Airport Plans





The airport plans are one of the last steps in the development of a airport layout plan report. They are a pictorial representation and summarization of the efforts made in the airport layout planning process. The previous chapters on Inventory, Forecasting, and Facility Requirements/Alternatives and the reviews provided by the Planning Advisory Committee (PAC) supply the basis for the existing and future airport layouts that are shown in the airport plans. As was previously discussed, the development at an airport should rely more on actual demand rather than a time-based forecast. The development shown in the airport plans reflects planned development, but the course and timing of this development must be carried forward as airport activity demands, rather than in the exact form it has been presented.

The basemapping developed for the previous master plan airport layout drawings was used for this updated set of drawings. An aerial photo of the airport is also used as a basemap when appropriate.

AIRPORT LAYOUT DRAWINGS

COVER SHEET

The cover sheet shows both the location and the vicinity map for the Newport Municipal Airport. A sheet index to the airport layout plan drawings is also provided on this sheet.

AIRPORT LAYOUT PLAN

The airport layout plan depicts the current airport layout and the proposed improvements to the airport for the 20-year planning period. Descriptions of the improvements and costs over the next 20-years are included in the Chapter 5, Capital Improvement Projects (CIP). As previously mentioned, the needs defined in the Facility Requirements/Alternatives (Chapter 3) and the reviews provided by the PAC were the basis for determining the proposed improvements at the Newport Municipal Airport. The future airport development is shown on the airport layout plan as required by the FAA. The plan can be modified to accommodate development as dictated by demand.

Runway visibility minimums, runway protection zones, object free areas, safety areas and other standard airport dimensions are shown in the plan and in the runway data tables.

AIRPORT AIRSPACE PLAN

This plan shows the Part 77 Imaginary Surfaces for the ultimate layout of Newport Municipal Airport with a USGS map as the background. Airport imaginary surfaces consist of five different types of surfaces. The surfaces for Newport Municipal Airport are as follows:

Primary Surface: A rectangular surface with a width that varies for each runway (centered on the runway centerline) and a length that extends 200 feet beyond each end of the runway. The elevation of the primary surface corresponds to the elevation of the nearest point of the runway centerline. The width of the primary surface is 500 feet for Runway 02/20 and 1,000 feet for Runway 16/34.

Approach Surface: A surface centered on the extended runway centerline, starting at each end of the primary surface, at a width equal to that of the primary surface and an elevation equal to that of the end of the runway; extending a horizontal distance of 5,000 feet at a slope of 20:1 for visual approaches (Runway 02/20), 10,000 feet at a slope of 34:1 for nonprecision approaches (Runway 34), and 10,000 feet at a slope of 50:1 with an additional 40,000 feet at a slope of 40:1 for all precision approaches (Runway 16) to a width of 1,500 feet for Runway 02/20, a width of 4,000 feet for Runway 34, and a width of 16,000 feet for Runway 16.

Transitional Surface: A sloping 7:1 surface that extends outward and upward at right angles to the runway centerline from the sides of the primary surface and the approach surfaces.

Horizontal Surface: An elliptical surface at an elevation 150 feet above the established airport elevation created by swinging 10,000-foot radius arcs from the center of each end of the primary surface of Runway 16/34 and by swinging a 5,000-foot radius arcs from the center of each end of the primary surface of Runway 02/20. Then the adjacent arcs are connected by lines tangent to those arcs.

Conical Surface: A surface extending outward and upward from the horizontal surface at a slope of 20:1 for a horizontal distance of 4,000 feet.

It is ideal to keep these surfaces clear of obstructions whenever possible. The Part 77 surfaces are the basis for protection of the airspace around the airport. Obstructions to these surfaces are identified in the Obstruction Data Tables (on sheets 3, 4, and 5), along with the plan to address the described obstructions. Obstructions to the Part 77 surfaces were determined based on a review of the USGS map and a survey map provided by the National Oceanic Atmospheric Administration (NOAA) with the associated obstruction data sheet based on a survey performed in October of 1994. Past obstruction removal information and the FAA 5010 form were also used to identify the existing obstructions. Obstruction removal has been incorporated into the capital improvement program.

RUNWAY PROTECTION ZONE PLANS & PROFILES

This group of drawings provides a view of the runway protection zones and obstructions to the approach surfaces within those zones.

LAND USE PLAN

A land use plan has been developed for the airport and the surrounding area. This plan includes the zoning on and around the airport, future noise contours for 2008, and a table depicting the zoning ordinances that affect or are related to the airport.

Noise contours were created for both the existing (2003) and the future (2008) airport plan using the FAA Integrated Noise Model software program. The approach and take-off patterns of the aircraft and the number of aircraft operations dictate the noise contours. The future noise contours are shown on the land use plan. The two sets of noise contours are shown on Exhibit 4A. These noise contours provide a basis for evaluation of the land use around the airport, which is discussed in greater length in the Land Use Compatibility section of this chapter.

There is one zoning ordinance called the City of Newport Airport Restricted Area, which addresses airport uses. The zone is identified on the land use plan and discussed in more detail in the Land Use Compatibility Section of this chapter.

LAND USE COMPATIBILITY

The following section addresses the impact of the airport on the surrounding environs and the impact of adjacent land uses on the airport.

RUNWAY PROTECTION ZONES

Runway protection zones (RPZ's) are trapezoidal, two-dimensional areas off each runway end designated to "enhance the protection of people and property on the ground". The RPZ's are centered on the runway centerline. The RPZ dimensions for each runway end is dependent upon the type of aircraft and approach visibility minima. The Oregon Department of Aviation (ODA)

recommends that only farm uses and, under limited circumstances, public airports, roads, parking, utilities, parks/open space, and golf courses, be allowed within the airport's RPZ. No structures should be allowed within the RPZ, unless they are structures accessory to airport operations that have been approved by the FAA. New residential developments and public assembly facilities are prohibited in the RPZ's. For an expanded list of limitations to uses within the RPZ, see the ODA "Public Use Airport Safety and Compatibility Overlay Zone", contained in the appendix.

The portion of the land within the RPZ's for Runways 02, 16, 20, and 34, but outside of airport property, is designated by the City of Newport as Public Buildings and Structures, Planned Industrial, Rural Residential, Single Family Residential, Resort Land, and Agriculture. This zoning is somewhat in conflict with the recommended uses in the RPZ. The primary conflicts are residential and industrial uses in the RPZ. The City should consider changing the zoning in the RPZ and the immediate airport vicinity to eliminate the land use conflicts.

The City of Newport should consider avigation easements or property acquisition for the RPZ's, since the existing RPZ's are not entirely on airport property. There is an RPZ area at both ends of Runway 16/34 that would need to be acquired. Avigation easements or property acquisition will protect both the airport and those using the land within the easement areas by addressing "right of flight" for aircraft (including noise, fumes, etc.), height restrictions, limitations on construction, and right to clear vegetation or bringing the entirety of the land under airport control.

NOISE CONTOURS

Noise contours were created for both the existing (2003) and the future (2008) airport plan using the FAA Integrated Noise Model software program. The approach and take-off patterns of the aircraft and the number of aircraft operations dictate the noise contours. The future noise contours are shown on the land use plan. The two sets of noise contours are shown on **Exhibit 4A**. These noise contours provide a basis for evaluation of the land use around the airport.

Noise levels are measured in decibels of Day-Night Average Sound Levels or DNL. This measurement is then translated to contours, which depict the areas within the various DNL levels. F.A.R. Part 150, summarized in **Exhibit 4B**, provides guidelines for noise levels around an airport. Noise concerns are reduced when the noise level is below 65 DNL. The 65 DNL noise contour is completely within the existing airport property boundary, so there are no specific noise concerns for the airport. The 55 DNL contour is still reviewed by the ODA, so this contour has also been shown on the land use drawing. The 55 DNL also remains almost entirely within the airport property with the exception of a portion off Runway 34.

AIRPORT AIRSPACE OBSTRUCTION PROTECTION AND LAND USE COMPATIBILITY ADJACENT TO THE AIRPORT

In general, land use concerns associated with the areas around airports fall into one of the following categories:

- Lighting
- Glare, Smoke and Dust
- Bird Attractions/Landfills
- Airspace Obstructions and Height Restrictions
- Electrical Interference
- Concentrations of People
- Noise Impacts

Any of these activities can create safety concerns for airport users and people on the ground or can be impacted adversely by airport operations. It is important that these issues be addressed in the land use zoning and development around an airport.

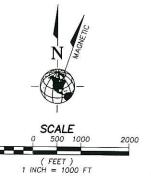
The Newport Municipal Airport and the adjacent land areas are regulated by the City of Newport "Airport Restricted Area."

The ODA "Airport Safety and Compatibility Overlay Zone (for public uses airports with instrument approaches)" should be reviewed and incorporated into the existing zoning criteria. The document is contained in the appendix of this plan. By incorporating this document into their zoning ordinance, the city will have taken the appropriate steps to protect the Part 77 Airport Imaginary Surfaces and limit uses to avoid issues with noise, outdoor lighting, glare, visibility obstruction from emissions, electrical interference to NAVAIDs, and wildlife attractions.

Obstruction Removal

The obstructions and the proposed course for addressing those obstructions have been identified and are shown on airport plan sheets 3, 4 and 5. As previously mentioned, the obstructions information incorporated into this plan was obtained from a USGS map and a survey map provided by the National Oceanic Atmospheric Administration (NOAA) with the associated obstruction data sheet based on a survey performed in October of 1994. Past obstruction removal information and the FAA 5010 form were also used to identify the existing obstructions. Vegetation obstructions were removed and verified by survey during AIP-10 project work; these removals were taken into account on the plan. NAVAIDs were found to be obstructions to the primary surface, but are not a concern because they are frangible and fixed by a functional purpose. An equipment shelter is also an obstruction to the primary surface, but it is already lighted. There is an area of ground surface to the east of Runway 34 that is an obstruction to the primary surface. This area should be regraded. There are two poles that are obstructions to Part 77 surfaces that need to be lighted. The local access road is an obstruction to the Part 77 20:1 visual approach surface of Runway 20, but is cleared by the obstruction clearance approach surface, so it can remain in its existing location. The approaches for Runway's 2 and 16 are clear of obstructions.







EXISTING NOISE CONTOURS - 2003

 DESIGNED BY:
 LAM
 CHECKED BY:
 REA

 DRAWN BY:
 CMB
 APPROVED BY:

 LAST EDIT:
 10/28/03
 PLOT DATE:
 04/29/04

9755 SW Barnes Rd., #300 Portland, Oregon 97225





OREGON DEPARTMENT OF AVIATION NEWPORT MUNICIPAL AIRPORT **NOISE CONTOURS**

EXHIBIT 4A

NEWPORT SCALE: 1"=1000"

PROJECT NO. **31468**

DRAWING FILE NAME: 30295—NWP—EX4A

4A SHEET

| LANDLICE | Yearly D | ay-Night A | Average So | ound Leve | l (DNL) in | Decibels |
|--|-------------|----------------|----------------|----------------|----------------|----------------|
| LAND USE | Below 65 | 65-70 | 70-75 | 75-80 | 80-85 | Over 85 |
| RESIDENTIAL | | The same | | | | |
| Residential, other than mobile homes and transient lodgings | Υ | N ¹ | N ¹ | Ν | N | N |
| Mobile home parks | Υ | N | Ν | Ν | Ν | N |
| Transient lodgings | Υ | N ¹ | N ¹ | N ¹ | N | Ν |
| PUBLIC USE | | | | | | |
| Schools | Υ | N ¹ | N ¹ | Ν | N | Ν |
| Hospitals and nursing homes | Υ | 25 | 30 | Ν | N | N |
| Churches, auditoriums, and concert halls | Υ | 25 | 30 | N | N | N |
| Government services | Υ | Υ | 25 | 30 | N | N |
| Transportation | Υ | Υ | Y ² | Y ³ | Y ⁴ | Y^4 |
| Parking | Υ | Y | Y ² | Y ³ | Y ⁴ | N |
| COMMERCIAL USE | | | | | | |
| Offices, business and professional | Υ | Υ | 25 | 30 | N | Ν |
| Wholesale and retail-building materials, hardware and farm equipment | Υ | Υ | Y ² | Y ³ | Y ⁴ | Ν |
| Retail trade-general | Υ | Υ | 25 | 30 | N | N |
| Utilities | Υ | Υ | Y ² | Y ³ | Y ⁴ | Ν |
| Communication | Υ | Υ | 25 | 30 | N | Ν |
| MANUFACTURING AND PRODUCTION | | | | | | |
| Manufacturing, general | Υ | Υ | Y ² | Y^3 | Y ⁴ | Ν |
| Photographic and optical | Υ | Υ | 25 | 30 | N | N |
| Agriculture (except livestock) and forestry | Υ | Y ⁶ | Y ⁷ | Υ ⁸ | Υ ⁸ | Υ ⁸ |
| Livestock farming and breeding | Υ | Y ⁶ | Y ⁷ | N | N | N |
| Mining and fishing, resource production and extraction | Υ | Υ | Υ | Υ | Υ | Υ |
| RECREATIONAL | | | | | | |
| Outdoor sports arenas and spectator sports | Υ | Y ⁵ | Y ⁵ | N | N | N |
| Outdoor music shells, amphitheaters | Υ | N | N | N | N | N |
| Nature exhibits and zoos | Υ | Υ | N | N | N | N |
| Amusements, parks, resorts, and camps | Υ | Υ | Υ | N | N | Ν |
| Golf courses, riding stables, and water recreation | Υ | Υ | 25 | 30 | N | N |

The designations contained in this table do not constitute a federal determination that any use of land covered by the program is acceptable under federal, state, or local law. The responsibility for determining the acceptable and permissible land uses and the relationship between specific properties and specific noise contours rests with the local authorities. FAA determinations under Part 150 are not intended to substitute federally-determined land uses for those determined to be appropriate by local authorities in response to locally-determined needs and values in achieving noise compatible land uses.

See other side for notes and key to table.

KEY

- Y (Yes) Land Use and related structures compatible without restrictions.
- N (No) Land Use and related structures are not compatible and should be prohibited.
- **NLR** Noise Level Reduction (outdoor-to-indoor) to be achieved through incorporation of noise attenuation into the design and construction of the structure.
- 25, 30, 35 Land Use and related structures generally compatible; measures to achieve NLR of 25, 30, or 35 dB must be incorporated into design and construction of structure.

NOTES

- Where the community determines that residential or school uses must be allowed, measures to achieve outdoor-to-indoor Noise Level Reduction (NLR) of at least 25 dB and 30 dB, respectively, should be incorporated into building codes and be considered in individual approvals. Normal residential construction can be expected to provide a NLR of 20 dB; thus, the reduction requirements are often stated as 5, 10, or 15 dB over standard construction and normally assume mechanical ventilation and closed windows year round. However, the use of NLR criteria will not eliminate outdoor noise problems.
- 2 Measures to achieve NLR of 25 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise-sensitive areas, or where the normal noise level is low.
- 3 Measures to achieve NLR of 30 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise-sensitive areas, or where the normal noise level is low.
- 4 Measures to achieve NLR of 35 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise-sensitive areas, or where the normal noise level is low.
- 5 Land use compatible provided special sound reinforcement systems are installed.
- 6 Residential buildings require a NLR of 25.
- 7 Residential buildings require a NLR of 30.
- 8 Residential buildings not permitted.

Source: F.A.R. Part 150, Appendix A, Table 1.



OTHER LAND USE ISSUES

In addition to the zoning of the airport property, there are four special land use concerns on which the FAA focuses. The first is floodplains on the airport property. There are no floodplains within the boundaries of the airport property. Another issue is if there is any land regulated by Section 303(C) of Title 49, U.S.C. Section 303(C) land is publicly owned public parks and recreation areas, waterfowl and wildlife refuges, historic sites, public bikeways and trails, bodies of water, and a number of other similar categories. The nearby beaches and the Pacific Ocean would fall into this category, but there is no Section 303(C) land on the airport property. Landfills within five miles of the airport are also a concern. However, there are no landfills within five miles of Newport Municipal Airport.

AIRPORT PROPERTY ZONING

Newport Municipal Airport is designated by the City of Newport as a "Public Buildings and Structures Zone." This designation is general zoning for any public buildings and structures. It is recommended that the City consider re-zoning the airport property to a "public use airport" zone. This change would limit the use of this property more specifically to airport and airport related uses. The airport property would then be protected from uses that may be undesirable or damaging to the airport. A model "Public Use Airport Zone" definition is provided in the Oregon Administrative Rule (OAR) 660 Division 1 and in the appendix to this plan. The City does not have a published zoning map for this area at this time, but it is in the development process. Lincoln County does not have any specific zoning designations for the airport and airport property.

The ODA is undertaking a state wide land use planning project in 2004. The first phase will be to inventory the current zoning at all airports through out the state. The second phase will be to assist individual communities with zone change procedures to bring the zoning into line with the OARs mention above.

Development Opportunities and Associated Land Uses

When an airport owns property the size of Newport Municipal Airport, there is an opportunity to look at the revenue producing land uses around that property. First and foremost, the airport property must be reserved for airfield facilities, OFA, RSA, OFZ and RPZ protection, NAVAIDS and aviation-dependent land uses. Through the development of this plan, the airport has identified the areas that need to be preserved over the next twenty years for these uses. In addition, the economic health of the airport must be maintained to keep the airport in operation. Other airports have successfully done this by leasing out areas of their property to industrial and commercial land uses. If this approach is taken, the industrial and commercial land uses must comply with all of the restrictions appropriate for development around the airport including light, glare, smoke, dust, bird attractions, airspace obstructions and height restrictions, electrical interference, concentrations of people and noise. The restrictions applicable to this property can

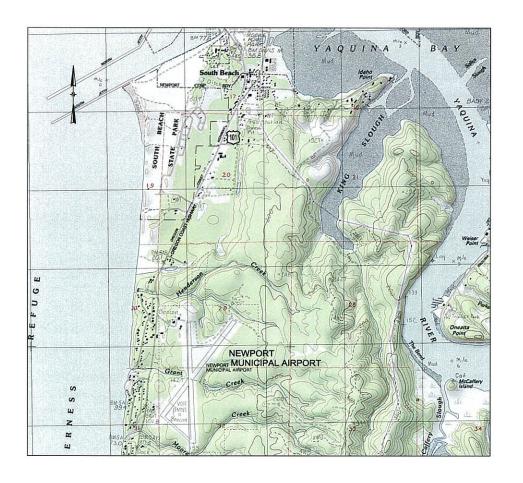
be written into the lease agreement to insure the protection of the airport. The standard ODA "Public Use Airport Zone" would need to be edited to include industrial or commercial land uses. If the appropriate steps are taken, leasing airport property for industrial and commercial development can benefit the financial health of the airport.

The section of airport property proposed for non-aviation related development was federal surplus property transferred from the Navy to the City of Newport. In order to lease this property for a non-aviation use, it must be shown that the property is not needed for airport development in the foreseeable future (up to 50-years) and that the airport benefits from the leasing of the property. In addition, the FAA must approve this non-aviation use.

OREGON DEPARTMENT OF AVIATION NEWPORT MUNICIPAL AIRPORT AIRPORT LAYOUT PLAN A.I.P. NO. 3-41-4100-13

SEPTEMBER 2004

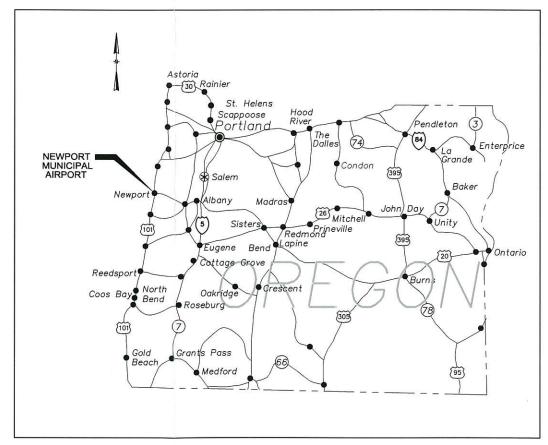
VICINITY MAP



SHEET INDEX

| SHEET | DESCRIPTION |
|---------|---|
| SHEET 1 | COVER SHEET |
| SHEET 2 | AIRPORT LAYOUT PLAN |
| SHEET 3 | AIRPORT AIRSPACE PLAN |
| SHEET 4 | INNER PORTION OF THE APPROACH SURFACE |
| SHEET 5 | RUNWAY 16/34 & 2/20 PROTECTION ZONE PROFILES |
| SHEET 6 | LAND USE PLAN |

LOCATION MAP





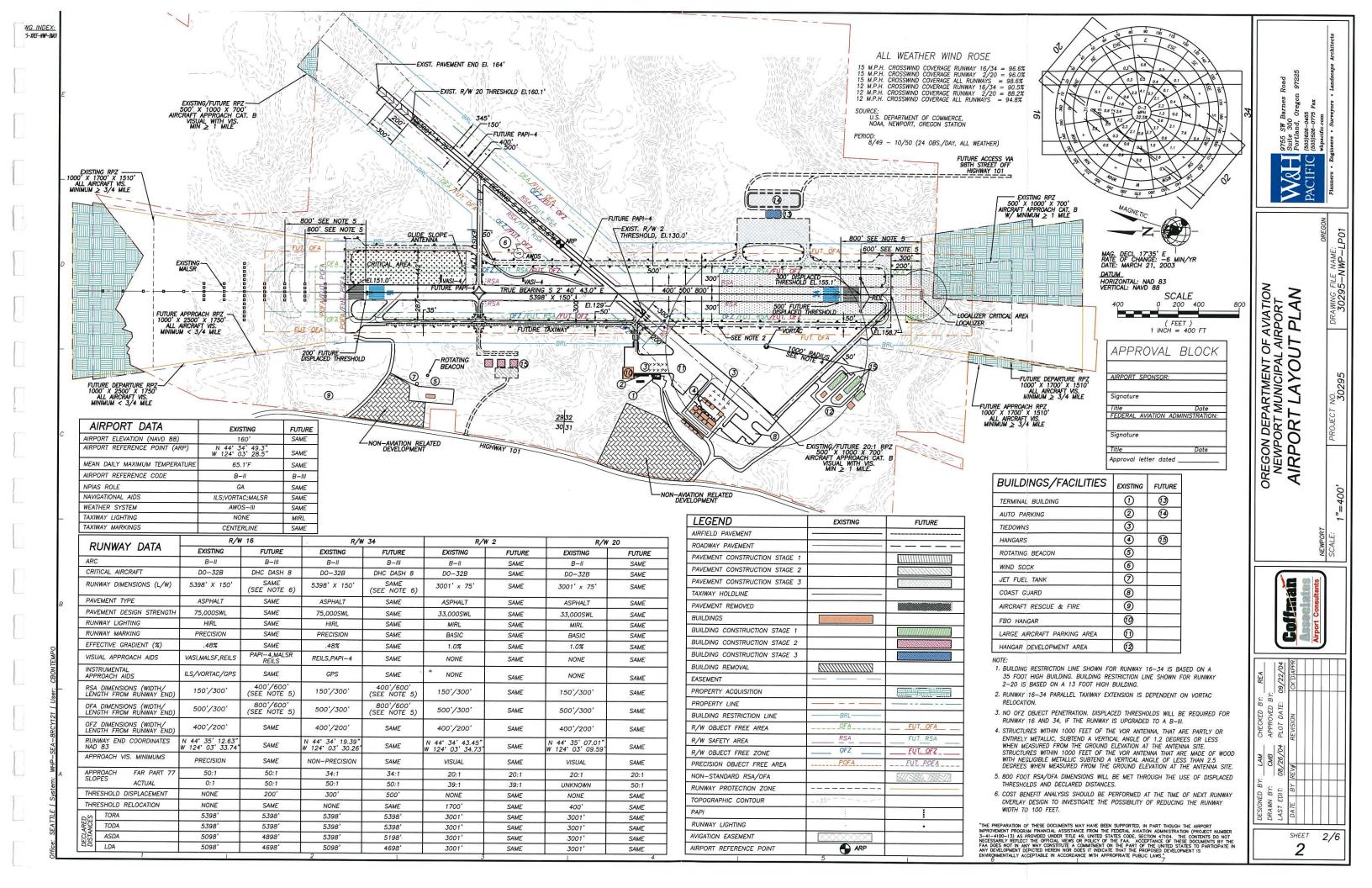
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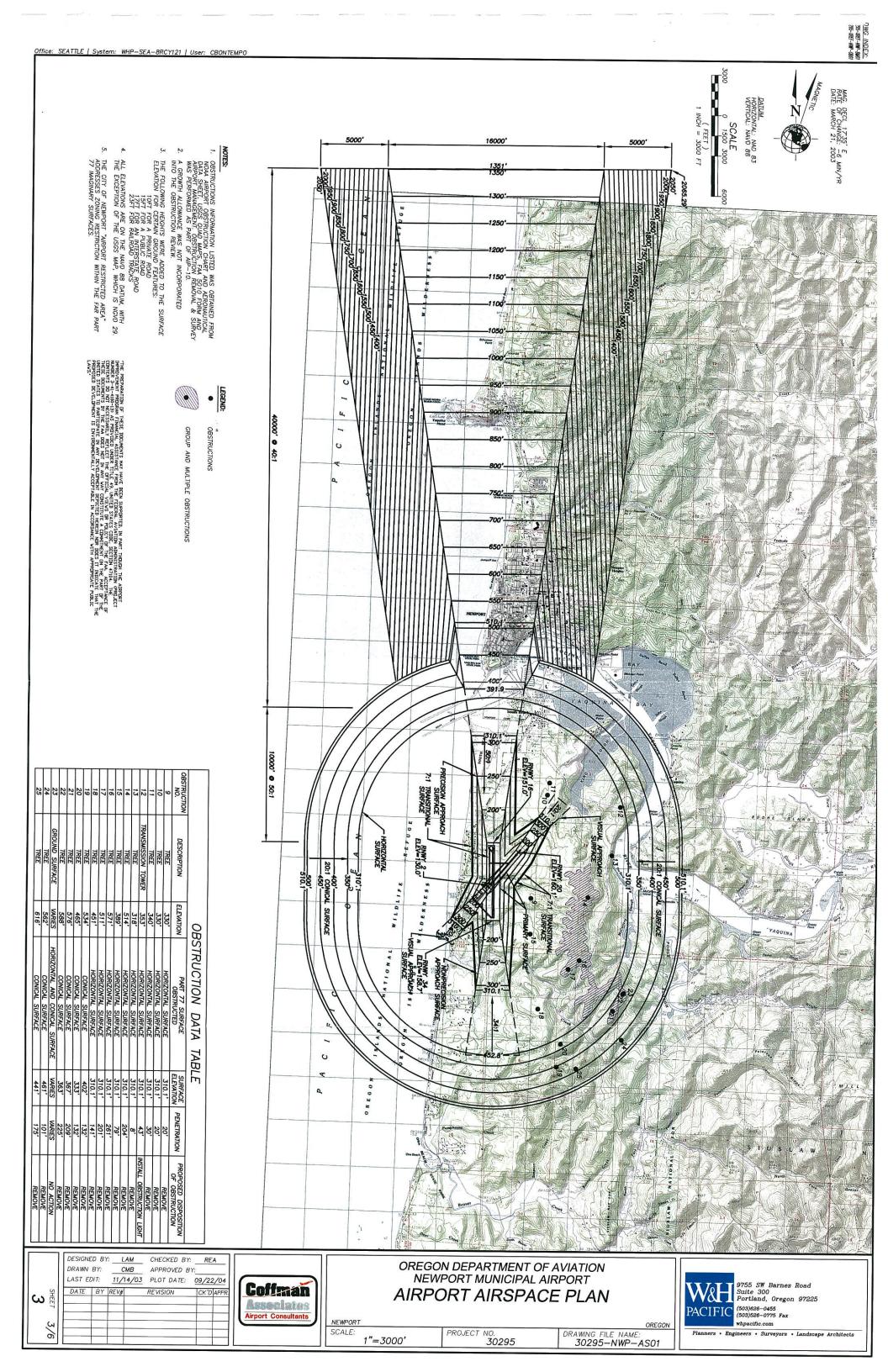


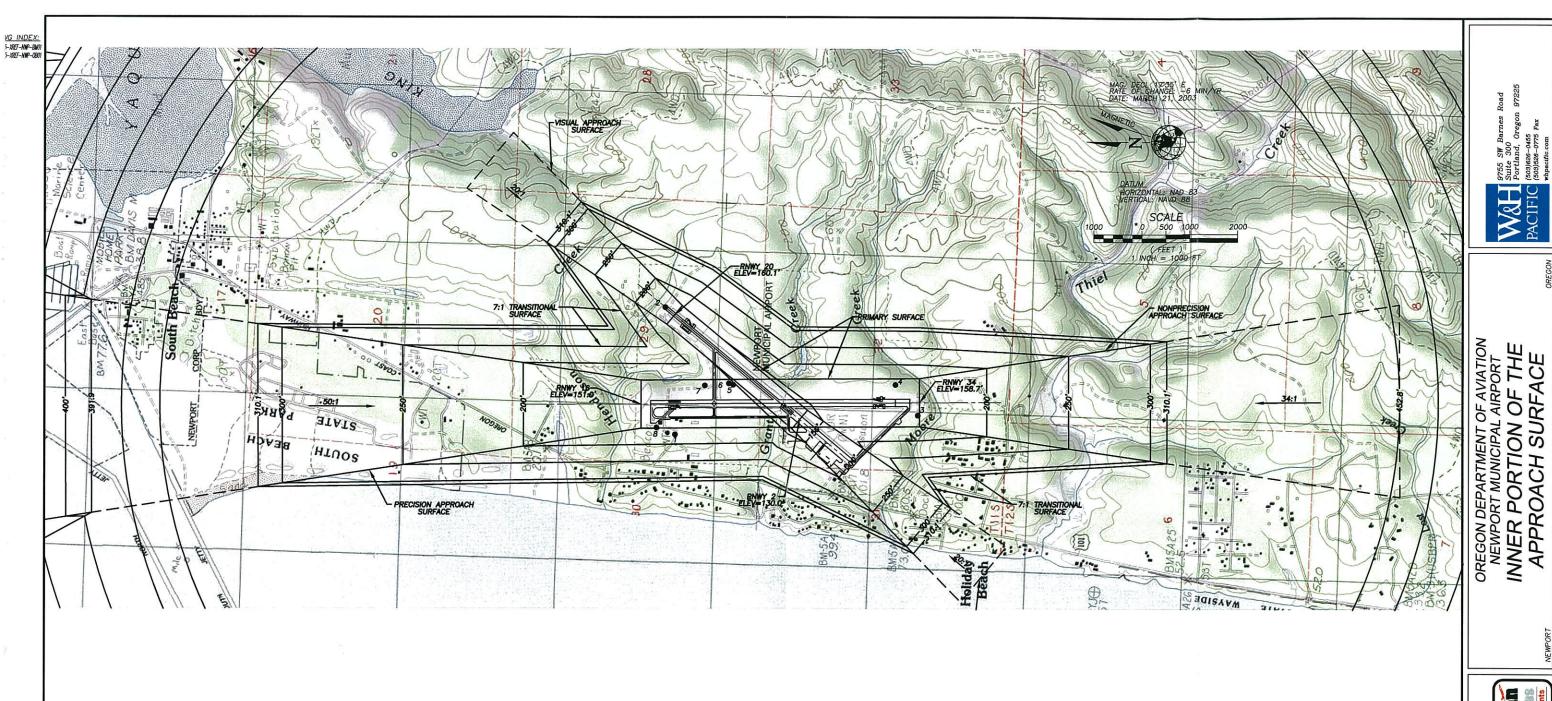
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CHECKED BY: LAM
APPROVED BY: REA

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SHEET 1/6







NOTES:

1. OBSTRUCTIONS INFORMATION LISTED WAS OBTAINED FROM NOAA AIRPORT OBSTRUCTION CHART AND AERONAUTICAL DATA SHEET, USGS QUAD MAPS, FAA 5010 FORM AND AIRPORT MANAGEMENT. OBSTRUCTION REMOVAL & SURVEY WAS PERFORMED AS PART OF AIP—10.

A GROWTH ALLOWANCE WAS NOT INCORPORATED INTO THE OBSTRUCTION REVIEW.

3. THE FOLLOWING HEIGHTS WERE ADDED TO THE SURFACE ELEVATION FOR CERTAIN GROUND FEATURES:

10FT FOR A PRIVATE ROAD
15FT FOR AN INTERSTATE ROAD
23FT FOR RAILROAD TRACKS

- 4. ALL ELEVATIONS ARE ON THE NAVD 88 DATUM, WITH THE EXCEPTION OF THE USGS MAP, WHICH IS NGVD 29.
- THE CITY OF NEWPORT "AIRPORT RESTRICTED AREA" ADDRESSES ZONING RESTRICTION WITHIN THE FAR PART 77 IMAGINARY SURFACES.

THE PREPARATION OF THESE DOCUMENTS NAY HAVE BEEN SUPPORTED, IN PART THOUGH THE AIRPORT IMPROVEMENT PROGRAM FINANCIAL ASSISTANCE FROM THE FEBERAL AVIATION ADMINISTRATION CAPILLED THANKER 3-4-400-130 AS PROVIDED UNDER TITLE 49, UNITED STATES CODE, SECTION 4704. THE CONTENTS DO NOT ENCESSARILY REFLECT THE OFFICIAL VERY SOR POLICY OF THE FAA ACCEPTANCE OF THESE DOCUMENTS BY THE FAA DOES NOT IN ANY VAY CONSTITUTE A CONMITMENT ON THE PROPOSE TO THE OFFICIAL VERY SOR POLICY IN ANY DEVELOPMENT IS PROVIDED STATES TO PARTICIPATE IN ANY DEVELOPMENT IS PROVIDED BY THE OWNER DESTAIN THICKNEY FOR THE PROPOSED EVELOPMENT IS PRIVIED WHEN THE OWNER OF THE OWNER OWNER THAT THE PROPOSED EVELOPMENT IS

LEGEND:

OBSTRUCTIONS

| OBSTRUCTION DATA TABLE | | | | | | |
|------------------------|--------------------|------|------------------------------|------|-------------------------------------|---------------------------------|
| OBSTRUCTION NO. | | | SURFACE PENETRATION | | PROPOSED DISPOSITION OF OBSTRUCTION | |
| 1 | POLE | 183' | 7:1 TRANSITIONAL SURFACE | 170' | 13' | INSTALL OBSTRUCTION LIGHT |
| 2 | ROAD (N) | 179' | 20:1 VISUAL APPROACH SURFACE | 173' | 6' | ACCESS ROAD, NOT AN OBSTRUCTION |
| 3 | ROD ON POLE | 173' | PRIMARY SURFACE | 159' | 14' | INSTALL OBSTRUCTION LIGHT |
| 4 | GROUND | 161' | PRIMARY SURFACE | 157' | 4' | REGRADE |
| 5 | OL WSK | 164' | PRIMARY SURFACE | 150' | 14' | FRANGIBLE NAVAID; NO ACTION |
| 6 | ROD ON OL AMOM | 176' | PRIMARY SURFACE | 150' | 26' | FRANGIBLE NAVAID; NO ACTION |
| 7 | ROD ON OL GS | 195' | PRIMARY SURFACE | 150' | 45' | FRANGIBLE NAVAID; NO ACTION |
| 8 | ELECTRICAL SHELTER | 156' | PRIMARY SURFACE | 149' | 5' | LIGHTED, NO ACTION |



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