



Santa Clara County Parks

**Recreational Facilities**






















# **CALERO COUNTY PARK GEODATABASE DESIGN**


*May 17, 2023*

*Prepared By:*

**Christopher Prendergast**  
West Valley College  
Geographic Information Systems  
Technology



1	Introduction.....	4
1.1	Background .....	4
1.2	Projection & Datum .....	4
1	Detailed Geodatabase Design .....	5
1.3	Recreational Facilities Geodatabase and the CMMS.....	5
1.4	Overview of Design .....	5
2	Recurring Fields.....	6
2.1	Facility Number-related fields .....	6
2.2	Other recurring fields (Occur in all feature classes) .....	6
3	Overview of Feature Classes .....	7
4	Buildings (A) Feature Class.....	8
4.1	Buildings  .....	8
5	Grounds (B) Facility Classes .....	10
5.1	Grounds_CampPicncPts  (Not implemented).....	10
5.2	Grounds_CamppicncPly  (Not implemented).....	10
5.3	Grounds_Pts  (Not implemented) .....	10
5.4	Grounds_Lines  (Not implemented) .....	10
5.5	Grounds_Poly  .....	10
6	Roads, Ramps, Parking Facility Classes.....	12
6.1	Road_Bridges  (Not implemented).....	12
6.2	Roads_CampSpur  (Not implemented).....	12
6.3	Parking  .....	12
6.4	Roads  .....	13
6.5	Roads_Other  (Not implemented).....	14
7	Structures (D) Facility Classes.....	15
7.1	Structures_Fences  (Not implemented).....	15
7.2	Structures_Signs  .....	15
7.3	Structures_Other  (Not implemented).....	16
7.4	Structures_Dams  .....	16
7.5	Structures_Levees  (Not implemented) .....	17
7.6	Structures_BankPrctn  (Not implemented).....	18
8	Systems Facility Classes .....	19
8.1	Systems_Lines  (Not implemented).....	19
8.2	Systems_Pts  (Not implemented).....	19
8.3	Systems_Poly  (Not implemented) .....	19
9	Riding, Hiking Trails (F) Facility Classes .....	20
9.1	Trails  .....	20

10	Additional Feature Classes .....	22
10.1	Stream  .....	22
11	Overview of Domains .....	23
12	Domain Details .....	24
12.1	BANK_PRTCTN (Long integer) .....	24
12.2	BRIDGE_TYPE (Text) .....	24
12.3	BUILDING_ADMIN (Text) .....	25
12.4	BUILDING_CONCESSION (Text).....	25
12.5	BUILDING_EMPLOYEE (Text).....	26
12.6	BUILDING_HISTORIC (Text) .....	26
12.7	BUILDING_PUBLIC (Text).....	27
12.8	CAMP_ACCESS (Text) – Not used .....	27
12.9	CAMP_POLY (Text) – Not used .....	27
12.10	CAMP_TYPE (Text) – Not used.....	27
12.11	DAM_TYPE (Long integer).....	28
12.12	FACILITY_CLASS (Text).....	28
12.13	FENCE_PURPOSE (Text) – Not used.....	28
12.14	FENCE_TYPE (Long integer) – Not used.....	28
12.15	FUEL_TYPE (Text) – Not used.....	28
12.16	GEN_SUBTYPE (Long integer) – Not used.....	29
12.17	GPS_LOC (Long integer).....	29
12.18	GRNDS_TYPE (Text).....	29
12.19	PARKING_INUND (Long integer) .....	29
12.20	PICNIC_TYPE (Text) .....	30
12.21	ROAD_BARRIER (Text) – Not used .....	30
12.22	ROAD BUMPER (Text) – Not used .....	30
12.23	ROAD_GUARDRL (Text) – Not used .....	30
12.24	ROAD_SURFACE (Text) – Not used.....	30
12.25	ROAD_WIDTH (Long integer) .....	30
12.26	SIGNS_CONST (Text) – Not used .....	31
12.27	SIGNS_HAZARD (Text) – Not used.....	31
12.28	SIGNS_INTERP (Text) – Not used .....	31
12.29	SIGNS_LANDMGT (Text) – Not used .....	31
12.30	SIGNS_PKMGT (Text).....	31
12.31	SIGNS_REC (Text) – Not used.....	33
12.32	SIGNS_REG (Text) – Not used .....	33
12.33	SIGNS_WARN (Text) – Not used.....	33
12.34	SIGNS_WINTEREC (Text) – Not used.....	34
12.35	SPUR_QTY (Text) – Not used.....	34
12.36	STRUCTURE_ADMIN (Text) – Not used.....	34
12.37	STRUCTURE_MARINE (Text) – Not used.....	34
12.38	STRUCTURE_PUBLIC (Text).....	34
12.39	SYS_OTHER (Text) – Not used .....	35
12.40	TRAIL_ACCESS (Long integer).....	36
12.41	YES_NO (Long integer).....	36

# **1 Introduction**

## **1.1 Background**

The California Department of Parks and Recreation (DPR) operates and maintains a broad range of recreational facilities within its 279 park units. An equally broad range of information is used to support planning, development, management, and maintenance activities of these valuable public resources. This information is represented in Computer-Aided Design & Drafting (CADD) drawings, photographs, aerial imagery, Geographic Information System (GIS) data, tabular data records (both paper and electronic formats), and project-specific studies.

These diverse collections of information are currently dispersed (but not easily accessible) within individual Park system offices: headquarters, regional service centers, districts, and certain park units. It is becoming increasingly important for DPR staff at all organizational levels to have better access to these information resources. The goal of this project will be to provide a unified structure for maintaining, accessing, and using these diverse information resources to support a host of recreation facility management activities.

The work tasks will focus on developing data structures, methods, and applications that will facilitate information maintenance, dissemination, and use to support a broad range of planning, decision-making, and day-to-day operations.

## **1.2 Projection & Datum**

The facility geodatabase uses the California III State Plane projection (FIPS 0403) and the 1983 North American Datum (NAD). US feet are used as the unit of distance. The Albers detail is listed below:

False easting: 0  
False Northing: -4,000,000  
Central Meridian: -120  
Standard parallel 1: 34  
Standard parallel 2: 40.5  
Latitude of origin: 0

# 1 Detailed Geodatabase Design

## 1.3 Recreational Facilities Geodatabase and the CMMS

The Recreational Facilities Geodatabase contains many types of spatially enabled database records (called features). Similar features are stored in tables called feature classes.

### 1.4 Overview of Design

The following section describes the state-wide Facility Number coding scheme and its various components as they appear in the geodatabase design. The *DPR Maintenance Manual's* Chapter 8, which describes Facility Numbers in detail, is located in Appendix C.

A complete description of each field used to store Facility Number data within the geodatabase follows. Several feature specific fields have been included in the design to use for information and spatial analysis (e.g., GPS location site, whether the feature is historically significant, etc.); these fields are described under each feature class.

Note that all fields default to “undefined” where possible. This method has been used as a flag to GIS users, showing which fields need data. The undefined option has been used in place of “<null>” because of ArcPad users. ArcPad automatically assigns the first available choice to subtype and other fields (i.e., ArcPad 6.0.3 does not allow null values).

## 2 Recurring Fields

### 2.1 Facility Number-related fields

- **FACILITY\_NBR** - Statewide inventory coding, as described in the CMMS (MAXIMO) maintenance database (text field with up to 16 characters, i.e., 301-A-5-05-3-004). This field will be populated with CMMS Facility Numbers as data is interactively validated with the CMMS validation tool.
- **UNIT\_NBR** – Park unit number (text field with up to 4 characters). This field is required to validate the GIS feature against the CMMS.
- **FACILITY\_CLASS** – Text field (with up to 2 characters) related to the high-level FACILITY\_CLASS domain. This field is required to validate the GIS feature against the CMMS.
- **SUBCLASS** – Long integer field, describes “sub-class” in the Facility ID. This field is required to validate the GIS feature against the CMMS.
- **TYPE** – Text field, describes “type” in the Facility ID. This field is required to validate the GIS feature against the CMMS.
- **SUBTYPE** – 2-character text field, describes “sub-type” in the Facility ID.

### 2.2 Other recurring fields (Occur in all feature classes)

- **ADA\_ACCESS** – Long integer field, “Does item conform to required ADA standards?” Associated with the domain YES\_NO
- **PLANS** – Long integer field, “Do plans exist for this structure?” Associated with the domain YES\_NO
- **PLANS\_LINK** – Text field used for a hyperlink to the plan’s location.
- **HISTORIC\_SIG** – Long integer field, “Is this facility historically significant?” Associated with the domain YES\_NO
- **GPS\_LOC** - Long integer field, describes collection point for GPS data; Associated with domain GPS\_LOC
- **DESCRIPTION** – Text field used for feature description.
- **CMMS\_MATCH** – Long integer field used as a toggle to show records matched to the CMMS, associated with the domain YES\_NO

### 3 Overview of Feature Classes






















Name	Type
 Building	File Geodatabase Feature Class
 Grounds_CampPicnicPly	File Geodatabase Feature Class
 Grounds_CampPicnicPts	File Geodatabase Feature Class
 Grounds_Lines	File Geodatabase Feature Class
 Grounds_Poly	File Geodatabase Feature Class
 Grounds_Pts	File Geodatabase Feature Class
 Parking	File Geodatabase Feature Class
 Roads	File Geodatabase Feature Class
 Roads_Bridges	File Geodatabase Feature Class
 Roads_CampSpur	File Geodatabase Feature Class
 Roads_Other	File Geodatabase Feature Class
 Structures_BankPrctcn	File Geodatabase Feature Class
 Structures_Dams	File Geodatabase Feature Class
 Structures_Fences	File Geodatabase Feature Class
 Structures_Levees	File Geodatabase Feature Class
 Structures_Other	File Geodatabase Feature Class
 Structures_Signs	File Geodatabase Feature Class
 Systems_Lines	File Geodatabase Feature Class
 Systems_Poly	File Geodatabase Feature Class
 Systems_Pts	File Geodatabase Feature Class
 Trails	File Geodatabase Feature Class

Figure 1 - Feature Classes

## 4 Buildings (A) Feature Class

### 4.1 Buildings

The Buildings feature class captures the location of building structures as points. The class defaults to A (Buildings). Buildings supports various types of structures though the use of subtypes. Unique domains have been assigned to each subtype identified with a feature class, ensuring better control of allowable attribute values.

Subtypes and attribute domains function to provide control over field values. The building type domain changes with each building subtype, i.e., Users see a drop-down list of values, as contained in the assigned domain; choosing the administrative building subtype (subtype code 1) will limit the field choices to administrative building types, such as an office or fire house.

The type is assigned by selecting an item from the appropriate domain associated with each subclass, i.e., if the Administration and Operations class is selected (which uses the BUILDING\_ADMIN domain), then the type would be limited to those buildings which are listed in the Administration and Operations class.

FACILITY_NBR	See description above.
UNIT_NBR	See description above.
FACILITY_CLASS	See description above; Defaults to A (Buildings; includes historic structures and ships)
SUBCLASS	Long integer field linked to subtypes: <i>0 Undefined (default)</i> 1 Administration and Operations 2 Concession 3 Employee 4 Historic 5 Public Use
TYPE	Text field used to describe type of building; associated with the domains named for their subtype in the format: BUILDING_(SUBTYPE)
YR_BUILT	Text field describing year structure was built.
ADA_ACCESS	See description above.
PLANS	See description above.
PLANS_LINK	See description above.
HISTORIC_SIG	See description above.
GPS_LOC	See description above.
DESCRIPTION	See description above.
CMMS_MATCH	See description above.



Subtype Name >		Undefined		Administration and Operations		Concession	
Field Name	Data Type	Domain	Default Value	Domain	Default Value	Domain	Default Value
OBJECTID	Object ID						
Shape	Geometry						
FACILITY_NBR	Text		Undefined		Undefined		Undefined
UNIT_NBR	Text		n/a		n/a		n/a
FACILITY_CLASS	Text	FACILITY_CLASS	Buildings	FACILITY_CLASS	Buildings	FACILITY_CLASS	Buildings
<b>*SUBCLASS</b>	Long		0		1		2
TYPE	Text	BUILDING_ADMIN	Undefined	BUILDING_ADMIN	Undefined	BUILDING_CONCESSION	Undefined
YR_BUILT	Text						
ADA_ACCESS	Long	YES_NO	Undefined	YES_NO	Undefined	YES_NO	Undefined
PLANS	Long	YES_NO	Undefined	YES_NO	Undefined	YES_NO	Undefined
PLANS_LINK	Text						
HISTORIC_SIG	Long	YES_NO	Undefined	YES_NO	Undefined	YES_NO	Undefined
GPS_LOC	Long	GPS_LOC	Undefined	GPS_LOC	Undefined	GPS_LOC	Undefined
DESCRIPTION	Text						
CMMS_MATCH	Long	YES_NO	Undefined	YES_NO	Undefined	YES_NO	Undefined

Figure 2 - Building Feature Class Subtypes

## 5 Grounds (B) Facility Classes

The Grounds\_CampPicncPts (points) and Grounds\_CampPicncPly (polygons) feature classes use subtypes to store both campsites and picnic areas in single feature classes. Each point feature in the feature class represents a single campsite. A campground would be identified as a group of features in close proximity.

### 5.1 Grounds\_CampPicncPts (Not implemented)

Not used.

### 5.2 Grounds\_CamppicncPly (Not implemented)

Not used.

### 5.3 Grounds\_Pts (Not implemented)

Not used.

### 5.4 Grounds\_Lines (Not implemented)

Not used.

### 5.5 Grounds\_Poly

The Grounds\_Poly feature class stores polygon data associated with grounds (except Camp Areas and Picnic Areas). The Class is predefined as B (Grounds). Subtypes are used to categorize the various subclasses. The TYPE field stores Ground Cover types (see the GRNDS\_TYPE domain).

FACILITY_NBR	See description above.
UNIT_NBR	See description above.
FACILITY_CLASS	See description above; defaults to B (Grounds)
SUBCLASS	Long integer field for Grounds categories, subtypes:
0	Undefined (default)
1	Ground Cover
2	Roadside
3	Trees
4	Use Areas
5	Golf Course
6	Lagoon/Lake
7	Trellis
8	Fuelbreak/Firebreak

Note: Areas closed to public access are categorized as 0 – Undefined.

TYPE Text field used to describe type of ground cover; associated with the domain GRNDS\_TYPE  
 GPS\_LOC See description above.  
 DESCRIPTION See description above.  
 CMMS\_MATCH See description above.

Subtype Name >		Undefined		Ground Cover		Roadside		Trees		Use Area		Golf Course		Lagoon/Lake	
Field Name	Data Type	Domain	Default Value	Domain	Default Value	Domain	Default Value	Domain	Default Value	Domain	Default Value	Domain	Default Value	Domain	Default Value
OBJECTID	Object ID														
Shape	Geometry														
Shape_Length	Double														
Shape_Area	Double														
FACILITY_NBR	Text		Undefined		Undefined		Undefined		Undefined		Undefined		Undefined		Undefined
UNIT_NBR	Text		n/a		n/a		n/a		n/a		n/a		n/a		n/a
FACILITY_CLASS	Text	FACILITY_CLASS	Grounds	FACILITY_CLASS	Grounds	FACILITY_CLASS	Grounds	FACILITY_CLASS	Grounds	FACILITY_CLASS	Grounds	FACILITY_CLASS	Grounds	FACILITY_CLASS	Grounds
*SUBCLASS	Long		0		1		2		3		4		5		6
TYPE	Text	GRNDS_TYPE	Undefined	GRNDS_TYPE	Undefined	GRNDS_TYPE	Undefined	GRNDS_TYPE	Undefined	GRNDS_TYPE	Undefined	GRNDS_TYPE	Undefined	GRNDS_TYPE	Undefined
GPS_LOC	Long	GPS_LOC	Undefined	GPS_LOC	Undefined	GPS_LOC	Undefined	GPS_LOC	Undefined	GPS_LOC	Undefined	GPS_LOC	Undefined	GPS_LOC	Undefined
DESCRIPTION	Text														
CMMS_MATCH	Long	YES_NO	Undefined	YES_NO	Undefined	YES_NO	Undefined	YES_NO	Undefined	YES_NO	Undefined	YES_NO	Undefined	YES_NO	Undefined

Figure 3 - Grounds\_Poly Feature Class Subtypes

## 6 Roads, Ramps, Parking Facility Classes

### 6.1 Road\_Bridges (Not implemented)

Not used.

### 6.2 Roads\_CampSpur (Not implemented)

Not used.

### 6.3 Parking

The Parking feature class stores polygonal data associated with the two types of parking lots, general and boat ramp. The Class is pre-defined as C (Roads, Ramps, and Parking). The General parking lot Subtype is categorized by the GEN\_SUBTYPE domain. Boat ramp parking lot Subtypes (designated as “inundated yearly” or not) are defined by the PARKING\_INUND domain. The ROAD\_SURFACE domain used in the RdTrlSeg Feature Class is also used here to describe the parking lot surface type.

Feature class for parking lot polygon data

FACILITY_NBR	See description above.
UNIT_NBR	See description above.
FACILITY_CLASS	See description above; defaults to C (Roads, Ramps, and Parking)
SUBCLASS	Long integer field linked to subtypes: 0 <i>Undefined (default)</i> 6 General 8 Boat ramp
TYPE	Text field describing the type of parking lot; Associated with the domain ROAD_SURFACE
GEN_SUBTYPE	Long integer field describing category of general parking lot; associated with the domain GEN_SUBTYPE
RAMP_SUBTYPE	Long integer field, “Is parking lot inundated during the year? Associated with the domain PARKING_INUND
ADA_ACCESS	See description above.
GPS_LOC	See description above.
DESCRIPTION	See description above.
CMMS_MATCH	See description above.

Subtype Name >		Undefined		General		Boat Ramp	
Field Name	Data Type	Domain	Default Value	Domain	Default Value	Domain	Default Value
OBJECTID	Object ID						
Shape	Geometry						
Shape_Length	Double						
Shape_Area	Double						
FACILITY_NBR	Text		Undefined		Undefined		Undefined
UNIT_NBR	Text		n/a		n/a		n/a
FACILITY_CLASS	Text	FACILITY_CLASS	Roads Ramps Parking	FACILITY_CLASS	Roads Ramps Parking	FACILITY_CLASS	Roads Ramps Parking
*SUBCLASS	Long		0		6		8
TYPE	Text	ROAD_SURFACE	Undefined	ROAD_SURFACE	Undefined	ROAD_SURFACE	Undefined
GEN_SUBTYPE	Long	GEN_SUBTYPE	Undefined	GEN_SUBTYPE	Undefined	GEN_SUBTYPE	Undefined
RAMP_SUBTYPE	Long	PARKING_INUND	Undefined	PARKING_INUND	Undefined	PARKING_INUND	Undefined
ADA_ACCESS	Long	YES_NO	Undefined	YES_NO	Undefined	YES_NO	Undefined
DESCRIPTION	Text						
CMMS_MATCH	Long	YES_NO	Undefined	YES_NO	Undefined	YES_NO	Undefined
GPS_LOC	Long	GPS_LOC	Undefined	GPS_LOC	Undefined	GPS_LOC	Undefined

Figure 4 - Parking Feature Class Subtypes

## 6.4 Roads

Roads is a feature class for line data associated with roads. Road Class and Subclass are predefined as C and 5, respectively. Type is defined by ROAD\_SURFACE, and Subtype by ROAD\_WIDTH.

FACILITY_NBR	See description above.
UNIT_NBR	See description above.
FACILITY_CLASS	See description above; defaults to C (Roads, Ramps, and Parking)
SUBCLASS	Long integer field used to describe type as road (5)
TYPE	Text field used to describe road surface types; associated with the domain ROAD_SURFACE
SUBTYPE	Long integer field used to describe road/trail widths; Associated with the domain ROAD_WIDTH
NAME	Text field for road name
ALT_NAME	Text field for alternate road name
GPS_LOC	See description above.
DESCRIPTION	See description above.
CMMS_MATCH	See description above.

Field Name	Alias	Data Type	<input checked="" type="checkbox"/> Allow NULL	Domain	Default	Length
OBJECTID	OBJECTID	Object ID	<input type="checkbox"/>			
Shape	SHAPE	Geometry	<input checked="" type="checkbox"/>			
Shape_Length	Shape_Length	Double	<input checked="" type="checkbox"/>			
FACILITY_NBR		Text	<input checked="" type="checkbox"/>		Undefined	16
UNIT_NBR		Text	<input checked="" type="checkbox"/>		n/a	255
FACILITY_CLASS		Text	<input checked="" type="checkbox"/>	FACILITY_CLASS	Roads Ramps Parking	2
SUBCLASS		Long	<input checked="" type="checkbox"/>		5	
TYPE		Text	<input checked="" type="checkbox"/>	ROAD_SURFACE	Undefined	255
SUBTYPE		Long	<input checked="" type="checkbox"/>	ROAD_WIDTH	Undefined	
NAME		Text	<input checked="" type="checkbox"/>			255
ALT_NAME		Text	<input checked="" type="checkbox"/>			255
GPS_LOC		Long	<input checked="" type="checkbox"/>	GPS_LOC	Undefined	
DESCRIPTION		Text	<input checked="" type="checkbox"/>			255
CMMS_MATCH		Long	<input checked="" type="checkbox"/>	YES_NO	Undefined	

Figure 5 - Roads Feature Class Fields

## 6.5 Roads\_Other (Not implemented)

Not used.

## 7 Structures (D) Facility Classes

### 7.1 Structures\_Fences (Not implemented)

Not used.

### 7.2 Structures\_Signs

Structures\_Signs feature class stores point data associated with signs. The sign fields, categories, and associated domains (standard sizes) have been derived from the *California State Parks Sign Handbook, A Guide for Ordering Stock or Custom Signs*, circa February 2004. The sign categorization as represented in the *Sign Handbook* does not presently exist in the CMMS. However, the *Handbook* fields can be left unassigned until a digital sign system is designed and implemented.

To match the *Maintenance Manual* Facility Numbers for signs, the Facility Class, Subclass, and Type are predefined as D (Structures other than buildings and bridges), 1 (Administration & Operations), and 12 (Signs), respectively. Subtype, as it appears here, is not found in the current *Maintenance Manual*, only in the *Sign Handbook*. However, the Subtype is not necessary to match GIS Sign data to the CMMS. For ease of field use (with ArcPad), the sign Subtype defaults to *Undefined*.

As with subtypes defined in other feature classes, the user will be limited in their selection of sign sizes depending on the sign category (SUBTYPE) they choose. The SIGN\_SIZE field is associated with domains named for their sign category, i.e., the Recreational sign category is linked to a domain called SIGNS\_REC, which contains only those sign sizes appearing under that category in the *Sign Handbook*.

FACILITY_NBR	See description above.
UNIT_NBR	See description above.
FACILITY_CLASS	See description above; defaults to D (Structures; other than buildings and bridges)
SUBCLASS	See description above; defaults to 1 (Administration / Operations)
TYPE	See description above; defaults to 12 (Sign)
SUBTYPE	Long Integer field for type of sign (as described in the California State Parks Sign Handbook, Feb., 2004) <i>0</i> Undefined (default) 1 Recreational 2 Winter Recreational 3 Hazard 4 Land Management 5 Interpretive 6 Park management – Boating 7 Park management – Boundary

- 8 Park management – Campground Ops
- 9 Park management – Campground Maintenance
- 10 Park management – General
- 11 Park management – Lifeguard
- 12 Park management – Operating Hours
- 13 Park management – Trails
- 14 Regulatory
- 15 Warning
- 16 Construction
- 17 Multiple

**SIGN\_SIZE** Text field used to describe sign size; associated with the domains named for their subtype in the format: SIGNS\_(SUBTYPE)

**SIGN\_NBR** Text field which is used to store the standard sign number associated with each category. This field will allow future connectivity to a sign database or other Sign system.

**MESSAGE** Text field for “Message” (description of sign)

**GPS\_LOC** See description above.

**DESCRIPTION** See description above.

**CMMS\_MATCH** See description above.

Subtype Name >		Undefined		Recreational		Winter Recreational		Hazard		Land Management		Interpretive		Park management - Boat	
Field Name	Data Type	Domain	Default Value	Domain	Default Value	Domain	Default Value	Domain	Default Value	Domain	Default Value	Domain	Default Value	Domain	Default Value
OBJECTID	Object ID														
Shape	Geometry														
FACILITY_NBR	Text														
UNIT_NBR	Text														
FACILITY_CLASS	Text	FACILITY_CLASS	Structures	FACILITY_CLASS	Structures	FACILITY_CLASS	Structures	FACILITY_CLASS	Structures	FACILITY_CLASS	Structures	FACILITY_CLASS	Structures	FACILITY_CLASS	Structures
SUBCLASS	Long		1		1		1		1		1		1		1
TYPE	Text		12		12		12		12		12		12		12
*SUBTYPE	Long		0		1		2		3		4		5		6
SIGN_SIZE	Text			SIGNS_REC	Undefined	SIGNS_WINTEREC	Undefined	SIGNS_HAZARD	Undefined	SIGNS_LANDMGT	Undefined	SIGNS_INTERP	Undefined	SIGNS_PARKMGT	Undefined
SIGN_NBR	Long														
MESSAGE	Text														
GPS_LOC	Long	GPS_LOC	Undefined	GPS_LOC	Undefined	GPS_LOC	Undefined	GPS_LOC	Undefined	GPS_LOC	Undefined	GPS_LOC	Undefined	GPS_LOC	Undefined
DESCRIPTION	Text														
CMMS_MATCH	Long	YES_NO		YES_NO		YES_NO		YES_NO		YES_NO		YES_NO		YES_NO	

Figure 6 - Structures\_Signs Feature Class Subtypes

### 7.3 Structures\_Other (Not implemented)

Not used.

### 7.4 Structures\_Dams

The Structures\_Dams feature class stores line data associated with dam structures. The Class, Subclass, and Type are predefined as D (Structures, Other than buildings and bridges), 4 (Stream), and 02 (Dam), to match the *Maintenance Manual's* facility number. The DAM\_TYPE domain allows the user to choose the dam's composition (concrete or earth).

**FACILITY\_NBR** See description above.



UNIT_NBR	See description above.
FACILITY_CLASS	See description above; defaults to D (Structures, Other than buildings and bridges)
SUBCLASS	Long integer field set to 4 (Stream)
TYPE	Text field set to 02 (dam)
SUBTYPE	Long integer field used to describe dam type; Associated with the domain DAM_TYPE
LOCATION	Text field used to describe location.
PLANS	See description above.
PLANS_LINK	See description above.
HISTORIC_SIG	See description above.
GPS_LOC	See description above.
DESCRIPTION	See description above.
CMMS_MATCH	See description above.

Field Name	Alias	Data Type	<input checked="" type="checkbox"/> Allow NULL	Domain	Default	Length
OBJECTID	OBJECTID	Object ID	<input type="checkbox"/>			
Shape	SHAPE	Geometry	<input checked="" type="checkbox"/>			
Shape_Length	Shape_Length	Double	<input checked="" type="checkbox"/>			
FACILITY_NBR		Text	<input checked="" type="checkbox"/>		Undefined	16
UNIT_NBR		Text	<input checked="" type="checkbox"/>		n/a	4
SUBCLASS		Long	<input checked="" type="checkbox"/>		4	
TYPE		Text	<input checked="" type="checkbox"/>		02	255
SUBTYPE		Long	<input checked="" type="checkbox"/>	DAM_TYPE	Undefined	
LOCATION		Text	<input checked="" type="checkbox"/>			255
PLANS		Text	<input checked="" type="checkbox"/>			255
PLANS_LINK		Text	<input checked="" type="checkbox"/>			255
HISTORIC_SIG		Long	<input checked="" type="checkbox"/>	YES_NO	Undefined	
GPS_LOC		Long	<input checked="" type="checkbox"/>	GPS_LOC	Undefined	
DESCRIPTION		Text	<input checked="" type="checkbox"/>			255
CMMS_MATCH		Long	<input checked="" type="checkbox"/>	YES_NO	Undefined	

Figure 7 - Structures\_Dams Feature Class Fields

## 7.5 Structures\_Levees (Not implemented)

Not used.

## 7.6 Structures\_BankPrtctn (Not implemented)

Not used.

## 8 Systems Facility Classes

### 8.1 *Systems\_Lines* (Not implemented)

Not used

### 8.2 *Systems\_Pts* (Not implemented)

Not used.

### 8.3 *Systems\_Poly* (Not implemented)

Not used.

## 9 Riding, Hiking Trails (F) Facility Classes

### 9.1 Trails

The **Trails** feature class stores **line** data associated with **trails**. The Class is predefined as F (Riding and Hiking Trails), and the Subclass is defined by four subtypes, according to the trail classification scheme in the *Maintenance Manual*. Type is defined by the domain TRAIL\_ACCESS.

The Trails feature class also stores data associated with each segment identification, name, and basic UTAP information (Date, Identification, and Calculated length).

FACILITY_NBR	See description above. This is the link to the Transportation database.
UNIT_NBR	See description above.
FACILITY_CLASS	See description above; defaults to F (Riding and Hiking Trails)
SUBCLASS	Long integer field linked to subtypes: 0 Undefined (default) 1 Class I – High use 2 Class II – Secondary use 3 Class III – Primitive/Low use 4 Class IV – Special/Admin use
TYPE	Text field used to describe trail access; associated with the domain TRAIL_ACCESS
SEG_ID	Long integer field use for segment identification
NAME	Text field for trail name
ALT_NAME	Text field for alternate road or trail name
UTAP_DATE	Date field used to describe date of last UTAP assessment.
UTAP_ID	Text field, holds identifier used to link to the detailed UTAP database (TrailWare).
CALC_LNGTH	Long integer field, used to store calculated length from original measurement units (e.g. meters to feet)
GPS_LOC	See description above.
DESCRIPTION	See description above.
CMMS_MATCH	See description above.

Subtype Name >		Undefined		Class I - High use		Class II - Secondary use		Class III - Primitive/Low use		Class IV - Special/Admin use	
Field Name	Data Type	Domain	Default Value	Domain	Default Value	Domain	Default Value	Domain	Default Value	Domain	Default Value
OBJECTID	Object ID										
Shape	Geometry										
Shape_Length	Double										
FACILITY_NBR	Text		Undefined		Undefined		Undefined		Undefined		Undefined
UNIT_NBR	Text		n/a		n/a		n/a		n/a		n/a
FACILITY_CLASS	Text	FACILITY_CLASS	Riding Hiking Trails	FACILITY_CLASS	Riding Hiking Trails	FACILITY_CLASS	Riding Hiking Trails	FACILITY_CLASS	Riding Hiking Trails	FACILITY_CLASS	Riding Hiking Trails
TYPE	Long	TRAIL_ACCESS	Undefined	TRAIL_ACCESS	Undefined	TRAIL_ACCESS	Undefined	TRAIL_ACCESS	Undefined	TRAIL_ACCESS	Undefined
SUBTYPE	Text										
*SUBCLASS	Long		0		1		2		3		4
SEG_ID	Long										
NAME	Text										
ALT_NAME	Text										
UTAP_DATE	Date										
UTAP_ID	Text										
CALC_LENGTH	Long										
GPS_LOC	Long	GPS_LOC	Undefined	GPS_LOC	Undefined	GPS_LOC	Undefined	GPS_LOC	Undefined	GPS_LOC	Undefined
DESCRIPTION	Text										
CMMS_MATCH	Long	YES_NO	Undefined	YES_NO	Undefined	YES_NO	Undefined	YES_NO	Undefined	YES_NO	Undefined
start	Long										
end	Long										

**Figure 8 - Trails Feature Class Subtypes**

## 10 Additional Feature Classes

### 10.1 Stream

The Steam feature class was added to model creeks and streams. The stream\_class field is used to record whether this is a year-round or seasonal flow.

Field Name	Alias	Data Type	<input checked="" type="checkbox"/> Allow NULL	Domain	Default	Length
OBJECTID	OBJECTID	Object ID	<input type="checkbox"/>			
Shape	SHAPE	Geometry	<input checked="" type="checkbox"/>			
Shape_Length	Shape_Length	Double	<input checked="" type="checkbox"/>			
stream_class	stream_class	Long	<input checked="" type="checkbox"/>			

## 11 Overview of Domains

Domain Name	Description	Field Type
BANK_PRTCTN		Long
BRIDGE_TYPE		Text
BUILDING_ADMIN		Text
BUILDING_CONCESSION		Text
BUILDING_EMPLOYEE		Text
BUILDING_HISTORIC		Text
BUILDING_PUBLIC		Text
CAMP_ACCESS		Text
CAMP_POLY		Text
CAMP_TYPE		Text
DAM_TYPE		Long
Domain		Text
FACILITY_CLASS		Text
FENCE_PURPOSE		Text
FENCE_TYPE		Long
FUEL_TYPE		Text
GEN_SUBTYPE		Long
GPS_LOC		Long
GRNDS_TYPE		Text
PARKING_INUND		Long
PICNIC_TYPE		Text
ROAD_BARRIER		Text
ROAD BUMPER		Text
ROAD_GUARDRL		Text
ROAD_SURFACE		Text
ROAD_WIDTH		Long
SIGNS_CONST		Text
SIGNS_HAZARD		Text
SIGNS_INTERP		Text
SIGNS_LANDMGT		Text
SIGNS_PARKMGT		Text
SIGNS_REC		Text
SIGNS_REG		Text
SIGNS_WARN		Text
SIGNS_WINTEREC		Text
SPUR_QTY		Text
STRUCTURE_ADMIN		Text
STRUCTURE_MARINE		Text
STRUCTURE_PUBLIC		Text
SYS_OTHER		Text
TRAIL_ACCESS		Long
YES_NO		Long

**Figure 9 - List of Domains**

## 12 Domain Details

### 12.1 *BANK\_PRTCTN* (Long integer)

Code	Description
0	Undefined
1	Concrete Crib
2	Log Crib
3	Rock Slope
4	Sack Concrete
5	Gabions

### 12.2 *BRIDGE\_TYPE* (Text)

Code	Description
00	Undefined
01	Green house
02	Log/timber
03	Masonry
04	Steel
05	Other - twin culvert, ford, etc



### **12.3 BUILDING\_ADMIN (Text)**

Code	Description
00	Undefined
01	Kiosk/Contact Station
02	Barn
03	Boat house
04	Boiler plant/Power plant/Heating plant/Sewer plant
05	Conference
06	Fire house
07	Gas/oil house
08	Green house
09	Lath house
10	Office
11	Pump house
12	Shop
13	Storage
14	Tank house
15	Ticket center
16	Lifeguard tower
17	Utility
18	Misc

### **12.4 BUILDING\_CONCESSION (Text)**

Code	Description
00	Undefined
01	Cabin
02	Gift Shop
03	Hotel lodge
04	Ice house
05	Laundry
06	Restaurant
07	Theater
08	Misc
09	Housing/concession

### **12.5 BUILDING\_EMPLOYEE (Text)**

Code	Description
00	Undefined
01	Barracks
02	Cabin
03	Dormitory
04	Garage/Carport
05	Residence/House
06	Trailer House/Travel trailer
07	Mobile Home
08	Modular House
09	Apartment
10	Multip-family Housing
11	Other

### **12.6 BUILDING\_HISTORIC (Text)**

Code	Description
00	Undefined
01	Administration
02	Concession
03	Dwelling
04	Exhibit
05	House museum
06	Museum
07	Ship
08	Storage

### **12.7 BUILDING\_PUBLIC (Text)**

00	Undefined
01	Bath house
02	Dressing room
03	Church/Chapel
04	Combo Building
05	Comfort station
06	Comfort station/dressing room
07	Lounge/Recreation hall
08	Museum/Visitor center
09	Chemical toilet
10	Flush toilet
11	Vault toilet
12	Rental cabin
13	Laundry
14	Waiting room
15	Other
16	Shower building
17	Floating restroom
18	Unisex comfort station
19	Unisex combination building

### **12.8 CAMP\_ACCESS (Text) – Not used**

Code	Description
00	Undefined

### **12.9 CAMP\_POLY (Text) – Not used**

Code	Description
00	Undefined

### **12.10 CAMP\_TYPE (Text) – Not used**

Code	Description
00	Undefined

### **12.11 DAM\_TYPE (Long integer)**

Code	Description
0	Undefined
1	Concrete
2	Earth

### **12.12 FACILITY\_CLASS (Text)**

A	Buildings
B	Grounds
C	Roads Ramps Parking
D	Structures
E	Systems
F	Riding Hiking Trails
G	Cultural Resources
H	Resource Management

### **12.13 FENCE\_PURPOSE (Text) – Not used**

Code	Description
00	Undefined

### **12.14 FENCE\_TYPE (Long integer) – Not used**

Code	Description
1	Solid board
2	Chain link
3	Corral type
4	Grape stake
5	Picket
6	Rail stob
7	Split rail
8	Barbed wire
9	Woven wire
10	Undefined
0	Other

### **12.15 FUEL\_TYPE (Text) – Not used**

Code	Description
00	Undefined

**12.16 GEN\_SUBTYPE (Long integer) – Not used**

Code	Description
0	Undefined
1	Campground
2	Service
3	Other

**12.17 GPS\_LOC (Long integer)**

Code	Description
0	Undefined
1	NW Corner
2	NE Corner
3	SW Corner
4	SE Corner
5	Center
6	Entrance

**12.18 GRNDS\_TYPE (Text)**

Code	Description
00	Undefined
01	Bed, Flower
02	Herbaceous
03	Lawn
04	Shrub
05	Vine (ivy, ice plant, etc.)
06	Garden, Historic, Period

**12.19 PARKING\_INUND (Long integer)**

Code	Description
0	Undefined
2	Not inundated yearly
1	Inundated yearly

### **12.20 PICNIC\_TYPE (Text)**

Code	Description
00	Undefined
01	Developed Family Picnic Area
02	Developed Group Picnic Area
03	Primitive Family Picnic Area
04	Primitive Group Picnic Area

### **12.21 ROAD\_BARRIER (Text) – Not used**

Code	Description
00	Undefined

### **12.22 ROAD BUMPER (Text) – Not used**

Code	Description
00	Undefined

### **12.23 ROAD\_GUARDRL (Text) – Not used**

Code	Description
00	Undefined

### **12.24 ROAD\_SURFACE (Text) – Not used**

Code	Description
00	Undefined

### **12.25 ROAD\_WIDTH (Long integer)**

Code	Description
0	Undefined
1	20 to 24 ft
2	16 to 19 ft
3	12 to 15 ft
4	8 to 11 ft

**12.26 SIGNS\_CONST (Text) – Not used**

Code	Description
00	Undefined

**12.27 SIGNS\_HAZARD (Text) – Not used**

Code	Description
00	Undefined

**12.28 SIGNS\_INTERP (Text) – Not used**

Code	Description
00	Undefined

**12.29 SIGNS\_LANDMGT (Text) – Not used**

Code	Description
00	Undefined

**12.30 SIGNS\_PKMGT (Text)**

Code	Description
00	Undefined
01	3.5 x 3.5
02	3.5 x 12
03	3.5 x 16
04	5 x 5
05	7 x 7
06	8 x 12
07	9 x 6
08	9 x 12
09	10.5 x 8
10	10 x 16
11	12 x 3
12	12 x 6
13	12 x 8
14	12 x 12
15	12 x 18
16	12 x 24
17	13 x 7
18	15 x 8
19	15 x 10
20	15 x 12
21	15 x 15
22	16 x 3
23	16 x 8
24	18 x 10
25	18 x 12



25	18 x 12
26	18 x 14
27	18 x 18
28	18 x 24
29	20 x 6
30	20 x 10
31	20 x 24
32	21 x 18
33	24 x 4
34	24 x 12
35	24 x 16
36	24 x 24
38	30 x 16
39	30 x 20
40	30 x 24
41	30 x 26
42	36 x 6
43	36 x 16
44	36 x 18
45	36 x 20
46	36 x 24

**12.31 SIGNS\_REC (Text) – Not used**

Code	Description
00	Undefined

**12.32 SIGNS\_REG (Text) – Not used**

Code	Description
00	Undefined

**12.33 SIGNS\_WARN (Text) – Not used**

Code	Description
00	Undefined

**12.34 SIGNS\_WINTEREC (Text) – Not used**

Code	Description
00	Undefined

**12.35 SPUR\_QTY (Text) – Not used**

Code	Description
00	Undefined

**12.36 STRUCTURE\_ADMIN (Text) – Not used**

Code	Description
00	Undefined

**12.37 STRUCTURE\_MARINE (Text) – Not used**

Code	Description
00	Undefined

**12.38 STRUCTURE\_PUBLIC (Text)**

Code	Description
00	Undefined
01	Phone booth
02	Corral/stable, horse
03	Court, tennis/basketball/other
04	Polo field
05	Fireplace/BBQ
06	Fountain
07	Furniture
08	Interpretive/Information facilities
09	Chair lift
10	Monument
11	Patio/plaza
12	Platform/Pavilion/Stand/Stage/Gazebo
13	Pool
14	Ramada/Bus Stop/Cooking shelter
15	Riding ring
16	Skating rink
17	Tennis court
18	Stairway – not part of a building
19	Trailer dump station
20	Undercrossing
21	Horseshoe pit
22	Rack, sink, fish cleaning
23	Railings/handrail – hitching, horse
24	Clothes drying yard
25	Shuffleboard court
26	Playground equipment
27	Water trough
28	Exterior shower
29	Bicycle rack
30	Wastewater station – gray water

### **12.39SYS\_OTHER (Text) – Not used**

Code	Description
00	Undefined

### **12.40 TRAIL\_ACCESS (Long integer)**

Code	Description
0	Undefined
1	Hike
2	Bike
3	Horse
4	Multi-use

### **12.41 YES\_NO (Long integer)**

Code	Description
0	No
1	Yes
2	Undefined