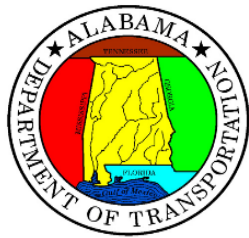


ALABAMA DEPARTMENT OF
TRANSPORTATION
AERONAUTICS BUREAU



**REGISTRATION PROCEDURES FOR
LANDING AREAS IN ALABAMA**

AIRPORTS

AB DOCUMENT 2000-1

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TABLE OF CONTENTS

LICENSING AUTHORITY	1
GENERAL	1
LICENSE CATEGORIES.....	1
PUBLIC USE.....	1
PRIVATE USE.....	1
<i>Special Event</i>	<i>1</i>
<i>Special Use</i>	<i>1</i>
<i>Limited Use</i>	2
FAA CERTIFICATED AIRPORTS (PART 139).....	2
EXCEPTIONS TO LICENSING REQUIREMENTS	2
PROPERTY REQUIREMENTS	3
AIRPORTS	3
APPROACH AND DEPARTURE PATHS	3
RUNWAY LENGTH AND WIDTH	3
RUNWAY SAFETY AREA.....	4
PRIMARY SURFACE	4
AIRPORT MARKINGS	5
WIND DIRECTION INDICATORS.....	5
AIRPORT LIGHTING	6
AIRPORT BEACONS.....	6
RUNWAY, TAXIWAY, AND APRON CONDITIONS	7
AIRPORT FUELING AREAS	8
APPLICATION PROCEDURE FOR LANDING AREAS	8
FAA AIRSPACE DETERMINATION.....	8
STATE REGISTRATION	8
REQUIRED SUBMITTALS	9
INITIAL SITE INSPECTION	9
FINAL APPROVAL OR DENIAL.....	9
NOTES	10
APPENDIX SECTION
<i>Public Airport Requirements (APPENDIX I)</i>	<i>i</i>
<i>Public Turf Airport Requirements (APPENDIX II)</i>	<i>ii</i>
<i>Private Airport Requirements (APPENDIX III)</i>	<i>iii</i>

LICENSING AUTHORITY: The Code of Alabama Title 23, Part 1, Section 372 as amended, requires that the site approval and licensing of airports, restricted landing areas, and other air navigational facilities be vested with the Alabama Department of Transportation Aeronautics Bureau (Department).

GENERAL: This booklet contains information on landing area license categories and the minimum requirements for each. Its design is to provide sponsors of proposed landing areas guidance on the steps necessary in the State of Alabama to register and construct these facilities in accordance with state law.

CATEGORIES:

- ✈ **Public Use:** This type of license is issued to facilities that are open to the public. No restrictions can be placed on operations to or from the site except those necessary to ensure the safety of the users.
- ✈ **Private Use:** This type of license requires users of the facility to obtain permission from the owner before operating from the site. This permission must be obtained directly from the owner and no advertising for use of the facility by the public is allowed. There are several license sub-categories contained within the Private Use category.
 - a) **Special Event** – This type of license is issued for specific events that require a license to meet local zoning ordinances. This license is not intended to establish a regularly used airport and is usually restricted to one type of aircraft with a specific date and time of use at a specified site. The use of this type of license must be coordinated with the Department in each instance the site is to be used.
 - b) **Special Use** – This type of license is issued for a specific type of operation and limited to a specific type of aircraft. This type of license is primarily used for aerial application or banner towing operations where a permanent site has been constructed but does not meet the construction requirements of any other license category/sub-category. This license is issued to the owner of the property where the landing area is situated or a lessee. This license is restricted to use by the licensee's aircraft only. The pilots of these aircraft are required to be employed by or under direct supervision of the licensee.

c) Limited Use – This type of license is issued for a specific category of aircraft based on the approach speed. This is the least restrictive type of license issued. The license is issued for one of two categories:

- (I) Category A (Approach speed less than 30 knots) – To be licensed in this category, the airport must meet the minimum requirement for the runway length of 500 feet and a primary surface width of 100 feet. The minimum requirement for the runway width is 50 feet.
- (II) Category B (Approach speed of less than 50 knots) – To be licensed in this category, the airport must meet the minimum requirement of a total runway length of 1,000 feet and a primary surface width of 100 feet. The minimum requirement for the runway width is 50 feet.
- (III) Any airport issued a Limited-Use license is required to maintain a clear approach slope of 15:1 within the boundaries of the approach and departure path. The approach and departure path shall be centered along the extended runway centerline and will begin at the end of the marked runway. The approach and departure path dimensions for this type of license are as follows:

<u>INNER WIDTH</u>	<u>OUTER WIDTH</u>	<u>LENGTH</u>	<u>ACREAGE</u>
<u>100 FEET</u>	<u>300 FEET</u>	<u>750 FEET</u>	<u>3.44 ACRES</u>

FAA Certificated Airports (Part 139)- Any airport with FAR Part 135 operations which are inspected by FAA Certification Safety Inspectors are not required to be inspected by Bureau inspectors. The operating license will be renewed annually upon a determination by the FAA that the facility is in compliance with FAA Part 139 requirements.

Exceptions to Licensing Requirements - The Federal government (including military) and persons whose facility is used exclusively by the owner and immediate family (personal use) are exempted from the requirement of maintaining an operating license.

PROPERTY REQUIREMENTS: The amount of land needed for an airport must include the areas surrounding the actual landing area which must meet requirements for the removal of obstructions. The airport owner must control, by ownership or legal contract with the legal owner, the area of land on which the airport is to be constructed and the land described as the approach and departure path for each runway end. These requirements include land to the sides of the landing area as well as the amount of land that is necessary to construct the actual runway. An inspector from the Department will assess the land requirements and determine if the type of facility planned can be constructed at the proposed location. Permission must be received from the Department prior to construction of any landing area to be used by persons other than the owner and immediate family.

All facilities must provide and maintain an obstruction free approach and departure path for aircraft. These paths to and from the landing area are trapezoidal in shape and slope up at a ratio of 20:1 for airports. The dimensions are as follows:

Requirements for Approach and Departure Paths

- ✈ **Public Use:** 250 feet in width at the beginning of the approach and 450 feet in width at a distance of 1,000 feet. This approach starts at the runway end for turf runways, 200 feet from the end of paved runways, and at the displaced threshold if one exists. Land beneath the Approach and Departure Paths must be controlled by the public airport sponsor (See Appendix I & II).
- ✈ **Private Use:** The width of the runway, plus 30 feet each side of the marked runway boundary. The outer width shall be calculated based upon a flare ratio of 10:1 for a distance of 1,000 feet (See Appendix III).

Minimum Requirements for Length and Width of Runways:

- ✈ **Public Use:** To be licensed in a public use category, an airport shall meet, without exception, the minimum standards of an effective runway length of 2,000 feet and a primary surface of 250 feet (See Appendix I & II).
- ✈ **Private Use:** To be licensed in a private use category, an airport shall meet, without exception, the minimum standards of an effective runway length of 1,800 feet. The minimum usable runway width of 60 feet shall be applied for both hard surface and turf runways (See Appendix III).

Minimum Requirements for the Runway Safety Area:

- ✈ **Public Use:** All runways are required to maintain an obstruction free area adjacent to each runway. This area is 120 feet wide, centered on the runway centerline, and extends for a distance of 200 feet past the runway end or displaced threshold (if one exists). The area must be compacted and graded smooth with no ruts, humps, depressions or other potentially hazardous surface variations. The slope along the longitudinal centerline shall not exceed a rise or fall of three percent in elevation relative to the runway end elevation. The lip from the top of the pavement to the grade adjacent to the runway should not exceed 3 inches (See Appendix I & II).

- ✈ **Private Use:** Although a runway safety area is not required for private use airports, it is highly recommended that grading around the runway meet runway safety area standards.

Minimum Requirements for the Primary Surface:

- ✈ **Public Use:** The primary surface is 250 feet wide, centered on the runway centerline and extends 200 feet past the runway end or displaced threshold (if one exists) of paved runways. For turf runways, the primary surface ends at the runway threshold. The primary surface is required to be free of all obstructions, manmade or natural. The only allowable objects are runway lights, guidance signs, or navigation equipment that by function is required to be within the primary surface boundaries (See Appendix I & II).

- ✈ **Private Use:** The Primary Surface for all Private Use airports is the runway width (minimum of 60 feet) plus an additional 30 feet outside the runway edge markers along each runway side. The Primary Surface extends 200 feet past the end of the marked runway for hard surface runways and ends at the marked threshold of sod or turf runways. The Primary Surface is required to be free of all obstructions, manmade or natural. The only allowable objects are runway lights, guidance signs, or navigation equipment that by function is required to be within the primary surface boundaries (See Appendix III).

Minimum Requirements for Airport Markings:

✂ **Hard Surface Runways:**

- All markings on hard surface runways must be painted. The painted markings must be maintained in legible condition. The paint used must be latex or water based and not based in a petroleum derivative.
- All markings on the runway are white. All markings on the taxiway are yellow. The size, shape and placement of the markings must be in accordance with the most recent Federal Aviation Regulations Advisory Circular 150/5340 (“Marking of Paved Areas on Airports”)

✂ **Turf or Sod Runways:**

- Threshold marking - The runway threshold must be marked by L shapes on each corner of each threshold. The markers must be of a size and shape that is easily and readily recognized from the air and on the ground. The bases (or mounts) for all markers shall be frangible.
- Runway - The outer edges of the runway must be delineated with markers placed at 200-foot intervals along both sides of the runway. The markers must be of a size and shape that is easily and readily recognized from the air and on the ground. The bases (or mounts) for all markers shall be frangible.
- Displaced thresholds for turf runways shall be marked by placing three markers on each runway side at the displacement point. These markers will be aligned perpendicular to the runway, placed five (5) feet apart with the inside marker on each side in alignment with the runway edge markers.

Minimum Requirements for Wind Direction Indicators:

- ✂ All airports are required to have an operational wind direction indicator. The wind direction indicator must be installed in a highly visible area to be easily recognized from the air and on the ground. It must be located in an area that is free from obstructions that will ensure that true wind direction and approximate wind velocity will be indicated. A

windsock is recommended, any other type of indicator will need approval of the Bureau prior to installation. Night operations will require that the indicator be lighted.

Minimum Requirements for Airport Lighting:

- ✈ Runway lights are required for all airports that conduct night operations. The minimum lighting requirements are as follows:
 - Lens Color
 - Threshold lights – Split red/green lens are used to mark the runway end.
 - Runway lights – Clear lens will be used to mark the sides of the runway.
 - Taxiway lights – Blue lens will be used to mark the taxiway.
 - Location and spacing –The location and spacing of runway, threshold, and taxiway lights shall conform to the most recent version of Federal Aviation Administration Advisory Circular 150/5340-24 (“Runway and Taxiway Lighting System”).
 - All runway, threshold, and taxiway lighting shall be maintained in operational condition and shall not be obscured by natural growth such as grass or weeds.
 - All fixtures shall meet the specifications of the Federal Aviation Administration in regards to overall dimensions, intensity and lens color as described in the most recent version of Federal Aviation Administration Advisory Circular 150/5340-24 (“Runway and Taxiway Lighting System”).

Minimum Requirements for Airport Beacons

- ✈ All airports having runways lighted for night operations should have an operational location beacon. The beacon will have green/white lens to identify the facility as an airport. The beacon shall be located at a site on or near the airport at an elevation that will ensure the beacon is not obstructed by objects of natural growth or manmade structures.

Minimum Requirements for Runway, Taxiway, and Apron Conditions:

✂ Runway and Taxiway Requirements

- The runway and taxiway surface must be kept smooth and free of any defect or obstruction that could damage aircraft during operations. This requirement includes any depressions or humps in the runway or taxiway that could cause loss of directional control.
- The lip of paved runways or taxiways must not exceed three (3) inches in elevation from the top of the pavement to the shoulder. The drop should be only enough to allow sufficient drainage and not pose a control problem for aircraft exiting the runway.
- Turf runways must be graded smooth and grassed. The grass must be kept mowed and not allowed to grow to a height of more than twelve (12) inches above the graded surface.
- The physical requirements of length and width are contained in Federal Aviation Regulations Advisory Circular 150/5300-13 (“Airport Design”). The minimum construction requirements pertaining to material, construction, and testing are contained in the State of Alabama Department of Transportation “Standard Specifications for Highway Construction”.

✂ Apron Requirements:

- The aircraft apron (parking ramp) is for the operation and parking of aircraft only.
- The apron surface should be smooth and free of obstructions or defects that could cause damage to aircraft during operation.
- The physical requirements of length and width are contained in Federal Aviation Regulations Advisory Circular 150/5300-13 (“Airport Design”). The minimum construction requirements pertaining to material, construction, and testing are contained in the State of Alabama Department of Transportation “Standard Specifications for Highway Construction”.

Minimum Requirements for Fueling Areas:

- ✂ The following items are required at all fueling areas:
- Sign(s) posted to prohibit open flames or smoking in fueling area.
 - Grounding cables.
 - A fire extinguisher approved for the purpose of extinguishing petroleum product fires available during all fueling operations.
 - The hoses for the dispensing of fuel shall not be frayed, cracked, or subject to any condition that could cause a rupture or leaking of fuel.
 - The storage tanks shall be labeled for contents.

APPLICATION PROCEDURE FOR LANDING AREAS

- (I) Any person desiring to construct a proposed new landing area must first be granted permission to do so from the Alabama Department of Transportation Aeronautics Bureau. Before the Department will consider an application for a proposed new landing area, the applicant must receive a “*Determination of No Objection*” (*DONO*) from the FAA. To obtain such a determination, the applicant must complete and submit *FAA Form 7480-1* (“*Notice of Landing Area Proposal*”) on the Obstruction Evaluation / Airport Airspace Analysis (OE/AAA) public portal at <https://oeaaa.faa.gov/oeaaa/external/portal.jsp> . If the applicant needs help filing this form online, they should notify the Department for assistance.
- (II) The “*State of Alabama Landing Area Registration Form*” (*Form AB 1000*) must be completed and returned to the Department before any construction of the proposed landing area begins. The *Form AB 1000* will constitute a formal application for the proposed new landing area. The application will not be considered without a *DONO* issued by the FAA.

(III) A drawing depicting the proposed development, property boundaries, and a location map must be submitted to the Department with the completed State Registration form. The drawing must show the proposed runway location and orientation on the property, along with a depiction of the approach/departure paths. All adjacent property owners, including those that lie beneath the approach/departure paths, must be included by name and address on the drawing. Documentation evidencing that local zoning requirements have been met and approval received from the appropriate government agency must be included with the submittal. If no zoning ordinances exist for the proposed location, a written statement of fact from the appropriate government agency must be submitted.

(IV) The Department will assign an Airport Inspector of the Aeronautics Bureau to visit the proposed site to determine if an airport/heliport can be constructed at the location and, that if constructed, will conform to standards set forth in the ALDOT Administrative Code. The site inspection will take into consideration the amount of land available for construction of the runway and the present use of the land contained in the approach and departure paths. Other considerations are the type of activities to be conducted at the airport and what obstructions must be removed.

(V) The Inspector will file a report with the Chief of the Aeronautics Bureau after the site visit and recommend that a site approval be issued or denied. The applicant will be notified by registered mail and/or official email of the approval or denial of the request in the form of an Initial Site Inspection Report. A recommendation of denial will be accompanied by an explanation of the circumstances that justify this decision. If there are items that can be corrected to meet the requirements for issuance, these will be included in the explanatory statement of denial. If the Bureau Chief issues the certificate for approval of the site, all adjacent property owners identified on the application will be mailed a Notice of Intent form.

Notes:

✉ Copies of the ALDOT Administrative Code (*Chapter 450-9-1 and Chapter 450-9-2 authorized by Title 23, Chapter 1, §371-417 Highway Laws of Alabama*) can be obtained by request to the Alabama Department of Transportation Aeronautics Bureau or may be access online at <https://www.dot.state.al.us/programs/Aeronautics.html> .

✉ All mail correspondence should be sent to the Aeronautics Bureau's address at:

Alabama Department of Transportation
Aeronautics Bureau
1409 Coliseum Blvd.
Montgomery, AL 36110

✉ To contact the Aeronautics Bureau by phone, please call 334-242-6820 and your call will be directed appropriately.

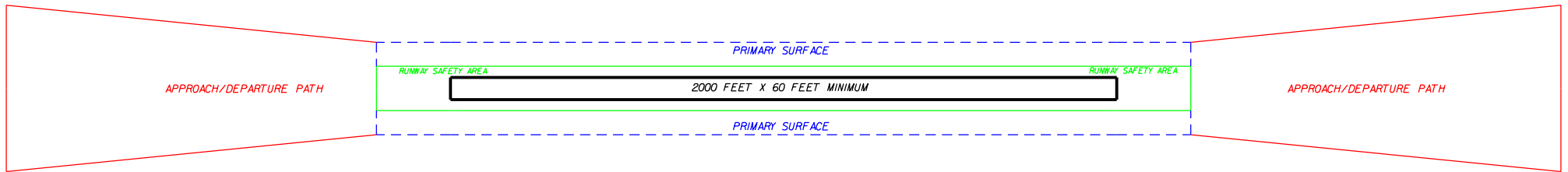
✉ To connect with the Aeronautics Bureau through email, please send all inquiries to aeronautics@dot.state.al.us .

APPENDIX SECTION

Contains Sketches of Required ALDOT Surfaces
and Their Dimensions

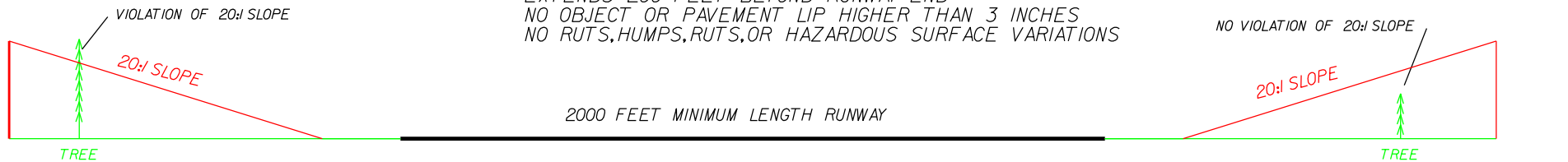
APPENDIX I

MINIMUM REQUIREMENTS FOR PUBLIC USE PAVED RUNWAY



RUNWAY SAFETY AREA

120 FEET IN WIDTH
 CENTERED ALONG RUNWAY CENTERLINE
 EXTENDS 200 FEET BEYOND RUNWAY END
 NO OBJECT OR PAVEMENT LIP HIGHER THAN 3 INCHES
 NO RUTS, HUMPS, RUTS, OR HAZARDOUS SURFACE VARIATIONS



APPROACH/DEPARTURE PATH

1000 FEET IN LENGTH
 BEGINNING 200 FEET FROM RUNWAY END
 250 FEET IN WIDTH AT BEGINNING (PRIMARY SURFACE)
 450 FEET IN WIDTH 1000 FEET FROM PRIMARY SURFACE
 CENTERED ALONG EXTENDED RUNWAY CENTERLINE
 NO PENETRATIONS OF A 20:1 SLOPE FROM THE PRIMARY SURFACE

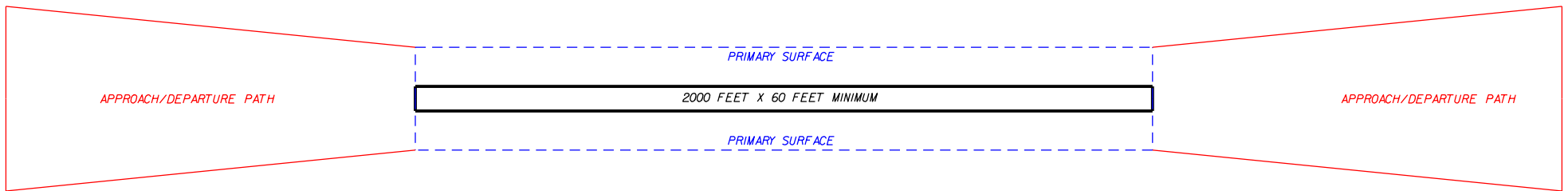
RUNWAY - 2000 FEET IN LENGTH 60 FEET IN WIDTH

PRIMARY SURFACE

250 FEET IN WIDTH
 EXTENDS 200 FEET BEYOND RUNWAY END
 CENTERED ALONG RUNWAY CENTERLINE
 OBJECT FREE AREA

APPENDIX II

MINIMUM REQUIREMENTS FOR PUBLIC USE TURF RUNWAY



RUNWAY MARKINGS - THRESHOLD MARKED IN "L" SHAPE CONSISTING OF THREE MARKERS ON 5 FOOT CENTER
 RUNWAY EDGE MARKERS PLACED AT 200 FOOT INTERVALS ALONG BOTH SIDES



APPROACH/DEPARTURE PATH

1000 FEET IN LENGTH
 BEGINNING AT THE RUNWAY THRESHOLD
 250 FEET IN WIDTH AT RUNWAY THRESHOLD
 450 FEET IN WIDTH 1000 FEET FROM THRESHOLD
 CENTERED ALONG EXTENDED RUNWAY CENTERLINE
 NO PENETRATIONS OF A 20:1 SLOPE FROM THRESHOLD

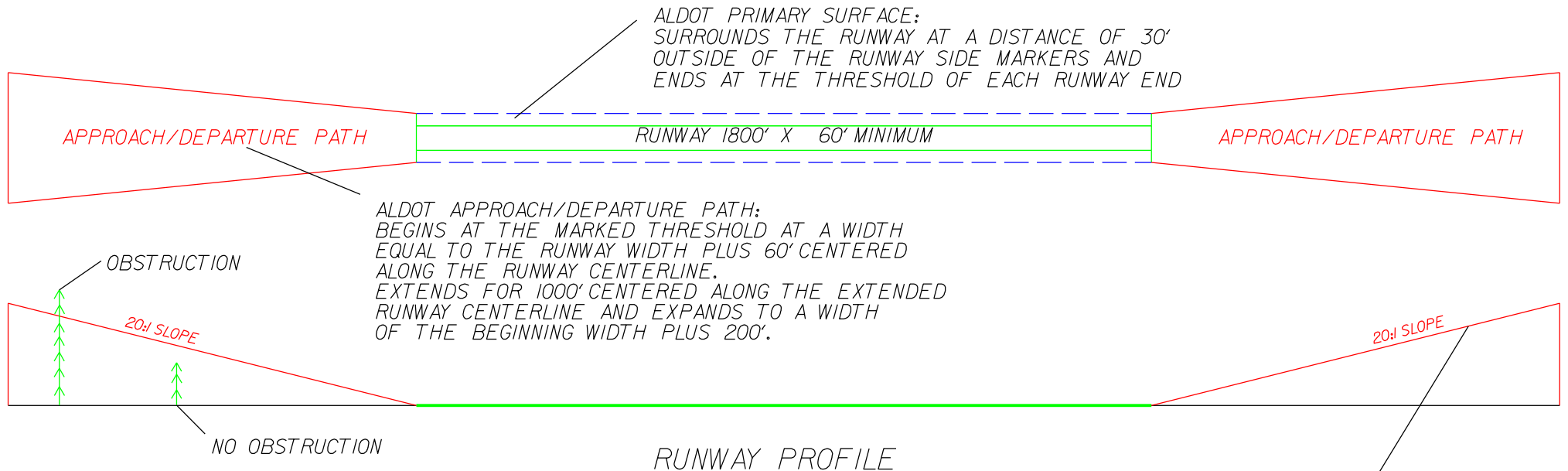
RUNWAY - 2000 FEET IN LENGTH
 60 FEET IN WIDTH

PRIMARY SURFACE

250 FEET IN WIDTH
 CENTERED ALONG RUNWAY CENTERLINE
 OBJECT FREE AREA

APPENDIX III

MINIMUM REQUIREMENTS FOR PRIVATE USE TURF RUNWAY



NOTE: The land contained within the limits of the airport, which includes the Approach/Departure Path of both runway ends, must be owned or controlled by the airport owner.

ALDOT APPROACH/DEPARTURE PATH:
SLOPES UP FROM RUNWAY THRESHOLD AT A RATIO
OF 20:1.
ALL PENETRATIONS OF THIS SLOPE MUST BE REMOVED
OR THE THRESHOLD PLACED TO PROVIDE AN OBSTRUCTION
FREE 20:1 SLOPE.