Hawai'i State Historic Preservation Division
Cultural Resources Geodatabase Structure
(Version 1.2.0*)*

Organization of the Cultural Resource Spatial Data Standards:

Within the State Government of Hawai'i, Environmental Systems Research Institute (ESRI) products remain the standard for GIS and spatial data. ESRI allows several different file types for spatial data ranging from shapefiles (the most common) to Geodatabases (the most recent). To accommodate the various methods that agencies, firms, and organizations may already be using to create and store cultural resource spatial data, the standards have been organized around individual data layers, rather than a particular file type. These data layers would translate into a single shapefile for instance. Gathered together they form a Geodatabase .

These various data layers are separated by cultural resource type, as defined by the National Register of Historic Places, then by spatial feature type (point, line and polygon). Additional feature classes have been developed to further address the unique needs of Hawai'i.

The Geodatabase is divided into 10 cultural resource types. Seven cultural resource types are derived from National Register of Historic Places cultural resource types; landscapes and ethnographic features are included as additionally useful resource types; survey areas, while not a resource type, are important to visualize in the context of known resources; and the tenth cultural resource type, "Preservation Area," is a unique resource classification meant to address specific, unique needs and delineate areas that have additional land-use stipulations. The cultural resource types and spatial data types include:

Historic Building Point or Polygon
Historic buildings are a resource created principally to shelter any form of human activity, such as a house. These resources would include features such as: farmhouses, homesites, mansions, churches, museums (if the building is historic), courthouses, offices, prisons, train depots, etc.

Historic buildings most often function primarily as dwellings. The point may represent the center of the building, an entrance, a corner, etc., while the polygon may represent the building footprint.

Historic Structure Point, Line or Polygon
Structures are a functional construction made for purposes other than creating shelter, such as a bridge. These resources would include features such as: fortifications, earthworks, roads, fences, canals, dams, engineering features, barns, outbuildings, arsenals, ships, manufacturing facilities, etc. These resources represent sites that do not function primarily as dwellings, however they may serve temporarily to house

humans, although their primarily purpose is not a permanent shelter. The point may represent the location of a culvert, while a line may represent a fence or road, and a polygon may represent the circumscribed boundary of a manufacturing plant.

v.1.2.1
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Historic Object Point, Line or Polygon

Historic objects are a construction primarily artistic in nature or relatively small in scale and simply constructed, such as a statue or mile-post marker. These resources would include features such as monuments to individuals, individual tombs, etc. The point may represent a single survey marker, while a line may represent an element of a memorial or a decorative landscape element and a polygon may represent the boundary of a large memorial element, such as a plaza.

Archaeological Site Point, Line or Polygon

Archaeological sites are resources that have yielded or may be likely to yield information important to prehistory or history. These resources lie primarily below ground, but may have some above ground evidence indicating the presence of the potential to yield more information. These resources may include features such as: ruins of a building, the location of where a historic building, structure, or landscape may have once been. These resources represent the site of an event or the location of a resource which may have archaeological value. The point may represent a randomized point inside the archaeological site boundary, while a line may represent the excavated remains of a wall, and a polygon may represent the known extent of an archaeological site.

Ethnographic Resource Point, Line or Polygon

Ethnographic resources are landscapes, objects, plants and animals, or sites and structures that are important to a people's sense of purpose or way of life. These resources represent features understood from the viewpoint of peoples or groups for which they have a special importance. Ethnographic resources would include features such as traditional cultural properties, sacred sites, etc. These are resources primarily significant because of their association with a community's set of beliefs and they may not necessarily be historic in terms of age. A point may represent a significant petroglyph, while a line may represent an important trail, and a polygon may represent the boundary of a sacred site.

Cultural Landscape Polygon

Cultural landscapes are a geographic area (including both cultural and natural resources and the wildlife or domestic animals therein), associated with a historic event, activity, or person exhibiting other cultural or aesthetic values. These resources would include features such as: a plantation, a historic trail, a historic park or preserve, designed landscapes (formal gardens), vernacular landscapes (plantation site and associated features), battlefields, cemeteries, rural historic districts, prison camps, mooring locations, etc. These resources have contributing elements which may consist of built or natural features. The polygon should represent the larger cultural landscape boundary itself. Contributing elements to the larger cultural landscape should be included in the appropriate data layer for each element: historic building, historic structure, archaeological site, or ethnographic resource. If a contributing element to a landscape does not fit within these defined cultural resource type categories, they can be included in the Other Cultural Resource data layers, with the specification of what type of feature they represent recorded.

Historic District Polygon

Historic districts are a significant concentration, linkage, or continuity of sites, buildings, structures or objects united historically or aesthetically by plan or physical development. These resources may

represent a local urban historic district within a city containing buildings related to a similar theme (such as commerce, manufacturing, college campus, etc.), or they may represent a rural area containing a series of plantations all from the same era that provide a representative example of typical residences in an area. A Historic District may also contain a series of archaeological sites or other resource types which exhibit some significant connection. The polygon represents the boundary of the district itself, encompassing all of the various contributing elements. Contributing elements to the district should be included in the appropriate data layer for each element: historic building, historic structure, archaeological site, or ethnographic resource. If a contributing element to a district does not fit within these defined cultural resource type categories, they can be included in the Other Cultural Resource data layers, with the specification of what type of feature they represent recorded.

Survey Point, Line or Polygon
A survey does not necessarily represent a cultural resource, but an area within which qualified individuals have made observations to locate cultural resources. These investigations may be undertaken as part of a specific project, in support of compliance with various historic preservation laws, or at the request of another agency, etc. The point may represent a generalized area within which searches were conducted or something as specific as a shovel test pit. While the line may represent a transect along which survey was conducted. The polygon represents a defined area within which survey was conducted.

Other Cultural Resource Point, Line or Polygon
Other Cultural Resources represent those features which do not fit easily into the defined cultural resource categories of historic building, structure, object, site or ethnographic resource. These include primarily elements which contribute to cultural landscapes. One contributing element of a landscape may include historic vegetation, such as a historic tree, a tree alee, a garden bed or parterre, etc. The point may represent a single tree, while a line may represent a tree alee and a polygon may represent a garden boundary. A field associated with the Other Cultural Resource data layers allows users to define more specifically what each feature is.

Preservation Area Polygon
The Preservation Area Polygon is designed to delineate an area designated as a preservation area through any mechanism, including Preservation Plans and Burial Treatment Plans. This polygon does not represent the resources contained within a preservation area, which should be represented by one of the other feature classes, but should represent the enclosing area of a preservation area.

Feature Level Metadata Fields:

The feature level metadata fields associated with the Archaeology Site, Ethnographic Resource, Historic Building, Historic Object, Historic Structure, Historic District and Cultural Landscape data layers consist of:

CR_ID	BND_OTHER	SOURCE_COORD
SURVEY_ID	IS_EXTANT	MAP_METHOD
GEOM_ID	EXTANT_OTH	MAP_MTH_OT
feat_cl	RESTRICT_	CREATEDATE
RESNAME	SOURCE	EDIT_DATE
SIHP_ID	SRC_DATE	EDIT_BY
CONTRIBRES CR_NOTES	SRC_SCALE	ORIGINATOR
ISLAND	SRC_ACCU	CONSTRAINT
BND_TYPE	VERT_ERROR	

The feature level metadata fields associated with the Cultural Resource Other data layers consist of (those in italics represent those specific to the Other data layers):

CR_ID	BND_OTHER	SOURCE_COORD
SURVEY_ID	IS_EXTANT	MAP_METHOD
GEOM_ID	EXTANT_OTH	MAP_MTH_OT
feat_cl	*TYPE*	CREATEDATE
RESNAME	*TYPE_OTR*	EDIT_DATE
CONTRIBRES	*RESTRICT_*	EDIT_BY
SIHP_ID	SOURCE	ORIGINATOR
CR_NOTES	SRC_DATE	CONSTRAINT
ISLAND	SRC_SCALE	
BND_TYPE	SRC_ACCU	
	VERT_ERROR	

The feature level metadata fields associated with the Cultural Resource Survey data layers consist of (those in italics represent those specific to the Survey data layers):

SURVEY_ID	*SRVY_MTHD*	MAP_METHOD
GEOM_ID	BND_TYPE	MAP_MTH_OT
feat_cl	BND_OTHER	CREATEDATE
RESNAME	RESTRICT_	EDIT_DATE
CR_NOTES	SOURCE	EDIT_BY
ISLAND	SRC_DATE	ORIGINATOR
SRVY_TYPE	SRC_SCALE	CONSTRAINT
TYPE_OTHER	SRC_ACCU	
SRVY_LEVEL	VERT_ERROR	
LEVEL_OTH	SOURCE_COORD	

Although the field names may seem abstract, in order to accommodate the ability to share data across any type of spatial data file type, the field names may not contain any blank spaces and must be kept to 10 characters or less. As a result, some of the field names represent abbreviations to fit these parameters. In order to make the field names and meanings clearer, an "alias" to each field name was assigned. As a result, when viewing the attribute tables in the GIS, users will not see, "CR_ID," but will see, "Cultural Resource GUID." Additionally, some fields represent *mandatory* information, some *mandatory if applicable* and some *optional*. Ultimately, filling in all information in all of the fields would provide the most complete documentation of our cultural resource spatial data, however to comply with the standards users must input data only in the required fields.

Feature Level Metadata Field Definitions, Potential Values and Examples:

Each of the feature level metadata fields are designed to contain specific information to assist those who might use the spatial data in understanding how the spatial data was originally created, when it was created, whether it has been edited, whether the spatial data is restricted, etc. Detailed definitions describing what is intended for each field, definitions of any menu or domain values and examples of what should be entered for these fields should provide help in migrating legacy data as well as incorporating new cultural resource data into any of the various data layers.

Standard fields and definitions for the Archaeology Site, Ethnographic Resource, Historic Building, Historic Object, Historic Structure, Historic District and Cultural Landscape data layers:

- *CR_ID (Mandatory)*

    Alias: Cultural Resource GUID

The CR_ID represents a unique identifier for cultural resource site, which takes the form of a "globally unique identifier (GUID)." A globally unique identifier is a 38 character alpha/numeric randomly generated identifier commonly used in database development. Generated via a Microsoft application, the length and variation in the identifier virtually guarantees its uniqueness helping to ensure that each one of the cultural resources in any of the data layers will have at least one ID that does not repeat and can be used to link to any other external SHPD database. *A script is available from SHPD for generating GUIDs within ArcGIS.* A single unique identifier must be assigned for each point, line or polygon used to represent a particular cultural resource site.

    Example of a GUID:
    {53D8A74E-AD5A-460A-BA71-D79CE2641AAA}

- *SURVEY_ID (Mandatory if Applicable)*

    Alias: Survey GUID

The SURVEY_ID represents a unique identifier for the survey through which the cultural resource represented was identified. Similar to the CR_ID, the SURVEY_ID takes the form of a GUID. Because SHPD does not maintain a central database of the various surveys conducted within the State, entering information into this field is mandatory only if applicable. The CR_ID is intended as a means to link to survey information maintained elsewhere or to identify resources surveyed as part of the same survey. Additionally, assigning an identifier to a survey will allow users to link individual cultural resources to the cultural resource survey data layers. The same methods employed to generate the CR_ID GUID can be used to create the SURVEY_ID.

    Example of a GUID:
    {37D1B949-ABCB-4C5E-A21E-1033606CD200}

- **GEOM_ID (Mandatory)**

    Alias: Locational GUID

The GEOM_ID (Geometry ID) represents a unique identifier for each geometry (point, line or polygon) describing the cultural resource in the data layer. Similar to the CR_ID and SURVEY_ID, the GEOM_ID takes the form of a GUID. The primary reason for assigning a geometry ID is to allow for the potential that a single cultural resource may have multiple spatial representations. These may be individual features of a larger site, or alternate ways of representing the same feature or site. For instance, a historic building may be represented by a point for the building entrance or as a polygon to describe the building footprint. In these cases, the building point and polygon would have the same CR_ID but two different GEOM_IDs. In the GIS, a user would be able to determine quickly that these two geographic features refer to the same cultural resource. Because maintaining this connection is crucial to understanding what cultural resource spatial data exists to represent a resource, and determining what data may best fit your specific analysis or application, filling in the GEOM_ID field is mandatory.

    Example of a GUID:
    {17432F80-794D-4DD9-819E-8A8893334A12}

- **RESNAME (Optional)**

    Alias: Resource Name

The RESNAME field allows users to enter a historic name or site name for the cultural resource. Although the standards are not intended to address descriptive data, there should be some way to identify a cultural resource using something other than a GUID that may be difficult to decipher or may be more familiar to resource specialists. Because any one cultural resource may be known by multiple names or identities, entering information into this field is optional. The RESNAME field is free text (no domain values) with space for 250 characters, therefore it could contain anything from a building name or address to an archaeological site description.

    Example:
    Fishing shrine; Keaiwa heiau; Fort Barrette; 601 Kamokila Blvd.; Feature A

- **SIHP_ID (Optional)**

    Alias: SIHP ID

The SIHP_ID field allows users to enter a State Inventory of Historic Properties site number, if the number is known. The full site number should be used. The SIHP_ID field is free text (no domain values) with space for 30 characters. If entered, the SIHP_ID should contain a complete site number.

    Example:
    50-80-10-00324

- **feat_cl (Mandatory)**

    Alias: Feature Class

The Feature Class field allows users to select the appropriate feature class from the feature class types defined above. While this may appear redundant, this is included to allow a greater level of self-evidence for particular shapes. Exporting or incorporating data in a non-Geodatabase format is better facilitated by additionally including this as a separate field. Users should select one of the values to describe the feature class.

Example:
Archaeology Point; Landscape Polygon

- ***BND_TYPE (Mandatory)***

    Alias: Boundary Type

The BND_TYPE field is intended to allow users to indicate what the spatial data represents relative to the cultural resource. For instance, users may describe whether a point location for a building represents the entrance, the center of the building or a corner of the building. Similarly, with polygon features, users may describe whether the area represents a circumscribed boundary, a buffered boundary, etc. In order to ensure consistency in entering data and articulating what the spatial data depicts, menus or domain values for the Boundary Type field have been created. However, because the type of cultural resource and the type of spatial feature determine what the boundary type may be, different menus apply to different data layers. Users should select one of the values to describe the boundary represented by the spatial data.

Domain values for Archaeology Points:

Site datum point	The point data represents the site datum
Center point	The point data represents the center of the archaeological site
Vicinity point	The point data represents a user selected point in the vicinity of the site
Generalized point	The point data represents a computer generated generalized point based on site boundaries or other data
Random point	The point data represents a user selected or computer generated point randomly located on or near the archaeological site
Other point	The point data represents some other point on or near the site

Domain values for Building Points:

Entrance point	The point data represents the entrance of the building

Center point	The point data represents the center of the building footprint
Façade point	The point data represents a location on the façade of the building, other than the entrance
Corner point	The point data represents a corner of the building
Random point	The point data represents a user selected or computer generated point randomly located on or near the building
Generalized point	The point data represents a computer generated generalized point based on site boundaries or other data
Other point	The point data represents some other point near the building

Domain values for Building Polygons:

Footprint polygon	The polygon data represents the actual building footprint, at the foundation
Circumscribed polygon	The polygon data represents a general area including the building
Perimeter polygon	The polygon data represents a detailed perimeter of the building, including rooflines, porches or other features
Buffer polygon	The polygon data represents a computer generated area based on building points or another type of building polygon
Other polygon	The polygon data represents some other polygon area describing the building

Domain values for all line features:

Center line	The line data represents the center line of any linear cultural resource
Edge line	The line data represents the bounding edge of any linear cultural resource
Perimeter line	The line data represents a line beyond the exact edge of the linear cultural resource, at a specific distance
Random line	The line data represents a user selected or computer generated line on or near the linear cultural resource
Derived line	The line data represents a computer generated line based on another spatial

	representation of the linear cultural resource
Other line	The line data represents some other line describing the linear cultural resource

Domain values for all point features, other than Archaeology and Building Points:

Corner point	The point data represents a corner of the cultural resource
Center point	The point data represents the center of the cultural resource
Vicinity point	The point data represents a user selected point in the vicinity of the cultural resource
Random point	The point data represents a user selected or computer generated point randomly located on or near the cultural resource
Generalized point	The point data represents a computer generated generalized point based on the cultural resource boundaries or other data
Other point	The point data represents some other point on or near the cultural resource

Domain values for all polygon features, other than Building Polygons:

Derived polygon	The polygon data represents a computer generated polygon based on another spatial representation of the cultural resource
Circumscribed polygon	The polygon data represents a general boundary including the cultural resource
Perimeter polygon	The polygon data represents a detailed perimeter of the cultural resource
Buffer polygon	The polygon data represents a computer generated boundary describing a specified distance or buffer away from another spatial representation of the cultural resource
Other polygon	The polygon data represents some other polygon describing the cultural resource

- **_BND_OTHER (Mandatory if Applicable)_**

Alias: Boundary Type Comment

The BND_OTHER field is intended to allow users to provide additional information related to the Boundary Type identified. Specifically, if users choose an Other Point, Other Line or Other Polygon menu value, they must enter some explanation of what the spatial data represents into the BND_OTHER field. Additionally, if users wish to provide more clarification related to the Boundary Type value chosen the BND_OTHER field can accommodate up to 250 characters of free text.

    Example:
    BND_TYPE value: Other point
    BND_OTHER value: point represents a centralized point for site numbers written on a map. Precise location unknown.
    BND_TYPE value: Corner point
    BND_OTHER value: point represents the northwest corner of the building

- **IS_EXTANT (Mandatory)**
    Alias: Is Extant?

The IS_EXTANT field is intended to allow users to indicate if the cultural resource is currently extant. Some points, lines or polygons included in the cultural resource data layers may represent cultural resources identified, recorded or documented many years ago. As a result, the cultural resource spatial data layers may include points, lines or polygons that represent features no longer in existence or only partially in existence following damage, disaster or some other change to its status.

    Domain values for the IS_EXTANT field:

True	The cultural resource is intact with little disturbance
False	The cultural resource is no longer intact
Unknown	The condition/status of the cultural resource in not known
Partial	The cultural resource is partially extant (partially excavated or in a state of ruin)
Other	The cultural resource is in some other extant status

- EXTANT_OTH (Mandatory if Applicable)
    Alias: Is Extant Comment

The EXTANT_OTH field is intended to provide additional information related to the Extant status indicated in the IS_EXTANT field. Specifically, if users choose the Other menu value, they must enter some explanation of what condition or intact status of the cultural resource. Additionally, if users wish to provide more clarification related to the Extant value chosen the IS_EXTANT field can accommodate up to 250 characters of free text.

Example:

IS_EXTANT value: Other

EXTANT_OTH value: landscape feature suffered from flooding and is being restored

- ***CONTRIBRES (Mandatory)***
  Alias: Contributing Resource Flag

The CONTRIBRES field is intended to allow users to indicate if the cultural resource represented contributes to a larger historic district (of any resource type) or historic landscape. This field provides a means for users to record contributing and non-contributing resources to larger districts or landscapes, as well as individually significant resources.

Domain values for the CONTRIBRES field:

Yes	The cultural resource contributes to a historic district or landscape
No	The feature is a non-contributing element in a historic district or landscape
Not Applicable	The cultural resource does not contribute to a historic district or landscape, yet is historic or significant individually
Unknown	It is not possible to determine if the resource contributes to a historic district or landscape

- ***RESTRICT_ (Mandatory)***
  Alias: Restriction

The RESTRICT_ field is intended to allow users to indicate if the spatial data related to a specific cultural resource should be restricted from release to other parties or general distribution (Note: The RESTRICT_ field contains a trailing "_" character because the word "restrict" is a reserved word in database construction and cannot be used as a field name. Adding the "_" allows the word to be altered enough so that it can be used as a field name.).

Domain values for the RESTRICT_ field:

Unrestricted	There are no restrictions on the release or distribution of the spatial data for the cultural resource
Restricted: No third party release	The spatial data for the cultural resource is restricted to a limited distribution of the data requestor only
Restricted: Affected cultural group	The affected or affiliated cultural must concur before the

concurrence	cultural resource spatial data is distributed
Restricted: Originating agency concurrence	The originating agency that created the cultural resource spatial data must concur before the data is distributed
Restricted: No release	The spatial data associated with the cultural resource should not be released

- **SOURCE (Mandatory)**

    Alias: Source

The SOURCE field is intended to allow users to indicate or identify the source from which the point, line or polygon was derived. For instance, if the spatial data was created through a GPS survey, the source would be GPS. Other options might be the name of the image used in digitizing cultural resources or the name of the database tables from which coordinate pairs were used to create point features. Because users may generate points, lines and polygons from many different sources, particularly when working with legacy data, the SOURCE field has no menu or domain values and remains a free text field into which users can enter up to 250 characters. If the original source is not known, users may enter "Unknown" into the field.

    Example:
    GPS - Trimble GeoXH 6000

    Example:
    H-02078_p007.tif

- **SRC_DATE (Mandatory)**

    Alias: Source Date

The SRC_DATE field is intended to allow users to record the date associated with the document, image, file or other data used to create the cultural resource spatial data, and identified in the SOURCE field. Because of the possible variations in the SOURCE field, the Cultural Resource Subcommittee did not develop a menu or domain for the SRC_DATE field, however the SRC_DATE field is formatted as a date field, as opposed to a text or number field. Date fields always take the form of month/day/year. If the date of the source data is not known, users may leave the field blank.

    Example:
    5/22/2008; 1/1/1926

- **SRC_SCALE (Mandatory)**
    Alias: Source Scale

The SRC_SCALE field is intended to allow users to record the original scale at which the cultural resource was mapped. For instance if a set of UTM coordinates was generated from a USGS quadrangle map, the scale would be 1:24,000. If the point, line or polygon was digitized from an aerial photograph, the resolution of the image (such as 1 foot per pixel) should be indicated. Note that data collected with GPS will not have a scale, but will have an accuracy (see the SRC_ACCU field) assessment. If the scale of the source data is not known, users may enter "Unknown" into the field.

Example:
SOURCE: USGS 7.5 minute quadrangle

SRC_SCALE: 1:24,000

(note: users can find scale information for the various standardized USGS map products by looking at the map collar information, located in the border of the map)

SOURCE: GPS

SRC_SCALE: not applicable

- ***SRC_ACCU (Mandatory)***

    Alias: Source Horizontal Accuracy

The SRC_ACCU field is intended to allow users to record the horizontal accuracy of the source data used to generate the spatial data. Because of the variety of possible sources of data and possible scales, the SRC_ACCU field is also a free text field with no menu or domain values, which can hold up to 250 characters. Note that base maps commonly used by cultural resource specialists, such as USGS quadrangle maps, all have a standardized accuracy assessment, which can be found in the National Map Accuracy Standards. For instance, a typical 7.5 minute USGS quadrangle map accuracy assessment is +/- 12 meters. Similarly, data collected with GPS will have an accuracy assessment related to the quality of the GPS unit used to collect the data, and may range from +/- 20 meters to +/- 1 meter depending on the data collection procedures. Additionally, many horizontal accuracy statements include information regarding the percentage of features on the map that may meet the accuracy. For instance a full map accuracy statement may take the form of a statement such as: +/- 12 meters for 90% of the points tested. If the accuracy of the source data is not known, users may enter "Unknown" into the field.

Example:
SOURCE: USGS quadrangle
SRC_SCALE: 1: 100,000
SRC_ACCU: +/- 50 meters
SOURCE: H-02078_p007.tif
SRC_SCALE: Unknown basemap accuracy (Hawaii County TMK layer). Georef RMS error +/- 5.5m. Original map accuracy is unknown.

SOURCE: GPS
SRC_ACCU: 3 meters for 95% of check points

- **VERT_ERROR (Mandatory if Applicable)**

    Alias: Vertical Error

The VERT_ERROR field is intended to allow users to record the vertical error for geographic data collected or created in a 3-D format. In general legacy cultural resource data does not contain vertical or Z values, with the exception of some archaeological data. New data collected with GPS or other survey tools have the option of recording a Z value, although accuracy of this measure vary greatly in comparison to horizontal accuracy. If Z values are being collected, vertical error must be similarly documented with each spatial feature. In order to make data entry more consistent and efficient, a menu or domain of potential values to describe the vertical error associated with this type of 3-D data was developed. For cultural resource spatial data, where Z values are rarely collected, users can enter the, "Not Applicable," menu option or value.

Domain values for the VERT_ERROR field:

Unknown	The amount of vertical error is not known
Not Applicable	Vertical data was not collected, therefore vertical error is not applicable
>10 meters	Vertical error is greater than 10 meters
>5 meters <=10 meters	Vertical error is greater than 5 meters but less than or equal to 10 meters
>1 meter <= 5 meters	Vertical error is greater than 1 meter but less than or equal to 5 meters
>15 centimeters <=1 meter	Vertical error is greater than 15 centimeters but less than or equal to 1 meter
<= 15 centimeters	Vertical error is less than or equal to 15 centimeters

- **SRC_COORD (Mandatory)**

    Alias: Source Coordinate System

The SRC_COORD field is intended to allow users to record the coordinate system associated with the source data used to create the cultural resource point, line or polygon. This critical information defines what form the spatial information takes and how it can be mapped or overlaid with data from other sources, such as GPS or aerial photographs. Recording these coordinate systems, and the associated datums that the coordinate systems are measured from is one of the most important aspects of the cultural

resource spatial data standards, allowing data to be shared and used with other data types. For instance, the SIHP records at least one coordinate pair for each resource listed in the database. These coordinate pairs are based on the UTM coordinate system. Some are measured from the North American Datum established in 1927 while some are measured from the North American Datum established in 1983. If users map the locations collected based on the 1927 datum with the locations based on the 1983 datum without defining which locations came from each datum, the locations could be up to 200 meters off. Because of the variety of SOURCE options however, there are no menu or domain values. The SRC_COORD field is a free text field with up to 250 characters for users to describe the coordinate system and datum related to their source. If the coordinate system of the source data is not known, users may enter "Unknown" in the field.

Example:
SOURCE: USGS 7.5 minute quadrangle map
SRC_COORD: UTM zone 4 North, NAD83
SOURCE: GPS
SRC_COORD: WGS84
SOURCE: GPS
SRC_COORD: Geographic, decimal degrees, NAD83 (PA11)

(Note: all GPS data is collected in decimal degrees, World Geodetic System 1984, however the GPS data can be exported from the GPS receiver in any number of coordinate systems. Be sure the coordinate system of the data, as it is exported, is recorded)

- **MAP_METHOD (Mandatory)**
  Alias: Map Method

The MAP_METHOD field is intended to allow users to indicate the method through which the cultural resource point, line or polygon was created or generated. The method used to create the spatial data will provide important information regarding the quality of the data and any potential applications the data could be incorporated into.

Domain values for the MAP_METHOD field:

Differential GPS	The spatial data was created via GPS and differentially corrected
Autonomous GPS	The spatial data was created via GPS and was not post-processed
Digitized	The spatial data was created by tracing or drawing features based on a base map or aerial photograph
Derived by XY event point or centroid generation	The spatial data was computer generated from a table of X/Y coordinate pairs to create points, or computer generated to find a center point of a polygon

Geo-coded	The spatial data was created by interpolating a location based on a street address
Total Station	The spatial data was created by using a geo-referenced survey grade total station
Theodolite	The spatial data was created by using a surveying instrument geo-referenced to real world coordinates
Other	The spatial data was created via some other method

- **MAP_MTH_OT (Mandatory if Applicable)**

  Alias: Map Method Comment

The MAP_MTH_OT field is intended to provide additional information related to the Map Method indicated in the MAP_METHOD field. Specifically, if users choose the Other menu value, they must enter some explanation of what method was used to create the point, line or polygon representing the cultural resource. Additionally, if users wish to provide more clarification related to the MAP_METHOD value chosen, the MAP_MTH_OT field can accommodate up to 250 characters of free text.

  Example:
  MAP_METHOD: Other
  MAP_MTH_OT: point location generated via transit and geo-referenced with GPS

- **CREATEDATE (Mandatory)**
  Alias: Creation Date

The CREATEDATE field is intended to allow users to enter the date the point, line or polygon was initially created. Date fields always follow a month/day/year format.
  Example:
  9/10/2012

- **EDIT_DATE (Mandatory if Applicable)**

  Alias: Last Edit Date

The EDIT_DATE field is intended to allow users to enter the date the point, line or polygon was last edited or spatially modified. Because cultural resource specialists do not always revisit the spatial representations of their resources, an edit date subsequent to the Creation Date may not exist. In these cases the field may be left blank. Date fields always follow a month/day/year format.

  Example:
  9/10/2012

- ***EDIT_BY (Mandatory if Applicable)***

    Alias: Edited By

The EDIT_BY field is intended to allow users to document the name of the individual who last edited the point, line or polygon, associated with the Last Edit Date. If the data has not been edited since its original creation, this field may be left blank. The EDIT_BY field is a free text field to accommodate any text entry for the name of the editor.

    Example:
    EDIT_BY: Nick Belluzzo

- ***ORIGINATOR (Mandatory)***

    Alias: Originating Institution

The ORIGINATOR field is intended to allow users to document the institution which originally created the point, line or polygon feature. Because SHPD cultural resource data originates in many various places, such as within SHPD, State Parks, or firms, it is important to identify the originator if users need to understand more about the spatial data itself, it's creation process or any of its parameters. Individuals identified in the EDIT_BY field may no longer remain in the office which originally generated the data. This free text field will provide an additional point of contact.

    Example:
    State Historic Preservation Division

    Example:
    XYZ Archaeology Consultants

- ***CONSTRAINT (Mandatory)***

    Alias: Use Constraint

The CONSTRAINT field is intended to allow users to identify the appropriate use of the point, line or polygon or indicate what issues may be relevant for other data users to understand about the spatial data itself and any information that would affect how the spatial data could or should be incorporated into GIS applications. Due to other parameters documented through the cultural resource data feature level metadata, such as date, extant, source, source scale or source accuracy, it may be important for users to understand that some features within the larger cultural resource feature class may not be appropriate for all uses or legal uses in particular. The CONSTRAINT field is a free text field which can accommodate a brief statement as necessary.

    Example:
    None

    Example:
    Extant status and datum information for resource not recorded by source; coordinate pairs used to generate points not checked for accuracy by source

Example:
Data not suitable for identifying resources potentially affected by a Section 106 undertaking

- *CR_NOTES (Optional)*

    Alias: Comment on Resource

The CR_NOTES field is intended to allow users a free text field into which general comments regarding the specific resource or the specific spatial data representation can be placed. This optional field can accommodate any brief comment (up to 255 characters) that may be relevant to the point, line or polygon representing the cultural resource.

    Example:
    Although the point represents a resource listed on the National Register, corrected locational data from SHPD has been used to replace the original UTM coordinates stored in the National Register Information System.

    Site comprised of 12 features, including 7 platforms, 3 burials, and 2 walls

- *ISLAND (Mandatory)*

    Alias: Island

The ISLAND field is intended to allow users to specify the island upon which a cultural resource is found. While this could be evident from viewing a map, or reading a site number, it is designed to facilitate advanced querying and data distribution. Please note that no special characters are used. In general, the "Offshore" value should be used when a submerged resource falls outside of county boundaries. In most cases, this will include resources such as shipwrecks or plane wreck sites. To assist data entry, users may choose values from the domain that describes possible resource types:

Domain values for the ISLAND field:

Hawaii	The resource may be found on the island of Hawaii
Kahoolawe	The resource may be found on the island of Kahoolawe
Kauai	The resource may be found on the island of Kauai
Lanai	The resource may be found on the island of Lanai
Maui	The resource may be found on the island of Maui
Molokai	The resource may be found on the island of Molokai
Niihau	The resource may be found on the island of Niihau
Oahu	The resource may be found on the island of Oahu
Northwestern Islands	The resource may be found on one of the Northwestern Hawaiian Islands
Offshore	The resource may be found underwater and offshore

Fields and definitions added to the standard group, specific for with the Cultural Resource Other data layers (see list of fields for each feature class above).

- *TYPE (Mandatory)*

    Alias: Resource Type

The TYPE field is intended to allow users to define what cultural resource type the point, line or polygon classified as, "other," represents. Because the Cultural Resource Other feature classes are intended to provide a category to place resources that do not fit easily into the other defined cultural resource feature classes it is critical to identify what type of resource the point, line or polygon is intended to represent. To assist data entry, users may choose values from the domain that describes possible resource types:

Domain values for the TYPE field:

Vegetation	The resource represents some type of vegetative feature that contributes to a cultural landscape or other cultural feature
Hydrology	The resource represents some type of hydrologic feature that contributes to a cultural landscape or other cultural feature
Topography	The resource represents some type of topographic feature that contributes to a cultural landscape or other cultural feature
Artifact	The resource represents an artifact collected as part of a identified site or an isolated artifact find
Land Use	The resource represents some type of land use feature that contributes to a cultural landscape or other cultural feature
Viewshed	The resource represents a viewshed associated with a cultural landscape or some other cultural feature
Other	The resource represents some other type of cultural feature

- *TYPE_OTR (Mandatory if Applicable)*

    Alias: Resource Type Comment

The TYPE_OTR field is intended to provide additional information related to the Resource Type indicated in the TYPE field. Specifically, if users choose the Other menu value, they must enter some explanation of what type of resource the point, line or polygon represents. Additionally, if users wish to provide more clarification related to the TYPE value chosen, the TYPE_OTR field can accommodate up to 250 characters of free text.

    Example:
    TYPE: Other
    TYPE_OTR: remnants of historic trail

Fields and definitions added to the standard group, specific for with the Cultural Resource Survey data layers (see list of fields for each feature class above).

- *SRVY_TYPE (Mandatory)*
    Alias: Survey Type
The SRVY_TYPE field is intended to allow users to identify the type of cultural resource targeted with the survey undertaken and represented by the point, line or polygon. Because multiple surveys may have taken place within an area, it is critical to identify the type of cultural resource targeted by each individual

survey effort. To assist data entry, users may choose values from the domain that describes possible cultural resource types that could be the subject of a survey:

Domain values for the SRVY_TYPE field:

Archaeology	Archaeological resources are the primary subject of the survey delineated
Architecture	Architectural resources are the primary subject of the survey delineated
Structure	Structural resources are the primary subject of the survey delineated
Cultural Landscape	Cultural landscapes and related resources are the primary subject of the survey delineated
Ethnography	Ethnographic resources are the primary subject of the survey delineated
Multiple resource types	Multiple cultural resource types are the subject of the survey delineated
Other	Some other cultural resource, or combination of resources, are the subject of the survey delineated

- ***TYPE_OTHER** (Mandatory if Applicable)*
  Alias: Survey Type Comment

The TYPE_OTHER field is intended to provide additional information related to the Survey Type indicated in the SRVY_TYPE field. Specifically, if users choose the Other menu value, they must enter some explanation of what type of survey or the type of cultural resource that is the subject of the survey that the point, line or polygon represents. Additionally, if users wish to provide more clarification related to the SRVY_TYPE value chosen, the TYPE_OTHER field can accommodate up to 250 characters of free text.

Example:
    SRVY_TYPE: Other
    TYPE_OTHER: SHPD site visit

- ***SRVY_LEVEL** (Mandatory)*
  Alias: Level of Survey

The SRVY_LEVEL field is intended to allow users to describe the intensity or level of the survey conducted and represented by the point, line or polygon delineated. Because multiple surveys may have taken place within an area, it is critical to identify the intensity of each survey undertaken in each survey effort. To assist data entry, users may choose values from the domain that describes possible survey intensity levels, as defined by the National Register of Historic Places:

Domain values for the SRVY_LEVEL field:

Reconnaissance survey	Survey conducted with a minimal or reconnaissance level methodology
Intensive survey	Survey conducted with a detailed or intensive level methodology
Archaeological Assessment	Survey conducted for an archaeological assessment
Monitoring	Data produced as part of a monitoring report
Data Recovery	Data produced from a data recovery report
Osteological Investigation	Data produced from an osteological investigation
Preservation Plan	Data produced for a preservation plan
Burial Treatment Plan	Data produced for a burial treatment plan

Other	Some other level or intensity of survey conducted

- *LEVEL_OTH (Mandatory if Applicable)*
  Alias: Survey Level Comment

The LEVEL_OTH field is intended to provide additional information related to the Survey Level indicated in the SRVY_LEVEL field. Specifically, if users choose the Other menu value, they must enter some explanation of what level of survey, or intensity of survey, was conducted in the survey that the point, line or polygon represents. Additionally, if users wish to provide more clarification related to the SRVY_LEVEL value chosen, the LEVEL_OTH field can accommodate up to 250 characters of free text.

   Example:
   SRVY_LEVEL: Other
   LEVEL_OTH: windshield form of reconnaissance survey conducted

- *SRVY_MTHD (Mandatory)*
  Alias: Survey Method

The SRVY_MTHD field is intended to allow users to describe the field methods used in the survey undertaken, regardless of intensity level. Because multiple surveys may have taken place within an area, and with differing levels of intensity, the free text SRVY_MTHD field provides a location to describe the actual field procedures related to a specific survey, adding to the detail of the intensity selected. The SRVY_MTHD field can accommodate up to 250 characters of free text.

   Example:
   Shovel test pits dug at 10 meter intervals on transects 15 meters apart and 50 meters long

Obtaining an SIHP Site Number

In order to obtain an SIHP site number for an identified cultural resource, an applicant must submit standardized data on the cultural resource to the State Historic Preservation Specialist's GIS Specialist. There are two separate, but interrelated elements which must be submitted: a Geodatabase and an Access Database. Electronic templates for both of these documents are available upon request and guidance for both components is found within this document. A flowchart which guides the process is found below.

Notes on Submitting the Geodatabase:

●It is presumed that any new locational information will be obtained by GPS. As such, the template Geodatabase is provided in WGS 84, the coordinate system utilized by GPS.

●Before submitting the Geodatabase, any unused feature classes should be deleted from the Geodatabase.

●GIS should minimally be created for all identified sites, as well as for the survey area with which the resources was found. GIS for features within a site is encouraged.

●For a Preservation Plan, GIS should be created for the preservation area, as well as the resources contained within it.
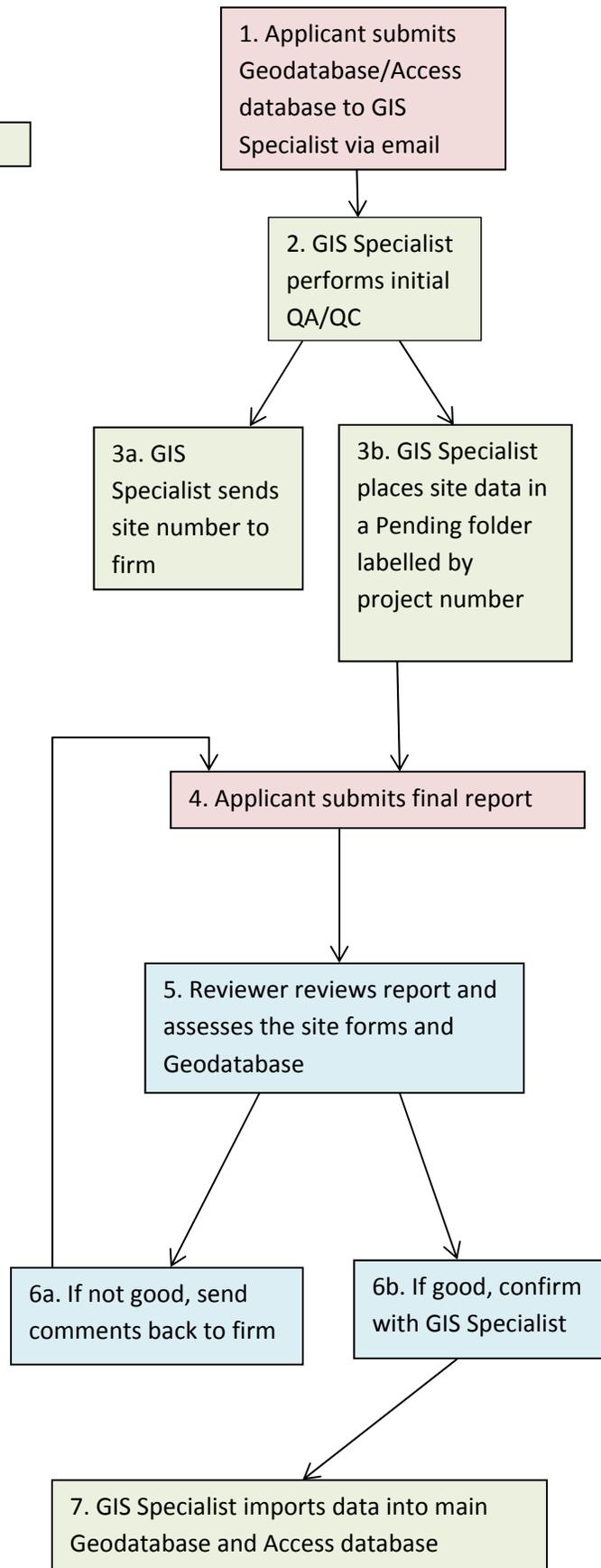
Site Number Request Workflow

Applicant=

Reviewer=

GIS Specialist=

1. Applicant submits Geodatabase/Access database to GIS Specialist via email

2. GIS Specialist performs initial QA/QC

3a. GIS Specialist sends site number to firm

3b. GIS Specialist places site data in a Pending folder labelled by project number

4. Applicant submits final report

5. Reviewer reviews report and assesses the site forms and Geodatabase

6a. If not good, send comments back to firm

6b. If good, confirm with GIS Specialist

7. GIS Specialist imports data into main Geodatabase and Access database

1. Applicant submits Geodatabase/Access database to GIS Specialist via email

A blank Geodatabase and Access database may be obtained by emailing the SHPD GIS Specialist. Instructions on completing the Geodatabase and Access database can also be obtained by email, or though visiting the SHPD website.

Once completed, the files should be returned to the SHPD GIS Specialist by email.

2. GIS Specialist performs initial QA/QC

The GIS Specialist will evaluate both the Geodatabase and Access database to ensure that it is thoroughly filled out, adheres to the appropriate data standards, and that there are not any other self-evident errors.

3a. GIS Specialist sends site number to firm

Upon review, a site number(s) will be assigned and the applicant will be informed by email.

3b. GIS Specialist places site data in a Pending folder labelled by project number

The data will be held in a folder, awaiting staff review.

4. Applicant submits final report

Once the final report (e.g. Archaeological Inventory Survey, National Register nomination) is submitted by the applicant, staff review of the previously submitted data is triggered.

5. Reviewer reviews report and assesses the site forms and Geodatabase

The reviewer will read through the final report and then inspect the site form and Geodatabase to ensure that the data submitted as part of the site number requests corresponds to the narrative information submitted in the final report.

6a. If not good, send comments back to firm

If there are any inconsistencies, the reviewer will first assess whether these problems can be corrected directly by SHPD or if the data needs to be returned to the applicant with comments. If corrections are made internally by SHPD staff, the applicant will be informed of these changes.

6b. If good, confirm with GIS Specialist

If the data is found to be acceptable, the reviewer will inform the GIS Specialist that the data has been approved.

7. GIS Specialist imports data into main Geodatabase and Access database

Once staff reviewers have approved the data and informed the GIS Specialist, the GIS Specialist will import the Geodatabase and Access database into the corresponding main databases.