



FAA Central Region

Airport Design Dimensional Criteria and FAR Part 77 Surfaces

Dimensional Criteria from Advisory Circulars 150/5300-13 Change 18

Table with columns for Runway Centerline to: Taxiway/Taxilane Centerline, Aircraft Parking Area, Holding Position Marking, Crops, and Runway: Width, Shoulder Width, Blast Pad Width, Blast Pad Length, Safety Area Width, Safety Area Length Beyond RW End, Object Free Area Width, Object Free Area Length Beyond RW End, Crops from RW End.

Table with columns for Visual Runways and Not Lower Than 3/4 Mile Visibility, and Runways With Lower Than 3/4 Mile Visibility. Sub-columns include Airplane Design Group Category A & B and Airplane Design Group Category C & D.

Part 77 Imaginary Surfaces Dimensions from Order 7400.2G

Table with columns for Item, Visual (V) Runway, Non-Precision (NP) Instrument Runway, and Precision Instrument Runway (PIR). Rows include Width of primary surface and approach, Radius of horizontal surface, Approach surface width at end, Approach surface length, and Approach slope.

NOTE: The A, B, C, D reference this table only and do not reference aircraft Approach Category as used in the tables to the left. Use the descriptions below for the Part 77 imaginary approach surface.

- A - Utility runways
B - Runways larger than utility
C - Visibility minimums greater than 3/4 mile
D - Visibility minimums as low as 3/4 mile

Table with columns for Airplane Design Group (I-VI) and Taxiway/Taxilane Centerline to: Parallel Taxiway/Taxilane Centerline, Fixed or Movable Object, Crops, Taxilane Centerline to: Taxilane Centerline, Fixed or Movable Object, Taxiway: Width, Edge Safety Margin, Shoulder Width, Safety Area Width, Object Free Area Width, Wingtip Clearance, Centerline Radius of Turn, Length of Lead-in to Fillet, Fillet Radius for Tracking Centerline, Taxilane: Taxilane Object Free Area Width, Wingtip Clearance.

Table with columns for Runway Protection Zone Dimensions (Part 77 Imaginary Surfaces, Approach Visibility Minimums by Approach Category, Length, Inner Width, Outer Width) and Approach Category (Vref).

- Footnotes: 1 Existing taxiway/taxilane distance may be acceptable to support the existing runway service level... 1.1 For airports at or below 1,345' elevation... 1.2 For approaches with visibility less than 1/2 mile visibility... 1.3 For approaches with visibility less than 1/2 mile visibility... 1.4 This distance is proposed to increase to 240' at next update... 2 For all airplane design groups for aircraft approach category D... 2.1 This distance is increased 1' for each 100' above 5,100' above sea level... 2.2 For approach category C this distance is increased 1' for each 100' above sea level... 2.3 This distance also applies to A-II small and B-II small... 2.4 For visibility down to 1/2 mile separation distance increases to 500' plus elevation adjustment... 3 For all design groups under category D, separation distance is increased 1' for each 100' above sea level... 4 For airports serving 150,000 pound takeoff weight and higher aircraft... 5 For C-I and C-II runway safety area width of 400' is permissible... 6 Runway Safety Area length prior to landing threshold is 600'... 7 For design group III with wheelbases equal or greater than 60': taxiway width is 60' and taxiway edge safety margin is 15'... 8 This table correlates RPZ dimensions with the Part 77 imaginary approach surface dimensions table located in upper right... 9 Minimum distance between airport features and ANY on-airport crops... 10 This dimension increased where necessary to accommodate visual navoids.

Table with columns for Runway Type, Rwy. Use Available/Planned, Approach Surface Dimensions (Length, Inner Width, Outer Width), and Slope & Flare Ratios (Slope, Flare). Rows are categorized into Utility Runways and Other than Utility Runways.

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Note: This document is provided for informational purposes only. In the event of a discrepancy with official FAA policy, current FAA policy supersedes the information provided herein.