

Table 2-1. Survey Requirements Matrix

Row	Intended End Use of the Data ➤	AC Reference	Category II or III Operations	Navigational Aid Siting			Airport Layout Plan (ALP)	Construction		Instrument Procedure Development	Pavement Design, Construction, Rehabilitation or Roughness	Airport Mapping Database
	Required Tasks ▼			Non-Precision	Precision	Visual		Airside	Landside			
1	Provide Geodetic Control Plan	150/5300-16	•	•	•	•	•	•	•	•	•	•
2	Provide remote sensing plan	150/5300-17					•					
3	Provide a Survey Field Work Plan	150/5300-18					•					
4	Provide Quality Control Plan	150/5300-16/17/18					•					
5	Establish or validate Airport Geodetic Control	150/5300-16	•	•	•		•	•		•	•	•
6	Perform, document and report the tie to National Spatial Reference System (NSRS)	150/5300-16	•	•	•	•	•			•		•
7	Survey runway end(s)/threshold(s)	150/5300-18	•		•	•	•	• <sup>1</sup>		•	•	•
8	Monument runway end(s)/threshold(s)	150/5300-18	•		•	•	•	• <sup>1</sup>		•	•	
9	Document runway end(s)/threshold location(s)	150/5300-18	•		•	•	•	• <sup>1</sup>		• <sup>1</sup>	• <sup>1</sup>	
10	Identify and survey any displaced threshold(s)	150/5300-18	•		•	•	•	• <sup>1</sup>		•	•	•
11	Monument displaced threshold(s)	150/5300-18	•		•	•	• <sup>1</sup>	• <sup>1</sup>		•		
12	Document displaced threshold(s) location	150/5300-18	•		•	•	•	• <sup>1</sup>		•	•	•
13	Determine or validate runway length	150/5300-18	•				•	• <sup>1</sup>		•	•	•
14	Determine or validate runway width	150/5300-18	•				•	• <sup>1</sup>		•	•	•
15	Determine runway profile using 50 foot stations	150/5300-18			•		•	• <sup>1</sup>		•	•	
16	Determine runway profile using 10 foot stations and 10 foot offsets at Part 139 airports	150/5300-18	•		•		•	• <sup>1</sup>		•	•	•
17	Determine the touchdown zone elevation (TDZE)	150/5300-18	•		•		•			•	•	
18	Determine and document the intersection point of all specially prepared hard surface (SPHS) runways	150/5300-18	•				•					•
19	Determine and document the horizontal extents of any Stopways	150/5300-18	•				•			•		•
20	Determine any Stopway profiles	150/5300-18	•				•			•		•

<sup>1</sup> Only when runway construction is involved.

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	Required Tasks ▼			Non-Precision	Precision	Visual		Airside	Landside			
21	Determine if the runway has an associated clearway	<u>150/5300-18</u>	•				•					
22	Survey clearway to determine objects penetrating the slope	<u>150/5300-18</u>	•				•			•		•
23	Determine and document the taxiway intersection to threshold distance	<u>150/5300-18</u>					•					
24	Determine runway true bearing	<u>150/5300-18</u>	•		•		•			•		•
25	Determine or validate and document the position of navigational aids	<u>150/5300-18</u>	•	•	•	•	•			•		
26	Determine or validate and document the position of runway abeam points of navigational aids	<u>150/5300-18</u>	•		•	•				•		
27	Determine potential navigational aid screening objects	<u>150/5300-18</u>		•	•	•						
28	Identify, classify and provide navigational aid critical areas	<u>AC 150/5300-13</u> , FAA Order 6750.16		•	•	•	•					
29	Collect and document VOR receiver checkpoint location and associated data	<u>150/5300-18</u>		•							•	
30	Perform or validate and document an airport airspace analysis	<u>150/5300-18</u>	•	•	•	•	•	• <sup>1</sup>		•		
31	Collect and document helicopter touchdown lift off area (TLOF)	<u>150/5300-18</u>				•	•	•		•	•	•
32	Collect and document helicopter final approach and takeoff area (FATO)	<u>150/5300-18</u>				•	•	•		•	•	•
33	Collect or validate and document airport planimetric data <sup>2</sup>	<u>150/5300-18</u>					•	•	•			•
34	Determine or validate the elevation of the Air Traffic Control Tower Cab Floor (if one is on the airport)	<u>150/5300-18</u>	•				•	•	•			•
35	Perform or validate a topographic survey	<u>150/5300-18</u>	• <sup>3</sup>	•	•		•	•	•	• <sup>4</sup>		
36	Collect and document runway and taxiway lighting	<u>150/5300-18</u>	•				•					•

<sup>2</sup> In this guidance, planimetric data is defined as representing airport features that are works of man or natural features within the boundaries of the airport.

<sup>3</sup> Only required for the identified Category II and III special topographic survey.

<sup>4</sup> For CAT II and III radar altimeter area or if specifically requested.

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	Required Tasks ▼			Non-Precision	Precision	Visual		Airside	Landside			
37	Collect and document parking stand coordinates	<u>150/5300-18</u>										•
38	Collect cultural and natural features of landmark value	<u>150/5300-18</u>					•					•
39	Determine elevation of roadways at the intersecting point of the Runway Protection Zone (RPZ)	<u>150/5300-18</u>	•				•					
40	Determine elevation of roadways at the intersecting point of the 14 CFR part 77, <i>Approach Surfaces</i> , and the runway centerline extended	<u>150/5300-18</u>					•					
41	Determine all <b>Land Use</b> to 65 DNL contour	<u>150/5300-18</u>					•					
42	Document features requiring digital photographs	<u>150/5300-18</u>	•	•	•	•	•	•		•		
43	Document features requiring sketches	<u>150/5300-18</u>	•	•	•	•	•	•		•		•
44	Collect position and type of runway markings	<u>150/5300-18</u>	•				•					•
45	Collect position and type taxiway markings	<u>150/5300-18</u>					•					•
46	Locate, collect, and document photo ID points	<u>150/5300-17</u>					•			•		
47	Identify collect, and document wetlands or environmentally sensitive areas	<u>150/5300-18</u>					•					
48	Collect imagery	<u>150/5300-17</u>	•				•			•		•
49	Determine and provide required dimensions	<u>150/5300-18</u>					•					
50	Determine and provide required labels for all surfaces	<u>150/5300-18</u>					•					
51	Develop, analyze and provide 14 CFR part 77 surfaces	<u>150/5300-18</u>					•					
52	Identify and provide water and sewage facilities within lateral limits of 14 CFR part 77 surfaces	<u>150/5300-18</u>					•					
53	Develop, analyze, and provide Airport Design Surfaces	<u>150/5300-18</u>					•					
54	Identify, classify, and provide the <b>Airport Boundary</b> (existing and future) with easements (fee and simple)	<u>150/5300-18</u>					•					
55	Identify, classify, and provide on and off <b>Airport Parcels</b> including easements (existing, future, and ultimate)	<u>150/5300-18</u>					•					
56	Identify, classify, and provide all roads and railroads within the lateral limits of the 14 CFR part 77 surfaces	<u>150/5300-18</u>					•					

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	Required Tasks ▼			Non-Precision	Precision	Visual		Airside	Landside			
57	Identify, classify and provide all air carrier gate locations	<u>150/5300-18</u>					•					
58	Identify, classify and provide all fueling facilities	<u>150/5300-18</u>					•					
59	Identify, classify and report all major airport drainage ditches or storm sewers	<u>150/5300-18</u>					•					
60	Identify, classify and provide all vehicle parking areas associated with the airport	<u>150/5300-18</u>					•					
61	Identify, classify, and provide all special use areas (e.g., agricultural spraying, deicing, or containment, etc.)	<u>150/5300-18</u>					•					
62	Identify, classify and provide building restriction line	<u>150/5300-18</u>					•					
63	Identify, classify, and provide all security and general purpose fencing and gates (including height AGL). Provide existing and future	<u>150/5300-18</u>					•					
64	Identify, classify and provide the Runway Visibility Zone	<u>150/5300-18</u>					•					
65	Identify, classify, and provide general aviation development areas	<u>150/5300-18</u>					•					
66	Identify, classify, and provide Declared Distances	<u>150/5300-18</u>					•			•		
67	Identify, classify and provide ground elevation contours and spot elevations	<u>150/5300-18</u>	•				•					
68	Identify, classify and provide aircraft tie down locations	<u>150/5300-18</u>					•					
69	Identify, classify and provide existing and ultimate data as appropriate	<u>150/5300-18</u>					•					
70	Identify, classify and provide any objects of landmark value within the approach surfaces e.g., bluffs, rivers, roads, schools, churches, libraries towers, etc.)	<u>150/5300-18</u>					•					
71	Identify, classify and provide 50 foot elevation contours on all 14 CFR part 77 sloping surfaces	<u>150/5300-18</u>					•					
72	Identify, classify and provide the top elevation (MSL) and height (AGL) for all penetrating objects and representative objects	<u>150/5300-18</u>					•			•		

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73	Identify, classify and provide all representative and penetrating obstacles	<u>150/5300-18</u>					•			•		
74	Identify, classify and provide all on airport building and include building numbers	<u>150/5300-18</u>					•					
75	Airport overlay zoning or zoning restrictions	<u>150/5300-18</u>					•					
76	Identify, classify and report all public use facilities (schools, churches, libraries, hospitals, parks, etc.) within the limits of the 14 CFR part 77 surfaces	<u>150/5300-18</u>					•					
77	Identify, classify and provide TERPS surfaces evaluated (existing and future)	<u>150/5300-18</u>					•					
78	Provide a final project submission information	<u>150/5300-16/18</u>	•	•	•	•	•	•	•	•	•	•