-scale plan and profile illustration depicting the dimension and slope of the Departure End of Runway (DER) surfaces associated with Runway 17/35. According to FAA AC 150/5300-13, Appendix Two, runways providing instrument departure capability to general aviation aircraft, no object should penetrate a surface beginning at the elevation of the DER or end of the clearway, whichever is greater, that slopes at a 40 to 1 gradient. Penetrations by existing obstacles of 35 feet or less do not require TODA reduction or other mitigations; however, they may affect new or existing departure procedures.

The Runway Departure Surface Drawing reflects the ultimate planned runway length, along with the ultimate planned departure surface extending from the runway end. The application of these criteria results in the identification of 51 obstructions (one hangar and the remainder trees) that will be evaluated by the FAA through the airspace review process (i.e., an aeronautical study). Regarding the disposition of these obstructions, it is likely that the trees will be recommended for removal or trimming. It is recommended that the hangar be marked and lighted in accordance with AC 70/7460-1K, *Obstruction Marking and Lighting*.





OBSTRUCTIONS					
OB#	DESC	ELEV	SURFACE	PENETRATION	DISPOSITION
2	TREE	490'	DEPARTURE	49'	NONE
36	HANGAR	229'	DEPARTURE	17'	TO BE LIGHTED
51	TREE	313.4'	DEPARTURE	11'	NONE
53	TREE	316.7'	DEPARTURE	18'	"
55	TREE	300.7'	DEPARTURE	2'	"
58	TREE	303.9'	DEPARTURE	9'	"
62	TREE	295.9'	DEPARTURE	17'	VERIFY AND REMOVE
63	TREE	311.6'	DEPARTURE	35'	NONE
64	TREE	313.9'	DEPARTURE	38'	"
65	TREE	284.8'	DEPARTURE	10'	"
66	TREE	299.4'	DEPARTURE	25'	"
67	TREE	293.6'	DEPARTURE	23'	"
68	TREE	279.8'	DEPARTURE	16'	"
69	TREE	287.5'	DEPARTURE	32'	"
70	TREE	265.4'	DEPARTURE	12'	"
71	TREE	268.5'	DEPARTURE	18'	"
73	TREE	261.9'	DEPARTURE	19'	"
74	TREE	265.3'	DEPARTURE	25'	"
81	TREE	249.3'	DEPARTURE	19'	VERIFY AND REMOVE
85	TREE	272.3'	DEPARTURE	19'	NONE
86	TREE	254.3'	DEPARTURE	3'	"
178	TREE	290.9'	DEPARTURE	39'	"
179	TREE	265.3'	DEPARTURE	2'	VERIFY AND REMOVE
182	TREE	331.6'	DEPARTURE	19'	NONE
183	TREE	351.5'	DEPARTURE	31'	"
184	TREE	341.0'	DEPARTURE	18'	"
185	TREE	316.3'	DEPARTURE	11'	"
186	TREE	336.9'	DEPARTURE	42'	"

OBSTRUCTIONS					
OB#	DESC	ELEV	SURFACE	PENETRATION	DISPOSITION
187	TREE	311.8'	DEPARTURE	21'	NONE
188	TREE	312.0'	DEPARTURE	14'	"
189	TREE	319.8'	DEPARTURE	19'	"
190	TREE	330.5'	DEPARTURE	20'	"
191	TREE	350.0'	DEPARTURE	39'	"
192	TREE	329.4'	DEPARTURE	15'	"
193	TREE	340.8'	DEPARTURE	24'	"
194	TREE	343.1'	DEPARTURE	29'	"
195	TREE	345.3'	DEPARTURE	28'	"
196	TREE	327.6'	DEPARTURE	22'	"
197	TREE	320.0'	DEPARTURE	17'	"
198	TREE	338.8'	DEPARTURE	35'	"
199	TREE	311.1'	DEPARTURE	20'	"
200	TREE	330.6'	DEPARTURE	48'	"
201	TREE	377.3'	DEPARTURE	78'	"
202	TREE	387.6'	DEPARTURE	85'	"
227	TREE	400.4'	DEPARTURE	8'	"
274	TREE	448.1'	DEPARTURE	23'	"
275	TREE	442.2'	DEPARTURE	12'	"
296	TREE	503.9'	DEPARTURE	64'	"
311	TREE	477.8'	DEPARTURE	32'	"
314	TREE	469.8'	DEPARTURE	20'	"

REVISIONS

ALP RECORD DRAWING UPDATE - BARNARD DUNKELBERG & COMPANY	DATE
	NOV 20, 2009

LAYOUT PLAN LEGEND

AIRPORT PROPERTY LINE	
EXISTING AVIATION EASEMENT	

NOTES:

1. IMAGINARY SURFACES TAKEN FROM FAR PART 77 "OBJECTS AFFECTING NAVIGABLE AIRSPACE"
2. TOPOGRAPHICAL MAPS SHOWN ARE USGS QUADRANGLE MAPS "EAST OLYMPIA," "BUCCODA," "LACEY," "LITTLEROCK," "MAYTOWN," "ROCHESTER," "SUMMIT LAKE," "TUMWATER," AND "VIOLET PRAIRIE" IN WASHINGTON STATE.
3. OBSTRUCTION SURVEY BY REID MIDDLETON, EVERETT, WA 03/09/2009.
4. REFER TO INNER APPROACH DRAWINGS FOR CLOSE IN OBSTRUCTIONS.
5. ELEVATIONS ARE NAVD88.

MASTER PLAN UPDATE

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Figure E11 Runway 17/35 Departure Surface Drawing

Terminal Area Plans

Based upon input received from the Airport Sponsor and the projected aircraft storage improvements identified in previous chapters, the following hangar, apron, and access taxiway development improvements have been identified on the following illustrations, entitled *NORTHEAST DEVELOPMENT AREA PLAN*, *NORTHWEST DEVELOPMENT AREA PLAN*, *TERMINAL AREA PLAN*, *SOUTHWEST DEVELOPMENT AREA PLAN*, and *SOUTHEAST DEVELOPMENT AREA PLAN*.

Northeast Development Area Plan

General Aviation Development. Up to four additional T-hangars, of various sizes, can be developed in this area, as can additional apron space providing ten small aircraft tie-downs.

Vehicle Access. Vehicle access will continue to be provided by Old Highway 99 S.E., with future access points constructed where needed.

Northwest Development Area Plan

General Aviation Development. Multiple sizes of corporate hangars are programmed for post-planning period development in this area, from smaller Aircraft Design Group (ADG)-II hangars to larger ADG-III hangars.

Vehicle Access. Vehicle access can be provided by a new airport entrance road intersection with Tumwater Boulevard.

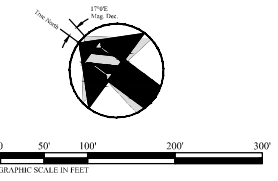
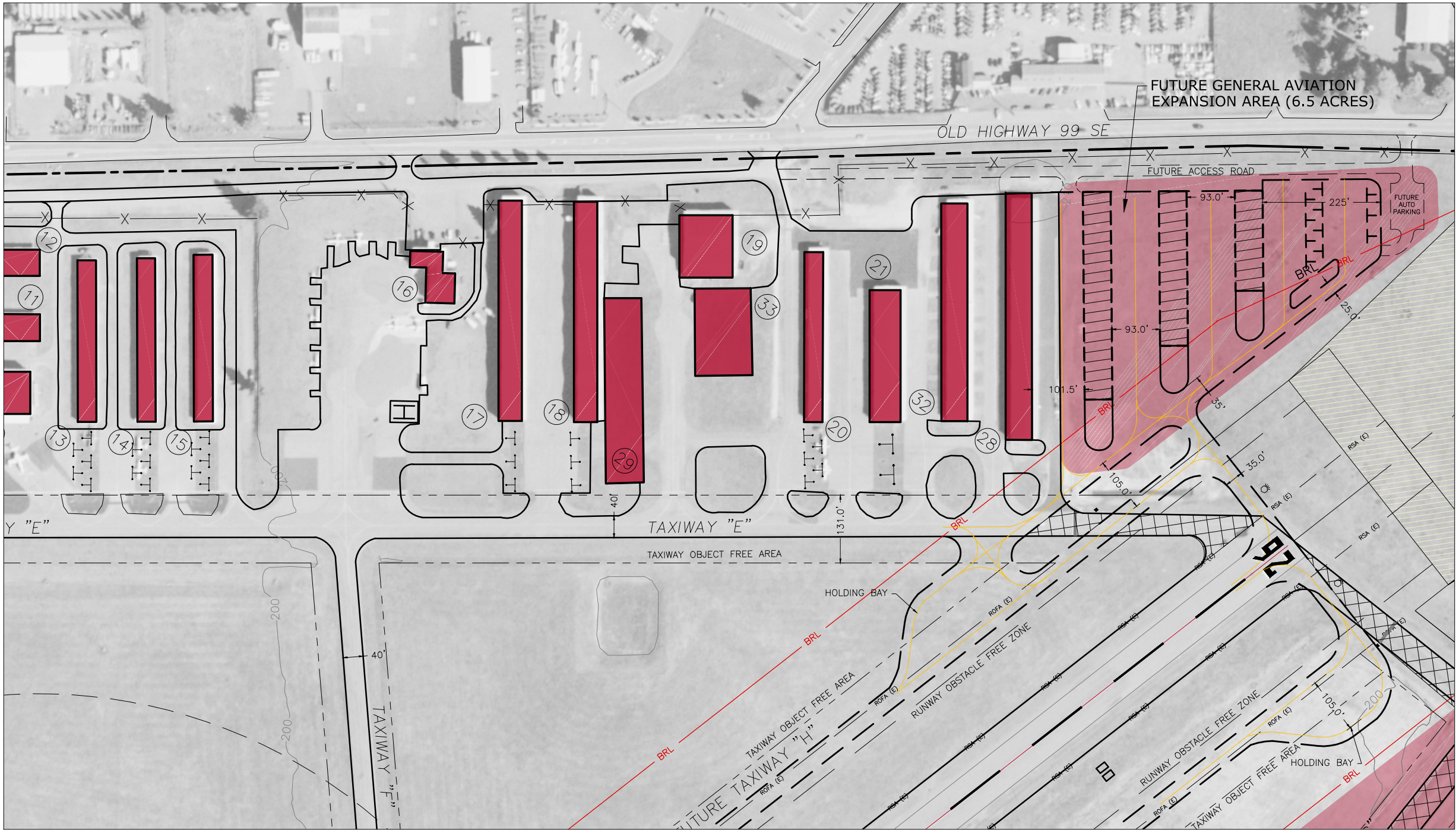
Aviation-Related/Compatible Development. Approximately 1.4 acres directly adjacent to Tumwater Boulevard are reserved for aviation-related/compatible development.

Aviation Support. Expansion of the fuel storage facility, as demand dictates, is programmed for the area.

Terminal Area Plan

Commercial Service Terminal Development. Approximately 5.0 acres of commercial service terminal and terminal apron expansion space is reserved to the south of the existing terminal building and apron. Additionally, approximately 21 acres of passenger terminal support facility development space is preserved west of Terminal Street S.W.





REVISIONS	
ALP RECORD DRAWING UPDATE - BARNARD DUNKELBERG & COMPANY	DATE
	NOV 20, 2009

NOTES	
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2. LATITUDE/LONGITUDE COORDINATE DATA IS NAD83. VERTICAL DATUM IS NAVD83.	
3. ORIGINAL DRAWING (DATED 6-96) PROVIDED BY RED MIDDLETON ENGINEERS, LYNEWOOD, WASHINGTON.	

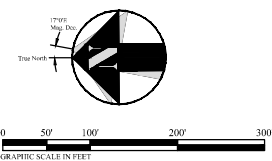
BUILDING LEGEND	
NO.	DESCRIPTION
10	AIRBORNE PROPERTIES HANGAR
11	OPEN HANGAR, PLANE PORT
12	OPEN HANGAR, PLANE PORT
13	T-HANGAR 'A'
14	T-HANGAR 'B'
15	T-HANGAR 'C'
16	GOWEN FLIGHT SERVICE, FBO
17	EXECUTIVE HANGAR 'D'
18	EXECUTIVE HANGAR 'E'
20	T-HANGAR 'F'
21	T-HANGAR 'G'
28	T-HANGAR 'H'
29	PRIME DEVELOPMENT HANGAR 'M'
32	T-HANGAR 'N'
33	MAINTENANCE HANGAR (A/R)

LAYOUT PLAN LEGEND	
EXISTING	FUTURE
AIRPORT PROPERTY LINE	X
AIRPORT SECURITY FENCE	X
AIRPORT BUILDINGS	///
AIRFIELD PAVEMENT	///
AIRFIELD PAVEMENT TO BE REMOVED	///
PAVED ROADS	///
RUNWAY PROTECTION ZONE (RPZ)	///
BUILDING RESTRICTION LINE (BRL)	///
RUNWAY SAFETY AREA (RSA)	///
RUNWAY OBJECT FREE AREA (ROFA)	///
FUEL STORAGE AREA	///
AIRPORT BEACON	///
LIGHTED WIND CONE & SEGMENTED CIRCLE	///
PRECISION APPROACH PATH INDICATOR (PAPI)	///
RUNWAY END IDENTIFIER LIGHTS (REIL)	///
APPROACH LIGHTS	///
EXISTING AVIATION EASEMENT	///
EXISTING PORT OF OLYMPIA PROPERTY	///
FUTURE AIRPORT PROPERTY ACQUISITION	///
FUTURE DEVELOPMENT AREAS	///

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Figure E12 Northeast Development Area Plan

[illegible]

NOTES

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2. LATITUDE/LONGITUDE COORDINATE DATA IS NAD83. VERTICAL DATUM IS NAVD89.
3. ORIGINAL DRAWING (DATED 6-96) PROVIDED BY RED MIDDLETON ENGINEERS, LYNEWOOD, WASHINGTON.

[illegible]

LAYOUT PLAN LEGEND		EXISTING	FUTURE
AIRPORT PROPERTY LINE			
AIRPORT SECURITY FENCE			
AIRPORT BUILDINGS			
AIRFIELD PAVEMENT			
AIRFIELD PAVEMENT TO BE REMOVED			
PAVED ROADS			
RUNWAY PROTECTION ZONE (RPZ)			
BUILDING RESTRICTION LINE (BRL)			
RUNWAY SAFETY AREA (RSA)			
RUNWAY OBJECT FREE AREA (ROFA)			
FUEL STORAGE AREA			
AIRPORT BEACON			
LIGHTED WIND CONE & SEGMENTED CIRCLE			
PRECISION APPROACH PATH INDICATOR (PAPI)			
RUNWAY GID IDENTIFIER LIGHTS (REIL)			
APPROACH LIGHTS			
EXISTING AVIATION EASEMENT			
EXISTING PORT OF OLYMPIA PROPERTY			
FUTURE AIRPORT PROPERTY ACQUISITION			
FUTURE DEVELOPMENT AREAS			



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Figure E14 Terminal Area Plan

General Aviation Development. ADG-II and -III corporate hangars are programmed for development within the areas north and south of the existing commercial service terminal building.

Vehicle Access. Terminal Street S.W. will continue to function as the primary vehicle access road serving the west development area. Additional connectors and parking areas will be provided as demand dictates.

Southwest Development Area Plan

General Aviation Development. Large hangar and corporate hangar development within ADG-II and III standards are proposed for this area.

Vehicle Access. Pat Kennedy Way S.W. and Terminal Street S.W. will continue to be the primary vehicular access routes for this area. Additional connectors and parking areas will be provided as demand dictates.

Southeast Development Area Plan

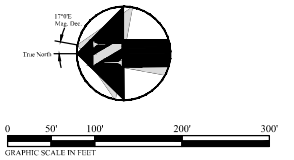
General Aviation Development. Post-planning period general aviation development is programmed for the areas south of Runway 08/26 and east of Runway 17/35. Approximately 86 acres are available for this type of development.

Aviation-Related/Compatible Development. Approximately 112 acres of property within the southeast development area are reserved for aviation-related/compatible light industrial uses.

Vehicle Access. Additional vehicular connections to Old Highway 99 S.E. and 88th Avenue S.E. are illustrated, as are interior roadways providing access to the proposed development lots.

Land Use Drawing

Figure E16, entitled *LAND USE PLAN*, depicts existing and recommended use of all land within the ultimate airport property boundary. The purpose of the Land Use Drawing is to provide the Port of Olympia a plan for leasing revenue-producing areas on the Airport. All existing and future development within the Olympia Regional Airport boundary will be compatible with the primary purpose and function of the Airport, and will generate lease revenue to support the operation of the Airport. Some areas are not likely to be provided with

[illegible]

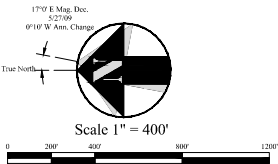
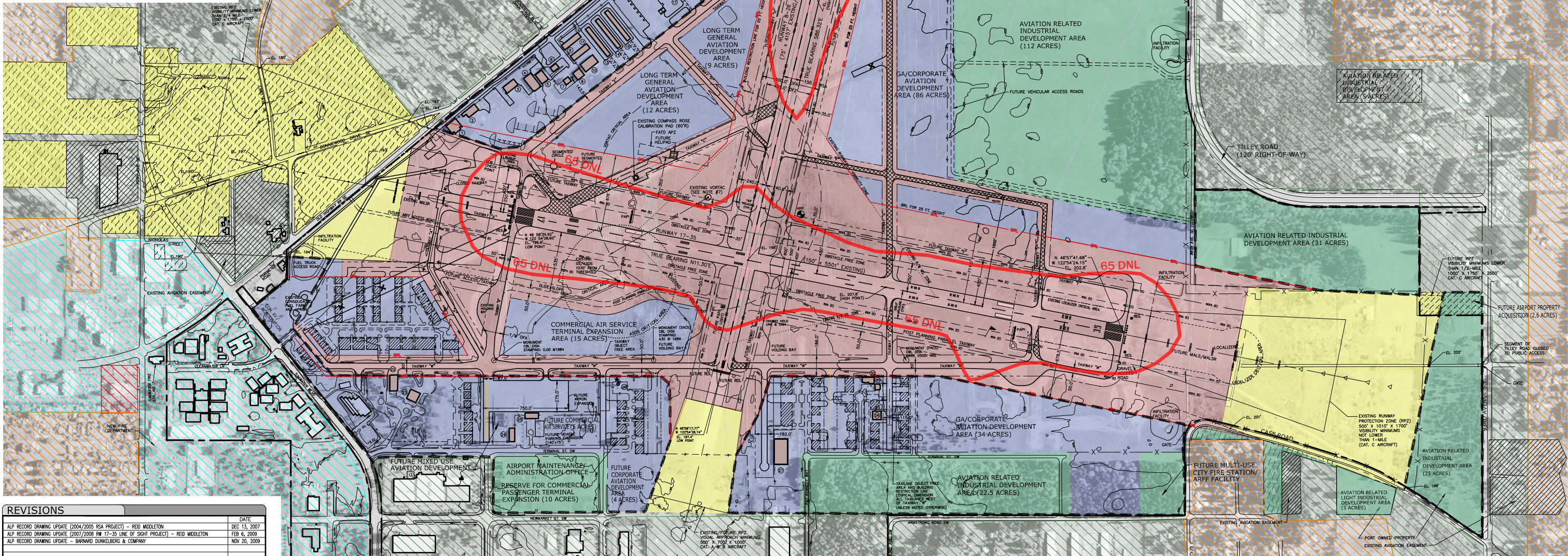
NOTES	
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2.	LATITUDE/LONGITUDE COORDINATE DATA IS NAD83. VERTICAL DATUM IS NAVD83.
3.	ORIGINAL DRAWING (DATED 6-96) PROVIDED BY RED MIDDLETON ENGINEERS, LYNEWOOD, WASHINGTON.

[illegible]

LAYOUT PLAN LEGEND		EXISTING	FUTURE
AIRPORT PROPERTY LINE			
AIRPORT SECURITY FENCE			
AIRPORT BUILDINGS			
AIRFIELD PAVEMENT			
AIRFIELD PAVEMENT TO BE REMOVED			
PAVED ROADS			
RUNWAY PROTECTION ZONE (RPZ)			
BUILDING RESTRICTION LINE (BRL)			
RUNWAY SAFETY AREA (RSA)			
RUNWAY OBJECT FREE AREA (ROFA)			
FUEL STORAGE AREA			
AIRPORT BEACON			
LIGHTED WIND CONE & SEGMENTED CIRCLE			
PRECISION APPROACH PATH INDICATOR (PAPI)			
RUNWAY END IDENTIFIER LIGHTS (REIL)			
APPROACH LIGHTS			
EXISTING AVIGATION EASEMENT			
EXISTING PORT OF OLYMPIA PROPERTY			
FUTURE AIRPORT PROPERTY ACQUISITION			
FUTURE DEVELOPMENT AREAS			

Figure E15 Southwest Development Area Plan

LAND USE LEGEND	
65 DNL NOISE CONTOUR (2030)	
AVIATION DEVELOPMENT AREA	
AVIATION-RELATED/AVIATION COMPATIBLE DEVELOPMENT AREA	
AIRCRAFT MOVEMENT AREA	
RUNWAY PROTECTION ZONE/ADAP NON-DEVELOPMENT AREA	
APPROVED DEVELOPMENT AREA *	
OFF-AIRPORT ZONING	
INDUSTRIAL	
COMMERCIAL	
MIXED USE	
RESIDENTIAL	
* Area defined by the Port of Olympia and WDFW in the 2008 Interlocal Agreement for Protection and Mitigation of State Species of Concern at the Olympia Regional Airport.	



REVISIONS	
NO.	DATE
1. AIP RECORD DRAWING UPDATE (2004/2005 RSA PROJECT) - REID MIDDLETON	DEC 13, 2007
2. AIP RECORD DRAWING UPDATE (2007/2008 RW 17-35 OF SEPT PROJECT) - REID MIDDLETON	FEB 6, 2009
3. AIP RECORD DRAWING UPDATE - BARNARD DUNKELBERG & COMPANY	NOV 20, 2009

NON-STANDARD CONDITIONS					REMARKS
ARC	STANDARD	NON-STANDARD	EXISTING	FUTURE	
EXISTING	FUTURE	EXISTING	FUTURE	EXISTING	FUTURE

NOTES	
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2. LATITUDE/LONGITUDE COORDINATE DATA IS NAD83. VERTICAL DATUM IS NAVD83.	
3. ORIGINAL DRAWING (DATED 6-96) PROVIDED BY REID MIDDLETON ENGINEERS, LYNNWOOD, WASHINGTON. LOCATIONS DEPICTED ARE ADJUSTED TO FIT ORIGINAL DRAWING COORDINATES.	
4. CONSTRUCTION PLANS AND PUBLISHED COORDINATES ARE NAD83-91 BY REID MIDDLETON ENGINEERS, LYNNWOOD, WASHINGTON. LOCATIONS DEPICTED ARE ADJUSTED TO FIT ORIGINAL DRAWING COORDINATES.	
5. PORT OF OLYMPIA DESIRES TO INCLUDE RUNWAY 17/35 WEST SIDE PARALLEL TAXIWAY AND TAXIWAY 'K' FOR LONG-TERM PLANNING PURPOSES.	
6. FAN WILL ONLY FUND THAT WHICH IS NEEDED FOR THE CRITICAL AIRCRAFT.	
7. PRIOR TO THE CONSTRUCTION OF THE ADJACENT PARALLEL TAXIWAY SYSTEM, THE EXISTING VORTAC DEVELOPMENT SITE WILL BE STUDIED TO DETERMINE IF THE FACILITY SHOULD BE RELOCATED, SHOULD BE DECOMMISSIONED, OR IF A DOPPLER MODIFICATION KIT SHOULD BE INSTALLED TO MITIGATE POTENTIAL INTERFERENCE FROM TAXIING AIRCRAFT.	

BUILDING LEGEND	
NO.	DESCRIPTION
1	WASHINGTON STATE PATROL HANGAR AND OFFICE
2	PEARSON AIR, INC., FBO
3	DEPARTMENT OF NATURAL RESOURCES OFFICES
4	MUSEUM HANGAR
5	MAINTENANCE HANGAR
6	AIRPORT ADMINISTRATION OFFICE
7	GLACIER AVIATION, FBO
8	FBO HANGAR
9	OLYMPIA AVIONICS
10	NORTHWEST HELICOPTER
11	OPEN HANGAR, PLANE PORT
12	OPEN HANGAR, PLANE PORT
13	T-HANGAR "A"
14	T-HANGAR "B"
15	T-HANGAR "C"
16	GOWER FLIGHT SERVICE, FBO
17	EXECUTIVE HANGAR "D"
18	EXECUTIVE HANGAR "E"
19	MAINTENANCE HANGAR
20	T-HANGAR "F"
21	TWIN AIRCRAFT T-HANGAR "G"
22	PENINSULA GROUP, INC. HANGAR
23	PENINSULA GROUP, INC. OFFICE
24	WASH. STATE FISH AND WILDLIFE HANGAR/OFFICE
25	AIRPORT TERMINAL BUILDING
26	FAA AIR TRAFFIC CONTROL TOWER
27	SOLODY CORPORATION
28	T-HANGAR "I"
29	PRIME DEVELOPMENT HANGAR "M"
30	NORTHWEST MARINE OFFICE
31	NORTHWEST MARINE HANGAR
32	T-HANGAR "H"
33	MAINTENANCE HANGAR (A&R)
34	PRIME DEVELOPMENT HANGAR "O"

AIRPORT DATA	
EXISTING	FUTURE
AIRPORT ELEVATION (AMSL)	208.7'
AIRPORT REFERENCE POINT (ARP)	US 10 100' X 1700'
NPIAS CATEGORY	GA
MEAN MAX. TEMPERATURE (HOTTEST MONTH)	77.2°F
TAXIWAY LIGHTING	MTL
TAXIWAY MARKING	CENTERLINE
AIRPORT PROPERTY (APPROXIMATE ACRES)	1572
UNICOM (MHz)	122.95
CONTROL TOWER (MHz)	124.4
MAGNETIC VARIATION (DATE)	17°0' E (5/2009)
AIRPORT REFERENCE CODE	C-II
AIRPORT & TERMINAL NAVAIDS	VOR, DME
	VOR,DME,GPS,NOB

LAYOUT PLAN LEGEND	
EXISTING	FUTURE
AIRPORT PROPERTY LINE	X
AIRPORT SECURITY FENCE	X
AIRPORT BUILDINGS	
AIRFIELD PAVEMENT	
AIRFIELD PAVEMENT TO BE REMOVED	
PAVED ROADS	
RUNWAY PROTECTION ZONE (RPZ)	
BUILDING RESTRICTION LINE (BRL)	BRL (F)
RUNWAY SAFETY AREA (RSA)	RSA (F)
RUNWAY OBJECT FREE AREA (ROFA)	ROFA (F)
FUEL STORAGE AREA	
AIRPORT BEACON	
LIGHTED WIND CONE & SEGMENTED CIRCLE	
PRECISION APPROACH PATH INDICATOR (PAPI)	
RUNWAY END IDENTIFIER LIGHTS (REIL)	
APPROACH LIGHTS	
EXISTING AVIATION EASEMENT	
EXISTING PORT OF OLYMPIA PROPERTY	
FUTURE AIRPORT PROPERTY ACQUISITION	
FUTURE DEVELOPMENT AREAS	

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Figure E16 Land Use Plan

airfield access through taxiway development, although, they can be utilized for non-aeronautical support activities not requiring direct airfield access. The revenue-generating potential of these areas will vary based upon local traffic patterns and vehicular access. Specific proposals for future non-aeronautical uses will be subject to additional review and approval by the FAA.

The Land Use Drawing also provides guidance to local authorities for establishing appropriate land use zoning near the Airport. As specified by the FAA Grant Assurance #21, entitled *Compatible Land Use*, the Airport Sponsor, “Will take appropriate action, to the extent reasonable, including the adoption of zoning laws, to restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operations, including landing and takeoff of aircraft.”

Airport Property Map

The *AIRPORT PROPERTY MAP*, which is presented in Figure E17, indicates how various tracts of airport property were acquired (e.g., federal funds, surplus property, local funds, etc.) and the dates of acquisition. The purpose of the drawing is to provide documentation of the current and future aeronautical use of land acquired with federal funds. According to existing property records, there is a total of 1,572 acres of fee simple property that is owned by the Port of Olympia. It should be noted that the Port is planning to acquire, in fee simple, approximately 2.6 acres of additional property within and adjacent to the future Runway 35 RPZ, and one additional acre, in easement, within the Runway 26 RPZ

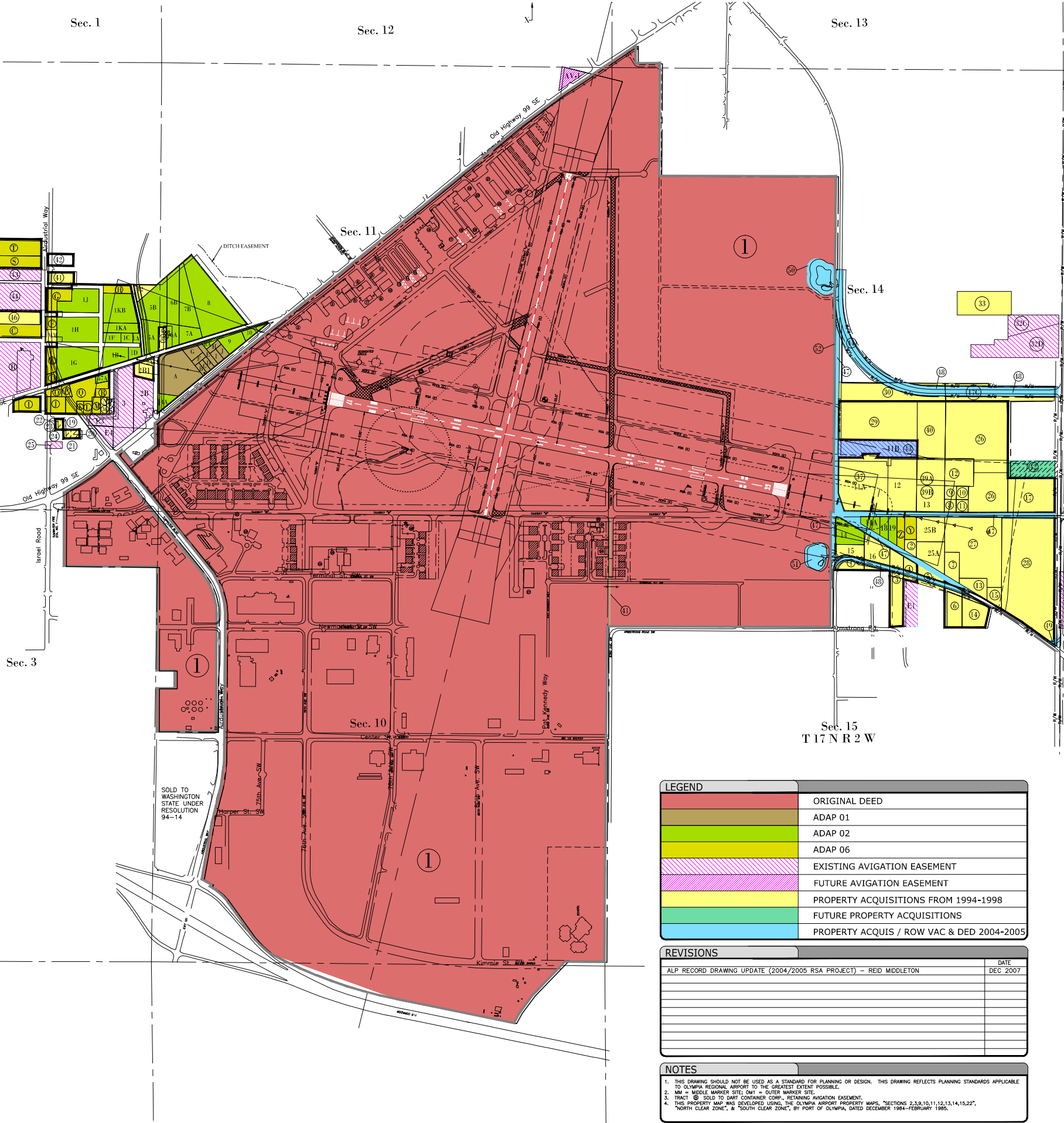
OLYMPIA PROPERTY INFORMATION						
TRACT NO.	ADAP PROJECT	PREVIOUS OWNER	ACREAGE	INTEREST	DATE ACQUIRED	
1	---	CITY OF OLYMPIA		FEE	10/01/1963	
	---	WESTON		FEE	03/18/1965	
	---	FOX (DEW)		FEE	07/09/1965	
	---	JONES		FEE	11/05/1965	
	---	BUNCE		FEE	---	
	---	WALTERS		FEE	01/28/1966	
	---	THURSTON CO.		FEE	09/01/1968	
N*	---	HOLDEN		AV.EASE	05/29/1981	
AV-1	---			FUT.AVEASE		
* - EASEMENT LOCATED IN THE SW1/4 OF SECTION 12, FROM THE SE CORNER OF THE SW1/4 OF SEC.12, GO NORTH A DISTANCE OF 487.53 FEET, TO THE POINT OF BEGINNING, THEN NORTH A DISTANCE OF 1246.17 FEET, THEN WEST A DISTANCE OF 563.99 FEET (ALONG MARBLE BOW ROAD), THEN SOUTH A DISTANCE OF 1363.52 FEET, THEN NORTHEASTERLY A DISTANCE OF 565.03 FEET, TO THE POINT OF BEGINNING.						

NORTH CLEAR ZONE PROPERTY INFORMATION						
TRACT NO.	ADAP PROJECT	PREVIOUS OWNER	ACREAGE	INTEREST	DATE ACQUIRED	
A	01	TANNER		FEE	07/25/1966	
B	01	HUNGERFORD		AV.EASE	06/23/1965	
C	01	OLSEN		FEE	05/12/1965	
D	01	HUFF		FEE	05/14/1965	
E	01	PETERS		FEE	07/19/1966	
F	01	SPRINGER		FEE	07/20/1965	
G	01	KITNA		FEE	---	
H	01	DELONG		FEE	06/22/1966	
I	01	BROWN		FEE	05/12/1965	
J	01	WALKER		FEE	05/14/1965	
1A	02	MADISON		FEE	01/09/1974	
1B	02	VEH		FEE	01/09/1974	
1C	02	COTTRELL		FEE	01/09/1974	
1D	02	HATCHER		FEE	01/09/1974	
1E	02	VEH		FEE	06/03/1974	
1G	02	VEH		FEE	06/03/1974	
1H	02	VEH		FEE	06/03/1974	
1J	02	VEH		FEE	06/03/1974	
1KA	02	COTTRELL		FEE	03/08/1974	
1KB	02	HATCHER		FEE	01/09/1974	
2A	---	DESCHUTES		FEE	03/06/1975	
2B	---	DESCHUTES		AV.EASE	---	
2B1	---	DESCHUTES		FEE	---	
3	---	BAY/ROMIG/BRADEN		AV.EASE	02/24/1975	
4	02	BECKETT		AV.EASE	04/01/1969	
4A	02	TANNER		FEE	03/29/1967	
5A,5B	02	BECKETT/BADGLEY		FEE	05/15/1974	
6A,6B	02	LAMBERT		FEE	---	
7A,7B	02	CYSEWSKI		FEE	---	
8	02	BROOKS	7.5	FEE	05/26/1974	
8A	02	BRAGET		FEE	12/30/1968	
9	02	SCHUMAN (FOX)		FEE	01/16/1969	
10	---	MAY		FEE	06/22/1971	
11	06	MUSKROVE		FEE	05/10/1979	
12	06	HATCHER, G.G.		AV.EASE	09/13/1980	
13	06	WATKINS		FEE	06/25/1980	
14	06	LINN		FEE	08/30/1979	
15	06	HATCHER, S.		FEE	08/13/1980	
16	06	HATCHER, G.G.		FEE	08/13/1980	
17	06	McLAUGHLIN		FEE	05/23/1979	
18	06	NEWTON		FEE	09/28/1979	
19	06	NEEDHAM		FEE	08/06/1979	
20	06	WOODWARD		FEE	08/01/1979	
21	06	NEEDHAM		FEE	05/23/1978	
22	06	GARRICK		FEE	08/17/1979	
23	06	BRUNER		FEE	08/02/1979	
24	06	KANGAS		AV.EASE	06/19/1980	
25	06	GREENUP		FEE	06/29/1978	
26	06	SOMMER		FEE	11/06/1978	
27	06	NEEDHAM		FEE	11/09/1977	
28	06	CHAPMAN		FEE	11/09/1977	
29	06	JOHNSON, CLYDE		FEE	09/08/1980	
30	06	JOHNSON, CLIFF		FEE	05/22/1980	
31A	02	SCHRAM		FEE	04/26/1974	
62	---	FAUVER		FEE	03/08/1974	
MM	---	DELANEY		FEE	06/16/1972	
OM1	---	4-SQUARE CHURCH		FEE	03/06/1985	
2BB	---	MASSER		AV.EASE	06/07/1974	
29	---	FRANKS		FUT.EASE	TO BE ACQUIRED	
30	RES 94-14	ASBACH		FEE	3/14/97	
31	---	FRANKS		FUT.EASE	TO BE ACQUIRED	
32	RES 94-14	NEEDHAM		FEE	12/19/97	
33	---	FRANKS		FUT.EASE	TO BE ACQUIRED	
34	---	FRANKS		FUT.EASE	TO BE ACQUIRED	
35	RES 94-14	SLINKER		AV.EASE	9/1/95	
36	RES 94-14	BECKETT		FEE	7/28/95	
37	RES 94-14	KANGAS		FEE	3/14/97	
38	RES 94-14	HOAGE		FEE	7/7/95	
39	RES 94-14	DECKERT		FUT.EASE	ON HOLD	
40	RES 94-14	OLIVER		AV.EASE	7/7/95	
41	RES 94-14	OLIVER		AV.EASE	7/7/95	
42	---	HATCHER		FEE	UNKNOWN	
E2	---	UNKNOWN		AV.EASE	UNKNOWN	
E3	---	OLD TOWNE PLAZA	0.9	AV.EASE	DEC. 2004	
E4	---	OLD TOWNE PLAZA	0.7	AV.EASE	12/1/05	

SOUTH CLEAR ZONE PROPERTY INFORMATION						
TRACT NO.	ADAP PROJECT	PREVIOUS OWNER	ACREAGE	INTEREST	DATE ACQUIRED	
11A	02	ARMSTRONG		AV.EASE	01/05/72	
11B	02	ARMSTRONG		AV.EASE	01/05/72	
12	02	LEE		FEE	04/03/73	
13	NO PARTICIPATION	FOLK		AV.EASE	12/05/72	
14	02	ARMSTRONG		FEE	12/23/68	
14A	02	ARMSTRONG		FEE	12/23/68	
15	NO PARTICIPATION	CARTY		FEE	05/04/73	
16	NO PARTICIPATION	PROVOE		FEE	07/03/72	
18	02	INCHONG	0.5	FEE	03/04/69	
19	02	REED		FEE	05/09/69	
25A	NO PARTICIPATION	BUNCE		FEE	11/24/72	
25B	NO PARTICIPATION	RIDGEWAY		FEE	01/20/72	
26	NO PARTICIPATION	RAU, EL. AL	1.0	AV.EASE	04/19/83	
27	06	HESS	20.0	FEE	12/30/72	
28	06	WOLF		FEE	12/01/76	
29	RES 94-14	CRAWFORD		FEE	12/19/97	
30	RES 94-14	HAGEN		FEE	5/30/97	
31	AIP 09	TAYLOR		FEE	5/30/97	
32	AIP 09	POTTER		FEE	5/30/97	
33	RES 94-14	EFFERT		FEE	10/24/97	
34	RES 94-14	TUDOR		FEE	10/13/96	
35	RES 94-14	SEYMOUR		FEE	5/30/97	
36	RES 94-14	HILL		FEE	5/30/97	
37	RES 94-14	JAMISON		FEE	5/30/97	
38	RES 94-14	ZABNER		FEE	12/5/97	
39	RES 94-14	MURPHY		FEE	12/5/97	
40	RES 94-14	LUK		FEE	7/7/95	
41	RES 94-14	GRUENFELDER		FEE	12/19/97	
42	RES 94-14	NIEDERREITER		FEE	6/28/97	
43	RES 94-14	MUNSON		FEE	5/30/97	
44	PARTIAL RES 94-14	MATTHEWS		FEE	6/28/96	
45	NO PARTICIPATION	MINKLER		FEE	11/3/95	
46	PARTIAL RES 94-14	IKERD		FEE	07/01/00	
47	RES 94-14	MURPHY		FEE	05/31/02	
48	NO PARTICIPATION	BANKUTI		FEE	9/1/95	
49	NO PARTICIPATION	MCLEOD		FEE	7/3/97	
50	NO PARTICIPATION	MOAG		FEE	8/27/96	
51	NO PARTICIPATION	CAIN		AV.EASE	3/1/96	
52	NO PARTICIPATION	CRAIN		AV.EASE	6/28/95	
53	NO PARTICIPATION	TILLEY		FEE	9/1/95	
54	AIP 09	ODEGAARD		FEE	6/20/97	
55	RES 94-14	FOLK		FEE	9/26/97	
56	NO PARTICIPATION	MCLEOD		FEE	12/5/97	
57	AP 3-53-00H-024-203	THURSTON COUNTY	0.5	FEE	8/23/13	
58	UNKNOWN	UNKNOWN	2.6	FUT. FEE	UNKNOWN	
59	UNKNOWN	ARMSTRONG		FEE	UNKNOWN	
60	12	LECLERC	3.67	FEE	3/26/04	
61	UNKNOWN	UNKNOWN		AV.EASE	UNKNOWN	
62	12	FEDIAI	0.0054	FEE	8/9/04	
63	12	SCHUR	0.037	FEE	7/16/04	
64	12	CITY OF TUMWATER	9.08	FEE	10/6/04	

PROPERTY RELEASE INFORMATION						
TRACT NO.	ADAP PROJECT	PREVIOUS OWNER	ACREAGE	INTEREST	DATE RELEASED	
44	12	LECLERC	3.67	PER.EASE	5/12/04	
62	12	FEDIAI	0.0054	FEE	11/13/06 *	
64	12	SCHUR	0.037	FEE	11/13/06 *	
68	12	PORT OF OLYMPIA	7.87	PER.EASE	5/12/04	
69	12	PORT OF OLYMPIA	0.12	PER.EASE	7/30/04	
70	12	PORT OF OLYMPIA	3.05	DRN.EASE	2004 *	
51	12	PORT OF OLYMPIA	1.69	DRN.EASE	2004 *	
63	12	PORT OF OLYMPIA	1.07	ACC.EASE	10/6/04	

* VERIFICATION OF ACTUAL DATE PENDING



LEGEND

- ORIGINAL DEED
- ADAP 01
- ADAP 02
- ADAP 06
- EXISTING AVIGATION EASEMENT
- FUTURE AVIGATION EASEMENT
- PROPERTY ACQUISITIONS FROM 1994-1998
- FUTURE PROPERTY ACQUISITIONS
- PROPERTY ACQUIS / ROW VAC & DED 2004-2005

REVISIONS

ALP RECORD DRAWING UPDATE (2004/2005 RSA PROJECT) - REID MIDDLETON	DATE
	DEC 2007

NOTES

- THIS DRAWING SHOULD NOT BE USED AS A STANDARD FOR PLANNING OR DESIGN. THIS DRAWING REFLECTS PLANNING STANDARDS APPLICABLE TO OLYMPIA REGIONAL AIRPORT TO THE GREATEST EXTENT POSSIBLE.
- MM = MIDDLE MARKER SITE; OM1 = OUTER MARKER SITE.
- TRACT 62 SOLD TO DART CONTAINER CORP., RETAINING AVIGATION EASEMENT.
- THIS PROPERTY MAP WAS DEVELOPED USING THE OLYMPIA AIRPORT PROPERTY MAPS, "SECTIONS 2,3,9,10,11,12,13,14,15,22," "NORTH CLEAR ZONE," & "SOUTH CLEAR ZONE," BY PORT OF OLYMPIA, DATED DECEMBER 1984-FEBRUARY 1985.

MASTER PLAN UPDATE

**Port of Olympia/
Olympia Regional Airport**

Barnard Dunkelberg & Company
A Mead & Hunt Company
1616 East 15th Street
Tulsa, Oklahoma 74120
918.585.8844

Figure E17 Airport Property Map - Exhibit 'A'