CHAPTER 5. AIRPORT DATA FEATURES

The following paragraphs list the airport feature descriptions defining the specifications for each feature group and class. Utilize the specifications defined to ensure the data delivered is accurate and meets standards. Each feature is described by geometry type, feature group, information assurance level, requirements, positional accuracy, data capture rule, and the attributes required to provide the data to the FAA.

5.1. FEATURE DOCUMENTATION MINIMUMS

In addition to the general feature documentation outlined in paragraphs 1.5.2 and 1.5.3, certain features require additional or expanded documentation. Where required for a feature, the additional requirements are identified in the Documentation and Submission section of the feature description.

5.2. MULTIPLE INSTANCES OF FEATURES

5.3. FEATURE CLASS DESCRIPTION LEGEND

The following table identifies how each feature description is setup and provides information on what is contained within the section.

Definition: Definition of feature.						
Feature Group	The Feature Group of the element.					
Feature Class Name	The proper name	The proper name of the Feature Class.				
Feature Type	The compliant ge	cometry of element				
CADD Standard Requiremen	ts					
Layer/Level		Descr	ription			
Compliant layer name.		Compliant layer d	escription. [Siting]	1		
	Color	Line type	Line Weight	Symbol		
AutoDesk Standards	Color code AutoCAD	Line type	Line weight AutoCAD	Symbol type is		
MicroStation Standards	Color code MicroStation	required	Line weight MicroStation	user defined		
Information Assurance Level	Security level cre	edential				
	AIXM <i>AIXM</i> equivalent of feature.					
Equivalent Standards	FGDC	FGDC equivalen	t of feature.			
	SDSFIE <i>SDSFIE equivalent of feature.</i>					
Documentation and Submission Requirements	The required documentation for feature class elements. Minimum requirements are defined in paragraphs <u>1.5.2</u> and <u>1.5.3</u> . Additional or expanded documentation requirements are located here.					
Related Features						
Data Capture Rules: Descrip	tion of proper colle	ection limits and re	equirements for fea	ture class		
element.						
Monumentation	Monumentation n					
	Horiz		Vertical			
Survey Point Location	Description of sp location.	Description of specific HSP location.		Description of specific VSP location.		

5.3.1. Paragraph Number and FeatureClassName

	Horizontal	Ver	tical		
Accuracy Requirements (in	Horizolitai	Orthometric	Ellipsoidal		
feet)	Accuracy requirement	Accuracy requirement	Accuracy requirement		
	Geographic Coordinates Distances and Elevation				
Resolution	Coordinate resolution requirement		e resolution rement		
Feature Attributes					
Attribute (Datatype)	Description				
Name of attribute field	Description of attribute specification	ons			

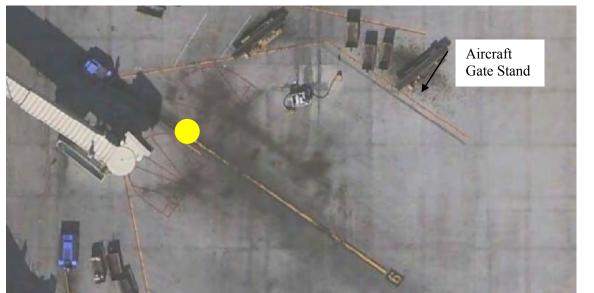
5.4. Group: AIRFIELD

5.4.1. Aircraft Gate Stand

Definition: Geographic position of painted stand positions on the stand guidance line usually marked					
by a yellow crossbar according to aircraft type (e.g., for B-747, A-340).					
Feature Group	Airfield				
Feature Class Name	AircraftGateStar	nd			
Feature Type	Point				
CADD Standard Requiremen	ts				
Layer/Level		Descri	ption		
C-APRN-ACPK	Aircraft gate/stand parking area				
	Color Linetype Line Weight Symbol				
AutoDesk Standards	6 Continues		1 MM	User Defined	
MicroStation Standards	5	Continuous		User Denned	
Information Assurance Level	Restricted				
	AIXM ApronElement Core		Core		
Equivalent Standards	FGDC AircraftGateStand				
	SDSFIE airfield surface site				
Documentation and Submission Requirements	No documentation is required for this feature.				

Related Features

Data Capture Rules: Collect the aircraft gate stand as individual points with a separate feature for each defined location. If a generic location is defined, ensure the length and wingspan attributes cover all the appropriate aircraft expected to use the location.



Monumentation	No monumentation required.					
Survey Daint Leastion	Horizontal	Vertical				
Survey Point Location	N/A	N/A				
A	Horizontal	Verti	cal			
Accuracy Requirements (in	Horizontai	Orthometric	Ellipsoidal			
feet)	± 3 ft	± 5 ft	N/A			
Resolution	Geographic Coordinates	Distances and	Elevations			
Resolution	Hundredth of arc second	Nearest	foot			
Feature Attributes						
Attribute (Datatype)	Desc	ription				
name (VARCHAR2(50))	The name of the feature.					
description (String 255)	Description of the feature.					
gateStandType	The type of aircraft gate/stand.					
(Enumeration: codeGateStandTy	pe)					
Status (Enumeration: codeStatus)		A temporal description of the operational status of the feature.				
	This attribute is used to describ	This attribute is used to describe real-time status.				
wingspan (Number)	The quantity representing the maximum wingspan which can					
		be accommodated at the aircraft gate stand.				
length (Number)		The overall length of the aircraft gate stand.				
width (Number)	The overall width of the aircraft gate stand.					
userFlag (String 254)	An operator-defined work area. This attribute can be used by					
		the operator for user-defined system processes. It does not				
	affect the subject item's data integrity and should not be used to					
		store the subject item's data.				
pavementClassificationNumber		A number which expresses the relative load carrying capacity				
	of a pavement in terms of a sta	ndard single wheel	load.			
	[Source: AC 150/5335-5]					

jetwayAvailability (boolean)	Indicates if a jetway or passenger loading bridge is available for use at the designated location.
towingAvailability (boolean)	Indicates if towing is available at the designated location.
dockingAvailability (boolean)	Indicates if docking light system is available at the designated
	location.
groundPowerAvailability (boolean)	Indicates the availability of ground power at the designated
	location.
surfaceType (Enumeration:	A classification of airfield pavement surfaces for Airport
codeSurfaceType)	Obstruction Charts [Source: NGS]
surfaceCondition (Enumeration:	A description of the serviceability of the pavement [Source:
codeSurfaceCondition)	NFDC]
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together
	into a version.

5.4.2. Aircraft Non Movement Area

Definition: Taxiways and apron	(ramp) areas no	ot under the control	of air traffic.		
Feature Group	Airfield				
Feature Class Name	AircraftNonM	IovementArea			
Feature Type	Line				
CADD Standard Requirements	5				
Layer/Level		Des	cription		
C-APRN-ANOM-	Aircraft non-	movement area	8		
C-AIRF-DSRF-NMOV	Aircraft non-	movement area			
	Color	Linetype	Line Weight	Symbol	
AutoDesk Standards	7	Continuous	1 MM	Llass Dafinad	
MicroStation Standards	0	Continuous		- User Defined	
Information Assurance Level	Restricted	•	•		
	AIXM	NonMovementA	rea	Core	
Equivalent Standards	FGDC	AircraftNonMov	ementArea		
_	SDSFIE None				
Documentation and Submission Requirements	None	·			

Related Features						
control of Air Traffic Control a objects. Two parallel yellow lin other is solid. The dashed side t Compile this line as a single lin	-movement area is an area where ai nd are responsible for their own sep es located side by side delineate the is the movement area and the solid s be drawn mid-way between the solid	aration from aircra area. One line is da ide is the non-movel and dashed lines. If	ft, vehicles and ashed and the ment area. [°] using			
•	of line in data capture to ensure solic	l side of line is on N	on-movement			
area.						
Air	rcraft non-movement area bounda	ry line				
Monumentation	No monumentation required.	ir y mile.				
Survey Daint Leastion	Horizontal	Vertical				
Survey Point Location	N/A	N/A				
Accuracy Requirements (in	Horizontal	Vertical				
feet)	IIIIIzontai	Orthometric	Ellipsoidal			
leet)	± 3 ft	± 5 ft	N/A			
Resolution	Geographic Coordinates	Distances and Elevations				
Resolution	Hundredth of arc second	Neares	st foot			
Feature Attributes						
Attribute (Datatype)		Description				
name (VARCHAR2(50))	The name of the feature.	The name of the feature.				
	Description of the feature.	Description of the feature.				
description (String 255)		A temporal description of the operational status of the feature.				
	s) A temporal description of the	e operational status	of the feature.			
	This attribute is used to desc	*				
status (Enumeration: codeStatus	/ I I	ribe real-time status				
description (String 255) status (Enumeration: codeStatus userFlag (String 254)	This attribute is used to desc	ribe real-time status ea. This attribute ca	an be used by			
status (Enumeration: codeStatus	This attribute is used to descAn operator-defined work ar	ribe real-time status ea. This attribute ca system processes.	an be used by It does not			
status (Enumeration: codeStatus	This attribute is used to descAn operator-defined work arthe operator for user-defined	ribe real-time status ea. This attribute ca system processes.	an be used by It does not			
status (Enumeration: codeStatus	This attribute is used to descAn operator-defined work arthe operator for user-definedaffect the subject item's data	ribe real-time status ea. This attribute ca system processes. integrity and should	an be used by It does not I not be used to			

5.4.3. Air Operations Area

Definition: Air Operations Area is where security measures are enforced as specified in the airport security program. This area includes aircraft movement areas, aircraft parking areas, loading ramps, and safety areas and any adjacent areas (such as general aviation areas) not separated by adequate security systems, measures, or procedures. [Source: 49 CFR Part 1542, Airport Security]

Feature Group	Airfield		
Feature Class Name	AirOperationsArea		
Feature Type	Polygon		
CADD Standard Requirement	its		
Layer/Level	Description		
C-AIRF-AHOA-	Air Operations Area		

	Co	lor	Linetype	Line Weight	Symbol	
AutoDesk Standards	2	, ,	Continue	1 MM	U D. f 1	
MicroStation Standards	4		Continuous	7	- User Defined	
Information Assurance	Unclass	Unclassified				
Level	Unclassi	incu	•			
	AIXM		AirOperationsAr	rea	Extension	
Equivalent Standards	FGDC		AirOperationsAi	сеа		
	SDSFIE	2	None			
Documentation and Submission Requirements	None					
Related Features						
Data Capture Rules: Collect	a closed p	olygon t	o the greatest horiz	zontal extents as de	fined by the	
airport security plan.	1		0	·	· ·	
Monumentation	No mon	umentati	ion required.			
Survey Point Location		Horizontal		Vertical		
Survey Fount Location		N/A		N/	A	
A aguna ay Daguinamanta (in		Horizontal		Vertical		
Accuracy Requirements (in feet)				Orthometric	Ellipsoidal	
leet)		± 3 ft		± 5 ft	N/A	
Resolution			Coordinates	Distances and Elevations		
Resolution	Hu	ndredth o	f arc second Nearest foot			
Feature Attributes						
Attribute (Datatype)			De	scription		
name (VARCHAR2(50))	T	he name	of the feature.			
description (String 255)			on of the feature			
status (Enumeration: codeStatu	s) A	A temporal description of the operational status of the feature.				
		This attribute is used to describe real-time status.				
userFlag (String 254)		An operator-defined work area. This attribute can be used by				
		the operator for user-defined system processes. It does not				
		affect the subject item's data integrity and should not be used to				
			ubject item's data.			
Alternative (Number(2))				tures of a plan or pl	roposal together	
	in	into a version.				

5.4.4. Airfield Light

Definition: Any lighting located within or near an airport boundary that provides guidance for airborne and ground maneuvering of aircraft [Source: AIM, AC 150/5345 Series of ACs]						
Feature Group)	Airfield				
Feature Class Name		AirfieldLight				
Feature Type		Point				
CADD Standard Requi	iremen	ts				
Layer/Level		Description	Layer/Level	Description		
E-LITE-APPR-	Approach lights		V-LITE-RUNW-	Runway lights		
E-LITE-DIST-	Distance and arresting gear markers and lights		V-LITE-TAXI-	Taxiway lights		
E-LITE-LANE-	Hoverlane, taxilane, and helipad lights		V-LITE-THRS-	Threshold lights		
E-LITE-OBST-	Obst	ruction lights	V-LITE-RUNW- TDZN	Runway Touchdown Zone lights		

	-			V-LITE-RUNW-		Runway Centerline		
E-LITE-RUNW-EDGE	Runway ed		lge lights	CNTL	-	lights		
E-LITE-SIGN-	Taxiway guidance		uidance signs	E-LITE-RUNW- TDZN		Runway Touchdown Zone lights		
	Taxiway			E-LITE-RUNW	V-	Runwa	Runway Centerline	
E-LITE-TAXI-CNTL	light	s		CNTR		lights		
				E-LITE-RUNW	V-	<u> </u>		
E-LITE-THRS-	Thre	shold	lights	DTGS1		lights		
V-LITE-APPR-	Арри	roach	lights	E-LITE-TAXI-	EDGE	Taxiwa	ay edge lights	
			, taxilane,	E-LITE-RNWY	<i>l</i> -			
V-LITE-LANE-			d lights	GARD		Runwa	y guard lights	
V-LITE-OBST-	Obst	ructio	n lights					
			Color	Linetype	Line V		Symbol	
AutoDesk Standards			3	Point	1 N	1M	User Defined	
MicroStation Standard			2	Tomt	7	1	Oser Defined	
Information Assurance Level	2	Rest	ricted					
		AIX	M	LightElementE	xtension		Extension	
Equivalent Standards		FGI		AirfieldLight			Extension	
-1		SDS		airfield light p	oint			
Documentation and Submission Requireme	nta	Non						
Related Features	nts							
Data Capture Rules: (Collect	a noi	nt in the conto	r of the object at	the high	net noint	Other lights on	
the airfield such as apr								
			oj mounieu i	ignis eic. useu jo	JI generu	<i>u uumu</i>		
cupinica using ine jeuni		1/tilit	vPoint and del					
	e iype			ineated using the				
Monumentation	e type		nonumentation	<i>ineated using the</i> n required.		codeUti	lityType.	
	e type		nonumentation Horizo	<i>ineated using the</i> n required. ntal		<i>codeUti</i> Ver	lityType.	
Monumentation Survey Point Location			nonumentation Horizo N/A	ineated using the n required. ntal		<i>codeUti</i> Ver N	<i>lityType.</i> tical /A	
Monumentation Survey Point Location Accuracy Requirement			nonumentation Horizo	ineated using the n required. ntal	attribute	<i>codeUti</i> Ver N Ver	<i>lityType.</i> tical /A tical	
Monumentation Survey Point Location			nonumentation Horizo N/A Horizo	ineated using the n required. ntal ntal	attribute Orthor	<i>codeUti</i> Ver N Ver netric	iityType. tical /A tical Ellipsoidal	
Monumentation Survey Point Location Accuracy Requirement feet)		No r	nonumentation Horizo N/A Horizo ± 3	ineated using the n required. ntal ntal ft	attribute Orthou ± 5	codeUti Ver N Ver netric ft	tical /A tical Ellipsoidal N/A	
Monumentation Survey Point Location Accuracy Requirement		No r	nonumentation Horizo N/A Horizo ± 3 Geographic C	ineated using the n required. ntal ntal ft Coordinates	attribute Orthou ± 5	codeUti Ver N Ver netric ft ances ar	tityType. tical /A tical Ellipsoidal N/A nd Elevations	
Monumentation Survey Point Location Accuracy Requirement feet) Resolution		No r	nonumentation Horizo N/A Horizo ± 3	ineated using the n required. ntal ntal ft Coordinates	attribute Orthou ± 5	codeUti Ver N Ver netric ft ances ar	tical /A tical Ellipsoidal N/A	
Monumentation Survey Point Location Accuracy Requirement feet) Resolution Feature Attributes	s (in	No r	nonumentation Horizo N/A Horizo ± 3 Geographic C	ineated using the n required. ntal ntal ft Coordinates arc second	attribute Orthor ± 5 Dist	codeUti Ver N Ver netric ft ances ar	tityType. tical /A tical Ellipsoidal N/A nd Elevations	
Monumentation Survey Point Location Accuracy Requirement feet) Resolution Feature Attributes Attribute (Datat	s (in type)	No r	nonumentation Horizo N/A Horizo ± 3 Geographic C Hundredth of	ineated using the n required. ntal ntal ft coordinates arc second Des	attribute Orthon ± 5 Dist scription	codeUti Ver N Ver netric ft ances ar Neare	lityType. tical /A tical Ellipsoidal N/A nd Elevations est foot	
Monumentation Survey Point Location Accuracy Requirement feet) Resolution Feature Attributes	s (in type)	No r	nonumentation Horizo N/A Horizo ± 3 Geographic C Hundredth of Use this attr	ineated using the n required. ntal ntal ft coordinates arc second Des ibute to identify t	attribute Orthon ± 5 Dist scription he use of	codeUti Ver N Ver metric ft ances ar Neare the light	tical /A tical Ellipsoidal N/A N/A d Elevations est foot	
Monumentation Survey Point Location Accuracy Requirement feet) Resolution Feature Attributes Attribute (Datat	s (in type)	No r	nonumentation Horizo N/A Horizo ± 3 Geographic C Hundredth of Use this attr	ineated using the n required. ntal ntal ft coordinates arc second Des	attribute Orthon ± 5 Dist scription he use of	codeUti Ver N Ver metric ft ances ar Neare the light	tical /A tical Ellipsoidal N/A N/A d Elevations est foot	
Monumentation Survey Point Location Accuracy Requirement feet) Resolution Feature Attributes Attribute (Datat name (VARCHAR2(50))	s (in type)	No r	nonumentation Horizo N/A Horizo ± 3 Geographic C Hundredth of Use this attr Edge Light, etc.	ineated using the n required. ntal ntal ft coordinates arc second Des ibute to identify t	attribute Orthon ± 5 Dist scription he use of	codeUti Ver N Ver metric ft ances ar Neare the light	tical /A tical Ellipsoidal N/A N/A d Elevations est foot	
Monumentation Survey Point Location Accuracy Requirement feet) Resolution Feature Attributes Attribute (Datat name (VARCHAR2(50)) description (String 255)	s (in type)		nonumentation Horizo N/A Horizo ± 3 Geographic C Hundredth of Use this attr Edge Light, etc. Description	ineated using the required. ntal ntal ft coordinates arc second Des ibute to identify t Taxiway Edge Li of the feature	Orthon ± 5 Dist scription he use of ight, Taxi	codeUti Ver N Ver netric ft ances ar Neare the light way Cen	tical /A tical Ellipsoidal N/A nd Elevations est foot such as Runway iterline Light,	
Monumentation Survey Point Location Accuracy Requirement feet) Resolution Feature Attributes Attribute (Datat name (VARCHAR2(50))	s (in type)		nonumentation Horizo N/A Horizo ± 3 Geographic C Hundredth of Use this attr Edge Light, etc. Description A temporal of	ineated using the required. ntal ntal ft Coordinates arc second Des ibute to identify t Taxiway Edge Li	attribute Orthon ± 5 Dist scription he use of ight, Taxi operation	codeUti Ver N Ver metric ft ances ar Neare the light way Cen	tical /A tical Ellipsoidal N/A N/A d Elevations est foot such as Runway nterline Light, s of the feature.	
Monumentation Survey Point Location Accuracy Requirement feet) Resolution Feature Attributes Attribute (Datat name (VARCHAR2(50)) description (String 255)	s (in type)		nonumentation Horizo N/A Horizo ± 3 Geographic C Hundredth of Use this attri Edge Light, etc. Description A temporal of This attribut	ineated using the n required. ntal ntal ft coordinates arc second Des ibute to identify t Taxiway Edge Li of the feature description of the	Orthon ± 5 Dist scription he use of ight, Taxi operation ibe real-ti	codeUti Ver N Ver metric ft ances ar Neare the light way Cen nal status me statu	tical /A tical Ellipsoidal N/A N/A d Elevations est foot such as Runway iterline Light, s of the feature. s.	
Monumentation Survey Point Location Accuracy Requirement feet) Resolution Feature Attributes Attribute (Datat name (VARCHAR2(50)) description (String 255) status (Enumeration: cod	s (in type)		nonumentation Horizo N/A Horizo ± 3 Geographic C Hundredth of Use this attri Edge Light, etc. Description A temporal of This attribut A descriptio	ineated using the required. ntal ntal ft Coordinates arc second Des bute to identify t Taxiway Edge Li of the feature description of the e is used to descr	attribute Orthon ± 5 Dist scription he use of ight, Taxi operation ibe real-ti system. I	codeUti Ver N Ver netric ft ances ar Neare the light way Cen nal status me statu	tical /A tical Ellipsoidal N/A N/A d Elevations est foot such as Runway iterline Light, s of the feature. Is. system	
Monumentation Survey Point Location Accuracy Requirement feet) Resolution Feature Attributes Attribute (Datat name (VARCHAR2(50)) description (String 255) status (Enumeration: cod lightingType	s (in type)) leStatu	s)	nonumentation Horizo N/A Horizo ± 3 Geographic C Hundredth of Use this attri Edge Light, etc. Description A temporal of This attribut A descriptio	ineated using the required. mtal mtal ft Coordinates arc second Des ibute to identify t Taxiway Edge Li of the feature description of the e is used to descr n of the lighting s	attribute Orthon ± 5 Dist scription he use of ight, Taxi operation ibe real-ti system. I	codeUti Ver N Ver netric ft ances ar Neare the light way Cen nal status me statu	tical /A tical Ellipsoidal N/A N/A d Elevations est foot such as Runway iterline Light, s of the feature. Is. system	
Monumentation Survey Point Location Accuracy Requirement feet) Resolution Feature Attributes Attribute (Datat name (VARCHAR2(50)) description (String 255) status (Enumeration: cod lightingType (Enumeration:	s (in type)) leStatu	s)	nonumentation Horizo N/A Horizo ± 3 Geographic C Hundredth of Use this attri Edge Light, etc. Description A temporal of This attribut A descriptio classification Obstruction	ineated using the required. mtal mtal ft Coordinates arc second Des ibute to identify t Taxiway Edge Li of the feature description of the e is used to descr n of the lighting s	attribute Orthon ± 5 Dist scription he use of ight, Taxi operation ibe real-ti system. I Airport; I	codeUti Ver N Ver netric ft ances ar Neare the light way Cen nal status me statu	tical /A tical Ellipsoidal N/A N/A d Elevations est foot such as Runway iterline Light, s of the feature. Is. system	
Monumentation Survey Point Location Accuracy Requirement feet) Resolution Feature Attributes Attribute (Datat name (VARCHAR2(50)) description (String 255) status (Enumeration: code lightingType (Enumeration: codeLightingConfigurati	s (in type)) leStatu	s)	nonumentation Horizo N/A Horizo ± 3 Geographic C Hundredth of Use this attri Edge Light, etc. Description A temporal of This attribut A descriptio classification Obstruction	ineated using the required. ntal ntal ft coordinates arc second Des ibute to identify t Taxiway Edge Li of the feature description of the e is used to descr n of the lighting s are Approach;	attribute Orthon ± 5 Dist scription he use of ight, Taxi operation ibe real-ti system. I Airport; I	codeUti Ver N Ver netric ft ances ar Neare the light way Cen nal status me statu	tical /A tical Ellipsoidal N/A Dest foot such as Runway terline Light, s of the feature. Is. system	
Monumentation Survey Point Location Accuracy Requirement feet) Resolution Feature Attributes Attribute (Datated name (VARCHAR2(50))) description (String 255) status (Enumeration: code lightingType (Enumeration: codeLightingConfiguratied code)	s (in type)) leStatu	s)	nonumentation Horizo N/A Horizo ± 3 Geographic C Hundredth of Use this attri Edge Light, etc. Description A temporal of This attribut A descriptio classification Obstruction The color of	ineated using the required. ntal ntal ft coordinates arc second Des ibute to identify t Taxiway Edge Li of the feature description of the e is used to descr n of the lighting s are Approach;	attribute Orthon ± 5 Dist scription he use of ight, Taxi operation ibe real-ti system. I Airport; I	codeUti Ver N Ver netric ft ances ar Neare the light way Cen nal status me statu ighting s Runway;	tical /A tical Ellipsoidal N/A nd Elevations est foot such as Runway nterline Light, s of the feature. Is. system Taxiway; and	

pilotControlFrequency (Real)	The radio frequency used by pilots to control various airport
	lighting systems
userFlag (String 254)	An operator-defined work area. This attribute can be used by
	the operator for user-defined system processes. It does not
	affect the subject item's data integrity and should not be used to
	store the subject item's data.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together
	into a version.

5.4.5. ArrestingGear

Feature Group	Airfield			
Feature Class Name	ArrestingGear			
Feature Type	Line			
CADD Standard Requiremen	ts			
Layer/Level		Desci	ription	
C-RUNW-ARST-	Runway Arres	ting Gear Location	•	
	Color	Linetype	Line Weight	Symbol
AutoDesk Standards	3	Continuous	1 MM	User Defined
MicroStation Standards	2	Continuous	7	User Defined
Information Assurance Level	Restricted			
	AIXM	ArrestingGear		Core
Equivalent Standards	FGDC	ArrestingGear		Cole
Equivalent Standards	SDSFIE		safety feature line	
Documentation and				
	None			
Related Features		1	•••1 11• 1• ,	
Related Features Data Capture Rules: Collect	t the arresting g			s, connecting th
Related Features Data Capture Rules: Collect two fixed points of the arresting	t the arresting g g gear cable on e No monument	<i>each side of the runw</i> ation required.		s, connecting th
Related Features Data Capture Rules: Collect two fixed points of the arresting Monumentation	t the arresting g g gear cable on e No monument	each side of the runw	Vay.	tical
Related Features Data Capture Rules: Collect two fixed points of the arresting Monumentation	t the arresting g g gear cable on e No monument	<i>each side of the runw</i> ation required.	Vay.	
Related Features Data Capture Rules: Collect two fixed points of the arresting Monumentation Survey Point Location	t the arresting g g gear cable on e No monument Ho	each side of the runw ation required. rizontal N/A	vay. Ver	tical
Related Features Data Capture Rules: Collect two fixed points of the arresting Monumentation Survey Point Location Accuracy Requirements (in	t the arresting g g gear cable on e No monument Ho	each side of the runw ation required. rizontal	vay. Ver	tical /A
Related Features Data Capture Rules: Collect two fixed points of the arresting Monumentation Survey Point Location Accuracy Requirements (in	t the arresting g g gear cable on e No monument Ho Ho	each side of the runw ation required. rizontal N/A	<i>vay.</i> Ver N Ver Orthometric ± 5 ft	tical /A tical Ellipsoidal N/A
Related Features Data Capture Rules: Collect two fixed points of the arresting Monumentation Survey Point Location Accuracy Requirements (in feet)	t the arresting g g gear cable on e No monument Ho Ho Geograph	each side of the runw ation required. rizontal N/A rizontal ± 3 ft ic Coordinates	Ver N Ver Orthometric ± 5 ft Distances an	tical /A tical Ellipsoidal N/A ad Elevations
Related Features Data Capture Rules: Collect two fixed points of the arresting Monumentation Survey Point Location Accuracy Requirements (in feet) Resolution	t the arresting g g gear cable on e No monument Ho Ho Geograph	each side of the runw ation required. rizontal N/A rizontal ± 3 ft	Ver N Ver Orthometric ± 5 ft Distances an	tical /A tical Ellipsoidal N/A
Related FeaturesData Capture Rules: Collecttwo fixed points of the arrestingMonumentationSurvey Point LocationAccuracy Requirements (infeet)ResolutionFeature Attributes	t the arresting g g gear cable on e No monument Ho Ho Geograph	each side of the runwation required.rizontal N/A rizontal ± 3 ftic Coordinatesh of arc second	Ver N Ver Orthometric ± 5 ft Distances an Neare	tical /A tical Ellipsoidal N/A ad Elevations
Related Features Data Capture Rules: Collect two fixed points of the arresting Monumentation Survey Point Location Accuracy Requirements (in feet) Resolution Feature Attributes Attribute (Datatype)	t the arresting g g gear cable on e No monument Ho Ho Geograph Hundredt	each side of the runw ation required. rizontal N/A rizontal ± 3 ft ic Coordinates h of arc second D	Ver N Ver Orthometric ± 5 ft Distances an	tical /A tical Ellipsoidal N/A ad Elevations
Related Features Data Capture Rules: Collect two fixed points of the arresting Monumentation Survey Point Location Accuracy Requirements (in feet) Resolution Feature Attributes Attribute (Datatype) name (VARCHAR2(50))	t the arresting g g gear cable on e No monument Ho Geograph Hundredt	each side of the runw ation required. rizontal N/A rizontal \pm 3 ft ic Coordinates h of arc second D me of the feature.	Ver N Ver Orthometric ± 5 ft Distances an Neare	tical /A tical Ellipsoidal N/A ad Elevations
Related Features Data Capture Rules: Collect two fixed points of the arresting Monumentation Survey Point Location Accuracy Requirements (in feet) Resolution Feature Attributes Attribute (Datatype) name (VARCHAR2(50)) description (String 255)	t the arresting g g gear cable on e No monument Ho Geograph Hundredt	each side of the runwation required.rizontal N/A rizontal ± 3 ftic Coordinatesh of arc secondDme of the feature.otion of the feature	vay. Ver N Ver Orthometric ± 5 ft Distances an Neare escription	tical /A tical Ellipsoidal N/A ad Elevations est foot
Submission Requirements Related Features Data Capture Rules: Collect two fixed points of the arresting Monumentation Survey Point Location Accuracy Requirements (in feet) Resolution Feature Attributes Attribute (Datatype) name (VARCHAR2(50)) description (String 255) status (Enumeration: codeStatus)	t the arresting g g gear cable on e No monument Ho Geograph Hundredtl The nan Descrip s) A temp	each side of the runw ation required. rizontal N/A rizontal \pm 3 ft ic Coordinates h of arc second D me of the feature.	vay. Ver N Ver Orthometric ± 5 ft Distances ar Neare escription	tical /A tical Ellipsoidal N/A ad Elevations est foot

userFlag (String 254)	An operator-defined work area. This attribute can be used by
	the operator for user-defined system processes. It does not
	affect the subject item's data integrity and should not be used to
	store the subject item's data.
owner (Enumeration: codeOwner)	Owner of the facility.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together
	into a version.

5.4.6. Frequency Area

Definition: Area specifying the designated part of the surface movement area where a specific frequency is required by ATC or ground control. If there is only one frequency area for the airport, the polygon must cover the total air operations area. [Source: RTCA DO-272]

Footune Choun	Airfie	L			
Feature Group					
Feature Class Name		FrequencyArea Polygon			
Feature Type		gon			
CADD Standard Requiremen	ts				
Layer/Level	Description				
C-AIRF-FREQ-	-	Frequency Area			
	(Color	Linetype	Line Weight	Symbol
AutoDesk Standards		3	Continuous	1 MM	User Defined
MicroStation Standards		2	Continuous	7	User Defined
Information Assurance Level	Uncla	assified			
	AIX	M	Frequency		Core
Equivalent Standards	FGD	С	FrequencyArea		I
	SDSI	FIE	1 1	groundwave poly	gon area
Documentation and Submission Requirements	No do	ocumentatio	on is required for th	~ /	0
Related Features					
Data Capture Rules: Collect	a closa	d nolvaon t	its graatast artan	ts	
Monumentation				13.	
	No monumentation required. Horizontal Vertical				
Survey Point Location			A	N N	
		11	Π		tical
Accuracy Requirements (in		Horiz	zontal	Orthometric	Ellipsoidal
feet)			3 ft	$\pm 5 \text{ ft}$	N/A
Resolution			Coordinates		d Elevations
	1	Hundreath c	of arc second	Neare	st foot
Feature Attributes			D	•	
Attribute (Datatype)		701		scription	
name (VARCHAR2(50))			of the feature.		
description (String 255)	Description of the feature				
status (Enumeration: codeStatu	s)		l description of the ate is used to descr		
station (String 30)	Service or Station assigned to primary frequency (e.g., ATC Tower, Ground Control) [Source: RTCA DO-272]				
frequency (Real)		Primary fre RTCA DC	equency used on fr	equency area (in N	/HZ). [Source:

userFlag (String 254)	An operator-defined work area. This attribute can be used by the operator for user-defined system processes. It does not affect the subject item's data integrity and should not be used to
	store the subject item's data.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together
	into a version.

5.4.7. Passenger Loading Bridge

Definition: A bridge for loading/unloading access to airplanes for passengers and crew.				
Feature Group	Airfield			
Feature Class Name	PassengerLoadingBridge			
Feature Type	Polygon			
CADD Standard Requiremen	its			
Layer/Level		Descr	iption	
C-AIRF-JETB-	Airport Jetbridge			
	Color	Linetype	Line Weight	Symbol
AutoDesk Standards	3	Continuous	1 MM	User Defined
MicroStation Standards	2	Continuous	7	User Denned
Information Assurance Level	Kestricted			
	AIXM PassengerLoadingBridge Core		Core	
Equivalent Standards	FGDC	PassengerLoadin	ıgBridge	
	SDSFIE	None		
Documentation and				
Submission Requirements	No documentation is required for this feature.			
Related Features				
Data Cantuna Dulan Outline	$C_{1} = 1$ $D_{1} = D_{2}$	• 1 • • • 1 • 1 • • • •	1	1.1.1.

Data Capture Rules: *Outline of the boarding Bridge with the vertical on the top of the bridge.*



Monumentation	No monumentation required.		
Survey Doint Location	Horizontal	Vertical	
Survey Point Location	N/A	N/A	

		Hamimantal	Vertical		
Accuracy Requirements (in		Horizontal	Orthometric	Ellipsoidal	
feet)		± 3 ft	± 5 ft	N/A	
Resolution	G	eographic Coordinates	Distances an	d Elevations	
Kesolution	H	Iundredth of arc second	Neare	st foot	
Feature Attributes					
Attribute (Datatype)		De	escription		
name (VARCHAR2(50))		Name, code or identifier use	ed to identify the lo	ading bridge.	
description (String 255)		Description of the feature			
status (Enumeration: codeStatus	s)	A temporal description of th	e operational statu	s of the feature.	
		This attribute is used to describe real-time status.		JS.	
userFlag (String 254)		An operator-defined work area. This attribute can be used by			
		the operator for user-defined system processes. It does not			
		affect the subject item's data integrity and should not be used to			
		store the subject item's data.			
loadingBridgeType (Enumeration: Cod		Code indicating the type of loading bridge.			
CodeLoadingBridgeType)					
Alternative (Number(2))		Discriminator used to tie fea	tures of a plan or p	proposal together	
		into a version.			

5.4.8. Runway Centerline

ng the painted can	terline of a runway	connecting the m	iddle points of
			iduic-points of
			AC 150/5200
to calculate grad	ie and line-of-sight	criteria. [Source:	AC 150/5500-
	ne		
Line			
its			
	Descr	iption	
Runway Centerli	ine		
Color	Linetype	Line Weight	Symbol
7	- Continuous	1 MM	Llass Dafin ad
2		7	User Defined
			·
Restricted			
AIXM	RunwayMarking		Core
FGDC	RunwayCenterlin	e	·
SDSFIE	airfield surface	centerline	
	· · · _ · · _		
No documentatio	on is required for th	is feature.	
ine the runway ce	enterline as a cont	inuous line along	the centerline of
l nine the runway ce <u>runway end</u> points		inuous line along	the centerline of
	•	inuous line along	the centerline of
<i>runway end points</i> No monumentati	•		the centerline of
	Centerline is composed to calculate grad Airfield RunwayCenterlin Line ts Runway Centerlin Color 7 2 Restricted AIXM FGDC SDSFIE	Centerline is composed of many centers ad to calculate grade and line-of-sight Airfield RunwayCenterline Line ts Color Linetype 7 Continuous 2 Continuous Restricted AIXM RunwayCenterline Continuous	RunwayCenterline Line Veight Color Line Weight Color Linetype Line Weight 7 Continuous 1 MM 2 Continuous 7 Restricted 7 Restricted AIXM RunwayMarking FGDC FGDC RunwayCenterline Content

	Uariaantal	Ver	tical	
Accuracy Requirements (in	Horizontal	Orthometric	Ellipsoidal	
feet)	± 1 ft	± 0.25 ft	N/A	
Desclution	Geographic Coordinates	Distances an	d Elevations	
Resolution	Thousandth of arc second	Nearest ten	th of a foot	
Feature Attributes				
Attribute (Datatype)	De	escription		
name (VARCHAR2(50))	The name of the feature.			
runwayDesignator (String 7)	Designator of the runway bas	sed on the magneti	c bearing and	
	position in relation to paralle	l runways (e.g. 331	R/15L) [Source:	
	AC 150/5340-1]			
description (String 255)	Description of the feature	Description of the feature		
status (Enumeration: codeStatus	A temporal description of the	e operational status	of the feature.	
	This attribute is used to descri	ribe real-time statu	S.	
isDerived (Boolean)	Indicates whether the centerl	Indicates whether the centerline is derived or photo determined.		
userFlag (String 254)	An operator-defined work are	ea. This attribute of	an be used by	
	the operator for user-defined	system processes.	It does not	
	affect the subject item's data	integrity and shoul	d not be used to	
	store the subject item's data.			
Alternative (Number(2))	Discriminator used to tie feat	tures of a plan or p	roposal together	
	into a version.			

5.4.9. Runway Helipad Design Surface
Definition: A three-dimensional surface used in runway or heliport/helipad design [Source: AC 150/5300-13]

150/5300-13]				
Feature Group	Airfield			
Feature Class Name	RunwayHelipad	RunwayHelipadDesignSurface		
Feature Type	Polygon			
CADD Standard Requirements				
Layer/Level		Description		
C-AIRF-DSRF-BLDR-	Building Restric	ction Line		
C-AIRF-DSRF-RSA-	Runway Safety	Area		
C-AIRF-DSRF-RPZ-	Runway Protect	ion Zone		
C-AIRF-DSRF-OFA-	Object Free Are	a		
C-AIRF-DSRF-OFZ-	Object Free Zor	ie		
C-AIRF-DSRF-POFA-	Precision Objec	t Free Area		
C-AIRF-DSRF-KEYH-	Key holes			
C-RUNW-CLRW-	Runway clearway	ay		
C-HELI-DSRF-	Helipad design	surface		
	Color	Linetype	Line Weight	Symbol
AutoDesk Standards	3	Continuous	1 MM	User Defined
MicroStation Standards	2	Continuous	7	User Denned
Information Assurance Level	Restricted			
	AIXM	RunwayFATODe	signSurface	Extension
Equivalent Standards	FGDC <i>RunwayHelipadDesignSurface</i> Extension			Extension
	SDSFIE airfield imaginary surface area			
Documentation and	No documentati	on is required for t	his feature	
Submission Requirements		on is required for t	ins reature.	
Related Features				

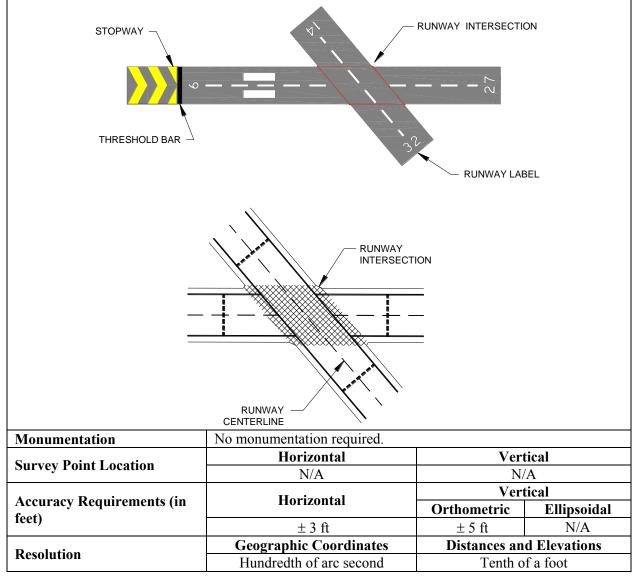
Data Capture Rules: <i>N/A</i>					
Monumentation	No monumentation required.				
Summer Daint Lagation	Horizontal	Vertical			
Survey Point Location	N/A	N/A			
	Henterntel	Vertical			
Accuracy Requirements (in	Horizontal	Orthometric	Ellipsoidal		
feet)	N/A	N/A	N/A		
	Geographic Coordinates	Distances and Elevations			
Resolution	Hundredth of arc second	Tenth o	of a foot		
Feature Attributes					
Attribute (Datatype)	De	scription			
name (VARCHAR2(50))	The name of the feature. [Sc		ature Table]		
description (String 255)	Description of the feature		4		
status (Enumeration: codeStatus) A temporal description of the	e operational statu	s of the feature.		
× ·	This attribute is used to descri				
designSurfaceType	A description of the design s				
(Enumeration:					
codeDesignSurfaceType)					
zoneUse (String 50)	A description of the use of th	e zone.			
determination (String 255)	A formal declaration of the runway/helipad/heliport safety				
	area condition with respect to standards and any requirement				
	improvements [Source: FAA	improvements [Source: FAA Order 5200.8 and AC 150/5390-			
	2]	2]			
determinationDate (Date)	The date the safety area deter	The date the safety area determination was approved [Source:			
	FAA Order 5200.8 and AC 1	50/5390-2B]			
zoneInnerWidth (Real)		The width of the narrow end of a trapezoidal shaped			
	DesignSurface feature. This				
		to the landing surface [Source: AC 150/5300-13 and			
	150/5390-2B]				
zoneOuterWidth (Real)		The width of the wide end of a trapezoidal shaped			
	DesignSurface feature. This	is normally the en	nd that is furthest		
	from the landing surface.				
zoneLength (Real)	The length of a trapezoidal shaped DesignSurface feature.				
slope (Real)	The low to high gradient with				
userFlag (String 254)		An operator-defined work area. This attribute can be used by			
	the operator for user-defined				
	affect the subject item's data	integrity and shou	ld not be used to		
	store the subject item's data.	2 1	1		
Alternative (Number(2))	Discriminator used to tie feat	tures of a plan or p	proposal together		
	into a version.				

5.4.10. Runway Intersection

Definition: The area of intersection between two or more runways [Source: RTCA DO-272]			
Feature Group	Airfield		
Feature Class Name	RunwayIntersection		
Feature Type	Polygon		
CADD Standard Requiremen	CADD Standard Requirements		
Layer/Level	Description		
C-RUNW-INTS	Runway intersection		

	Color	Linetype	Line Weight	Symbol
AutoDesk Standards	3	Continuous	1 MM	User Defined
MicroStation Standards	2	Continuous	7	User Defined
Information Assurance Level	Restricted			
	AIXM	RunwayElement		Core
Equivalent Standards	FGDC	RunwayElement		
	SDSFIE	None		
Documentation and	No do sum ontoti	on is required for t	his footuro	
Submission Requirements	no documentati	on is required for t	ins reature.	
Related Features				

Data Capture Rules: When two or more runways intersect, collect the area of overlap as an individual runway intersection polygon attached to the corresponding runway polygon(s) by way of shared lines. Define the polygon by the outer edge of the white runway edge marking or surface edge if no marking is present.



Feature Attributes	
Attribute (Datatype)	Description
name (VARCHAR2(50))	The name of the feature.
description (String 255)	Description of the feature
status (Enumeration: codeStatus)	A temporal description of the operational status of the feature. This attribute is used to describe real-time status.
runwayDesignator1 (String 7)	Designator of the 1st intersecting runway based on the magnetic bearing and position in relation to parallel runways (e.g. 33R/15L).
runwayDesignator2 (String 7)	Designator of the 2nd intersecting runway based on the magnetic bearing and position in relation to parallel runways (e.g. 33R/15L).
runwayDesignator3 (String 7)	Designator of the 3rd intersecting runway based on the magnetic bearing and position in relation to parallel runways (e.g. 33R/15L).
pavementClassificationNumber	A number which expresses the relative load carrying capacity of a pavement in terms of a standard single wheel load. [Source: AC 150/5335-5]
userFlag (String 254)	An operator-defined work area. This attribute can be used by the operator for user-defined system processes. It does not affect the subject item's data integrity and should not be used to store the subject item's data.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together into a version.

5.4.11. Runway LAHSO

Definition: Markings installed on a runway where an aircraft is to stop when the runway is normally used as a taxiway or used for Land and Hold Short Operations (LAHSO) as identified in a letter of agreement with the Air Traffic Control Tower (ATCT). A runway should be considered as normally used for taxiing if there is no parallel taxiway and no ATCT. Otherwise, seek input from ATCT. [Source: Order 7110.118]

Feature Group	Airfield					
Feature Class Name	RunwayLAHSO					
Feature Type	Line					
CADD Standard Requirement	S					
Layer/Level		Descr	ription			
C-RUNW-LAHS-	Runway land an	nd hold short area				
	Color	Linetype	Line Weight	Symbol		
AutoDesk Standards	3	Continuous	1 MM	Llean Defined		
MicroStation Standards	2	Continuous	7	User Defined		
Information Assurance Level	Restricted					
	AIXM	RunwayMarking		Core		
Equivalent Standards	FGDC RunwayLAHSO					
-	SDSFIE None					
Documentation and Submission Requirements	No documentat	ion is required for t	this feature.			
Related Features						

Data Capture Rules: Collect of the second painted line farthe	est fro	m the intersecting runway.	bjects delineated l	by the outer edge
Monumentation	No n	nonumentation required.	V 7	4:00l
Survey Point Location		Horizontal N/A	ver N	tical
				tical
Accuracy Requirements (in		Horizontal	Orthometric	Ellipsoidal
feet)		± 3 ft	$\pm 5 \text{ ft}$	N/A
Desclution	(Geographic Coordinates	Distances an	d Elevations
Resolution		Hundredth of arc second		of a foot
Feature Attributes				
Attribute (Datatype)			scription	
name (VARCHAR2(50))		The name of the feature.		
description (String 255)		Description of the feature		0.1 0
status (Enumeration: codeStatus	s)	A temporal description of the This attribute is used to describe	*	
protected Pupular Designator (S	tring			
protectedRunwayDesignator (S 7)	umg	Unique runway identifier for the airport of the runway, if any, being protected by the LAHSO (when the LAHSO precedes a		
()		runway intersection). Examp	•	L
markingFeatureType		The type of the marking		
(Enumeration:				
codeMarkingFeatureType)				
color		The color of the marking		
(Enumeration: codeColor)				
userFlag (String 254)		An operator-defined work are		
		the operator for user-defined		
		affect the subject item's data	integrity and should	ld not be used to
		store the subject item's data.		
Alternative (Number(2))		Discriminator used to tie feat into a version.	tures of a plan or p	roposal together

5.4.12. Runway Element

Definition: A section of the runway surface. The runway surface can be defined by a set of non-
overlapping RunwaySegment polygons for pavement management purposes. RunwayElements may
overlap Runway and RunwayIntersection features. Use RunwayElement to model the physical
runway pavement in terms of surface, material, strength and condition in greater detail than just as a
single piece of pavement. [Source: AC 150/5335-5, AC 150/5320-12, AC 150/5320-17, AC 150/5320-
6]Feature GroupAirfield

Feature Class Name	Runw	ayElement				
Feature Type	Polygon					
CADD Standard Requiremen		011				
Layer/Level			Deser	intion		
C-RUNW-SEGM-	Description Runway Element					
C-ROINW-SEGM-		Color	Linetype	Line Weight	Symbol	
AutoDesk Standards	(Linetype	1 MM	Symbol	
MicroStation Standards	2 Continuous			7	User Defined	
Information Assurance						
Level	None					
Level	AIXN	Extension				
Equivalent Standards	FGD		RunwayElement RunwayElement	2Alension	Extension	
Equivalent Standards	SDSF		None		LACIISION	
Documentation and	SDSF		none			
Submission Requirements	No do	cumentatio	on is required for the	nis feature.		
Related Features						
Data Capture Rules: Collec	t munar	n, plomonte	as individual not	hann objects Wh	pre two or more	
runways intersect, identify, clas		•				
Monumentation	1		on required.	ie iniersecting ure	a only once.	
Wonumentation		Horiz		Ver	tical	
Survey Point Location		N			/A	
		11	A		tical	
Accuracy Requirements (in		Horiz	zontal	Orthometric	Ellipsoidal	
feet)		1.2.6			N/A	
	Geographic Coordinates			Distances on	d Flovetions	
Resolution					d Elevations	
			Coordinates of arc second		nd Elevations	
Feature Attributes			of arc second	Tenth o		
Feature Attributes Attribute (Datatype)		lundredth c	of arc second			
Feature Attributes Attribute (Datatype) name (VARCHAR2(50))		Hundredth c	of arc second Determine the feature.	Tenth o		
Feature AttributesAttribute (Datatype)name (VARCHAR2(50))description (String 255)		Hundredth c The name Descriptic	of arc second De of the feature. on of the feature	Tenth c	of a foot	
Feature Attributes Attribute (Datatype) name (VARCHAR2(50))		Iundredth o The name Descriptio A tempor	of arc second De of the feature. on of the feature al description of the	Tenth c escription ne operational statu	of a foot	
Feature AttributesAttribute (Datatype)name (VARCHAR2(50))description (String 255)status (Enumeration: codeStatus)		Iundredth o The name Descriptio A tempor This attril	of arc second De of the feature. on of the feature al description of the bute is used to desc	Tenth c escription ne operational statu cribe real-time stat	of a foot us of the feature.	
Feature AttributesAttribute (Datatype)name (VARCHAR2(50))description (String 255)		Hundredth of The name Descriptio A tempor This attril An operat	of arc second De of the feature. on of the feature al description of the bute is used to desc or-defined work an	Tenth c escription ne operational statu cribe real-time stat rea. This attribute	of a foot us of the feature. us can be used by	
Feature AttributesAttribute (Datatype)name (VARCHAR2(50))description (String 255)status (Enumeration: codeStatus)		The name Descriptic A tempor This attril An operat the operat	of arc second De of the feature. on of the feature al description of the bute is used to desc or-defined work and or for user-defined	Tenth c escription ne operational statu cribe real-time stat rea. This attribute l system processes	of a foot us of the feature. us can be used by . It does not	
Feature AttributesAttribute (Datatype)name (VARCHAR2(50))description (String 255)status (Enumeration: codeStatus)		The name Description A tempor This attril An operat the operat affect the	of arc second De of the feature. on of the feature al description of the bute is used to desc or-defined work and or for user-defined subject item's data	Tenth c escription ne operational statu cribe real-time staturea. This attribute l system processes i integrity and shou	of a foot us of the feature. us can be used by . It does not	
Feature AttributesAttribute (Datatype)name (VARCHAR2(50))description (String 255)status (Enumeration: codeStatus)userFlag (String 254)		The name Description A tempor This attril An operat affect the store the s	of arc second De of the feature. on of the feature al description of the bute is used to desc or-defined work and or for user-defined subject item's data subject item's data.	Tenth c escription ne operational statu cribe real-time staturea. This attribute l system processes i integrity and shou	of a foot us of the feature. us can be used by . It does not	
Feature AttributesAttribute (Datatype)name (VARCHAR2(50))description (String 255)status (Enumeration: codeStatus)userFlag (String 254)runwayDesignator (String 7)		The name Description A tempor This attril An operat the operat affect the store the s Specify r	of arc second De of the feature. on of the feature al description of the bute is used to desc or-defined work and or for user-defined subject item's data. unway designator.	Tenth c escription ne operational statu cribe real-time stat rea. This attribute l system processes integrity and shou	of a foot us of the feature. us can be used by . It does not uld not be used to	
Feature Attributes Attribute (Datatype) name (VARCHAR2(50)) description (String 255) status (Enumeration: codeStatus) userFlag (String 254) runwayDesignator (String 7) surfaceType	s)	The name Descriptic A tempor This attril An operat the operat affect the store the s Specify m A classifi	of arc second De of the feature. on of the feature al description of the bute is used to desc or-defined work and or for user-defined subject item's data. unway designator. cation of airfield p	Tenth c escription ne operational statu cribe real-time stat rea. This attribute l system processes integrity and show avement surfaces	of a foot us of the feature. us can be used by . It does not uld not be used to	
Feature Attributes Attribute (Datatype) name (VARCHAR2(50)) description (String 255) status (Enumeration: codeStatus) userFlag (String 254) runwayDesignator (String 7) surfaceType (Enumeration: codeSurfaceTyp)	s)	The name Description A tempor This attril An operat affect the store the s Specify re A classifi Obstruction	of arc second De of the feature. on of the feature al description of the bute is used to desc or-defined work and or for user-defined subject item's data. unway designator. cation of airfield p on Charts [Source	Tenth c escription ne operational statu cribe real-time staturea. This attribute I system processes integrity and shou avement surfaces : NGS]	of a foot us of the feature. cus can be used by . It does not uld not be used to for Airport	
Feature Attributes Attribute (Datatype) name (VARCHAR2(50)) description (String 255) status (Enumeration: codeStatus) userFlag (String 254) runwayDesignator (String 7) surfaceType (Enumeration: codeSurfaceType) surfaceMaterial	e)	The name Description A tempor This attril An operat affect the store the s Specify ru A classifi Obstruction A code in	of arc second De of the feature. on of the feature al description of the bute is used to desc or-defined work ar or for user-defined subject item's data. unway designator. cation of airfield p on Charts [Source dicating the compo	Tenth c escription ne operational statu cribe real-time staturea. This attribute I system processes integrity and shou avement surfaces : NGS]	of a foot us of the feature. cus can be used by . It does not uld not be used to for Airport	
Feature Attributes Attribute (Datatype) name (VARCHAR2(50)) description (String 255) status (Enumeration: codeStatus) userFlag (String 254) runwayDesignator (String 7) surfaceType (Enumeration: codeSurfaceTyp) surfaceMaterial (Enumeration: CodeSurfaceMaterial	e) terial)	Iundredth of The name Description A tempor This attril An operat the operat affect the store the s Specify ru A classifi Obstruction A code in [Source: 1]	of arc second De of the feature. on of the feature al description of the bute is used to desc or-defined work and or for user-defined subject item's data. unway designator. cation of airfield p on Charts [Source dicating the component NFDC]	Tenth of escription ne operational statu cribe real-time stat rea. This attribute I system processes integrity and show avement surfaces : NGS] osition of the relat	of a foot us of the feature. us can be used by . It does not uld not be used to for Airport ed surface	
Feature Attributes Attribute (Datatype) name (VARCHAR2(50)) description (String 255) status (Enumeration: codeStatus) userFlag (String 254) runwayDesignator (String 7) surfaceType (Enumeration: codeSurfaceType) surfaceMaterial	e) terial)	Iundredth of The name Description A tempor This attril An operat affect the store the s Specify ru A classifi Obstruction A code in [Source: 1] A number	of arc second De of the feature. on of the feature al description of the bute is used to desc for defined work and for for user-defined subject item's data. unway designator. cation of airfield p on Charts [Source dicating the component NFDC] r which expresses the subject item is a subject item is a subject r subject item is a subject item is a subject item is a subject item is a subject item is a subject item is a subject item is a subject item is a subject item is a subject item is a subject item is a subject on Charts [Source is a subject item is a subject it	Tenth c escription ne operational statu cribe real-time statures. This attribute asystem processes integrity and show avement surfaces : NGS] osition of the relature the relative load car	of a foot us of the feature. us can be used by . It does not uld not be used to for Airport ed surface arrying capacity	
Feature Attributes Attribute (Datatype) name (VARCHAR2(50)) description (String 255) status (Enumeration: codeStatus) userFlag (String 254) runwayDesignator (String 7) surfaceType (Enumeration: codeSurfaceTyp) surfaceMaterial (Enumeration: CodeSurfaceMaterial	e) terial)	Iundredth of The name Description A tempor This attril An operat affect the store the s Specify rn A classifi Obstruction A code in [Source: 1] A number of a paver	of arc second Definition of the feature and description of the boute is used to de	Tenth c escription ne operational statu cribe real-time statures. This attribute asystem processes integrity and show avement surfaces : NGS] osition of the relature the relative load car	of a foot us of the feature. us can be used by . It does not ald not be used to for Airport ed surface	
Feature Attributes Attribute (Datatype) name (VARCHAR2(50)) description (String 255) status (Enumeration: codeStatus) userFlag (String 254) runwayDesignator (String 7) surfaceType (Enumeration: codeSurfaceTyp) surfaceMaterial (Enumeration: CodeSurfaceMaterial) pavementClassificationNumber	e) terial)	The name Description A tempor This attril An operat affect the store the s Specify ru A classifi Obstruction A code in [Source: 1 A number of a paver [Source: 2	of arc second De of the feature. on of the feature al description of the bute is used to desc or-defined work an or for user-defined subject item's data. unway designator. cation of airfield p on Charts [Source dicating the component NFDC] r which expresses the ment in terms of a AC 150/5335-5]	Tenth of escription ne operational statu cribe real-time statures a. This attribute l system processes integrity and shou avement surfaces : NGS] osition of the relature the relative load ca standard single wh	of a foot us of the feature. us can be used by . It does not ald not be used to for Airport ed surface arrying capacity neel load.	
Feature Attributes Attribute (Datatype) name (VARCHAR2(50)) description (String 255) status (Enumeration: codeStatus) userFlag (String 254) runwayDesignator (String 7) surfaceType (Enumeration: codeSurfaceTyp) surfaceMaterial (Enumeration: CodeSurfaceMaterial) surfaceCondition	e) terial)	Iundredth of The name Description A tempor This attril An operat the operat affect the store the s Specify ru A classifi Obstruction A code in [Source: 1] A number of a paver [Source: 2] A descrip	of arc second Definition of the feature and description of the boute is used to de	Tenth of escription ne operational statu cribe real-time statures a. This attribute l system processes integrity and shou avement surfaces : NGS] osition of the relature the relative load ca standard single wh	of a foot us of the feature. us can be used by . It does not ald not be used to for Airport ed surface arrying capacity neel load.	
Feature Attributes Attribute (Datatype) name (VARCHAR2(50)) description (String 255) status (Enumeration: codeStatus) userFlag (String 254) runwayDesignator (String 7) surfaceType (Enumeration: codeSurfaceTyp) surfaceMaterial (Enumeration: CodeSurfaceMaterial) pavementClassificationNumber surfaceCondition (Enumeration: CodeSurfaceMaterial)	e) terial)	The name Description A tempor This attril An operat affect the store the s Specify ru A classifi Obstruction A code in [Source: 1 A number of a paver [Source: 2	of arc second De of the feature. on of the feature al description of the bute is used to desc or-defined work an or for user-defined subject item's data. unway designator. cation of airfield p on Charts [Source dicating the component NFDC] r which expresses the ment in terms of a AC 150/5335-5]	Tenth of escription ne operational statu cribe real-time statures a. This attribute l system processes integrity and shou avement surfaces : NGS] osition of the relature the relative load ca standard single wh	of a foot us of the feature. us can be used by . It does not ald not be used to for Airport ed surface arrying capacity neel load.	
Feature Attributes Attribute (Datatype) name (VARCHAR2(50)) description (String 255) status (Enumeration: codeStatus) userFlag (String 254) runwayDesignator (String 7) surfaceType (Enumeration: codeSurfaceType) surfaceMaterial (Enumeration: CodeSurfaceMa pavementClassificationNumber surfaceCondition (Enumeration: codeSurfaceMa)	e) terial)	Iundredth of The name Description A tempor This attril An operat affect the store the s Specify m A classifi Obstruction A code im [Source: 1] A number of a paver [Source: 2] A descrip NFDC]	of arc second De of the feature. on of the feature al description of the bute is used to desc or-defined work and or for user-defined subject item's data. unway designator. cation of airfield p on Charts [Source dicating the component NFDC] r which expresses the ment in terms of a AC 150/5335-5] tion of the services	Tenth of escription ne operational statu cribe real-time statu- rea. This attribute I system processes integrity and shou avement surfaces : NGS] osition of the relatu- the relative load ca- standard single where ability of the paver	of a foot us of the feature. us can be used by . It does not uld not be used to for Airport ed surface arrying capacity neel load. ment [Source:	
Feature Attributes Attribute (Datatype) name (VARCHAR2(50)) description (String 255) status (Enumeration: codeStatus) userFlag (String 254) runwayDesignator (String 7) surfaceType (Enumeration: codeSurfaceTyp) surfaceMaterial (Enumeration: CodeSurfaceMaterial) pavementClassificationNumber surfaceCondition (Enumeration: CodeSurfaceMaterial)	e) terial)	Iundredth of The name Description A tempor This attril An operat affect the store the s Specify ru A classifi Obstruction A code in [Source: 1 A number of a paver [Source: 2 A descrip NFDC] Discrimin	of arc second De of the feature. on of the feature al description of the bute is used to desc or-defined work an or for user-defined subject item's data. unway designator. cation of airfield p on Charts [Source dicating the component NFDC] r which expresses the ment in terms of a AC 150/5335-5]	Tenth of escription ne operational statu cribe real-time statu- rea. This attribute I system processes integrity and shou avement surfaces : NGS] osition of the relatu- the relative load ca- standard single where ability of the paver	of a foot us of the feature. us can be used by . It does not uld not be used to for Airport ed surface arrying capacity neel load. ment [Source:	

Definition: An area beyond the				
extended centerline of the run				
causing structural damage to t			port authorities for	use in
decelerating the airplane durin	×	off.		
Feature Group	Airfield			
Feature Class Name	Stopway			
Feature Type	Polygon			
CADD Standard Requireme	ents		• .•	
Layer/Level	D		iption	
C-RUNW-STWY-	Runway stopw		T • XX7 • 1 /	
	Color	Linetype	Line Weight	Symbol
AutoDesk Standards	3	Continuous	1 MM	User Defined
MicroStation Standards	2		7	
Information Assurance Level	Restricted			
	AIXM	Stopway		Extension
Equivalent Standards	FGDC	Stopway		Extension
	SDSFIE	None		
Documentation and	No documenta	tion is required for th	nis feature	
Submission Requirements			ins fourture.	
Submission Requirements Related Features Data Capture Rules: Collect and connect it to associated rules can be wider than the associa Stopway end, and Displaced Tu	t a closed polygon unway by means o ted runway. Pay :	n encompassing the e of a shared line. Stop special attention to th	ntire area designa ways do not have s he guidance on Ru	shoulders and inway end,
Related Features Data Capture Rules: Collect and connect it to associated ru can be wider than the associa Stopway end, and Displaced T	t a closed polygon unway by means o ted runway. Pay :	n encompassing the e of a shared line. Stop special attention to th cation for proper loca	ntire area designa ways do not have s he guidance on Ru	shoulders and inway end,
Related Features Data Capture Rules: <i>Collec</i> <i>and connect it to associated ru</i> <i>can be wider than the associa</i> <i>Stopway end, and Displaced T</i>	t a closed polygor unway by means o ted runway. Pay s Threshold Identific	n encompassing the e of a shared line. Stop special attention to th cation for proper loca	entire area designa ways do not have s he guidance on Ru ation of the Stopw	shoulders and inway end, ay.
Related Features Data Capture Rules: Collec and connect it to associated ru can be wider than the associa Stopway end, and Displaced T STOPWAY RUNWAY	t a closed polygor unway by means o ted runway. Pay s Threshold Identific	AY LABEL	entire area designa ways do not have s he guidance on Ru ation of the Stopw 81	shoulders and inway end, ay.
Related Features Data Capture Rules: Collec and connect it to associated ri can be wider than the associa Stopway end, and Displaced T STOPWAY RUNWAY THRESHOLD BAR	t a closed polygor unway by means of ted runway. Pay s Threshold Identific Y INTERSECTION RUNW/	AY LABEL	entire area designa ways do not have s he guidance on Ru ation of the Stopw 81 1 36	shoulders and inway end, ay.

5.4.13. Stopway

		Ver	tical
Accuracy Requirements (in	Horizontal	Orthometric	Ellipsoidal
feet)	± 3 ft	± 5 ft	N/A
Resolution	Geographic Coordinates	Distances and Elevations	
Resolution	Hundredth of arc second	Tenth o	of a foot
Feature Attributes			
Attribute (Datatype)	De	escription	
name (VARCHAR2(50))	The name of the feature.		
description (String 255)	Description of the feature		
status (Enumeration: codeStatus	a) A temporal description of the	e operational status	of the feature.
	This attribute is used to descr	ribe real-time statu	S.
length (Real)	The length of the designated	stopway from the	end of the
	runway		
width (Real)	The overall width of the feature	ure	
userFlag (String 254)	An operator-defined work are	ea. This attribute of	an be used by
	the operator for user-defined	system processes.	It does not
	affect the subject item's data	integrity and shoul	d not be used to
	store the subject item's data.		
runwayEndDesignator (String 3) Specify runwayEnd designate	or to identify which	h runway end the
	Stopway is on.		
surfaceType	A classification of airfield pa	vement surfaces for	or Airport
(Enumeration: codeSurfaceTyp	e) Obstruction Charts [Source:	NGS]	
surfaceMaterial	A code indicating the compo	sition of the related	d surface
(Enumeration:	[Source: NFDC]		
codeSurfaceMaterial)			
surfaceCondition	A description of the serviceal	bility of the pavem	ent [Source:
(Enumeration:	NFDC]		
codeSurfaceCondition)			
Alternative (Number(2))	Discriminator used to tie feat	tures of a plan or p	roposal together
	into a version.		

5.4.14. Taxiway Holding Position

Definition: A designated position at which taxiing aircraft and vehicles will stop and hold position, unless otherwise authorized by the airport control tower [Source: RTCA DO-272]							
Feature Group	Airfield						
Feature Class Name	TaxiwayHolding	Position					
Feature Type	line						
CADD Standard Requiremen	its						
Layer/Level		Descr	iption				
C-TAXI-HOLD	Holding Lines						
	Color	Linetype	Line Weight	Symbol			
		3 1 MM					
AutoDesk Standards		Continuous	1 MM	Liser Defined			
AutoDesk Standards MicroStation Standards		Continuous	1 MM 7	User Defined			
	3	Continuous	<u>1 MM</u> 7	User Defined			
MicroStation Standards Information Assurance	3 2	Continuous TaxiHoldingPosi	7	User Defined			
MicroStation Standards Information Assurance	3 2 Restricted		7 ition				

Documentation and	None		
Submission Requirements Related Features			
	nted markings extend across the ta	riway and may consis	t of one of the
following: • Runway holding position	on markings are a set of four yellow olid lines is the holding side.		
		-	
	Runway Holding Position Mark	<u> </u>	
	marked using a set of two parallel		
in between these two lines and	perpendicular to them there are sets	s of two parallel yellow	v lines.
	ILS/MLS Holding Position Mark on line as a line at the outer edge onding runway		ing (stop bar)
farthest away from the correspo	on line as a line at the outer edge onding runway.		ing (stop bar)
farthest away from the correspo Monumentation	on line as a line at the outer edge		
farthest away from the correspo	on line as a line at the outer edge onding runway. No monumentation required.	e of the painted mark	ical
farthest away from the correspondence of the	on line as a line at the outer edge onding runway. No monumentation required. Horizontal N/A	e of the painted mark	ical A
farthest away from the correspondence Monumentation Survey Point Location Accuracy Requirements (in	on line as a line at the outer edge onding runway. No monumentation required. Horizontal	e of the painted mark Verti N/A Verti Orthometric	ical A ical Ellipsoidal
farthest away from the correspondence Monumentation Survey Point Location Accuracy Requirements (in	on line as a line at the outer edge onding runway. No monumentation required. Horizontal N/A Horizontal ± 3 ft	e of the painted mark Verti N/A Verti Orthometric ± 5 ft	ical A ical Ellipsoida N/A
farthest away from the correspondence Monumentation Survey Point Location Accuracy Requirements (in feet)	on line as a line at the outer edge onding runway. No monumentation required. Horizontal N/A Horizontal ± 3 ft Geographic Coordinates	e of the painted mark Verti N/A Verti Orthometric ± 5 ft Distances and	ical A Cal Ellipsoidal N/A I Elevations
farthest away from the correspondence Monumentation Survey Point Location Accuracy Requirements (in feet) Resolution	on line as a line at the outer edge onding runway. No monumentation required. Horizontal N/A Horizontal ± 3 ft	e of the painted mark Verti N/A Verti Orthometric ± 5 ft	ical A Cal Ellipsoidal N/A I Elevations
farthest away from the correspondence Monumentation Survey Point Location Accuracy Requirements (in feet) Resolution Feature Attributes	on line as a line at the outer edge onding runway. No monumentation required. Horizontal ± 3 ft Geographic Coordinates Hundredth of arc second	e of the painted mark Verti N/A Verti Orthometric ± 5 ft Distances and Tenth o	ical A ical Ellipsoida N/A I Elevations
farthest away from the correspondence of the	on line as a line at the outer edge onding runway. No monumentation required. Horizontal N/A Horizontal ± 3 ft Geographic Coordinates Hundredth of arc second	e of the painted mark Verti N/A Verti Orthometric ± 5 ft Distances and	ical A ical Ellipsoida N/A I Elevations
farthest away from the correspondence of the	on line as a line at the outer edge onding runway. No monumentation required. Horizontal N/A Horizontal ± 3 ft Geographic Coordinates Hundredth of arc second D The name of the feature.	e of the painted mark Verti N/A Verti Orthometric ± 5 ft Distances and Tenth o escription	ical A ical Ellipsoida N/A I Elevations
farthest away from the correspondence of the	on line as a line at the outer edge onding runway. No monumentation required. Horizontal ± 3 ft Geographic Coordinates Hundredth of arc second D The name of the feature.) A description of the feature.	e of the painted mark Verti N/A Verti Orthometric ± 5 ft Distances and Tenth o escription	ical A Ellipsoida N/A I Elevations f foot
farthest away from the correspondence of the corresponden	on line as a line at the outer edge onding runway. No monumentation required. Horizontal ± 3 ft Geographic Coordinates Hundredth of arc second D The name of the feature.) A description of the feature. s) A temporal description of th	e of the painted mark Verti N/A Verti Orthometric ± 5 ft Distances and Tenth o escription	ical A Ellipsoida N/A I Elevations f foot
farthest away from the correspondence of the corresponden	on line as a line at the outer edge onding runway. No monumentation required. Horizontal $\frac{Horizontal}{N/A}$ $\frac{\pm 3 \text{ ft}}{\text{Geographic Coordinates}}$ Hundredth of arc second D The name of the feature. A description of the feature s) A temporal description of th This attribute is used to desc	e of the painted mark Verti N/2 Verti Orthometric ± 5 ft Distances and Tenth o escription e operational status of cribe real-time status.	ical A Ellipsoida N/A I Elevations f foot
farthest away from the correspondence of the corresponden	on line as a line at the outer edge onding runway. No monumentation required. Horizontal N/A Horizontal ± 3 ft Geographic Coordinates Hundredth of arc second D The name of the feature. A description of the feature. A temporal description of th This attribute is used to desc The designator for the approx	e of the painted mark Verti N/A Verti Orthometric ± 5 ft Distances and Tenth o escription escription the operational status of cribe real-time status. baching runway.	ical A Ellipsoida N/A I Elevations f foot
farthest away from the correspondence of the corresponden	on line as a line at the outer edge onding runway. No monumentation required. Horizontal N/A Horizontal ± 3 ft Geographic Coordinates Hundredth of arc second D The name of the feature. A description of the feature. A description of the feature. A temporal description of th This attribute is used to desc The designator for the approx The designator for the taxiw	e of the painted mark Verti N/A Verti Orthometric ± 5 ft Distances and Tenth o escription e operational status of cribe real-time status. baching runway. Yay.	ical A Ellipsoida N/A I Elevations f foot
farthest away from the correspondence of the	on line as a line at the outer edge onding runway. No monumentation required. Horizontal N/A Horizontal ± 3 ft Geographic Coordinates Hundredth of arc second D The name of the feature. A description of the feature. A temporal description of th This attribute is used to desc The designator for the appro The designator for the taxiw Code describing the Low vi	e of the painted mark Verti N/A Verti Orthometric ± 5 ft Distances and Tenth o escription e operational status of cribe real-time status. baching runway. Yay.	ical A Ellipsoida N/A I Elevations f foot
farthest away from the correspondence of the corresponden	on line as a line at the outer edge onding runway. No monumentation required. Horizontal N/A Horizontal ± 3 ft Geographic Coordinates Hundredth of arc second D The name of the feature. A description of the feature. A description of the feature. A temporal description of th This attribute is used to desc The designator for the approx The designator for the taxiw	e of the painted mark Verti N/A Verti Orthometric ± 5 ft Distances and Tenth o escription e operational status of cribe real-time status. baching runway. Yay.	ical A Ellipsoida N/A I Elevations f foot

userFlag (String 254)	An operator-defined work area. This attribute can be used by the operator for user-defined system processes. It does not affect the subject item's data integrity and should not be used to store the subject item's data.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together into a version.

5.4.15. Airport Sign

Definition: Signs at an airpor	t other than surface	painted signs. [Sou	rce: AC 150/5340-	18]	
Feature Group	Airfield			- 1	
Feature Class Name	AirportSign				
Feature Type	Point				
CADD Standard Requireme					
Layer/ Level		Descri	ption		
A-ELEV-SIGN-	Signage				
A-FLOR-SIGN-	Signage				
C-PVMT-SIGN-	Other signs				
	Color	Linetype	Line Weight	Symbol	
AutoDesk Standards	1		8	· ·	
MicroStation Standards	3	Continuous		User Defined	
Layer/ Level		Descri	ption	1	
C-NGAS-SIGN-	Surface markers/				
V-LITE-DIST-	Distance and arro	esting gear markers			
V-STRM-SIGN-	Surface markers/				
	Color	Linetype	Line Weight	Symbol	
AutoDesk Standards	3			· ·	
MicroStation Standards	2	Continuous		User Defined	
Layer/ Level		Descri	ption		
C-SSWR-SIGN-	Surface markers/	signs			
C-APRN-SIGN-	Airfield signs on	the apron			
	Color	Linetype	Line Weight	Symbol	
AutoDesk Standards	7	Continuous		User Defined	
MicroStation Standards	0	Continuous		User Defined	
Layer/ Level		Descri	ption		
C-STRM-SIGN-	Surface markers/	signs			
	Color	Linetype	Line Weight	Symbol	
AutoDesk Standards	4	Continuous		User Defined	
MicroStation Standards	7	- Continuous		User Defined	
Layer/ Level		Descri	ption		
V-LITE-SIGN-	Taxiway guidance	e signs			
C-TAXI-SIGN-		n the taxiway such	as taxiway design	ator, hold short	
C-TAXI-SIGN-	and directional signs				
	Color	Linetype	Line Weight	Symbol	
AutoDesk Standards	5	Continuous		User Defined	
MicroStation Standards	1	Continuous		User Denned	
Layer/ Level		Descri	ption		
E-SPCL-TRAF-	Traffic signal sys	stem			
V-NGAS-SIGN-	Surface markers/	signs			
V-SPCL-TRAF-	Traffic signal sys	stem			

V-SSWR-SIGN-	Surface markers/signs					
	Color	Linetype	Line Weight	Symbol		
AutoDesk Standards	2	Continuous	1	User Defined		
MicroStation Standards	4	Continuous	3	User Defined		
Layer/ Level		Descri	ption			
C-RUNW-SIGN-	Airfield signs o	on the runway such as	distance remaining	g signs		
	Color	Linetype	Line Weight	Symbol		
AutoDesk Standards	8	Continuous		Llaan Dafin ad		
MicroStation Standards	9	Continuous		User Defined		
Information Assurance	Restricted					
Level	Resultieu					
	AIXM	AirportSign		Extension		
Equivalent Standards	FGDC					
	SDSFIE general improvement feature point					
Documentation and						
Submission Requirements	No documentat	No documentation is required for this feature.				
Related Features						
Data Capture Rules: Colle	ct point at the hi	ighest point on the co	enter of the sign s	tructure. When		

Data Capture Rules: Collect point at the highest point on the center of the sign structure. When completing the feature attribution or signs containing both location and direction information. Provide the data for the sign with the location information. If necessary or desired to provide the directional information also, provide as a separate feature.

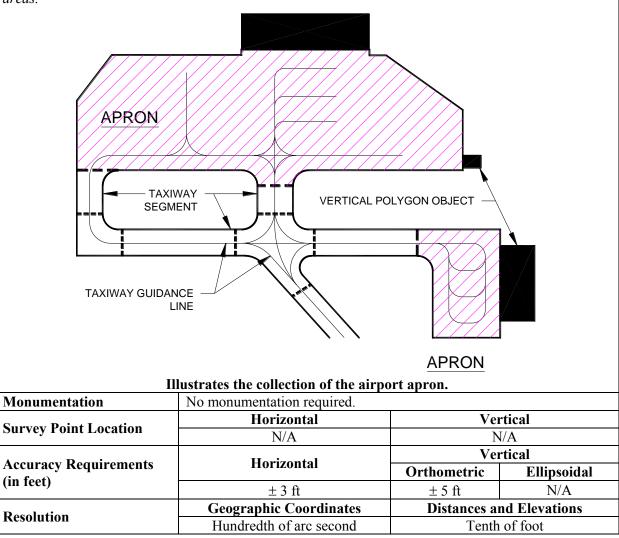
Monumentation	No monumentation required.				
Survey Doint Logation	Horizontal	Vert	ical		
Survey Point Location	Center of sign structure	Center of sign structure Top of sign structure at c			
A a anna an Da an inan an ta (in	Horizontal	Vert	ical		
Accuracy Requirements (in	Horizolital	Orthometric	Ellipsoidal		
feet)	± 3 ft	± 5 ft	N/A		
Resolution	Geographic Coordinates	Distances and	d Elevations		
Resolution	Hundredth of arc second	Tenth o	of foot		
Feature Attributes					
Attribute (Datatype)	D	escription			
name (VARCHAR2(50))	The name of the feature.	The name of the feature.			
description (VARCHAR2(255)) A description of the improv	A description of the improvement feature.			
status (Enumeration: codeStatu	as) A temporal description of t	A temporal description of the operational status of the feature.			
	This attribute is used to desc	This attribute is used to describe real-time status.			
signType (Enumeration:	The type of sign.	The type of sign.			
codeSignTypeCode)					
height (Real)	The overall height of the fea	ature.			
message (String 254)	The text message that appea	The text message that appears on the sign.			
userFlag (String 254)	An operator-defined work	An operator-defined work area. This attribute can be used by			
	the operator for user-defin	the operator for user-defined system processes. It does not			
	affect the subject item's data integrity and should not be us		d not be used to		
	store the subject item's data.				
Alternative (Number(2))	Discriminator used to tie fea	Discriminator used to tie features of a plan or proposal together			
	into a version.	into a version.			

5.4.16. Apron

Definition: A defined area on an airport or heliport, paved or unpaved, intended to accommodate aircraft for purposes of loading or unloading passengers or cargo, refueling, parking, or maintenance.

Feature Group	Airfield					
Feature Class Name	Apron					
Feature Type	Polygon					
CADD Standard Requirem						
Layer/Level		Desc	ription			
C-APRN-OTLN	Apron outline		•			
	Color	Linetype	Line Weight	Symbol		
AutoDesk Standards	4		1	User Defined		
MicroStation Standards	7	Continuous	3	User Defined		
Information Assurance Level	Restricted					
	AIXM ApronElementExtension Extension					
Equivalent Standards	FGDC	Apron		Extension		
-	SDSFIE airfield surface type					
Documentation and Submission Requirements	No documentation is required for this feature.					
Related Features						

Data Capture Rules: *Collect a closed polygon to its greatest horizontal extents, encompassing apron areas.*



Feature Attributes	
Attribute (Datatype)	Description
name (VARCHAR2(50))	The name of the feature.
description (String 255)	Description of the feature
apronType	A classification of the typical use for the apron
(Enumeration: CodeApronType)	
numberOfTiedowns (Integer)	The approximate number of tiedowns in the surface.
status (Enumeration: codeStatus)	A temporal description of the operational status of the feature. This attribute is used to describe real-time status.
userFlag (String 254)	An operator-defined work area. This attribute can be used by the operator for user-defined system processes. It does not affect the subject item's data integrity and should not be used to store the subject item's data.
surfaceType (Enumeration: codeSurfaceType)	A classification of airfield pavement surfaces for Airport Obstruction Charts [Source: NGS]
surfaceMaterial (Enumeration: codeSurfaceMaterial)	A code indicating the composition of the related surface [Source: NFDC]
pavementClassificationNumber	A number that expresses the relative load-carrying capacity of a pavement in terms of a standard single wheel load [Source: AC 150/5335-5]
surfaceCondition (Enumeration: codeSurfaceCondition)	A description of the serviceability of the pavement [Source: NFDC]
fuel (Enumeration: codeFuel)	Code indicating the types of fuel available at the apron or delverable to the apron.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together into a version.

5.4.17. Deicing Area

Definitions An eineneft deising	facilitaria a facili	ter rule and (1) front		marred (deising)	
Definition: An aircraft deicing facility is a facility where: (1) frost, ice, or snow is removed (deicing)					
from the aircraft in order to provide clean surfaces and/or (2) clean surfaces of the aircraft receive					
protection (anti-icing) against			umulation of snow	or slush for a	
limited period of time [Source:	AC 150/5300-13].			
Feature Group	Airfield				
Feature Class Name	DeicingArea				
Feature Type	Polygon				
CADD Standard Requirement	nts				
Layer/Level		Desc	ription		
C-APRN-DEIC	Aircraft Deicing	Area			
	Color Line type Line Weight Symbol				
	Color	Line type	Line Weight	Symbol	
AutoDesk Standards	Color 7		Line Weight	Č.	
AutoDesk Standards MicroStation Standards	Color 7 0	Continuous	Line Weight 1 1	Symbol User Defined	
	7		Line Weight	Č.	
MicroStation Standards Information Assurance	7 0		Line Weight 1 1	Č.	
MicroStation Standards Information Assurance	7 0 Unclassified	Continuous	Line Weight 1 1	User Defined	
MicroStation Standards Information Assurance Level	7 0 Unclassified AIXM	Continuous DeicingArea	Line Weight	User Defined	

Related Features					
Data Capture Rules: <i>Deicing edges of area(s). Deicing areas</i>					
Monumentation	No mor	numentation required.			
Survey Point Location		Horizontal	Vei	rtical	
Survey I onit Location		N/A	N	J/A	
A agungay Daguinamonts (in		Horizontal	Vei	rtical	
Accuracy Requirements (in feet)			Orthometric	Ellipsoidal	
leet)		± 3 ft	± 5 ft	N/A	
Resolution	Geo	graphic Coordinates	Distances and Elevations		
Resolution	Hu	ndredth of arc second	Tenth of foot		
Feature Attributes					
Attribute (Datatype)			Description		
name (VARCHAR2 (50))		The name of the feature.			
description (VARCHAR2(255)))	A brief description of the area and any special characteristics.			
userFlag (String 254)		An operator-defined work			
		the operator for user-defined system processes. It does not			
		affect the subject item's data integrity and should not be used			
		to store the subject item's data.			
status (Enumeration: codeStatu	s)	A temporal description of the operational status of the feature.			
		This attribute is used to describe real-time status.			
Alternative (Number(2))		Discriminator used to tie features of a plan or proposal			
		together into a version.			

5.4.18. Touch Down Lift Off

3.4.10. Touch Down Lift On						
Definition: A load-bearing, gen	nerally paved area,	normally centered	in the Final Appro	oach and		
Takeoff Area (FATO), on which a helicopter lands or takes off. The Touchdown and Lift-off Area						
(TLOF) is frequently called a helipad or helideck.						
Feature Group	Airfield					
Feature Class Name	TouchDownLiftC	Dff				
Feature Type	Polygon					
CADD Standard Requirement	its					
Layer/Level		Descri	ption			
C-HELI-TLOF	Helipad take off	and landing area				
	Color	Color Line type Line Weight		Symbol		
AutoDesk Standards	6 Continuous 1 MM User D					
MicroStation Standards	5 Continuous 7 User Define					
Information Assurance Level	Unclassified					
	AIXM TouchDownLiftOff Core					
Equivalent Standards	FGDC	TouchDow	vnLiftOff			
	SDSFIE None					
Documentation and	No documentatio	n is required for th	is facture			
Submission Requirements	No documentation is required for this feature.					

Related Features			
Data Capture Rules: Collect a	closed polygon in the center of the w	hite paint stripes along the outer	
	e and labeled "HELIPAD." Collect th		
	er paint stripes. Collect all TLOFs loc		
areas at compiler's discretion.		-	
-	TLOF		
	<u> </u>		
Monumentation	No monumentation required.		
	Horizontal	Vertical	
Survey Point Location	N/A	N/A	
		Vertical	
Accuracy Requirements (in	Horizontal	Orthometric Ellipsoidal	
feet)	± 1 ft	$\pm 0.25 \text{ ft}$ $\pm 0.20 \text{ ft}$	
		I	
Resolution	81		
resolution		Distances and Elevations Nearest tenth of foot	
	Hundredth of arc second	Nearest tenth of foot	
Feature Attributes	Hundredth of arc second	Nearest tenth of foot	
Feature Attributes Attribute (Datatype)	Hundredth of arc second Desc		
Feature AttributesAttribute (Datatype)name (VARCHAR2(50))	Hundredth of arc second Desc The name of the feature.	Nearest tenth of foot	
Feature Attributes Attribute (Datatype) name (VARCHAR2(50)) description (VARCHAR2(255))	Hundredth of arc second Desc The name of the feature. A brief description of the area	Nearest tenth of foot ription and any special characteristics.	
Feature AttributesAttribute (Datatype)name (VARCHAR2(50))description (VARCHAR2(255))length (Real)	Hundredth of arc second	Nearest tenth of foot ription and any special characteristics.	
Feature AttributesAttribute (Datatype)name (VARCHAR2(50))description (VARCHAR2(255))length (Real)width (Real)	Hundredth of arc second Desc The name of the feature. A brief description of the area The overall length of the TLOF The overall width of the TLOF The overall width of the TLOF	Nearest tenth of foot ription and any special characteristics.	
Feature AttributesAttribute (Datatype)name (VARCHAR2(50))description (VARCHAR2(255))length (Real)	Hundredth of arc second Desc The name of the feature. A brief description of the area The overall length of the TLOF The overall width of the TLOF An operator-defined work area	Nearest tenth of foot ription and any special characteristics. 7.	
Feature AttributesAttribute (Datatype)name (VARCHAR2(50))description (VARCHAR2(255))length (Real)width (Real)	Hundredth of arc second Desc The name of the feature. A brief description of the area The overall length of the TLOF The overall width of the TLOF An operator-defined work area the operator for user-defined sy	Nearest tenth of foot ription and any special characteristics.	
Feature AttributesAttribute (Datatype)name (VARCHAR2(50))description (VARCHAR2(255))length (Real)width (Real)	Hundredth of arc second Desc The name of the feature. A brief description of the area a The overall length of the TLOF The overall width of the TLOF An operator-defined work area the operator for user-defined sy affect the subject item's data in	Nearest tenth of foot ription and any special characteristics. 7.	
Feature Attributes Attribute (Datatype) name (VARCHAR2(50)) description (VARCHAR2(255)) length (Real) width (Real) userFlag	Hundredth of arc second Desc The name of the feature. A brief description of the area The overall length of the TLOF The overall width of the TLOF An operator-defined work area the operator for user-defined sy affect the subject item's data in store the subject item's data.	Nearest tenth of foot ription and any special characteristics. 7. . This attribute can be used by ystem processes. It does not tegrity and should not be used to	
Feature AttributesAttribute (Datatype)name (VARCHAR2(50))description (VARCHAR2(255))length (Real)width (Real)userFlagsurfaceType	Hundredth of arc secondDescThe name of the feature.A brief description of the areaThe overall length of the TLOFThe overall width of the TLOFAn operator-defined work areathe operator for user-defined sy affect the subject item's data in store the subject item's data.A classification of airfield pave	Nearest tenth of foot ription and any special characteristics. This attribute can be used by ystem processes. It does not tegrity and should not be used to ement surfaces for Airport	
Feature Attributes Attribute (Datatype) name (VARCHAR2(50)) description (VARCHAR2(255)) length (Real) width (Real) userFlag surfaceType (Enumeration: codeSurfaceType	Hundredth of arc second Desc The name of the feature. A brief description of the area a The overall length of the TLOF The overall width of the TLOF An operator-defined work area the operator for user-defined sy affect the subject item's data in store the subject item's data. A classification of airfield pave Obstruction Charts [Source: N	Nearest tenth of foot ription and any special characteristics. F. This attribute can be used by ystem processes. It does not tegrity and should not be used to ement surfaces for Airport GS]	
Feature Attributes Attribute (Datatype) name (VARCHAR2(50)) description (VARCHAR2(255)) length (Real) width (Real) userFlag surfaceType (Enumeration: codeSurfaceType surfaceMaterial	Hundredth of arc second Desc The name of the feature. A brief description of the area a The overall length of the TLOF The overall width of the TLOF An operator-defined work area the operator for user-defined sy affect the subject item's data in store the subject item's data. A classification of airfield pave Obstruction Charts [Source: N A code indicating the composition	Nearest tenth of foot ription and any special characteristics. F. This attribute can be used by ystem processes. It does not tegrity and should not be used to ement surfaces for Airport GS]	
Feature Attributes Attribute (Datatype) name (VARCHAR2(50)) description (VARCHAR2(255)) length (Real) width (Real) userFlag surfaceType (Enumeration: codeSurfaceType surfaceMaterial (Enumeration:	Hundredth of arc second Desc The name of the feature. A brief description of the area a The overall length of the TLOF The overall width of the TLOF An operator-defined work area the operator for user-defined sy affect the subject item's data in store the subject item's data. A classification of airfield pave Obstruction Charts [Source: N	Nearest tenth of foot ription and any special characteristics. F. This attribute can be used by ystem processes. It does not tegrity and should not be used to ement surfaces for Airport GS]	
Feature Attributes Attribute (Datatype) name (VARCHAR2(50)) description (VARCHAR2(255)) length (Real) width (Real) userFlag surfaceType (Enumeration: codeSurfaceType surfaceMaterial (Enumeration: CodeSurfaceMaterial)	Hundredth of arc second Desc The name of the feature. A brief description of the area The overall length of the TLOF The overall width of the TLOF An operator-defined work area the operator for user-defined sy affect the subject item's data in store the subject item's data. A classification of airfield pave Obstruction Charts [Source: N A code indicating the composite [Source: NFDC]	Nearest tenth of foot ription and any special characteristics. F. . This attribute can be used by ystem processes. It does not tegrity and should not be used to ement surfaces for Airport GS] tion of the related surface	
Feature Attributes Attribute (Datatype) name (VARCHAR2(50)) description (VARCHAR2(255)) length (Real) width (Real) userFlag surfaceType (Enumeration: codeSurfaceType surfaceMaterial (Enumeration:	Hundredth of arc second Desc The name of the feature. A brief description of the area a The overall length of the TLOF The overall width of the TLOF An operator-defined work area the operator for user-defined sy affect the subject item's data in store the subject item's data. A classification of airfield pave Obstruction Charts [Source: N A code indicating the composition	Nearest tenth of foot ription and any special characteristics. F. . This attribute can be used by ystem processes. It does not tegrity and should not be used to ement surfaces for Airport GS] tion of the related surface	

designHelicopter (String20)	A generic helicopter that reflects the maximum weight,		
	maximum contact load/minimum contact area, overall length,		
	rotor diameter, etc. of all helicopters expected to operate at the		
	heliport. [Source: AC 150/5390-2]		
status (Enumeration: codeStatus)	A temporal description of the operational status of the feature.		
	This attribute is used to describe real-time status.		
gradient (real)	The gradient of the TLOF surface designed to provide positive		
	drainage.		
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together		
	into a version.		

5.4.19. Marking Area

Definition: Markings used on r	unway and taxiwa	y surfaces to identi	ify a specific runw	ay, a runway		
threshold, a centerline, a hold li						
AC 150/5340-1 and RTCA DO		C	0 1			
Feature Group	Airfield					
Feature Class Name	MarkingArea					
Feature Type	Polygon					
CADD Standard Requiremen	ts					
Layer/Level		Descr	ription			
C-HELI-IDEN-	Heliport number	rs and letters				
C-RUNW-DIST-	Fixed distance n	narkings				
	Color	Linetype	Line Weight	Symbol		
AutoDesk Standards	5	Continuous	1	User Defined		
MicroStation Standards	1 Continuous		7	User Denned		
Layer/Level	Description					
C-HELI-TDZM-	Touchdown zon	e markers				
C-RUNW-NUMB-	Runway number	rs and letters				
C-RUNW-TDZM-	Touchdown zon	e markers				
	Color	Linetype	Line Weight	Symbol		
AutoDesk Standards	6	Continuous	1	User Defined		
MicroStation Standards	5	Continuous	7	User Defined		
Information Assurance Level	Unclassified					
	AIXM					
Equivalent Standards	FGDC					
	SDSFIE	airfield_surface_	marking_area			
Documentation and Submission Requirements	No documentati	on is required for t	his feature.			

Related Features Data Capture Rules: Collect individual markings.	the run	way markings as closed polyg	ons to encompass d	and delineate the	
Monumentation	No m	onumentation required.			
	110 111	Horizontal	Vert	tical	
Survey Point Location	NA		N.		
		NA	N		
Accuracy Requirements (in		Horizontal	Vertical		
feet)		110112011(81	Orthometric	Ellipsoidal	
	± 2 ft		± 3 ft	N/A	
Resolution		Geographic Coordinates Distances and Elevation			
	H	Hundredth of arc second	Nearest tenth of foot		
Feature Attributes					
Attribute (Datatype)			scription		
name (VARCHAR2(50))	<u></u>	Name of the feature.			
description (VARCHAR2(255)	/	A description of the feature.		0.1 0	
status (Enumeration: codeStatu	s)	A temporal description of the operational status of the feature.			
monthing Teaching Town		This attribute is used to describe real-time status.			
markingFeatureType (Enumeration:		The type of the marking			
(Enumeration: codeMarkingFeatureType)					
color (Enumeration: codeColor	<u> </u>		The color of the marking		
userflag (String 254))	The color of the marking An operator-defined work area. This attribute can be used by			
usering (sumg 237)		the operator for user-defined		•	
		affect the subject item's data integrity and should not be used to store the subject item's data.			
Alternative (Number(2))		Discriminator used to tie fea	tures of a plan or p	roposal together	
× × //		into a version.		- -	

5.4.20. Marking Line

Definition: Markings used on runway and taxiway surfaces to identify a specific runway, a runway
threshold, a centerline, a hold line, etc. An element of marking whose geometry is a line. [Source: AC
150/5340-1 and RTCA DO-272]Feature GroupAirfieldFeature Class NameMarkingLineFeature Type3D Line

CADD Standard Requ	uirement	5					
Layer/Level			ription	Layer/Le	vel	I	Description
C-APRN-CNTR-	Center	lines	3	C-PADS-OTLN	[-	Pad - c	outlines
C-APRN-HOLD-	Holdin	ng po	sition	C-RUNW-CNT	R-	Center	line markings
	marki	ıgs		MARK			-
C-APRN-MRKG-	Apron	Apron markings		C-RUNW-SHL	D-	Should	ler markings
C-APRN-SECU-	Securi			C-RUNW-SHL	D-	Runwa	y Shoulder
	marki	ngs					-
C-APRN-SHLD-	Shoul	der s	tripes	C-RUNW-SIDE	3-	Side st	ripes
C-HELI-BLST-	Helipa	ıd bla	ast pad and	C-TAXI-CNTR	-MARK	Center	line markings
			arkings				
C-HELI-CNTR-	Center	line	markings	C-TAXI-EDGE	-	Edge n	narkings
MARK							
C-HELI-DIST-	Fixed		nce	C-TAXI-SHLD	-		ler transverse
	marki					stripes	
C-HELI-SIDE-	Side s			V-PVMT-MRK			ent markings
C-OVRN-CNTR-	Center	lines	3	C-PVMT-MRK	G-		ay markings
				WHIT		(white)	/
C-OVRN-SHLD-	Shoule	der n	narkings	C-PVMT-MRK	G-		ay markings
				YELO		(yellow	v)
C-PADS-CNTR-	Center	lines					
			Color	Linetype	Line W	Veight	Symbol
AutoDesk Standards			<u>6</u> 5	Continuous		,	User Defined
MicroStation Standar		D	-		7		
Information Assurance	e Level		tricted				
		AIXM MarkingElement			t		Core
Equivalent Standards			FGDC Marking SDSFIE airfield_surface_marking_line				
Documentation and		SD	SFIE	airfiela_surface	_marking	_line	
	onta	No	documentatio	on is required for t	this featur	e.	
Submission Requirem Related Features	ients			_			
Data Capture Rules:	Collect a	line	through the r	middle of the naint	line		
Monumentation	Collect u				une.		
wonumentation		INO	o monumentation required. Horizontal		Vor	tical	
Survey Point Location	ı		N		Vertical N/A		
			11/	A			tical
Accuracy Requirement	nts (in		Horiz	contal	Orthor		Ellipsoidal
feet)			± ^	2 ft			N/A
Resolution				Coordinates of arc second		Distances and Elevations Nearest tenth of foot	
Feature Attributes				are second	IN	Carest le	
	atura)			Do	comintion		
Attribute (Data name (VARCHAR2(50			Name of th		scription		
description (VARCHAR2(50				on of the feature.			
status (Enumeration: co				description of the	oneration	nal statu	s of the feature
status (Enumeration: CC	uestatus)			ite is used to descri			
markingFeatureType				f the marking		inie statu	15.
(Enumeration:			The type of	inc marking			
codeMarkingFeatureTy	me)						
couchiai Kingi Catule I y	pe)						

color (Enumeration: codeColor)	The color of the marking
userFlag (String 254)	An operator-defined work area. This attribute can be used by the operator for user-defined system processes. It does not affect the subject item's data integrity and should not be used to store the subject item's data.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together into a version.

5.4.21. Movement Area

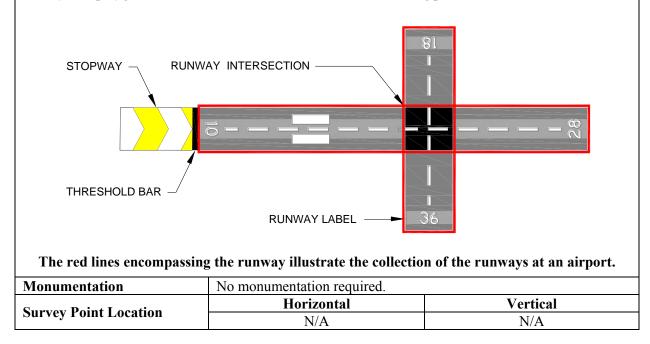
Definition: Runways, taxiways,	and other areas of	of an airport used fo	or taxiing or hover	taxiing, air	
taxiing, takeoff, and landing of a					
14 CFR Part 139]	-	C 1	•	-	
Feature Group	Airfield				
Feature Class Name	MovementArea				
Feature Type	Polygon				
CADD Standard Requirement	S				
Layer/Level	Description				
C-AFLD-SECR-SECA	Airfield security area				
	Color	Linetype	Line Weight	Symbol	
AutoDesk Standards	6	Continuous	1	User Defined	
MicroStation Standards	5	Continuous	7	User Dernied	
Information Assurance Level	Unclassified				
	AIXM				
Equivalent Standards	FGDC				
	SDSFIE	airfield_surface_	marking_area		
Documentation and	No documentat	ion is required for t	this faatura		
Submission Requirements	No documenta	No documentation is required for this feature.			
Related Features					
Data Capture Rules: Collect e					
horizontal extents. Multiple non			to adequately mo	del the areas.	
Monumentation	No monumenta	<u>^</u>	1		
	-	izontal		tical	
Survey Point Location		NA		[A	
		NA		A	
Accuracy Requirements (in	Hor	izontal		tical	
feet)			Orthometric	Ellipsoidal	
icety		3 ft	± 5 ft	N/A	
Resolution		c Coordinates		d Elevations	
	Hundredth	of arc second	Nearest te	onth of foot	
Feature Attributes					
Attribute (Datatype)			escription		
name (VARCHAR2(50))	Name of t				
description (VARCHAR2(255))		on of the feature			
status (Enumeration: codeStatus)		al description of th oute is used to descr			

userFlag (String 254)	An operator-defined work area. This attribute can be used by
	the operator for user-defined system processes. It does not
	affect the subject item's data integrity and should not be used to
	store the subject item's data.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together
	into a version.

5.4.22. Runway

Definition: A defined rectangul	ar area on an air	port prepared for t	he landing and tal	keoff of aircraft.
[AC 150/5300-13]				
Feature Group	Airfield			
Feature Class Name	Runway			
Feature Type	Polygon			
CADD Standard Requirement	S			
Layer/Level		Descr	ription	
C-RUNW-EDGE-	Airfield runway	v edges		
	Color	Line type	Line Weight	Symbol
AutoDesk Standards	6	Continuous	1	User Defined
MicroStation Standards	5	Continuous	3	User Denneu
Information Assurance Level	Resticted			
	AIXM	Runway		Core
Equivalent Standards	FGDC Runway			
_	SDSFIE	airfield_surface_	site	
Documentation and				
Submission Requirements	No documentation is required for this feature.			
Related Features				

Data Capture Rules: In addition to the requirements for runway end collection, capture the runway as a closed polygon limited by the outer edge of the runway edge paint (shoulder side), excluding runway shoulders or stopways. If there are no painted runway edge markings, capture and report the runway as a polygon at its narrowest dimension based on the existing pavement.



	Herden and al	Vertical		
Accuracy Requirements (in feet)	Horizontal	Orthometric	Ellipsoidal	
leet)	± 3 ft	± 5 ft	N/A	
Resolution	Geographic Coordinates		d Elevations	
	Hundredth of arc second	Nearest te	Nearest tenth of foot	
Feature Attributes				
Attribute (Datatype)		scription		
name (VARCHAR2(50))	Name of the feature.			
description (String 255)	Description of the feature			
status (Enumeration: codeStatus	This attribute is used to descr	A temporal description of the operational status of the feature This attribute is used to describe real-time status.		
runwayDesignator (String 7)	Designator of the runway bas position in relation to parallel AC 150/5340-1]	•	•	
width (Real)	A perpendicular line to the su edge of the runway pavement through a runway end-point. 100 feet, the width is rounded runway width is more than 10 nearest 10 feet. If the rounded published width, NGS should [Source: NGS]	t on both sides of t If the runway wid d up to the nearest 00 feet, the width i d width is different	he runway, th is less than 5 feet. If the s rounded to the from the	
length (Real)	The straight line distance bet does not account for surface of Official runway lengths are n end coordinates and elevation	undulations betwee ormally computed	en points.	
userFlag (String 254)	An operator-defined work are the operator for user-defined affect the subject item's data store the subject item's data.	ea. This attribute c system processes.	It does not	
surfaceType (Enumeration: codeSurfaceType	A classification of airfield paObstruction Charts [Source:		or Airport	
surfaceMaterial (Enumeration: CodeSurfaceMaterial)	/E	A code indicating the composition of the related surface		
pavementClassificationNumber	pavement in terms of a standa 150/5335-5]	A number that expresses the relative load carrying capacity pavement in terms of a standard single wheel load [Source: 150/5335-5]		
surfaceCondition (Enumeration: codeSurfaceCondition)	A description of the serviceal NFDC]	bility of the pavem	ent [Source:	
Alternative (Number(2))	Discriminator used to tie feat into a version.	ures of a plan or p	roposal together	

5.4.23. Restricted Access BoundaryDefinition: A restricted area boundary identifies areas strictly reserved for use by authorized personnel only.

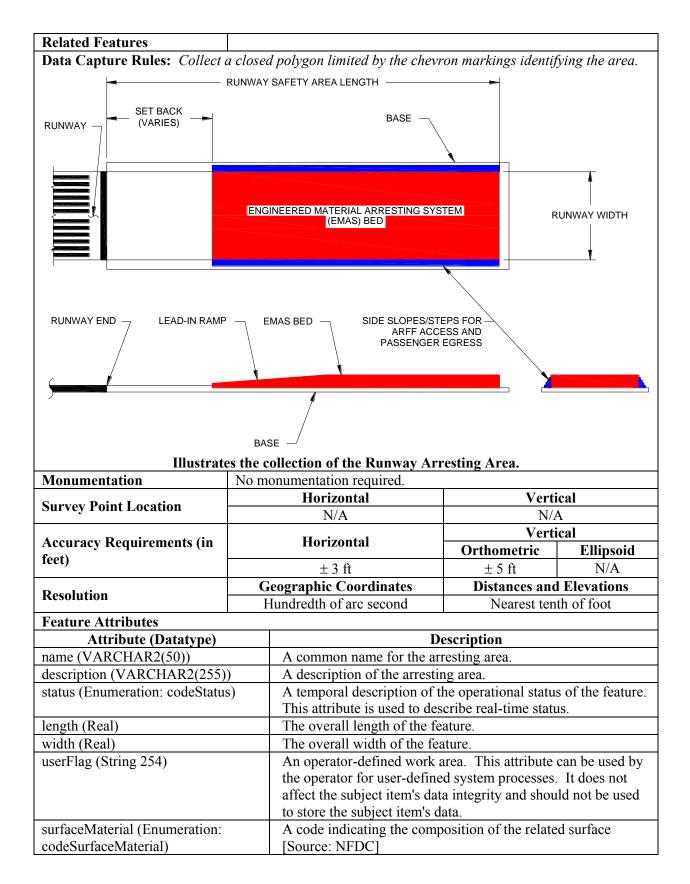
Feature Group	Airfield
Feature Class Name	RestrictedAccessBoundary
Feature Type	Line

CADD Standard Requirement Layer/Level		Dece	intion	
v v	Description Restricted access boundary			
C-AIRF-SECR-RSTR			T • XX 7 • 1 4	
	Color	Linetype	Line Weight	Symbol
AutoDesk Standards	5	Continuous	<u> </u>	User Defined
MicroStation Standards	1		7	
Information Assurance	Confidential			
Level				
	AIXM	SecurityElement		Extension
Equivalent Standards	FGDC	RestrictedAccessBoundary		Extension
	SDSFIE	Military_restrict	ed_access_area	
Documentation and	No document	ation is required for th	nis feature	
Submission Requirements	No documente	ation is required for a	lis leature.	
Related Features				
Data Capture Rules: Collect	a line through t	he center of each mar	king to its greates	t extents.
Restricted access paint lines ar	re either dashed	white lines or alterno	iting white/red/wh	ite solid lines.
		APRON		
TAXIWAY SEGMENT	tes the collection	REST	- RESTRICTEI BOUNDARY	
SEGMENT		REST	BOUNDARY	
SEGMENT Illustra Monumentation	No monumen	REST AR	BOUNDARY	
SEGMENT Illustra Monumentation	No monumen	REST AR AR AR AR AR	BOUNDARY RICTED a boundary.	-
Illustra Monumentation Survey Point Location	No monumen	REST AR AR AR AR AR AR AR AR AR AR AR AR AR	BOUNDARY RICTED a boundary.	- - - - - - - - - - - - - - - - - - -
Illustra Monumentation Survey Point Location Accuracy Requirements (in	No monumen	REST AR AR AR AR AR AR AR AR AR AR AR AR AR	BOUNDARY RICTED a boundary.	tical JA tical
Illustra Monumentation Survey Point Location Accuracy Requirements (in	No monumen	en of a restricted are tation required prizontal NA prizontal	BOUNDARY BOUNDARY	tical A tical Ellipsoida
Illustra Monumentation Survey Point Location Accuracy Requirements (in	No monumen	REST AR AR AR AR AR AR AR AR AR AR AR AR AR	BOUNDARY BOUNDARY RICTED a boundary. Ver Orthometric ± 5 ft	tical JA tical Ellipsoida N/A
SEGMENT Illustra Monumentation Survey Point Location Accuracy Requirements (in feet)	No monumen He He Geograph	REST AR AR AR AR AR AR AR AR AR AR AR AR AR	BOUNDARY BOUNDARY RICTED a boundary. Ver Orthometric ± 5 ft Distances an	tical JA tical Ellipsoida N/A nd Elevations
SEGMENT Illustra Monumentation Survey Point Location Accuracy Requirements (in feet) Resolution	No monumen He He Geograph	REST AR AR AR AR AR AR AR AR AR AR AR AR AR	BOUNDARY BOUNDARY RICTED a boundary. Ver Orthometric ± 5 ft Distances an	tical JA tical Ellipsoida N/A
SEGMENT Illustra Monumentation Survey Point Location Accuracy Requirements (in feet)	No monumen He He Geograph	REST AR AR AR AR AR AR AR AR AR AR AR AR AR	BOUNDARY BOUNDARY RICTED a boundary. Ver Orthometric ± 5 ft Distances an	tical JA tical Ellipsoida N/A nd Elevations
SEGMENT Illustra Monumentation Survey Point Location Accuracy Requirements (in feet) Resolution	No monumen He He Geograph	REST AR on of a restricted are tation required orizontal NA orizontal ± 3 ft hic Coordinates th of arc second	BOUNDARY BOUNDARY RICTED a boundary. Ver Orthometric ± 5 ft Distances an	tical JA tical Ellipsoida N/A nd Elevations
SEGMENT Illustra Monumentation Survey Point Location Accuracy Requirements (in feet) Resolution Feature Attributes	No monumen He He Geograp Hundred	REST AR on of a restricted are tation required orizontal NA orizontal ± 3 ft hic Coordinates th of arc second	BOUNDARY BOUNDARY RICTED a boundary. Ver N Ver Orthometric ± 5 ft Distances an Nearest te	tical JA tical Ellipsoida N/A nd Elevations

status (Enumeration: codeStatus)	A temporal description of the operational status of the
	feature. This attribute is used to describe real-time status.
userFlag (String 254)	An operator-defined work area. This attribute can be used by
	the operator for user-defined system processes. It does not
	affect the subject item's data integrity and should not be used to
	store the subject item's data.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal
	together into a version.

5.4.24. Runway Arresting Area

Definition: Any FAA-approved and predictably bring an aircraft				
limits, cause major structural da	*	1 0		U
150/5220-22].	1			
Feature Group	Airfield			
Feature Class Name	RunwayArrestir	ngArea		
Feature Type	Polygon			
CADD Standard Requiremen	its			
Layer/Level		Descr	iption	
C-RUNW-ARSTC-RUNW-				
ARST-AIDS-CRIT				
	Color	Linetype	Line Weight	Symbol
AutoDesk Standards	3	Continuous	1 MM	User Defined
MicroStation Standards	2	Continuous	7	User Defined
Information Assurance Level	Confidential			
	AIXM	ArrestingGear		Core
Equivalent Standards	FGDC	RunwayArresting	gArea	
	SDSFIE		afety_feature_line	
Documentation and	No documentati	on is required for th	nis feature	



surfaceCondition (Enumeration: codeSurfaceCondition)	A description of the serviceability of the pavement [Source: NFDC]
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together into a version.
setback	The distance the EMAS begins beyond the end of the runway.

5.4.25. Runway Blast Pad

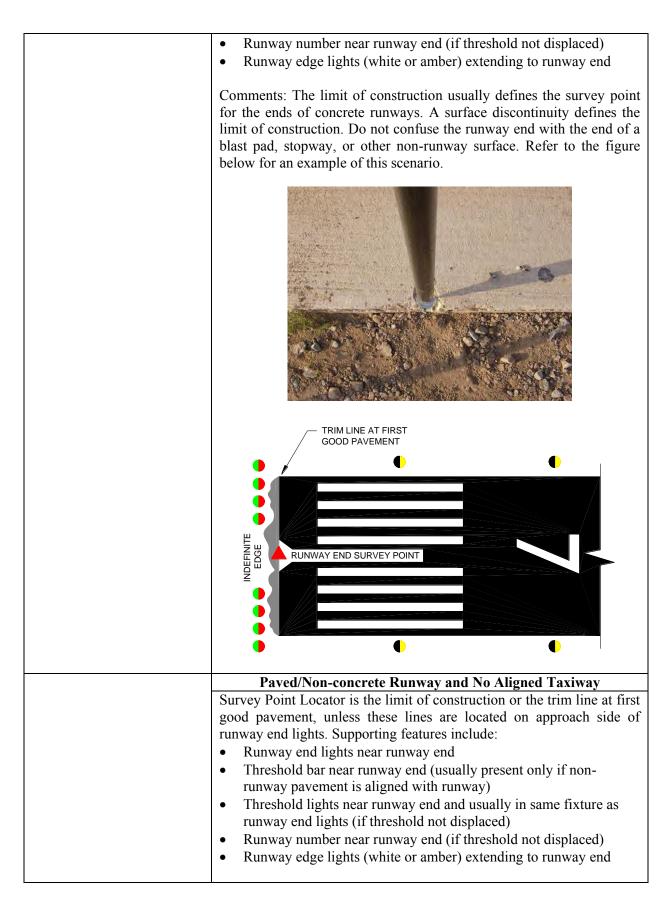
Definition: A specially prepare	*	5	•		
effect of the high wind forces p		nes at the beginning	g of their takeoff ro	olls.	
Feature Group	Airfield				
Feature Class Name	RunwayBlastPad				
Feature Type	Polygon				
CADD Standard Requirement	<u>its</u>				
Layer/Level		Descr	iption		
C-RUNW-BLST	Runway blast pa	ıd			
	Color	Linetype	Line Weight	Symbol	
AutoDesk Standards	4	Continuous	1	Haan Dafin ad	
MicroStation Standards	7	Continuous	3	User Defined	
Information Assurance Level	Restricted				
	AIXM	RunwayBlastPad	!	Core	
Equivalent Standards	FGDC	RunwayBlastPad			
1	SDSFIE	· · · ·	afety feature line		
Documentation and					
Submission Requirements	No additional do	ocumentation is req	uired.		
Related Features	-				
Data Capture Rules: Collect	a closed polygon :	to the extents of the	chevrons marking	the area	
BLAS		RUNWAY –			
		llection of a blast	pad.		
Monumentation	No monumentat	ion is required.	1		
Monumentation Survey Point Location	No monumentat Hori	ion is required. zontal	Ver	tical	
	No monumentat Hori	ion is required.	Ver N	/A	
Survey Point Location	No monumentat Hori	ion is required. zontal J/A	Ver N Ver	/A tical	
Survey Point Location Accuracy Requirements (in	No monumentat Hori N Hori	ion is required. zontal J/A zontal	Ver N Ver Orthometric	/A tical Ellipsoidal	
Survey Point Location	No monumentat Hori Mori ±	ion is required. zontal J/A zontal 2 ft	Ver N Ver Orthometric ± 3 ft	/A tical Ellipsoidal N/A	
Survey Point Location Accuracy Requirements (in	No monumentat Hori Mori ±	ion is required. zontal J/A zontal	Ver N Ver Orthometric ± 3 ft	/A tical Ellipsoidal	

Feature Attributes	
Attribute (Datatype)	Description
name (VARCHAR2(50))	Name of the feature.
description (VARCHAR2(255))	Description of the feature
status (Enumeration: codeStatus)	A temporal description of the operational status of the feature. This attribute is used to describe real-time status.
length (Integer)	The length of clearway as measured. Compare the measure value to the value reported in the government flight information publications.
userFlag (String 254)	An operator-defined work area. This attribute can be used by the operator for user-defined system processes. It does not affect the subject item's data integrity and should not be used to store the subject item's data.
pavementClassificationNumber	A number that expresses the relative load carrying capacity of a pavement in terms of a standard single wheel load [Source: AC 150/5335-5]
runwayEndDesignator (String 3)	Specify runwayEnd designator to identify which runway end the Blast Pad is on.
surfaceCondition (Enumeration: codeSurfaceCondition)	A description of the serviceability of the pavement [Source: NFDC]
surfaceMaterial (Enumeration: codeSurfaceMaterial)	A code indicating the composition of the related surface [Source: NFDC]
surfaceType (Enumeration: codeSurfaceType)	A classification of airfield pavement surfaces for Airport Obstruction Charts [Source: NGS]
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together into a version.

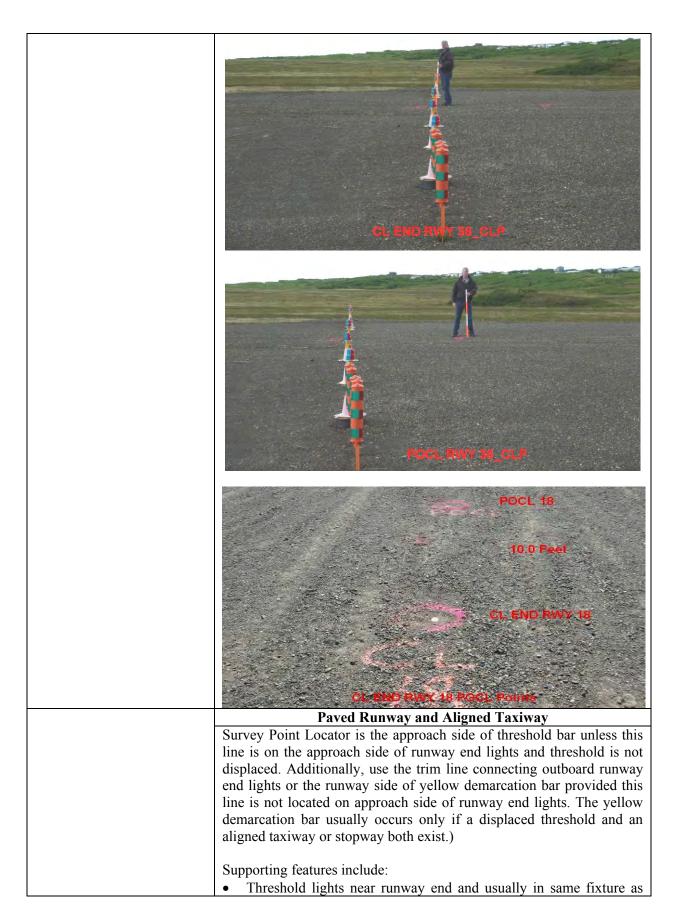
5.4.26. Runway End

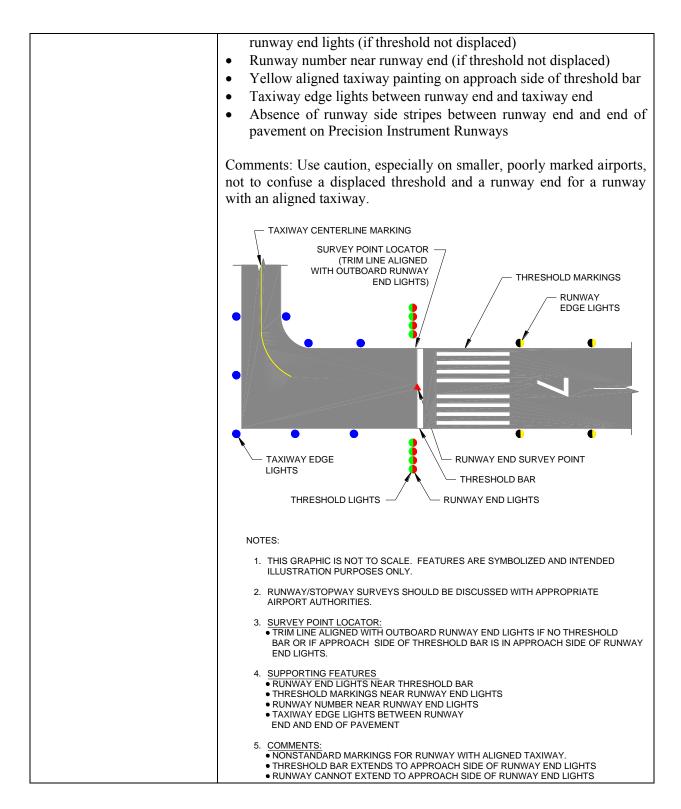
Definition: The end of the run	nway surface suitab	le for landing or ta	keoff runs of aircr	aft. Runway
Ends describe the approach an	d departure procedu	re characteristics of	of a runway thresh	old. The
Runway End is the same as the	e runway threshold	when the threshold	l is not displaced.	
Feature Group	Airfield			
Feature Class Name	RunwayEnd			
Feature Type	Point			
CADD Standard Requireme	nts			
Layer/Level		Descri	ption	
C-RUNW-ENDP-	Runway endpoint			
	Color	Linetype	Line Weight	Symbol
AutoDesk Standards	5	Continuous	1	User Defined
MicroStation Standards	1	Continuous	7	User Defined
Information Assurance	Restricted			
Level	Restricted			
	AIXM	RunwayDirection	<i>iExtension</i>	Extension
Equivalent Standards	FGDC	RunwayEnd		
	SDSFIE	Airfield_surface_	site	
Documentation and	In addition to t	the requirements	of paragraphs	<u>1.5.2</u> and <u>1.5.3</u> ,
Submission Requirements	document the selected location using four digital photographs:			

	Photograph Type #1 (Eye Level).Photo taken from above the mark, showing an area around the mark about 1 meter in diameter.	Photograph Type #2 (Approach). Photo showing tripod over the mark in foreground and approach in the background.
	Photograph Type #3 (Across Runway). Photo taken from the side of the runway looking across the end of the runway, with a tripod or arrow indicating the end point; include any features used to identify the runway end.	Photograph Type #4 (Close-in). Close-up photo depicting nail, washer and markings.
Related Features		
Data Capture Rule: Establish	h the runway end on the runway cente	
	her supporting features. The area bet	ween the runway end and the
displaced threshold should be		as have been determined mark the
Monumentation	positions using a nail and washer w year inscribed, chisel square, or p inscription to ensure future identific	
Survey Point Location	 first good pavement, unless these lin of runway end lights. Supporting fer Runway end lights near runway Threshold bar near runway erunway pavement is aligned with 	f construction or the trim line at the nes are located on the approach side atures include: end end (usually present only if non- th runway) end and usually in same fixture as



Comments: While the limit of construction is the first choice, a trim line at first good pavement is usually required to define the ends of paved, non-concrete runways since the ends of these surfaces are almost always crumbling and/or not orthogonal to the runway centerline to some degree. Refer to the figures above and below as examples. TRIM LINE AT FIRST GOOD PAVEMENT NDEFINITE EDGE ' END SURVEY POINT **Unpaved Runway and No Aligned Taxiway** Survey Point Locator is the trim line 10 feet on touchdown side of inboard runway end lights, a trim line connecting outboard runway end lights, a trim line 10 feet on touchdown side of inboard runway end day markers, or a trim line connecting outboard runway end day markers. Supporting features are threshold lights near threshold (if runway lighted and threshold not displaced) Comments: If no lights or markers exist, the existence of a runway is in question since by FAA definition, a runway is a defined area. Not all areas used for takeoff/landings are runways.





		Unpaved Runway ar	nd Aligned Taxiw	ay
	lights Supp	ey Point Locator is the trim lin or the trim line connecting of orting features include threshol (splaced) or runway/taxiway ed	outboard runway e d lights near thres	end day markers. hold (if threshold
	this s aligne	nents: Unpaved runways with ituation is suspected, verify any ed with, the runway is used ed appropriately for this purpos	y area immediately for taxi onto the	adjacent to, and
Accuracy Requirements (in		Horizontal		tical
feet)		Horizontai	Orthometric	Ellipsoidal
		± 1.00 ft	± 0.25 ft	± 0.20 ft
Resolution		Geographic Coordinates	Distances an	d Elevations
Kesolution		Hundredth of arc second	Nearest ten	th of a foot
Feature Attributes				
Attribute (Datatype)		De	scription	
name (VARCHAR2(50))		Name of the feature.		
description (VARCHAR2(255))	Description of the feature		
ellipsoidHeight (Real)		The height above the reference ellipsoidal outer normal throu called the geodetic height. [S	igh the point in qu	
status (Enumeration: codeStatu	us)	A temporal description of th This attribute is used to descr	e operational statu ibe real-time statu	S.
approachCategory (Enumeration codeApproachCategory)	ation: A grouping of aircraft based on 1.3 times their stall spe landing configuration at the certificated maximum flap and maximum landing weight at standard atmospheric conditions [Source: AC 150/5300-13]		um flap setting	
approachGuidance (Enumerati codeApproachGuidance)	on:	The type of approach guidance		nway end.
accelerateStopDistanceAvail (Integer)		The runway plus stopway len for the acceleration and decel takeoff [Source: AC 150/530	eration of an airpla	
magneticBearing (Real)		Magnetic runway bearing con valid at the day of data gener	ation [Source: RT	CA DO-272]
trueBearing (Real)		True bearing corresponding t ICAO Annex 14]	o the landing direc	etion [Source:
designGroup (Enumeration: codeDesignGroup)		A grouping of airplanes based whichever is greatest. [Source		
displacedDistance (Integer)		The distance from the runway When the thresholdType is no		
landingDistanceAvailable (Int	eger)	The runway length declared a airplane.		
runwayEndDesignator		The designator for the runwa	y end (i.e. 32L)	
runwaySlope (Real)		Runway slope corresponding RTCA DO-272]		on [Source:
takeOffDistanceAvailable		The takeoff run available plu runway clearway beyond the available. [Source: AC 150/5	far end of the take	

takeOffRunwayAvailable	The runway length declared available and suitable for the ground run of an airplane taking off [Source: AC 150/5300-13]
touchdownZoneSlope	The longitudinal slope of the first 3000 feet of the runway
	beginning at the threshold.
touchdownZoneElevation	The highest elevation in the Touchdown Zone. The Touchdown
	Zone is the first 3,000 feet of the runway beginning at the
	threshold. [Source: FAA Order 8260.3]
thresholdType (enumeration:	A description of the landing threshold: either normal or
codeThresholdType)	displaced.
userFlag (String 254)	An operator-defined work area. This attribute can be used by
	the operator for user-defined system processes. It does not
	affect the subject item's data integrity and should not be used to
	store the subject item's data.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together
	into a version.

5.4.27. Runway Label

Definition: The bottom center	position of the run	way designation m	arking		
Feature Group	Airfield				
Feature Class Name	RunwayLabel				
Feature Type	Point				
CADD Standard Requireme	nts				
Layer/Level		Descri	ption		
C-RUNW-IDEN-MARK	Runway numbers	and letters			
	Color	Linetype	Line Weight	Symbol	
AutoDesk Standards	6	61 MM5Continuous77User D			
MicroStation Standards	5				
Information Assurance	Restricted	estricted			
Level	Restricted				
	AIXM	RunwayMarking		Core	
Equivalent Standards	FGDC	RunwayLabel			
	SDSFIE	airfield_buffer_z	one_area		
Documentation and	No dogumentatio	n is required for thi	a footuro		
Submission Requirements	No documentatio	ii is required for un	s leature.		
Related Features					
Data Capture Rules: Collect	the runway label a	s an individual poir	nt object.		
Monumentation	No monumentation	on required.			

	Horizontal	and Vertical	
Survey Point Location	Horizontal Capture the point located at the bas on the runway centerline. If a runw runway, identify and collect a point threshold as the runway label positi THRESHOLD BAR	e of each painted runway number ay number is not painted on the approximately 100 feet from the	
		RUNWAY DESIGNATION	
Accuracy Requirements (in	Horizontal	Orthometric Ellipsoidal	
feet)	± 3 ft	$\pm 5 \text{ ft}$ N/A	
	Geographic Coordinates	Distances and Elevations	
Resolution	Hundredth of arc second	Nearest tenth of foot	
Feature Attributes			
Attribute (Datatype)	D	escription	
name (VARCHAR2 (50))	Name of the feature.	•	
description (VARCHAR2 255) Description of the feature		
status (Enumeration: codeStatu	as) A temporal description of the This attribute is used to describe	e operational status of the feature. ribe real-time status.	
runwayEndDesignator (String	3) The designator of the associ	ated runway	
userFlag (String 254)	An operator-defined work as	rea. This attribute can be used by	
		l system processes. It does not	
	store the subject item's data.	integrity and should not be used to	
Alternative (Number(2))	Discriminator used to tie fea	tures of a plan or proposal together	
	into a version.		

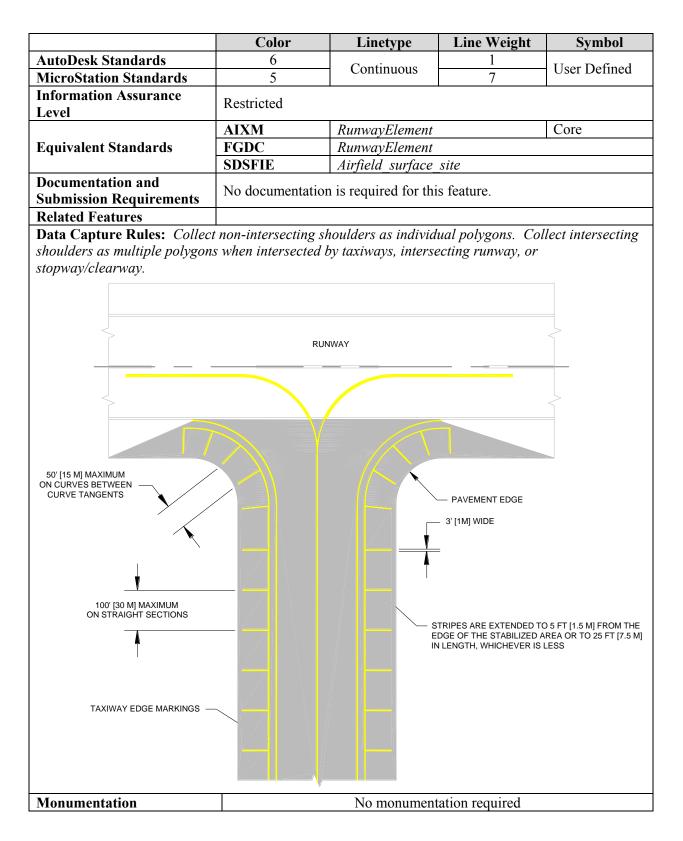
5.4.28. Runway Safety Area Boundary

Definition: The boundary of	of the Runway Safety Area (RSA).	
Feature Group	Airfield	
Feature Class Name	RunwaySafetyAreaBoundary	
Feature Type	Polygon	
CADD Standard Requirements		
Layer/Level	Description	
C-RUNW-SAFT-	Runway Safety Area	

		Color	Line type	Line Weight	Symbol
AutoDesk Standards		5	Continuous	1	User Defined
MicroStation Standards		1 Continuous		7	User Defined
Information Assurance Level	Uncla	ssified			
	AIXN	1	RunwaySafetyAre	eaBoundary	Extension
Equivalent Standards	FGD		RunwaySafetyAre	eaBoundary	Extension
	SDSF	ΊE	None		
Documentation and	No de	cumentation	is required for thi	s feature	
Submission Requirements	no uc	cumentation	i is required for thi	s leature.	
Related Features					
Data Capture Rules: Collect				rizontal extents.	
Monumentation	No m	onumentatio	1		
Survey Point Location		Horiz			tical
		N	A		IA
Accuracy Requirements (in		Horizontal		Vertical	
feet)			Orthometric	Ellipsoidal	
	$\pm 3 \text{ ft}$		$\pm 5 \text{ ft}$	N/A	
Resolution		Geographic Coordinates		Distances and Elevations Nearest tenth of foot	
		Hundredth of	f arc second	Nearest te	inth of foot
Feature Attributes		Γ	~	• .•	
Attribute (Datatype)				scription	
name (VARCHAR2(50))	<u></u>	Name of th			
description (VARCHAR2 (25		1	n of the feature	. 1	
status (Enumeration: codeStatu	us)	*	l description of th	.	
munuer En dDesignaton (String	2)		ite is used to descr		S.
runwayEndDesignator (String determinationDate (Date)	3)		wayEnd designate		
determinationDate (Date)	255))		e RSA determination declaration of the		with respect to
determination (VARCHAR2 (233))		and any requirement		with respect to
userFlag (String 254)			or-defined work ar		a can be used by
useri lag (Sullig 234)			or for user-define		
			subject item's data		
			ibject item's data.	integrity and shot	
Alternative (Number(2))Discriminator used to tie features of a p			tures of a plan or	proposal together	
	into a versi		ures of a plaif of	proposal together	

5.4.29. Shoulder

Definition: An area adjacent to	o the edge of paved runways, taxiways, or aprons providing a transition
between the pavement and the	adjacent surface; support for aircraft running off the pavement, enhance
drainage, and blast protection.	[Source: AC 150/5300-13]
Feature Group	Airfield
Feature Class Name	Shoulder
Feature Type	Polygon
CADD Standard Requirement	nts
Layer/Level	Description
C-HELI-SHLD-	Shoulder
C-PADS-SHLD-	Shoulders with annotation



	Horizonta	l and Vertical
Survey Point Location	TAXIWAY INFIELD PO Non-paved area, rolled millings EOP LINE	LYGON BHOULDER EDGE OF PAVEMENT LINE TAXIWAY SHOULDER POLYGON
Accuracy Requirements (in	Horizontal	Vertical
feet)		Orthometric Ellipsoidal
,	$\pm 3 \text{ ft}$	$\pm 5 \text{ ft}$ N/A
Resolution	Geographic Coordinates Hundredth of arc second	Distances and Elevations Nearest tenth of foot
Feature Attributes	Hundredth of arc second	Inearest tenth of foot
Attribute (Datatype)	D	Description
name (VARCHAR2(50))	Name of the feature.	
description (VARCHAR2 (255		
shoulderType (Enumeration: codeShoulderType)		unway shoulder or taxiway shoulder.
status (Enumeration: codeStatus	s) A temporal description of th This attribute is used to des	ne operational status of the feature.
length (Real)	The overall length of the air	
width (Real)	The overall width of the air	
restricted (Boolean)		access to the feature is restricted
userFlag (String 254) surfaceMaterial	the operator for user-define affect the subject item's data store the subject item's data A code indicating the comp	rea. This attribute can be used by d system processes. It does not a integrity and should not be used to osition of the related surface
(Enumeration: CodeSurfaceMaterial)	[Source: NFDC]	
sequence (String 5)	Sequential number of the el	
surfaceCondition (Enumeration codeSurfaceCondition)	A description of the service NFDC]	ability of the pavement [Source:
surfaceType (Enumeration: codeSurfaceType)	A classification of airfield p Obstruction Charts [Source	avement surfaces for Airport : NGS]
Alternative (Number(2))	Discriminator used to tie featinto a version.	atures of a plan or proposal together

5.4.30. Taxiway Intersection

5	wo or more taxiwa	lys (bource: Terro I	Alliex 14, Volum	
Chapter 1, page 5). Feature Group	Airfield			
Feature Class Name	TaxiwayInterse	ation		
Feature Type	Polygon	ction		
CADD Standard Requireme				
		Decer	intion	
Layer/Level C-TAXI-INTS	Tanimur interes	Descr	iption	
C-TAXI-INTS	Taxiway interse			Cll
	Color	Linetype	Line Weight	Symbol
AutoDesk Standards	5	Continuous	1 MM	User Defined
MicroStation Standards	0		7	
Information Assurance Level	Restricted			
	AIXM	TaxiwayElement		Core
Equivalent Standards	FGDC	TaxiwayIntersect	tion	
_	SDSFIE	None		
Documentation and Submission Requirements	No documentat	ion is required for th	nis feature.	
Related Features				
Data Capture Rules: Captu	re a nolvoon establ	lishing the intersecti	on of two or more	taxiways
	<u>Taxiway I</u>	ntersection		-
Monumentation	<u>Taxiway I</u>	n required.		-
Monumentation Survey Point Location	ü			-
	No monumentation Horiz	n required. Horizontal an N/A zontal	Ver Orthometric	tical Ellipsoidal
Survey Point Location - Accuracy Requirements	No monumentation Horiz	n required. Horizontal ar N/A zontal 3 ft	Ver Orthometric ± 5 ft	Ellipsoidal N/A
Survey Point Location - Accuracy Requirements	No monumentation Horiz ± 3 Geographic	n required. Horizontal an N/A zontal	Ver Orthometric ± 5 ft Distances an	Ellipsoidal

Feature Attributes	
Attribute (Datatype)	Description
name (VARCHAR2 (50))	Name of the feature.
description (VARCHAR2 255)	Description of the feature
status (Enumeration: codeStatus)	A temporal description of the operational status of the feature.
	This attribute is used to describe real-time status.
userFlag (String 254)	An operator-defined work area. This attribute can be used by
	the operator for user-defined system processes. It does not
	affect the subject item's data integrity and should not be used to
	store the subject item's data.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together
	into a version.

5.4.31. Taxiway Element

Definition: Defined paths on an airport established for the taxiing of aircraft (excluding apron
taxilanes) and intended to provide a link between one part of the airport and another.Feature GroupAirfield

reature Group	Anneu			
Feature Class Name	TaxiwayElemen	nt		
Feature Type	Polygon			
CADD Standard Requirement	nts			
Layer/Level		Descr	iption	
C-TAXI-OTLN	Taxiway - outli	nes		
	Color	Linetype	Line Weight	Symbol
AutoDesk Standards	4	Continuous	1 MM	User Defined
MicroStation Standards	7	Continuous	7	User Denned
Information Assurance Level	Restricted			
	AIXM	TaxiwayElement		Core
Equivalent Standards	FGDC	TaxiwayElement		
	SDSFIE airfield surface site			
Documentation and Submission Requirements	No documentation is required for this feature.			
Related Features				
	11 . 1		1	

Data Capture Rules: Collect all taxiway elements as individual polygon objects. Collect taxiway at the outer edge of pavement or defined paint line (excluding shoulder). Each taxiway will typically be comprised of more than one element. When multiple elements make up a taxiway, identify the taxiway elements as beginning, intersection and end in the name attribute. Be sure to comply with the no overlappping polygon rule.

TAXIWAY	ELE Y GL	XIWAY EMENT JIDANCE LINE s the collection of a taxiway e			
Monumentation		nonumentation required.			
	1101	Horizontal	Ver	tical	
Survey Point Location		N/A	N/A		
			Vertical		
Accuracy Requirements (in		Horizontal	Orthometric	Ellipsoidal	
feet)		± 3 ft	± 5 ft	N/A	
	(Geographic Coordinates	Distances and Elevations		
Resolution	Hundredth of arc second		Nearest tenth of foot		
Feature Attributes					
Attribute (Datatype)		Description			
name (VARCHAR2 (50))		Name of the feature.			
description (VARCHAR2 255)		Description of the feature			
taxiwayId (VarChar2(50))		Taxiway element name. The name should be identical to the			
		corresponding taxiway name. Multiple taxiway elements can			
		have the same name. If two or more taxiways intersect the			
		taxiway element intersection will be named after the			
		predominant taxiway. If two taxiways on the same level			
		intersect, the element can be named arbitrarily after one of the			
		taxiways.			
taxiwayType		The type of taxiway			
(Enumeration: CodeTaxiwayType)			of the feature		
status (Enumeration: codeStatus)		A temporal description of the operational status of the feature. This attribute is used to describe real-time status.			
userFlag (String 254)		An operator-defined work area. This attribute can be used by			
useri lag (sullig 234)		the operator for user-defined		2	
		affect the subject item's data integrity and should not be used to store the subject item's data.			
surfaceMaterial			ition of the related	surface	
(Enumeration:		A code indicating the composition of the related surface [Source: NFDC]			
CodeSurfaceMaterial)					
		1			

pavementClassificationNumber	A number that expresses the relative load-carrying capacity of a pavement in terms of a standard single wheel load [Source: AC 150/5335-5]
surfaceCondition (Enumeration	A description of the serviceability of the pavement [Source: NFDC]
codeSurfaceCondition) directionality (Enumeration: CodeDirectionality)	Code used to define the directionality of traffic on the element.
sequence	Sequential number of the taxiway element.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together into a version.
surfaceType (Enumeration: codeSurfaceType)	Type of different materials used to construct the surface.
designGroup (Enumeration: codeDesignGroup)	Identifies the design group used in the design of the taxiway
length (Real)	Provides the length of the taxiwayElement polygon as measured along the centerline
width (Real)	Width of the taxiway
maximumSpeed (Real)	Identifies the maximum speed for the taxiwayElement
wingspan (Real)	Identifies the maximum aircraft wingspan which can traverse the taxiwayElement

5.5. Group: AIRSPACE

5.5.1. Landmark Segment

Definition: Features providing geographic orientation near the airport vicinity. The features may or may not have obstruction value. Collect geographic features of landmark value aiding in geographic orientation as individual polyline objects. These features include, but are not limited to, the following:

- (1). A selection of roads (i.e. major highways, primary roads, etc.) and railroads, especially in the airport vicinity, to assist the user in geographic orientation.
- (2). Shoreline (i.e. coastlines, lakes, rivers, etc.) of landmark value that aid in geographic orientation.
- (3). Utility lines (i.e. transmission lines), levees, fence lines, or other linear features having obstruction or landmark value.
- (4). Buildings or other features of landmark value that aid in geographic orientation.
- (5). Runways with specially prepared hard surfaces that are not located on the airport being surveyed, but fall within the survey limits.
- (6). Closed runways if they are sufficiently prominent to be of value to a pilot in airport identification.

Feature Group	Airspace					
Feature Class Name	LandmarkSegment					
	Line					
Feature Type						
CADD Standard Requirem	ents					
Layer/Level		Descri	ption			
C-AIRS-LNDM	Landmark segment					
	Color	Line type	Line Weight	Symbol		
AutoDesk Standards	3	Continuous	1 MM	User Defined		
MicroStation Standards	2	Continuous	7	User Denneu		
Information Assurance						
Level						
	AIXM	LandmarkSegme	nt	Extension		
Equivalent Standards	FGDC	8		Extension		
•	SDSFIE	None				
Documentation and Submission Requirements	No documentation is required for this feature.					
Related Features						
Data Capture Rules: Be sur	Capture Rules: Be sure that the attribute field for "CodeLandmarkType" correctly identifies the					
linear object being drawn. Ec	near object being drawn. Each landmark type feature has its own data capture rule, collect each					
feature as defined in individu	al feature data captu	re rule (RoadSegn	ient, UtilityLine, S	horeline, etc.).		
Monumentation	No monumentation	required.				
Summer Daint Leastian	Horizontal Vertical		tical			
Survey Point Location	N/A		N	/A		
	Horizontal				Ver	tical
Accuracy Requirements			Orthometric	Ellipsoidal		
(in feet)	± 5	ft	± 5 ft	N/A		
	Geographic Coordinates		Distances an	d Elevations		
Resolution	Five hundredth of arc second					

Feature Attributes	
Attribute (Datatype)	Description
name (VARCHAR2 (50))	Name of the feature.
description (VARCHAR2 255)	Description of the feature
status (Enumeration: codeStatus)	A temporal description of the operational status of the feature. This attribute is used to describe real-time status.
landmarkType (Enumeration: CodeLandmarkType)	Type of landmark feature
userFlag (String 254)	An operator-defined work area. This attribute can be used by the operator for user-defined system processes. It does not affect the subject item's data integrity and should not be used to store the subject item's data.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together into a version.

5.5.2. Obstacle

Definition: All fixed (whether temporary or permanent) and mobile objects, or parts thereof, located on an area intended for the surface movement of aircraft, penetrating an Obstruction Identification Surface (OIS), or selected as a representative object. Use this feature for modeling linear objects as obstacles.

Airspace				
Obstacle				
Point				
•				
	Des	cription		
Airspace obs	truction - Line	-		
Airfield obst	ruction			
Color	Line type	Line Weight	Symbol	
2	Continuous	1	Lloor Dofined	
4	Continuous	7	User Defined	
Confidential				
AIXM	Obstacle		Extension	
FGDC	Obstacle	Extension		
SDSFIE	None			
No documentation is required for this feature.				
tacle feature t	vpe for point or lin	e features penetra	ting an	
Obstruction Identification Surface (OIS) or selected as a representative object. Model line features as				
points representing the vertices of the line.				
	ntation required.			
1		Ver	Vertical	
Center	of the object	Highe	Highest point	
	Obstacle Point Airspace obs Airfield obst Color 2 4 Confidential AIXM FGDC SDSFIE No documen tacle feature ty OIS) or select he line. No monumer Ho	Obstacle Point Des Airspace obstruction - Line Airfield obstruction Color Line type 2 Continuous 4 Continuous Confidential AIXM Obstacle FGDC Obstacle SDSFIE None No documentation is required for point or line COIS) or selected as a representation he line. No monumentation required.	Obstacle Point Description Airspace obstruction - Line Airfield obstruction Color Line type Line Weight 2 Continuous 1 4 Continuous 7 Confidential 7 AIXM Obstacle FGDC Obstacle SDSFIE None No documentation is required for this feature. tacle feature type for point or line features penetra OIS) or selected as a representative object. Model he line. No monumentation required. Horizontal Ver	

Accuracy Requirements (in feet relative to the nearest PACS, SACS, HRP or TSM)							
			tically Gui)	
Kunway	souppo	Ĭ	•			Vertical	
		Н	orizontal	Or	thometric	Ellipsoid	AGL
Vertically Guided Runway Prim (VGRPS)	ary Surfa	ice	± 20		± 3	± 3	± 10
Vertically Guided Primary Conn Surface (VGPCS)	ection		± 20		± 3	± 3	± 10
Vertically Guided Protection Sur (VGPS)	face		± 20		± 3	± 3	± 10
Vertically Guided Approach Tra Surface (VGATS)	nsition		± 20		± 3	± 3	± 10
Vertically Guided Approach Sur (VGAS)	face		± 20		± 3	± 3	± 10
Vertically Guided Horizontal Su (VGHS)	rface		± 20		± 10	± 10	± 10
Vertically Guided Conical Surface	e (VGC	S)	± 20		± 10	± 10	± 10
Runways Supporting Non-Ver	tically G	uided Op	erations				
		н	orizontal			Vertical	
			Or	thometric	Ellipsoid	AGL	
Non-vertically guided primary su			± 20		± 3	± 3	± 3
Non-vertically guided approach			± 20		± 10	± 10	± 10
Non-vertically guided transitiona			± 20		± 10	± 10	±10
Non-vertically guided horizontal			± 50		± 20	± 20	± 10
Resolution		u .	<u>Coordinates</u>	5		ces and Eleva	tions
	Hu	ndredth of	f arc second		T	enth of a foot	
Feature Attributes				Da	anintian		
name (VARCHAR2 (50))	Attribute (Datatype)Descriptione (VARCHAR2 (50))Name of the feature.						
description (VARCHAR2 (50))			of the feature	re			
status (Enumeration: codeStatus)		A temporal description of the operational status of the feature.					
		This attribute is used to describe real-time status.					
obstacleType (Enumeration: CodeObstacleTyp	The type of object.						
obstacleSource (Enumeration: Identify how or where the obstacleSource)		ne ob	ject was ider	ntified.			
aboveGroundLevel (Real) The vertical distance from the ground to the object.			he highest poi	nt of the			
distanceFromDisplacedThreshold (Real) Distance A negative touchdo provide		stance me tended fro negative o uchdown s ovided for	om a Displac distance indi side of the r	cates cates unwa etrati	hreshold to p that the object y approach of	ne or centerlin point abeam th ect is on the end. This data ontal, conical	e object. is not

distance From Dunway Contarline	Shortost distance from the runway contarline or contarline
distanceFromRunwayCenterline	Shortest distance from the runway centerline or centerline
(Real)	extended to the object. "L" (LEFT) or "R" (RIGHT) is relative
	to an observer facing forward in a landing aircraft. This data is
	not provided for objects penetrating the horizontal, conical and
	runway transitional surfaces.
distanceFromRunwayEnd (Real)	Distance measured along runway centerline or centerline
	extended from the physical end to point abeam the object. A
	negative distance indicates that the object is on the touchdown
	side of the runway approach end. This data is not provided for
	objects penetrating the horizontal, conical and transitional
	(HCT) surfaces.
groupCode (String 75)	A text code indicating that the object consists of a group of
Broup cour (sumb (c)	objects of the same type. For example, a group of trees, a group
	of buildings, a group of antennas, etc [Source: AIXM]
heightAboveAirport (Integer)	Height above airport the official airport elevation point
neightAboveAnport (integer)	[Source: NGS]
haight & have Durnway (Deal)	
heightAboveRunway (Real)	Height above runway physical end for objects located
	underneath the approach surface.
heightAboveTouchdownZone	Height above touchdown zone elevation for objects located
(Real)	underneath the approach surface.
lightCode (Boolean)	A code indicating that the obstacle is lighted [Source: AIXM]
markingFeatureType (Enumeration:	The type of the marking
codeMarkingFeatureType)	
penValSpecified (Integer)	The elevation difference between the height of the object and
	the specified surface. Used to identify the amount of
	penetration of the main OIS.
penValSupplemental (Integer)	The elevation difference between the height of the object and
	the supplemental surface. Used to identify the amount of
	penetration to a secondary OIS.
userFlag (String 254)	An operator-defined work area. This attribute can be used by
	the operator for user-defined system processes. It does not
	affect the subject item's data integrity and should not be used to
	store the subject item's data.
ellipsoidHeight (Real)	The height above the reference ellipsoid, measured along the
empsolarieigne (recui)	ellipsoidal outer normal through the point in question.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together
Alternative (Number(2))	into a version.
obstructionNumber	
	Provide the Aeronautical Study Number assigned by the FAA in the empropriate formet (if Imaum). The empropriate formet is
(VARCHAR2(30))	the appropriate format (if known). The appropriate format is
	YYYY-XXX-NNNNN-TTT, EXAMPLE: 2008- ASW-1234-
	OE where YYYY is the year, XXX is the FAA responsible
	region (ASW, AAL, AGL, AEA, etc.) or WTE for Wind
	Turbine cases in the eastern U.S. or WTW for wind turbine
	cases in the western U.S., NNNNN is the sequential number
	assigned to the case for the year, and TTT is either OE, NR or
	NRA as appropriate. The dashes in the format are important
	and if the information is not known leave this blank.
disposition (String 16)	The disposition of the airspace obstruction.
oisSurfaceCondition (Enumeration:	The Obstruction Identification Surface that the obstacle
is CodeOisSurfaceCondition)	represents.
/	· •

frangible (Boolean)	A Boolean indicating whether the object is frangible.
faaCoordinationCode (Boolean)	A Boolean indicating whether the obstruction has received FAA
	coordination or review.

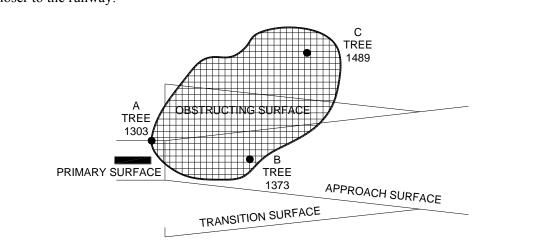
5.5.3. Obstruction Area

Definition: Polygon features penetrating the plane of the obstruction identification surface (OIS) or selected as representative objects. Determine the type of obstructing area by the predominant feature within the grouped area. Penetrating groups of trees, ground, buildings, urban areas, mobile cranes, and agricultural area are the most common types of obstruction areas found within the surfaces of an Airport Airspace Analysis survey.				
Feature Group	Airspace			
Feature Class Name	ObstructionAre	a		
Feature Type	Polygon			
CADD Standard Requirement	S			
Layer/Level	Description			
C-AIRS-OBST-POLY	Airspace obstruction			
	Color Linetype Line Weight Symbol			
AutoDesk Standards	2	Continuer 1 MM		User Defined
MicroStation Standards	0	Continuous	7	User Denneu
Information Assurance Level	evel Restricted			
	AIXM ObstructionArea Core			
Equivalent Standards	FGDC ObstructionArea			
_	SDSFIE airspace_obstruction_navaid_point			
Documentation and Submission RequirementsNo documentation is required for this feature.				

Related Features	

Data Capture Rules: Use the ObstructionArea feature type to model features penetrating an OIS or is selected as a representative object using a bounding polygon encompassing the greatest extents of the area and the height of the highest point within the feature.

<u>Area Limit Object Requirements</u> – When a large area of objects such as buildings, terrain or vegetation penetrate a surface, identify the limits of the area using a bounding polygon within the lateral limits of the surface. Overlay the area lateral limits with a grid established parallel and perpendicular to the extended runway centerline of the surface (see figure below). Establish the grid beginning at the runway end using the appropriate spacing until reaching the obstructing area. Within 10,200 feet of the runway threshold, use 200-foot grid spacing; outside 10,200 feet from the threshold, use a grid spacing of 500 feet. Analyze, identify and report the highest manmade or natural object penetrating the surface within each grid sector. Additionally, report the highest manmade or natural object within the area limits (see Figure 2-18). If two objects with the exact same MSL elevation are within a grid sector, choose the sector object by first selecting the object closer to the centerline, then if required, by the object closer to the runway.



NOTES:

- 1. THIS GRAPHIC EXPLAINS OR CLARIFIES CERTAIN DATA REQUIREMENTS.
- 2. SEE TEXT WHEN OBJECT CONGESTION OCCURS.
- 3. DIMENSIONS ARE IN FEET. DO NOT SCALE THIS DRAWING.

Reporting highest object(s) within ObstructionArea limits.

Monumentation	n No monumentation required.						
Survey Point Location	Horizontal Vertical						
Survey Fount Location	N/A		N/A				
Accuracy Requirement	Accuracy Requirements (in feet relative to the nearest PACS, SACS, HRP or TSM)						
Runwa	ys Supporting Vertically Guide	d Operations					
	Vertical						
	Horizontal	Orthometric	Ellipsoid	AGL			
Vertically Guided Runway Primary Surface (VGRPS)	± 20	± 3	± 3	± 10			
Vertically Guided Primary Connection Surface (VGPCS)	± 20	± 3	± 3	± 10			

Vertically Guided Protection Surface (VGPS)	± 2	0	± 3	± 3	± 10	
Vertically Guided Approach						
Transition Surface (VGATS)	± 2	0	± 3	± 3	± 10	
Vertically Guided Approach					. 10	
Surface (VGAS)	± 2	0	± 3	± 3	± 10	
Vertically Guided Horizontal	± 2	0	± 10	± 10	± 10	
Surface (VGHS)	<u> </u>	0	± 10	± 10	± 10	
Vertically Guided Conical Surface (VGCS)	± 2	0	± 10	± 10	± 10	
` <i>´</i>	upporting Non-	Vertically Gui	ded Operations			
				ertical		
		Horizontal	Orthometric	Ellipsoid	AGL	
Non-vertically guided primary sur	rface	± 20	± 3	± 3	± 3	
Non-vertically guided approach su		± 20	± 10	±10	± 10	
Non-vertically guided transitional		± 20	± 10	± 10	± 10	
Non-vertically guided horizontal s	surface	± 50	± 20	± 20	± 10	
Resolution		Geographic	Coordinates	Distance		
		Geographic Coordinates Elevations Hundredths of arc second Tenth of a foo				
Fasture Attr:butes		Hundredths	of arc second	I enth of	a foot	
Feature Attributes		1	Degenintien			
Attribute (Datatype)	Name of th		Description			
name (VARCHAR2(50)) description (String 255)		n of the feature				
status (Enumeration: codeStatus)			of the operational status of the feature.			
status (Enumeration: codestatus)			scribe real-time s		cature.	
obstacleType	The type of					
(Enumeration: CodeObstacleType		5				
obstacleSource		w or where the	object was identi	fied.		
(Enumeration:	-		-			
CodeObstacleSource)						
aboveGroundLevel (Real)	The vertica object.	al distance from	the ground to the	e highest poi	nt of the	
distanceFromDisplacedThreshold		easured along r	unway centerline	or centerlin	e	
(Real)			Threshold to po			
			tes that the objec		5	
	touchdown side of the runway approach end. This data is not			is not		
	provided for objects penetrating the horizontal, conical and			and		
		nsitional surface				
distanceFromRunwayCenterline			runway centerlin			
(Real)			" (LEFT) or "R"			
			ard in a landing a			
		ed for objects pended for a surface	enetrating the hor	izontal, coni	cal and	
	E FURWAY fra	nsilional surface	55.			

distanceFromRunwayEnd (Real)	Distance measured along runway centerline or centerline extended from the physical end to point abeam the object. A negative distance indicates that the object is on the touchdown side of the runway approach end. This data is not provided for objects penetrating the horizontal, conical and transitional (HCT) surfaces.
groupCode (String 75)	A text code indicating that the object consists of a group of objects of the same type. For example, a group of trees, a group of buildings, a group of antennas, etc [Source: AIXM]
heightAboveAirport (Integer)	Height above airport the official airport elevation point [Source: NGS]
heightAboveRunway (Real)	Height above runway physical end for objects located underneath the approach surface.
heightAboveTouchdownZone (Real)	Height above touchdown zone elevation for objects located underneath the approach surface [Source: NGS]
lightCode (Boolean)	A code indicating that the obstacle is lighted [Source: AIXM]
markingFeatureType (Enumeration: codeMarkingFeatureType)	The type of the marking
penValSpecified (Integer)	The elevation difference between the height of the object and the specified surface. Used to identify the amount of penetration of the main OIS.
penValSupplemental (Integer)	The elevation difference between the height of the object and the supplemental surface. Used when to identify the amount of penetration to a secondary OIS.
obstructionNumber (VARCHAR2(30))	Provide the Aeronautical Study Number assigned by the FAA in the appropriate format (if known). The appropriate format is YYYY-XXX-NNNNN-TTT, EXAMPLE: 2008- ASW-1234- OE where YYYY is the year, XXX is the FAA responsible region (ASW, AAL, AGL, AEA, etc.) or WTE for Wind Turbine cases in the eastern U.S. or WTW for wind turbine cases in the western U.S., NNNNN is the sequential number assigned to the case for the year, and TTT is either OE, NR or NRA as appropriate. The dashes in the format are important and if the information is not known leave this blank.
obstructionAreaType (Enumeration: CodeObstructionAreaType)	Type of obstructing area.
disposition (VARCHAR2(255))	The disposition of the airspace obstruction.
oisSurfaceCondition (Enumeration: CodeOisSurfaceCondition)	The Obstruction Identification Surface that Obstructing Area represents
length (Real)	The overall length of the obstruction.
width (Real)	The overall width of the obstruction.
frangible (Boolean)	A Boolean indicating whether the object is frangible.
faaCoordinationCode (Boolean)	A Boolean indicating whether the obstruction has received FAA coordination or review.
ellipsoidHeight (Real)	The height above the reference ellipsoid, measured along the ellipsoidal outer normal through the point in question.

userFlag (String 254)	An operator-defined work area. This attribute can be used by
usering (String 254)	1
	the operator for user-defined system processes. It does not
	affect the subject item's data integrity and should not be used to
	store the subject item's data.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together
	into a version.

5.5.4. Obstruction Identification Surface

Definition: A derived imaginar	y surface defined	by FAA.				
Feature Group	Airspace					
Feature Class Name	ObstructionIdSurface					
Feature Type	Polygon					
CADD Standard Requiremen						
Layer/Level		Descri	ption			
C-AIRS-OTHR	Other airspace s	urfaces				
C-AIRS-PART-PRIM	14 CFR Part 77	- Primary Surface				
C-AIRS-PART-HORZ	14 CFR Part 77	- Horizontal Surface	;			
C-AIRS-PART-CONL	14 CFR Part 77	- Conical Surface				
C-AIRS-PART-TRNS	14 CFR Part 77	- Transitional Surfac	ces			
C-AIRS-PART-APRC	14 CFR Part 77	- Approach Surfaces	5			
C-AIRS-AAAS-PRIM	Airport Airspac	e Analysis Survey - I	Primary Surfaces			
C-AIRS-AAAS-HORZ	Airport Airspac	e Analysis Survey - I	Horizontal Surfac	e		
C-AIRS-AAAS-CONL	Airport Airspac	e Analysis Survey - (Conical Surface			
C-AIRS-AAAS-TRNS	Airport Airspac	e Analysis Survey - '	Transitional Surfa	ices		
C-AIRS-AAAS-APRC	Airport Airspac	e Analysis Survey - A	Approach Surface	es		
C-AIRS-AAAS-VERT	Airport Airspace Surface	ce Analysis Survey	- Vertical Guid	lance Protection		
C-AIRS-TERP	TERPS Surface	S				
C-AIRS-TERP-DEPT	Departure Analy	ysis				
C-AIRS-OEIA	One Engine Ino	perative Analysis				
	Color Linetype Line Weight Symbol					
	Color	Linetype	Line Weight	Symbol		
AutoDesk Standards	Color 1 (all)		Line Weight 1 MM (all)			
MicroStation Standards		Linetype Continuous (all)		Symbol User Defined		
	1 (all)		1 MM (all)			
MicroStation Standards Information Assurance	1 (all) 0 (all)		1 MM (all) 7 (all)			
MicroStation Standards Information Assurance	1 (all) 0 (all) Restricted	Continuous (all)	1 MM (all) 7 (all) nentArea	User Defined		
MicroStation Standards Information Assurance Level	1 (all) 0 (all) Restricted AIXM	Continuous (all) ObstructionAssess	1 MM (all) 7 (all) mentArea cationSurface	User Defined		
MicroStation Standards Information Assurance Level	1 (all) 0 (all) Restricted AIXM FGDC SDSFIE	Continuous (all) ObstructionAssess ObstructionIdentifi	1 MM (all) 7 (all) mentArea cationSurface surface_area	User Defined		
MicroStation Standards Information Assurance Level Equivalent Standards Documentation and	1 (all) 0 (all) Restricted AIXM FGDC SDSFIE	Continuous (all) ObstructionAssess ObstructionIdentifi airfield_imaginary	1 MM (all) 7 (all) mentArea cationSurface surface_area	User Defined		
MicroStation Standards Information Assurance Level Equivalent Standards Documentation and Submission Requirements	1 (all) 0 (all) Restricted AIXM FGDC SDSFIE No documentati	Continuous (all) <i>ObstructionAssessi</i> <i>ObstructionIdentifi</i> <i>airfield imaginary</i> on is required for thi	1 MM (all) 7 (all) mentArea cationSurface surface area s feature.	User Defined		
MicroStation StandardsInformation AssuranceLevelEquivalent StandardsDocumentation andSubmission RequirementsRelated Features	1 (all) 0 (all) Restricted AIXM FGDC SDSFIE No documentati the obstruction ia horizontal limits	Continuous (all) ObstructionAssesse ObstructionIdentifi airfield imaginary on is required for thi lentification surface of the appropriate of	1 MM (all) 7 (all) nentArea cationSurface surface area s feature. (OIS) required by	User Defined Core		
MicroStation StandardsInformation AssuranceLevelEquivalent StandardsDocumentation andSubmission RequirementsRelated FeaturesData Capture Rules: Identify	1 (all) 0 (all) Restricted AIXM FGDC SDSFIE No documentati	Continuous (all) ObstructionAssesse ObstructionIdentifi airfield imaginary on is required for thi lentification surface of the appropriate of	1 MM (all) 7 (all) nentArea cationSurface surface area s feature. (OIS) required by	User Defined Core		
MicroStation StandardsInformation AssuranceLevelEquivalent StandardsDocumentation andSubmission RequirementsRelated FeaturesData Capture Rules: Identifytype for the runway. Depict theMonumentation	1 (all)0 (all)RestrictedAIXMFGDCSDSFIENo documentatithe obstruction iahorizontal limitsNo monumentati	Continuous (all) ObstructionAssesse ObstructionIdentifi airfield imaginary on is required for thi lentification surface of the appropriate of	1 MM (all) 7 (all) nentArea cationSurface surface_area s feature. (OIS) required by bstruction imagina	User Defined Core		
MicroStation StandardsInformation AssuranceLevelEquivalent StandardsDocumentation andSubmission RequirementsRelated FeaturesData Capture Rules: Identifytype for the runway. Depict the	1 (all) 0 (all) Restricted AIXM FGDC SDSFIE No documentati the obstruction ia horizontal limits No monumentati Hor	Continuous (all) <i>ObstructionAssessi</i> <i>ObstructionIdentifi</i> <i>airfield_imaginary</i> on is required for thi <i>lentification surface</i> <i>of the appropriate ob</i> ion required.	1 MM (all) 7 (all) nentArea cationSurface surface area s feature. (OIS) required by bstruction imagina	User Defined Core		
MicroStation StandardsInformation AssuranceLevelEquivalent StandardsDocumentation andSubmission RequirementsRelated FeaturesData Capture Rules: Identifytype for the runway. Depict theMonumentationSurvey Point Location	1 (all) 0 (all) Restricted AIXM FGDC SDSFIE No documentati <i>horizontal limits</i> No monumentat Hor 1	Continuous (all) <i>ObstructionAssessi</i> <i>ObstructionIdentifi</i> <i>airfield imaginary</i> on is required for thi <i>lentification surface</i> <i>of the appropriate ol</i> ion required . izontal N/A	1 MM (all) 7 (all) nentArea cationSurface surface_area s feature. (OIS) required by bstruction imagina Ver N Ver	User Defined Core the utilization ary surface. tical /A tical		
MicroStation StandardsInformation AssuranceLevelEquivalent StandardsDocumentation andSubmission RequirementsRelated FeaturesData Capture Rules: Identifytype for the runway. Depict theMonumentation	1 (all) 0 (all) Restricted AIXM FGDC SDSFIE No documentati horizontal limits No monumentat Hor	Continuous (all) <i>ObstructionAssessi</i> <i>ObstructionIdentifi</i> <i>airfield imaginary</i> on is required for thi <i>lentification surface</i> <i>of the appropriate ol</i> <i>ion required</i> . izontal	1 MM (all) 7 (all) nentArea cationSurface surface area s feature. (OIS) required by bstruction imagina Ver N	User Defined Core the utilization ary surface. tical /A		

Resolution		Geographic Coordinates	Distances and Elevations			
Kesolution		N/A	N/A			
Feature Attributes						
Attribute (Datatype)			cription			
name (VARCHAR2 (50))		A commonly used name for th	e zone.			
description (VARCHAR2 255)		Description of the feature				
status (Enumeration: codeStatus	5)	A temporal description of the This attribute is used to describ	operational status of the feature. be real-time status.			
runwayDesignator (String 7)		Primary Surface (VGRPS), for	the Vertically Guided Runway r the Vertically Guided Primary , and for the Vertically Guided e (VGATS).			
runwayEndDesignator (String 3	5)	Specify runwayEnd designator for the Vertically Guided Approach Surface (VGAS) and for the Vertically Guided Protection Surface (VGPS).				
oisSurfaceType		Surface Type refers to the gen	eral type of surface used to			
(Enumeration:		analyze features. Surfaces of	the same type usually are similar			
CodeOisSurfaceType)			n aspects of the surface definition			
			ve of different programs within			
aigZan aTana		the airport charting community	y. ction Identification Surfaces (OIS)			
oisZoneType (Enumeration: CodeOisZoneTy	na)	Specifies zones within Obstruc	ction Identification Surfaces (OIS)			
oisSurfaceCondition	pe)	The Obstruction Identification	Surface that Obstructing Area			
(Enumeration:		The Obstruction Identification Surface that Obstructing Area represents				
CodeOisSurfaceCondition)		represents				
safetyRegulation (String 20)		An identifier for the safety rea	gulations in effect within the zone.			
zoneUse (String 50)		A description of the use of the				
approachGuidance		Defines the type of approach g				
(Enumeration:		protect.	guidances the O13 is meant to			
CodeApproachGuidance)		protect.				
slope (Real)		The low to high gradient with	in the airspace expressed as a ratio			
slope (Real)		x:1, where X is the slope value				
		departures.	•			
userFlag (String 254)		the operator for user-defined s	a. This attribute can be used by ystem processes. It does not ntegrity and should not be used to			
Alternative (Number(2))		3	res of a plan or proposal together			

5.5.5. Runway Protect Area

Definition: An area beyond the takeoff runway under control of airport authorities within which terrain
or fixed obstacles may not extend above specified limits. These areas may be required for certain
turbine-powered operations, and the size and upward slope of the clearway will differ depending on
when the aircraft was certificated.Feature GroupAirspaceFeature Class NameRunwayProtectAreaFeature TypePolygon

CADD Standard Requiremen	ts						
Layer/Level			Descr	iption			
C-RUNW-CLRW	Runway Clearway						
	Color Linetype			Line Weight	Symbol		
AutoDesk Standards		4	Continuous	1			
MicroStation Standards		7	Continuous	3			
Information Assurance Level	Rest	Restricted					
	AIX	Μ	RunwayProtectA	reaExtension	Extension		
Equivalent Standards	FGI	DC	RunwayProtectA	rea	Extension		
-	SDS	FIE	None				
Documentation and Submission Requirements	No c	locumentatio	on is required for th	nis feature.			
Related Features							
Data Capture Rules: N/A							
Monumentation	No r	nonumentati	on required.				
Survey Point Location		Horiz	zontal	Ver	tical		
Survey Fornt Location	N/A			N/A			
Accuracy Requirements (in		Horizontal		Vertical			
feet)			Orthometric	Ellipsoidal			
	N/A			N/A	N/A		
Resolution	(U I	Coordinates Distances and E				
		Hundredth o	of arc second	Tenth of foot			
Feature Attributes		1					
Attribute (Datatype)				escription			
name (VARCHAR2 (50))			of the feature.				
description (VARCHAR2(255)			n of the feature				
status (Enumeration: codeStatus	s)		l description of the ute is used to descr				
length (Integer)		The length of clearway as reported by the FAA Airport/Facility					
		Directory and the Aeronautical Information Publication (AIP)					
			tional airports				
userFlag (String 254)		An operator-defined work area. This attribute can be used by					
		the operator for user-defined system processes. It does not					
		affect the subject item's data integrity and should not be used to					
			ubject item's data.				
type (Enumeration:			ating the type of ru	unway protection a	area being		
CodeRunwayProtectionAreaTy	pe)	classified.					
Alternative (Number(2))			tor used to tie feat	ures of a plan or p	roposal together		
		into a versi	ion.				

5.6. Group: CADASTRAL

5.6.1. Airport Boundary

5.0.1. Airport Doundary							
Definition: A polygon, or a set				rty owned or contr	rolled by the		
airport for aviation purposes. [.6A, Section 5]				
Feature Group		Cadastral					
Feature Class Name		AirportBoundary					
Feature Type		Polygon					
CADD Standard Requirement	nts						
Layer/Level			Descri	iption			
C-PROP-PROP-		rt property					
	(Color	Linetype	Line Weight	Symbol		
AutoDesk Standards		2	Continuous	1			
MicroStation Standards		4	Continuous	3			
Information Assurance Level	Restri	cted					
	AIXN	1	AirportHeliport		Core		
Equivalent Standards	FGDO	2	AirportBoundary				
_	SDSF	IE	Airfield_area				
Documentation and Submission Requirements	None						
Related Features							
Data Capture Rules: <i>Airpor</i> government.	t proper	ty informat	ion is usually obtai	inable from the co	unty or local		
Monumentation	No mo	onumentatio	on required.				
	Horiz		A	Ver	tical		
Survey Point Location		N/A		N/A			
		Horizontal		Vertical			
Accuracy Requirements (in		Horiz	contal	Orthometric	Ellipsoidal		
feet)		± 3	3 ft	± 5 ft	N/A		
	G	eographic	Coordinates	Distances an	d Elevations		
Resolution	E	Iundredth o	of arc second	Tenth	of foot		
Feature Attributes	1						
Attribute (Datatype)			D	escription			
name (VARCHAR2 (50))		The name	of the feature.	-			
description (VARCHAR2 (255	5))	Description	on of the feature				
status (Enumeration: codeStatu	ıs)	A tempor	al description of th	e operational statu	s of the feature.		
		This attrib	oute is used to desc	ribe real-time stat	us.		
faaSiteNumber (String 8)			number that contain				
		0	d to the airport in a	U /	· ·		
	state and the associated city. If you do not know or have						
		access to the appropriate site number contact your airports					
		district/region airports office or state aviation authorities for					
		assistance	E. [Source: FAA A	C 150/5200-35]	authorities for		
faaLocationId (String 4)		assistance The locati	E. [Source: FAA A ion identifier assign	C 150/5200-35] ned to the feature l	authorities for		
faaLocationId (String 4) iataCode (String 4)		assistance The locati The locati	e. [Source: FAA A ion identifier assign ion identifier assign	C 150/5200-35] ned to the feature l ned to the feature l	authorities for		
		assistance The locati The locati Air Trans	E. [Source: FAA A ion identifier assign	C 150/5200-35] ned to the feature l ned to the feature l ATA)	authorities for by FAA by International		

airportFacilityType (Enumeration	The type of airfield
CodeAirportFacilityType)	
operationsType	The type of operations permitted on the airfield
(Enumeration: CodeOperationsType)	
owner	The type of owner of the airfield
(Enumeration: CodeOwner)	
userFlag (String 254)	An operator-defined work area. This attribute can be used by
	the operator for user-defined system processes. It does not
	affect the subject item's data integrity and should not be used to
	store the subject item's data.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together
	into a version.

5.6.2. Airport Parcel

Definition: A tract of land within the airport boundary acquired from surplus property, Federal funds, local funds, etc. Include easement interests in areas outside the fee property line as an airport parcel. [Source FAA Order 5190.6, Chapter 5]

Feature Group	Cadastral					
Feature Class Name	AirportParcel	AirportParcel				
Feature Type	Polygon					
CADD Standard Requiremen	its					
Layer/Level		Descr	iption			
V-PROP-AIRF-LINE-	Property lines (E	xisting recorded pl	lats)			
V-PROP-QTRS-	Quarter lines					
V-PROP-SECT-	Section lines					
V-PROP-SXTS-	Sixteenth lines (4	40 lines)				
	Color	Linetype	Line Weight	Symbol		
AutoDesk Standards	4	Continuous	1	User Defined		
MicroStation Standards	7	Continuous	3	User Defined		
Information Assurance	Restricted					
Level						
	AIXM	AirportParcel		Extension		
Equivalent Standards	FGDC	AirportParcel	Extension			
	SDSFIE	None				
Documentation and	None					
Submission Requirements	None					
Related Features						
Data Capture Rules: Collect			local requirements	J.		
Monumentation	No monumentati					
Survey Point Location	Horiz	zontal	· · ·	tical		
Survey I onit Location	N	/A	N	/A		
	Uori	zontal	Ver	Vertical		
Accuracy Requirements (in	11011	zuiitai	Orthometric	Ellipsoidal		
feet)	As required	by state/local	N/A	N/A		
	· · · · ·	ements.				
Resolution		Coordinates		d Elevations		
	Hundredth of	of arc second	Nearest ten	th of a foot		

Feature Attributes	
Attribute (Datatype)	Description
name (VARCHAR2 (50))	Name of the feature.
description (String 255)	Description of the feature
status (Enumeration: codeStatus)	A temporal description of the operational status of the feature.
	This attribute is used to describe real-time status.
authority (String 75)	The owner of the airport parcel
acquisitionType (Enumeration:	The type of acquisition used to acquire the parcel
codeAcquisitionType)	
costToAcquire (Real)	The amount paid to the owner in U.S. dollars for the parcel
dateAcquired (Date)	The date the parcel was acquired. Format for date is
	YYYYMMDD (i.e. September 15, 1994 = 19940915).
grantProjectNumber (String 30)	The grant number if Federal funds were used to acquire the
	parcel
howAcquired (Enumeration:	The manner in which the parcel was acquired
codeHowAcquired)	
marketValue (Real)	The assessed market value of the parcel in U.S. dollars when it
	was acquired
yearAssessed (Number 4)	The year in which the market value assessment was made
yearBuilt (Number 4)	The year in which the most recent structure(s) were built on the
	parcel
userFlag (String 254)	An operator-defined work area. This attribute can be used by
	the operator for user-defined system processes. It does not
	affect the subject item's data integrity and should not be used to
	store the subject item's data.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together
	into a version.
acquisitionPurpose (String 50)	Acquisition purpose
area (Real)	The size of the area, zone, or polygon in square units.
assessedValue (Real)	The most recent assessed value of the airport parcel.
deedReference (String 30)	Reference to where the deed to the airport parcel is recorded in
	such information as Plat Book and Page.
legalDescription (String 240)	The complete legal description of the property as it appears in
noncolNumber (String 12)	the deed.
parcelNumber (String 12)	Any locally used number to identify the parcel.
passengerChargeNumber (String 30)	Passenger Facility Charge Number
previousOwner (String 75)	Previous owner of the airport parcel
useOfParcel (String 16)	The current primary use of the airport parcel.

5.6.3. County

 Definition: Boundary line of the land and water under the right, power, or authority of the county government.

 Feature Group
 Cadastral

 Feature Class Name
 County

 Feature Type
 Polygon

 CADD Standard Requirements
 Description

 V-PROP-CNTY County Boundary

		Color	Line type	Line Weight	Symbol	
AutoDesk Standards		2	DASHED SPA	1 MM	Llaar Dafinad	
MicroStation Standards		4	CED	7	User Defined	
Information Assurance Level	Resti	ricted				
	AIXM GovernmentalUnit E				Extension	
Equivalent Standards	FGD	C	GovernmentalUn	it	Extension	
-	SDS	FIE	political jurisdic	tion county line	•	
Documentation and Submission Requirements	None	2				
Related Features						
Data Capture Rules: County	bounde	ary informat	tion is usually obtai	nable from the co	unty engineer,	
surveyor or auditor's office.						
Monumentation	No n		on required.			
Survey Point Location		Horizontal		Vertical		
	N/A		N/A			
Accuracy Requirements (in		Horizontal		Vertical		
feet)				Orthometric	Ellipsoidal	
		As provided.		N/A	N/A	
Resolution			Coordinates	Distances and Elevations		
	Fi	ve hundredt	h of arc second	Nearest foot		
Feature Attributes						
Attribute (Datatype)				cription		
name (VARCHAR2 (50))		Name of the	ne feature.			
description (VARCHAR2 (255))		ption of the area.			
status (Enumeration: codeStatu	s)	*	l description of the	*		
		This attrib	ute is used to descri	be real-time statu	S.	
politicalName (String 30)				ted with the property area.		
userFlag (String 254)		*		area. This attribute can be used by		
		the operator for user-defined system processes. It does not				
			subject item's data i	ntegrity and shoul	d not be used to	
			ubject item's data.			
Alternative (Number(2))		Discrimina	ntor used to tie featu	ires of a plan or p	roposal together	
		into a vers	ion.			

5.6.4. Easements And Rights of WaysDefinition: A parcel of land for which formal or informal deed easement rights exist [Source: SDSFIE (modified)]

Cadastral				
EasementsAndRightsofWay				
Polygon				
CADD Standard Requirements				
Description				
Easements				
Right of ways				
Government easements/property lines				
Right of ways				

	С	olor	Linetype	Line Weight	Symbol	
AutoDesk Standards		3	Continuous	1 MM	User Defined	
MicroStation Standards	2		Continuous	7	User Defined	
Layer/Level	Description					
V-PROP-RWAY-	Right of ways					
	С	olor	Linetype	Line Weight	Symbol	
AutoDesk Standards		6	Continuous	1 MM	User Defined	
MicroStation Standards		5	Continuous	7	Oser Denned	
Information Assurance Level	Confide	ential				
	AIXM		EasementsAndRi	ghtsofWay	Extension	
Equivalent Standards	FGDC		EasementsAndRi	ghtsofWay	Extension	
	SDSFI	E	easement_right_	of_way_area		
Documentation and	None					
Submission Requirements	THOME					
Related Features						
Data Capture Rules: Easeme			information is usu	ually obtainable fro	om county	
engineer, surveyor, audit or re						
Monumentation	No moi		n required.	**		
Survey Point Location		Horizontal Vertical				
.		N/	A	N		
Accuracy Requirements (in		Horizontal		Vertical		
feet)			.1.1	Orthometric	Ellipsoidal	
,	C	As pro		N/A N/A		
Resolution			Coordinates s of arc second	Distances and Elevations Nearest foot		
Feature Attributes	Five	nunareatn	s of arc second	Ineare	st 100t	
Attribute (Datatype)	[Da	escription		
name (VARCHAR2 (50))		Name of t	he feature.			
description (VARCHAR2 (56))	5))		escription of the fea	ature		
status (Enumeration: codeStatu			s of the parcel. (Ac		ninated)	
purpose (String 30)			rpose for which th			
userFlag (String 254)			or-defined work a			
			or for user-defined			
			subject item's data			
	store the subject item's data.					
Alternative (Number(2))			ator used to tie fea		proposal together	
· · · · · · · · · · · · · · · · · · ·		into a vers	sion			

5.6.5. FAA Region Area

Definition: This feature depicts the FAA regions.					
Feature Group	Cadastral				
Feature Class Name	FAARegionArea				
Feature Type	Polygon				
CADD Standard Requirements					
Layer/Level	Description				
C-AIRF-FAAR-	FAA Region				

	Color	Linetype	Line Weight	Symbol	
AutoDesk Standards	1		1 MM		
MicroStation Standards	3	- Continuous	7	User Defined	
Information Assurance Level	Unclassified				
	AIXM	FaaRegionArea		Extension	
Equivalent Standards	FGDC	FaaRegionArea		Extension	
	SDSFIE	faa_region_area			
Documentation and Submission Requirements	None				
Related Features					
Data Capture Rules: Collect			urces.		
Monumentation	No monumentat	ion required.			
Survey Point Location	-	izontal		tical	
Survey I onte Elocation	N/A		N/A		
Accuracy Requirements (in	Hor	Horizontal		tical	
feet)	Horizontai		Orthometric	Ellipsoidal	
	As provided.		N/A	N/A	
Resolution		c Coordinates	Distances and Elevations		
	Five hundred	th of arc second	Nearest foot		
Feature Attributes	7				
Attribute (Datatype)			scription		
name (VARCHAR2 (50))		the FAA region.			
description (VARCHAR2 (255		on of the FAA regio			
status (Enumeration: codeStatu		ral description of the			
		bute is used to descr			
userFlag (String 254)		tor-defined work are			
	*	tor for user-defined	2 I		
	affect the subject item's data integrity and should not be use				
	store the subject item's data.				
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal to into a version.			roposal together	

5.6.6. Land Use

Definition: A description of the human use of land and water.								
Feature Group	Cadastral	Cadastral						
Feature Class Name	LandUse	LandUse						
Feature Type	Polygon							
CADD Standard Requireme	ents							
Layer/Level	Description							
V-PROP-LUSE-	Land Use Area	Land Use Area						
	Color	Color Linetype Line Weight Symbol						
AutoDesk Standards	5		1 MM	User Defined				
MicroStation Standards	1	Continuous	7	User Defined				
Information Assurance	Confidential							
Level	Confidential							
	AIXM	LandUse		Extension				
Equivalent Standards	FGDCLandUseExtension							
	SDSFIE	SDSFIE land_use_area						

Documentation and Submission Requirements	None				
Related Features					
Data Capture Rules: Collect	the land	l use information from state/c	ounty/local zoning	or other	
appropriate office.					
Monumentation	No mo	numentation required.			
Summer Daint Leastion		Horizontal	Vert	tical	
Survey Point Location		N/A	N/	'A	
A course as Dequinements (in		Horizontal	Vert	tical	
Accuracy Requirements (in feet)		Horizontai	Orthometric	Ellipsoidal	
leet)		As provided.	N/A	N/A	
Resolution	Geographic Coordinates		Distances and Elevations		
Resolution	Five hundredths of arc second		Nearest foot		
Feature Attributes					
Attribute (Datatype)		De	escription		
name (VARCHAR2 (50))		Name of the land use area.			
description (VARCHAR2 (255	5))	Description of the land use a			
status (Enumeration: codeStatu	us)	A temporal description of th			
		This attribute is used to desc	cribe real-time statu	15.	
useType (Enumeration:		The way in which the land is	s being used.		
CodeLandUseType)					
userFlag (String 254)		An operator-defined work an			
		the operator for user-defined			
		affect the subject item's data integrity and should not be used to			
		store the subject item's data.			
Alternative (Number(2))	Number(2)) Discriminator used to tie features of a plan or proposal toget			proposal together	
		into a version.			

5.6.7. Lease Zone

Definition: A parcel of land le	eased by an individu	al, agency, or orga	nization for their	use.			
Feature Group	Cadastral						
Feature Class Name	LeaseZone	LeaseZone					
Feature Type	Polygon						
CADD Standard Requireme	nts						
Layer/Level		Descri	ption				
V-PROP-LEAS-	Lease line (survey	ved)					
A-PROP-LEAS-	Lease line (interio	or)					
C-PROP-LEAS-	Lease line (exterio	or / ground lease)					
	Color	Color Linetype Line Weight Symbol					
AutoDesk Standards	1	Continuous	1 MM	User Defined			
MicroStation Standards	3	Continuous	7	User Defined			
	Unclassified						
Information Assurance Level	Unclassified						
	Unclassified AIXM	LeaseZone		Extension			
		LeaseZone LeaseZone		Extension Extension			
Level	AIXM						
Level	AIXM FGDC	LeaseZone					

Data Capture Rules: Leasing	g inforr	nation is usually obtainable fro	om the airport.		
Monumentation	No m	onumentation required.			
Survey Doint Leastion		Horizontal	Vertical		
Survey Point Location		N/A	N	/A	
A aguna ay Daguinamanta (in		Horizontal	Ver	tical	
Accuracy Requirements (in		Horizolital	Orthometric	Ellipsoidal	
feet)		As provided.	N/A	N/A	
Resolution	(Geographic Coordinates	Distances an	d Elevations	
Resolution	Fiv	ve hundredths of arc second	Neare	st foot	
Feature Attributes					
Attribute (Datatype)		De	scription		
name (VARCHAR2 (50))		Name of the feature.			
description (VARCHAR2 (255	5))	A brief description of the feature.			
tenantName (String 75)		The current name of the tenant occupying the leased parcel.			
permitUse (String 20)		Permitted use of the leased p	arcel.		
leasedArea (Real)		Area accounted for in the lea	se for a parcel.		
actualArea (Real)		Actual measured area of the	leased parcel.		
expectedLeaseExpirationDate		The date the lease is expected	d to expire. Forma	t for date is	
(Date)		YYYYMMDD (i.e. Septemb	er 15, 1994 = 1994	40915).	
legalDescription (String 240)		The complete legal description of the property as it appears in			
		the deed.			
status (Enumeration: codeStatu	us)	The status of the parcel. (Active, inactive, terminated)			
userFlag (String 254)		An operator-defined work area. This attribute can be used by			
		the operator for user-defined system processes. It does not			
		affect the subject item's data	integrity and shoul	d not be used to	
	store the subject item's data.				
Alternative (Number(2))		Discriminator used to tie features of a plan or proposal together			
		into a version.			

5.6.8. MunicipalityDefinition: Boundary line of the land and water under the right, power, or authority of the municipal government.

government.								
Feature Group	Cadastral							
Feature Class Name	Municipality							
Feature Type	Polygon							
CADD Standard Requireme	nts							
Layer/Level		Descri	ption					
V-PROP-MUNI-	Municipal Bound	Municipal Boundary						
	Color	Linetype	Line Weight	Symbol				
AutoDesk Standards	1	Continuous	1 MM	User Defined				
MicroStation Standards	3	Continuous	7	User Defined				
Information Assurance Level	Restricted							
	AIXM	GovernmentalUn	ıit	Extension				
Equivalent Standards	FGDC	GovernmentalUn	nit	Extension				
	SDSFIE <i>political jurisdiction municipal line</i>							
Documentation and Submission Requirements	None							

Related Features					
Data Capture Rules: Municip	pality bo	undary limits are usually obt	ainable from count	y or local	
government offices.					
Monumentation	No mo	numentation required.			
Survey Point Location		Horizontal	Ver	tical	
Survey I onit Location		N/A	N/	'A	
A agungar Daguingmanta (in		Horizontal	Ver	tical	
Accuracy Requirements (in feet)		Horizoittai	Orthometric	Ellipsoidal	
leet)		As provided.	N/A	N/A	
Resolution	Geographic Coordinates		Distances and Elevations		
Resolution	Five hundredth of arc second		Nearest foot		
Feature Attributes					
Attribute (Datatype)		De	escription		
name (VARCHAR2 (50))		The common name associat	ed with the propert	y area.	
description (VARCHAR2 (255	5))	The description of the area.			
status (Enumeration: codeStatu	ıs)	A temporal description of th	e operational statu	s of the feature.	
		This attribute is used to desc	cribe real-time statu	15.	
userFlag (String 254)		An operator-defined work a	rea. This attribute	can be used by	
		the operator for user-defined	d system processes.	. It does not	
		affect the subject item's data integrity and should not be used			
		store the subject item's data.			
Alternative (Number(2))Discriminator use			atures of a plan or p	proposal together	
		into a version.			

5.6.9. Parcel

Definition: A single cadastral	unit which is the	spatial extent of the	nast present and	future rights and			
interests in real property and the							
Feature Group	Cadastral	ework to support th					
<u> </u>							
Feature Class Name		Parcel					
Feature Type	Polygon						
CADD Standard Requireme	nts						
Layer/Level		Descri	ption				
V-PROP-LINE-	Property lines (Ez	xisting recorded pla	uts)				
	Color	Linetype	Line Weight	Symbol			
AutoDesk Standards	4	Continuous	1 MM	Llasa Dofined			
MicroStation Standards	7	Continuous	7	User Defined			
Information Assurance	Restricted						
Level							
	AIXM	GeographicArea		Extension			
Equivalent Standards	FGDC	GeographicArea		Extension			
	SDSFIE parcel area						
Documentation and	No documentatio	n is required for thi	s feature				
Submission Requirements		ii is required for thi	s leature.				
Related Features							
Data Capture Rules: Parcel	boundary informat	tion is usually obtai	nable from the co	unty or local			
government.			-				
Monumentation	No monumentation	on required.					
Survey Doint Leastion	Horiz	zontal	Ver	tical			
Survey Point Location	N/A		N/A				

	H • 41	Ver	tical			
Accuracy Requirements (in	Horizontal	Orthometric	Ellipsoidal			
feet)	As provided.	N/A	N/A			
Develotion	Geographic Coordinates	Distances and Elevations				
Resolution	Five hundredths of arc second	Neare	Nearest foot			
Feature Attributes						
Attribute (Datatype)	De	scription				
area (Real)	The size of the area, zone, or	polygon in square	units.			
useOfParcel (String 16)	The current primary use of th					
name (VARCHAR2 (50))	The common name associate	d with the property	area.			
description (VARCHAR2 (255	(i)) The description of the area.					
status (Enumeration: codeStatu	(s) A temporal description of the	e operational status	of the feature.			
	This attribute is used to descr	ribe real-time statu	S.			
parcelNumber (String 12)	Any locally used number to i	dentify the parcel.				
legalDescription (String 240)	The complete legal description	on of the property a	as it appears in			
	the deed.					
dateAcquired (Date)	The date the parcel was acqu	ired by the current	owner. Format			
	for date is YYYYMMDD (i.e	e. September 15, 1	994 =			
	19940915).	•				
assessedValue (Real)	The most recent assessed val	ue of the parcel.				
deedReference (String 30)		Reference to where the deed to the parcel is recorded in such				
	information as Plat Book and	information as Plat Book and Page.				
userFlag (String 254)	An operator-defined work are	An operator-defined work area. This attribute can be used by				
	the operator for user-defined	the operator for user-defined system processes. It does not				
		affect the subject item's data integrity and should not be used to				
	*	store the subject item's data.				
Alternative (Number(2))	Discriminator used to tie feat	tures of a plan or p	roposal together			
	into a version.					
authority (String 75)	The owner of the parcel					
previousOwner (String 75)	Previous owner of the parcel					
acquisitionType (Enumeration:	The type of acquisition used	to acquire the parc	el			
CodeAcquisitionType)						
acquisitionPurpose (String 50)	Acquisition purpose					
costToAcquire (Real)	The amount paid to the owne					
grantProjectNumber (String 30	, e	al funds were use	d to acquire the			
	parcel					
howAcquired (enumeration:	The manner in which the parcel was acquired					
codeHowAcquired)						
marketValue (Real)	The assessed market value o	f the parcel in U.S	S. dollars when it			
	was acquired	*				
yearAssessed (Number 4)	The year in which the market					
yearBuilt (Number 4)	The year in which the most n	recent structure(s)	were built on the			
	parcel					

5.6.10. State

Definition: Boundary line of the land and water under the right, power, or authority of the state				
government.	government.			
Feature Group	cadastral Cadastral			
Feature Class Name	State			

Feature Type	Polygon				
CADD Standard Requirement	nts				
Layer/Level	Description				
V-PROP-STAT-	State Boundary	State Boundary			
	Color	Linetype	Line Weight	Symbol	
AutoDesk Standards	6	Continuous	1 MM	User Defined	
MicroStation Standards	5	Continuous	7	User Defined	
Information Assurance Level	Restricted				
	AIXM	GovernmentalUr	nit	Extension	
Equivalent Standards	FGDC	GovernmentalUr	<i>iit</i>	Extension	
	SDSFIE	political_jurisdic	ction_state_line		
Documentation and Submission Requirements	No documentation	n is required for thi	is feature.		
Related Features					
Data Capture Rules: The sta			n the state governi	ment.	
Monumentation	No monumentation	•	ſ		
Survey Point Location	Horiz			tical	
Survey I onte Elocation	N/A		N/A		
Accuracy Requirements (in	Horizontal		Vertical		
feet)			Orthometric	Ellipsoidal	
	As pro		N/A	N/A	
Resolution	Geographic		Distances and Elevations		
	Five hundredth	s of arc second	Nearest foot		
Feature Attributes					
Attribute (Datatype)			scription		
name (VARCHAR2 (50))			ed with the property area.		
description (VARCHAR2 (25		ption of the area.			
status (Enumeration: codeStatu		l description of the			
		ute is used to descr			
userFlag (String 254)		An operator-defined work area. This attribute can be used by			
		the operator for user-defined system processes. It does not			
		affect the subject item's data integrity and should not be used to			
		store the subject			
	item's data		C 1	11	
Alternative (Number(2))		Discriminator used to tie features of a plan or proposal together			
	into a vers	10n.			

5.6.11. Zoning

Definition: A parcel of land zoned specifically for real estate and land management purposes; more				
specifically for commercial, re	sidential, or industrial use.			
Feature Group	Cadastral			
Feature Class Name	Zoning			
Feature Type	Polygon			
CADD Standard Requirements				
Layer/Level	Description			
V-PROP-ZONG-	Zoning Areas			

		Color	Linetype	Line Weight	Symbol		
AutoDesk Standards		8 Continuous		1 MM	Llaan Dafin ad		
MicroStation Standards				7	User Defined		
Information Assurance Level	Restr	icted					
	AIXN	М	Zoning		Extension		
Equivalent Standards	FGD	С	Zoning		Extension		
	SDSF	TIE	zoning_area				
Documentation and Submission Requirements	No do	ocumentation	n is required for thi	s feature.			
Related Features							
Data Capture Rules: Zoning				inable from the lo	cal zoning office.		
Monumentation	No mo	numentation	A				
Survey Point Location		Horiz			tical		
		N/2	A	N			
Accuracy Requirements		Horizo	ntal		tical		
(in feet)		Horizontai		Orthometric	Ellipsoidal		
(III leet)		As prov		N/A	N/A		
Resolution			Coordinates	Distances and Elevations			
	Fi	ve hundredtl	n of a second	Nearest foot			
Feature Attributes		•					
Attribute (Datatype)				scription			
name (VARCHAR2 (50))		Name of the feature.					
description (VARCHAR2 (25	55))		description of the feature.				
status (Enumeration: codeStat	/		atus of the parcel. (Active, inactive, terminated)				
landOwnerRestriction (String	/		determining the land owner restriction for the parcel.				
zoningClassification (Enumer CodeZoningClass)			The zoning classification of the parcel.				
userFlag (String 254)				An operator-defined work area. This attribute can be used by			
······································	usering (sting 251)		the operator for user-defined system processes. It does not				
				affect the subject item's data integrity and should not be used to			
		store the subject item's data.					
Alternative (Number(2))		Discriminator used to tie features of a plan or proposal together					
Alternative (Number(2))							

5.7. Group: ENVIRONMENTAL

5.7.1. Environmental Contamination Area

5.7.1. Environmental Conta	innation Area					
Definition: A facility or other				rotection		
Agency) that is regulated or m			concerns.			
Feature Group	Environmental					
Feature Class Name	EnvironmentalContaminationArea					
Feature Type	Polygon					
CADD Standard Requiremen						
Layer/Level	Description					
H-POLL-CONC-	Polluted area	of concern				
H-POLL-POTN-	Potential spill	, emission, or release	e source			
	Color	Line type	Line Weight	Symbol		
AutoDesk Standards	2	Continuous	1 MM	User Defined		
MicroStation Standards	4	Continuous	7	User Defined		
Information Assurance Level	Restricted					
	AIXM	EnvironmentalC	ontaminationArea	Extension		
Equivalent Standards	FGDC	EnvironmentalC	ontaminationArea	Extension		
-	SDSFIE	environmental r	egulated facility sit	'e		
Documentation and	Nama					
Submission Requirements	None					
Related Features						
Data Capture Rules: Collect	a closed polyg	on to its greatest hor	rizontal extents.			
Monumentation	No monumen	tation required.				
Summer Deint Leastion	Ho	rizontal	Vert	ical		
Survey Point Location	N/A		N/A			
	Ца	rizontal -	Vertical			
Accuracy Requirements (in	ПО	rizontai	Orthometric	Ellipsoidal		
feet)	± 5 ft		± 20 ft	N/A		
	Geographic Coordinates		Distances and Elevations			
Resolution		dth of arc second	Nearest foot			
Feature Attributes						
Attribute (Datatype)		l	Description			
name (VARCHAR2 (50))	The na	The name of a specific facility.				
description (VARCHAR2 (255	5)) A desc	A description of the source of the pollution.				
environmentalHazardCategory	Indicat	es the broad categor	y or type of the mos	t prevalent or		
(String 16)	serious	s environmental haza	rd present at the site			
pollutantReleaseType (String	16) A desc	riptor for the type of	f pollutant release ex	perienced.		
severity (String 16)	A desc	A descriptor for the severity of the pollution.				
remediationUrgency (String 16				ng a site		
	remedi	remediation project.				
toxicStatusOfPollutant (String	16) A desc	riptor for the toxic s	tatus of the pollutior	l		
status (enumeration: codeStatu	/	The code indicating whether the facility status is Active or Inactive.				
dateFound (Date)	The da	The date the pollution was discovered. Format for date is				
cause (String 16)		YYYYMMDD (i.e. September 15, 1994 = 19940915)A code indicating the cause of the pollution.				
Cause (Sumg 10)	A code	mulcating the cause	or the pollution.			

pollutantSource (String 16)	The actual or suspected source of the pollutant.
userFlag (String 254)	An operator-defined work area. This attribute can be used by
	the operator for user-defined system processes. It does not
	affect the subject item's data integrity and should not be used to
	store the subject item's data.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together
	into a version.

5.7.2. Fauna Hazard Area

Definition: An area where there are hazards due to wildlife activities. This includes bird aircraft strike hazard (BASH) areas, and deer strike areas.

nazara (BASTI) areas, and deer	1					
Feature Group		Environmental				
Feature Class Name	Fauna	FaunaHazardArea				
Feature Type	Polyg	on				
CADD Standard Requiremen	ts					
Layer/Level			Descr	ription		
V-TOPO-SPEC-			Speci	es Site		
	(Color	Linetype	Line Weight	Symbol	
AutoDesk Standards		2	Continuous	1 MM	User Defined	
MicroStation Standards		4	Continuous	7	User Dermed	
Information Assurance Level	Restr	icted				
	AIXN	Л	AirspaceExtension	on	Extension	
Equivalent Standards	FGD	С	FaunaHazardAr	ea	Extension	
	SDSH	FIE	fauna_hazard_a	rea		
Documentation and Submission Requirements	None					
Related Features						
Data Capture Rules: Collect	a closed	l polygon te	o its greatest horiz	ontal extents.		
Monumentation			on required.			
		Horiz	zontal	Ver	Vertical	
Survey Point Location		N	/A	N/A		
				Vertical		
Accuracy Requirements (in		Horiz	zontal	Orthometric	Ellipsoidal	
feet)	± 5 ft		± 20 ft	N/A		
	G	eographic	Coordinates	Distances an	d Elevations	
Resolution			h of arc second	Neare	st foot	
Feature Attributes						
Attribute (Datatype)			De	escription		
name (VARCHAR2 (50))	Name of the feature.			I		
description (VARCHAR2 (255	CHAR2 (255))		A description or other unique information concerning the subject item, limited to 240 characters.			
status (Enumeration: codeStatu	s)	A tempor	A temporal description of the operational status of the feature. This attribute is used to describe real-time status.			
hazardType (Enumeration: CodeHazardType)		A descriptor of the type of the hazard.				

userFlag (String 254)	An operator-defined work area. This attribute can be used by the operator for user-defined system processes. It does not
	affect the subject item's data integrity and should not be used to store the subject item's data.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together into a version.

5.7.3. Flood Zone

Definition: Areas subject to 10			ng.		
Feature Group	Environmen	Environmental			
Feature Class Name	Floodzone				
Feature Type	Polygon				
CADD Standard Requiremen	ts				
Layer/Level		Desci	ription		
C-TOPO-FLZN-	Flood Zone				
	Color	Linetype	Line Weight	Symbol	
AutoDesk Standards	5	Continuous	1 MM	User Defined	
MicroStation Standards	1	Continuous	7	User Denned	
Information Assurance Level	Unclassified	1			
	AIXM	FloodZone		Extension	
Equivalent Standards	FGDC	FloodZone		Extension	
	SDSFIE	flood_zone_area	l		
Documentation and Submission Requirements	None				
Related Features					
Data Capture Rules: Collect	a closed polyg	gon to its greatest horiz	contal extents.		
Monumentation		entation required.			
		Horizontal	Ver	tical	
Survey Point Location		N/A	N	N/A	
	Т	T	Ver	tical	
Accuracy Requirements (in	1	Horizontal	Orthometric	Ellipsoidal	
feet)		± 5 ft		N/A	
	Geographic Coordinates		Distances and Elevations		
Resolution	Five hundredth of arc second		Nearest foot		
Feature Attributes					
Attribute (Datatype)		De	escription		
name (VARCHAR2 (50))	Name	of the feature.	•		
description (VARCHAR2 (255)) Descr	iption of the feature.			
status (Enumeration: codeStatu	s) A tem	poral description of the	e operational status	of the feature.	
		ttribute is used to desc			
zoneType (Enumeration:	The ze	The zoning classification of the area			
CodeZoneType)		-			
userFlag (String 254)	An op	An operator-defined work area. This attribute can be used by			
	affect	the operator for user-defined system processes. It does not affect the subject item's data integrity and should not be used to store the subject item's data.			
Alternative (Number(2))	Discri	Discriminator used to tie features of a plan or proposal together into a version.			
	into a	version.			

Definition: The specific location	- 1	• 1•	1 10 .		a · 1	
Definition: The specific location been identified	on whe	ere an indivi	idual flora species of	or an aggregate of	flora species has	
Feature Group	Fnvi	ronmental				
Feature Class Name		FloraSpeciesSite				
Feature Type	Poin					
CADD Standard Requiremen		ι				
Layer/Level			Descr	intion		
L-PLNT-CTNR-	Cont	tainers or pla				
L-PLNT-PLTS-			e.g., ornamental an	nuals and perennia	uls)	
		Color	Linetype	Line Weight	Symbol	
AutoDesk Standards		5		1 MM		
MicroStation Standards		1	Continuous	7	User Defined	
CADD Standard Requiremen	ts		1		1	
Layer/Level			Descr	iption		
L-PLNT-TREE-	Tree	s (e.g., ever	green, deciduous, e			
		Color	Linetype	Line Weight	Symbol	
AutoDesk Standards		4		1 MM	~	
MicroStation Standards		7	Continuous	7	User Defined	
Information Assurance		·	1		1	
Level	Uncl	assified				
	AIX	AIXM FloraSpeciesSite			Extension	
Equivalent Standards					Extension	
•	-	SDSFIE <i>flora species site</i>				
Documentation and	None	9				
Submission Requirements	TNUIN	6				
Related Features						
Data Capture Rules: Collect				ntion or the center	of a group.	
Monumentation	No n		ion required.	1		
Survey Point Location		Но	orizontal		ertical	
Survey I onit Elocation			N/A		N/A	
Accuracy Requirements (in		Н	orizontal		ertical	
feet)		110	JIIZOIItai	Orthometr		
			± 5 ft	± 20 ft	N/A	
Resolution			nic Coordinates		and Elevations	
		Five hundre	edth of arc second	Nea	arest foot	
Feature Attributes						
Attribute (Datatype)				scription		
name (VARCHAR2 (50))	Name of the feature.					
description (VARCHAR2 (255						
status (Enumeration: codeStatu						
nlantTyma (String ~ 1()	This attribute is used to describe real-time status.			8.		
plantType (String 16)			or of the type of flo			
plantHeight (Real)			ge height of the flor			
endangeredSpeciesActSite (Stri 1)	ing		the habitat has been the Endangered spe	•		
•)		under (C) the Endangered species Act or has not been so designated (N).				
		ausignator	* (+ ')*			

5.7.4. Flora Species Site

userFlag (String 254)	An operator-defined work area. This attribute can be used by the operator for user-defined system processes. It does not affect the subject item's data integrity and should not be used to store the subject item's data.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together
	into a version.

5.7.5. Forest Stand Area

Definition: A forest flora comm	nunity w	ith similar	characteristics.			
Feature Group	Enviro	nmental				
Feature Class Name	Forest	ForestStandArea				
Feature Type	Polygo	Polygon				
CADD Standard Requiremen	its					
Layer/Level			Descr	iption		
L-DETL-GRAS-	Grass,	sod				
L-PLNT-BEDS-	Plantin	g beds				
L-PLNT-BUSH-	Bushes	and shrub	os (e.g., evergreen,	deciduous)		
L-PLNT-BUSH-LINE	Bush a	nd shrub l	ine			
L-PLNT-GRND-		lcover and				
L-PLNT-MLCH-	Mulche	es - organi	c and inorganic			
L-PLNT-SPRG-	Sprigs					
L-PLNT-TREE-LINE	Tree lin	ne				
L-PLNT-TURF-	Lawn a	ireas (turfi	ng limits)			
V-SITE-VEGE-	Existin	g treelines	and vegetation			
	C	olor	Linetype	Line Weight	Symbol	
AutoDesk Standards		2	Continuous	1 MM	User Defined	
MicroStation Standards		4	Continuous	7	User Denned	
Information Assurance Level	Confid	ential				
	AIXM		ForestStandArea	!	Extension	
Equivalent Standards	FGDC ForestStandArea			!	Extension	
	SDSFI	E	flora_species_management_area			
Documentation and Submission Requirements	None					
Related Features						
Data Capture Rules: In captu	ring the	limits of th	he tree outlines cre	eate the graphical	line in a right	
hand direction so patterning of outline.						
Monumentation	No mo	numentati	on required.			
Summer Daint Landian		Horiz	contal	Ver	tical	
Survey Point Location		N	/A	N/A		
		Hania		Ver	rtical	
Accuracy Requirements (in		Horiz	zontal	Orthometric	Ellipsoidal	
feet)		± 5	5 ft	± 20 ft	N/A	
Desclution	Ge	Geographic Coordinates		Distances an	d Elevations	
Resolution	Five hundredth of arc second		Neare	st foot		
Feature Attributes						
Attribute (Datatype)			De	scription		
name (VARCHAR2 (50))	Name of the feature.					

description (VARCHAR2 (255))	A description of the flora species.
status (Enumeration: codeStatus)	A temporal description of the operational status of the feature.
	This attribute is used to describe real-time status.
habitatCategory (String 16)	Discriminator - The designation or type of the special wildlife
	habitat.
userFlag (String 254)	An operator-defined work area. This attribute can be used by
	the operator for user-defined system processes. It does not
	affect the subject item's data integrity and should not be used to
	store the subject item's data.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together
	into a version.

5.7.6. Hazardous Material Storage Site **Definition:** A defined or bounded geographical area designated and used for the storage of contained

Definition: A defined or bound	led geographical a	area designated and	used for the storage	ge of contained	
hazardous materials.					
Feature Group	Environmental	Environmental			
Feature Class Name	HazardousMate	rialStorageSite			
Feature Type	Point				
CADD Standard Requiremen	its				
Layer/Level		Descr	iption		
H-STOR-HAZM-	Hazardous mate	erials			
H-STOR-HAZW-	Hazardous wast	te			
	Color	Line type	Line Weight	Symbol	
AutoDesk Standards	5	Continuous	1 MM	User Defined	
MicroStation Standards	1	Continuous	7	User Defined	
Information Assurance Level	Unclassified				
	AIXM	HazardousMater	rialStorageSite	Extension	
Equivalent Standards	FGDC	HazardousMater	HazardousMaterialStorageSite Exter		
_	SDSFIE	Contained_hazw	aste_storage_site		
Documentation and	Nono				
Submission Requirements	None				
Related Features					
Data Capture Rules: Collect	closed polygon to	its greatest horizon	ital extents.		
Monumentation	No monumenta	tion required.			
Survey Point Location	Hor	izontal	Ver	tical	
Survey I onit Elocation	1	N/A	N/A		
Accuracy Requirements (in	Hor	izontal	Vertical		
feet)	1101		Orthometric	Ellipsoidal	
leet)		5 ft	± 20 ft	N/A	
Resolution		c Coordinates	ordinates Distances and Elev		
Resolution	Five hundred	th of arc second	Nearest foot		
Feature Attributes					
Attribute (Datatype)		De	scription		
name (VARCHAR2 (50))		the feature.			
description (VARCHAR2 (255)) A descrip	tion or other unique	information conc	erning the	
		em, limited to 240 c			
status (Enumeration: codeStatu		al description of the			
	This attri	oute is used to descr	ibe real-time statu	S.	

storeHazardousMaterialCategory	The general type or category of contained hazardous material
(Enumeration:	stored.
CodeHazardCategory)	
userFlag (String 254)	An operator-defined work area. This attribute can be used by
	the operator for user-defined system processes. It does not affect the subject item's data integrity and should not be used to
	store the subject item's data.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together
	into a version.

5.7.7. Noise Contour

Definition: An area that desc Day/Night average sound level CFR 150]			1		X
Feature Group	Envi	ronmental			
Feature Class Name	Nois	eContour			
Feature Type	Poly	gon			
CADD Standard Requiremen	ts				
Layer/Level			Descri	ption	
C-TOPO-AUZN-	Nois	e contour zon	ne		
		Color	Line type	Line Weight	Symbol
AutoDesk Standards		3	Continuous	1	User Defined
MicroStation Standards		2	Continuous	7	User Defined
Information Assurance Level	Con	fidential			
	AIX	М	NoiseContour		Extension
Equivalent Standards	FGI)C	NoiseContour		Extension
•	SDS	SDSFIE Noise contour l		ine	
Documentation and Submission Requirements	Noise contour map				
Related Features					
Data Capture Rules: Acquire	from	the Integrated	d Noise Model (IN	<i>M</i>).	
Monumentation		nonumentatio		,	
		Horiz	ontal	Vert	ical
Survey Point Location		N	'A	N/A	
				Vert	ical
Accuracy Requirements (in		Horiz	contal	Orthometric	Ellipsoidal
feet)		N	'A	N/A	N/A
Resolution		<u> </u>	Coordinates	Distances and Elevations	
		N	'A	N/	A
Feature Attributes		1			
Attribute (Datatype)				scription	
name (VARCHAR2 (50))		Name of th			
description (VARCHAR2 (255			on for the noise zo		
status (Enumeration: codeStatu	s)		description of the		
			te is used to descri		
contourValue (Real)		The decibel level of the contour line			

userFlag (String 254)	An operator-defined work area. This attribute can be used by the operator for user-defined system processes. It does not affect the subject item's data integrity and should not be used to
	store the subject item's data.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together
	into a version.

5.7.8. Noise Incident

5.7.8. Noise Incident							
Definition: A formal compla	int by an	individua	l or group regardi	ing excessive nois	se resulting from		
airport operations.							
Feature Group	Environ	mental					
Feature Class Name	NoiseInc	cident					
Feature Type	Point						
CADD Standard Requireme	nts						
Layer/Level		Description					
C-TOPO-AUCO-		Noise Complaint					
0 1010 11000	Co	lor	Linetype	Line Weight	Symbol		
AutoDesk Standards	5			1 MM			
MicroStation Standards	1	, 	Continuous	7	User Defined		
Information Assurance	1			1			
Level	Restricte	ed					
	AIXM		NoiseIncident		Extension		
Equivalent Standards	FGDC		NoiseIncident		Extension		
Equivalent Standarus	SDSFIE	1		aint	Extension		
Documentation and	SUSFIE	1	noise_incident_p	oini			
	None						
Submission Requirements							
Related Features	11	•	11 C 1 ·				
Data Capture Rules: Place of				et.			
Monumentation	No monumentation required.						
Survey Point Location		Horiz		Vertical			
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		N/	Α	N/A			
Accuracy Requirements (in		Horizontal		Vertical			
feet)				Orthometric	Ellipsoidal		
		± 50	0 ft	N/A	N/A		
Resolution	Geo	graphic	Coordinates	Distances an	d Elevations		
Resolution	Five l	hundredth	of arc second	Nearest foot			
Feature Attributes							
Attribute (Datatype)			De	scription			
name (VARCHAR2 (50))	N	lame of th	ne feature.				
description (VARCHAR2 (25:	5)) A	general	description of the c	complete incident,	including any		
		eference r			0,		
status (Enumeration: codeState	us) A	tempora	l description of the	operational status	s of the feature.		
× ·	Status) A temporal description of the operational status of the fea This attribute is used to describe real-time status.						
reporter (String 50)			of the individual or				
		ncident.			C		
userFlag (String 254)			or-defined work are	ea. This attribute of	can be used by		
					•		
		the operator for user-defined system processes. It does not affect the subject item's data integrity and should not be used to					
			ubject item's data.	integrity and should			
	5		"Sjeet nem 5 aaa.				

Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together
	into a version.

# 5.7.9. Noise Monitoring Point

5.7.9. Noise Monitoring Foin	l				
Definition: The location of noi	se sensing equ	ipment or where a noi	se sample is taken.		
Feature Group	Environment	tal			
Feature Class Name	NoiseMonitoringPoint				
Feature Type	Point	-			
CADD Standard Requiremen	ts				
Layer/Level	Description				
C-TOPO-AUST-	Noise Monit	Noise Monitoring Station			
	Color	Linetype	Line Weight	Symbol	
AutoDesk Standards	4	Doint	1 MM	Llaan Dafin ad	
MicroStation Standards	7	Point	7	User Defined	
Information Assurance Level	Restricted	·			
	AIXM	NoiseMonitoring	gPoint	Extension	
Equivalent Standards	FGDC	NoiseMonitoring	gPoint	Extension	
	SDSFIE	noise_monitorin	g_point		
Documentation and Submission Requirements	No documentation is required for this feature.				
Related Features					
Data Capture Rules: Collect	point at the ce	nter of monitoring stat	tion.		
Monumentation	No monumentation required.				
	E	Iorizontal	Vertical		
Survey Point Location		N/A	N/A		
	т	I	Vertical		
Accuracy Requirements (in	E	Iorizontal	Orthometric	Ellipsoidal	
feet)		± 5 ft	± 20 ft	N/A	
Dava la fara	Geogra	ohic Coordinates	Distances an	d Elevations	
Resolution		redth of arc second		st foot	
Feature Attributes	•		•		
Attribute (Datatype)		De	escription		
name (VARCHAR2 (50))	Name	of the feature.	•		
description (VARCHAR2 (255	)) Descri	ption of the feature.			
status (Enumeration: codeStatu		poral description of the	e operational status	s of the feature.	
		ttribute is used to desc			
userFlag (String 254)	An op	erator-defined work ar	ea. This attribute of	can be used by	
		erator for user-defined			
	affect the subject item's data integrity and should not be u			ld not be used to	
	store t	he subject item's data.			
	Discriminator used to tie features of a plan or proposal togo				
Alternative (Number(2))			tures of a plan or p	roposal together	
Alternative (Number(2))		minator used to tie fea version.	tures of a plan or p	roposal together	

# 5.7.10. Sample Collection Point

<b>Definition:</b> The physical location at which one or more environmental hazards field samples are		
collected.		
Feature Group     Environmental		
Feature Class Name	SampleCollectionPoint	

Feature Type	Point					
CADD Standard Requiremen	its					
Layer/Level			Descr	iption		
H-SAMP-AIRS-	Air samples					
C-TOPO-BORE-	Boring locations					
H-SAMP-BIOL-	Biological samples					
H-SAMP-GWTR-	Ground wate					
H-SAMP-SEDI-	Sediment sar					
H-SAMP-SOIL-	Soil samples		а.			
H-SAMP-SOLI-	Solid materia		nples			
H-SAMP-SWTR-	Surface wate		•			
H-SAMP-WAST-	Waste sampl					
V-TOPO-BORE-	Boring locat					
	Color		Linetype	Line Weight	Symbol	
AutoDesk Standards	6			1 MM	ľ ľ	
MicroStation Standards	5		Continuous	7	User Defined	
Information Assurance Level	Confidential				I	
	AIXM		SampleCollection	nPoint	Extension	
Equivalent Standards	FGDC		SampleCollection		Extension	
-4	SDSFIE			lection location		
Documentation and						
Submission Requirements	None					
Related Features						
Data Capture Rules: Collect	point at center	of s	ample location.			
Monumentation	No monumer					
			ontal	Ver	tical	
Survey Point Location		N/		N/A		
				Vertical		
Accuracy Requirements (in	H	loriz	ontal	Orthometric	Ellipsoidal	
feet)		±1 ft		± 1 ft	N/A	
	Geogram		Coordinates	Distances and Elevation		
Resolution			of arc second		st foot	
Feature Attributes						
Attribute (Datatype)			De	scription		
name (VARCHAR2 (50))	Name	of th	e feature.			
description (VARCHAR2 (255				itional information	n to describe the	
r ( )				nat (e.g., monitorii		
	10 feet northeast of building 624 within spill area). IRPIMS. [Source: SDSFIE Feature Table]			,		
status (Enumeration: codeStatu	_			operational status	of the feature.	
	/	This attribute is used to describe real-time status.				
collectionPointLocation		de describing the type of location which is undergoing				
(Enumeration:			e.g., bh= borehole,			
CodeSamplePointLocation)				·		
userFlag (String 254)	An ope	erato	r-defined work are	ea. This attribute c	can be used by	
	the operator for user-defined system processes. It does not					
				integrity and shoul	ld not be used to	
1	store t	ha cu	bject item's data.			

Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together
	into a version.

# 5.7.11. Shoreline

5.7.11. Shoreline						
Definition: The boundary when	re land	meets the e	dge of a large body	of fresh or salt wa	ater.	
Feature Group	Envi	Environmental				
Feature Class Name	Shore	eline				
Feature Type	Polyg	gon				
CADD Standard Requiremen	nts					
Layer/Level		Description				
C-DRED-OHWM-	Ordi	nary high wa	ater marks			
C-TOPO-SHOR-	Shor	elines, land	features, and refere	ences		
H-MNST-GWTR-	Grou	und water				
H-MNST-SWTR-	Surf	ace water				
S-GRDL-WATR-	Wate	er surface				
V-SITE-EWAT-	Wate	er features				
V-SITE-WATR-	Wate	er features				
V-TOPO-SHOR-	Shor	elines, land	features, and refere	ences		
		Color	Linetype	Line Weight	Symbol	
AutoDesk Standards		1	Continuous	1 MM	User Defined	
MicroStation Standards		3	Continuous	7	User Defined	
Information Assurance Level	Rest	Restricted				
	AIX	AIXM GeoBorderExtension Extension				
Equivalent Standards	FGI	FGDC Shoreline Extension		Extension		
	SDS	FIE	shoreline			
Documentation and	Non	2				
Submission Requirements	INOID	None				
<b>Related Features</b>						
Data Capture Rules: Collect						
land/water interface. Close the body.	polyge	on at arbitra	ry points ensuring	sufficient coverag	e of the water	
Monumentation	No r	nonumentati	on required.			
			zontal	Ver	tical	
Survey Point Location		N	/A	N		
					tical	
Accuracy Requirements (in		Horiz	zontal	Orthometric	Ellipsoidal	
feet)		± :	5 ft	± 5 ft	N/A	
			Coordinates		d Elevations	
Resolution			h of arc second		st foot	
Feature Attributes						
Attribute (Datatype)     Description						
name (VARCHAR2 (50))		A commonly used name for the shoreline.				
		A commonly used name for the shorenne.				

Annoul (Dalatype)	Description
name (VARCHAR2 (50))	A commonly used name for the shoreline.
description (VARCHAR2 (255))	A local description for the shoreline.
status (Enumeration: codeStatus)	A temporal description of the operational status of the feature.
	This attribute is used to describe real-time status.
shorelineType (Enumeration:	Discriminator - A value indicating the type or kind of shoreline.
CodeShorelineType)	

userFlag (String 254)	An operator-defined work area. This attribute can be used by the operator for user-defined system processes. It does not affect the subject item's data integrity and should not be used to			
	5			
	store the subject item's data.			
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together			
	into a version.			

# 5.7.12. Wetland

**Definition:** Transitional lands between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. The soils are predominantly saturated with water and the plants and animals that live there are specialized for this ecosystem.

Feature Group	Environmental					
Feature Class Name	Wetland					
Feature Type	Polygon					
CADD Standard Requiremen						
Layer/Level	1	Descr	iption			
V-TOPO-WETL	Wetland	Wetland				
	Color	Linetype	Line Weight	Symbol		
AutoDesk Standards	2	Continuous	1 MM	User Defined		
MicroStation Standards	4	Continuous	7	User Defined		
Information Assurance Level	Restricted					
	AIXM	AirspaceExtensio	on	Extension		
Equivalent Standards	FGDC	Wetland		Extension		
1	SDSFIE	Wetland area		I		
Documentation and	None					
Submission Requirements	TUNE					
<b>Related Features</b> <b>Data Capture Rules:</b> <i>Collect</i>						
uplands (or non-wetlands). The several states have their own w environmental agency for assist Monumentation	etland delineatio tance.	n procedures. Conto				
Wonumentation	No monumentation required.					
Survey Point Location	Horizontal Vertical					
~~~ · · · · · · · · · · · · · · · · · ·						
		rizontal N/A	N	/A		
Accuracy Requirements (in			N/ Ver	/A tical		
	Hor	N/A	N	/A		
Accuracy Requirements (in feet)	Hor	N/A rizontal	N/ Ver Orthometric ± 10 ft	/A tical Ellipsoidal		
Accuracy Requirements (in	Hor Hor Geographi	N/A ·izontal ± 5 ft	N/ Ver Orthometric ± 10 ft Distances and	/A tical Ellipsoidal N/A		
Accuracy Requirements (in feet)	Hor Hor Geographi	N/A rizontal = 5 ft ic Coordinates Ith of arc second	N Ver Orthometric ± 10 ft Distances an Neare	/A tical Ellipsoidal N/A d Elevations		
Accuracy Requirements (in feet) Resolution Feature Attributes Attribute (Datatype)	Hor <u>Hor</u> <u>Geographi</u> Five hundred	N/A Tizontal = 5 ft ic Coordinates dth of arc second De	N Ver Orthometric ± 10 ft Distances an Neare scription	/A tical Ellipsoidal N/A d Elevations		
Accuracy Requirements (in feet) Resolution Feature Attributes Attribute (Datatype) name (VARCHAR2 (50))	Hor <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u>	N/A rizontal = 5 ft ic Coordinates Ith of arc second De monly used name for	N/ Ver Orthometric ± 10 ft Distances an Neare scription or the wetland.	/A tical Ellipsoidal N/A d Elevations		
Accuracy Requirements (in feet) Resolution Feature Attributes Attribute (Datatype) name (VARCHAR2 (50)) description (VARCHAR2 (255	Hor <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u> <u>Hor</u>	N/A rizontal = 5 ft ic Coordinates Ith of arc second De monly used name for ption of the wetland.	N, Ver Orthometric ± 10 ft Distances an Neare scription or the wetland.	/A tical Ellipsoidal N/A d Elevations st foot		
Accuracy Requirements (in feet) Resolution Feature Attributes Attribute (Datatype) name (VARCHAR2 (50))	Hor Hor Geographi Five hundred Any com)) A descrip s) A tempor	N/A rizontal = 5 ft ic Coordinates Ith of arc second De monly used name for	N Ver Orthometric ± 10 ft Distances an Neare scription or the wetland.	/A tical Ellipsoidal N/A d Elevations st foot of the feature.		

userFlag (String 254)	An operator-defined work area. This attribute can be used by the operator for user-defined system processes. It does not affect the subject item's data integrity and should not be used to store the subject item's data.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together into a version.

5.8. Group: GEOSPATIAL

5.8.1. Airport Control Point – Runway Intersection Point

5.8.1. Airport Control Point -					•
Definition: Use this feature for			1 0 0		.
such as the Primary and Second					
Airport Elevation, centerline pe	rpendi	cular points	for NAVAIDs, Sto	pway Ends, Profi	le Points, and
the Touchdown Zone Elevation	(TDZ	E).			
Feature Group	Geos	spatial			
Feature Class Name		ortControlPo	oint		
Feature Type	Poin				
CADD Standard Requiremen		-			
Layer/Level			Descri	ption	
C-TOPO-RNYE-	Runy	wav centerli	ne elevation point		
		Color	Linetype	Line Weight	Symbol
AutoDesk Standards		6		1	
MicroStation Standards		5	Continuous	7	User Defined
Information Assurance				,	
Level	Rest	ricted			
	AIX	М	SurveyControlPo	intExtension	Extension
Equivalent Standards	FGD		AirportControlPo		Extension
Equivalent Standards	SDS		Control point	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Documentation and	505		Control_point		
Submission Requirements	None	e			
Related Features					
Data Capture Rules: Collect th	hanoi	nt whoma the	acentarlings of two	04 44 0 40 44 44 40 40	intensect
Monumentation			ion required.	or more, runways	s intersect.
Monumentation	INO II		izontal	Var	4.001
Survey Point Location			V/A	Vertical N/A	
		ľ	N/A		
Accuracy Requirements (in		Hori	zontal	Vertical	
feet)				Orthometric	Ellipsoidal
)			3 ft	± 0.25 ft	± 0.20 ft
Resolution			c Coordinates		nd Elevations
		Hundredth	of arc second	Nearest	one foot
Feature Attributes					
Attribute (Datatype)				scription	_
permanentId (String 6)			point identifier ass purce: NGS]	igned by NGS to	PACS and
pointType (Enumeration:		Contains t	he allowable values	of a point type us	sed by the
CodePointType)		ControlPo	int feature. The point	nt types may be su	ipplementally
			s subtypes of Conti		
	clarification.				
name (VARCHAR2(50))			nonly used name fo	r the control point	•
runwayDesignator (String 7)			able to this point ty		
runwayEndDesignator (String	3)		able to this point ty		
monumentType (Enumeration:					of Engineers
CodeMonumentType)	n: The type of monument as defined by the Corps of Engineers EM 110-1-1002.				
description (VARCHAR2 (255	5))		ment description.		
	11				

status (Enumeration: codeStatus)	A temporal description of the operational status of the feature. This attribute is used to describe real-time status.
ellipsoidHeight (Real)	
empsolutieight (Real)	The height above the reference ellipsoid, measured along the ellipsoidal outer normal through the point in question. Also
	called the geodetic height. [Source: NGS]
waarOfSurgery (Number 4)	
yearOfSurvey (Number 4)	The year of the most recent runway end survey used to compute the ARP
dateRecovered (Date)	The date the monument was last field recovered. Format for
	date is YYYYMMDD (i.e. September 15, 1994 = 19940915).
recoveredCondition	The condition and type of the marker (witness post) used to
(Enumeration:	identify the location of the monument.
CodeRecoveredCondition)	
fieldBook (String 254)	The field book.
globalPositionSystemSuitable	A Boolean indicating GPS suitability.
(Boolean)	
coordinateZone (Enumeration:	The State Plane Coordinate System Code for where the airport
CodeCoordinateZone)	is primarily located.
stampedDesignation (String 50)	The designation stamped onto the monument.
epoch (String 10)	Survey epoch used to establish the control point.
userFlag (String 254)	An operator-defined work area. This attribute can be used by
	the operator for user-defined system processes. It does not
	affect the subject item's data integrity and should not be used to
	store the subject item's data.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together
	into a version.

5.8.2. Airport Control Point – Airport Elevation

Definition: Use this feature for points on the airfield possessing significant geographic importance, such as the Primary and Secondary Airport Control Stations (PACS/SACS), Runway Intersections, Airport Elevation, centerline perpendicular points for NAVAIDs, Stopway Ends, Profile Points, and the Touchdown Zone Elevation (TDZE).

the rouendown Bone Bievanos	i (1222):					
Feature Group	Geospatial	Geospatial				
Feature Class Name	AirportControl	AirportControlPoint				
Feature Type	Point					
CADD Standard Requirement	nts					
Layer/Level		Descr	iption			
C-TOPO-RNYE-	Runway center	line elevation point				
	Color	Linetype	Line Weight	Symbol		
AutoDesk Standards	6	Continuous	1	User Defined		
MicroStation Standards	5	Continuous	7	User Defined		
Information Assurance	Postricted	Restricted				
Level	Restricted					
	AIXM	AirportControlF	Point			
Equivalent Standards	FGDC	FGDC SurveyControlPointExtension (Extension)				
	SDSFIE	Control_point				
Documentation and	None					
Submission Requirements	None					
Related Features						
Data Capture Rules: Calcula	te the Airport Ele	evation using the run	way profile data.	The Airport		
Elevation is the highest point a	long all usable ri	ınways.				

Monumentation	Fille	ed in by survey group only	-			
Survey Point Location	Horizontal			tical		
Survey Fonne Elocation		N/A	N			
Accuracy Requirements (in		Horizontal		tical		
feet)			Orthometric	Ellipsoidal		
,		$\pm 1 \text{ ft}$	± 0.25 ft	± 0.20 ft		
Resolution		Geographic Coordinates	Distances and Elevations			
Feature Attributes		Hundredth of arc second Nearest one for				
Attribute (Datatype)		De	scription			
permanentId (String 6)		Permanent point identifier as		PACS and		
permunentia (Burng 0)		SACS [Source: NGS]				
pointType (Enumeration:		Contains the allowable values	s of a point type us	ed by the		
CodePointType)		ControlPoint feature. The poi				
		provided as subtypes of Cont				
		clarification.				
name (VARCHAR2 (50))		Any commonly used name for	or the control point			
runwayDesignator (String 7)		Specify Runway Designator				
runwayEndDesignator (String		Not applicable to this point ty	A	27		
monumentType (Enumeration:	•	The type of monument as def	ined by the Corps	of Engineers		
CodeMonumentType)		EM 110-1-1002.				
description (VARCHAR2 (255 status (Enumeration: codeStatu		The monument description. A temporal description of the	operational status	of the feature		
status (Enumeration: codestati	15)	This attribute is used to descr				
ellipsoidHeight (Real)		The height above the reference				
		ellipsoidal outer normal through the point in question. Also				
			called the geodetic height. [Source: NGS]			
yearOfSurvey (Number 4)		The year of the most recent r		used to compute		
		the ARP				
dateRecovered (Date)		The date the monument was l				
		date is YYYYMMDD (i.e. So				
recoveredCondition		The condition and type of the		oost) used to		
(Enumeration: CodeRecoveredCondition)		identify the location of the me	onument.			
fieldBook (String 254)		The field book.				
globalPositionSystemSuitable		A Boolean indicating GPS su	itability			
(Boolean)		A boolean indicating of 5 su	ituointy.			
coordinateZone (Enumeration:		The State Plane Coordinate S	ystem Code for wl	here the airport		
CodeCoordinateZone)		is primarily located.				
stampedDesignation (String 50))	The designation stamped onto				
epoch (String 10)		Survey epoch used to establish				
userFlag (String 254)		An operator-defined work are				
		the operator for user-defined system processes. It does not				
		affect the subject item's data	integrity and shoul	a not be used to		
Alternative (Number(2))		store the subject item's data.	uras of a plan ar	ropogal to gother		
Alternative (Number(2)) Discriminator used to tie features of a plan or proposal toge into a version.			oposar together			

5.8.5. Airport Control Point -				
Definition: Use this feature for				
such as the Primary and Seco	ndary Airport	Control Stations (PA	CS/SACS), Runw	ay Intersections,
Airport Elevation, centerline p		oints for NAVAIDs,	Stopway Ends, Pr	ofile Points, and
the Touchdown Zone Elevation	(TDZE).			
Feature Group	Geospatial			
Feature Class Name	AirportContr	olPoint		
Feature Type	3D Point			
CADD Standard Requiremen	ts			
Layer/Level		Descr	iption	
C-TOPO-RNYE-	Runway cent	terline elevation point	•	
	Color	Linetype	Line Weight	Symbol
AutoDesk Standards	6		1	
MicroStation Standards	5	Continuous	7	User Defined
Information Assurance			,	
Level	Restricted			
	AIXM			
Equivalent Standards	FGDC			
	SDSFIE	Control_point		
Documentation and	None			
Submission Requirements	None			
Related Features				
Data Capture Rules: Collec	cted point alo	ng runway centerline	e perpendicular to	the location of
required NAVAIDs. ILS, MLS,	PAR, TLS, and	d VGSI NAVAIDs syste	ems require this m	easurement refer
to the appropriate feature class	description fo	r the NAVAID.	-	
Monumentation	Filled in by s	survey group only		
Summer Daint Leastion	H	Iorizontal	Ver	rtical
Survey Point Location		N/A	N	[/A
	Т	T 1	Ver	rtical
Accuracy Requirements (in	E	Iorizontal	Orthometric	Ellipsoidal
feet)		±1 ft	± 0.25ft	± 0.25 ft
	Geograi	phic Coordinates	Distances ar	nd Elevations
Resolution		dth of arc second		th of a foot
Feature Attributes		01 010 0000110		
Attribute (Datatype)		De	scription	
permanentId (String 6)	Permai	nent point identifier as		PACS and
permanentia (buing 0)		[Source: NGS]	signed by reas to	i rieb ullu
pointType (Enumeration:		ns the allowable value	s of a point type us	sed by the
CodePointType)		Point feature. The po		
eoder onder ype)		ed as subtypes of Cont		
	clarific			of use and
name (VARCHAR2 (50))		ommonly used name for	or the control point	
runwayDesignator (String 7)	2	plicable to this point t		•
runwayEndDesignator (String		plicable to this point t		
monumentType (Enumeration:		pe of monument as de		of Engineers
CodeMonumentType)		0-1-1002.	incu by the Corps	or Engliteers
description (VARCHAR2 (255				
status (Enumeration: codeStatu				
status (Enumeration. couestatt		tribute is used to descri		
			THE REAL FULLE STATES	

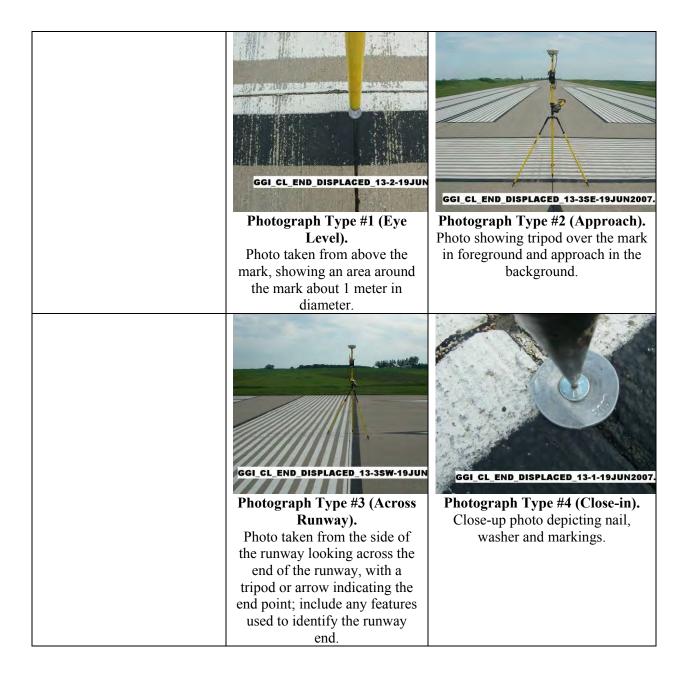
5.8.3. Airport Control Point – Centerline Perpendicular Points

ellipsoidHeight (Real)	The height above the reference ellipsoid, measured along the ellipsoidal outer normal through the point in question. Also called the geodetic height. [Source: NGS]
yearOfSurvey (Number 4)	The year of the most recent runway end survey used to compute the ARP
dateRecovered (Date)	The date the monument was last field recovered. Format for date is YYYYMMDD (i.e. September 15, 1994 = 19940915).
recoveredCondition	The condition and type of the marker (witness post) used to
(Enumeration:	identify the location of the monument.
CodeRecoveredCondition)	
fieldBook (String 254)	The field book.
globalPositionSystemSuitable	A Boolean indicating GPS suitability.
(Boolean)	
coordinateZone (Enumeration:	The State Plane Coordinate System Code for where the airport
CodeCoordinateZone)	is primarily located.
stampedDesignation (String 50)	The designation stamped onto the monument.
epoch (String 10)	Survey epoch used to establish the control point.
userFlag (String 254)	An operator-defined work area. This attribute can be used by
	the operator for user-defined system processes. It does not
	affect the subject item's data integrity and should not be used to
	store the subject item's data.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together
	into a version.

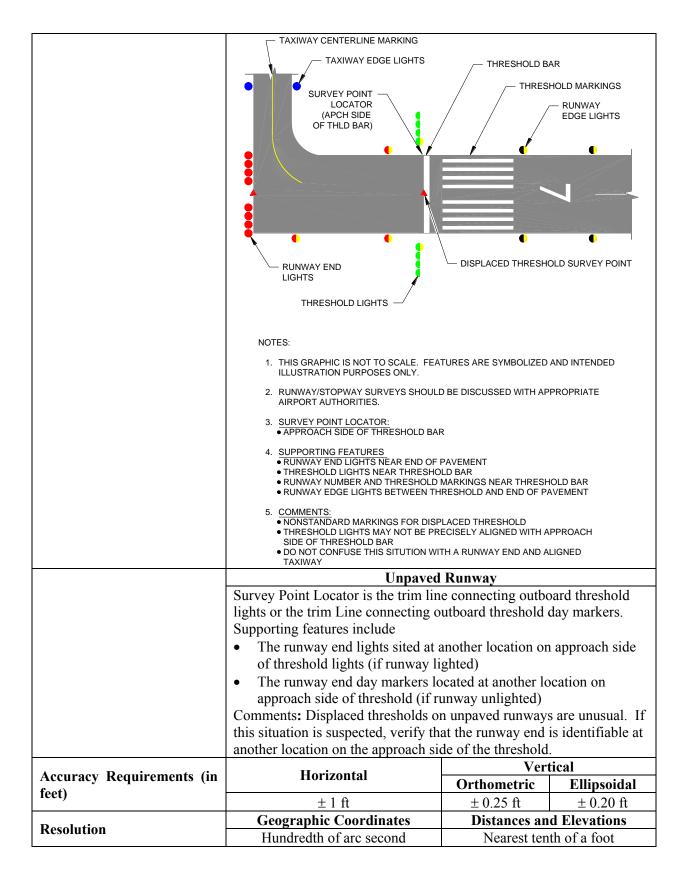
5.8.4. Airport Control Point – Displaced Threshold Point

Definition: Use this feature for points on the airfield possessing significant geographic importance, such as the Displaced Threshold, Primary and Secondary Airport Control Stations (PACS/SACS), Runway Intersections, Airport Elevation, centerline perpendicular points for NAVAIDs, Stopway Ends, Profile Points, and the Touchdown Zone Elevation (TDZE).

Lifus, i forme i offics, and the re	Juendo wii Zone El					
Feature Group	Geospatial	Geospatial				
Feature Class Name	AirportControlP	oint				
Feature Type	Point					
CADD Standard Requiremen	its					
Layer/Level		Descri	iption			
C-RUNW-DISP-	Runway centerli	Runway centerline elevation point				
	Color	Linetype	Line Weight	Symbol		
AutoDesk Standards	6	Continuous	1	User Defined		
MicroStation Standards	5	Continuous	7	User Defined		
Information Assurance Level	Restricted					
	AIXM					
Equivalent Standards	FGDC					
-	SDSFIE Control point					
Documentation and	In addition to the requirements of paragraphs <u>1.5.2</u> and <u>1.5.3</u> ,					
Submission Requirements	document the set	lected location usin	g four digital phot	ographs.		



Related Features	
Data Capture Rule: Estat	blish the displaced threshold on the runway centerline a specified distance threa between the runway end and the displaced threshold should be marked
Monumentation	When the ends of the runway surface have been determined, mark the positions using a nail and washer with the setting company's name and year inscribed, chisel square, or paint if possible with a distinctive inscription to ensure future identification.
Survey Point Location	 Paved Runway Survey Point Locator is the approach side of threshold bar or trim line connecting outboard threshold lights. Supporting features include: Threshold lights near threshold Runway end lights sited at another location on approach side of threshold lights White or amber runway edge lights, not blue taxiway lights, between threshold and end of runway Runway number near threshold White displaced threshold markings on approach side of threshold bar Runway side stripe on Precision Instrument Runways Comments: Use caution, especially on smaller, poorly marked airports, not to confuse a displaced threshold with the end of a runway with an aligned taxiway.



Feature Attributes	
Attribute (Datatype)	Description
permanentId (String 6)	Permanent point identifier assigned by NGS to PACS and SACS [Source: NGS]
pointType (Enumeration:	Contains the allowable values of a point type used by the
CodePointType)	ControlPoint feature. The point types may be supplementally provided as subtypes of ControlPoints for ease of use and clarification.
runwayDesignator (String 7)	Not applicable to this point type
runwayEndDesignator (String 3)	Specify RunwayEnd Designator
name (VARCHAR2 (50))	Any commonly used name for the control point.
monumentType (Enumeration: CodeMonumentType)	The type of monument as defined by the Corps of Engineers EM 110-1-1002.
description (VARCHAR2 (255))	The monument description.
status (Enumeration: codeStatus)	A temporal description of the operational status of the feature. This attribute is used to describe real-time status.
ellipsoidHeight (Real)	The height above the reference ellipsoid, measured along the ellipsoidal outer normal through the point in question. Also called the geodetic height. [Source: NGS]
yearOfSurvey (Number 4)	The year of the most recent runway end survey used to compute the ARP
dateRecovered (Date)	The date the monument was last field recovered. Format for date is YYYYMMDD (i.e. September 15, 1994 = 19940915).
recoveredCondition	The condition and type of the marker (witness post) used to
(Enumeration:	identify the location of the monument.
CodeRecoveredCondition)	
fieldBook (String 254)	The field book.
globalPositionSystemSuitable (Boolean)	A Boolean indicating GPS suitability.
coordinateZone (Enumeration:	The State Plane Coordinate System Code for where the airport
CodeCoordinateZone)	is primarily located.
stampedDesignation (String 50)	The designation stamped onto the monument.
epoch (String 10)	Survey epoch used to establish the control point.
userFlag (String 254)	An operator-defined work area. This attribute can be used by
	the operator for user-defined system processes. It does not affect the subject item's data integrity and should not be used to store the subject item's data.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together into a version.

5.8.5. Airport Control Point – Stopway Ends

Definition: Use this feature for points on the airfield possessing significant geographic importance,
such as the Primary and Secondary Airport Control Stations (PACS/SACS), Runway Intersections,
Airport Elevation, centerline perpendicular points for NAVAIDs, Stopway Ends, Profile Points, and
the Touchdown Zone Elevation (TDZE).Feature GroupGeospatialFeature Class NameAirportControlPointFeature TypePoint

CADD Standard Requiremen	ts			
Layer/Level	Description			
C-TOPO-RNYE-	Runway centerline elevation point			
	Color	Linetype	Line Weight	Symbol
AutoDesk Standards	6	Continuous	1	User Defined
MicroStation Standards	5	Continuous	7	User Defined
Information Assurance Level	Restricted			
	AIXM			
Equivalent Standards	FGDC			
1	SDSFIE	Control point		
Documentation and Submission Requirements	None	<u> </u>		
Related Features				
Data Capture Rules: Collect	point at physical	end of stopway alon	ng extended center	line of runway.
	the standard ma	rking a stopway or	r blast nad	

Monumentation	The selected survey point must be marked and documented for verification by NGS and inclusion in the Airports GIS database. When the ends of the runway surface have been determined, mark the positions using a nail and washer, chisel square, or paint if possible with a distinctive inscription to ensure future identification. Mark the survey point with a nail and washer inscribed with the setting company's name and year.					
			Horizontal		l l	Vertical
	Cone Stop		Survey Point Loca the trim line. Sup chevrons. The stop the runway center at least as wide as	tor is the porting way en line exte	e limit of c Features in d survey p ended. Stop	construction or iclude stopway oint must be on oways must be
Survey Point Location	Pave	ed/Non- erete	Survey Point Loca the trim line at firs Features are the st end survey point r extended. Stopway runway but may b	st good j opway o nust be ys must	pavement. chevrons. T on the runy be at least	Supporting The stopway way centerline
	Unpa	aved	Survey Point Loca runway/stopway s survey points mus extended.	tor is th urface e	e trim line nd. The sto	opway end
Accuracy Requirements (in		Horizontal		Vertical		ical
feet)					ometric	Ellipsoidal
			1 ft		0.25 ft	± 0.20 ft
Resolution			c Coordinates Distances and Elevations			
Fasture Attailutes		Hundredth	of arc second	N	learest tent	h of a foot
Feature Attributes Attribute (Datatype)			Dos	rintion	1	
permanentId (String 6)		Description Permanent point identifier assigned by NGS to PACS and				
permanentia (Buring 0)			[Source: NGS]			
pointType (Enumeration:			ne allowable values	of a poi	nt type use	d by the
CodePointType)		ControlPoint feature. The point types may be supplementally				
		provided as subtypes of ControlPoints for ease of use and				
nome (VADCUAD2 (50))		clarification.				
name (VARCHAR2 (50)) runwayDesignator (String 7)		Any commonly used name for the control point. Not applicable to this point type				
runwayEndDesignator (String	3)	Specify RunwayEnd Designator				
monumentType (Enumeration:		The type of monument as defined by the Corps of Engineers				
CodeMonumentType)		EM 110-1-1002.				
description (VARCHAR2 (255))		The monument description.				
status (Enumeration: codeStatus)		A temporal description of the operational status of the feature. This attribute is used to describe real-time status.				
ellipsoidHeight (Real) The heig ellipsoid		The height ellipsoidal	The height above the reference ellipsoid, measured along the ellipsoidal outer normal through the point in question. Also called the geodetic height. [Source: NGS]			
			f the most recent run			sed to compute

dateRecovered (Date)	The date the monument was last field recovered. Format for date is YYYYMMDD (i.e. September 15, 1994 = 19940915).
recoveredCondition	The condition and type of the marker (witness post) used to
(Enumeration:	identify the location of the monument.
CodeRecoveredCondition)	
fieldBook (String 254)	The field book.
globalPositionSystemSuitable	A Boolean indicating GPS suitability.
(Boolean)	
coordinateZone (Enumeration:	The State Plane Coordinate System Code for where the airport
CodeCoordinateZone)	is primarily located.
stampedDesignation (String 50)	The designation stamped onto the monument.
epoch (String 10)	Survey epoch used to establish the control point.
userFlag (String 254)	An operator-defined work area. This attribute can be used by
	the operator for user-defined system processes. It does not
	affect the subject item's data integrity and should not be used to
	store the subject item's data.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together
	into a version.

5.8.6. Airport Control Point – Profile Points

Definition: Use this feature for		ield possessing sign	ificant geographic	c importance
such as the Primary and Second				
Airport Elevation, centerline pe				
the Touchdown Zone Elevation	· ·		P	
Feature Group	Geospatial			
Feature Class Name	AirportControlP	oint		
Feature Type	Point			
CADD Standard Requiremen	ts			
Layer/Level		Descri	ption	
C-TOPO-RNYE-	Runway centerli	ne elevation point		
	Color	Linetype	Line Weight	Symbol
AutoDesk Standards	6	Continuous	1	User Defined
MicroStation Standards	5	Continuous	7	User Defined
Information Assurance Level	Restricted			
	AIXM			
Equivalent Standards	FGDC			
	SDSFIE Control point			
Documentation and Submission Requirements	None			
Related Features				
Data Capture Rules: Collect				
Reduction of data must resolve		oints at 10 foot inte	rvals at certificate	ed airports and
no more than 50 feet at all airp				
Monumentation	None.		-	
Survey Point Location	Hor	rizontal	Vei	rtical
Survey I Unit Location	N/A N/A			J/A

		Vei	rtical	
Accuracy Requirements (in	Horizontal	Orthometric	Ellipsoidal	
feet)	± 1 ft	± 0.25 ft	± 0.20 ft	
Resolution	Geographic Coordinates		nd Elevations	
Resolution	Hundredth of arc second	Nearest ter	nth of a foot	
Feature Attributes				
Attribute (Datatype)		ription		
permanentId (String 6)	Permanent point identifier assignment SACS [Source: NGS]	gned by NGS to I	PACS and	
pointType (Enumeration: CodePointType)	Contains the allowable values of ControlPoint feature. The point provided as subtypes of Contro clarification.	t types may be su	pplementally	
name (VARCHAR2 (50))	Any commonly used name for	the control point		
runwayDesignator (String 7)	Specify Runway Designator			
runwayEndDesignator (String 3	B) Not applicable to this point typ	e		
monumentType (Enumeration:	The type of monument as define	ed by the Corps	of Engineers	
CodeMonumentType)	EM 110-1-1002.			
description (VARCHAR2 (255				
status (Enumeration: codeStatu		A temporal description of the operational status of the feature. This attribute is used to describe real-time status.		
ellipsoidHeight (Real)	The height above the reference ellipsoidal outer normal throug called the geodetic height. [So	h the point in que	•	
yearOfSurvey (Number 4)	The year of the most recent run the ARP		used to compute	
dateRecovered (Date)	The date the monument was las date is YYYYMMDD (i.e. Sep			
recoveredCondition	The condition and type of the r	narker (witness p	ost) used to	
(Enumeration:	identify the location of the mor	nument.		
CodeRecoveredCondition)				
fieldBook (String 254)	The field book.			
globalPositionSystemSuitable (Boolean)	A Boolean indicating GPS suit	ability.		
coordinateZone (Enumeration:	The State Plane Coordinate Sys	stem Code for wh	nere the airport	
CodeCoordinateZone)	is primarily located.		•	
stampedDesignation (String 50) The designation stamped onto	The designation stamped onto the monument.		
epoch (String 10)	Survey epoch used to establish			
userFlag (String 254)	An operator-defined work area		•	
	the operator for user-defined sy affect the subject item's data in store the subject item's data.			
Alternative (Number(2))	Discriminator used to tie featur into a version.	res of a plan or pr	oposal together	

5.8.7. Airport Control Point – Touchdown Zone Elevation (TDZE)

Definition: Use this feature for points on the airfield possessing significant geographic importance, such as the Primary and Secondary Airport Control Stations (PACS/SACS), Runway Intersections, Airport Elevation, centerline perpendicular points for NAVAIDs, Stopway Ends, Profile Points, and the Touchdown Zone Elevation (TDZE).

Feature Group	Geos	spatial				
Feature Class Name		ortControlPoi	int			
Feature Type		3D Point				
CADD Standard Requiremen						
Layer/Level			Descri	iption		
C-TOPO-RNYE-	Run	way centerline	e elevation point	•		
		Color	Linetype	Line Weight	Symbol	
AutoDesk Standards		6	Continuous	1	User Defined	
MicroStation Standards		5	Continuous	7	User Denned	
Information Assurance Level	Rest	ricted				
	AIX	Μ				
Equivalent Standards	FGI	DC				
-	SDS	FIE	Control point			
Documentation and	Non					
Submission Requirements	INON	5				
Related Features						
Data Capture Rules: The TD					e within the first	
3000 feet from the threshold an			e centerline profil	e data.		
Monumentation	Non					
Survey Point Location		Horizo		Vert		
		N/2	4	N/.		
Accuracy Requirements (in		Horizontal		Vert		
feet)	Horizontai		Orthometric	Ellipsoidal		
		± 1 ft		± 0.25 ft	± 0.20 ft	
Resolution		Geographic (Distances and		
		Hundredth of	arc second	Nearest tent	enth of a foot	
Feature Attributes		I				
Attribute (Datatype)				scription		
permanentId (String 6)				signed by NGS to I	PACS and	
		SACS [Sou		<u> </u>	11 /1	
pointType (Enumeration:				s of a point type us		
CodePointType)				nt types may be su		
		clarification		rolPoints for ease c	or use and	
runwayDesignator (String 7)		Not applicable to this point type				
runwayEndDesignator (String	3)	Specify Runway End Designator				
name (VARCHAR2 (50))	5)			r the control point.		
monumentType (Enumeration:		~		ined by the Corps		
CodeMonumentType)		EM 110-1-1		nee by the corps (JI Diigineers	
description (VARCHAR2 (255						
status (Enumeration: codeStatu				operational status	of the feature	
	This attribute is used to describe real-time status.					
ellipsoidHeight (Real)		The height above the reference ellipsoid, measured along the				
r		ellipsoidal outer normal through the point in question. Also				
		<u>^</u>	eodetic height. [S			
yearOfSurvey (Number 4)				ised to compute		
		The year of			abea to compate	

dateRecovered (Date)	The date the monument was last field recovered. Format for date is YYYYMMDD (i.e. September 15, 1994 = 19940915).
recoveredCondition	The condition and type of the marker (witness post) used to
(Enumeration:	identify the location of the monument.
CodeRecoveredCondition)	
fieldBook (String 254)	The field book.
globalPositionSystemSuitable	A Boolean indicating GPS suitability.
(Boolean)	
coordinateZone (Enumeration:	The State Plane Coordinate System Code for where the airport
CodeCoordinateZone)	is primarily located.
stampedDesignation (String 50)	The designation stamped onto the monument.
epoch (String 10)	Survey epoch used to establish the control point.
userFlag (String 254)	An operator-defined work area. This attribute can be used by
	the operator for user-defined system processes. It does not
	affect the subject item's data integrity and should not be used to
	store the subject item's data.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together
	into a version.

5.8.8. Airport Control Point – Primary and Secondary Airport Control Stations (PACS/SACS)

Definition: Use this feature for points on the airfield possessing significant geographic importance, such as the Primary and Secondary Airport Control Stations (PACS/SACS), Runway Intersections, Airport Elevation, centerline perpendicular points for NAVAIDs, Stopway Ends, Profile Points, and the Touchdown Zone Elevation (TDZE).

(IDZE).				
Geospatial				
AirportControlPo	AirportControlPoint			
Point				
ts				
	Descri	ption		
Survey data (ben	chmarks and horizo	ontal control points	or monuments)	
Color	Linetype	Line Weight	Symbol	
6	Continuous	1	User Defined	
5	Continuous	7	User Defined	
Restricted				
Restricted				
AIXM				
FGDC				
SDSFIE Control_point				
None				
AC 150/5300-16 f	for guidance on the	airport control ma	rks.	
None.				
Horizontal Vertical			ical	
N	N/A		A	
Hor	zontol	Vert	ical	
nori	ZUIITAI	Orthometric	Ellipsoidal	
Refer to AC 150/5300-16 for accuracy requirements.			ements.	
	Geospatial AirportControlPo Point ts Survey data (ben Color 6 5 Restricted AIXM FGDC SDSFIE None AC 150/5300-16 f None. Hori None	Geospatial AirportControlPoint Point ts Survey data (benchmarks and horizot Color Linetype 6 Continuous 5 Continuous Restricted AIXM FGDC SDSFIE SDSFIE Control_point None AC 150/5300-16 for guidance on the None. Horizontal N/A Horizontal	Geospatial AirportControlPoint Point ts Color Line Weight 6 Continuous 1 5 Continuous 7 Restricted Control_point 7 Restricted Control_point 7 None Control_point 7 AC 150/5300-16 for guidance on the airport control ma None Horizontal Vert N/A N/A Horizontal Vert Orthometric Orthometric	

	G	eographic Coordinates	Distances and Elevations	
Resolution		Thousanth of arc second	Nearest hundredth of a foot	
Feature Attributes				
Attribute (Datatype)		Dese	cription	
permanentId (String 6)		Permanent point identifier assi SACS [Source: NGS]	igned by NGS to PACS and	
pointType (Enumeration: CodePointType)		Contains the allowable values ControlPoint feature. The poin provided as subtypes of Contro clarification.	t types may be supplementally	
name (VARCHAR2 (50))		Any commonly used name for	the control point.	
runwayDesignator (String 7)		Not applicable to this point typ		
runwayEndDesignator (String		Not applicable to this point typ		
monumentType (Enumeration: CodeMonumentType)		The type of monument as defined EM 110-1-1002.		
description (VARCHAR2 (255		The monument description.		
status (Enumeration: codeStatu		A temporal description of the of This attribute is used to describ	operational status of the feature. be real-time status.	
ellipsoidHeight (Real)		The height above the reference ellipsoidal outer normal throug called the geodetic height. [So	gh the point in question. Also	
yearOfSurvey (Number 4)			nway end survey used to compute	
dateRecovered (Date)		The date the monument was la date is YYYYMMDD (i.e. Sep	st field recovered. Format for ptember 15, $1994 = 19940915$).	
recoveredCondition (Enumeration: CodeRecoveredCondition)		The condition and type of the ridentify the location of the mo		
fieldBook (String 254)		The field book.		
globalPositionSystemSuitable (Boolean)		A Boolean indicating GPS suit	tability.	
coordinateZone (Enumeration:		The State Plane Coordinate Sy	stem Code for where the airport	
CodeCoordinateZone)		is primarily located.	<u>^</u>	
stampedDesignation (String 50)	The designation stamped onto the monument.		
epoch (String 10)		Survey epoch used to establish the control point.		
userFlag (String 254)		An operator-defined work area the operator for user-defined s	a. This attribute can be used by	
Alternative (Number(2))		Discriminator used to tie featu into a version.	res of a plan or proposal together	

5.8.9. Coordinate Grid Area

Definition: A regular pattern of horizontal and vertical lines used to represent regular coordinate intervals along the x and y axis. This grid line can be used to generate an arbitrary grid system which is common on locator maps.

common on locator maps.	
Feature Group	Geospatial
Feature Class Name	CoordinateGridArea
Feature Type	Line

CADD Standard Requir	remen	ts					
Layer/Level	Description			Layer/Level			escription
C-DETL-GRPH-	Graphics, gridlines, non-text items			S-GRID-MSC3-		Miscellaneous grid lines (Type 3)	
C-GRID-FRAM-		e (bounding area referen grid)		S-GRID-MSC4-		Miscellaneous grid lines (Type 4)	
C-GRID-MAJR-		or grid lines		S-GRID-VERT-		Primary grid lines (vertical)	
C-GRID-MINR-	Minc	or grid lines		V-GRID-FRAM-		Frame	
S-GRID-HORZ-		ary grid line zontal)	es	V-GRID-MAJR-		Major grid lines	
S-GRID-MSC-		ellaneous g (Type 1)	rid	V-GRID-MINR-		Minor grid lines	
S-GRID-MSC2-	Misc	ellaneous g (Type 2)	rid				
		Color		Linetype	Line V	Veight	Symbol
AutoDesk Standards		2		Continuous		ИM	User Defined
MicroStation Standards	5	4		Continuous	,	7	User Denned
Information Assurance Level		Restricted					
Equivalent Standards		AIXM CoordinateGridArea					Extension
		FGDC CoordinateGridAre					
		SDSFIE Coordinate_grid_area					
Documentation and		No docum	entation	n is required for thi	s feature		
Submission Requiremen	nts	itto docum	Cintation	i is required for the	5 iouture.		
Related Features	/ 4						
Data Capture Rules: N/	'A	N		• 1			
Monumentation		No monumentation		1		Vortical	
Survey Point Location		Horizontal			Vertical		
			N/A			N/A Vertical	
Accuracy Requirements (in feet)			Horizontal		tal Ortho		Ellipsoidal
			N/.	Δ	N		N/A
Resolution		Geographic C					d Elevations
		N/A			N/A		
Feature Attributes			, -			2.0	
Attribute (Dataty	pe)			Des	cription		
name (VARCHAR2 (50))			The name, code or identifier used to refer to an individual grid cell.				
description (VARCHAR2 (255))			Description of the feature.				
status (Enumeration: codeStatus)			A temporal description of the operational status of the feature. This attribute is used to describe real-time status.				
userFlag (String 254)			An operator-defined work area. This attribute can be used by the operator for user-defined system processes. It does not affect the subject item's data integrity and should not be used to store the subject item's data.				
gridType (Enumeration: CodeGridType)			Code indicating the type of grid.				

Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together
	into a version.

5.8.10. Elevation Contour

Definition: Connecting points on the surface of the earth of equal vertical elevation representing some fixed elevation interval.

Feature Group	Geospatial					
Feature Class Name	ElevationContour					
Feature Type	Line					
CADD Standard Requiremen	ts					
Layer/Level	Description					
C-TOPO-MAJR-	Majo	Major contours				
C-TOPO-MINR-	Mine	Minor contours				
V-TOPO-MAJR-	Major contours					
V-TOPO-MAJR-IDEN	Major contours					
V-TOPO-MINR-	Mine	or contours				
V-TOPO-MINR-IDEN	Mine	or contours				
C-TOPO-MINR-ONEF	Mine	or contours				
C-TOPO-MINR-TWOF	Mine	or contours				
		Color	Linetype	Line Weight	Symbol	
AutoDesk Standards		2		1 MM	User Defined	
MicroStation Standards		4	N/A	7	User Defined	
Information Assurance Level	Rest	ricted				
Equivalent Standards	AIXM ElevationContor		r Extension			
	FGDCElevationContour			Entension		
	SDSFIE elevation contour line					
Documentation and		No decumentation is required for this feature				
Submission Requirements	No documentation is required for this feature.					
Related Features						
Data Capture Rules: N/A						
Monumentation	No r	nonumentatio	on required.			
			rtical			
Survey Point Location		N	/A	N/A		
	Horizontal		Vertical			
Accuracy Requirements (in		Horiz	contal	Orthometric	Ellipsoidal	
feet)	One-half contour interval		One-half contour interval	N/A		
	Geographic Coordinates		Distances and Elevations			
Resolution		Hundredth of arc second		Five tenths of foot		
Feature Attributes	I				-	
Attribute (Datatype)			De	scription		
name (VARCHAR2 (50))		Name of th	the feature.			
description (VARCHAR2 (255))					
status (Enumeration: codeStatus)		A temporal description of the operational status of the feature.				
(This attribute is used to describe real-time status.				
length (Real) The overall length of the feature.						
		•	Y			

userFlag (String 254)	An operator-defined work area. This attribute can be used by the operator for user-defined system processes. It does not affect the subject item's data integrity and should not be used to store the subject item's data.
contourValue	The elevation of the contour line.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together
	into a version.

5.8.11. Image Area

Definition: The image footprint or coverage area.							
Feature Group	Geospatial						
Feature Class Name	ImageArea						
Feature Type	Polygon						
CADD Standard Requirement	its						
Layer/Level	Description						
V-AERI-BNDY-	Aerial photograph boundaries						
		Color	Linetype	Line Weight	Symbol		
AutoDesk Standards		1	Continuous	1 MM	User Defined		
MicroStation Standards		3	Continuous	7	User Defined		
Information Assurance Level	Conf	Confidential					
	AIX	Μ	ImageArea	Extension			
Equivalent Standards	FGD	D C	ImageArea				
_	SDS	SFIE Image area					
Documentation and Submission Requirements	No documentation is required for this feature.						
Related Features							
Data Capture Rules: Boundary of aerial imagery.							
Monumentation	No monumentation required.						
Same Data 4 La satisar	Horizontal			Vertical			
Survey Point Location	N/A			N/A			
	H • 4 I		Vertical				
Accuracy Requirements (in	Horizontal			Orthometric	Ellipsoidal		
feet)	Accuracy of the imagery			N/A	N/A		
	Geographic Coordinates			Distances and Elevations			
Resolution	N/A			N/A			
Feature Attributes							
			Des	scription			
name (VARCHAR2 (50))	Name of the feature.						
description (VARCHAR2 (255))		A description or other unique information concerning the subject item, limited to 255 characters.					
status (Enumeration: codeStatus)		A temporal description of the operational status of the feature.					
status (Enumeration: codestatus)		This attribute is used to describe real-time status.					
frameId (String 20)		Image identification number of the covered area.					
photoDate (Date)	Date the aerial photography was flown. Format for date is						
photoDate (Date)	YYYYMMDD (i.e. September 15, 1994 = 19940915)						
1111100(1.6. September 15, 1994 - 19940915)							

userFlag (String 254)	An operator-defined work area. This attribute can be used by the operator for user-defined system processes. It does not affect the subject item's data integrity and should not be used to store the subject item's data.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together into a version.

5.9. Group: MAN MADE STRUCTURES

5.9.1. Building

Definition: A three-dimensional structure (i.e. hangars, terminals, etc.) modeled with a bounding polygon. **Feature Group** Manmade Structures **Feature Class Name** Building **Feature Type** Polygon **CADD Standard Requirements** Layer/Level Description A-ELEV-OTLN-Building outlines C-BLDG-OTLN-Buildings and other structures Floor outline/perimeter/building footprint G-PLAN-OTLN-H-BLDG-OTLN-Command posts, information centers M-ELEV-OTLN-Building outlines V-BLDG-OTLN-Buildings and other structures Color Linetype Line Weight **Symbol AutoDesk Standards** 2 1 MM Continuous User Defined **MicroStation Standards** 4 7 **Information Assurance** Restricted Level AIXM Building Extension FGDC Extension **Equivalent Standards** Building **SDSFIE** structure existing site **Documentation and** None **Submission Requirements Related Features**

Data Capture Rules: Determine the terminal building complex, hangars, maintenance facilities, and other prominent buildings directly associated with aircraft operations and directly connected to the apron as individual polygon objects. Collect by field survey methods recently constructed and/or completed buildings not visible on imagery and meeting the above criteria. Extract the building outline feature as the footprint of the building at ground level. Determine the height at the highest point of the corresponding building. The AGL height of the polygon is determined as the difference between the base elevation and top elevation on the roof.

NOTE: If the building penetrates an OIS or is selected as a representative object, additionally identify, classify and document the building as an <u>ObstructionArea</u> and associated accuracy.

BUILDING BUILDING APRON TAXIWAY GUIDANCE						
		es the collection of airport	APRON buildings.			
Monumentation	No mo	onumentation required.	1			
Survey Point Location		Horizontal		ertical		
		N/A		N/A		
Accuracy Requirements		Horizontal	Vertical			
(in feet)		Horizontai	Orthometric	Ellipsoidal		
(m reet)		± 3 ft	± 5 ft	N/A		
Deschatter	Ge	ographic Coordinates	Distances a	and Elevations		
Resolution		indredth of arc second	Nea	rest foot		
Feature Attributes						
Attribute (Datatype)			Description			
name (VARCHAR2 (50))		Name of the feature.				
description (VARCHAR2 (25	(5))	A description or other unit	ique information c	oncerning the		
	-))	subject item, limited to 25				
buildingNumber (String 16)		The code indicating the n		ling.		
structureType		The type of structure.		<i></i>		
(Enumeration: CodeStructure	Type)					
status (Enumeration: codeStat		This value differentiates s	structure entities b	y operational status.		
numberOfCurrentOccupants	,	Number of persons currer				
(Integer)						
areaInside (Real) Total inside area of structure						
structureHeight (Real) Maximum height of structure; i.e. AGL height						
areaFloor (Real) Total inside floor area						
lightingType A description of the lighting system.						
(Enumeration:						
codeLightingConfigurationTy	vpe)					
markingfeatureType	1 - 7	The color of the marking	(s)			
(Enumeration:						
codeMarkingFeatureType)						
· · · · · · · · · · · · · · · · · · ·		1				

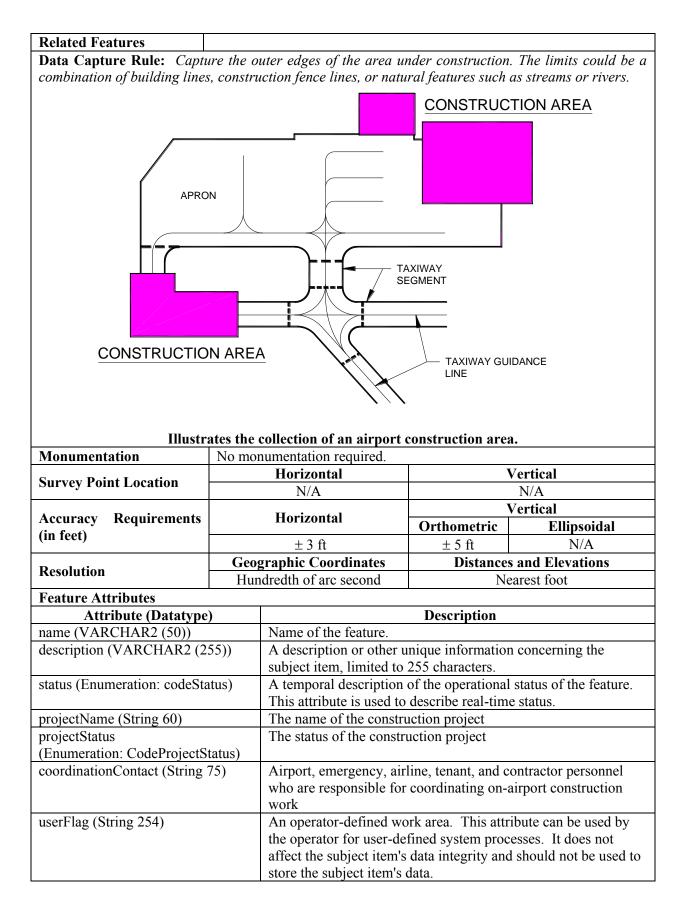
color (Enumeration: codeColor)	The type of the marking(s)
userFlag (String 254)	An operator-defined work area. This attribute can be used by the operator for user-defined system processes. It does not affect the subject item's data integrity and should not be used to store the subject item's data.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together into a version.

5.9.2. Construction Area

Definition: A defined area that is under construction, not intended for active use until authorized by the concerned authority. The area defines a boundary for personnel, material, and equipment engaged in the construction activity.

Feature Group	Manmade Structur	es	
Feature Class Name	ConstructionArea		
Feature Type	Polygon		
CADD Standard Requ		-	
Layer/Level	Description	Layer/Level	Description
A-STAT-DEMO-	Demolition	L-STAT-FUTR-	Future work
A-STAT-DEMO- PHS1	Demolition - phase 1	L-STAT-NEWW-	New work
A-STAT-DEMO- PHS2	Demolition - phase 2	L-STAT-TEMP-	Temporary work
A-STAT-DEMO- PHS3	Demolition - phase 3	M-STAT-DEMO-	Demolition
A-STAT-FUTR-	Future work	M-STAT-DEMO- PHS1	Demolition - phase 1
A-STAT-NEWW-	New work	M-STAT-DEMO- PHS2	Demolition - phase 2
A-STAT-TEMP-	Temporary work	M-STAT-DEMO- PHS3	Demolition - phase 3
C-PROP-CONS-	Construction limits/controls, staging area	M-STAT-FUTR-	Future work
C-STAT-DEMO-	Demolition	M-STAT-NEWW-	New work
C-STAT-DEMO- PHS1	Demolition - phase 1	M-STAT-TEMP-	Temporary work
C-STAT-DEMO- PHS2	Demolition - phase 2	P-FUEL-NGAS-	Natural gas piping
C-STAT-DEMO- PHS3	Demolition - phase 3	P-STAT-DEMO-	Demolition
C-STAT-FUTR-	Future work	P-STAT-DEMO- PHS1	Demolition - phase 1
C-STAT-NEWW-	New work	P-STAT-DEMO- PHS2	Demolition - phase 2
C-STAT-TEMP-	Temporary work	P-STAT-DEMO- PHS3	Demolition - phase 3
E-STAT-DEMO- PHS1	Demolition - phase 1	P-STAT-FUTR-	Future work

E-STAT-DEMO- PHS2	Der	nolition - phase 2		P-STAT-NEWW-		New	work	
E-STAT-DEMO- PHS3	Der	nolition - phase 3		P-STAT-TEMP-		Temp	orary	work
F-STAT-DEMO-	con den in N	Demolition (NOTE: omprehensive emolition is handled n Model File Type: Demolition Plan)		S-STAT-DEMO-		Demo	olition	L
F-STAT-DEMO- PHS1	Der	nolition - phase 1		S-STAT-DEMO- PHS1		Demo	olition	- phase 1
F-STAT-DEMO- PHS2	Der	nolition - phase 2		S-STAT-DEMO- PHS2		Demo	olition	- phase 2
F-STAT-DEMO- PHS3	Der	nolition - phase 3		S-STAT-DEMO- PHS3		Demo	olition	- phase 3
F-STAT-FUTR-	Fut	ure work		S-STAT-FUTR-		Futur	e wor	k
F-STAT-NEWW-	Nev	v work		S-STAT-NEWW-		New	work	
F-STAT-TEMP-	Ten	nporary work		S-STAT-TEMP-		Temp	orary	work
G-SITE-OTLN-		plan - key map		T-STAT-DEMO- PHS1		•		- phase 1
H-STAT-DEMO- PHS1	Der	Demolition - phase 1		T-STAT-DEMO- PHS2		Demolition - phase 2		- phase 2
H-STAT-DEMO- PHS2	Der	Demolition - phase 2		T-STAT-DEMO- PHS3		Demolition - phase 3		- phase 3
H-STAT-DEMO- PHS3	Demolition - phase 3			V-STAT-DEMO-		Demolition (NOTE: comprehensive demolition is handled in Model File Type: Demolition Plan)		sive demolition in Model File
L-STAT-DEMO-	-STAT-DEMO- Demolition (NOTE: comprehensive demolition is handled in Model File Type: Demolition Plan)			V-STAT-FUTR-		Futur		
L-STAT-DEMO- PHS1		nolition - phase 1		V-STAT-NEWW-		New work		
L-STAT-DEMO- PHS2	Der	nolition - phase 2		V-STAT-TEMP-		Temp	orary	work
L-STAT-DEMO- PHS3	Der	nolition - phase 3						
		Color		Linetype	Lir	1e Wei	ight	Symbol
AutoDesk Standards		161		Continuous		1 MM	[User Defined
MicroStation Standards		4		Continuous		7		User Defined
Information Assurance Level	e	Restricted						
		AIXM	C	onstructionArea			Exten	sion
Equivalent Standards		FGDC		onstructionArea			Exten	
	Ē	SDSFIE		ructure existing site	2			
Documentation and Submission Requirements		None						



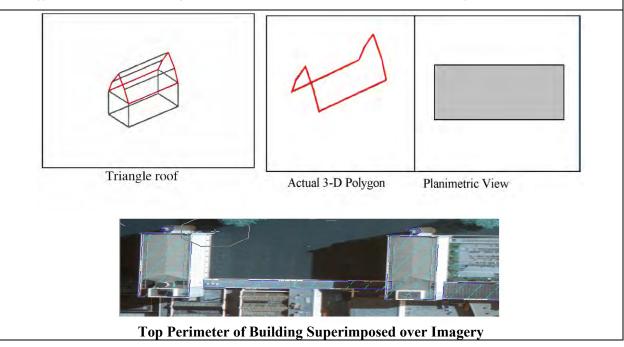
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together
	into a version.

5.9.3. Roof

Definition: Structure on top of buildings, garages and other similar structures.					
Manmade Structu	ires				
Roof					
Polygon					
nts					
	Descri	ption			
Roof outline					
Color	Linetype	Line Weight	Symbol		
5	Continuous	1 MM	User Defined		
1	Continuous	7	User Denned		
Restricted					
AIXM	None				
FGDC	None				
SDSFIE	None				
None					
INUITE					
	Manmade Structu Roof Polygon nts Roof outline <u>Color</u> 5 1 Restricted AIXM FGDC	Manmade Structures Roof Polygon nts Descri Roof outline Color Linetype 5 Continuous 1 Continuous Restricted None FGDC None SDSFIE None	Manmade Structures Roof Polygon nts Description Roof outline Line Weight 5 Continuous 1 MM 1 Continuous 7 Restricted None FGDC None SDSFIE None None		

Data Capture Rules: Collect the roof outline to represent the outer edge of the roof as well as the break line or ridge lines of a sloped or multiple level roof. On flat roofs with elevator shafts or large HVAC units on the roof collect these items at the top of the units and shown as a roof within a roof feature.

NOTE: If the roof penetrates an OIS or is selected as a representative object, additionally identify, classify and document the roof as an <u>ObstructionArea</u> and associated accuracy.



Monumentation	No monumentation required.					
Survey Deint Leastion	Horizontal	Ver	Vertical			
Survey Point Location	N/A	N	/A			
A a anna an Da aninan anta (in	Horizontal	Ver	tical			
Accuracy Requirements (in	Horizontai	Orthometric	Ellipsoidal			
feet)	± 3 ft	± 5 ft	N/A			
Resolution	Geographic Coordinates	Distances an	d Elevations			
Resolution	Hundredth of arc second	Neare	st foot			
Feature Attributes						
Attribute (Datatype)		Description				
name (VARCHAR2 (50))	Name of the feature.					
description (VARCHAR2 (255))) Description of the feature.	ne feature.				
status (Enumeration: codeStatus	s) A temporal description of t	A temporal description of the operational status of the feature.				
	This attribute is used to dea	scribe real-time statu	S.			
buildingNumber (String 16)	The code indicating the nu	mber of the building				
userFlag (String 254)	An operator-defined work	area. This attribute c	an be used by			
	the operator for user-defined system processes. It does not					
	affect the subject item's data integrity and should not be used to					
		store the subject item's data.				
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal toget					
	into a version.	- •	-			

5.9.4. Fence

Definition: Any fencing (chain	link, razor wire	, PVC, etc.) [Source	FAA]		
Feature Group	Manmade Structures				
Feature Class Name	Fence				
Feature Type	Line				
CADD Standard Requirement	its				
Layer/Level		Descr	ription		
C-DETL-FENC-	Fencing				
C-SITE-FENC-	Fences and har	ndrails			
L-DETL-FENC-	Fencing				
L-SITE-FENC-	Fencing				
S-SAFE-FENC-	Fencing				
V-SITE-FENC-	Fences and har	ndrails			
C-SECU-FENC-	Security fencing	ng			
	Color	Line type	Line Weight	Symbol	
AutoDesk Standards	5	Continuous	1 MM	User Defined	
MicroStation Standards	1	Continuous	7	User Denned	
Information Assurance Level	Restricted				
	AIXM	Fence		Extension	
Equivalent Standards	FGDCFenceExtension				
	SDSFIE	fence_line			
Documentation and Submission Requirements	No documentation is required.				
Related Features					

Data Capture Rules: Collect line along fence line.

NOTE: If the fence penetrates an OIS or is selected as a representative object, additionally identify, classify and document the fence as an <u>Obstacle</u> and associated accuracy.

Monumentation	No monumentation required.				
Survey Daint Leastion	Horizontal	Ver	rtical		
Survey Point Location	N/A	N	[/A		
A a a una aru Da guinam an 4g (in	Horizontal	Ver	rtical		
Accuracy Requirements (in	Horizontai	Orthometric	Ellipsoidal		
feet)	± 3 ft	± 5 ft	N/A		
Resolution	Geographic Coordinates	Distances ar	nd Elevations		
	Hundredth of arc second	Neare	est foot		
Feature Attributes					
Attribute (Datatype)	De	scription			
name (VARCHAR2 (50))	Name of the feature.				
description (VARCHAR2 (255))		A description or other unique information concerning the subject item, limited to 255 characters.			
status (Enumeration: codeStatus		A temporal description of the operational status of the feature. This attribute is used to describe real-time status.			
type (String 16)	Indicate the fencing material	used.			
height (Real)	The overall distance from the the fence.	The overall distance from the surface of the ground to the top of			
userFlag (String 254)	An operator-defined work area. This attribute can be used by the operator for user-defined system processes. It does not affect the subject item's data integrity and should not be used to store the subject item's data.				
Alternative (Number(2))Discriminator used to tie features of a plan or proposal into a version.					

5.9.5. Gate

<u>5.7.5.</u> Uall					
Definition: A gate is an openin	g in a fence or oth	er type of barrier b	etween areas.		
Feature Group	Manmade Struct	ures			
Feature Class Name	Gate				
Feature Type	Line				
CADD Standard Requiremen	its				
Layer/Level		Descr	iption		
L-DETL-GATE-	Gate				
L-SITE-GATE-	Gate				
C-SITE-GATE-	Gates along fence	es or other barriers	intended to restric	ct access	
	Color	Linetype	Line Weight	Symbol	
AutoDesk Standards	214	Continuous	1 MM	User Defined	
MicroStation Standards	5	Continuous	7	User Denned	
Information Assurance Level	Restricted				
	AIXM	GateLine		Extension	
Equivalent Standards	FGDC GateLine Extension				
	SDSFIE	gate_line			
Documentation and Submission Requirements	None				

Related Features					
Data Capture Rules: Collect	center of gate from post-to-post.				
	an OIS or is selected as a represe		tionally identify,		
Classify and accument the gate Monumentation	<i>as an <u>Obstacle</u> and associated accu</i> No monumentation required.	racy.			
Monumentation	Horizontal	Vert	ical		
Survey Point Location	N/A	N/			
		Vert			
Accuracy Requirements (in	Horizontal	Orthometric	Ellipsoidal		
feet)	± 3 ft	$\pm 5 \text{ ft}$	N/A		
Deschutier	Geographic Coordinates	Distances and	d Elevations		
Resolution	Hundredth of arc second	Neares	st foot		
Feature Attributes					
Attribute (Datatype)		escription			
name (VARCHAR2 (50))	Name, code or identifier use				
description (VARCHAR2 (255	·/ 1 1		rning the		
	subject item, limited to 240				
status (Enumeration: codeStatu		A			
		This attribute is used to describe real-time status.			
type (VARCHAR2 (50))	The gate material and metho		.1 .1		
length (Real)	The overall distance from on				
height (Real)	The overall distance from th	1	U U		
attended (Boolean)	A Boolean indicating wheth other individual.	-			
userFlag (String 254)	An operator-defined work a	rea. This attribute ca	in be used by		
	the operator for user-defined				
	the subject item's data integrity and should not be used to stor the subject item's data.				
Alternative (Number(2))					

5.9.6. Tower

Definition: A structure created, by man, to facilitate an activity at an elevated level above the ground.						
Feature Group	Manmade Struct	ures				
Feature Class Name	Tower					
Feature Type	Point					
CADD Standard Requiremen	its					
Layer/Level		Descr	iption			
C-STRC-TOWR-	Tower					
E-POLE-GUYS-	Guy equipment					
V-POLE-GUYS-	Guy equipment					
V-STRC-TOWR-	Tower					
	Color	Linetype	Line Weight	Symbol		
AutoDesk Standards	7					
MicroStation Standards	0 Continuous 7 User Defined					
Information Assurance	Restricted					
Level	Kesuicieu					
Equivalent Standards	AIXM	VerticalStructure	2	Extension		

	FGDC	Tower	Extension
	SDSFIE	tower_site	
Documentation and Submission Requirements	No documentation is required.		

Related Features

Data Capture Rules: Collect the point at the highest location of the tower. When surveying guyed structures, capture any guys penetrating a surface separately from the structure itself. Determine and document the point where the guy wires penetrate the OIS at a distance greater than 100 feet from the actual structure, identify it as a separate point object.

NOTE: If the tower penetrates an OIS or is selected as a representative object, additionally identify, classify and document the tower as an <u>Obstacle</u> and associated accuracy.

Monumentation	No monumentation required.				
Survey Doint Location	Horizontal		Vert	ical	
Survey Point Location		N/A	N/A		
A		Horizontal	Vert	ical	
Accuracy Requirements (in feet)		Horizoittai	Orthometric	Ellipsoidal	
leet)			± 5 ft	N/A	
Resolution		Geographic Coordinates	Distances an	d Elevations	
		Hundredth of arc second	Neares	st foot	
Feature Attributes					
Attribute (Datatype)			scription		
name (VARCHAR2 (50))		Name of the feature.			
description (VARCHAR2 (255)	/	Description of the feature.			
status (Enumeration: codeStatus	5)	A temporal description of the			
		This attribute is used to descr			
verticalStructureMaterial		Classifies the predominant m	nt material of the vertical object		
(Enumeration:					
CodeVerticalStructureMaterial)				·	
lightCode (Boolean)		A code indicating that the tower is lighted [Source: AIXM]			
lightingType		A description of the lighting system. Lighting system			
(Enumeration:	、 、	classifications are Approach;	Airport; Runway;	Taxiway; and	
codeLightingConfigurationType	/	Obstruction			
markingFeatureType (Enumera	tion:	The type of the marking(s)			
codeMarkingFeatureType)					
color (Enumerations as de Calar)		The color of the marking(s)			
(Enumeration: codeColor)		An energian defined work and	. This attribute as	a ha waad ha	
userriag (Sumg 234)	userFlag (String 254)		An operator-defined work area. This attribute can be used by the operator for user-defined system processes. It does not affect		
		the subject item's data integri			
		the subject item's data.	ty and should not t		
Alternative (Number(2))		Discriminator used to tie features of a plan or proposal together			
		into a version.	· · · · · · · · · ·	1	
structureHeight (Real)		Maximum height of structure; i.e. AGL height			

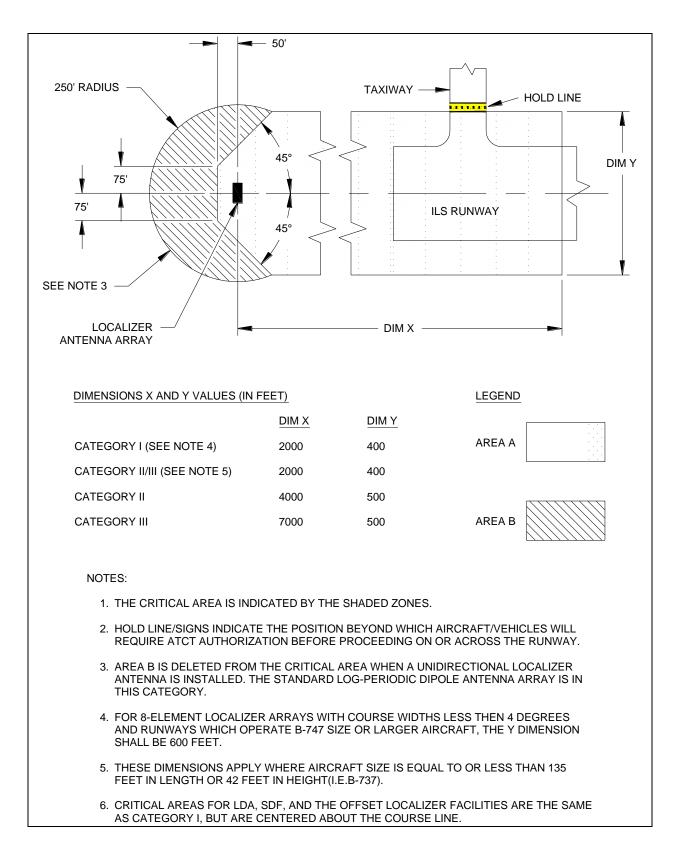
5.10. Group: NAVIGATIONAL AIDS

All of the different navigational aids are represented using a single feature type. To assist the data producer in identifying the different aids, each individual navigational aids is defined separately even though they are all represented by the single feature type NavigationalAidEquipment. Accuracies differ for many navigational aids. Be sure to collect the navigational aid within the accuracy stated in each navigational aid table.

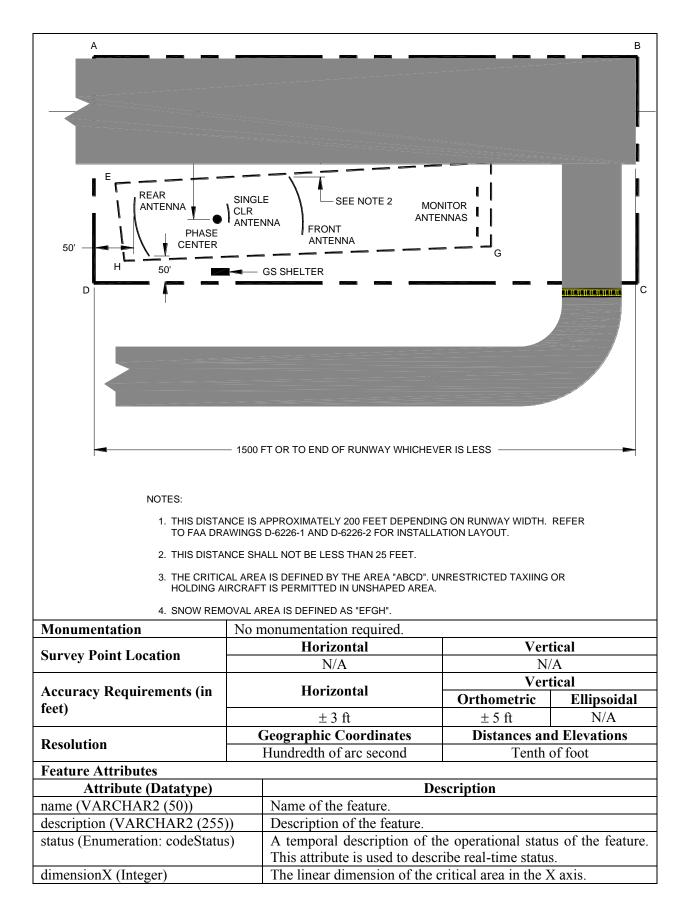
Definition: A zone encompassing a specific ground area in the vicinity of a radiating antenna array				
which must be protected from p	which must be protected from parking and unlimited movement of surface and air traffic. The			
drawings included in this table			the official source t	o ensure the
appropriate area is protected. [Source: FAA Orde	er 6750.16C]		
Feature Group	NavigationalAid	NavigationalAids		
Feature Class Name	NavaidCriticalA	rea		
Feature Type	Polygon			
CADD Standard Requiremen	its			
Layer/Level	Layer/Level Description			
C-AIRF-AIDS-CRIT	A	irfield Navigationa	l Aid - Critical Are	a
	Color	Linetype	Line Weight	Symbol
AutoDesk Standards	3	Continuous	1 MM	User Defined
MicroStation Standards	2 Continuous	7	User Defined	
Information Assurance	Restricted			
Level			(T	
	AIXM		entAreaExtension	Extension
Equivalent Standards	FGDC	NavigationalAid		Extension
	SDSFIE	airfield_buffer_z	one_area	
Documentation and Submission Requirements	None			
Related Features	Related Features			
Data Capture Rules: Collect a closed polygon encompassing the greatest horizontal extents of the				
critical area for the NAVAID. Critical areas are normally associated with the localizer, glideslope,				
MLS azimuth, MLS elevation, and Precision Approach Radars. If necessary, identify the area using				
multiple polygons Adjacent polygons must have shared edges and vertices and must not overlap				

5.10.1. NAVAID Critical Area

multiple polygons. Adjacent polygons must have shared edges and vertices and must not overlap polygons of the same feature.



	NWAY —				_
L E 200' TO 50' - GS ANTENNA MAST DIM Y K H	DIM	X		G	
NOTES:					
1. THE CRITICAL AREA IS DEFINED BY THE PEN	NTAGON "E	FGHJ".			
2. ALL AIRCRAFT MAY BE PARKED AS CLOSE A DIRECTIONAL ANTENNAS AS DEFINED BY LI		IND A GLIDE	SLOPE MAST	WITH	
3. FACILITY TYPE	CATEG DIM X	<u>ORY I</u> <u>DIM Y</u>	CATEG DIM X	ORY II/III DIM Y	
ALL IMAGE GLIDE SLOPES SMALL AIRCRAFT •	800	100	800	100	
NULL REFERENCE MEDIUM AIRCRAFT •• LARGE AIRCRAFT •••	2000 3100	200 200	2500 3200	200 200	
SIDEBAND AND CAPTURE EFFECT MEDIUM AND LARGE AIRCRAFT ●●/●●●	1300	200	1300	200	
ALL DISTANCES ARE IN FEET AND R DISTANCES FROM THE NEAREST PC AXIS (LINE FROM NOSE TO TAIL) TO DEFINED IN FIGURE 1-3.	DINT ON TH	IE AIRCRAFT	LONGITUDIN		
 SMALL AIRCRAFT ARE DEFINED AS A 60' IN LENGTH AND 20' IN HEIGHT (I.E VEHICLES AND HELICOPTERS. 					
 MEDIUM AIRCRAFT ARE DEFINED AS 160' IN LENGTH AND 38' IN TAIL HEIG 			NSIONS LESS	S THAN	
••• LARGE AIRCRAFT ARE DEFINED AS OR GREATER THAN 38' IN TAIL HEIG		GREATER TI	HAN 160' IN L	ENGTH	
THE SMALL, MEDIUM AND LARGE AI DIMENSIONS USED IN COMPUTER M TO THIS DOCUMENT ONLY.					



dimensionY (Integer)	The linear dimension of the critical area in the Y axis.
userFlag (String 254)	An operator-defined work area. This attribute can be used by
	the operator for user-defined system processes. It does not
	affect the subject item's data integrity and should not be used to
	store the subject item's data.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together
	into a version.

5.10.2. Navaid Equipment – Airport Beacon (APBN)

Definition: A visual NAVAID operated at many airports. At civil airports, alternating white and green flashes indicate the location of the airport. At military airports, the beacons flash alternately white and green, but are differentiated from civil beacons by dual-peaked (two quick) white flashes between the green flashes.

green nusiles.				
Feature Group		Navigational Aids		
Feature Class Name	NavaidEquipment			
Feature Type	Point	Point		
CADD Standard Requireme	nts			
Layer/Level		Descr	iption	
C-AFLD-AIDS-	Airfield Navigat	ional Aid		
	Color	Line Type	Line Weight	Symbol
AutoDesk Standards	4	Continuous	1	User Defined
MicroStation Standards	7	Continuous	7	User Defined
Information Assurance	Unclassified			
Level	Uliciassificu			
	AIXM	NavaidEquipment	tExtension	Extension
Equivalent Standards	FGDC	NavigationalAidE	Equipment	
	SDSFIE navigational_aid_point			
Documentation and	Document this fo	eature as described i	in paragraphs 1.5 '	2 and 1 5 2
Submission Requirements	Document uns re	cature as described	in paragraphs <u>1.5.2</u>	<u>2</u> allu <u>1.5.5</u> .
Related Features				
Data Capture Rules: Collect	t the horizontal an	d vertical positions	of the NAVAID us	sing the survey
point identified below. If the N				
additionally identify, classify a	and document the	NAVAID using the (OBSTACLE featur	e type and
associated accuracy. When ide			urvey the highest p	point on the entire
structure as the top elevation	including appurter	nances.		
Monumentation	No monumentation required.			
	Hori	Horizontal		rtical
Survey Point Leastion			The intersection	of the ground,
Survey Point Location	Center of cover of	rer or axis of rotation gravel, concrete pad, or other base		pad, or other base
			and plumb line th	hrough the HSP.

	Obstruction			
Accuracy Requirements (in	Horizontal	Ver Orthometric	tical Ellipsoidal	
feet)	± 5 ft	$\pm 10 \text{ ft}$	N/A	
Desclution	Geographic Coordinates		nd Elevations	
Resolution	Hundredth of arc second	Nearest	one foot	
Feature Attributes				
Attribute (Datatype)		Description		
name (VARCHAR2 (50))	Name of the feature			
description (VARCHAR2 (255	5)) A description or other unique information concerning the subject item, limited to 255 characters.			
faaFacilityId (String 4)	Enter the identifier. When the identifier of the associated 1 for ILS or "M" used with the one ASR is in operation at the location, these equipments we be applies to PAR identifiers. The asthose used to accomplish facilities, use "Z" plus the ide or military installation. Light identifier and runway number 2012.	Enter the identifier. When reporting on a glide slope, enter the identifier of the associated localizer. Do not enter the prefix "I" for ILS or "M" used with the MLS systems. Where more than one ASR is in operation at the same location or at an associated location, these equipments will be identified with the letters A, B, C, etc., following the identification (e.g., NQIB). The same applies to PAR identifiers. These alpha codes must be the same as those used to accomplish the daily flight log. For ARSR facilities, use "Z" plus the identifier of the controlling ARTCC or military installation. Light systems will use the airport identifier and runway number. [Source:FAA Order 8250-42]		
navaidEquipmentType (Enumeration: CodeNavaidEquipmentType) navigationalAidSystemType	Identifes the navigational ai	Specifies the type of NAVAID Identifes the navigational aid equipment as part of an overall		
(Enumeration: CodeNavaidSystemType)	up the Instrument landing s and MLS Elevation make u	system. For example the localizer and glideslope together make up the Instrument landing system (ILS) or the MLS Azimuth and MLS Elevation make up a Microwave Landing System.		
useCode (Enumeration: CodeUseCode)	The code that represents the aeronautical navigational ai		e in which the	
antennaToThresholdDistance (1				

stopEndDistance (Real)Provide the distance distance the from the antenna along the centerline to the stop end of the runway.offsetDistance (Real)The distance in feet that the feature is offset from the runway centerline. Provide this distance to the nearest tenth of a foot.offsetDirectionEnter the direction (right, left, or on centerline) the navigational aid is offset from the runway. Determine the appropriate direction from the approach threshold down the runway.lightingTypeThe type of Visual navigational aid system (use only when CodeClistingConfigurationType)status (Enumeration: codeLightingConfigurationType)A temporal description of the operational status of the feature. This attribute is used to describe real-time status.owner (String 75)The owner of the facility. When more than one runway is served by a precision approach aid (such as a PAR), provide a separate feature for each runway. This attribute is only required for ILS, MLS, TLS, and PAR.referencePointEllipsoidHeightProvide the height above the ellipsoid (HAE) for the referencePoint.referencePointThreshold (Real)Distance from the runway reference point to the threshold. Provide this distance to the nearest tenth of a foot.userFlag (String 254)An operator-defined work area. This attribute can be used by the operator during the operator during the operator dust and should not be used to astort the subject item's data integrity and should not be used to astort the subject item's data integrity and should not be used to astort the subject item's data integrity and should not be used to astort the subject item's data integrity and should not be used to astort the subject item's data integrity and should not be used to astort the subject i	centerlineDistance (Real)	Distance from the centerline perpendicular point to the physical runway end. This should be the same distance as the antenna to threshold distance unless the runway end the navigational aid serves has a displaced threshold. Provide this distance to the nearest tenth of a foot.
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	Alternative (Number(2))	
into a version.		into a version.

5.10.3. Navaid Equipment – Air Route Surveillance Radar (ARSR) or Airport Surveillance Radar (ASR)

Definition: These radars are used to detect and display an aircraft's position while operating in the			
terminal area (ASR) and en route (ARSR) between terminal areas.			
Feature Group	Navigational Aids		
Feature Class Name	NavaidEquipment		
Feature Type	Point		

CADD Standard Requirement	its			
Layer/Level			ription	
C-AFLD-AIDS-	Airfield Navigat			
	Color	Line Type	Line Weight	Symbol
AutoDesk Standards	4	Continuous	1	User Defined
MicroStation Standards	7		7	
Information Assurance Level	Unclassified	1		
	AIXM	NavaidEquipme		Extension
Equivalent Standards			Extension	
	SDSFIE	navigational_aid	d_point	
Documentation and	Document this fe	eature as described	l in paragraphs <u>1.5</u>	.2 and 1.5.3.
Submission Requirements				
Related Features	the hearing and and	l	of the NAVAID a	ing the gummen
Data Capture Rules: Collect point identified below. If the National Science				
additionally identify, classify and				
associated accuracy. When ide				
structure as the top elevation in				
Monumentation	No monumentati			
	Horiz		Vei	rtical
Survey Point Location	Center of cover or axis of rotation The intersection of the ground, gravel, concrete pad, or other base and plumb line through the HSP.			pad, or other base
Horizontal Survey Point				
Accuracy Requirements (in Horizontal Vertic		rtical		
Accuracy Requirements (in	Horiz		Orthometric	Ellipsoidal
feet)	± 10 ft		± 20 ft	N/A
Desolution	Geographic CoordinatesDistances and ElevationsHundredth of arc secondNearest one foot		nd Elevations	
Resolution				
Feature Attributes				
Attribute (Datatype)	e) Description			
name (VARCHAR2 (50))	Name of the feature			

description (VARCHAR2 (255))	A description or other unique information concerning the
	subject item, limited to 255 characters.
faaFacilityId (String 4)	Enter the identifier. When reporting on a glide slope, enter the
	identifier of the associated localizer. Do not enter the prefix "I"
	for ILS or "M" used with the MLS systems. Where more than
	one ASR is in operation at the same location or at an associated
	location, these equipments will be identified with the letters A,
	B, C, etc., following the identification (e.g., NQIB). The same
	applies to PAR identifiers. These alpha codes must be the same
	as those used to accomplish the daily flight log. For ARSR
	facilities, use "Z" plus the identifier of the controlling ARTCC
	or military installation. Light systems will use the airport
	identifier and runway number. [Source:FAA Order 8250-42]
navaidEquipmentType	Specifies the type of NAVAID
(Enumeration:	1 51
CodeNavaidequipmentType)	
navigationalAidSystemType	Identifes the navigational aid equipment as part of an overall
(Enumeration:	system. For example the localizer and glideslope together make
CodeNavaidSystemType)	up the Instrument landing system (ILS) or the MLS Azimuth
	and MLS Elevation make up a Microwave Landing System
useCode (Enumeration:	The code that represents the airspace structure in which the
CodeUseCode)	aeronautical navigational aid is utilized.
antennaToThresholdDistance (Real)	The distance in feet that the antenna is from the runway
	threshold. Provide the distance to the nearest tenth of a foot.
centerlineDistance (Real)	Distance from the centerline perpendicular point to the physical
	runway end. This should be the same distance as the antenna to
	threshold distance unless the runway end the navigational aid
	serves has a displaced threshold. Provide this distance to the
	nearest tenth of a foot.
stopEndDistance (Real)	Provide the distance distance the from the antenna along the
	centerline to the stop end of the runway.
offsetDistance (Real)	The distance in feet that the feature is offset from the runway
	centerline. Provide this distance to the nearest tenth of a foot.
offsetDirection	Enter the direction (right, left, or on centerline) the navigational
(Enumeration:	aid is offset from the runway. Determine the appropriate
CodeOffsetDirection)	direction from the approach threshold down the runway.
lightingType	The type of Visual navigational aid system (use only when
(Enumeration:	CodeNavaidEquipmentType is set to "visual")
CodeLightingConfigurationType)	
status (Enumeration: codeStatus)	A temporal description of the operational status of the feature.
	This attribute is used to describe real-time status.
owner (String 75)	The owner of the facility
runwayEndId (String 3)	Identify the primary instrument runway served by the facility.
	When more than one runway is served by a precision approach
	aid (such as a PAR), provide a separate feature for each
	runway. This attribute is only required for ILS, MLS, TLS, and
	PAR.
referencePointEllipsoidHeight	Provide the height above the ellipsoid (HAE) for the
	referencePoint.

referencePointThreshold (Real)	Distance from the runway reference point to the threshold. Provide this distance to the nearest tenth of a foot. [Source: FAA AAS-100]
thresholdCrossingHeight (Real)	The designated crossing height of the flight path angle above the Landing Threshold Point (or Fictitious Threshold Point).
highAngle (Real)	Maximum approach light vertical angle [Source: FAA AAS- 100]
userFlag (String 254)	An operator-defined work area. This attribute can be used by the operator for user-defined system processes. It does not affect the subject item's data integrity and should not be used to store the subject item's data.
ellipsoidElevation (Real)	The Base Elevation for most NAVAIDs. For ILS DME, the elevation is the center of the antenna cover. For MLSAZ, MLSEL, and End Fire Type Glide Slope Antennas, the elevation is the phase center of the reference point.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together into a version.

5.10.4. Navaid Equipment – Approach Light System (ALS)

Definition: An airport lighting facility providing visual guidance to landing aircraft by radiating light beams in a directional pattern the pilot uses to align the aircraft with the extended centerline of the runway on final approach for landing. Some airports have Condenser-Discharge Sequential Flashing Lights or Sequenced Flashing Lights in conjunction with the ALS

Lights of Sequenced Flashing Lights in conjunction with the ALS.				
Feature Group	Navigational Aids			
Feature Class Name	NavaidEquipment			
Feature Type	Point			
CADD Standard Requiremen	ts			
Layer/Level		Desci	ription	
C-AFLD-AIDS-	Airfield Navigati	ional Aid -		
	Color	Line Type	Line Weight	Symbol
AutoDesk Standards	4	Continuous	1	User Defined
MicroStation Standards	7	Continuous	7	User Defined
Information Assurance	Unclassified			
Level	Unclassified			
	AIXM	NavaidEquipment Extension		Extension
Equivalent Standards	FGDC	NavaidEquipmentExtension Extension		Extension
	SDSFIE navigational_aid_point			
Documentation and	Document this fo			and 1 5 2
Submission Requirements	Document tins le	cature as described	in paragraphs <u>1.5.2</u>	allu <u>1.3.5</u> .
Related Features				
Data Capture Rules: Collect	the horizontal and	l vertical positions	of the NAVAID usin	g the survey
point identified below. If the NAVAID penetrates an OIS or is selected as a representative object,				
additionally identify, classify an	nd document the N	IAVAID as using th	he OBSTACLE featu	re type and
associated accuracy. When iden			urvey the highest poi	int on the entire
structure as the top elevation including appurtenances.				
Monumentation	No monumentation required.			
	Horizontal		Vertical	
Survey Point Location	Horizontal center of the center		The intersection of the ground,	
	light of the first	light of the first and last lights		gravel, concrete pad, or other base
	rows		and plumb line through the HSP.	



Types of Approach Light Systems are:

1. ALSF-1- Approach Light System with Sequenced Flashing Lights in ILS Cat-I configuration.

2. ALSF-2- Approach Light System with Sequenced Flashing Lights in ILS Cat-II configuration. The ALSF-2 may operate as an SSALR when weather conditions permit.

3. SSALF- Simplified Short Approach Light System with Sequenced Flashing Lights.

4. SSALR- Simplified Short Approach Light System with Runway Alignment Indicator Lights.

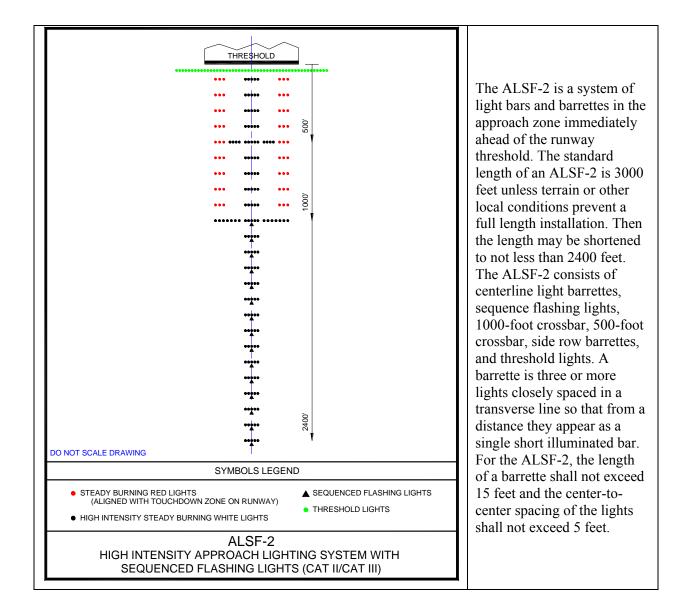
5. MALSF- Medium Intensity Approach Light System with Sequenced Flashing Lights.

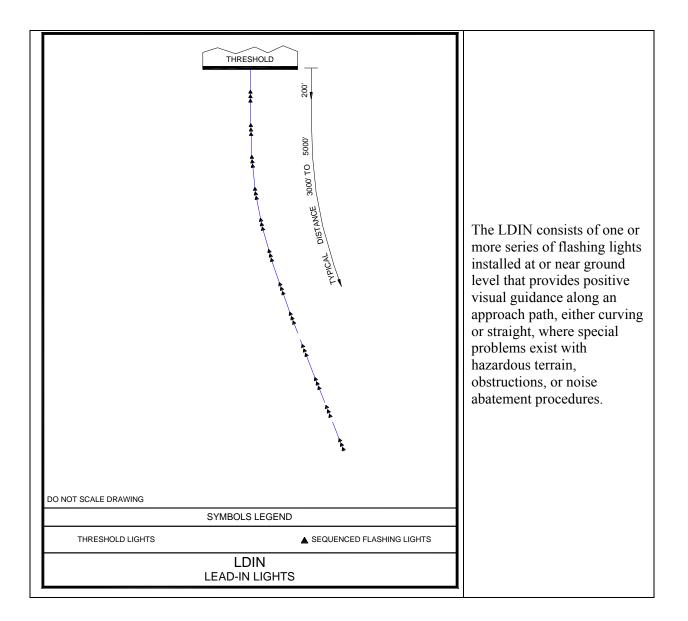
6. MALSR- Medium Intensity Approach Light System with Runway Alignment Indicator Lights.

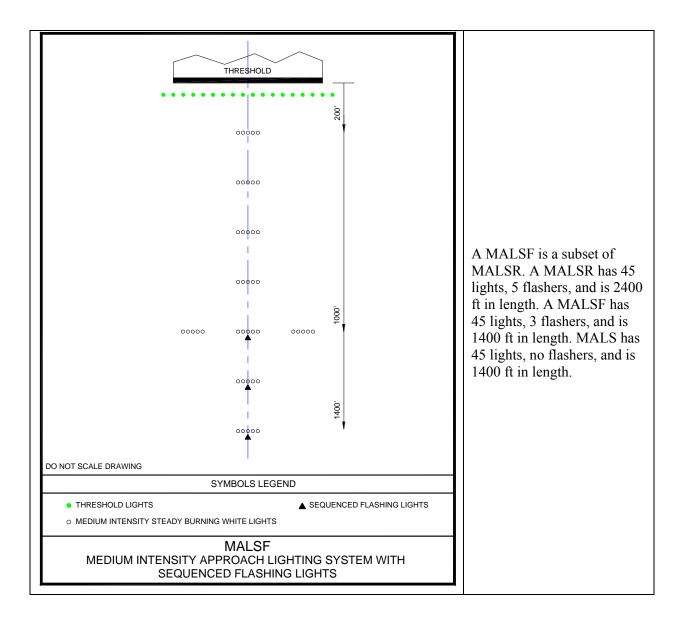
7. LDIN- Lead-in-light system.

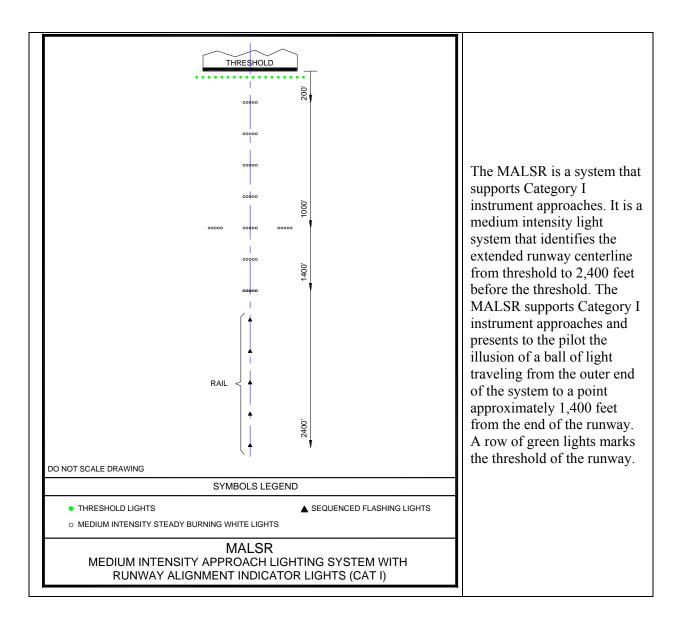
8. RAIL- Runway Alignment Indicator Lights- Sequenced Flashing Lights which are installed only in combination with other light systems.

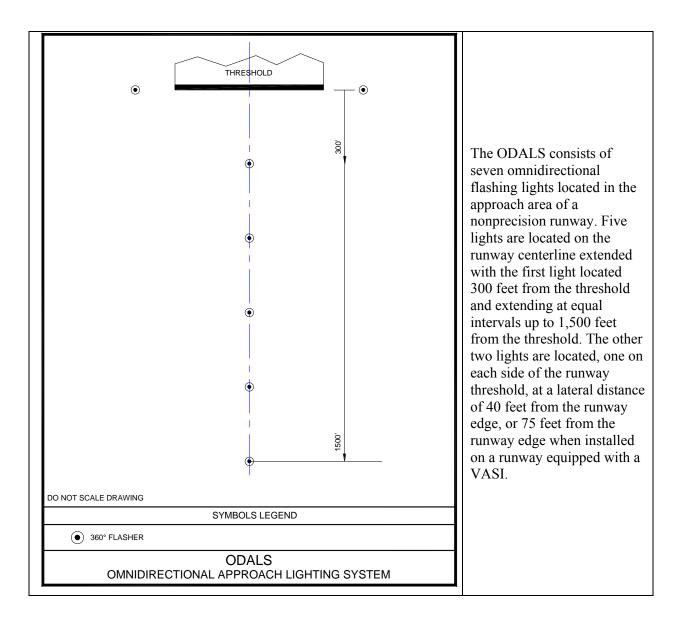
9. ODALS- Omnidirectional Approach Lighting System.

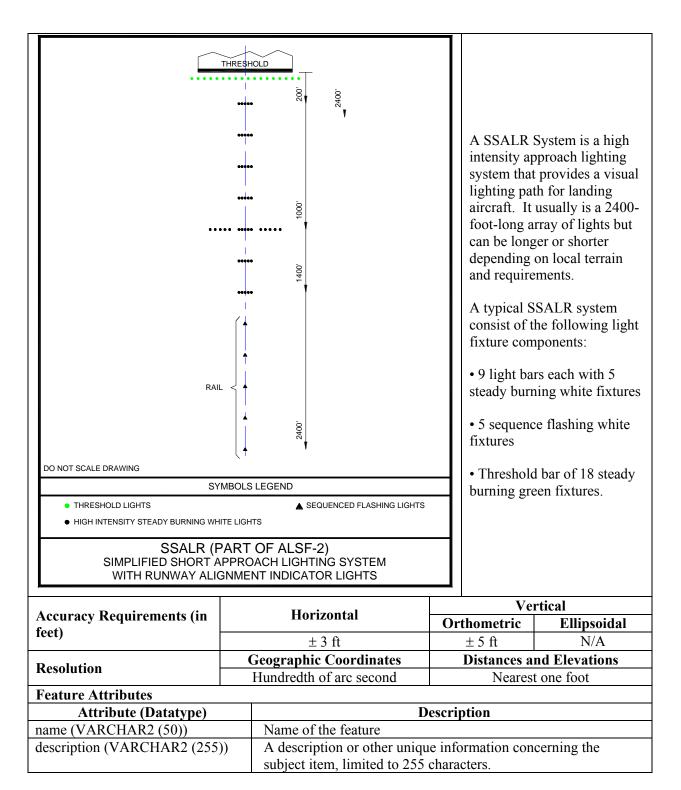












faaFacilityId (String 4)	Enter the identifier. When reporting on a glide slope, enter the identifier of the associated localizer. Do not enter the prefix "I" for ILS or "M" used with the MLS systems. Where more than one ASR is in operation at the same location or at an associated location, these equipments will be identified with the letters A, B, C, etc., following the identification (e.g., NQIB). The same applies to PAR identifiers. These alpha codes must be the same as those used to accomplish the daily flight log. For ARSR facilities, use "Z" plus the identifier of the controlling ARTCC or military installation. Light systems will use the airport identifier and runway number. [Source:FAA Order 8250-42] Specifies the type of NAVAID
(Enumeration: CodeNavaidequipmentType)	
navigationalAidSystemType (Enumeration: CodeNavaidSystemType)	Identifes the navigational aid equipment as part of an overall system. For example the localizer and glideslope together make up the Instrument landing system (ILS) or the MLS Azimuth and MLS Elevation make up a Microwave Landing System
useCode (Enumeration: CodeUseCode)	The code that represents the airspace structure in which the aeronautical navigational aid is utilized.
antennaToThresholdDistance (Real)	The distance in feet that the antenna is from the runway threshold. Provide the distance to the nearest tenth of a foot.
centerlineDistance (Real)	Distance from the centerline perpendicular point to the physical runway end. This should be the same distance as the antenna to threshold distance unless the runway end the navigational aid serves has a displaced threshold. Provide this distance to the nearest tenth of a foot.
stopEndDistance (Real)	Provide the distance distance the from the antenna along the centerline to the stop end of the runway.
offsetDistance (Real)	The distance in feet that the feature is offset from the runway centerline. Provide this distance to the nearest tenth of a foot.
offsetDirection	Enter the direction (right, left, or on centerline) the navigational
(Enumeration:	aid is offset from the runway. Determine the appropriate
CodeOffsetDirection)	direction from the approach threshold down the runway.
lightingType	The type of Visual navigational aid system (use only when
(Enumeration:	CodeNavaidEquipmentType is set to "visual")
CodeLightingConfigurationType)	A town and description of the argumetic with the first of the first
status (Enumeration: codeStatus)	A temporal description of the operational status of the feature. This attribute is used to describe real-time status.
owner (String 75)	The owner of the facility
runwayEndId (String 3)	Identify the primary instrument runway served by the facility. When more than one runway is served by a precision approach aid (such as a PAR), provide a separate feature for each runway. This attribute is only required for ILS, MLS, TLS, and PAR.
referencePointEllipsoidHeight	Provide the height above the ellipsoid (HAE) for the referencePoint.
referencePointThreshold (Real)	Distance from the runway reference point to the threshold. Provide this distance to the nearest tenth of a foot. [Source: FAA AAS-100]

thresholdCrossingHeight (Real)	The designated crossing height of the flight path angle above the	
	Landing Threshold Point (or Fictitious Threshold Point).	
highAngle (Real)	Maximum approach light vertical angle [Source: FAA AAS-	
	100]	
userFlag (String 254)	An operator-defined work area. This attribute can be used by	
	the operator for user-defined system processes. It does not	
	affect the subject item's data integrity and should not be used to	
	store the subject item's data.	
ellipsoidElevation (Real)	The Base Elevation for most NAVAIDs. For ILS DME, the	
	elevation is the center of the antenna cover. For MLSAZ,	
	MLSEL, and End Fire Type Glide Slope Antennas, the elevation	
	is the phase center of the reference point.	
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together	
	into a version.	

5.10.5. Navaid Equipment – Back Course Marker (BCM)

5.10.5. Navalu Equipment -				
Definition: Provides runway	alignment aircraf	t guidance on appr	oach.	
Feature Group	Javigational Aids			
Feature Class Name	NavaidEquipmen	JavaidEquipment		
Feature Type	Point			
CADD Standard Requireme	ents			
Layer/Level		Des	scription	
C-AFLD-AIDS-	Airfield Navig		•	
	Color	Line Type	Line Weigh	t Symbol
AutoDesk Standards	4		1	
MicroStation Standards	7	Continuous	7	User Defined
Information Assurance Level	Unclassified			
	AIXM	NavaidEquip	oment	Extension
Equivalent Standards	FGDC	NavaidEquip	omentExtension	Extension
-	SDSFIE			
Documentation and Submission Requirements	Document this feature as described in paragraphs <u>1.5.2</u> and <u>1.5.3</u> .			
Related Features				
Data Capture Rules: Collect the horizontal and vertical positions of the NAVAID using the survey point identified below. If the NAVAID penetrates an OIS or is selected as a representative object, additionally identify, classify and document the NAVAID as using the OBSTACLE feature type and associated accuracy. When identifying a NAVAID as an obstacle, survey the highest point on the entire structure as the top elevation including appurtenances.				
Monumentation	No monumenta	ation required.		
	Hor	izontal	Vertical	
Survey Point Location	Center of antenna array.		The intersection of the ground, gravel, concrete pad, or other base and plumb line through the HSP.	
Accuracy Requirements (in	Hor	Horizontal		ertical
feet)	1101			Ellipsoidal
		10 ft	± 20 ft	N/A
Resolution	Geographic Coordinates		oordinates Distances and Elevation	
Resolution	Hundredth	of arc second	Neares	st one foot

Feature Attributes	
Attribute (Datatype)	Description
name (VARCHAR2 (50))	Name of the feature
description (VARCHAR2 (255))	A description or other unique information concerning the
	subject item, limited to 255 characters.
faaFacilityId (String 4)	Enter the identifier. When reporting on a glide slope, enter the
	identifier of the associated localizer. Do not enter the prefix "I"
	for ILS or "M" used with the MLS systems. Where more than
	one ASR is in operation at the same location or at an associated
	location, these equipments will be identified with the letters A,
	B, C, etc., following the identification (e.g., NQIB). The same
	applies to PAR identifiers. These alpha codes must be the same
	as those used to accomplish the daily flight log. For ARSR
	facilities, use "Z" plus the identifier of the controlling ARTCC
	or military installation. Light systems will use the airport
novoidE quinmontType	identifier and runway number. [Source:FAA Order 8250-42] Specifies the type of NAVAID
navaidEquipmentType (Enumeration:	Specifies the type of INAVAID
CodeNavaidequipmentType)	
navigationalAidSystemType	Identifes the navigational aid equipment as part of an overall
(Enumeration:	system. For example the localizer and glideslope together make
CodeNavaidSystemType)	up the Instrument landing system (ILS) or the MLS Azimuth
	and MLS Elevation make up a Microwave Landing System
useCode (Enumeration:	The code that represents the airspace structure in which the
CodeUseCode)	aeronautical navigational aid is utilized.
antennaToThresholdDistance (Real)	The distance in feet that the antenna is from the runway
	threshold. Provide the distance to the nearest tenth of a foot.
centerlineDistance (Real)	Distance from the centerline perpendicular point to the physical
	runway end. This should be the same distance as the antenna to
	threshold distance unless the runway end the navigational aid
	serves has a displaced threshold. Provide this distance to the
stonEndDistance (Beel)	nearest tenth of a foot.
stopEndDistance (Real)	Provide the distance distance the from the antenna along the centerline to the stop end of the runway.
offsetDistance (Real)	The distance in feet that the feature is offset from the runway
offsetDistance (Real)	centerline. Provide this distance to the nearest tenth of a foot.
offsetDirection	Enter the direction (right, left, or on centerline) the navigational
(Enumeration:	aid is offset from the runway. Determine the appropriate
CodeOffsetDirection)	direction from the approach threshold down the runway.
lightingType	The type of Visual navigational aid system (use only when
(Enumeration:	CodeNavaidEquipmentType is set to "visual")
CodeLightingConfigurationType)	
status (Enumeration: codeStatus)	A temporal description of the operational status of the feature.
	This attribute is used to describe real-time status.
owner (String 75)	The owner of the facility
runwayEndId (String 3)	Identify the primary instrument runway served by the facility.
	When more than one runway is served by a precision approach
	aid (such as a PAR), provide a separate feature for each
	runway. This attribute is only required for ILS, MLS, TLS, and
	PAR.

referencePointEllipsoidHeight	Provide the height above the ellipsoid (HAE) for the
	referencePoint.
referencePointThreshold (Real)	Distance from the runway reference point to the threshold.
	Provide this distance to the nearest tenth of a foot. [Source:
	FAA AAS-100]
thresholdCrossingHeight (Real)	The designated crossing height of the flight path angle above
	the Landing Threshold Point (or Fictitious Threshold Point).
highAngle (Real)	Maximum approach light vertical angle [Source: FAA AAS-
	100]
userFlag (String 254)	An operator-defined work area. This attribute can be used by
	the operator for user-defined system processes. It does not
	affect the subject item's data integrity and should not be used to
	store the subject item's data.
ellipsoidElevation (Real)	The Base Elevation for most NAVAIDs. For ILS DME, the
	elevation is the center of the antenna cover. For MLSAZ,
	MLSEL, and End Fire Type Glide Slope Antennas, the
	elevation is the phase center of the reference point.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together
	into a version.

5.10.6. Navaid Equipment – Distance Measuring Equipment (DME)

Definition: Provides distance (and in some systems groundspeed) information only from the ground facility to aircraft.

facility to aircraft.				
Feature Group	Navigational Aids			
Feature Class Name	NavaidEquipment			
Feature Type	Point			
CADD Standard Requireme	nts			
Layer/Level		D	escription	
C-AFLD-AIDS-	Airfield Navig	ational Aid		
	Color	Line Type	Line Weight	Symbol
AutoDesk Standards	4	Continuous	1	User Defined
MicroStation Standards	7	Continuous	7	User Defined
Information Assurance Level	Unclassified			
	AIXM	AIXM NavaidEquipment		Extension
Equivalent Standards	FGDC	NavaidEquipmentExtension		Extension
	SDSFIE navigational_aid_point			
Documentation and Submission Requirements	Document this feature as described in paragraphs $1.5.2$ and $1.5.3$.			
Related Features				
Data Capture Rules: Collect the position of the NAVAID using the HSP and the elevation at the VSP. If the NAVAID penetrates an OIS or is selected as a representative object, additionally identify, classify and document the NAVAID as an Obstacle and associated accuracy. When identifying a NAVAID as an obstacle, survey the highest point on the entire structure as the top elevation including appurtenances.				
Monumentation	No monumentation required.			
Survey Point Location	Horizontal		Ve	rtical
DME or DME paired with a LOC	Center of antenna cover.		Center of antenna cover.	

DME frequency paired with MLS azimuth, NDB or VOR	Cente	r of antenna cover	The intersection of t concrete pad, or oth line through the HS	er base and plumb
		HSP VSP		
			Ver	rtical
Accuracy Requirements (in feet)	Horizontal		Orthometric	Ellipsoidal
		± 1 ft	± 1 ft	N/A
Resolution		eographic Coordinates		nd Elevations
	Hundredth of arc second Nearest one			t one foot
Feature Attributes			D : /:	
Attribute (Datatype)		Description		
name (VARCHAR2 (50))		Name of the feature		• 1
description (VARCHAR2 (255)))	A description or other unique information concerning the subject item, limited to 255 characters.		
faaFacilityId (String 4)		Enter the identifier. When reporting on a glide slope, enter the identifier of the associated localizer. Do not enter the prefix "I" for ILS or "M" used with the MLS systems. Where more than one ASR is in operation at the same location or at an associated location, these equipments will be identified with the letters A, B, C, etc., following the identification (e.g., NQIB). The same applies to PAR identifiers. These alpha codes must be the same as those used to accomplish the daily flight log. For ARSR facilities, use "Z" plus the identifier of the controlling ARTCC or military installation. Light systems will use the airport identifier and runway number. [Source:FAA Order 8250-42]		
navaidEquipmentType (Enumeration: CodeNavaidequipmentType)		Specifies the type of NA	VAID	
navigationalAidSystemType (Enumeration: CodeNavaidSystemType)		Identifes the navigationa system. For example the up the Instrument landin and MLS Elevation mak	localizer and glidesl g system (ILS) or the	ope together make e MLS Azimuth

useCode (Enumeration:	The code that represents the airspace structure in which the
CodeUseCode)	aeronautical navigational aid is utilized.
antennaToThresholdDistance (Real)	The distance in feet that the antenna is from the runway
	threshold. Provide the distance to the nearest tenth of a foot.
centerlineDistance (Real)	Distance from the centerline perpendicular point to the physical
	runway end. This should be the same distance as the antenna
	to threshold distance unless the runway end the navigational
	aid serves has a displaced threshold. Provide this distance to
	the nearest tenth of a foot.
stopEndDistance (Real)	Provide the distance distance the from the antenna along the
	centerline to the stop end of the runway.
offsetDistance (Real)	The distance in feet that the feature is offset from the runway
	centerline. Provide this distance to the nearest tenth of a foot.
offsetDirection	Enter the direction (right, left, or on centerline) the
(Enumeration:	navigational aid is offset from the runway. Determine the
CodeOffsetDirection)	appropriate direction from the approach threshold down the
	runway.
lightingType	The type of Visual navigational aid system (use only when
(Enumeration:	CodeNavaidEquipmentType is set to "visual")
CodeLightingConfigurationType)	couci (uvulu) quipinon (1 ype is set to visuur)
status (Enumeration: codeStatus)	A temporal description of the operational status of the feature.
status (Entimoration: codestatus)	This attribute is used to describe real-time status.
owner (String 75)	The owner of the facility
runwayEndId (String 3)	Identify the primary instrument runway served by the facility.
TunwayEndra (Suring 5)	When more than one runway is served by a precision approach
	aid (such as a PAR), provide a separate feature for each
	runway. This attribute is only required for ILS, MLS, TLS,
	and PAR.
referencePointEllipsoidHeight	Provide the height above the ellipsoid (HAE) for the
referencer onitempsolarieight	referencePoint.
referencePointThreshold (Real)	Distance from the runway reference point to the threshold.
	Provide this distance to the nearest tenth of a foot. [Source:
	FAA AAS-100]
thresholdCrossingHeight (Real)	The designated crossing height of the flight path angle above
	the Landing Threshold Point (or Fictitious Threshold Point).
highAngle (Real)	Maximum approach light vertical angle [Source: FAA AAS-
	100]
userFlag (String 254)	An operator-defined work area. This attribute can be used by
	the operator for user-defined system processes. It does not
	affect the subject item's data integrity and should not be used to
	store the subject item's data.
ellipsoidElevation (Real)	The Base Elevation for most NAVAIDs. For ILS DME, the
	elevation is the center of the antenna cover. For MLSAZ,
	MLSEL, and End Fire Type Glide Slope Antennas, the
	elevation is the phase center of the reference point.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together
	into a version.

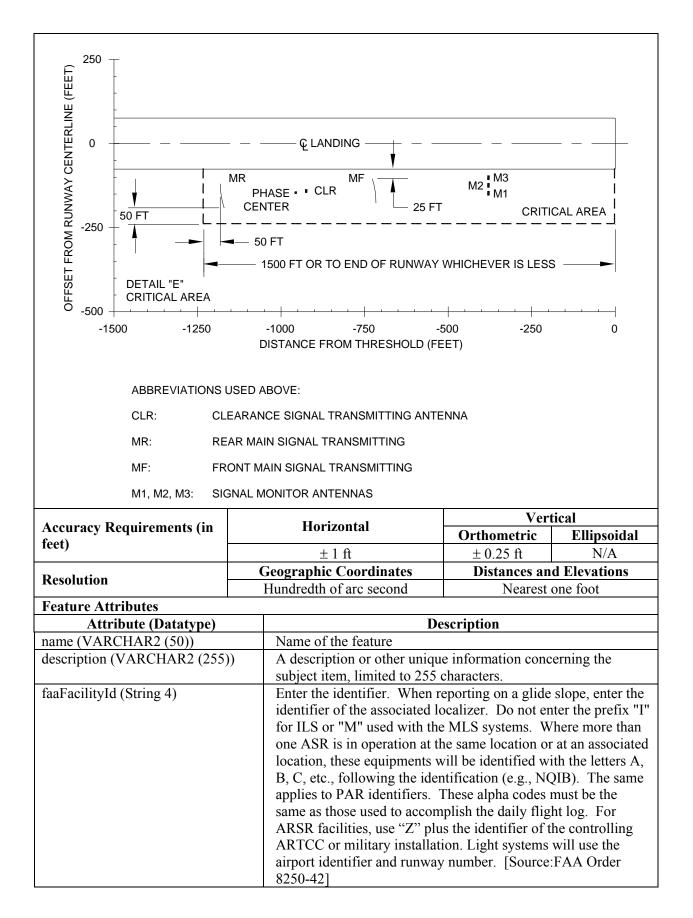
5.10.7. Navaid Equipment –Glide Slope – End Fire (GS)				
Definition: Provides vertical guidance for aircraft during approach and landing.				
Feature Group	Navigational Aids			
Feature Class Name	NavaidEquipment			
Feature Type	Point			
CADD Standard Requiremen	nts			
Layer/Level		Descri	ption	
C-AFLD-AIDS-	Airfield Navigation	onal Aid -		
	Color	Line Type	Line Weight	Symbol
AutoDesk Standards	4	Continuous	1	User Defined
MicroStation Standards	7	Continuous	7	User Denned
Information Assurance Level	Unclassified			
	AIXM	NavaidEquipmen	n <i>t</i>	Extension
Equivalent Standards	FGDC	NavaidEquipmentExtension		Extension
	SDSFIE navigational aid point			
Documentation and Submission Requirements	Document this feature as described in paragraphs <u>1.5.2</u> and <u>1.5.3</u> .			
Related Features				
Data Capture Rules: Collect the position of the NAVAID using the HSP and the elevation at the VSP.				
If the NAVAID penetrates an OIS or is selected as a representative object, additionally identify, classify and document the NAVAID as an Obstacle and associated accuracy. When identifying a				
NAVAID as an obstacle, survey the highest point on the entire structure as the top elevation including				
appurtenances.				
Monumentation	No monumentati	on required		
	No monumentation required. Horizontal Phase center reference point.		Vertical	
Survey Point Location			Phase center reference point.	

5.10.7. Navaid Equipment –Glide Slope – End Fire (GS)

 Monumentation
 No monumentation required.

 Survey Point Location
 Horizontal
 Vertical

 Phase center reference point.
 Phase center reference point.
 Phase center reference point.



navaidEquipmentType	Specifies the type of NAVAID
(Enumeration:	specifies the type of IVAVAID
CodeNavaidequipmentType)	
navigationalAidSystemType	Identifes the navigational aid equipment as part of an overall
(Enumeration:	system. For example the localizer and glideslope together make
CodeNavaidSystemType)	up the Instrument landing system (ILS) or the MLS Azimuth
Jerry Jerry	and MLS Elevation make up a Microwave Landing System.
useCode (Enumeration:	The code that represents the airspace structure in which the
CodeUseCode)	aeronautical navigational aid is utilized.
antennaToThresholdDistance (Real)	The distance in feet that the antenna is from the runway
	threshold. Provide the distance to the nearest tenth of a foot.
centerlineDistance (Real)	Distance from the centerline perpendicular point to the physical
	runway end. This should be the same distance as the antenna to
	threshold distance unless the runway end the navigational aid
	serves has a displaced threshold. Provide this distance to the
	nearest tenth of a foot.
stopEndDistance (Real)	Provide the distance distance the from the antenna along the
	centerline to the stop end of the runway.
offsetDistance (Real)	The distance in feet that the feature is offset from the runway
	centerline. Provide this distance to the nearest tenth of a foot.
offsetDirection	Enter the direction (right, left, or on centerline) the navigational
(Enumeration:	aid is offset from the runway. Determine the appropriate
CodeOffsetDirection)	direction from the approach threshold down the runway.
lightingType (Enumeration:	The type of Visual navigational aid system (use only when CodeNavaidEquipmentType is set to "visual")
CodeLightingConfigurationType)	Codervavardingurphient i ype is set to visual)
status (Enumeration: codeStatus)	A temporal description of the operational status of the feature.
status (Enameration: codestatus)	This attribute is used to describe real-time status.
owner (String 75)	The owner of the facility
runwayEndId (String 3)	Identify the primary instrument runway served by the facility.
	When more than one runway is served by a precision approach
	aid (such as a PAR), provide a separate feature for each
	runway. This attribute is only required for ILS, MLS, TLS,
	and PAR.
referencePointEllipsoidHeight	Provide the height above the ellipsoid (HAE) for the
	referencePoint.
referencePointThreshold (Real)	Distance from the runway reference point to the threshold.
	Provide this distance to the nearest tenth of a foot. [Source:
	FAA AAS-100]
thresholdCrossingHeight (Real)	The designated crossing height of the flight path angle above
	the Landing Threshold Point (or Fictitious Threshold Point).
highAngle (Real)	Maximum approach light vertical angle [Source: FAA AAS-
userFlag (String 254)	An operator-defined work area. This attribute can be used by
	the operator for user-defined system processes. It does not
	affect the subject item's data integrity and should not be used to
	store the subject item's data.

ellipsoidElevation (Real)	The Base Elevation for most NAVAIDs. For ILS DME, the elevation is the center of the antenna cover. For MLSAZ, MLSEL, and End Fire Type Glide Slope Antennas, the elevation is the phase center of the reference point.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together into a version.

5.10.8. Navaid Equipment – Fan Marker (FM)

Definition: Electronic NAVA	AID that provides horiz	ontal (alignment) guidance for airc	craft on a final	
approach.					
Feature Group	Navigational Aids				
Feature Class Name	NavaidEquipment				
Feature Type	Point				
CADD Standard Requirem	ents				
Layer/Level		Descri	otion		
C-AFLD-AIDS-	Airfield Navigational Aid -				
	Color Line Type Line Weight Symbol				
AutoDesk Standards	4	Continuous	1	User Defined	
MicroStation Standards	7	Continuous	7	User Denned	
Information Assurance	The local field				
Level	Unclassified				
	AIXM	NavaidEquipm	ent	Extension	
Equivalent Standards	FGDC	NavaidEquipm	entExtension	Extension	
	SDSFIE navigational aid point				
Documentation and	Description for the second sec				
Submission Requirements	Document this feature as described in paragraphs $1.5.2$ and $1.5.3$.				
Related Features					
Data Cantana Dalam Call				· · · · UCD	

Data Capture Rules: Collect the position of the NAVAID using the HSP and the elevation at the VSP. If the NAVAID penetrates an OIS or is selected as a representative object, additionally identify, classify and document the NAVAID as an Obstacle and associated accuracy. When identifying a NAVAID as an obstacle, survey the highest point on the entire structure as the top elevation including appurtenances.

Monumentation	Monumentation No monumentation required.				
		Horizontal	Vertical		
Survey Point Location			The intersection of	The intersection of the ground,	
Survey I onit Location	Cente	er of antenna array.	gravel, concrete pa		
			and plumb line three	ough the HSP.	
		Horizontal	Verti	cal	
Accuracy Requirements (in feet)		Horizolital	Orthometric	Ellipsoidal	
	± 10 ft		± 20 ft	N/A	
Resolution	G	eographic Coordinates	Distances and	Elevations	
Resolution	Hundredth of arc second		Nearest o	Nearest one foot	
Feature Attributes					
Attribute (Datatype)			Description		
name (VARCHAR2 (50))		Name of the feature	Name of the feature		
description (VARCHAR2 (25	55))	A description or other un	ique information conc	erning the	
		subject item, limited to 2	40 characters.	-	

faaFacilityId (String 4)	Enter the identifier. When reporting on a glide slope, enter the identifier of the associated localizer. Do not enter the prefix "I" for ILS or "M" used with the MLS systems. Where more than one ASR is in operation at the same location or at an associated location, these equipments will be identified with the letters A, B, C, etc., following the identification (e.g., NQIB). The same applies to PAR identifiers. These alpha codes must be the same as those used to accomplish the daily flight log. For ARSR facilities, use "Z" plus the identifier of the controlling ARTCC or military installation. Light systems will use the airport identifier and runway number. [Source:FAA Order 8250-42] Specifies the type of NAVAID
(Enumeration:	
CodeNavaidequipmentType)	
navigationalAidSystemType	Identifes the navigational aid equipment as part of an overall
(Enumeration:	system. For example the localizer and glideslope together make
CodeNavaidSystemType)	up the Instrument landing system (ILS) or the MLS Azimuth and MLS Elevation make up a Microwave Landing System
useCode (Enumeration:	The code that represents the airspace structure in which the
CodeUseCode)	aeronautical navigational aid is utilized.
antennaToThresholdDistance (Real)	The distance in feet that the antenna is from the runway threshold. Provide the distance to the nearest tenth of a foot.
centerlineDistance (Real)	Distance from the centerline perpendicular point to the physical runway end. This should be the same distance as the antenna to threshold distance unless the runway end the navigational aid serves has a displaced threshold. Provide this distance to the nearest tenth of a foot.
stopEndDistance (Real)	Provide the distance distance the from the antenna along the centerline to the stop end of the runway.
offsetDistance (Real)	The distance in feet that the feature is offset from the runway centerline. Provide this distance to the nearest tenth of a foot.
offsetDirection (Enumeration: CodeOffsetDirection)	Enter the direction (right, left, or on centerline) the navigational aid is offset from the runway. Determine the appropriate direction from the approach threshold down the runway.
lightingType (Enumeration: CodeLightingConfigurationType)	The type of Visual navigational aid system (use only when CodeNavaidEquipmentType is set to "visual")
status (Enumeration: codeStatus)	A temporal description of the operational status of the feature. This attribute is used to describe real-time status.
owner (String 75)	The owner of the facility
runwayEndId (String 3)	Identify the primary instrument runway served by the facility. When more than one runway is served by a precision approach aid (such as a PAR), provide a separate feature for each runway. This attribute is only required for ILS, MLS, TLS, and PAR.
referencePointEllipsoidHeight	Provide the height above the ellipsoid (HAE) for the referencePoint.

referencePointThreshold (Real)	Distance from the runway reference point to the threshold. Provide this distance to the nearest tenth of a foot. [Source:
	FAA AAS-100]
thresholdCrossingHeight (Real)	The designated crossing height of the flight path angle above the Landing Threshold Point (or Fictitious Threshold Point).
highAngle (Real)	Maximum approach light vertical angle [Source: FAA AAS- 100]
userFlag (String 254)	An operator-defined work area. This attribute can be used by the operator for user-defined system processes. It does not affect the subject item's data integrity and should not be used to store the subject item's data.
ellipsoidElevation (Real)	The Base Elevation for most NAVAIDs. For ILS DME, the elevation is the center of the antenna cover. For MLSAZ, MLSEL, and End Fire Type Glide Slope Antennas, the elevation is the phase center of the reference point.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together into a version.

5.10.9. Navaid Equipment – Glideslope (GS)

Silvisi Mavalu Equipment							
Definition: Provides vertical guidance for aircraft during approach and landing.							
Feature Group	Navigational Ai	ids					
Feature Class Name	NavaidEquipme	ent					
Feature Type	Point						
CADD Standard Requireme	ents						
Layer/Level		Des	cription				
C-AFLD-AIDS-		Airfield Na	vigational Aid -				
	Color						
AutoDesk Standards	4	Continuous	1	User Defined			
MicroStation Standards	7	Continuous	7	User Defined			
Information Assurance	Unalogrified						
Level	Uliciassified	Unclassified					
	AIXM	NavaidEquipmer	ıt	Extension			
Equivalent Standards	FGDC NavaidEquipmentExtension Extension						
_	SDSFIE	navigational_aia	l_point				
Documentation and	Document this	feature as describe	d in paragraphs 1	5.2 and 1.5.3			
Submission Requirements	Document uns	icature as describe	u ili paragrapiis <u>1.</u>	5.2 and $1.5.5$.			
Related Features							
Data Capture Rules: Collect the position of the NAVAID using the HSP and the elevation at the VSP.							
If the NAVAID penetrates an OIS or is selected as a representative object, additionally identify,							
almostify and do any and the NAVAID as an Obstando and area sinted as summer. When identifying a							

classify and document the NAVAID as an Obstacle and associated accuracy. When identifying a NAVAID as an obstacle, survey the highest point on the entire structure as the top elevation including appurtenances.

Monumentation	No monumentation required.	
	Horizontal	Vertical
Survey Point Location	Center of Antenna Supporting Structure	The intersection of the ground, gravel, concrete pad, or other base and plumb line through the HSP.

		TE BER		
Accuracy Requirements		Horizontal	Ver Orthometric	tical Ellipsoidal
(in feet)		± 1 ft	$\pm 0.25 \text{ ft}$	$\pm 0.20 \text{ ft}$
	Ge	ographic Coordinates		nd Elevations
Resolution		undredth of arc second	Nearest one foot	
Feature Attributes			·	
Attribute (Datatype)			Description	
name (VARCHAR2 (50))		Name of the feature		
description (VARCHAR2 (25	55))	A description or other un subject item, limited to 2:	-	ncerning the
faaFacilityId (String 4)		 Subject item, limited to 255 characters. Enter the identifier. When reporting on a glide slope, enter the identifier of the associated localizer. Do not enter the prefix "I" for ILS or "M" used with the MLS systems. Where more than one ASR is in operation at the same location or at an associated location, these equipments will be identified with the letters A, B, C, etc., following the identification (e.g., NQIB). The same applies to PAR identifiers. These alpha codes must be the same as those used to accomplish the daily flight log. For ARSR facilities, use "Z" plus the identifier of the controlling ARTCC or military installation. Light systems will use the airport identifier and runway number. [Source:FAA Order 8250-42] 		enter the prefix ns. Where more ation or at an e identified with ication (e.g., s. These alpha omplish the daily the identifier of on. Light systems
navaidEquipmentType (Enumeration:		Specifies the type of NAV	VAID	
CodeNavaidequipmentType)				
navigationalAidSystemType (Enumeration: CodeNavaidSystemType)		Identifes the navigational system. For example the up the Instrument landing and MLS Elevation make	localizer and glides system (ILS) or th	lope together make e MLS Azimuth
useCode (Enumeration: CodeUseCode)		The code that represents t aeronautical navigational	he airspace structur	

antennaToThresholdDistance (Real)	The distance in feet that the antenna is from the runway
	threshold. Provide the distance to the nearest tenth of a foot.
centerlineDistance (Real)	Distance from the centerline perpendicular point to the physical
	runway end. This should be the same distance as the antenna
	to threshold distance unless the runway end the navigational
	aid serves has a displaced threshold. Provide this distance to
	the nearest tenth of a foot.
stopEndDistance (Real)	Provide the distance distance the from the antenna along the
	centerline to the stop end of the runway.
offsetDistance (Real)	The distance in feet that the feature is offset from the runway
	centerline. Provide this distance to the nearest tenth of a foot.
offsetDirection	Enter the direction (right, left, or on centerline) the
(Enumeration:	navigational aid is offset from the runway. Determine the
CodeOffsetDirection)	appropriate direction from the approach threshold down the
,	runway.
lightingType	The type of Visual navigational aid system (use only when
(Enumeration:	CodeNavaidEquipmentType is set to "visual")
CodeLightingConfigurationType)	
status (Enumeration: codeStatus)	A temporal description of the operational status of the feature.
	This attribute is used to describe real-time status.
owner (String 75)	The owner of the facility
runwayEndId (String 3)	Identify the primary instrument runway served by the facility.
	When more than one runway is served by a precision approach
	aid (such as a PAR), provide a separate feature for each
	runway. This attribute is only required for ILS, MLS, TLS,
	and PAR.
referencePointEllipsoidHeight	Provide the height above the ellipsoid (HAE) for the
	referencePoint.
referencePointThreshold (Real)	Distance from the runway reference point to the threshold.
	Provide this distance to the nearest tenth of a foot. [Source:
	FAA AAS-100]
thresholdCrossingHeight (Real)	The designated crossing height of the flight path angle above
	the Landing Threshold Point (or Fictitious Threshold Point).
highAngle (Real)	Maximum approach light vertical angle [Source: FAA AAS-
	100]
userFlag (String 254)	An operator-defined work area. This attribute can be used by
	the operator for user-defined system processes. It does not
	affect the subject item's data integrity and should not be used to
	store the subject item's data.
ellipsoidElevation (Real)	The Base Elevation for most NAVAIDs. For ILS DME, the
	elevation is the center of the antenna cover. For MLSAZ,
	MLSEL, and End Fire Type Glide Slope Antennas, the
	elevation is the phase center of the reference point.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together
	into a version.

5.10.10.Navaid Equipment – Ground Controlled Approach (GCA) Touchdown Reflectors

Definition: Electronic NAVAII aircraft.	D equipment that provides precision approach information for incoming
Feature Group	Navigational Aids

Feature Class Name	NavaidEquipmen	nt			
Feature Type	Point				
CADD Standard Requiremen	ts				
Layer/Level	Description				
C-AFLD-AIDS-	Airfield Navigat				
	Color	Line Type	Line Weight	Symbol	
AutoDesk Standards	4		1		
MicroStation Standards	7	Continuous	7	User Defined	
Information Assurance	TT 1 . C 1				
Level	Unclassified				
	AIXM	NavaidEquipmer	ıt	Extension	
Equivalent Standards	FGDC	NavaidEquipmer	ntExtension	Extension	
	SDSFIE	navigational aid			
Documentation and					
Submission Requirements	Document this fe	eature as described	in paragraphs <u>1.5</u>	$\underline{.2}$ and $\underline{1.5.3}$.	
Related Features					
Data Capture Rules: Collect i	the position of the	NAVAID using the	HSP and the eleve	ation at the VSP.	
If the NAVAID penetrates an O					
classify and document the NAV					
NAVAID as an obstacle, survey				<i>v</i> , 0	
appurtenances.	0 1		1	0	
Monumentation	No monumentati	on required.			
		zontal	Vertical		
			The intersection	of the ground,	
Survey Point Location			gravel, concrete	•	
·	Center of Antenn	na Array	base and plumb		
			HSP.		
	HSP				

A annual Degriture of C	Horizontal	Vert	Vertical		
Accuracy Requirements (in feet)	Horizontal	Orthometric	Ellipsoidal		
leet)	± 10 ft	± 20 ft	± 20 ft		
Resolution —	Geographic Coordinates	Distances and	d Elevations		
Resolution	Hundredth of arc second	Nearest one foot			
Feature Attributes					
Attribute (Datatype)	De	escription			
name (VARCHAR2 (50))	Name of the feature				
description (VARCHAR2 (255))	A description or other unique subject item, limited to 255		erning the		
faaFacilityId (String 4)	identifier of the associated le "I" for ILS or "M" used with than one ASR is in operation associated location, these eq the letters A, B, C, etc., follo NQIB). The same applies to codes must be the same as th flight log. For ARSR facilit the controlling ARTCC or m	Enter the identifier. When reporting on a glide slope, enter the identifier of the associated localizer. Do not enter the prefix "I" for ILS or "M" used with the MLS systems. Where more than one ASR is in operation at the same location or at an associated location, these equipments will be identified with the letters A, B, C, etc., following the identification (e.g., NQIB). The same applies to PAR identifiers. These alpha codes must be the same as those used to accomplish the daily flight log. For ARSR facilities, use "Z" plus the identifier of the controlling ARTCC or military installation. Light systems will use the airport identifier and runway number.			
navaidEquipmentType (Enumeration: CodeNavaidequipmentType)	Specifies the type of NAVA				
navigationalAidSystemType (Enumeration: CodeNavaidSystemType)	Identifes the navigational aid system. For example the loca up the Instrument landing sy and MLS Elevation make up	alizer and glideslop stem (ILS) or the N	e together make MLS Azimuth		
useCode (Enumeration: CodeUseCode)	The code that represents the aeronautical navigational aid	airspace structure i			
antennaToThresholdDistance (Re		antenna is from the			
centerlineDistance (Real)	Distance from the centerline physical runway end. This s antenna to threshold distance navigational aid serves has a distance to the nearest tenth	should be the same e unless the runway displaced threshol	distance as the v end the		
stopEndDistance (Real)	Provide the distance distance centerline to the stop end of	the runway.	C		
offsetDistance (Real)	The distance in feet that the centerline. Provide this distance				
offsetDirection	Enter the direction (right, let				
(Enumeration: CodeOffsetDirection)		navigational aid is offset from the runway. Determine the appropriate direction from the approach threshold down the			
lightingType (Enumeration: CodeLightingConfigurationType)	The type of Visual navigation CodeNavaidEquipmentType		e only when		

status (Enumeration: codeStatus)	A temporal description of the operational status of the feature. This attribute is used to describe real-time status.
owner (String 75)	The owner of the facility
runwayEndId (String 3)	Identify the primary instrument runway served by the facility. When more than one runway is served by a precision approach aid (such as a PAR), provide a separate feature for each runway. This attribute is only required for ILS, MLS, TLS, and PAR.
referencePointEllipsoidHeight	Provide the height above the ellipsoid (HAE) for the referencePoint.
referencePointThreshold (Real)	Distance from the runway reference point to the threshold. Provide this distance to the nearest tenth of a foot. [Source: FAA AAS-100]
thresholdCrossingHeight (Real)	The designated crossing height of the flight path angle above the Landing Threshold Point (or Fictitious Threshold Point).
highAngle (Real)	Maximum approach light vertical angle [Source: FAA AAS- 100]
userFlag (String 254)	An operator-defined work area. This attribute can be used by the operator for user-defined system processes. It does not affect the subject item's data integrity and should not be used to store the subject item's data.
ellipsoidElevation (Real)	The Base Elevation for most NAVAIDs. For ILS DME, the elevation is the center of the antenna cover. For MLSAZ, MLSEL, and End Fire Type Glide Slope Antennas, the elevation is the phase center of the reference point.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together into a version.

5.10.11.Navaid Equipment – Inner Marker (IM)

Definition: Marker beacon used with an ILS (CAT II) precision approach located between the middle marker and the end of the ILS runway, transmitting a radiation pattern keyed at six dots per second and indicating to the pilot, both aurally and visually, that he/she is at the designated decision height (DH), normally 100 feet above the touchdown zone elevation, on the ILS CAT II approach. It also marks progress during a CAT III approach.

Feature Group	Navigational A	ids					
Feature Class Name	NavaidEquipm	NavaidEquipment					
Feature Type	Point						
CADD Standard Requirements							
Layer/Level		Desci	ription				
C-AFLD-AIDS	Airfield Naviga	ational Aid -					
	Color	Color Line Type Line Weight Symbol					
AutoDesk Standards	4 Continues 1 How Defi						
MicroStation Standards	7	Continuous	7	User Defined			
Information Assurance Level	Unclassified						
	AIXM	NavaidEquipmen	et (Extension			
Equivalent Standards	FGDC NavaidEquipmentExtension Extension						
	SDSFIE navigational aid point						
Documentation and Submission Requirements	Document this feature as described in paragraphs $1.5.2$ and $1.5.3$.						

Related Features						
If the NAVAID penetrates an OIS classify and document the NAVA	he position of the NAVAID using the S or is selected as a representative of ID as an Obstacle and associated a The highest point on the entire struct	bject, additionally ccuracy. When ider	identify, 1tifying a			
Monumentation	No monumentation required.					
	Horizontal					
Survey Point Location	Center of Antenna Array The intersection of the gro base and plumb line throug HSP.					
HSP VSP						
VS		Vort	ical			
Accuracy Requirements (in	Horizontal	Vert Orthometric				
	Horizontal	Orthometric	Ellipsoidal			
Accuracy Requirements (in	Horizontal ± 10 ft	Orthometric ± 20 ft	Ellipsoidal N/A			
Accuracy Requirements (in	Horizontal ± 10 ft Geographic Coordinates	Orthometric± 20 ftDistances and	Ellipsoidal N/A d Elevations			
Accuracy Requirements (in feet) Resolution	Horizontal ± 10 ft	Orthometric ± 20 ft	Ellipsoidal N/A d Elevations			
Accuracy Requirements (in feet) Resolution Feature Attributes	Horizontal ± 10 ft Geographic Coordinates Hundredth of arc second	Orthometric \pm 20 ftDistances andNearest of	Ellipsoidal N/A d Elevations			
Accuracy Requirements (in feet) Resolution Feature Attributes Attribute (Datatype)	Horizontal ± 10 ft Geographic Coordinates Hundredth of arc second De	Orthometric± 20 ftDistances and	Ellipsoidal N/A d Elevations			
Accuracy Requirements (in feet) Resolution Feature Attributes Attribute (Datatype) name (VARCHAR2 (50))	Horizontal ± 10 ft Geographic Coordinates Hundredth of arc second De Name of the feature	Orthometric± 20 ftDistances and Nearest ofescription	Ellipsoidal N/A d Elevations one foot			
Accuracy Requirements (in feet) Resolution Feature Attributes Attribute (Datatype)	Horizontal ± 10 ft Geographic Coordinates Hundredth of arc second De Name of the feature	Orthometric ± 20 ft Distances and Nearest of escription e information concord	Ellipsoidal N/A d Elevations one foot			

navaidEquipmentType	Specifies the type of NAVAID
(Enumeration:	specifies the type of two wild
CodeNavaidequipmentType)	
navigationalAidSystemType	Identifes the navigational aid equipment as part of an overall
(Enumeration:	system. For example the localizer and glideslope together make
CodeNavaidSystemType)	up the Instrument landing system (ILS) or the MLS Azimuth
CodervavaldSystemType)	and MLS Elevation make up a Microwave Landing System
useCode (Enumeration:	
CodeUseCode)	The code that represents the airspace structure in which the
antennaToThresholdDistance (Real)	aeronautical navigational aid is utilized.
antenna i o i mesnoluDistance (Real)	The distance in feet that the antenna is from the runway threshold. Provide the distance to the nearest tenth of a foot.
centerlineDistance (Real)	Distance from the centerline perpendicular point to the
	physical runway end. This should be the same distance as the
	antenna to threshold distance unless the runway end the
	navigational aid serves has a displaced threshold. Provide this
ster Dr. JD: sterrer (Dec1)	distance to the nearest tenth of a foot.
stopEndDistance (Real)	Provide the distance distance the from the antenna along the
	centerline to the stop end of the runway.
offsetDistance (Real)	The distance in feet that the feature is offset from the runway
	centerline. Provide this distance to the nearest tenth of a foot.
offsetDirection	Enter the direction (right, left, or on centerline) the
(Enumeration:	navigational aid is offset from the runway. Determine the
CodeOffsetDirection)	appropriate direction from the approach threshold down the
	runway.
lightingType	The type of Visual navigational aid system (use only when
(Enumeration:	CodeNavaidEquipmentType is set to "visual")
CodeLightingConfigurationType)	
status (Enumeration: codeStatus)	A temporal description of the operational status of the feature.
	This attribute is used to describe real-time status.
owner (String 75)	The owner of the facility
runwayEndId (String 3)	Identify the primary instrument runway served by the facility.
	When more than one runway is served by a precision approach
	aid (such as a PAR), provide a separate feature for each
	runway. This attribute is only required for ILS, MLS, TLS,
	and PAR.
referencePointEllipsoidHeight	Provide the height above the ellipsoid (HAE) for the
	referencePoint.
referencePointThreshold (Real)	Distance from the runway reference point to the threshold.
	Provide this distance to the nearest tenth of a foot. [Source:
	FAA AAS-100]
thresholdCrossingHeight (Real)	The designated crossing height of the flight path angle above
	the Landing Threshold Point (or Fictitious Threshold Point).
highAngle (Real)	Maximum approach light vertical angle [Source: FAA AAS-
	100]
userFlag (String 254)	An operator-defined work area. This attribute can be used by
	the operator for user-defined system processes. It does not
	affect the subject item's data integrity and should not be used to store the subject item's data.
	atoma the any less of stample clote

ellipsoidElevation (Real)	The Base Elevation for most NAVAIDs. For ILS DME, the elevation is the center of the antenna cover. For MLSAZ,
	MLSEL, and End Fire Type Glide Slope Antennas, the elevation is the phase center of the reference point.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together into a version.

5.10.12.Navaid Equipment – Localizer (LOC)

Definition: The component			a course quidene	a to the runway			
Definition: The component of an ILS that provides course guidance to the runway.Feature GroupNavigational Aids							
Feature Group							
		NavaidEquipment					
	Feature Type Point						
CADD Standard Requiren	nents						
Layer/Level			Descri	ption			
C-AFLD-AIDS-	Airfield Navig	ationa					
	Color		Line Type	Line Weight	Symbol		
AutoDesk Standards	4		Continuous	1	User Defined		
MicroStation Standards	7		Continuous	7	User Defined		
Information Assurance	Unclassified						
Level	Unclassified						
	AIXM	Nav	aidEquipment		Extension		
Equivalent Standards	FGDC	Nav	aidEquipmentExt	tension	Extension		
•	SDSFIE		igational aid poi				
Documentation and			0				
Submission	Document this	featu	re as described in	paragraphs 1.5.2 a	and 1.5.3.		
Requirements				I	· · · <u></u> ·		
Related Features							
Data Capture Rules: Colle	ect the position o	f the I	NAVAID using th	e HSP and the elev	ation at the VSP.		
If the NAVAID penetrates ar							
classify and document the N							
NAVAID as an obstacle, sur							
appurtenances.				I I I I I I I I I I I I I I I I I I I			
	Mark and docu	iment	the selected surv	ey point for validat	ion by NGS and		
				e. When the ends o			
				he positions using			
Monumentation				ible with a distinct			
	ensure future identification. Mark the survey point with a nail and washer inscribed with the setting company's name and year.						
		orizoi			tical		
		ULIZUI	11.41	The intersection of			
Survey Point Location	Center of Ante	nna S	upporting				
-	Structure			gravel, concrete pad, or other base			
	and plumb line through the HSP.						

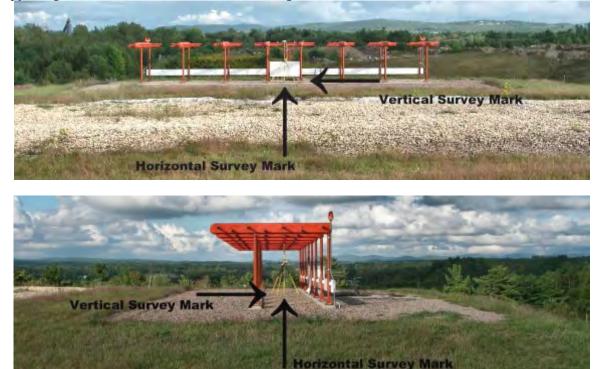
Determining the HSP and Vertical Point #1 of a Localizer

A localizer (LOC) antenna array is normally located beyond the departure end of the runway it serves (localizer 17 is on the south end of the runway) and generally consists of several pairs of directional antennas. The localizer operates as a component of the Instrument Landing System or ILS; however, it can be operated by itself. Since the localizer is made up of a set of arrays (antenna's) it provides a unique challenge in determining the center of the antenna unit. In the figure below, there are 14 antenna elements. The proper method of determining the HSP is to find the center of the supporting structure at the center of the antenna array. In this figure, this is the center of the center of structures supporting the seventh antenna element from each side.

 	 	-		 	 	 	
		-	~ ~				
			- C				

Illustration of a localizer antenna array depicting each of the elements and the selection of the HSP and Vertical Point #1.

In order to locate the center of the supporting structure the surveyor, is required to first locate the center of the array and then the center of the supporting structure. In order to locate the center of the supporting structure in the figure above, the surveyor would locate the center of the space between the seventh element from each end. It is recommended the surveyor use tape measures or string to form a "X" and then use a plumb bob to locate the point at the base of the antenna. Another method of the same technique is to draw lines in between the bolts supporting the elements and forming an "X" to locate the center. If the antenna array has an odd number of elements such as 15, then the center of the supporting structure would be the center of the eighth element.



A	Horizontal	Vertical		
Accuracy Requirements (in feet)	Horizontal	Orthometric	Ellipsoidal	
(m leet)	± 1 ft	± 0.25 ft	N/A	
Resolution	Geographic Coordinates	Distances and Elevations		
Resolution	Hundredth of arc second	Nearest one foot		

Feature Attributes	
Attribute (Datatype)	Description
name (VARCHAR2 (50))	Name of the feature
description (VARCHAR (255))	A description or other unique information concerning the subject item, limited to 255 characters.
faaFacilityId (String 4)	Enter the identifier. When reporting on a glide slope, enter the identifier of the associated localizer. Do not enter the prefix "I" for ILS or "M" used with the MLS systems. Where more than one ASR is in operation at the same location or at an associated location, these equipments will be identified with the letters A, B, C, etc., following the identification (e.g., NQIB). The same applies to PAR identifiers. These alpha codes must be the same as those used to accomplish the daily flight log. For ARSR facilities, use "Z" plus the identifier of the controlling ARTCC or military installation. Light systems will use the airport identifier and runway number. [Source:FAA Order 8250-42]
navaidEquipmentType (Enumeration:	Specifies the type of NAVAID
CodeNavaidequipmentType)	
navigationalAidSystemType	Identifes the navigational aid equipment as part of an overall
(Enumeration: CodeNavaidSystemType)	system. For example the localizer and glideslope together make up the Instrument landing system (ILS) or the MLS Azimuth
	and MLS Elevation make up a Microwave Landing System
useCode (Enumeration:	The code that represents the airspace structure in which the
CodeUseCode)	aeronautical navigational aid is utilized.
antennaToThresholdDistance (Real)	The distance in feet that the antenna is from the runway threshold. Provide the distance to the nearest tenth of a foot.
centerlineDistance (Real)	Distance from the centerline perpendicular point to the physical runway end. This should be the same distance as the antenna to threshold distance unless the runway end the navigational aid serves has a displaced threshold. Provide this distance to the nearest tenth of a foot.
stopEndDistance (Real)	Provide the distance distance the from the antenna along the centerline to the stop end of the runway.
offsetDistance (Real)	The distance in feet that the feature is offset from the runway centerline. Provide this distance to the nearest tenth of a foot.
offsetDirection	Enter the direction (right, left, or on centerline) the navigational
(Enumeration:	aid is offset from the runway. Determine the appropriate
CodeOffsetDirection)	direction from the approach threshold down the runway.
lightingType	The type of Visual navigational aid system (use only when
(Enumeration:	CodeNavaidEquipmentType is set to "visual")
CodeLightingConfigurationType)	
status (Enumeration: codeStatus)	A temporal description of the operational status of the feature. This attribute is used to describe real-time status.
owner (String 75)	The owner of the facility

runwayEndId (String 3)	Identify the primary instrument runway served by the facility. When more than one runway is served by a precision approach
	aid (such as a PAR), provide a separate feature for each
	runway. This attribute is only required for ILS, MLS, TLS,
	and PAR.
referencePointEllipsoidHeight	Provide the height above the ellipsoid (HAE) for the
	referencePoint.
referencePointThreshold (Real)	Distance from the runway reference point to the threshold.
	Provide this distance to the nearest tenth of a foot. [Source:
	FAA AAS-100]
thresholdCrossingHeight (Real)	The designated crossing height of the flight path angle above
	the Landing Threshold Point (or Fictitious Threshold Point).
highAngle (Real)	Maximum approach light vertical angle [Source: FAA AAS-
	100]
userFlag (String 254)	An operator-defined work area. This attribute can be used by
	the operator for user-defined system processes. It does not
	affect the subject item's data integrity and should not be used to
	store the subject item's data.
ellipsoidElevation (Real)	The Base Elevation for most NAVAIDs. For ILS DME, the
	elevation is the center of the antenna cover. For MLSAZ,
	MLSEL, and End Fire Type Glide Slope Antennas, the
	elevation is the phase center of the reference point.
Alternative (Number(2))	Discriminator used to tie features of a plan or proposal together
	into a version.

5.10.13.Navaid Equipment – Localizer Type Directional Aid (LDA)

Definition: A NAVAID used for nonprecision instrument approaches with utility and accuracy						
comparable to a localizer but which is not a part of a complete ILS and is not aligned with the runway.						
Feature Group	Navigational Aid	S				
Feature Class Name	NavaidEquipmen	ıt				
Feature Type	Point					
CADD Standard Requiremen	ts					
Layer/Level		Descr	iption			
C-AFLD-AIDS-		Airfield Navi	gational Aid -			
	Color	Line Type	Line Weight	Symbol		
AutoDesk Standards	4	Continuous	1	User Defined		
MicroStation Standards	7	Continuous	7	User Defined		
Information Assurance	Unclassified					
Level	Unclassified					
	AIXM	NavaidEquipme	ent	Extension		
Equivalent Standards	FGDC	NavaidEquipme	entExtension	Extension		
	SDSFIE	navigational_ai	d_point			
Documentation and	Document this fo	ature as described	in paragraphs 1.5	2 and 1 5 2		
Submission Requirements	Document uns le	ature as described	in paragraphs <u>1.5</u>	<u>.2</u> allu <u>1.5.5</u> .		
Related Features						
Data Capture Rules: Collect	the position of the l	NAVAID using the	HSP and the elev	ation at the VSP.		
If the NAVAID penetrates an O	If the NAVAID penetrates an OIS or is selected as a representative object, additionally identify,					
classify and document the NAVAID as an Obstacle and associated accuracy. When identifying a						
NAVAID as an obstacle, survey the highest point on the entire structure as the top elevation including						
appurtenances.						