



**MODULE THREE
GUIDELINES FOR USE BY
HISTORIC PRESERVATION
PROFESSIONALS**



**Florida
Division of
Historical
Resources**

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1.0 INTRODUCTION

Module Three of the *Manual* contains guidelines for the identification, evaluation, recordation, and treatment of cultural resources for use by historic preservation professionals conducting work in compliance with federal, state, and local laws, rules, and regulations. The primary legal authorities on the federal and state levels are Section 106 of the National Historic Preservation Act, as implemented by 36 CFR Part 800, Chapter 267, Florida Statutes (F.S.), and Rule 1A-46, F.A.C. The intent is to foster quality assurance through the standardization of work and reporting requirements.

Exclusive of the Introduction (Section 1), Module Three is divided into seven major sections, which address the following:

- **Section 2** provides a detailed look at the site assessment survey (Phase I) process for both archaeological and historic resources.
- **Section 3** focuses on archaeological test excavation (Phase II).
- **Section 4** describes the mitigation alternatives for archaeological sites, including excavation and data recovery (Phase III).
- **Section 5** explains how identified cultural resources are evaluated as per their eligibility for inclusion in the National Register of Historic Places (NRHP). It includes a “how to” for nominating individual properties, districts and multiple properties to the NRHP.
- **Section 6** explains the effects determination process, and includes information on the preparation of Section 106 Consultation Case Study Reports.
- **Section 7** provides guidance on the preparation of agreement documents, including agreement-based determinations of no adverse effect, memoranda of agreement, and programmatic agreements.
- **Section 8** examines the ways in which adverse effects to significant historic resources may be avoided, minimized, or mitigated.

Module Three incorporates the guidance contained in a number of existing documents. Hyperlinks are provided for easy navigation to the primary source documents, which include some of the following:

- The Historic Preservation Compliance Review Program of the Florida Department of State, Division of Historical Resources (November 1990, final draft)
- Florida Rule [Chapter 1A-46](#) (2002) (Archaeological and Historical Report Standards and Guidelines)
- The Florida Department of Transportation’s Cultural Resource Management Handbook (1995, revised 2001)
- [36 CFR Part 800 \(Protection of Historic Properties\)](#)
- [36 CFR Part 60 \(National Register of Historic Places\)](#)
- [36 CFR Part 63 \(Determinations of eligibility for inclusion in the National Register of Historic Places\)](#)

- [36 CFR Part 68 \(Secretary of the Interior's Standards for the Treatment of Historic Properties\)](#)
- [36 CFR Part 79 \(Curation of Federally-Owned and Administered Archaeological Collections\)](#)
- [43 CFR Part 10 \(NAGPRA Regulations\)](#)
- [Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation \(48 FR 44716\)](#)
- [Secretary of the Interior's Standards and Guidelines for Archaeological Documentation](#)
- [Secretary of the Interior's Standards for Architectural and Engineering Documentation](#)
- [Secretary of the Interior's Standards and Guidelines for Preservation Planning](#)
- [Secretary of the Interior's Standards for Rehabilitation](#)
- Various "How To" [Bulletins](#) published by the U.S. Department of the Interior, National Park Service (NPS)
- [Preparing Agreement Documents](#) (Advisory Council on Historic Preservation [ACHP], 1988)
- Recommended Approach for Consultation on Recovery of Significant Information from Archaeological Sites (64 FR 27085-87, ACHP 1999)
- National Register Handbook (1996) prepared by the staff of the Survey and Registration Section of the DHR
- [Guidelines for Section 106 Review of Proposed Cellular Tower Locations](#) (DHR)
- [Florida's Cultural Heritage: A View of the Past](#) (DHR)
- [More Than Orange Marmalade: A Statewide Comprehensive Historic Preservation Plan](#) (DHR)
- [Documentation Requirements for Buildings Proposed for Demolition and Standards for Architectural Documentation](#) (DHR)
- [Performance Standards for Submerged Remote Sensing Surveys](#)
- [Minimum Documentation for State and Local Reviews](#)

2.0 CULTURAL RESOURCE ASSESSMENT SURVEYS (PHASE I)

2.1 INTRODUCTION

The **Cultural Resource Assessment Survey (CRAS)**, also known as a Phase I survey, is the only type of survey which satisfies the historic preservation requirements of federal and state laws and regulations (e.g., [Section 106 of the National Historic Preservation Act](#) and [36 CFR Part 800](#); [Chapter 267, F.S.](#) and [Rule 1A-46, F.A.C.](#)). The standards for conducting and reporting the CRAS, as set forth in Rule 1A-46, F.A.C., are detailed in this section of Module Three.

A CRAS is an intensive survey focusing on both archaeological sites and historic resources, and associated features. The goal of such surveys is to locate, identify and evaluate cultural resources present within the “area of potential effect” or APE. Site evaluations are in terms of their eligibility for listing in the NRHP. A survey of an area containing historic structures which fails to identify and evaluate archaeological resources will not be considered adequate. Likewise, a survey, which addresses the archaeological resources without identifying and evaluating the historic structures in the APE, is not considered to be complete and sufficient. A survey that only identifies historic properties without evaluation is never acceptable. The CRAS:

- results in a formal survey report, including completed Florida Master Site File (FMSF) forms for all identified resources, regardless of their significance;
- evaluates specific project impacts to significant historic resources;
- forms the basis for recommended measures to avoid and preserve or mitigate project impacts to significant historic resources; and
- provides data used in developing local preservation plans and land management plans.

Typically, the CRAS is divided into a number of work elements, each of which is explained in Sections 2.2 through 2.9. These include:

- Background Research (Section 2.2)
- Research Design (Section 2.3)
- Archaeological Field Survey (Section 2.4)
- Historic Structure Field Survey (Section 2.5)
- Artifact Processing and Analysis/Curation (Section 2.6)
- Documentation (Sections 2.7, 2.8, and 2.9)

Prior to the initiation of background research, the specific level of assessment and documentation required should have been provided by the DHR reviewer in writing, based upon the nature of the proposed project. If you are a consultant providing services to a client, such as a permit applicant, request a copy of the survey request letter. The survey requirements will generally depend upon the nature of the potential ground disturbance activities, as well as potential impacts to historic structures.

2.1.1 Other Survey Types

There are other survey types that provide less comprehensive information. As noted below, the results of these investigations are useful in a number of contexts, and often serve as the foundation for more intensive survey work. These include:

2.1.1.1 Architectural Reconnaissance Survey

This type of investigation, also referred to as a “windshield survey,” generally results in the identification of the most obvious structures built over 50 years ago. This type of survey is often conducted by interested individuals (e.g., members of local historical societies or students in architecture or historic preservation studies). A minimum of historical background research and evaluation usually accompanies this type of survey. FMSF forms are completed for all identified historic properties with special attention given to properties considered to be significant. Consideration of the NRHP potential of historic properties in the surveyed area is important. Architectural reconnaissance surveys are an essential first step for local governments attempting to identify historic structures and districts in their jurisdiction. These survey data are used to complete the requirements of local government comprehensive plans, and also are needed to expedite review of Community Development Block Grant (CDBG) applications and other federally involved projects. Architectural reconnaissance survey also is appropriate for Section 106 review of proposed cellular tower locations, if conducted by a qualified professional meeting the Secretary of the Interior’s Standards ([36 CFR Part 61](#)). However, completion of FMSF forms for historic structures identified during cellular tower projects is not required. Section 2.11.2 details the requirements for surveys of cellular tower locations.

At a minimum, architectural reconnaissance surveys include:

- archival research of the area to be surveyed;
- a survey boundary map with all properties 50 years of age or older identified on the map. These should be coded to distinguish between those properties considered to be significant versus those considered not to be significant. (Vacant lots, parks, and non-historic structures should also be indicated.);
- photographs of all identified historic properties. These should be black-and-white 35 mm prints (two exterior views), must be keyed to the survey boundary map, and should be identified by street address; and
- an inventory of identified historic structures and associated features by address, including information on architectural style, condition, date of construction (known or estimated), and significance. The list should be keyed to the survey boundary map and to the photographs.

2.1.1.2 Archaeological Reconnaissance Survey

This type of archaeological survey is usually conducted to identify and map sites, and to obtain data on site types and distribution. Field methodology involves minimal subsurface testing, if any. As such, archaeological reconnaissance surveys are inadequate for locating and identifying more than the most obvious, exposed sites. This type of survey is often conducted by interested individuals (e.g., members of archaeological societies or field schools). These surveys result in completed FMSF forms and informal survey reports. Such information is of value to local government planners and to the DHR as it contributes further to our understanding of an area's history and prehistory. It also aids in the review of proposed development project impacts by providing general information on the kinds and character of historic resources known or deemed likely to be present in a project area.

2.1.1.3 Thematic Survey

This is an intensive survey conducted to identify and nominate historic resources directly related to one another by type, style, architect, historical association, or any other clearly defined "theme." These may represent "historic contexts," the cultural-historical-geographical units such as various archaeological cultures, or they may be restricted to certain site types. Examples include historic railroad depots, St. Johns period shell middens along Mosquito Lagoon, Seminole War era fort sites, and buildings designed by the Sarasota School of Architecture. The historic properties identified in such surveys are generally spread across a geographic area, rather than clustered in defined districts. By definition, thematic surveys exclude and fail to identify historic resources that are not included within the theme.

2.1.1.4 Multiple Property Listing Survey

Although similar to a thematic survey, the focus of this survey type includes all significant historic resources, not just those limited to a more restricted period of significance or theme. For all practical purposes, the procedures for conducting this type of survey are the same as those for Site Assessment Surveys.

2.1.2 Defining the Area of Potential Effect (APE)

If the survey you are conducting is on behalf of a federal or state agency, it is the responsibility of the agency's project manager to establish the project area or **Area of Potential Effect (APE)**, in coordination with the State Historic Preservation Officer (SHPO) and/or Compliance Review Section (CRS) staff. In accordance with Rule 1A-46, the APE is defined as "the geographic area or areas within which an undertaking may directly or indirectly cause changes in character or use of historic resources, if any such properties exist." In defining the APE, the full range of possible impacts, both direct and indirect, must be considered.

Direct impacts are effects caused by an undertaking. Work that is undertaken on a property that has the potential to alter its NRHP quality is a direct impact. An undertaking within the APE that introduces visual, audible, or atmospheric effects and has the potential to alter those qualities of the property that make it eligible for NRHP inclusion would also be a direct impact. Indirect or secondary impacts are effects that may occur as an indirect result of an undertaking whenever the undertaking induces or makes possible related activities which have the potential to alter the NRHP quality of a property or its setting. **Indirect impacts** are generally removed in either time or distance from the undertaking. Indirect impacts include changes in transportation patterns, land use, population densities or growth rates, and other reasonably foreseeable impacts.

The APE is not always the same as the geographical limits of the project, nor is the APE always identical for archaeological sites and historic resources. There is often a separate “archaeological APE” and “historical APE.” For example, in the case of proposed cellular tower locations, the APE for historical resources is determined on the basis of the height of the proposed tower. Typically, an APE of approximately one-half mile radius may be appropriate for towers of 150 feet in height or less; towers greater than 150 feet in height may require an APE that exceeds one mile in radius. The archaeological APE is typically the area of proposed ground disturbing activities, which includes the tower footprint, access roads, and staging areas.

In defining the APE, the type and extent of construction activities, the horizontal and vertical limits of proposed ground disturbance, and the placement of project related staging, such as access roads and easements (temporary or permanent) must be considered. In addition, the introduction of project-associated visual, aesthetic, noise, and atmospheric impacts, as well as changes in access, must be taken into account for federal undertakings. **For example**, a proposed telecommunications tower within sight of a historic property that is listed in or eligible for listing in the NRHP may be within its “view shed,” and therefore may have potential visual impacts. The introduction of increased noise levels due to highway construction in the vicinity of a previously isolated historic structure may also have an effect.

Be sure that the initial definition of the APE is large enough to accommodate minor project design changes without requiring additional cultural resource investigations. Include a definition of the geographical limits of the project area, with modifications, in the written CRAS report which follows field survey. Clearly identify the project area on field maps and maps in the CRAS report; maps are often in the form of 1"=200' aerials. Ideally, they should be scaled no smaller than 1"=100' for urban areas and 1"=400' for rural areas.

2.2 BACKGROUND RESEARCH

In accordance with the standards and guidelines contained in Rule 1A-46, F.A.C., archival research, herein referred to as background research, shall address the following:

- Past field surveys in the project area and the relevance of the major findings in the area currently under study;
- Pertinent data in the FMSF;
- Pertinent environmental and paleoenvironmental data;
- Pertinent data in other studies appropriate for the research problem;
- Pertinent historical data from records such as plat maps, tract books, subdivision maps, Sanborn maps, city directories, building permits and architectural plans;
- Pertinent information from informants; and
- The Certified Local Government within whose boundaries the project lies.

In general, the background research includes a review of relevant environmental, archaeological, and historical literature, documents, and other data. At a minimum, it allow for a synthesis of existing archaeological site types (both functional and chronological). It also should provide a regional framework for the analysis of recovered artifacts and evaluation of site significance, as well as data with which to develop testable hypotheses, including site location predictive models. The historical review should provide an outline of the major historical developments in the project area, including information on historically significant individuals, institutions or events, plus the history of land use for the survey property. It should also enable a synthesis of known historic resources (stylistically and chronologically).

The basic sources for data collection at the state, regional, and local levels are discussed in the following sections.

2.2.1 Florida Master Site File (FMSF)

Background research begins at the **FMSF**, which is the state's clearinghouse for information on archaeological sites, historic structures, and field surveys for such sites. It consists of several systems of paper and computer files located on the fourth floor of the R.A. Gray Building at 500 South Bronough St. in Tallahassee. It should be noted that FMSF data is typically at least a few months behind receipt of reports and site files. Thus, available information may not be current with actual work performed in the vicinity of the CRAS project area.

For consultants, citizens, and agency personnel, FMSF personnel can provide limited research or photocopying services for a maximum of 15 minutes per consultation. Accordingly, for most projects it is necessary to visit the FMSF office in order to conduct research, photocopy reports, and site file forms, etc. The FMSF also accepts computerized site files and down loads computerized data to its users. The Administrator of the FMSF, Dr.

Marion Smith, can be contacted for detailed information (850/245-6440) and updating of the FMSF's capabilities.

A variety of information may be obtained at the FMSF, including:

- **NHL and NRHP Listings and Nominations:** These resources are listed by county in an index compiled from FMSF entries; check the compilation date on the index for timeliness; the site file is always behind receipt of materials. Therefore, the most recent listings in the NRHP may not be included in the index, and it is advisable to also check the NRHP Information System ([NRIS](#)), a database that contains information on places listed in or determined eligible for the NRHP.
- **FMSF Forms** for historic structures, cemeteries, bridges, and archaeological sites: The 90,000+ entries are also indexed by county and accessible by individual FMSF number. In order to quickly review listed archaeological and historic sites in and near your project area, request a one-line-per-site summary from the computer files. This entails a FMSF staff member doing a computer search for all sites in whichever Township, Range, and Section (T/R/S) area(s) the project is located. For all sites, this includes site number, site name, NRHP status, and T/R/S location. For historic structures, street address, city, and present use or function are included. For archaeological sites, site descriptive codes and a list of archaeological cultures represented supplement the basic information. An individual FMSF form for each resource is available in hard copy. Ask FMSF personnel for assistance.
- **Previous CRAS Reports:** These are indexed by county, FMSF manuscript number, and author(s). Each CRAS report has a manuscript number; these are filed numerically in the FMSF office for easy access. Most reports are lengthy (50-250 pages) so copying can be a time-consuming process. Photocopies are \$0.15 per page at the FMSF.
- **FDOT County Highway Maps:** The locations of previous CRASs are delineated on individual county highway maps. Each survey location is labeled with the appropriate FMSF manuscript number. These numbers correspond to the appropriate CRAS reports.
- **USGS Quadrangle Maps:** The location of each National Historic Landmark (NHL) and NRHP site and/or district, and/or archaeological site is identified by its FMSF number on appropriate quadrangle map(s). In order to determine which particular USGS quadrangle map indicates the location of a given site, take one of the following steps: 1) refer to the paper FMSF form for that site; 2) if you have a FMSF generated one-line-per-site summary of sites in the vicinity of your project area refer to that; or 3) consult with a FMSF staff member. Each USGS Quadrangle map in the FMSF is indexed to a specific location in the FMSF map drawers; see the "Topographical Map Index."

2.2.2 Survey and Registration Section

The Survey and Registration Section of the DHR is also located in the R.A. Gray Building in Tallahassee. Information available here includes the **Preliminary Site Information Questionnaire (PSIQ)**. This form, completed for many NRHP-eligible buildings along with the DHR response, provides a good source of information about potentially significant structures that may be located within a project area. However, DHR's records are incomplete and there is no official printout or listing of these files. Visit the Survey and Registration Section and ask for assistance from staff.

Pending or Draft NHL and NRHP Nominations are another source of information regarding historic structures throughout Florida. However, there is no official printout or listing of these nominations. Contact staff at the Survey and Registration Section for assistance.

2.2.3 Florida Department of Environmental Protection (DEP)

Important background information is also located at the DEP at 3900 Commonwealth Boulevard in Tallahassee. Here, plat maps, federal surveyor's field notes, tract book entries, various maps, charts, and military records, as well as Spanish Land Grants can be examined. Most accessible information is on microfilm; however, some data are in the vault (using the vault is strongly discouraged, so inquire about accessibility and ask for assistance). Copies of microfilmed data are readily available. The cost varies depending on the items to be copied. Some items can be ordered by phone or mail through the Field Note Specialist (Title and Records Section 850/488-8123). When writing or calling the DEP; be sure to provide township, range, and section data; ask for a total dollar amount for the cost of reproduction; and forward a check. Following receipt of the check, DEP will provide the data. This process can take several weeks, so order well in advance. When visiting the DEP, begin research at the Title and Records Section, Room 153. Here a receptionist and/or planner are available to direct inquiries and assist in obtaining access to the needed documents. Land records (e.g., plats and field notes) and other data are also available on-line at <http://www.labins.org> and <http://www.myflorida.com>.

2.2.4 Other State, Regional, and Local Sources

Other project specific information can be found at local libraries, archives, and regional repositories. These data include county tax rolls and deed records, Sanborn insurance maps, city directories, newspaper articles, biographies, maps and photographs. Some of the information sources are as follows:

- **Florida State Library and Archives** in Tallahassee, and special historical collections throughout the state university system provide a good source of state and regional data.
- **Florida Department of Transportation Bridge Inspection Office** in each district is a repository of state-owned bridge inventory and appraisal information. To find out

quickly if a particular bridge is historic (50 years of age or older), contact the appropriate district office, identify the bridge(s) in question by its six digit bridge number (these numbers are found on all FDOT bridges and sometimes are listed in the Scope of Services), and ask for Structural Inventory Assessment (SIA) and Bridge Management Inventory System (BMIS) forms. The SIA and BMIS forms provide bridge construction dates, construction material, bridge length, etc.

- **Regional and Local Libraries**, as well as **museums**, may be repositories for community (regional, county, city) histories, early city and county maps, unpublished manuscripts, photographic collections, and U.S. Department of Agriculture (USDA) soil survey reports.
- **Certified Local Governments (CLGs)**, local preservation boards or commissions, and local Main Street Programs are good sources for local economic development data and early building information. A list of Florida CLG cities and counties and Florida Main Street cities is available at <http://dhr.dos.state.fl.us/bhp>. A list of Florida CLGs with links to contacts is also available on the Internet at http://grants.cr.nps.gov/CLGs/CLG_GetResults.cfm.
- **Private Organizations and Individuals**, including historical societies, preservation organizations, local news media, and long time residents may be able to provide specialized data, or introduce you to knowledgeable individuals concerning local cultural resources. In addition, the outside professional will often benefit from the local population's perspective of what is historically important. Interviews with local informants are a valuable source of information.

2.3 RESEARCH DESIGN

A **research design** provides an overall plan to guide the location, identification, and evaluation of cultural resources. It addresses all phases of investigation, from background research to report preparation. In accordance with Rule 1A-46, F.A.C., the research design shall address the objectives, methods, expected results, and procedures to deal with unexpected discoveries including the discovery of human remains in accordance with [Chapter 872.05, F.S.](#)

At a minimum, the research design contains the project name and location; the research questions to be addressed; the overall approach and specific methods to be employed; a listing of previously identified NRHP sites, structures, and districts; as well as previously recorded FMSF structures. The potential for unrecorded archaeological sites and historic structures, and a map identifying **zones of archaeological probability (ZAPs)**, are also included. For some types of projects, the research design may be submitted to the DHR for review and approval prior to initiating the field survey. For example, in the case of a large proposed development property covering several thousand acres, it will not be necessary to survey all portions of the property. A research design with a property-specific site location predictive model is an excellent means by which the agency/permit applicant/consultant and the DHR can agree on what specific areas need to be surveyed and which areas can be eliminated from coverage.

2.3.1 Predictive Model Formulation for Archaeological Sites

A primary component of the research design may be a discussion of project expectations vis-à-vis the types of cultural resources expected to occur, as well as their probable locations. This is based largely on the background research, combined with an examination of pertinent maps. It should take into account both precontact and historic period archaeological sites, as well as historic structures. In addition, the research design considers the nature of the undertakings (i.e., residential development of upland areas only, replacement of existing bridge, narrow pipeline corridor), and adapts the research design as appropriate.

2.3.1.1 Precontact Archaeological Sites

Predicting the **types** of as yet unrecorded precontact period archaeological sites, as well as **where** they might be expected, entails a synthesis of relevant background research findings. Also, an examination of USGS quadrangle and USDA soil maps, project-specific aerial maps, and a familiarity with the archaeology of the area as presented in previous CRAS reports and in [Florida's Cultural Heritage: A View of the Past](#) are necessary. The following considerations are important in preparing a predictive model for precontact period archaeological sites:

- Previous researchers have demonstrated certain environmental factors to be accurate predictors of precontact site location. These variables include proximity to a freshwater source, soil drainage, landform, relative elevation, and local vegetation, among others.
- Different types of sites may be expected in different types of environments. For example, while shell middens are always situated along coastal waterways such as estuaries, bays, lagoons, and river mouths, lithic and artifact scatters are likely to occur in most environments (non-wetland).
- In general, relatively elevated, better-drained lands proximate to (within 100 meters) a freshwater source are considered to have a high potential for precontact site location. As one moves away from the water source, site expectancy diminishes. Zones of moderate probability are often defined as situated between 100 and 300 meters of potable water.
- Existing conditions within the project area may be at variance with the environmental conditions observed on the USGS quadrangle and USDA soil maps, thus presenting certain constraints on investigation. Factors such as recent residential and commercial developments, mining, dredging and filling, and other landscape alterations may affect the possibility of intact archaeological deposits in high and moderate probability zones based on ecological models.
- Areas classified as having a high site location potential may not yield evidence of an archaeological site due to the deposition of deep fill. Similarly, an area depicted in historical documents as the site of a Seminole War period fortification may today be the location of a shopping mall.

- Specific exceptions to these considerations are quarry sites, drown and submerged sites, and terrestrial wet sites (e.g., Windover).

Thus, expectations are explicitly stated and defended by local or regional settlement data and models. Expectations without any justification or the uncritical and untested application of predictive models for other regions are not acceptable procedures.

2.3.1.2 Historic Period Archaeological Sites

The anticipated locations for sites should be based on an understanding of historic land use patterns and historic documents. Useful sources in predicting where these kind of cultural resources occur include:

- **Nineteenth century plats and field notes** - These documents, examined during the background research, often show the locations of forts, homesteads, roads and trails, battle sites, Native American agricultural fields, mounds, etc.
- **Tract Books** - These may indicate the potential for early homesteads, not shown on the plats. This listing of early land purchasers may also identify persons with significant historical associations.
- **Sanborn Maps** - In urban areas, these insurance maps help determine the types of older residential and commercial structures which once occupied the project area. The maps may help identify buried features such as household refuse, wells, cisterns, and outbuilding foundations.
- **Other documents** - Local histories and maps depict locations of no longer extant historic features such as military forts, cemeteries, sugar mills, saltworks, sawmills, work camps, old docks and wharves, abandoned roads and railroad lines.
- **Local informants** - Individuals, including self-described “history buffs,” artifact and memorabilia collectors, historical society members, and long-term residents, are often valuable sources of information about local sites. Interviews by telephone or in person can provide details that are otherwise undocumented.

2.3.2 Historic Structures Considerations

Based on the background research, the research design for historic structures takes into account the specific historical development of the project area and its environs. It also addresses broad social, economic, architectural, technological, and ethnic trends in the project area, and provides a general idea of the number, type, and location of the historic resources (buildings, bridges, cemeteries) anticipated. These expectations are usually field-verified with a reconnaissance survey of the project area and surrounding vicinity.

While some structures may not appear to be 50 years old, historically important, and/or architecturally significant at first glance, historic research may indicate otherwise. Furthermore, historic associations with significant individuals or events may not be readily

apparent. So, broad and inclusive background research, an initial inventory, assessment of the adequacy of existing site data, an estimate of what more may be available, and an estimation of what action will be required to complete the record are critical to the historical portion of a research design.

Another pertinent consideration includes defining what is historic. According to the NRHP criteria of eligibility, historic properties generally are defined as those being 50 years of age or older. However, for multi-year projects, such as many transportation projects, record structures that are not yet 50 years old so as to avoid re-survey prior to actual construction. As the post-World War II building boom nears 50 years of age, the number of buildings requiring survey and assessment will increase dramatically. Another exception to the 50-year criterion is the category of properties of exceptional significance. For example, Launch Complex 39 at the Kennedy Space Center, constructed in 1968 for America's pioneer "man in space" program, is listed in the NRHP. See [NRHP Bulletin 22](#) for guidelines for evaluating and nominating properties that have achieved significance within the last 50 years.

NRHP properties must be considered. The research design specifies all previously recorded historic properties within or adjacent to the project area that have been recorded as eligible or potentially eligible for listing in the NRHP. This information is gathered during the background research and is critical to preparation of the research design. The boundaries of any listed or potentially eligible districts, as well as the locations of contributing structures within or proximate to the project area, should be delineated. The reconnaissance survey and thorough background research and familiarity with previous work in the project area should overcome any errors of omission resulting from delays at the FMSF, which may be several months behind the receipt of information. Check directly with the Survey and Registration Section for current information regarding NRHP listed and determined eligible properties.

For transportation and other types of projects, historic bridges should be considered. The FDOT's publication *The Historic Highway Bridges of Florida* (Jackson n.d.) contains a list of historic bridges that are considered significant, that is, NRHP-eligible.

2.3.3 Methodology and Site Evaluation Criteria

The research design also addresses how cultural resources, both archaeological and historical, are to be identified and evaluated. For example, archaeological survey methodology should address subsurface testing intervals for high, moderate, and low probability zones; the use of mesh screens to recover artifacts; the way discovered sites will be bounded; etc. The application of NRHP [Criteria of Eligibility](#) for assessment of site significance also should be made explicit. For descriptions of the NRHP eligibility criteria, see Section 5.2 of this module.

2.4 ARCHAEOLOGICAL FIELD SURVEY

2.4.1 Introduction

The purpose of the archaeological portion of the CRAS is to locate, identify, and assess the significance of any archaeological resources within the project area. This effort provides the SHPO with data sufficient to determine whether the proposed undertaking may affect significant archaeological resources. It also provides a basis for evaluating measures to avoid, minimize, or mitigate any adverse project impacts to such resources and to enhance any beneficial effects.

Many factors influence survey field methodology, including the size of the study area, its location (rural/urban; uplands/wetlands; coastal/interior), vegetative cover, and land use during the past 100 years. Subsurface testing methodology should be related to the general size, kind, and character of the archaeological sites known or expected to be present in the project area. Thus, field methodology must be **appropriate to the environment and expected site types**.

This section of Module Three is concerned with archaeological survey of **terrestrial sites**. **Underwater archaeological surveys** should be conducted in accordance with the [Florida Division of Historical Resources Performance Standards for Submerged Remote Sensing Surveys](#). These standards are detailed in Section 2.11.3 of this module.

Since it is likely that the site assessment survey will represent the only time that a property is surveyed to identify archaeological sites (as well as historic resources), the fieldwork should be designed to maximize data recovery. Inadequate field methodology will generally result in the report results being determined to be “incomplete and insufficient” by the SHPO.

Sufficient field methodology will leave little doubt that all or nearly all sites were:

- identified;
- bounded horizontally and vertically;
- presented in the resulting report at a level sufficient to permit an assessment of their NRHP eligibility, to the extent possible, and to permit recommendations of appropriate site treatments; and
- recorded and submitted to the FMSF in an acceptable form.

Roadways, powerlines, and pipeline corridors and rights-of-way represent **special circumstances** with respect to field methodology and survey limits. The purpose of site assessment surveys in project corridors and rights-of-way is to identify the horizontal and vertical boundaries of significant sites such that a decision may be made on whether to move the proposed project impact area so as to avoid adverse impacts to significant sites. Thus, while most corridor and rights-of-way survey efforts will be restricted to the proposed boundaries of such corridors and rights-of-way, IF significant resources are identified within a project’s planned boundaries, it is desirable that a sufficient sample of any such site areas extending outside the corridor/rights-of-way be mapped and evaluated to facilitate a determination of whether site avoidance is possible. This is the most important aspect of the

project. It is also essential that the survey archaeologist understand that the boundaries of a large potentially significant site do NOT have to be fully established outside of the project right-of-way, nor does further evaluation work need to be conducted once potential significance has been established. Any such work would be the subject of archaeological test (Phase II) or mitigative (Phase III) excavation (See Sections 3.0 and 4.0, respectively), if it is determined that site avoidance is not possible during project effect consultation.

2.4.2 Survey Methods

In general, field survey tactics include both initial reconnaissance survey and subsurface testing. The intensity of the latter varies in accordance with the designated zones of high, moderate, and low site potential as determined during preparation of the research design. In most instances, a combination of judgmental and systematic sample testing along transects is probably most efficient.

The components of a typical archaeological assessment survey include the following:

- Initial reconnaissance survey
- Systematic subsurface testing
- Judgmental subsurface testing
- Site bounding
- Data collation
- Mapping

A discussion of each is contained in the following sections.

2.4.2.1 Initial Reconnaissance

The first stage of archaeological field survey is a drive-through of the project area. The goal of this effort is to "ground truth," or ascertain the validity of the predictive model. Conditions that facilitate or impede planned survey efforts should be noted. Typical considerations include the following:

- Is subsurface testing in the High Probability Zone(s) (HPZ) and Moderate Probability Zone(s) (MPZ) feasible, or is such work obviated by the presence of constructed features (i.e., parking lots, buildings, etc.), underground utilities, or landscape alterations including ditches and swales, mined land, or dredged and filled land?
- Is any land within the project area secured behind fencing or posted "No Trespassing?"
- Are there parcels of cleared and vacant land where ground surface visibility is optimal and/or where access is unrestricted and clear? Such localities are ideal for both surface inspection and subsurface testing.

For example, perhaps the survey area includes land in the Central Business District of a city. Background research may indicate a high potential for both precontact and historic archaeological sites. However, due to urbanization, subsurface testing may be limited to vacant lots. Similarly, drainage features such as ditches and swales along a rural roadway may leave only a narrow strip of unaltered land at the outer limit of the project right-of-way, severely impeding efforts to conduct systematic shovel testing. Further, the project area may contain privately owned land, and access is restricted or prohibited. If landowner permission cannot be secured, these localities should not be surveyed until the issue has been resolved.

Following this initial field inspection, the predictive model can then be adjusted to reflect existing conditions. As a result, areas originally considered HPZ or MPZ might be downgraded to LPZ in terms of disturbance or condition and other constraints on investigation. The aerial photos should be marked with the HPZ, MPZ and sample LPZ areas, according to the predictive model for potential site occurrence, and annotated as appropriate to reflect the conditions observed.

2.4.2.2 Systematic Subsurface Testing

An archaeological site assessment survey that fails to use subsurface testing generally will NOT be acceptable. All HPZ and MPZ areas are subjected to systematic subsurface testing at 25 meter (m) and 50 m intervals, respectively. In addition, at least 10 percent of the LPZ areas are tested at 100 m intervals. Systematic testing should be supplemented by judgmental testing, as appropriate. Small interval testing (i.e., at 5 m) may be appropriate at historic period archaeological sites.

For projects that consist of a narrow corridor (i.e., pipeline, road right-of-way), a single line or transect of tests at offset intervals should suffice. For large project areas, or wider rights-of-way, parallel transects or multiple lines of tests at offset intervals, forming a general zigzag pattern, provide broader sampling coverage. Overall, a strategy combining both systematic and judgmental testing affords the best overall coverage.

Cleared areas with good surface visibility are visually inspected for the presence of surface cultural materials or features. Animal burrows, tree falls, firebreaks, bike trails, cattle paths, and erosion features also provide good opportunities for site discovery. Develop good controls for surface collection in the field to minimize selective biases.

Subsurface tests should measure 0.5 m in diameter by a minimum of 1 m in depth. Under certain conditions (i.e., shallow bedrock, saturated soils, or dense modern fill) it may not be possible to penetrate that deeply. Sample testing throughout Florida has demonstrated that 30 cm x 30 cm (or smaller) subsurface units dug to less than 50 cm in depth consistently fail to provide adequate site data.

All soil removed from each subsurface test is screened through 6.4 mm mesh to maximize

the recovery of cultural materials. All cultural materials collected from the surface or recovered from the shovel tests are bagged by provenience unit. Provenience information must be written legibly on the exterior of all collection bags in waterproof ink. At a minimum, the following information is required on all collection bags:

- Project name
- Site name (if applicable)
- Provenience information - will vary depending on type of collection unit, but typically will contain the collection unit (e.g., excavation unit, shovel test number, feature number, etc.), zone or level, and depth (e.g., cm below unit datum, elevation above sea level)
- Artifacts collected
- Date
- Excavator's name or initials
- Field Specimen (FS) number
- Bag number (e.g. Bag 1 of 3)

Standardized forms help data recording. Pertinent information should include the following:

- Subsurface test number and location: *ST4; 50 m north of ST 3*
- Stratigraphic profile: *0-20 cm dark gray humus; 20-60 cm light gray fine sand; 60-80 cm black organic pan, weakly cemented; 80-105 cm tan fine sand; 105 -110 cm tan clayey sand*
- Artifact finds (number and type) and provenience: *12 waste flakes, 25-60 cm; 1 STP sherd, 10-20 cm*
- Local conditions: *improved pasture; oak hammock, plowed field; modern fill to 60 cm*

After completing all data recording, fill all test pits completely. Failure to replace all the soil may result in serious injuries to individuals, livestock, or other animals. In order to facilitate thorough backfilling, a tarp may be spread on the ground close by the subsurface test and screening takes place over the tarp. In this manner, all removed soil is quickly and thoroughly replaced in the hole. In landscaped areas, original sod is replaced over the hole to restore the original appearance.

2.4.2.3 Judgmental Subsurface Testing

Additional subsurface testing in selected areas is appropriate for the purpose of site discovery. Non-systematic testing may be appropriate in:

- Urbanized environments where pavement, utilities, and constructed features make systematic testing unfeasible;
- Project areas with limited HPZs and MPZs but where a larger subsurface test sample may be desirable;
- Geographically restricted project areas such as proposed pond sites or bridge

replacement areas; and

- Areas where restricted access, wetlands or other natural or cultural features impede systematic testing at fixed intervals.

2.4.2.4 Other Considerations

Depending on landscape and environmental factors, past and present, standard archaeological testing methodologies may need to be altered. For example:

- In a deep sandy environment, proximate to present or former water resources, more closely spaced shovel tests, combining a mixture of fixed transects and judgmentally placed shovel tests, may be needed to locate small lithic scatter sites frequently associated with such environmental features as sink holes.
- In areas of shallow limerock, periodic efforts should be made to extend shovel testing below the rock to be certain concretion zones, the result of fire-slaked bone and shell, etc., are not misinterpreted as naturally occurring limerock. Archaic-period sites often occur within and below such concretion zones in South Florida.
- In areas that were once shallow, wet prairies around springs or streams, wet sites may be found. Alter field methodology to test such areas sufficiently.
- In disturbed areas do not automatically assume that there are no significant precontact and historic sites. Carefully consider environmental and historic features that were present before modern land-altering activities, and then apply appropriate subsurface testing wherever possible.

2.4.2.5 Site Bounding

In the event that new or previously recorded sites are located, either as a result of surface reconnaissance or subsurface testing, additional subsurface testing is carried out to determine site boundaries, internal structure, and cultural affiliation (where possible). [NRHP Bulletin 12](#) addresses the definition of boundaries for NRHP-eligible archaeological properties.

Given the geographical confines of your project, it may not be possible to delineate all discovered sites. This is particularly true for large sites extending several hundred meters outside the subject property. In cases of potentially significant sites, attempt to get an estimate of overall site boundaries, if landowner permission to go beyond the project limits is secured. However, as a general rule of thumb, site limits are not "chased" far from the project area limits. Focus on defining the site limits as contained within the APE.

In the case of single artifact occurrences, a single artifact in a non-disturbed context, at least four additional subsurface tests are excavated in the cardinal directions at 10 m intervals

from the original productive test. If no other cultural materials are recovered, the single artifact is described as an “archaeological occurrence” and is not recorded as a site. Technically, an **archaeological occurrence** is defined as “the presence of one or two non-diagnostic artifacts, not known to be distant from their original context, which fit within a hypothetical cylinder of 30 m diameter, regardless of depth below surface.”

2.4.2.6 Data Collation

During the course of the field survey, collation of data at the end of each fieldwork day minimizes the potential amount of data loss, and facilitates preparation of site evaluation and report writing. Follow these suggested procedures:

- Each artifact bag from each provenience unit is assigned a **Field Specimen (FS) number**, and the appropriate data are recorded in the FS Log as well as on the artifact bags.
- Check the bagged specimens against the **FS Log**, and then store them in orderly fashion for processing.
- Prepare **fieldnotes**, on a daily basis, summarizing the work accomplished for the day, the number and location of sites found, and logistical problems. Some investigators may wish to keep these records in project-specific field notebooks. Another option is to complete a standardized daily project summary sheet.
- Once artifacts are collected and catalogued, and site boundaries are determined, complete a FMSF site number request form and forward it (fax or e-mail) to the FMSF office. The form requires that you provide the following information:
 - County or counties in which sites were found
 - Site type (archaeological/land)
 - Site names (if assigned)
 - Township, Range, and Section for each site
 - Project name
 - Anticipated submission date of completed FMSF forms

2.4.2.7 Mapping

The locations of all surface finds and subsurface tests are plotted on the aerial photos or other project map; tests are labeled by number. Positive (artifact and/or feature-bearing) tests are distinguished from negative ones by coding (e.g., X for positive and a black dot for negative).

Make measured **sketch maps** of all discovered sites in the field. Include the location of visible site features, surface artifact finds, artifact concentrations, subsurface tests, site boundaries, nearby markers (such as trees, buildings, roads, etc.), and any other information appropriate to the identification and location of the site. Prepare detailed maps for sites considered to be NRHP eligible. Also, plot all site locations on the appropriate USGS quadrangle map(s).

2.4.3 Unanticipated Discoveries of Human Remains

In the event that unmarked burials, including both non-Indian and Native American remains, are encountered, the following actions should be taken, consistent with [Chapter 872.05, F.S.](#) (Offenses Concerning Dead Bodies and Graves), and the implementing rule for this law, Rule 1A-44, F.A.C.

- When an unmarked human burial is discovered, all activity that may disturb it shall cease immediately, and the district medical examiner (DME, or coroner) shall be notified.
- The DME will determine whether the remains are under the DME's jurisdiction (i.e., the remains may be involved in a legal investigation or represent the burial of an individual who has been dead less than 75 years), or that of the State Archaeologist.
- If the DME finds that the remains are not under his/her jurisdiction, he/she shall notify the State Archaeologist, who shall designate an archaeologist and human skeletal analyst to examine the remains and report within 15 days as to their cultural and biological characteristics. The State Archaeologist may be reached at (850)-245-6444.

Native American burials, which are inadvertently discovered on federal or tribal lands, are protected under the Native American Graves Protection and Repatriation Act (NAGPRA). Section 10.4 of [43 CFR Part 10](#) (Federal Register, December 4, 1995), which implements Section 3(d) of NAGPRA, contains procedures for determining the disposition of Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony that are inadvertently discovered. This rule stipulates that the responsible federal agency official shall “*Notify within one working day the known Indian Tribe or Tribes likely to be culturally affiliated with the discovered human remains or cultural items, and, if known, the present-day Indian Tribe which aboriginally occupied the area and any other Indian Tribe that is reasonably known to have a relationship to the human remains or cultural items. The notice shall include pertinent information as to kind of material, condition, and the circumstances of the discovery.*” The next step is to “*initiate consultation on the discovery.* . . .”

In accordance with 43 CFR Part 10.4(e), “*the activity that resulted in the inadvertent discovery may resume thirty (30) days after certification by the notified Federal agency or Indian tribe of receipt of the notice of discovery if the resumption of the activity is otherwise lawful. The activity may also be resumed, if otherwise lawful, at any time that a written, binding agreement is executed between the necessary parties that adopt a recovery plan for the removal, treatment, and disposition of the human remains or cultural items in accordance with their ownership.*”

2.5 HISTORIC STRUCTURES SURVEY

2.5.1 Introduction

The purpose of the historic structures portion of the CRAS is to locate, identify, and assess, according to NRHP criteria, the significance of any historic resources located within the project APE that may be impacted by the proposed project. This effort provides the agency/permit applicant/consultant, as well as the SHPO, with data sufficient to determine whether the proposed undertaking may affect significant historic resources. It also provides a basis for evaluating measures to avoid, minimize, or mitigate any adverse project impacts to such resources and to enhance any beneficial effects.

An age of 50 years or greater **usually** must be attained for a structure and associated features to be considered historic and to merit evaluation of its historic significance. However, properties less than 50 years old may be considered historically significant if of exceptional significance (See [NRHP Bulletin 22](#)). Also, in evaluating the significance of historic structures, the proposed treatment of a property must not be used to influence the assessment of significance. For example, the likely or planned demolition of a structure is not grounds for determining it not to be significant.

Historic structures and associated features are quite varied and include more than residential, public, and commercial buildings. Historic roads, bridges, battlefields, landscapes, mills, smoke houses, barns, corn cribs, monuments, docks, blacksmith shops, carriage houses, wells, outhouses, dumps, etc., must be considered. Failure to describe ALL historic structures and associated features and to discuss the reasons why each is or is not considered significant generally will result in the project CRAS report being considered inadequate. In addition to evaluating the individual merits of a property, the possibility of individually indistinct properties having merit/significance as contributing elements of a historic district also must be considered.

2.5.2 Survey Methods

Initial field survey tactics include a preliminary examination or reconnaissance of the project APE and the adjacent surroundings. During actual field survey, the recording of historic structures generally focuses on parcels of land within or adjacent to the project APE. Further, it is standard practice to record a resource during the field survey even if the recorder is unsure about the date or potential importance of the resource because additional research might indicate the property is indeed significant; the decision can be made later whether to include the property in the final inventory. The components of a typical historic assessment survey include the following, each of which is discussed below:

- Initial reconnaissance
- Recording historic resources
- Data collation

2.5.2.1 Initial Reconnaissance

The initial reconnaissance is the first stage of historic field survey, and includes a drive-through or walk-through of the project area. Typically, this takes place when the research

design is prepared, prior to the actual field survey or structure recording. The purpose of the initial reconnaissance is to identify conditions that may help or hinder the field survey as well as to verify the location of:

- Buildings, bridges, and cemeteries previously recorded in the FMSF
- NRHP eligible or listed sites or districts
- Unrecorded structures which appear on initial review to be at least 50 years old

2.5.2.2 Recording Historic Resources

Visually examine each structure/cemetery/bridge sufficiently to complete the data required for entry in the appropriate FMSF form, to the extent possible. Draw a sketch, and take two or more black and white photographs. Take color slides or prints as appropriate to the project. In addition:

- Make a concerted effort to interview the owner or occupant of each building, the cemetery caretaker, and/or other knowledgeable individuals within the neighborhood or community. The information derived is particularly useful in determining the historical importance of individual structures, cemeteries, and bridges. Inform the owner/neighbor of your purpose, and ask about the history of the property and any additions or alterations that have been made to the interior and exterior of the building.
- After receiving permission to be on the property, determine **geographic boundaries** of the property by visual inspection. For example, if the main building is to be recorded, its outbuildings and landscape features also are noted on the FMSF form. The outbuildings and landscape features, both above and below ground, are included in the property description and sketch map as well.

Once boundaries are determined, structures and surrounding outbuilding are visually examined and a historical structure FMSF form completed.

- The **FMSF Cemetery Form** is designed for a grave-by-grave survey; visually inspect each grave and complete the required data on the cemetery form. (NOTE: In some cases it may be more feasible to conduct a general overview survey of the cemetery rather than a grave-by-grave survey). Consult Florida's Historic Cemeteries: A Preservation Handbook and [NRHP Bulletin 41: "Guidelines for Evaluating and Registering Cemeteries and Burial Places"](#) for survey assistance.
- Take black and white photographs and color slides or prints (where applicable) of buildings, outbuildings and landscape features included on the form. Maintain a **photographic log** with the number of the negative, the subject of the photograph taken and the direction of view. For historic cemeteries, take overall views of the

cemetery in black and white photographs and color slides or prints (when applicable). In addition, photographically record any representative characteristics or unique aspects of the cemetery (i.e., grave markers).

- While at the site, draw a composite sketch map of the site plan including the basic footprint of the building(s) and their respective rooflines. Note northerly direction, relationship to closest roadway, and significant landscape features on each map. For cemeteries, draw a sketch map that includes locations of graves surveyed, boundaries selected, and major vegetation and landscape features of the surveyed area.
- After completion of on-site fieldwork, perform additional site-specific research sufficient to evaluate the structure according to NRHP criteria, as well as completing the FMSF form. Visit the county Property Appraiser's Office, local historical societies, and libraries to obtain construction dates, owner's names, subdivision information for structures and, in the case of cemeteries, the date the cemetery was founded, owner's names, and general history of the cemetery.

2.5.2.3 Data Collation

After completing the historic field survey, organize and summarize the survey information for form completion and report writing. This typically includes requesting new site numbers from the FMSF Office, processing photographs and selecting those for inclusion in the CRAS report and FMSF forms, and mapping.

Once the number of structures/bridges/cemeteries to be recorded in the FMSF is determined, complete a Request for Site Number and forward via fax or e-mail to the FMSF office. The required information includes the county or counties in which sites were found; the Township, Range, and Section for each site; the project name; and the anticipated submission date of completed FMSF forms.

In order to further organize historic field survey data, it is often helpful to locate newly recorded and/or reevaluated historic sites on aerial photos and/or USGS map(s). For the identification of historic districts, locate non-contributing structures and vacant parcels on the aerial(s) and USGS map(s). This provides a clear understanding of the issues and sites to be discussed and evaluated in the report itself.

2.6 ARTIFACT PROCESSING AND ANALYSIS/CURATION

2.6.1 Introduction

The purpose of artifact processing and analysis is two-fold: 1) it identifies and tabulates the various types of artifacts in order to determine a site's chronological placement and function, and aids in determining the site's NRHP eligibility, and 2) it treats and prepares artifacts to ensure continued preservation and eventual curation.

At the CRAS level, a limited set of broader analytical techniques generally suffices to provide necessary information for making decisions. These standard types of analyses are described below. Specialized analyses such as radiocarbon dating, archaeobotanical studies, or lithic use wear are rarely performed as part of the CRAS project.

2.6.2 Processing

Preliminary processing of artifacts consists of cleaning. Some artifacts will not need cleaning, but for those that do, wash or clean with a soft-bristle brush to remove extraneous surface debris, carefully rinse them with water if necessary, and let them air dry. If ceramic, bone or shell artifacts need stabilization, this should be taken care of immediately. If organic samples have been collected, they should be sorted, prepared for study or stored separately. Replace all excessively dirty or broken provenience bags, making sure to copy the label information. Divide artifacts into major classes (e.g., aboriginal ceramics, historic glass, etc.) in final preparation for analyses.

2.6.3 Artifact Analyses

Several classes of artifacts and other remains may be collected from sites of the precontact, protohistoric, and historic periods. These include, but are not limited to, lithic tools and debitage, ceramics, shell and bone artifacts, faunal and floral remains, and a variety of historic artifacts. A generalized and brief discussion of the analysis of each artifact category follows.

2.6.3.1 Lithics

The lithic analysis includes the examination of materials with a hand lens or under low-power (10x to 30x) magnification. It includes the initial division of the lithic material into two categories: 1) tool forms/manufacture failures or rejects, and 2) debitage or waste flakes.

For lithic tool forms and manufacture failures/rejects, describe and classify them according to basic morphological categories such as bifaces, unifaces, modified flakes/utilized flakes, blanks, preforms, cores, and hammerstones. Measure and weigh all tool forms and describe by raw material type and presence or absence of thermal alteration. Classify diagnostic

bifaces (projectile points) as to commonly acceptable standard types (e.g., Hernando point). Describe any observable wear patterns on finished tools, and fracture types (e.g., lateral snap). Lithic analysis may also include measurement or relative appraisal (e.g., acute, steep) of the angle(s) of the working edge(s) of tool forms in order to ascertain the functional nature of the artifact assemblage.

Sort **debitage** (waste flakes) by raw material type, and identify by number and percentage the presence or absence of thermal alteration. At a minimum,debitage analysis includes limited attribute analysis (e.g., flake size, flake type, amount of dorsal surface cortex). If collection size is sufficient, determine, to the extent possible, what stage(s) of stone tool production are reflected by the waste flake assemblage.

2.6.3.2 Ceramics

Ceramics are common at post-Archaic period sites in Florida, and in some parts of the state, they are more common than lithics. Much of the utilitarian ware used by precontact native peoples consisted of vessels with plain, undecorated surfaces. Chronological analysis of such ceramics is sometimes difficult because of the lack of surface decoration. However, careful attention to differences in vessel wall thickness, rim orientation, and the absolute and relative occurrence of different types of aplastic materials, will aid in the identification of ceramic type, chronological placement, and site function.

Conduct the ceramic analysis in a manner sufficient to assign sherds to a currently recognized standard ceramic type. Determine chronological placement and functional attributes (utilitarian/ceremonial) if possible. This is accomplished by:

- Examining sherds with a hand lens or microscope to identify aplastic inclusions, exterior decoration and/or treatment manufacturing technology (e.g., coil marks)
- Comparing these attributes with known ceramic assemblages; and
- Cross-mending of samples of sufficient size and number to determine rim profiles, vessel type, and size.

2.6.3.3 Shell and Bone Artifacts

Standard analysis of shell and bone artifacts includes examination for traces of wear to determine function, decoration, and surface treatment. Describe fully such attributes and compare them to other known assemblages in order to determine chronological and functional associations. Shell tools are common at many precontact sites in Florida, and are an important source of information regarding site function and chronological placement. Do not overlook recent studies in the typological and functional analysis of shell tools.

2.6.3.4 Other Precontact and Protohistoric Remains

Occasionally botanical, shell, and food remains are found in shell or black dirt middens encountered during a CRAS. Such samples, while helpful in determining the type of resources that may be present in a site, are typically small in size and insufficient for thorough analysis. Attempt to identify the species and provide fragment counts and weights for the various identified flora and fauna. If the sample(s) is sufficient, consider retaining the services of a qualified individual trained in zooarchaeology or archaeobotany to provide a detailed analysis.

Except under very rare circumstances, human remains should not be removed from their context during field survey. If human remains are encountered, the contractor shall cease work in the immediate area and follow the procedures outlined in [Chapter 872.05, F.S.](#)

2.6.3.5 Historic Artifacts

As with precontact artifacts, identify and tabulate the various types of historic artifacts in order to determine a site's chronological placement, function, and aid in determining the site's NRHP eligibility. Utilize standard references for historic artifacts as well as primary source materials such as catalogues, manufacturer's production information, newspaper and magazine advertisements, and discussions with knowledgeable informants.

Initially sort by raw material type. For example, both ceramics and glass are commonly found at historic period archaeological sites. For ceramics, classify by such attributes as ware type and morphology/function. Describe all makers' marks, and use these to determine the manufacturer and date of manufacture. Similarly, glass is classified in reference to such attributes as color, vessel form and function, and manufacture marks such as seams and lip treatment. Embossments and maker's marks can be used to ascertain manufacturer and date of manufacture.

2.6.4 Curation

Guidelines for the curation of project collections, including material remains and associated documentation, are provided in **Section 4.7.3**.

2.7 CRAS REPORTS

2.7.1 Introduction

The standard CRAS report is a detailed, organized, and suitably illustrated document, usually divided into a number of sections. There is no established minimum or maximum report length. Reports may vary from a few pages to several hundred pages. However, in all instances, they must:

- Identify for whom, by whom, when and why the work was performed, as well as the location of the area surveyed (including a project location map);
- Discuss field methodology and its justification;
- Present survey findings and conclusions; and
- Contain completed FMSF forms for all identified resources, and be accompanied by a Survey Log Sheet.

The following section has been prepared to guide report preparation and content. It is consistent with [Rule 1A-46, F.A.C.](#), as well as the standards and guidelines for identification, evaluation and documentation contained in the [Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation](#). These standards and guidelines apply to all federally assisted, licensed or permitted projects; all projects on state-owned or controlled property or state assisted, licensed, or permitted projects; and on local projects for which the DHR has review authority. For projects of limited scope, topics that are not applicable may be omitted when a justification for this decision is provided.

2.7.2 Completeness and Sufficiency Criteria

In accordance with Rule 1A-46, revised, in order to be acceptable, reports of the results of archaeological and historical fieldwork must be both “complete” and “sufficient.” The topics reviewed for completeness and sufficiency are contained in the Completeness Checklist and the Sufficiency Checklist, as provided in Module Two, Section 4.5, Exhibits 2 and 3, respectively. In accordance with the **Sufficiency Checklist**, always provide the following information in the CRAS Report:

- The **description of the project**, which shall address:
 - Project location (including boundary map)
 - Project description
 - Project purpose
 - The area of potential effect
 - Pertinent federal, state, or local laws and regulations
- **Archival research** shall address:
 - Past field surveys in the project area and the relevance of the major findings to the area currently under study
 - Pertinent data in the FMSF
 - Pertinent environmental and paleoenvironmental data
 - Pertinent data in other studies appropriate for the research problem
 - Pertinent historical data from records such as plat maps, tract books, subdivision maps, Sanborn maps, city directories, building permits and architectural plans
 - Pertinent information from informants, which shall include the Certified Local Government within whose boundaries the project lies

- Chronologically arranged narrative of the prehistory and history of the project area and of the significant historical events or developments (including important individuals and institutions) which are necessary to place sites and properties in historic contexts within the project area

- The description of the **research design** shall address:
 - Objectives
 - Methods
 - Expected results
 - Procedures to deal with unexpected discoveries, including the discovery of human remains in accordance with Chapter 872.05, F.S.

- The description of **archaeological fieldwork activities** shall address:
 - Types of sites encountered and evaluated
 - Boundaries of the area investigated
 - Fieldwork methodology and the rationale for its selection
 - Location of all tests and excavations, including maps depicting testing locations and results, site components, integrity of sites, and subareas within the sites
 - Information on the location and appearance of features and artifacts, as well as the integrity and boundaries of sites and site components
 - Information on any portions of the project area and any portions of identified sites which were not investigated and a statement explaining the reason why investigation did not occur
 - Photographs of each site
 - Photographs and illustrations representative of site subareas or features, or formal excavation units
 - Identification of portions of the project area that were examined but that did not contain archaeological remains
 - Description of special survey techniques, including equipment, field methodologies, areas surveyed and not surveyed, a record of the nature and location of any potential historical resources investigated by examination to determine their nature
 - Information on changes in research design or methodology
 - Underwater archaeological survey will be conducted in accordance with the Florida Division of Historical Resources [Performance Standards for Submerged Remote Sensing Surveys](#)

- The description of **historical fieldwork activities** shall address:
 - Boundaries of the area investigated
 - Fieldwork methodology and the rationale for its selection
 - The types of resources identified and evaluated
 - A list of all historical resources within the survey area, including the FMSF number, with all identified resources plotted on a U.S. Geological Survey (1:24,000) 7.5 minute series topographic quadrangle map
 - Descriptions of all identified resources

- Photographs or illustrations representative of resources located in the project area
- Information on any portions of the project area which were not investigated and a statement explaining the reason why investigation did not occur
- An explanation about those portions of the project area that were examined but that did not contain historical, architectural, engineering or cultural resources

- The description of **archaeological results and conclusions** shall address:
 - Laboratory methods used to analyze artifacts and other site materials recovered during the archaeological investigations in the project area
 - The curation location of artifacts and project records
 - Findings in relation to the stated objectives of the investigations
 - An assessment of site integrity
 - Methods used to apply NRHP criteria for a determination of eligibility and historic contexts
 - A discussion of the completeness of project efforts and the need for any additional identification, evaluation, or documentation efforts
 - Conclusions and analysis of the findings, including a discussion on how the findings contribute to an understanding of the historic context and similar archaeological resources
 - Recommendations for further work or treatment of the site
 - A bibliography of those sources used

- The description of **historical, architectural, engineering, or cultural resource results and conclusions** shall address:
 - Findings in relation to the stated objectives
 - An assessment of the integrity of evaluated sites
 - Methods used to apply NRHP criteria for a determination of eligibility and historic context as contained in 36 CFR 60
 - A description of the constituent elements that constitute the complete property (e.g., outbuildings, landscape features, etc.) which is determined eligible for listing in the NRHP
 - The NRHP property boundaries depicted on a scaled site plan sketch
 - Conclusions and analysis of the findings
 - A discussion of the manner in which the resources contribute to an understanding of local, regional, state, or national history and/or architectural history
 - Recommendations regarding the treatment of the resource(s) including but not limited to preservation or avoidance, minimization or mitigation of potential impacts, or no action
 - A discussion of the scope and completeness of the project efforts and the need for any additional identification, evaluation or documentation efforts
 - The location of all curated project records and location of all project records (e.g., photographs, oral interviews, etc.)
 - A bibliography of those sources used

- Reports of archaeological and historical fieldwork will be deemed incomplete if they do not contain a FMSF Survey Log Sheet for each report and FMSF forms for each site identified, evaluated, or documented. All reports shall include the following, either as part of the report or as accompanying documents:
 - Completed **FMSF Survey Log Sheets** (Form HR6E06610-97, effective 9-1-97) with project boundaries depicted on an attached original or photocopy portion of a U.S. Geological Survey (1:24,000) 7.5 minute series topographic quadrangle map
 - Completed **FMSF archaeological site forms** (Form HR6E06401-97, effective 3-1-97), as appropriate; completed **FMSF historical structure forms** (Form HR6E06308-96, effective 11-1-96), as appropriate; completed **FMSF historical bridge forms** (Form HR6E06510-97, effective 10-1-97), as appropriate; completed **FMSF historical cemetery forms** (Form HR6EO4806-92, effective 8-1-98), as appropriate; completed **FMSF shipwreck forms** (Form HR6E05006-92, effective 7-1-92), as appropriate; completed **FMSF archaeological short forms**, as appropriate; completed **FMSF resource group forms** (Form HR6EO5711-01, effective 7-1-00), as appropriate; and an original or photocopy portion of U.S. Geological Survey (1:24,000) 7.5 minute series topographic quadrangle maps for all identified sites showing site locations

2.7.3 Report Contents

While the content requirements discussed below are important, the order in which this information is presented is the decision of the author(s). Topics may be combined into single chapters, rather than presented separately. The report may be viewed as consisting of three primary parts: the preliminary pages, the report body, and the appendices. The content requirements of each are described below.

2.7.3.1 Preliminary Pages

The body of the CRAS report is preceded by the title page, inside cover page, executive summary or abstract (optional), table of contents, and list of figures and tables.

The **Title Page** usually contains the following information:

- Report title - project name and location
- Project numbers (i.e., for FDOT projects, include the state project number, work program item number, and federal-aid project number (if appropriate))
- Sponsoring agency or organization
- Research organization
- Author(s) (Which may be the same as the research organization)

- Date of report (the original date the report was processed appears on the draft; the original date and revised date appear on the final)
- Volume number - if report consists of more than one volume, then it must be noted on the cover

The **Inside Cover Page** contains much of the same information included on the outside or front cover, but with some additions:

- The name of the consultants(s) performing the work
- The names of the project personnel responsible for the report, listed with their titles
- Date of report
- Volume number – if it is a multi-volume report

The **Executive Summary** follows the inside cover page and usually consists of a succinct one to two page abstract which:

- Describes the purpose and scope of the project and specifies the type of study
- Lists date(s) of investigation
- Summarizes major findings of the investigation
- Lists and describes previously recorded sites
- Summarizes significance of discovered resources pursuant to NRHP criteria
- Describes constraints of investigation (time, landowner permission, vegetation, etc.)

The **Table of Contents** varies depending on the size and complexity of the project. Standard report sections frequently are numbered sequentially. This is critical in reports that contain multiple volumes. Include the List of Figures and List of Tables in the Table of Contents.

The **List of Figures and Tables** can appear on the same page or, in accordance with the length and/or complexity of the report, may be divided into a List of Figures and a List of Tables on separate pages. Figures and Tables may be numbered consecutively, or numbered in reference to the report section within which they are contained. Thus, the second figure in the fifth section of the report may be numbered Figure 5.2. Oversized figures that require placement on more than one page may be designated alphabetically as well as numerically. For example, a figure illustrating the locations of sites along a project corridor, which covers three pages in the sixth chapter of the CRAS report, may be numbered Figures 6.1a, 6.1b, and 6.1c. Tables may be numbered in the same way.

2.7.3.2 Report Body

The body of the report is usually divided into a number of sections, described as follows.

The **Introduction** is usually the first chapter or section in the report and identifies the agency responsible for the undertaking, states the name and location of the project, and most importantly, it contains a succinct description of the proposed undertaking, a definition of the APE (with accompanying figure), and the identifying components of the project area. The Introduction also identifies the need for the CRAS, the consultant who prepared the report, the survey dates, and regulatory requirements and standards. Acknowledgments are optional. Graphics in the Introduction typically include project location map(s), general location of project area, and other information necessary for SHPO to ascertain the relationship of significant historic resources to the undertaking.

The **Environmental Overview (Environmental Background)** is based on data obtained during the background research/literature review. It provides a narrative description of the project location, including the township, range and sections, and the size or length and width of the project. It identifies natural (e.g., topography, geology, physiography, hydrology, soils, vegetation, etc.) and cultural factors (e.g., patterns of historic land use) that characterize the project area, and documents environmental changes that may have influenced the distribution of precontact and historic sites. The environmental overview also provides a description and discussion of past and present environmental configurations in terms of their relationship to the occurrence or potential occurrence of precontact and historic sites. For most projects, only a brief summary of the paleo-environment is required. Graphics for this section usually include a project location map (frequently the USGS quadrangle map or a soil survey map) to identify salient environmental features within the project area. Tables identifying various types of soils, vegetation, and drainage characteristics within the project areas may be included.

The **Archaeological Review** is based on data obtained during the background research/literature review. It provides a summary of regional prehistory based on the archaeological record beginning with the Paleoindian Stage and concluding with the arrival of the Europeans. The overview demonstrates the consultant's awareness of previous research and the types of sites, both functional and chronological, expected to occur in the project area and vicinity. This overview also provides a regional framework for the analysis of recovered artifacts and evaluation of site significance in terms of NRHP eligibility, as well as data with which to develop testable hypotheses, including site location predictive models.

The archaeological review focuses on regional contexts, chronologies, research questions and site types drawn from Florida's Cultural Heritage: A View of the Past, and other standard discussions of Florida prehistory such as Florida Archaeology by Jerald T. Milanich and Charles H. Fairbanks 1980, Archaeology of Pre-Columbian Florida also by Milanich 1994, and Archaeology of the Everglades by John W. Griffin 2002, as well as the FMSF.

Graphics for this section of the report may include figures depicting the location of regional culture areas/archaeological regions (e.g., Milanich and Fairbanks 1980:22; Griffin 2002) in

relation to the project area, as well as tables summarizing the local succession of culture periods (e.g., Milanich and Fairbanks 1980:23).

The **Historical Review** presents a summary of the area's history, based on data obtained during the background research/literature review. It identifies salient events, structures, locales, and individuals associated with historic development and land-use patterns in the general and specific project areas. Also, it should address the development of the human environment along the corridor. The historical review demonstrates professional awareness of previous research in the area, the historic record, types of architectural styles, structures expected, and the economic development of the general project area. Finally, the review provides a basis for analysis and evaluation of historic structures and landscapes in terms of NRHP eligibility.

The historical review draws on the historic contexts presented in Florida's Culture Heritage: A View of the Past so as to be broad enough to address such issues as regional exploration, colonization, settlement, industry, and transportation, but includes local developmental trends, particularly as they relate to historic resources within or near the project area. For example, a set of 1915 Sanborn Maps may show single-family residential development along and adjacent to the project area. However, a set of 1928 Sanborn maps for the same area may show that commercial buildings have replaced the earlier residential development. As a result, the historic survey will focus on the extant commercial structures, but the historical overview will address both the residential development and the commercial development.

Graphics for this section of the report will vary depending on local and regional development, but often include Federal Surveyor's Plats, Late-19th Century Railroad Maps, Subdivision Plats, Sanborn Maps, Early-20th Century Maps, City Plats, Coast and Geodetic Survey Maps, and/or Land Ownership Maps.

The **Research Design/Field Methodology** section is influenced by many factors, such as the size of the study area, location (urban/rural), access, and land use during the past 50 to 100 years. Typically, the research design includes research questions relevant to the geographic area and temporal periods, the probability for the occurrence of precontact and historic archaeological sites, and the methodology proposed to locate such properties. The goals of the investigation are explicitly stated, and the expected historic structures and/or archaeological resource types and their anticipated locations are described.

For the archaeological survey, provide a justification for the methods employed to locate and assess the significance of sites, including features associated with historic structures. Particular attention should be paid to subsurface testing methodology, which should be related to project size, kind, and character of archaeological sites known or expected to be present in the project area. Methods for the location of sites and data recovery must be explicitly justified in terms of environmental conditions, site expectations and research problems addressed. Specify, to the extent possible, which localities are deemed to have high, moderate, and low site potential. State how site dimensions and conditions are determined. Identify any areas which were not physically inspected, as well as any areas in which subsurface testing did not occur. Any constraints on investigation also should be

discussed in this section of the report. Such constraints may include limitations on access, thick fill or other features preventing adequate subsurface testing, or other environmental limitations such as inaccessible landscapes.

For the historic structures survey include a detailed discussion of the methodology used to identify any historic structures and associated features. Include preliminary survey strategies and research sources used. The methodology also may include the type of photographic equipment and film used, as well as the aerial photos and maps relied on during the field survey. In addition, identify the previously listed NRHP districts or individual sites in and near the project area, and address the kinds of resources expected to occur.

Graphics for the research design/field methodology section of the report typically include the following:

- Pertinent USGS quadrangle maps on which probability zones for archaeological sites are delineated (i.e. high, moderate, low) as detailed in the research design.
- Table(s) and/or map(s) noting the location, type and chronological placement of previously recorded archaeological sites in the general project vicinity (normally within a 1 to 5 mile (1.6 to 8 km) radius).
- Figure(s) illustrating the location of previously recorded historic structures and districts within and proximate to the project study area

The **Laboratory Methods and Analysis** section of the report includes a brief statement on the methods for artifact processing and analysis. Any special analytical methods and techniques (e.g., soils, pollen, faunal and ethnobotanical analyses) should also be noted. In addition, include information on the proposed curation location of artifacts, field notes, maps, artifact analysis sheets, and other associated records.

The **Survey Results** section of the report presents a description of the results by enumerating and describing each resource recorded. The findings of the background research are incorporated in evaluating the site(s) significance in terms of NRHP criteria of eligibility. If no archaeological sites, historic structures, cemeteries, or associated features are found, this section may be a brief presentation. However, with respect to archaeological resources, an analysis of the reason(s) for site absence must be presented. This should be linked to a synthesis of pertinent site file data for the study area. If numerous archaeological sites and historic structures are found within the project area, this section of the report is commonly divided into two separate chapters, “Survey Results: Archaeological” and “Survey Results: Historic Structures.”

The **Survey Results: Archaeological** section may begin with a summary of the number of subsurface tests dug, the number of sites found, and a general statement briefly categorizing the precontact and historic archaeological sites identified and assessed. This information is followed by a detailed description of each newly discovered or re-evaluated site that includes the following information:

- Site number and name

- Site location (Township, Range, and Section)
- Location of site in relation to proposed undertaking
- Description of the site environment, including elevation above mean sea level, soil type, local vegetation, nearest fresh water source, and disturbances (e.g., cleared for pasture; underground utilities)
- Means of site discovery (e.g., previously recorded, surface examination, systematic shovel testing at a 25 m interval, informant information, etc.)
- Nature of the cultural resource, including site size (aerial extent), depth of cultural deposit, types and numbers of artifacts recovered, cultural features encountered, site type, and period of site use
- Discussion of site integrity and significance as per NRHP eligibility criteria
- Sufficient photographs of the site and site area to convey the setting of the site.

The following figures and tables are usually included in the archaeological survey results:

- Site location map (USGS quadrangle map) illustrating previously and newly recorded sites, each clearly identified by FMSF number
- Summary table listing recorded sites by site name, FMSF number, location, type, period, NRHP eligibility, etc.
- Site sketch of each newly recorded site showing location of all subsurface testing and site boundaries
- Sufficient photographs of the site and site area to convey the setting of the structure.

The **Survey Results: Historic Structures** section is treated similarly. Describe the number and type of historic resources; briefly categorize them by construction date, present use, Florida Historic Context Categories (found in Guide to the Historical Structure Form of the FMSF); and general physical characteristics of the structures. Follow the introductory summary with a detailed description of each site, including the information below:

- Site number and name (if applicable)
- Site address
- Architectural style
- Construction date
- Physical description including form, construction material, additions, alterations, and notable features; and representational photographs of each
- Significance evaluation according to the NRHP eligibility criteria

The following figures and tables are usually included in the historic structures survey results:

- Site location map (USGS quadrangle map) illustrating previously and newly recorded sites, each clearly identified by FMSF number
- Summary table listing recorded sites by FMSF number, name of site, address, architectural style, use, date of construction, and NRHP eligibility
- Photograph of each historic resource

The **Conclusions and Recommendations** section of the report contains a summary of survey results, a discussion of the types of project impacts which may threaten potentially significant sites, as well as recommendations. The summary of results should include:

- a discussion of why each site or group of sites is considered significant or not significant;
- a discussion of the types of locations and circumstances in which sites are located and those in which sites were not located; and
- a brief summary of how the project contributed to our understanding of the historic contexts represented in the area.

Recommendations may include a summary of:

- additional site assessment work which may be needed;
- the possible measures to avoid or mitigate project impacts to significant sites; and
- the various preservation alternatives which the project developer may wish to consider.

It may not be possible to recommend mitigation alternatives at this stage of the project, since final project design information may be lacking. For projects prepared for the Florida Department of Transportation, for example, the report may be limited to site identification and evaluation, and need not address effect or treatment issues, since those will be the subject of subsequent interagency consultation.

The **References Cited** section contains a listing of all references cited in the text. Reference to unpublished materials located in the FMSF report archives should include the file numbers. Adopt a style guide (e.g., American Antiquity [48:429-442]; Chicago Manual of Style), and use it to standardize your citation format.

Be sure each item cited in the body of the report is included in the reference section. During draft review, quality assurance procedures should catch any citations in the report not referenced. Reference and citation omissions are one of the most common report deficiencies.

2.7.3.3. Appendices

The **Appendices** may include items such as FMSF forms for archaeological sites and historic resources, expanded FMSF forms for archaeological sites which are considered eligible for listing in the NRHP, NRHP Registration forms (referred to as a Request for Determination of Eligibility [DOE]) for potentially eligible historic structures, or a copy of a NRHP nomination for previously listed sites within the project area. A copy of the Survey Log Sheet also should be bound into the Appendices section of the report.

Abbreviated or complete vitae/resumes of the Principal Investigator and Field Supervisor (and those of any specialists employed on the project) must be included in each report, if they are not in the DHR/SHPO Compliance Review files. This documentation is required to verify professional expertise, both in the field and during analysis and report preparation, and to satisfy federal program audit requirements for the historic preservation program administered by the DHR/SHPO.

2.8 ACCOMPANYING DELIVERABLES

In addition to the CRAS report, a set of original FMSF forms for all archaeological sites and historic resources must be provided, as well as original DOE requests, and a Survey Log Sheet. The DHR/SHPO encourages consultants to submit site file information on media that are computer readable. With the concurrence of the FMSF Supervisor, electronic forms may be submitted in lieu of paper forms, except for the photographs, maps, and other attachments. For FMSF forms, one set of black and white photographs are usually required. These photographs are attached to the original FMSF form. The Florida SHPO may eventually forward this form to the Keeper of the NRHP.

For both individual and district **DOE request forms**, one set of original prints of each photograph are usually required. The original photograph is attached (by plastic coated paper clip) to the original DOE request form. For an **individual DOE request**, complete a NRHP Registration Form (NPS Form 10-900) according to instructions in [NRHP Bulletin 16A](#). Attach the completed FMSF form to its corresponding DOE request (original FMSF forms with photographs are attached to original DOE request form with photographs). For a **District DOE request**, each contributing structure in a potentially eligible NRHP historic district will have its own FMSF number; the district itself will also have a FMSF number. For a district DOE request, complete a NRHP Registration Form (NPS Form 10-900) according to instructions in NRHP Bulletin 16A. Attach the completed FMSF forms to their corresponding DOE request (original FMSF forms with photographs are attached to original DOE request with photographs). For an **Individual DOE Request that is also part of a District DOE Request**, complete an FMSF form, individual DOE request, and district DOE request as previously described. However, when preparing the district DOE request, attach a photocopy of the FMSF form and photocopied photos of the individual DOE request, indicating on the FMSF form that original photographs are attached to the FMSF form in the individual DOE request. It should be noted that this situation occurs only if the significance of the individual property involved is outside the area(s) and/or period of significance for which the district is considered NRHP eligible. This is a very rare situation. For **Individually listed NRHP structure that is also part of a District DOE request**, complete or update a FMSF form on the NRHP structure and complete a district DOE request as previously described. Attach the FMSF form to the DOE request form.

2.9 TECHNICAL MEMORANDA AND OTHER REPORTING FORMATS

Some classes of action require only minimal cultural resource involvement. For example, proposed pond and wetland mitigation siting studies conducted on behalf of the FDOT often are performed during the project design phase, after a comprehensive Project Development and Environment (PD&E) Study has been completed. The cultural resource assessment survey for the PD&E Study results in a detailed CRAS report for the project area. This report should be referenced without being repeated during the pond siting study. Other transportation-related projects where a Technical Memorandum may be more appropriate than a CRAS Report include most bridge replacement studies, milling and resurfacing projects, right-of-way transfers, and re-evaluations. For other project types, such as surveys conducted in accordance with local historic preservation ordinances, for example, a letter report format may be sufficient.

In all cases, in accordance with Rule 1A-46:

“Reports of the results of archaeological fieldwork and historical fieldwork activities shall include the topics in (a)-(h) in sufficient detail for the Division to review for completeness and sufficiency. For projects of limited scope, topics that are not applicable may be omitted when a justification for this decision is provided. In addition, all reports shall be consistent with and meet the terms of the standards and guidelines for identification, evaluation and documentation contained in the “Secretary of the Interior’s Standards and Guidelines for Archaeology and Historic Preservation.”

The technical memoranda and/or letter report documenting these minimal cultural resource assessment survey efforts should include the following information:

- Project name and location
- State project number, work program item number, and federal-aid project number (if applicable)
- Introductory information including who performed the survey and when; the Township, Range, and Section coordinates for the project area(s); the purpose of the survey; and the research and fieldwork methods
- Results of background research, including a description of previously recorded sites within or adjacent to the APE
- Survey expectations vis-à-vis site location potential
- Field survey findings (archaeological and historic structures), including a description of each site identified and evaluation of site significance as per the *NRHP* criteria of eligibility
- Conclusions and recommendations
- References cited
- Completed FMSF forms and Survey Log Sheet

2.10 SUBMISSION FOR REVIEW

Completed CRAS Reports or Technical Memoranda, and accompanying deliverables, should be submitted to the Bureau of Historic Preservation at the DHR for review. In accordance with Rule 1A-46, F.A.C., the DHR shall notify the agency or applicant in writing within 15 days of receipt of a review request if any additional information is required. Upon its determination that the report is complete, the DHR shall complete its review for sufficiency within 30 days. The DHR shall notify the agency or applicant of its decision as to whether the report meets the requirements of Rule 1A-46, F.A.C. with respect to completeness and sufficiency, and shall include a statement of the reason for determining a report to be incomplete or insufficient.

2.11 SPECIAL PROJECT TYPES

This section of the *Manual* contains general standards and guidelines for three categories of projects:

- Reconnaissance Assessments
- Cellular Tower Projects
- Submerged Cultural Resources and Remote Sensing Surveys

2.11.1 Reconnaissance Assessments

The purpose of the reconnaissance assessment is to facilitate the acquisition of additional information about the site from a qualified professional. It is not a scaled-down survey requirement, but rather a Request for Additional Information (RAI). The following Guidelines detail what is required to review a Reconnaissance Assessment.

RECONNAISSANCE ASSESSMENT GUIDELINES

A reconnaissance survey is defined by the *Standards and Guidelines for Identification* as one that provides a basis for "the formulation of estimates of the necessity, type and cost of further identification work and the setting of priorities for the individual tasks involved." It may involve a variety of activities, such as a drive-through to look for standing historic structures, interviews with local residents, and archeological inspection of sample tracts, coupled with appropriate background research. In some cases a reconnaissance survey may show that historic properties are so unlikely to occur that there is no need for more intensive survey. In other cases reconnaissance survey may permit further survey work to be focused only on particular subareas or types of properties.

The following listed items represent the minimum information required in a reconnaissance survey report:

(a) The description of the project shall address...

- project location (including boundary map)
- project description
- purpose of project
- pertinent laws and regulations

(b) Archival research shall address...

- pertinent data in the FMSF
- pertinent environmental and paleoenvironmental data
- pertinent data in other studies appropriate for the research problem
- pertinent information from informants

(c) The description of the research design shall address...

- objectives
- methods
- expected results
- procedures to deal with unexpected discoveries

(d) The description of fieldwork activities shall address...

- boundaries of the area investigated
- fieldwork methodology and the rationale for its selection
- location of all tests or excavations
- information on the location and appearance of features and artifacts
- information on any portions of the project area and any portions of identified sites which were not investigated and a statement explaining the reason why investigation did not occur
- photographs of building(s)/structure(s) forty-five years and older

(e) The description of analysis and conclusions shall address...

- findings in relation to the stated objectives of the project
- recommendations for further work (i.e., Phase I survey)

(f) All identification, evaluation and documentation reports should include the following, either as part of the report or as accompanying documents:

- Completed FMSF Survey Log Sheets with project boundaries depicted on an attached original or photocopy portion of a map (U.S. Geological Survey (1:24,000) 7.5 minute quadrangle series) preferred, although the rule states a Florida Department of Transportation County Highway Map.
- Completed FMSF site forms for archaeological site and historic buildings/structures encountered with photographs, as appropriate, and original or photocopy portion of U.S. Geological Survey (1:24,000) 7.5 minutes quadrangle series maps for all identified sites showing site locations

2.11.2 Cellular Tower Projects

In accordance with the [Guidelines for Section 106 Review of Proposed Cellular Tower Locations](#), the following standards and guidelines shall apply. A letter report is acceptable.

- **Project Description** – Provide a detailed written description of the project, including information concerning the height and configuration of the proposed tower (co-location, monopole, lattice, etc.), access road(s), staging area(s), and proposed

mechanical/equipment building(s). For projects involving roof-top antennas, provide the antenna manufacturer cuts/drawings.

- **Area of Potential Effect** – The Area of Potential Effect (APE) as defined in [36 CFR Part 800.16\(d\)](#), is “the geographical area or areas within which an undertaking may cause changes in the character or use of historic properties, if such properties exist.” In addition to effects resulting from direct physical alteration or destruction, the APE should take into account indirect effects resulting from the introduction of visual, audible, or atmospheric elements to a historic resource’s setting.
- An APE of approximately one-half mile radius may be appropriate for towers of 150 feet in height or less; towers greater than 150 feet in height may require an APE that exceeds one mile in radius. In all cases, however, the extent of the APE should be determined by considering factors such as topography, vegetation, and previous disturbances (other towers, transmission lines, etc.).
- **Project Location and Size** – Indicate the project dimensions and the acreage involved. Include ¼ Section, Section, Township, and Range coordinates from the legal description.
- **Location Map** – Depict the project location on a map and/or on a USGS Quadrangle map (to scale for projects other than historic buildings) and the extent of the APE. Current aerial photographs of the project area are very helpful.
- **Photographs** – Provide original 35 mm or digital color photographs of the proposed tower site. For projects involving roof-top antennas, provide photographs of the building or structure, exterior, and the specific elements of the building affected by the project, if applicable.
- **Description of Project Area** – Describe the present condition of the immediate project area and all known past land use activities.
- **Historic Buildings/Structures** – Provide comments and/or recommendations from a qualified professional ([36 CFR Part 61](#)) concerning the following issues:
 - Are there any buildings/structures that are fifty years or older within the APE? [*Documentation must include* photographs of selective examples of historic buildings/structures located in the project APE (indicate the known or estimated construction date)].
 - If so, are any of the properties eligible or listed in the NRHP of Historic Places? [*Documentation must include* photographs of the identified historic resources. Photos should provide views from the tower site, as well as views from historic resources toward the proposed tower site. All photographs should be keyed to a map indicating their location and direction of view.]

- **Archaeological Resources** – Please provide comments and/or recommendations from a qualified professional (36 CFR Part 61) concerning the presence of archaeological resources within the proposed area(s) of ground disturbing activities (tower footprint, access roads, staging areas, etc.).
- **Finding of Effect** – A finding as to the effect the proposed project will have on identified historic properties *eligible or listed* in the NRHP located within the APE. The minimum documentation referenced above must support the finding.

If the information submitted to the SHPO is incomplete or not sufficient, the documentation submitted will be returned. Additional information may be required after initiating the Section 106 process. If you have any questions, contact the CRS at 850-245-6333 or 800-847-7278. Documentation should be submitted to:

Director, Division of Historical Resources
Attn: Compliance Review Section
R.A. Gray Building
4th Floor
500 South Bronough Street
Tallahassee, Florida 32399-0250

2.11.3 Submerged Cultural Resources and Remote Sensing Surveys

The DHR's performance standards for [submerged remote sensing surveys](#) were last updated on May 17, 2001. Remote Sensing Surveys conducted for the purposes of identifying submerged cultural resources shall conform and adhere to the following standards unless otherwise approved by the DHR. All surveys conducted on state lands are required to obtain a permit for such surveys from the BAR, pursuant to Section 267.12, F.S., and Rule 1A-32, F.A.C. The field director of such surveys is required to meet the professional standards set forth in the Secretary of the Interior's Standards for Professional Qualifications. All reporting of survey results will comply with those standards set forth in Rule 1A-46, F.A.C. Archaeologists must be aware that additional federal permits or licenses may be necessary prior to the initiation of archaeological surveys.

(1) Archival Research. Prior to conducting fieldwork, the following steps should be taken:

- (a) Consult existing archaeological sites files for previously recorded sites within the permit area. Site files may be obtained from the FMSF at (850) 245-6440.
- (b) Consult in writing FMSF to determine if properties listed in, being considered for listing on, or determined eligible for the NRHP are located within or near the permit area. Such consultations shall include an accurate project location map of an appropriate scale for reference purposes.
- (c) Consult other documents, maps, records, or local experts as necessary to determine the known history and prehistory of the area.

(2) Field Survey

- (a) Conduct an underwater remote sensing survey of the entire permit area to locate objects, vessels, or sites of potential prehistoric or historic significance. For purposes of determining legal jurisdiction for cultural resources, Florida exerts jurisdiction over waters extending three geographic miles into the Atlantic Ocean and three leagues into the Gulf of Mexico.
- (b) The initial survey shall include a magnetometer, sidescan sonar, and sub-bottom profiler survey of the area, global positioning system (GPS), and a depth finder technologies. This equipment should be integrated into a system that can correlate all remotely sensed data. High-resolution shallow seismic profiler records can be correlated to solid coring data, but are not necessary during the initial survey of an area. If sub-bottom profiler records indicate high potential of buried cultural materials, coring and/or limited test excavations may follow once the initial survey is completed, and the results reviewed in consultation with the SHPO.
- (c) The reconnaissance survey should be conducted by a trained and experienced geophysical technician qualified to operate and interpret the magnetometer, dual-channel sidescan sonar, and sub-bottom profiler data, as well as to keep accurate horizontal locational positioning during the progress of the survey. Final interpretation of the data and a report of the survey results must be prepared by a qualified marine survey archaeologist.
- (d) Initial reconnaissance survey procedures shall consist of line spacing not to exceed 50 meters during offshore (> 100 fsw), and 30 meters during inshore (< 100 fsw) survey operations. When anomaly patterns are located during the survey, a sufficient number of lines shall be run to insure any anomaly clusters are fully defined. If the permit or survey area includes shore erosion zones or anchorage areas, these shall be fully surveyed.
- (e) 'X' and 'Y' coordinates of all anomalies recorded during the survey shall be listed in a table and plotted on maps of sufficient scale and detail to allow for easy relocation should identification and evaluation studies or anomaly avoidance and preservation be required. The location of shore-based survey and/or horizontal positioning stations shall be noted, should they need to be reestablished for later reference or use.
- (f) Locations of submerged or abandoned river, stream, or creek channels, sinkholes or other natural geomorphic features having sediment traps that are identified through evaluation of sub-bottom data should be plotted to show their extent. Cross section maps showing definable strata should be prepared for each target. Any small targets that produce hard echoes compared to the normal background signal of the area being surveyed should be plotted.
- (g) Sidescan sonar signals should be identified. Wreckage of a ship, rock outcrops, open sinkholes, or other surface features that either represent known or potential archaeological remains, should be plotted on the map and listed in a table that includes height above the bottom and a central 'X' and 'Y' coordinate fix.

(3) Report Content and General Format

- (a) The report shall note the nature of the proposed project, its location (including a project location map), and the reason for conducting the survey including the applicable state and federal laws and regulations being complied with. The report will comply with those standards set forth in Rule 1A-46, F.A.C.
- (b) The methodology used for data collection shall be described in sufficient detail for a reviewer to understand what was done and why. This shall include, but not be limited to, a discussion of survey equipment used, weather conditions, survey procedures, types of data collected, recording techniques, and any special analytical methods and techniques.
- (c) The report will contain a brief discussion of the prehistory and history of the general area of the permit action, with specific reference to any known vessel losses or inundated terrestrial sites in the area. This information should be used to correlate remote sensing data collected during the survey with potential prehistoric and historic archaeological sites.
- (d) The report shall contain an inventory of all anomalies located by the magnetometer, sidescan sonar, and sub-bottom profiler, and a discussion of the results of any ground truthing or other investigation of identified anomalies. Recommendations for additional evaluation of anomalies shall be prepared with supporting documentation, which should include water depth to target, depth of burial, and types of equipment necessary to uncover and/or identify the target.
- (e) The report shall include a statement of conclusions on the location of potentially significant cultural resources, the need for any additional work to assess site significance, and measures to be taken to avoid/preserve or mitigate project impacts to identified or significant and/or potentially significant site locations.
- (f) The report must be signed by the marine survey archaeologist responsible for its contents.

(4) Submittal of Report

- (a) One copy of the survey report shall be submitted to the DHR for review and coordination. Submission of revised drafts may be required based on reviewer's comments.
- (b) Submission of survey data (i.e., magnetometer and sonar records or logs) may be required.
- (c) Unless otherwise specified, reports and supporting data shall be sent to:

Dr. Janet Snyder Matthews
State Historic Preservation Officer
Division of Historical Resources
R.A. Gray Building, 4th Floor
500 South Bronough Street
Tallahassee, FL 32399-0250
(850) 245-6333

(5) Ground Truthing of Potentially Significant Underwater Anomalies

- (a) When potentially significant underwater anomalies are identified during the course of the survey, it will be the recommendation of the CRS and the BAR that the anomalies be ground-truthed and assessed as to their archaeological significance. The resultant report(s) must be forwarded to the CRS in order to complete the process of reviewing the future impact of a project on underwater archaeological resources.

3.0 ARCHAEOLOGICAL TEST EXCAVATION (PHASE II)

3.1 INTRODUCTION

Archaeological test excavation projects (Phase II) are conducted when an archaeological site (1) appears to be significant on the basis of the CRAS results, but for which there are insufficient data to make a final determination of significance; or (2) has been deemed significant on the basis of surface features, such as mounds or historically significant structures, but for which there is not sufficient data on the associated below surface archaeological features to determine their significance.

Overall, the **goal of an archaeological test excavation** project is to determine site integrity and demonstrate how recovered data could contribute to an understanding of the area's prehistory or history in terms of NRHP eligibility criteria. The following should be addressed:

- The horizontal and vertical dimensions of a site;
- The historic contexts and their components represented at the site, including an assessment of the chronological placement of the period(s) of site occupation;
- Apparent site function(s) based on type and distribution of artifacts and associated features keyed to historic context components;
- An assessment of site integrity; and
- An assessment of the data potential and related research questions which might be answered through site excavation.

Typically, the Phase II Test Excavation is divided into a number of work elements, each of which is explained in the sections which follow:

- Background Research (Section 3.2)
- Research Design (Section 3.3)
- Test Excavation and Mapping (Section 3.4)
- Artifact Processing and Analysis/Curation (Section 3.5)
- Documentation (Section 3.6)

3.2 BACKGROUND RESEARCH

Preliminary background research should include a review of relevant archaeological, historical, and environmental literature and data, and the development of archaeological and historical contexts for site evaluation purposes. Make use of [Florida's Cultural Heritage: A View of the Past](#) for contexts as well as relevant research questions. This research should focus on what is particularly relevant to the local history and prehistory as it relates to (1) the historic contexts represented at the site, (2) appropriate field methodology and analysis techniques for the kind and character of the site and the site data to be collected, and (3) a review of relevant environmental (and paleoenvironmental) factors. The background

research should, at a minimum, provide a synthesis of relevant data in the FMSF. It is not necessary to provide a detailed review of the area's prehistory and history from Paleo-Indian to modern times if only a Middle Mississippian archaeological culture is represented. Focus on the site's position within the known cultural framework, and its capacity to contribute further to that framework. Relevant environmental information should elucidate the relationship of the site area to its surroundings, in the past as well as present.

3.3 RESEARCH DESIGN

Based upon the findings of the background research/literature review, make explicit the relevant research questions for the project; the hypotheses to be tested; mapping and excavation techniques; data collection techniques; laboratory methods; constraints on the investigations, if any; and other information of relevance to the project. **See Section 4.5** for a more detailed discussion of archaeological research designs.

3.4 FIELD METHODS

The field methodology must be structured to gather sufficient data to make a final determination of significance, and designed and implemented to recover data to answer outstanding research questions. The level of effort and the specific methods employed will vary depending upon the site type and size. However, for all sites, basic field methodology should include initial controlled surface collection and systematic subsurface testing at short intervals along parallel transects spaced regularly within the project impact zone. All subsurface tests shall be .5 m in diameter by at least 1 m in depth, and all soil removed should be screened through a 6.4 mm or smaller mesh hardware cloth. This preliminary testing should be of sufficient intensity to allow for the determination of site boundaries, the stratigraphy of the cultural deposit, intrasite structure, and site integrity.

Based upon the results of initial subsurface testing, determine the locations for the placement of excavation units. These should measure no smaller than 1 m by 1 m. The number of units excavated at each site will vary in respect to overall site size and complexity, as well as the thoroughness of the prior investigations. Aim to minimize the damage to each site by excavating only the number of units needed to recover a sufficient sample of archaeological data to allow for an informed determination of site significance.

Excavation should proceed in arbitrary 10 cm levels within natural stratigraphic zones to below the level of cultural sterility, and all soil removed should be screened through 6.4 mm or smaller mesh hardware cloth.

A permanent site datum should be established and marked for easy relocation. All subsurface tests and excavation units should be referenced to this location, and a site map depicting these should be produced. Relevant above ground features and disturbances, as well as site boundaries and site datum, should also be illustrated.

Profiles of a representative number of unit walls should be drawn and photographed. The soil color of each stratigraphic zone should be determined using a Munsell soil color chart. All cultural materials recovered should be bagged by provenience level, and all bags should be properly labeled as to site number, provenience, contents, and Field Specimen (FS) number.

3.5 ARTIFACT PROCESSING AND ANALYSIS/CURATION

Analysis should be oriented toward the evaluation of the site's ability to answer important research questions. The consultant should initially clean, stabilize (if needed), sort by material class, count, weigh, inventory, and rebag all artifacts in preparation for analysis. Analysis should consist of the morphological and functional (if possible) classification of artifacts and, if diagnostic, the establishment of their cultural/temporal affiliations. Proper and detailed documentation of artifact provenience, number, type, and description should be maintained. In addition to the analysis of artifacts, physical and chemical analyses of soils, zooarchaeological analysis, and radiocarbon analysis may be conducted, as appropriate to the research questions enumerated in the research design.

After analyses are completed, the consultant should appropriately label, bag, and box all artifacts and other cultural materials in preparation for eventual conveyance to an appropriate repository for curation. An inventory of the contents of each box should be placed in each box, with a duplicate copy submitted to the agency, along with other deliverables. Also, prepare original field notes, site maps, artifact analysis and inventory sheets, photographs and accompanying photo log, and other associated records for future curation.

See **Section 4.7** for a more detailed discussion of artifact and data analysis, and curation.

3.6 DOCUMENTATION

The standard Phase II Test Excavation Report provides a detailed discussion of test excavation methods, results, and recommendations. The goal of this documentation is to demonstrate, given the archaeological evidence recovered, whether the site meets the eligibility criteria for listing in the National Register. The report should be prepared consistent with federal and state guidelines ([Secretary of the Interior's Archaeological Report Standards and Guidelines](#); Rule 1A-46, F.A.C.) and shall meet current scientific standards. A copy of the final report must be provided to the SHPO for review and comment. Allow 30 calendar days for review.

The following outline, presented to point out topical material which must or should be addressed, is intended as a general guide. The omission of categories of information from this outline should not prohibit their inclusion, where appropriate.

Title Page (See CRAS Report outline)

Table of Contents (Use the same format as in CRAS Reports)

Report Title and Author

Introduction (Use the same format as in CRAS Reports. The project boundary map must be included in this section.)

Description of Project Location and Area (Use the same format as in CRAS Reports)

Literature Review/Background Research

Field Methodology/Research Design

Laboratory Methods and Analysis/Curation

Excavation Results: This section should include the following:

- A discussion of site function, particularly at multi-component sites
- A discussion of how and in what manner the information furthers our understanding of the historic contexts represented
- A discussion of site significance
- A restatement of testable hypotheses
- The need for additional work, if any
- Potential project impacts
- Preservation alternatives

References Cited (Use the same format as CRAS Reports)

Appendices (This section must include a Survey Log Sheet and Updated FMSF form(s). Other standard inclusions in the Appendices may include artifact inventory and analysis sheets, as well as other relevant data.)

4.0 ARCHAEOLOGICAL MITIGATION, INCLUDING MITIGATIVE EXCAVATION (PHASE III)

4.1 INTRODUCTION

Prior to the revisions (January 2001) to Section 106 of the National Historic Preservation Act, excavation and data recovery (of a significant site whose value lies in **research**) were considered **exceptions to the Criteria of Adverse Effect**. Thus, under the “research exception,” excavation was the standard for archaeological site mitigation. Now, however, the exception has been eliminated, and in accordance with the revisions to Section 106, Phase III excavation and data recovery are regarded as an **adverse effect**. However, while destruction of an archaeological site is always an adverse effect, the Advisory Council has published a set of “principles” and a “recommended approach” which outline what the Advisory Council will accept as a means of addressing such adverse effects. Thus, provided that the conditions set forth in the approach are met, mitigative excavation may be included in the stipulations of the project MOA. The principles and recommended approach are contained in **Section 4.4**.

This chapter contains a brief look at mitigation alternatives designed to avoid or minimize the adverse effects of a project or an undertaking to NRHP-listed or eligible archaeological sites. This is followed by a description of mitigation through archaeological excavation and data recovery. Included are content requirements for research designs and excavation reports, plus recommended excavation and analysis techniques.

The level of detail presented in this chapter is intended to serve two audiences. The first is DHR personnel who review research designs and reports for archaeological mitigation projects. The second group includes archaeological consultants hired by their clients to conduct some type of archaeological mitigation. For consultants, the specific objectives of this chapter are two-fold: (1) to ensure the integrity and quality of the work effort by providing a set of minimum standards by which a project’s effectiveness and adequacy can be measured; and (2) to establish basic research issues and analytical methods to ensure consistency of effort and comparability of data. The scope and intent of this chapter are consistent with the standards and guidelines set forth in the [Secretary of the Interior’s Standards and Guidelines for Archaeology and Historic Preservation](#).

4.2 MITIGATION ALTERNATIVES

Mitigation is defined as actions that reduce or compensate for the impacts an undertaking may have on a NRHP listed or eligible site. The appropriate mitigation measure depends on a number of factors, including the applicable criteria for NRHP eligibility, as well as the nature of the effects of a proposed project or undertaking. Whenever possible, the best alternative is to preserve the site in place and to protect it from damage. Nondestructive **avoidance and minimization alternatives** should be considered as the first option. These measures may include:

- **Limiting the size** of a project or undertaking to reduce the effect on significant archaeological sites. Since many sites are relatively small in size, it may be possible to avoid a site by reducing the size of the proposed undertaking in the vicinity of the affected resource.
- **Modification** of the project or undertaking through redesign, reorientation or other similar actions. The redesign of a proposed highway to include a bifurcated median to avoid a burial mound, or the redesign of a residential subdivision to include more greenbelt areas would be examples of this type of mitigation alternative.
- **Repair, rehabilitation or restoration** of an affected property. Although typically associated with historic structures, this mitigation measure may be applicable in the case of some historic archaeological sites that contain architectural features (e.g., sugar mill ruins, turpentine still, defensive wall at a battlefield site). The restoration of vandalized or eroded surface features of a site may also be appropriate.
- **In-place preservation/protection** of archaeological deposits may be accomplished through several measures. For example, fill can be placed over buried archaeological sites and natural vegetation planted to ensure stabilization. A conservation easement (see [s. 704.06, F.S.](#)) or restrictive covenant may be added to a deed; or a site may be donated to a preservation organization for conservation and preservation purposes. Also, the site can be designated as a greenbelt, nature preserve, or passive recreation area. Protection responsibilities are assigned to all federal and state land management agencies whose properties contain significant historic resources, as well as to those of federal, state and local agencies, and land developers whose activities are governed by the provisions of historic preservation law and might affect significant historic resources.
- **Restriction** of ground disturbance activities to depths shallower than the uppermost undisturbed zone of significant archaeological sites. For example, parking lot development is one type of shallow or exposed construction activity which may occur without adversely affecting underlying deeply buried significant archaeological resources.
- **Monitoring** of ground disturbance activities to record significant archaeological remains if they are encountered. This is particularly useful if ground disturbance is expected to be minor or limited in spatial extent, and where conditions are such that hand excavation prior to the undertaking is feasible. For example, a highway resurfacing project or development of a particular parcel of land located in the vicinity of a previously recorded archaeological site could be subject to archaeological monitoring and subsequent recording of exposed features and materials.
- **Research and education options** may be appropriate **off-site mitigation** measures. These may include the preparation of a historic context for the region, or completion of a NRHP nomination for significant local sites. Other measures are:
 - Publication of books, articles, technical assistance bulletins, land management plans, and local government comprehensive plans concerned with historic preservation issues, policies and procedures.

- Preparation of classroom lecture material concerned with Florida's prehistoric and historic heritage, historic resources, and historic preservation issues.
- Development of exhibits, videos, and web sites highlighting the historic resources and historic preservation programs of state and local governments.
- Historic tours, public archaeology programs, market days, and celebrations in historic districts, and other activities drawing attention to the historic resources representing the prehistoric and historic heritage of the state and our communities.

One of the conditions often required for project approval when preservation in-place (rather than data recovery) occurs is the recording of deed restrictions or easements for the affected property, in accordance with [Chapter 193.501\(6\)\(f\), 193.505 and 704.06\(3\), Florida Statutes](#). When such actions are initiated by the property owner, in addition to a lower property tax valuation (actually a tax deferral) for the restricted area, if the restricted property is conveyed to a conservation organization or governmental body, the difference between the prerestricted value and the restricted value may be deductible from individual or corporate income taxes. Consultation with legal counsel is advised. Copies of such restrictions or easements must be provided to the DHR/SHPO to evidence compliance with preservation conditions of project approval.

If a site preservation area later is reconsidered for development, as a condition of project approval, it is recommended that the requirement to mitigate project impacts be considered to have been deferred and not waived. For example, if a golf course is redesigned such that previously preserved site areas will be adversely affected, site mitigation would be required. For this reason, the locations of preserved site areas generally are marked on site development maps to assure that their presence is not overlooked in any on-going grounds maintenance, landscaping, or development actions, and to facilitate protective monitoring efforts. Likewise, project approval documents may include penalty provisions (equal to or greater than the mitigation costs) for violations of preservation conditions.

4.3 TYPES OF ARCHAEOLOGICAL SITES

A general typology for prehistoric (precontact) and historic archaeological resources is presented below to provide some idea of the data classes typically associated with each, with a view towards potential excavation and analysis strategies.

4.3.1 Artifact Scatters

These are scatters of ceramic sherds, shell and bone food remains, shell and bone tools, lithic tools and manufacturing debris, or any combination of these. These types of sites are very common throughout Florida. Lithic scatters (a subset of artifact scatters) are most common in the Panhandle and central peninsula regions where chert exposures suitable for tool making are present. Artifact scatters are most often found on well-drained sandy ridges or on

low rises in the pine flatwoods. The type subsumes a number of different functional types and time periods. Most are believed to be short-term campsites related to hunting and gathering activities, although larger sites with relatively dense amounts of artifacts may represent more permanent habitation sites.

Artifact scatters may range in size from a few hundred square meters to several hectares in extent. They often have relatively deep subsurface components, sometimes in excess of 2 m. Organic preservation is usually poor, so the potential for subsistence remains and environmental data is limited, although occasionally features such as post molds, hearths, or fire pits are present. Observable strata are often lacking, and when present, usually are the result of natural soil processes rather than cultural factors. These deceptively simple sites have often experienced relatively complex histories of site formation, which are difficult to decipher on the basis of archaeological data alone since none but the most nonperishable artifacts remains. For this reason, artifact scatters are perhaps most in need of supplementary data supplied by soil scientists, geologists, hydrologists, and palynologists to decipher their formation histories.

Because the density and spatial distribution of artifacts and features are often variable at these types of sites, shovel testing at relatively close intervals (25-m or less) is necessary to identify intra-site activity areas. Once identified, activity areas can be investigated through the placement of blocks of contiguous excavation units. This approach is most effective for identifying and removing artifact concentrations or features. In some cases, the use of heavy equipment such as graders or backhoes may be necessary to penetrate deeply buried deposits.

Research at these sites has traditionally focused on the collection of temporally diagnostic artifacts to establish chronological sequences, as well as studies of technology and site function. Because these sites are often spatially expansive, many researchers are now focusing attention on the intensive excavation of specific activity areas in order to learn as much as possible about smaller subsections of these sites which are presumed to represent individual episodes of occupations within a larger site universe consisting of periodic, overlapping occupations through time.

4.3.2 Black Earth Middens

These sites are characterized by the presence of faunal material (bone and shell), floral material (often charred), and artifacts in dark, organic stained soils. They are usually located in hardwood hammocks adjacent to rivers, streams, lakes, ponds, marshes, sloughs, and swamps. Most of the known middens date to the post-Middle Archaic period although earlier occupations may be present in sub-midden contexts. These sites were used for both long and short-term habitation. In addition to faunal material, shell, bone and antler tools and ornaments, pottery fragments, lithic tools and debris, features such as hearths, roasting pits, storage pits, post molds and living floors, as well as occasional human burials, can all be expected in black earth middens. Charcoal and shell from middens can be used for

radiocarbon dating. Faunal material can be used for subsistence, seasonality, environmental, and organizational studies.

Because of the often excellent state of organic preservation at these sites, excavation strategies are typically directed towards obtaining representative samples of faunal and floral material for subsistence and seasonality reconstruction. Distinct stratification related to different occupations is often observable at these sites, and this in combination with dateable organics and abundant artifacts makes black earth middens useful sites for establishing ceramic chronologies that can be used to develop or refine regional culture histories. The typical excavation strategy has been one of deep units or trenches that provide a complete stratigraphic profile of the site. More recently, efforts have been made to investigate the internal spatial organization of these sites by adopting excavation strategies that maximize the potential for spatial as opposed to vertical (i.e. stratigraphic) information. The use of large block excavations and heavy equipment to remove overburden and expose sub-midden features are typical strategies that may be employed. In some areas, where deep deposits penetrate waterlogged sediments, well points are necessary to allow excavation to continue below the water table.

4.3.3 Shell Middens

The matrix of these sites is predominately marine or fresh water shell refuse. Marine shell middens are typically encountered in coastal hammocks along low energy shorelines such as bays and estuaries. Freshwater shell middens are usually found near lakes or large streams. Some shell middens contain abundant animal and shell food refuse, floral material, and artifacts, as well as features. Others represent refuse heaps consisting almost entirely of shell. Both marine and freshwater shell middens have been dated as early as the Middle to Late Archaic-period and as late as the proto-historic period. Charcoal and shell from middens can be used for radiocarbon dating. Faunal and floral material can be used for studies of subsistence, seasonality and environmental change.

Except for the presence of abundant shell, this site type is similar to black earth middens in research potential and in the approaches that have been taken to their excavation. Excavation strategies that focus on stratigraphic and/or spatial information may be utilized depending on the research needs of the region.

4.3.4 Sand Mounds and Earthworks

Mounds and earthworks of all types are common throughout Florida. Borrow pits may be found nearby indicating where material was obtained for their construction. Most mounds are believed to have been used for the interment of the dead, although those that contain little or no skeletal material or artifacts are thought to have been used as foundations for dwellings. Burial mounds are addressed in Section 4.3.5. Very large mounds may have served a ceremonial function or as a foundation for the dwellings of religious and political leaders. Most sand mounds are believed to date to the post-Archaic period. They may or may

not contain artifacts including ceramics, lithics, faunal material, or features. Sometimes charcoal is found in features that can be used for dating purposes.

Earthworks consist of linear ridges, circular embankments, and causeways constructed of earth and/or shell, as well as their associated borrow pits, and both linear and circular ditches. These are most often associated with other prehistoric features such as mounds or middens, but they may occasionally be encountered in isolation. They are most often found in South Florida, particularly on the southwestern coast, in the Kissimmee River Valley and Lake Okeechobee basin. Little is known about the function of these earthworks or their data potential. Their artifact content is presumed to be limited, but analysis of soil stratigraphy, chemistry and grain size may shed light on their function and construction history. If carbonized material were present for dating, this would greatly increase their research potential.

Typical non-burial mound excavation strategies include the use of perpendicular trenches to obtain stratigraphic cross sections and identify methods of mound construction. If further excavation is warranted, then block excavation of contiguous 2 m x 2 m units can be conducted. The excavation of earthworks would proceed along similar lines.

4.3.5 Mortuary/Cemetery Sites

This type of site includes burial mounds, dry land cemeteries, and wetland cemeteries. These can occur anywhere in Florida, although wet site burials appear to be restricted to the southern half of the state. Burial areas are sensitive for the social, cultural, religious, and ceremonial values which are attached to them, and disturbance to human remains on federal, tribal, state, or privately-held lands are protected by federal ([NAGPRA](#)) and/or state ([Chapter 872.05, F.S](#)) laws. These sites should be preserved and protected. Adverse effects, including those resulting from archaeological excavation and data recovery, should be avoided.

4.3.6 Historic Archaeological Sites

Many historic archaeological sites can be classified as artifact scatters, particularly those created in the recent past. They consist of fragmentary and whole artifacts such as ceramics, glass bottles and other containers, metal tools, iron fragments, building material, and other artifacts. They may date to any time after A.D. 1500 and be related to a variety of functions including military forts and outposts, homesteads and habitation sites, turpentine and cattle camps, dump and refuse sites, and the remains of entire communities. In comparison to many prehistoric sites, artifacts are located relatively close to the modern ground surface, often within .2 to .3 m. In some cases, sites dating to the twentieth century consist entirely of artifacts on the ground surface. However, other sites (usually ones that have experienced extended or repeated occupation over many years) may contain a substantial subsurface component with many features such as trash pits, privy pits, and building foundations. In urban areas, substantial amounts of fill material have often been deposited sealing earlier

historic deposits (as well as prehistoric deposits) at some depth below the modern ground surface.

Excavation strategies at historic artifact scatters are similar in many ways to those for prehistoric scatters. Shovel testing or auger testing at close intervals is usually necessary to identify the spatial distribution of subsurface artifact deposits. Remote sensing instrumentation may be used to identify buried features and foundations. For example, at military sites metal detectors can identify the possible locations of musket balls and field discards from a battle. Electrical resistivity, magnetometer and ground penetrating radar (GPR) may be used to locate buried fortifications, old wells, burial shafts, and buried foundation features. Once concentrations or features have been identified, block excavations are usually instituted in order to maximize the recovery of spatial information. For sites that contain only near surface deposits, deep excavations may not be necessary. For those with many deep features, or for sites in urban areas that are covered by modern fill, deep excavation techniques and heavy equipment may be necessary to expose buried deposits.

The important feature that distinguishes historic archaeological sites from prehistoric ones is the documentary record that is often available for specific sites. In order to fully realize the research potential of these sites, it is necessary to conduct the requisite documentary research. This may include locating and examining tax rolls, probate records, early maps, diaries or other primary source materials.

4.3.7 Underwater Sites

Underwater archaeological sites consist of three basic types: sites created on land that have subsequently become submerged, sites created in submerged contexts (e.g. refuse sites), and shipwrecks. Depending on the type of site encountered, a variety of techniques can be used to conduct an underwater excavation. Some of these techniques may include controlled collection of exposed artifacts using a grid system, the use of steel probes or metal detectors to identify buried deposits, and excavation using a jet probe. Underwater cameras and video equipment can be used to aid in the documentation process.

4.4 MITIGATIVE EXCAVATION

As noted in Section 4.1, while excavation is regarded as an adverse effect, there are conditions under which this treatment may be considered appropriate, and suitable for inclusion as a mitigation measure in a Memorandum of Agreement. The following “principles” and “recommended approach” are taken from the ACHP’s 1999 publication Recommended Approach for Consultation on Recovery of Significant Information from Archaeological Sites (64 FR 27085-87, May 18, 1999).

4.4.1 Principles

- *The pursuit of knowledge about the past is in the public interest.*

- *An archaeological site may have important values for living communities and cultural descendants in addition to its significance as a resource for learning about the past; its appropriate treatment depends on its research significance, weighed against these other public values.*
- *Not all information about the past is equally important; therefore, not all archaeological sites are equally important for research purposes.*
- *Methods for recovering information from archaeological sites, particularly large-scale excavations, are by their nature destructive. The site is destroyed as it is excavated. Therefore management of archaeological sites should be conducted in a spirit of stewardship for future generations, with full recognition of their non-renewable nature and their potential multiple uses and public values.*
- *Given the non-renewable nature of archaeological sites, it follows that if an archaeological site can be practically preserved in place for future study or other use, it usually should be (although there are exceptions). However, simple avoidance of a site is not the same as preservation.*
- *Recovery of significant archaeological information through controlled excavation and other scientific recording methods, as well as destruction without data recovery, may both be appropriate treatments for certain archaeological sites.*
- *Once a decision has been made to recover archaeological information through the naturally destructive methods of excavation, a research design and data recovery plan based on firm background data, sound planning, and accepted archaeological methods should be formulated and implemented. Data recovery and analysis should be accomplished in a thorough, efficient manner, using the most cost-effective techniques practicable. A responsible archaeological data recovery plan should provide for reporting and dissemination of results, as well as interpretation of what has been learned so that it is understandable and accessible to the public. Appropriate arrangements for curation of archaeological materials and records should be made. Adequate time and funds should be budgeted for fulfillment of the overall plan.*
- *Archaeological data recovery plans and their research designs should be grounded in and related to the priorities established in regional, state, and local historic preservation plans, the needs of land and resource managers, academic research interests, and other legitimate public interests.*
- *Human remains and funerary objects deserve respect and should be treated appropriately. The presence of human remains in an archaeological site usually gives the site an added importance as a burial site or cemetery, and the values associated with burial sites need to be fully considered in the consultation process.*
- *Large-scale, long-term archaeological identification and management programs require careful consideration of management needs, appreciation for the range of archaeological values represented, periodic synthesis of research and other program results, and professional peer review and oversight.*

4.4.2 Recommended Approach

Given those principles, the ACHP recommends that the following 12 conditions are met for archaeological excavation:

1. *The archaeological site should be significant and of value chiefly for the information on prehistory or history it is likely to yield through archaeological, historical, and scientific methods of information recovery, including archaeological excavation.*
2. *The archaeological site should not contain or be likely to contain human remains, associated or unassociated funerary objects, sacred objects, or items of cultural patrimony as those terms are defined by the Native American Graves Protection and Repatriation Act (25 U.S.C. 3001).*
3. *The archaeological site should not have long-term preservation value, such as traditional cultural and religious importance to an Indian tribe or a Native Hawaiian organization.*
4. *The archaeological site should not possess special significance to another ethnic group or community that historically ascribes cultural or symbolic value to the site and would object to the site's excavation and removal of its contents.*
5. *The archaeological site should not be valuable for potential permanent in-situ display or public interpretation, although temporary public display and interpretation during the course of any excavations may be highly appropriate.*
6. *The Federal Agency Official should have prepared a data recovery plan with a research design in consultation with the SHPO/THPO and other stakeholders. . . . The data recovery plan must be consistent with . . . the Secretary of the Interior's Standards for the Treatment of Historic Properties, the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation, and the Advisory Council on Historic Preservation's Treatment of Archaeological Properties: A Handbook. The plan should specify:*
 - (a) *The results of previous research relevant to the project;*
 - (b) *Research problems or questions to be addressed with an explanation of their relevance and importance;*
 - (c) *The field and laboratory analysis methods to be used with a justification of their cost-effectiveness and how they apply to this particular property and these research needs;*
 - (d) *The methods to be used in artifact, data, and other records management;*
 - (e) *Explicit provisions for disseminating the research findings to professional peers in a timely manner;*
 - (f) *Arrangements for presenting what has been found and learned to the public, focusing particularly on the community or communities that may have interests in the results;*
 - (g) *The curation of recovered materials and records resulting from the data recovery in accordance with 36 CFR Part 79 (except in the case of unexpected discoveries that may need to be considered for repatriation pursuant to NAGPRA);*

- (h) *Procedures for evaluating and treating discoveries of unexpected remains or newly identified historic properties during the course of the project, including necessary consultation with other parties.*
7. *The Federal Agency Official should ensure that the data recovery plan is developed and will be implemented by or under the direct supervision of a person, or persons, meeting at a minimum the Secretary of the Interior's Professional Qualifications Standards (48 FR 44738-44739).*
 8. *The Federal Agency Official should ensure that adequate time and money to carry out all aspects of the plan are provided, and should ensure that all parties consulted in the development of the plan are kept informed of the status of its implementation.*
 9. *The Federal Agency Official should ensure that a final archaeological report resulting from the data recovery will be provided to the SHPO/THPO. The Federal Agency Official should ensure that the final report is responsive to professional standards, and to the Department of the Interior's Format Standards for Final Reports of Data Recovery Programs (42 FR 5377-79).*
 10. *Large, unusual, or complex projects should provide for special oversight, including professional peer review.*
 11. *The Federal Agency Official should determine that there are no unresolved issues concerning the recovery of significant information with any Indian tribe or Native Hawaiian organization that may attach religious and cultural significance to the affected property.*
 12. *Federal Agency Officials should incorporate the terms and conditions of this recommended approach into a Memorandum of Agreement or Programmatic Agreement, file a copy with the Council per Sec. 800.6(b)(iv), and implement the agreed plan. The agency should retain a copy of the agreement and supporting documentation in the project files.*

In a prior publication entitled *Treatment of Archaeological Properties: A Handbook* (1980), and consistent with the aforementioned principles, the ACHP recommended that the following questions should be answered when determining the appropriateness of data recovery through archaeological excavation:

1. Does the significance of the property lie primarily in the data it contains such that retrieval of this data in an appropriate manner would preserve its significance? If so,
2. Would preservation in place be more costly or otherwise less practical; that data recovery? If so,
3. Is the site:
 - a. A NHL;

- b. Important enough to the fulfillment of purpose of the State Historic Preservation Plan to warrant its protection in place, by itself, or as part of a larger property;
- c. Significant as a place for public understanding and enjoyment of the past,
- d. Known or believed to have historic, cultural, or religious significance to a community, neighborhood, or social or ethnic group that would be impaired by its disturbance; or
- e. Is so complex, or contains such complicated data, that currently available techniques, funding, time or expertise are insufficient to recover the significant information contained in the site.

If questions (1) and (2) are answered in the affirmative, and questions (3)(a) through (3)(e) are answered in the negative, then the data recovery effort may be considered adequate as a mitigation measure.

The purpose of conducting a mitigative excavation is to recover and analyze the significant data contained within the affected area of an archaeological site such that a record of the resource may be preserved. All mitigative excavation projects consist of a number of sequential stages of investigation: research design, excavation and data collection, analysis, and documentation. The recommended methods and approaches for these work elements are contained in the following sections.

4.5 RESEARCH DESIGN

A research design provides the overall plan to guide the excavation, laboratory analysis, and report content. Because the goal of excavation is different from that of a CRAS, the nature of the research design is also somewhat different. Most importantly, the mitigative research design specifies the research questions that can be addressed by the data contained at the site, and identifies the methods that must be employed to retrieve these data. A well thought out research design ensures that the level of effort expended in an archaeological project will be appropriate to meet project needs and will ensure that the end product will make a relevant contribution to the preservation of Florida's past.

4.5.1 Elements of a Research Design

A research design typically contains the following elements (see the ACHP's Treatment of Archaeological Properties: A Handbook 1980:24-26 and the [Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation](#) (Federal Register Vol. 48, No. 190, p. 44735)):

- A statement of the problem or question(s) to be addressed by the research
- A description of the data classes that are expected to be encountered and their relevance to the stated problem or question(s)
- A sampling design that defines the intensity and scope of coverage of the excavation
- A description of the methods and techniques that will be employed in the data collection process and subsequent analysis
- A specification of how the results of the project are to be evaluated in terms of the original problem

4.5.1.1 Statement of the Research Problem

The research design begins with the formulation of one or more research problems, questions, or hypotheses that can be addressed with data contained in the site. These will address, but need not be limited to, the area(s) of significance that have been identified during the cultural resource assessment survey.

The research design establishes that the specified problem(s) address issues of importance that will contribute to a better understanding of the past, and further, that these issues have not yet been resolved within the discipline. The research problem must therefore be justifiable within the current parameters of knowledge. This requires some discussion of previous research within a region as well as a consideration of the informational needs of relevant historic contexts and property types. The consultant should refer to [Florida's Cultural Heritage: A View of the Past](#) for a discussion of the research needs and data requirements for prehistoric and historic period contexts and property types.

An excavation research design focuses on **specific questions** in order to structure data recovery in an efficient manner. Examples of specific research questions that can be addressed by archaeological data might include:

- *What is the evolutionary relationship between Deptford and Weeden Island cultures in northern Florida?*
- *Did Archaic-period groups in Florida's Central Highlands practice a settlement strategy of residential or logistical mobility?*

By focusing on specific questions, it is possible to identify the necessary data classes in order to contribute to a resolution of research questions. This in turn dictates the methods and techniques to be employed during the excavation. Since it is not possible to collect and

analyze all potential data classes available at a site, the identification of specific research questions is essential to the efficient and effective use of available time and labor.

Because Florida includes a wide range of **environmental contexts**, cultural resource projects offer a unique opportunity to examine issues of the relationship between human beings and the natural environment. Although each archaeological site is unique, and each contains its own set of data classes (both cultural and natural), all archaeological sites occupy geographic positions within a natural landscape that have been subject to dynamic geomorphic processes through time. These processes have acted to affect the character and makeup of archaeological sites in four ways:

- By influencing original decisions to locate sites in specific environmental contexts;
- By affecting how, where, and in what condition archaeological materials were deposited during periods of site occupation and use;
- By influencing post depositional processes of burial and preservation after a site was abandoned; and
- By influencing the potential for eventual exposure and discovery.

Because the geomorphological context cross cuts all cultural periods and affects all types of archaeological sites, it is a critical aspect of archaeological interpretation. Therefore, in addition to site specific research questions, all archaeological excavations should include field and analytical measures necessary to address the following:

- **Landscape context** - consisting of three scales of analysis.
 - Micro-environment - the local environmental elements that influenced site selection, the length of time it was used, and its subsequent burial and preservation.
 - Meso-environment - the topographic setting and landforms in the area immediately surrounding the site that influenced decisions regarding resource selection and appropriation.
 - Macro-environment - a consideration of the site's use within the context of the regional ecosystem.
- **Stratigraphic context** - consisting of a reconstruction of sequential events of soil development, erosion, and sedimentation, as well as an evaluation of local and regional landscape history.
- **Site formation** - including the identification and evaluation of cultural, physical, and biogenic processes that resulted in the deposition of sediments and materials (both cultural and natural) at the site.
- **Site modification** - the identification and evaluation of processes of artifact dispersal, post-depositional site modification, and/or disturbance due to natural and cultural agents.
- **Landscape modification** - the identification and evaluation of patterns of human modification to the natural landscape through space and time, and the effects of these on the structure of the archaeological site.

These issues should be addressed through the use of:

- Historic maps, documents, and informant interviews to document land use patterns and landscape changes in the recent past;
- Standard archaeological techniques of stratigraphic analysis, spatial and temporal analyses of artifacts, features, etc.;
- Existing environmental, geological, hydrological or other data related to the site and region; and/or
- Site specific studies of sediments, topography, geomorphology, hydrology or other relevant variables.

4.5.1.2 Description of Data Classes and Relationship to the Research Problem

The nature of the database at a specific site, and the methods available to collect and analyze these data, may place limitations on the kinds of questions that can be asked. With this in mind it is important to know whether or not the question(s) posed in the research design are answerable with the archaeological data expected at a site. Therefore, a discussion of what data classes are expected and how they will contribute to addressing the stated problem or question is included.

For example, if faunal remains are not present at a site, or if the fauna present are not sensitive indicators of seasonality, then research questions related to the seasonal use of a site are unlikely to be addressed successfully by the existing data classes. On the other hand, if the necessary species are present, it must be explained how these will be utilized in order to determine seasonality (e.g., study of seasonal growth rings of fish otoliths).

When collection efforts are selectively focused on relevant data classes, it is inevitable that other, less relevant data will be neglected. If the research design does not call for the collection of certain data classes that are known or suspected to be present at a site, the justification for this must be clearly explained in the research design. Moreover, it is essential to specify at what point the data collection effort may become redundant and so fail to produce any additional useful information.

4.5.1.3 Sampling Design and Sample Size

It is rarely possible to excavate an entire site, or even all of a portion of a site that will be affected by a proposed project. In lieu of this, some form of sampling is usually implemented. The sampling scheme that is chosen may be either purposive or probabilistic.

A purposive or judgmental sample is based on prior knowledge about the distribution of artifacts and features at a site. This information may be available from the original CRAS, or it may be obtained from systematic testing conducted as part of the mitigation effort. The advantage of using a purposive sampling design is that decisions regarding which parts of

the site to include or to exclude are based on hard data. Excavation can focus on those areas that appear, on the basis of preexisting data, to offer the best potential for data recovery. The disadvantage is that the level of representation of the sample in terms of the total population of artifacts and features contained at the site is unknown and cannot be determined. The only valid inferences that can be made are those that relate to the specific areas excavated.

In probabilistic sampling, the decision as where to excavate is determined randomly. Depending on the method used, all portions of a site are given a statistically determined chance of being included in the excavation sample. The advantage of this approach is that it enables predictable statements to be made about the total population of artifacts or features. The disadvantage of a probabilistic sampling design is that potentially productive areas of the site may not be included in the sample. In order to overcome this, a combination of probabilistic and purposive sampling is sometimes employed.

The use of purposive or probabilistic sampling is dependent on the types of questions asked, the data classes expected, the internal structure of the site, and the time and money available for field work. Regardless of which approach is used, the research design specifies the approach, the specific sampling methods, and the justification for employing these methods so that the adequacy of the sampling strategy can be evaluated.

In addition to the sampling strategy, the research design includes an estimate of the percentage of the total site area that will be excavated. In general, if a site is to be destroyed by construction activities, a large sample is preferable; however, the size of the sample will also be affected by time and cost considerations. For a very large site covering many acres, a sample as small as 1 percent or less may be acceptable if the sampling design is appropriate to the stated research goals. For example, a purposive sample that focuses on one or a few specific activity areas within a larger site universe, or a random sample from a previously defined activity area, may be acceptable strategies for dealing with the problems of small sample size at large sites. Another approach would be an excavation strategy that focuses on a single cultural component (e.g. Paleoindian or Early Archaic) within a multi-component site. This approach would be especially justifiable if the site's significance is based primarily on the potential information yield associated with the specified component. A grader may be used to remove overburden (and the noncontributing cultural materials it contains) to expose a deeply buried, significant Paleoindian component. Labor intensive hand excavation can be concentrated on the recovery of data from a larger percentage of the significant component than would be possible if the overlying sediments had to be excavated (and the cultural materials and features recorded) as well.

4.5.1.4 Methods of Data Collection and Analysis

The proposed methods specify the requirements of data recovery and analysis relevant to project needs. At a minimum this will include the following:

- A description of the size and placement of excavation units;

- The excavation procedure that will be followed including whether arbitrary or natural levels will be used, the size of arbitrary excavation levels, screen size, recording conventions, etc.;
- Specification of special sampling techniques such as soil, faunal, etc.;
- Mapping procedures; and
- Analysis procedures including a discussion of the types of analysis anticipated, the methods and techniques that will be used, a description of basic artifact typologies that will be used, etc.

Interdisciplinary Specialists: Archaeology is increasingly dependent on specialists in other fields such as geology, sedimentology, palynology, or zoology to provide data that will assist in the interpretation of a particular site. If the services of outside specialists are necessary, these needs must be specified in the research design.

Historians and archival researchers may also be important additions to the research team if the site dates to the historic period. In order to fully realize the research potential of these sites, and to mitigate adverse effects, it is necessary to conduct the requisite documentary research. This may include locating and examining tax rolls, probate records, early maps, diaries, or other primary source materials.

Ethnographic or ethnohistoric research may be appropriate to augment the excavation effort when dealing with sites where living descendants of the ethnic groups represented still reside. For example, excavations at a Seminole Indian encampment in the Everglades or a cigar worker's house in Ybor City would benefit from ethnographic research and informant interviews in conjunction with historic documents research. Professional ethnographers may also be used to coordinate, consult with, and solicit the views and concerns of affected local groups who may have a direct ethnic or historical relationship to the site being investigated.

Problems or Limitations: Anticipated problems and the recommended procedures for dealing with these should be addressed. For example, if waterlogged deposits are likely to be encountered, then the research design should include a discussion of the methods and equipment that will be used to penetrate deposits located below the water table and for ensuring the integrity of the data collection effort from these deposits. Special techniques for the preservation of waterlogged organic artifacts must also be specified if these are expected to be encountered.

Laboratory Analysis: The popular perception of archaeology as primarily a field endeavor gives the erroneous impression that once fieldwork is completed results and conclusions should follow in quick succession. In reality, much more time is required to properly analyze artifacts and other data than to collect them. A good rule of thumb for evaluating the labor effort that will be devoted to laboratory analysis and report preparation is to calculate the ratio of person hours for these tasks in comparison to fieldwork. If the ratio is less than 3 to 1 (lab to field time), the analysis effort is considered to be inadequate to meet the needs of most excavation projects.

4.5.1.5 Statement of Expected Results

The final component of a research design will be a statement of expected results. These will, of necessity, be relatively general in nature. Rarely will actual results completely fulfill initial expectations. Data classes that were expected to be present in certain densities may turn out to be present in amounts too small to address the prestated questions. On the other hand, data classes not previously thought to exist may in fact turn out to be numerous and of great significance thereby forcing a change in the focus of the project. The unexpected discovery of human remains at a site is an example of the kind of inadvertent discovery that is often encountered in archaeology. Thus, any excavation, and hence any research design, must be flexible enough to enable a redirection of effort based on new and unforeseen discoveries.

4.5.2 Submittal of a Research Design

The research design is submitted to the CRS, and if the project is a federal undertaking, the SHPO and relevant consulting parties, including Native American tribal representatives, prior to the start of fieldwork to evaluate the adequacy of the proposed work effort. In evaluating the research design, it is important to determine whether or not the following questions have been properly addressed:

- Have research questions been explicitly stated? Are these related to the data classes expected at the site, i.e. are the questions answerable?
- Are the methods justifiable and appropriate to the goals of the research?
- Are any special analyses, techniques or equipment required? Are these justifiable and appropriate to the goals of the project?

The research design should be concise, organized, and well thought out. Although demonstrated knowledge of previous research is desirable, elaborate discussions of archaeological theory are inadequate substitutes for a concise statement of research goals and a complete description of the approach and methods that will be used to achieve these goals.

4.6 EXCAVATION PROCEDURES

The excavation process involves the collection and recording of artifacts, features, and other relevant data in both their horizontal and vertical contexts. The horizontal or spatial dimension preserves contemporary relationships among artifacts that enable the reconstruction of activities conducted at a site at specific points in time. The vertical dimension preserves the temporal relationships among artifacts, features, and occupational strata from which a developmental history of the site can be reconstructed.

Regardless of the type of site to be excavated, all excavation projects minimally contain the following components:

- Topographic mapping
- Establishment of an excavation grid system
- Broad scale testing to determine site boundaries and/or artifact and feature concentrations
- Data recovery through controlled excavation
- Detailed data recording

4.6.1 Topographic Mapping

The first phase of an excavation involves the generation of a topographic map and the establishment of a permanent site datum. A surveyor's transit is used to transfer a known elevation from a nearby benchmark (USGS, County, or other) to the site datum. This establishes the datum plane from which all subsequent vertical measurements are referenced. If no benchmark is located nearby, an arbitrary elevation is assigned to the site datum until such time as a true elevation can be established. The topographic survey results in an accurate map of the landscape on which all subsequent artifact and feature distribution data are plotted. Topographic maps of the site available from other sources may be substituted and used to locate excavation units and major features if they are at a scale of 1"=100 ft (33.3 m) or larger and show elevation changes at a contour interval of no greater than 1 ft (.3 m). However, because subtle changes in elevation, which may appear insignificant to a land surveyor or engineer, may be of importance in identifying archaeological site features, it is usually preferable to have a topographic map generated specifically for archaeological use.

4.6.2 Grid Systems

A master grid system is used for the purpose of horizontal control during excavation. All excavation units, subsurface tests, and test trenches are referenced according to this grid system. Grid systems are used in archaeology for two primary reasons: to facilitate accurate three-dimensional recording of artifact and feature locations, and to allow for the orderly expansion of the excavation. A coordinate system using numerical and directional designations for each grid intersection (e.g., 100N/100E) is used since this allows unlimited and orderly expansion in all directions. The same coordinate system can be used to record the locations of artifacts and features found within specific excavation units.

The excavation grid is located in reference to a known location in space. The recommended procedure is to establish a base line along an existing section line, property line or centerline of a major road, and tie in all excavation units relative to this base line using a surveyor's transit. Alternatively, an arbitrary base line can be established oriented to one of the cardinal directions, and then tied into a USGS benchmark or other immovable landmark via triangulation.

4.6.3 Broad Scale Testing

The third phase usually involves some form of broad scale testing to identify or refine site boundaries and determines the locations of activity areas, artifact concentrations, or subsurface features within the site universe. This phase is required if a purposive sampling design is planned since it will provide the information necessary to make decisions regarding the placement of excavation units and test trenches. Although the identification of intrasite features and concentrations is not mandatory if a probabilistic sampling design is planned, delimiting the boundaries of the site is necessary in order to establish the size of the sampling universe. If these have not been firmly established during the CRAS survey, then sufficient subsurface testing to establish these boundaries within the confines of the impact area is conducted.

For most sites, the preferred method for implementing a broad scale testing program is the use of hand excavated shovel tests. These are either round (.5 m in diameter) or square (.5 x .5 m) and shall extend to a depth of at least one meter below ground surface unless prevented by impenetrable soil conditions. At sites where subsurface materials are particularly dense, such as shell or black earth middens, .15 m (6 in) in diameter posthole diggers may be substituted if the goal of the testing program is simply the identification of site boundaries. Mechanical augers may be used where artifact density is relatively great and large areas must be covered. However, it is not possible to maintain vertical control with this alternative method.

The distance between individual tests is dependent on the type of site, the size of the area to be investigated, and the presumed density of subsurface materials. It is also dependent on the goal of the broad scale testing. If the goal is to identify site boundaries, and artifact density is relatively great, then larger intervals may be used. If artifact density is relatively low or is variable across the site, or if the goal of the testing is to identify intrasite activity areas, then smaller test intervals are necessary. However, in no case should test intervals exceed 25 m (82 ft).

Other methods, which may be acceptable under certain conditions, include the use of heavy equipment to excavate test trenches to reveal soil strata or strip off overburden to reveal subsurface features. At sites where artifacts are exposed on the ground surface, controlled surface collections conducted within a grid system may be employed. This last method is particularly useful at late historic period sites where artifacts and features are often at or very near the modern ground surface.

On some types of sites, particularly those where subsurface features are suspected, the use of remote sensing instrumentation such as a magnetometer, electrical resistivity, or ground penetrating radar may be employed. The use of these techniques is often a cost-effective way to locate isolated subsurface features such as coquina foundations, tabby walls, brick piers or pilings, trash pits, and human burials. Similarly, stereo pair and false color imagery can assist in the location and identification of mounds, middens, earthworks, canals, and other above ground archaeological features, particularly if obscured from view by vegetation. These techniques can, when appropriate, be utilized to enhance the location of features and to maximize the data collection process.

4.6.4 Data Recovery Through Controlled Excavation

As previously discussed, data recovery usually entails controlled excavation of a predetermined sample of the site's contents. Depending on the type of site, research questions, and data classes expected, a number of strategies may be used including block excavation, isolated units, and/or linear trenching. If necessary, heavy equipment such as a grader or front end loader can be used to remove overburden. This is a very effective way of quickly removing sterile, disturbed, or non-significant fill, enabling labor-intensive hand excavation to be focused on those deposits that contain significant data. Whenever heavy equipment is used, archaeologists must be present to monitor the soil removal and record any artifacts or features that are exposed.

Although specific techniques may vary from site to site, all archaeological excavations should conform to the basic practices of data collection and recording. These include the use of standardized excavation units and a grid system, the use of natural or arbitrary levels to maintain vertical control, the screening of excavated soil using a standard 6.4 mm or smaller mesh, the careful and standardized recording of provenience information including maps and stratigraphic profiles, and the maintenance of a complete photographic record of the excavation.

4.6.4.1 Size of Excavation Units

The size of excavation units may vary although the most common sizes are 1 x 1 m, 1 x 2 m, 2 x 2 m and 3 x 3 m. The advantage of larger sized squares is that the spatial arrangement of any post molds, fire pits, or other features that are exposed during excavation are easily seen in plan view which facilitates accurate mapping. The disadvantage is that spatial control is compromised for those artifacts that are recovered during screening. This can be overcome by subdividing larger units into smaller blocks (e.g., 1 m or .5 m squares) and excavating these separately. Individual excavation units larger than a 3 x 3 m square are discouraged because of the lack of spatial control in the collection of smaller artifacts.

4.6.4.2 Depth of Excavation Units

Excavation will continue until at least two sterile levels have been encountered. At sites where Paleoindian or Early Archaic components are suspected, deep coring or the use of backhoe tests to excavate deeply buried soil horizons may be required to ensure that these early and sometimes ephemeral sites are not missed.

4.6.4.3 Use of Natural Collection Units

Archaeological excavation takes place within natural units whenever possible. "Natural" means any unit of matter that displays abrupt and observable boundaries. Natural units may include soil stains, distinct strata, pits, graves, mounds, or the rooms of a building. While most "natural" collection units will have had a cultural origin, this may not always be true. For example, wind blown sediments, alluvial silts, or storm surges may have created discernable strata and these should be excavated as separate collection units. The reason for specifying the use of natural units is to ensure that artifacts or other materials resulting from different depositional episodes do not become mixed during recovery.

When arbitrary excavation grid units overlie a number of horizontally distinct natural units (sometimes referred to as features), excavation by natural units takes precedence. Thus, the material collected from a trash pit or storage pit is kept separate from the surrounding soil matrix in which the pit intrudes. Similarly, if the walls of a structure are encountered, materials from the outside of the structure are kept separate from those materials collected from the structure's interior.

The methods used to excavate cultural features depend on the type of feature encountered and the nature of the soil matrix. The preferred method is to pedestal the feature and then excavate half of it to expose a cross-section profile that can be mapped and photographed. The remaining half of the feature can then be excavated as a total sample. This is a particularly effective method when excavating in soft, sandy soils. In more stable soils, feature fill may be removed as a total sample without pedastaling; however, no profiles are possible using this technique.

4.6.4.4 Vertical Measurements

All vertical measurements are made in reference to elevation above mean sea level. Vertical control is maintained through the use of a datum plane established with a surveyor's transit.

4.6.4.5 Excavation Levels

Once the datum plane has been established, excavation of individual units proceeds by arbitrary levels within natural or cultural stratigraphic zones if they are present. If soil stratification is not observable, arbitrary excavation levels are used to maintain vertical control. The size of the arbitrary levels may vary depending on the vertical segregation of components.

It is not unusual in Florida to have prehistoric archaeological deposits extend to depths exceeding 2 m below present ground surface. In Florida's sandy soils, the vertical faces of deep excavation units can become unstable and may pose a safety hazard to workers. In order to overcome this problem, the walls must be sloped back 1.5 m for every 1 m in depth for all depths greater than 1.5 m, per OSHA regulations. In addition, ladders of sufficient height and stability to enable excavators to enter and exit deep excavation units safely are necessary.

4.6.4.6 Screen Size

All soil is sifted through hardware cloth with a mesh size no greater than 6.4 mm (¼-inch) to ensure the most complete recovery of artifacts. Large mesh screens are acceptable only when used in conjunction with 6.4 mm screens. Mesh screens smaller than 6.4 mm may be employed at any time and are required for special sampling purposes.

4.6.4.7 Column Samples

At sites containing faunal or floral material, at least one column sample is obtained for laboratory analyses. All column samples should measure at least .5 x .5 m and be excavated according to the same method used for the excavation of general unit levels; that is, by arbitrary levels or natural/cultural stratigraphic zones.

The use of water to assist in the screening process may be advisable in some situations, however, water sprayed under pressure may damage small bones or delicate botanical remains. If such analyses are contemplated, it is best to consult with the zooarchaeologist or archaeobotanist regarding appropriate collection methods.

4.6.4.8 Procedures for Collecting Artifacts and Samples

All artifacts recovered during any excavation are placed in collection bags according to provenience. For example, artifacts recovered from a general excavation level will be placed together in a general level bag. Artifacts recovered from horizontally distinct cultural features within a level are placed in a separate bag or bags reserved exclusively for that collection unit. Piece plotted artifacts are placed in separate bags with the appropriate provenience information on the bags' exteriors.

All artifact collection bags must be of recyclable polyethylene plastic, at least 2 mil in thickness, and sealable at the top. Paper bags are unacceptable because of the potential for tearing and rapid deterioration, and because they cannot be permanently sealed. Provenience information must be written legibly on the exterior of all collection bags (preferably in the lower left hand corner of the bag) in waterproof ink. At a minimum the following information is required on all collection bags:

- Project name (optional)
- Florida Master Site File number
- Site name (if applicable)
- Provenience information - will vary depending on type of collection unit, but typically will contain the following:
 - Collection unit (e.g. excavation unit, shovel test number, feature number, etc.)
 - Stratigraphic zone or level

- Depth (e.g. cm below unit datum, elevation above sea level, etc.)
- Date
- Excavator's name or initials
- Field Specimen (FS) number
- Bag number (e.g., Bag 1 of 3)

Other information may be included as necessary. Column samples, soil samples or feature fill collected as total samples (i.e., without screening and discard of the soil matrix) should be placed in large, heavy (at least 2 mil in thickness) plastic bags with the provenience information legibly marked on the exterior of the bag in waterproof ink. Provenience information is also written on waterproof tags and either tied to the bag or placed inside the bag. In order to ensure against bag failure and loss of the sample, the material may be double bagged. In this case, provenience information is placed on the exterior of both bags.

Charcoal samples intended for radiocarbon dating are placed in aluminum foil with the provenience information written on the exterior of the foil in waterproof ink. The sample is then placed in a plastic collection bag with the appropriate provenience information written on the exterior of the bag as described above. Field specimen number is the same as general provenience of sampling location.

It is important to ensure that any samples that will be submitted to specialists for analysis be collected in an appropriate manner. In cases where special techniques or equipment are required, qualified special consultants (e.g., a geomorphologist) are retained to collect and prepare the necessary samples (see [Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation](#)).

4.6.5 Recording

The highest standards of field recording of data are maintained whenever possible; artifacts are recovered and documented in place, their horizontal positions recorded by coordinates in reference to the site grid system, and their vertical position recorded in reference to the site datum plane (i.e. elevation above mean sea level). Features and artifact concentrations are excavated with hand tools and accurate maps or plans of all excavated features are made.

4.6.5.1 Use of Standardized Forms

Standardized forms are used for the recording of excavation and survey (i.e. elevations, angles, distances, etc.) data. These forms may be of variable design and format. Excavation notes on legal paper, notebook paper, or other non-standardized format are unacceptable. The site supervisor maintains a daily log of activities that discusses the tasks accomplished by excavation unit, problems encountered, significant finds, as well as thoughts and interpretations regarding the site in general. Traditionally, surveyor's field notebooks are used to record daily progress because they are bound and waterproof; a loose-leaf notebook or binder is also acceptable. A Field Specimen (FS) log sheet and a photo log which

documents all photographs taken at the site are also maintained. The photo log contains information on the camera used, the type of film used, film speed, aperture setting, the roll number, descriptions of each frame including direction, and the date of the photograph.

4.6.5.2 Maps and Profiles

A stratigraphic profile is drawn of at least one wall from each excavation unit. If walls are noticeably different, more than one profile will be necessary. Floor plans are drawn whenever features or artifact concentrations are encountered, but are not otherwise required for every level of every unit.

All maps must be neatly drawn and legible. The use of symbols is standardized to avoid confusion and misinterpretation. Soil colors are recorded descriptively and by means of a standard Munsell soil color chart. Soil descriptions should conform as much as possible to standard soil classification descriptions (e.g. fine sand, sandy-clay, clayey-loam, silt, etc.).

- All maps and profile drawings contain the following standard information:
- Project name
- Florida Site File number
- Site name (if applicable)
- Descriptive map or drawing title
- Provenience information (including depth below surface/datum and/or elevation for plan view maps)
- Date
- Scale
- North arrow (for plan view maps only)
- Key to any special symbols
- Name or initials of excavators

4.6.5.3 Measurements

Except as noted in this section, the metric system is used for all measurements associated with excavations at prehistoric archaeological sites and historic archaeological sites of the Spanish Colonial period, including elevations above mean sea level. Exceptions include work conducted at historic archaeological sites containing artifacts, features or structural remains of primarily non-Spanish European, Euro-American or African-American origin. At these sites, the English system of measurement is used.

4.6.5.4 Photographs

A complete photographic record of each excavation is maintained. Photographs are made using high quality, 35 mm color slides and black and white print film. Digital photos are also acceptable. At least one color slide and one black and white print are taken of each

excavation unit. Other photographs are taken as necessary to record significant features, concentrations, isolated finds, and the general work progress. All photographs of stratigraphic profiles and excavation units contain a north arrow, a scale and a menu board with the following information:

- Site number
- Provenience
- Brief description (e.g., Feature 6, South wall profile, or Floor at 1.55 amsl).
- Date
- Photographer

A blackboard may be substituted for a menu board provided that the written information is legible and can be clearly discerned in the photo. Photographs containing information written on paper, cardboard or media other than those specified in this section are not acceptable.

4.7 ARTIFACT AND DATA ANALYSIS/CURATION

4.7.1 Preliminary Processing and Cataloging

The purpose of processing and cataloging recovered artifacts and samples is to ensure their continued preservation and prepare them for analysis and eventual curation. The procedures for processing and cataloging the artifacts recovered as a result of any excavation are similar to those used for cultural resource assessment surveys (see Section 3.6). This includes cleaning and a general description of materials by provenience.

Preliminary processing of artifacts includes the assignment of FS numbers to all artifact bags in the field prior to their removal from a site. Stone and most historic artifacts are washed, cleaned, and re-packaged. Ceramic, metal, bone, and shell artifacts are gently brushed clean and, if necessary, stabilized to prevent deterioration. All artifacts are air-dried prior to rebagging. Organic samples suitable for radiocarbon dating are collected and stored separately to avoid contamination. Any artifacts that are removed for display or otherwise separated from their artifact bags with associated provenience information are labeled with the following information:

- Project identification number
- FS number
- Specimen number

4.7.2 Artifact and Data Analysis

Analysis of artifacts and other data is conducted at a level that is necessary and appropriate to meet project needs as dictated by the research questions identified in the project research

design and by the data classes recovered during the excavation. Types of analyses will differ in kind and scope as a result of differences in research emphasis. However, in order to ensure comparability of data between sites, a limited set of standard analyses is recommended for all excavation projects. These are described below for specific data classes. The use of these standard analyses provides a minimum set of comparable data. Their use, however, should not be construed as representing a complete and sufficient analysis of a site's contents. Additional analyses are conducted as necessary to address specific project needs.

4.7.2.1 Lithics

Standard analyses of prehistoric lithic artifacts include:

- Identification of temporally diagnostic tool types
- Morphological and functional classifications
- Debitage attribute analysis (e.g., flake size and amount of dorsal cortex)

All stone tools are described and classified according to basic morphological categories: bifaces, unifaces, modified flakes, utilized flakes, microliths, waste flakes, cores, and hammerstones. Other categories of stone artifacts may be added as appropriate. Those artifacts that can be assigned to existing cultural-temporal typologies are assigned and described. Functional analysis of all identified tools is conducted to the furthest extent possible. At a minimum, edge angle measurements are made of all functional tool edges using a goniometer.

Waste flakes (debitage) are described using a selected number of attributes, such as flake type, flake size, and the amount of dorsal cortex, among others. The raw material type (e.g. chert, coral, etc.) and presence or absence of thermal alteration on individual waste flakes is also recorded. Raw data for all of these analyses are included in the report in tabular format.

Other analyses are implemented as necessary and appropriate to meet project needs. Some types of analyses, for example, tool use-wear analysis and identification of raw material provenience, require special expertise, equipment and adequate comparative collections. If such special analyses are planned, it must be demonstrated that the analysts possess the necessary training, experience, and equipment to perform such work.

4.7.2.2 Ceramics

Standard ceramic analysis includes the following:

- Identification of temporally diagnostic types
- Description of exterior surface treatment
- Description of rim and lip form and orientation

All ceramic sherds are described and classified according to existing cultural-temporal typologies. Formal definitions of ceramic types used in the analysis are referenced and include descriptions of paste, aplastic inclusions, surface treatment and/or decoration, rim and lip treatment, and any other criteria necessary for a full, complete, and comparable type description.

Ceramics are common at post-Archaic period sites in Florida, and in some parts of the state (e.g., in the Panhandle region and southwestern Florida), they are more common than lithic artifacts. Much of the utilitarian ware used by prehistoric native peoples consisted of vessels with plain, undecorated surfaces. Chronological analysis of these ceramics is difficult because of the lack of surface decoration, but not impossible. Differences in vessel wall thickness, rim orientation, absolute and relative occurrence of different types of aplastic materials are some of the criteria that can be used to develop ceramic seriations. At sites containing predominately undecorated ceramics, analyses necessary to fully realize the data potential of these artifacts must be conducted.

Other analyses are conducted as appropriate to meet project needs. Some analysis techniques such as the microscopic identification of paste types and aplastic inclusions, or the identification of vessel function, may require special expertise, equipment and comparative collections. If these types of analyses are planned, the individuals conducting the analyses must possess the necessary training, experience, and equipment to perform such work.

4.7.2.3 Shell and Bone Artifacts

Shell and bone artifacts are analyzed both macro- and microscopically for traces of wear in order to determine their function. Any decoration or surface treatment are fully described and graphically recorded. These artifacts will be compared to other known assemblages of shell and bone in order to determine chronological and functional associations. All shell tools are classified according to existing typologies.

All bone and shell recovered during the excavation is examined for potential tool manufacturing debitage. An analysis and description of this debris are included as a standard component of any shell or bone artifact analysis.

4.7.2.4 Historic Artifacts

Analysis of historic period artifacts includes functional identification and classification, and temporal placement. Artifact identification utilizes standard references for historic artifacts as well as primary source materials such as catalogues, manufacturer's production information, newspaper and magazine advertisements, and discussions with knowledgeable informants.

All historic artifacts should be functionally classified using the following categories as defined by Sprague (North American Archaeologist 2:251-261 [1981]):

- (1) Personal Items - includes items related to clothing, personal adornment, medicine and health, indulgences (e.g. tobacco tins, hip flasks), pocket tools, infant care, etc.
- (2) Domestic Items - includes items such as furnishings, housewares, food containers, cleaning and maintenance items, etc.
- (3) Architecture - structures or structural remains, construction materials, plumbing fixtures, illumination and power features, and landscaping features.
- (4) Transportation - includes vehicles and items associated with their maintenance.
- (5) Commerce and Industry - includes items associated with agriculture and husbandry, hunting, fishing, timbering, turpentine, mining, construction, manufacturing, commercial services, etc.
- (6) Group Services - includes items associated with government administration, education, entertainment, utilities, etc.
- (7) Group Ritual - includes religious paraphernalia, public monuments, etc.
- (8) Unknowns - unidentifiable objects or objects of unknown function.

This system is sufficiently broad and expandable so that other more specialized systems of classification can easily be accommodated or derived from the data presented.

4.7.2.5 Faunal Analysis

Faunal remains are important and fragile components of archaeological sites. In order to preserve faunal samples, special care must be taken in their recovery and post-excavation treatment. Faunal material may be recovered from various field proveniences. Shovel tests, features, excavation unit levels, and column sample levels can all yield faunal remains. The majority of faunal samples that will be analyzed in detail come from general excavation levels, column samples or feature fill. Information from these different proveniences complements each other and provides a more complete representation of a site's faunal assemblage.

Faunal remains recovered in general excavation levels will already have been screened through a 6.4 mm mesh; therefore, they will not require special laboratory processing and can be analyzed as soon as they are cleaned, air-dried and cataloged. On the other hand, column sample levels and feature fill are typically collected as total samples (i.e. they are not screened in the field) and returned to the lab for detailed processing and analysis. Various

methods exist for processing faunal samples and their use will be dictated by the research questions to be addressed and by the preferences of the zooarchaeologist directing the analysis. Controlled experiments have demonstrated, however, that the analysis of faunal remains recovered exclusively from 6.4 mm mesh screens is inadequate since it introduces a bias against small size remains, particularly the small, fragile bones associated with fish. As a result, total samples collected during excavations for the purpose of zooarchaeological analysis should utilize 1.6 mm mesh screens. The preferred method of processing the sample material is by screening the sample through graduated, nested screens containing 6.4 mm, 3.2 mm, and 1.6 mm mesh screens. The screening can be performed dry or wet depending on the nature of the deposits and the preference of the zooarchaeologist. Flotation methods may also be employed depending on the sample. The three size fractions will be bagged and sorted separately. The zooarchaeologist in charge of the analysis may modify this approach to suit the specific research needs of the project. However, any modification or alteration must be justified in project research design.

The sorting of the faunal remains for each fraction is performed by lab personnel trained in faunal analysis, and is monitored by a lab supervisor trained in zooarchaeological identification. Faunal remains are identified to the lowest possible taxonomic classification. Fragment counts and weights are recorded for the various identified fauna, and MNI (Minimum Numbers of Individuals) counts will also be recorded. Totals, percentages, and estimated biomass for each faunal category are calculated and reported in tabular form. Estimates of species diversity and equitability are also calculated using the Shannon-Weiner Diversity Index and the Sheldon Equitability Index. These represent minimum data requirements for faunal analysis. Other analyses are conducted as appropriate to meet project needs.

4.7.2.6 Botanical Analysis

The analysis of botanical remains from archaeological sites is a relatively recent development within the discipline. Because plant remains are extremely fragile and do not preserve well, sample collection, processing and analysis are highly specialized. If botanical remains are expected at a site, and analysis is contemplated, the services of an individual trained in the techniques of archaeobotany should be retained to direct this phase of the project. The archaeobotanist is responsible for directing the collection of samples, processing the samples (including flotation, if necessary), and the identification and analysis of botanical remains.

4.7.2.7 Data Analysis

The level of data analysis necessary to meet project needs will be dictated by the research questions identified in the project research design and the data classes recovered by the excavation. Minimally, spatial and vertical patterning in artifact distributions will be identified and analyzed. These are portrayed in tabular and graphic formats as appropriate.

4.7.3 Curation

At the completion of the project, all archaeological collections, including material remains (i.e., artifacts, objects, specimens and other physical evidence that are excavated or removed) and associated documentation (field notes, maps, photographs, artifact inventory and analysis forms, etc.) are prepared for permanent storage and curation. Curation means caring for artifacts and data in a curatorial facility. For federal undertakings, archaeological collections must be managed and preserved in accordance with the regulations set forth in [36 CFR Part 79, Curation of Federally-Owned and Administered Archaeological Collections](#). In accordance with the guidelines for selecting a repository, as per Section 79.6(b) of the regulations:

- (1) *When possible, the collections should be deposited in a repository that:*
 - (i) *Is in the State of origin;*
 - (ii) *Stores and maintains other collections from the same site or project location;*
or
 - (iii) *Houses collections from a similar geographic region or cultural area.*
- (2) *The collection should not be subdivided and stored at more than a single repository unless such subdivision is necessary to meet special storage, conservation or research needs.*
- (3) *Except when non-federally-owned material remains are retained and disposed of by the owner, material remains and associated records should be deposited in the same repository to maintain the integrity and research value of the collection.*

Associated records must be archivally processed and placed in archival quality primary and secondary containers, in compliance with 36 CFR Part 79. The creation of a master collection inventory and database is also suggested. Archaeological collections from sites on state-owned lands are curated at the Florida BAR. Contact the Bureau Curator for recommended procedures for collections processing and storage.

For all other projects, follow the general guidelines provided as follows. All artifacts should be cleaned, dried, stabilized, and packaged in 4 mil, recyclable, polyethylene plastic bags with sealable closures with provenience information and FS numbers clearly and legibly marked on the exterior of each bag in water proof ink. Any samples requiring special treatment are packaged separately and the special instructions are written on the exterior of the storage box and noted on the typed catalog. Place artifacts and records in storage boxes with the following information written on the exterior of each box:

- Project name(s) and agency number (if applicable)
- Florida Master Site File number(s)
- List of FS numbers included in the box

A typed FS log sheet that contains each individual FS listed in numerical order with a brief description of the contents of each bag should be submitted to the designated repository for

curation along with the boxed artifacts for each site or project. In addition, a typed catalog of all materials (artifacts and other data) should be prepared and submitted.

All original fieldnotes, maps, photographs, and other documentation should accompany the collections of artifacts and other materials. Any oversize maps or aerial photographs are rolled and stored in cardboard map tubes.

In accordance with Rule 1A-46, F.A.C., the curation location of artifacts and project records must be addressed in the project report.

4.8 DOCUMENTATION

All archaeological excavation projects result in a detailed technical report that presents the findings of the excavation clearly, completely, and professionally. The purpose of the report is to preserve for future use by researchers and the interested public, the significant information retrieved from archaeological sites affected by federal undertakings or project-related activities. In many cases, the archaeological excavation report will constitute the only record of the site and its contents that will remain for future researchers. Therefore, the report should describe completely, and in a clear and concise fashion, the excavation techniques, recording methods, stratigraphic and spatial relationships, environmental relationships, and analytical techniques employed, and should strive to place the site within its cultural, temporal, and environmental contexts.

The excavation report shall be prepared consistent with the: [Secretary of the Interior's Standards and Guidelines for Archaeology and Historic](#) and shall meet current scientific standards. A copy of the final report must be provided to the SHPO for review and comment. Allow 30 days for review.

It generally is the DHR/SHPO's recommendation that agencies NOT (1) issue final development orders or permits, or (2) grant funding assistance, or (3) take any other action that would allow an adverse project impact to significant sites until the mitigation work has been completed and the results have been reviewed and accepted by the DHR/SHPO. Occasionally, this acceptance may occur prior to completion of the analysis and report provided that there is a firm guarantee that a final report will be completed by a stipulated date and that a copy of that report will be provided to the DHR/SHPO.

The formatting and report contents of the Phase III Mitigative Excavation Report are essentially the same as those for the Phase II Test Excavation Report, except in degree and detail. For mitigative excavation project reports, it may be appropriate to have specialists conduct pollen analysis, geological or geomorphological studies, faunal analysis, ethnobotanical studies, chronometric dating, etc. The results of such work may be included as chapters or as appendices to the report. In the Conclusions and Recommendations section of the report include (1) a summary of project findings and (2) the possibility of setting aside a portion of the site for preservation, where possible. Also include a discussion of site

function and how and in what manner the information furthers our understanding of the historic contexts represented.

The Results section of the report will typically be the most variable as it is dependent on the type of site, the nature of the research design, and the data classes recovered and analyzed. It should include both description and interpretation. At a minimum, all Phase III Mitigative Excavation Reports should contain the following information:

- A description of site stratigraphy
- A discussion of site formation and transformation processes
- A description of all excavated features
- A description of artifact classes
- Reports of any special analyses such as botanical, faunal, soils, etc.
- A discussion of spatial and temporal distributions
- A section that summarizes the results in an interpretive framework

Please see **Section 3.6** for a general outline of report contents.

5.0 THE NRHP AND EVALUATING SITE SIGNIFICANCE

5.1 INTRODUCTION

As part of the Section 106 review process, after archaeological sites and historic resources have been located and identified, the assessment process continues with the evaluation of all sites. A survey that simply locates and describes sites without adequately evaluating their significance in terms of the eligibility criteria for listing in the [NRHP](#) is not a CRAS, and will not be found to be complete or sufficient by DHR reviewers.

5.1.1 NRHP Program Description

The NRHP is an official listing of historically significant sites and properties throughout the country which is maintained by the NPS under the Secretary of the Interior. The NRHP program is administered at the state level by the SHPO, with the staff support of the Survey and Registration Section of the Bureau of Historic Preservation. NRHP listed and eligible properties can have significance at either the national, state, or local level. Historic properties of exceptional national significance may qualify for designation as NHLs. All NHLs are automatically listed in the NRHP.

The NRHP is used primarily as a planning tool in making decisions concerning the development of our communities to ensure, as much as possible, the preservation of buildings, sites, structures, and objects that are significant aspects of our cultural and historic heritage. Listing in the NRHP encourages the preservation of significant historic resources by providing official recognition of the historic significance of the property at the national, state, and/or local levels, and encouraging consideration of its historic value in future development planning. In addition:

- The NRHP **identifies** the properties that local, state, and federal planners should carefully consider when developing projects. Projects involving federal funding, permitting, licensing, or assistance and that may result in damage or loss of the historic values of a property that is listed or eligible for listing in the NRHP are reviewed by the SHPO and the ACHP. A similar review takes place under state law for state or state-assisted undertakings, as detailed in Module Two.
- Listing may make a property eligible for a **Federal Income Tax Credit**. If a registered property that is income-producing undergoes a substantial rehabilitation carried out according to the Secretary of the Interior's Standards for Rehabilitation, the owner may apply for a 20% income tax credit. The credit amounts to 20% of the cost of rehabilitation. For more information, contact the Architectural Preservation Services Section at (850) 245-6333.
- In 1992, the Florida Legislature passed a law that allows counties or cities to grant **ad valorem** tax relief for owners of properties that are listed or eligible for listing in

the NRHP or in a local district. When a property is improved, its value is increased and the assessment is raised accordingly. The ad valorem tax legislation provides that the increase in the assessed value of the improved property will be exempted for up to 10 years from taxation for those portions of the tax bill affected by local option county or municipal exemption ordinances. This provision is available for both income and non-income producing properties.

- Listing may make a property exempt from certain **Federal Emergency Management Act (FEMA)** requirements and eligible for some **American Disabilities Act (ADA)** and **building safety code** adjustments. For more information, call the Architectural Preservation Services Section.

On the other hand, listed or being determined eligible for the NRHP does **NOT** automatically preserve a building, and does not keep a property from being modified or even destroyed. In addition, private property owners may deal with their property in any way they see fit, unless an undertaking is state or federally funded, or regulated by local ordinance. Private owners are not required to open their listed property to the public for visitation. Further, the federal and state governments will not attach restrictive covenants to a property or seek to acquire it because of its listing in the NRHP.

Guidance in applying the NRHP criteria, as well as guidelines for evaluating a variety of property types, is provided in a number of "[How To](#)" [Bulletins](#) published by the NPS. The majority of bulletins are offered free of charge from Interagency Resources and can be ordered by writing: NRHP, National Park Service, U.S. Department of the Interior, P.O. Box 37127, Washington, D.C. 20013-7127. Basic information, application to most property types, is contained in the following publications:

- [Bulletin 15](#): How to Apply the NRHP Criteria for Evaluation
- [Bulletin 16A](#): How to Complete the NRHP Registration Form
- [Bulletin 16B](#): How to Complete the NRHP Multiple Property Documentation Form
- [Bulletin 21](#): How to Establish Boundaries for NRHP Properties
- [Bulletin 22](#): Guidelines for Evaluating and Nominating Properties That Have Achieved Significance Within the Last Fifty Years

5.1.2 Nomination Procedures

The nomination of historic resources in Florida for listing in the NRHP is a function of the SHPO. Anyone interested in having a property listed may submit a nomination proposal that meets the NRHP standards. It is the responsibility of the person submitting the proposal to provide the necessary information and materials. The staff of the DHR is available for consultation on the preparation of proposals.

Upon receipt of a nomination proposal, the following procedures will be carried out:

- The nomination proposal and all accompanying documentation will be evaluated by the professional staff of the Bureau of Historic Preservation. If possible, a staff member will visit the site as part of the evaluation process.
- The owner(s) of the property and the chief local elected officials will be notified in writing that the property is being proposed for nomination and given the opportunity to comment on the property.
- The proposal will be submitted for consideration and recommendation by the Florida NRHP Review Board which is charged with reviewing all nomination proposals to the NRHP for the State of Florida.
- Upon the favorable recommendation of the Review Board, a formal nomination will be prepared for the submission by the SHPO to the Keeper of the NRHP in Washington, D.C. Special procedures also exist for processing proposals when the Board and the SHPO do not agree on the eligibility of the property for listing.
- The Keeper and his/her staff undertake the final review and make the final decision whether or not to list the property. If the owner of a private property objects to the nomination, the property will not be listed, but the site may be submitted to the Keeper for a formal determination of eligibility for listing.
- The owner is then notified in writing as to the final decision.

5.2 THE NRHP CRITERIA FOR EVALUATION

The NRHP criteria for evaluation, as described in the *Code of Federal Regulations*, [36 CFR Part 60.4](#), are listed below. These criteria are worded in a manner to provide for a wide diversity of resources.

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and:

- A. *That are associated with events that have made a significant contribution to the broad patterns of our history; or*
- B. *That are associated with the lives of persons significant in our past; or*
- C. *That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or*
- D. *That have yielded, or may be likely to yield, information important in prehistory or history.*

5.3 STATE SIGNIFICANCE CRITERIA

In general, the NRHP criteria are subject to very broad interpretation, and were purposefully designed to allow the development of specific guidelines on a local basis. Accordingly, the following criteria for evaluating the significance of archaeological sites and historic structures in Florida were prepared by Louis D. Tesar of the DHR (1987, 1990). As per this guidance, an archaeological site or historic resource will be considered significant if:

1. *It has already yielded important data and can be expected to yield additional data;*
2. *It is in good condition and can be considered to be among the best known examples of the identified type of site known for the historic context in which it occurs;*
3. *It is atypical or rare, and thus considered to contain data not represented at other sites;*
4. *It is located such that it represents a good opportunity for interpretation and public display; and/or*
5. *It is associated with other sites such that as a group or district they are:*
 - a. *representative of sites relating to socio-political, religious, subsistence, settlement, etc. activities of a historic context.*
 - b. *A typical example of such groupings but in a good or excellent state of preservation;*
 - c. *A rare or exceptional example of such site groupings;*
 - d. *Located such that they represent a good opportunity for interpretation and public display; and/or*
 - e. *Offer an opportunity to yield data important to understanding the area's history or prehistory.*

A site will NOT be considered significant if it is extensively damaged or altered and/or is so similar to sites already studied that it is unlikely to contain new information. The exception would be a site associated with a famous historical event or person.

5.4 NRHP CRITERIA CONSIDERATIONS

Some types of cultural resources are not considered eligible for the NRHP unless they meet special considerations. Ordinarily cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the NRHP. However, such properties **will qualify** if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

- A. *A religious property deriving primary significance from architectural or artistic distinction or historical importance; or*

- B. *A building or structure removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or*
- C. *A birthplace or grave of a historical figure of outstanding importance if there is no appropriate site or building directly associated with his productive life; or*
- D. *A cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or*
- E. *A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; or*
- F. *A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own exceptional significance; or*
- G. *A property achieving significance within the past 50 years if it is of exceptional importance.*

According to guidance promulgated by the ACHP (1995), in the case of highly technical and scientific facilities, the 50 year old criteria is not a fast and hard rule. Similarly, there is more latitude allowed with regard to the aspect of integrity, as discussed in the following section.

5.5 INTEGRITY

In order to be listed in the NRHP, a cultural resource must meet Criterion A, B, C, or D **and** must possess **integrity**. According to the "Guidelines for Applying the NRHP Criteria for Evaluation" contained in [NRHP Bulletin 15](#), integrity is "*the authenticity of a property's historic identity, evidenced by the survival of physical characteristics that existed during the property's historic or prehistoric period.*" The NRHP criteria specify that integrity is a quality that applies to historic and prehistoric resources in seven ways: **location, design, setting, materials, workmanship, feeling, and association**. These aspects, or qualities, of integrity, are defined below.

- **Location:** *The place where the historic property was constructed or the place where the historic event occurred.*
- **Design:** *The combination of elements that create the form, plan, space, structure, and style of a property.*
- **Setting:** *The physical environment of a historic property.*
- **Materials:** *The physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.*
- **Workmanship:** *The physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.*
- **Feeling:** *A property's expression of the aesthetic or historic sense of a particular period of time.*
- **Association:** *The direct link between an important historic event or person and a historic property.*

Analysis of integrity should be based on careful research in terms of both documentation of the property's history, and physical inspection of the property. For properties important for their information potential, such as most archaeological sites, integrity depends on the presence of those parts of the property which contain the important data and which survive in a condition capable of yielding important information. Comparative information about similar sites that have survived should be considered during the evaluation of integrity. For example, a partially disturbed prehistoric site, which nevertheless retains some information on the form and function of bone tools, may be eligible if it can be shown that the information contained in that site is important because bone preservation is almost unknown in the region.

A historic structure important for its expression of a particular architectural style must have retained most of the physical features that compose that style to be eligible. For example, while it may have lost some detailing or a limited amount of historic materials, the property must retain the majority of the features that are essential to illustrate the style in terms such as massing, spatial relationships, proportion, pattern of windows and doors, texture of materials, and ornamentation.

For scientific and technical resources with historic value, given the nature of the scientific process, few such facilities will remain completely unaltered for any period of time (ACHP 1995:5). In the case of most such properties, "there shall be continuity in function, and thus in integrity of design and materials, and there may always be integrity of association" (ACHP 1991:33).

5.6 WHAT IS A SIGNIFICANT CULTURAL RESOURCE?

5.6.1 Archaeological Sites

According to Dr. Thomas King:

Archaeological properties do not have to be large, impressive, or rich in artifacts or data to qualify for the NRHP, nor do they have to be suitable for public interpretation. Any archaeological resource is potentially eligible if one can legitimately argue that it is likely to be associated with a cultural pattern, process, or activity important to the history or prehistory of its locality, the United States, or humanity as a whole, provided its study can contribute to an understanding of that pattern, process, or activity.

Usually, archaeological sites are evaluated as eligible or potentially eligible for NRHP listing under Criterion D; that is, the sites are considered to have the ability to yield information important in prehistory or history. Criteria A and B may also apply for individual sites. For example, the archaeological remains of a historic battlefield may be considered significant under both criteria A and D if associated with a significant event (e.g., the Second Seminole War) and if it retains research potential. Criterion C may be considered when an

archaeological site (or association of sites) embodies the distinct characteristics of a type, period, or method of construction. This criterion is especially applicable if similar examples of the type are rare or poorly preserved. For example, the rarity of a Paleoindian base camp that possesses good contextual integrity would qualify the resource as a good candidate for NRHP listing under Criterion C.

In order to be evaluated as eligible or potentially eligible for NRHP listing, an archaeological resource must have demonstrated potential ability to yield important information. The reasons why a site has important research potential must be articulated very carefully in language that other people can understand. What important research questions can be answered by the data contained in the site? Additionally, whether a site is significant can only be made within the context of an area's prehistory or history. So, the historical context is crucial to the evaluation. Historic contexts for use as the framework within which to apply the NRHP criteria for the evaluation of specific types of sites is available on-line at http://dhr.dos.state.fl.us/bar/hist_contexts/comp_plan.doc. Finally, the resource must possess integrity as well as significance.

In general, two types of information are critical for an evaluation of eligibility: **contextual data** and **descriptive data**.

- **Contextual data** are information that place the site within a framework. Assumptions about age, cultural affiliation, and function should be substantiated with supporting data.
- Types of **descriptive data** required for site evaluation include, but are not limited to, site location, boundaries, and size; internal composition (subareas, features, strata, artifacts, attributes); the surrounding natural environment; and disturbances/intrusions (i.e. proposed development, agricultural practices, erosion, vandalism, urbanization).

The following example illustrates the contents of a well-prepared significance statement for an archaeological site considered potentially eligible for listing in the NRHP under Criterion D.

The Colorado Site, 8HE241, is an extremely large and complex archaeological site. The artifacts recovered from or observed at 8HE241 indicate that lithic procurement and initial reduction activities, tool manufacture and maintenance activities, and general camp maintenance activities took place at the site. The density and distribution of artifacts at the site reflect either numerous short-term occupations of 8HE241 or, given its complex environmental configuration and location in relation to other resources in the vicinity, more permanent occupations of the site perhaps on a seasonal basis. The one pottery sherd recovered from a shallow depth at 8HE241 indicates occupation of the site at some point between 1200 B.C. and historic times. The great depth of the artifact deposit in other areas of the site argues for considerably earlier occupations of 8HE241, most likely during the middle to late stages of the Archaic Period. Some portions of the site have undergone varying

degrees of disturbance due to land clearing activities, road construction, and limited development while other portions of the site remain in a natural state.

8HE241, based on data resulting from the present survey, is considered to contain information that would substantially contribute to a more complete understanding of the prehistory of the region. The site is considered significant for a number of reasons. First and foremost, perhaps, is the fact that 8HE241 can provide valuable information concerning the full range of lithic reduction process from activities involved with raw material acquisition to those involved in the maintenance of finished products. Furthermore, such activities appear to occur in relatively discrete areas of 8HE241, providing the opportunity for an increased understanding of the intra-site patterning of such activities, i.e. of their organization and placement within the site system. It is also considered that data regarding tool function at 8HE241 will be generated in sufficient quantity to provide increased information concerning aboriginal activities such as resource procurement and processing and general camp maintenance. Again, the survey suggests that 8HE241 could also provide information concerning the intra-site patterning of such activities.

. . . 8HE241 would have provided one of the nearest locations from a coastal perspective for obtaining a critical raw material, i.e. chert, to support aboriginal activities in the coastal areas, west of the site. . . . It is believed; therefore, that 8HE241 has the potential to provide information concerning coastal/inland or lowland/upland aboriginal mobility and adaptive strategies.

Finally, it should be noted that 8HE241 is the largest and most complex of the twenty-one archaeological sites located in the SR 50/50A survey. No site of similar type and size has been professionally excavated in the region. For all of the reasons noted above, it is recommended that additional work should be carried out at the Colorado Site and further recommended that the site should be considered eligible for listing on the NRHP.

In some cases, the level of information resulting from the cultural resource assessment survey may not be adequate to actually establish whether a site is significant. Phase II archaeological test excavation (See Section 3) may be necessary to evaluate eligibility and to determine both horizontal and vertical site boundaries. If the site extends beyond the study area, Phase II should be confined within the project APE.

5.6.2 Historic Resources

The significance of historic structures is usually evaluated under Criterion A (association with historic events); Criterion B (association with important persons); or Criterion C (distinctive design or distinguishing characteristics as a whole). Often, more than one criterion applies to historic structures. For example, a historic residence may be distinguished for both its original occupant (i.e., pioneer in the women's suffrage movement), as well as its architectural style (i.e., the only surviving example of the Queen Anne style for the county).

In any evaluation of eligibility, it is critical that the following items are addressed and justified:

- Boundaries
- Significance and the applicable NRHP criteria
- **Contributing** and **noncontributing resources** when the historic property contains more than one historic feature, or when there is a historic district

5.6.2.1 Boundaries

The determination of boundaries is a critical consideration because it will have direct bearing on the assessment of the project's effect on the historic structure. According to the information contained in [NRHP Bulletin 16](#):

Carefully select boundaries to encompass, but not exceed, the full extent of the significant resources making up the property. The area . . . should be large enough to include all the features of the property, but should not include "buffer zones" or acreage not directly contributing to the significance of the property.

In general, the boundaries should be selected based upon historical significance and remaining integrity. For historic structures in rural settings, boundaries may be set smaller than the legal parcel as long as the boundaries include historically associated land that conveys the setting.

5.6.2.2 Significance and the NRHP Criteria

The evaluation of significance is important because the qualities defined will be used in the assessment of project effect. Significance should relate to the historic context described for the project area or broad themes identified. The formal statement of significance must refer to the specific NRHP criteria and provide facts on how the historic structure meets the criteria. It must also address integrity. When properly applied, lack of integrity will disqualify a structure from eligibility, regardless of other considerations.

[NRHP Bulletin 16A](#) lists 30 categories as areas of significance, ranging from Agriculture to Transportation to "Other." What historical associations does the resource have, and to what degree? Are there other similar resources in the area that are more significant? For resources that are significant under Criterion C, they need to have retained a high degree of physical integrity so as to illustrate what makes them significant. There is more leeway in physical integrity for resources significant under the other criteria.

5.6.2.3 Contributing and Noncontributing Resources

Within the defined boundaries of a historic district or some individual historic structures, there will be elements that do and do not represent or embody the characteristics making the property significant. It is critical in the assessment of effects that these elements are identified and documented in the project area. Contributing resources may include landscape features, street design elements such as lighting, and any element that may sustain the feeling and character of the resource.

A **contributing** building, structure, or object adds to the historic associations or historic engineering or architectural qualities for which the property is significant because:

- It was present during the period of significance, relates to the documented significance of the property, and possesses historic integrity or is capable of yielding important information about the period; or
- It independently meets NRHP criteria.

A **non-contributing** building, structure, or object does not add to the historic engineering or architectural qualities or historic associations for which a property is significant because:

- It was not present during the period of significance or does not relate to the documented significance of the property;
- Due to alterations, disturbances, additions, or other changes, it no longer possesses historic integrity or is capable of yielding important information about the period; or
- It does not independently meet the NRHP criteria.

Other Considerations: Some other pertinent considerations when evaluating the eligibility of historic properties for listing in the NRHP include the following:

- Look at the resource in its present state and also look at what it could be with a little rehabilitation. Be reasonable, because almost any somewhat significant historic building, given enough money and time for restoration, could be considered potentially eligible for the NRHP.
- Look at the historic physical integrity of the resource. If the resource is a building or a structure, how much of the historic fabric of the building's exterior is left? How extensive are the alterations and additions? If 50 percent of the building's exterior fabric is modern, you could make a strong case against its eligibility. If nonhistoric

additions cover more area than the resource itself, or if the primary elevation (usually the street elevation) is enshrouded by a modern addition, the building should not be NRHP eligible.

- Look at the present location and setting of the resource. Is it in its original location? Although relocation does not disqualify a resource from being NRHP eligible, it can be a factor. Also look at the setting, including adjacent property as well as the property in which the building is sited. Has its setting changed in a way that would affect the resource's eligibility? Another important aspect of physical integrity is the condition of the resource. If it is in deteriorated or ruinous condition, especially to the point where it cannot be rehabilitated, this will affect its eligibility.
- For a historic district, look at the density of older buildings. If at least 70 percent of the lots have historic buildings on them, the area may comprise a district. Next look at the physical integrity of the individual historic buildings within the district. Generally speaking, buildings in districts may be more altered than individually eligible buildings. Even buildings with little or no historic exterior fabric remaining have been considered as contributing structures to the NRHP if they are in scale and character with the other historic structures. Despite their alterations, they enhance the historic feel of the area.
- For resources previously determined to be eligible or ineligible for the NRHP, passage of time may require re-evaluation of site significance.

5.7 NOMINATING SITES TO THE NRHP

This section incorporates the guidance contained in the DHR's Guidelines for the Preparation of the Florida NRHP Nomination Proposal.

5.7.1 Preliminary Steps

Before you start to prepare the nomination, follow these steps to help avoid unnecessary time, energy, effort, confusion and frustration.

Step 1: Remember that the proposal must document both basic requirements for NRHP listing: (1) that the resource possess significant historic associations that satisfy the NRHP eligibility criteria, and (2) that the resource retains integrity (See Section 8.5.5)

Step 2: Read all the instructions first, so that you understand what information is required.

Step 3: Contact the owner(s) of the property. Advise them of your intention to prepare a nomination proposal, provide information on the NRHP program, and advise them of their right to object to its listing in the NRHP. Arrange for access to the grounds and significant interior spaces.

Step 4: Make a preliminary visual survey of the site, sketch the preliminary boundaries of the historic property, and photograph the property and the features to be included in the proposal. Make a list of all man-made features within and immediately adjacent to the preliminary boundaries. Identify **both** those you feel reflect the historic significance of the property, and those which do not contribute to its significance.

Step 5: Gather background information on the history of the property and how it fits into the historic development of the community. Look for documentation that will help you determine:

- **What** historically significant events, activities or developments are directly associated with the property,
- **When** such events, activities or developments occurred,
- **Who** was responsible for the historically significant development or use of the property, and
- **How** the present physical appearance and character of the property reflect its historically significant associations.

5.7.2 Suggestions for Background Research

Sources where you may find some of the information you require include the following:

- The **property owner**. Often the owner has deeds, property abstracts, wills, letters, historic photographs, and family or other records or mementos relating to the history of the property, especially if it has remained in the family for several generations.
- **Libraries**. Local libraries as well as university and community college libraries, contain standard state and local histories. They may also contain (often in their Special Collections) a variety of promotional publications or other material of local historical interest, including newspapers.
- **Local or County Historical Societies or Historians;** These may be a good source for information regarding the site or the activities of persons associated with it.
- **County Courthouse:** Tax rolls, probate records, plat books, deeds and other official records are found here.
- **City Hall:** The city hall may have building permits, building plans, minutes of city council meetings, and Sanborn maps (which were used by fire insurance companies to determine which properties were insurable). Long time or retired city and county employee may also be helpful.

- **Newspapers:** These often have a “morgue,” a collection of past issues going back many years.
- **State Agencies:** The State Library of Florida, Florida Collection; the Florida State Archives; and the Florida Department of Environmental Protection, Division of State Lands, all located in Tallahassee, are also good sources for historical information.

5.7.3 Instructions for Completing the NRHP Registration Form

The following instructions discuss each section of the NRHP Registration Form, item by item.

1. Name of Property

Historic Name: Enter the name by which the property was known originally or during the period of its historic significance. (Often the name of the person who originally owned or developed the property.)

Other Names: Enter any common names by which it has been or is currently known.

2. Location

If the property is in a rural area, indicate the state or county road number and distance from the nearest highway junction, town, or prominent landmark. Check the box “not for publication” only if there is reason to protect the properties from vandalism. If there is no reason to keep the location confidential, put “N/A”. Check “vicinity if the property is located outside the limits of the nearest city or town; otherwise, put “N/A”.

3. Awareness Statement

When the preliminary draft is ready for submission, ask the owner (or appropriate official if the property is publicly owned) to complete and sign the statement.

4. Legal Description of Property

Provide the legal description of the property as it is officially recorded in the county Property Appraiser’s Office. This may be very short, merely listing the subdivision, block, and lot numbers, or quite lengthy. If necessary, continue the legal description on a separate sheet. Copy it exactly as it is recorded.

5. Classification

- a. Check the appropriate box under Ownership of Property.
- b. Check only one box under Category of Property.
- c. Indicate the number of contributing and non-contributing resource resources (man-made features) within the proposed property boundary.

Property Categories are defined as:

Building: anything constructed to shelter human activity, such as a house, barn, church, hotel, etc.

District: a concentrated group of buildings, sites or objects united historically or aesthetically by plan or physical development.

Site: location of significant prehistoric or historic archaeological remains, or of a significant historic event, e.g., Olustee Battlefield.

Structure: a utilitarian construction such as a wind mill, canal, vessel, fortification, etc. which differs from a building in that it was not designed primarily to provide shelter.

Object: a construction primarily artistic in character, and usually associated with its location, such as a sculpture, fountain, marker, monument, etc.

6. Function or use

Indicate major historic and current use first; list other uses in order of importance.

7. Description

Architectural Classification: Enter the architectural style, if applicable.

Materials: Enter the major visible materials used in each structural element listed.

Narrative description: Use separate sheets as necessary (no more than 3-5 pages for individual nominations, 3-10 pages for districts). Provide footnotes as appropriate. Begin with a brief summary paragraph that describes the property and its surroundings, note its major physical characteristics and assess the integrity of the property as it now exists, as compared with its original location, design, setting, materials, workmanship, feeling, and association. Your supporting paragraph should then provide a detailed description including the following kinds of information:

Setting: Describe the physical environment surrounding the property when it was originally developed. Describe the changes that have occurred over the years, and the surrounding environment as it exists today.

Contributing resources: Describe in detail each of the buildings, structures, or other resources that contribute to the significance of the property in order of their prominence or importance.

- Describe **exterior features** first, including:
- size, type, general configuration, and basic structural elements,
- architectural characteristics and design features, including distinctive decorative elements,
- structural and finish materials, and any significant or distinctive manner in which they are applied, and
- alterations that have changed the original appearance of the resource, when they were made, and why.

Describe the **interior** of contributing buildings and structures, including the arrangement and use of various spaces and any significant structural or architectural features. Explain any major alterations that have been made to the interior configuration or appearance.

Describe **ancillary resources**, such as outbuildings, masonry walls or landings, formal gardens, etc. that were a part of, and contribute to, the historic significance of the property.

For buildings or structures that have been moved, provide the date of the move and explain the reasons for and effect of the move on the historic character and appearance of the property and its setting.

Non-contributing resources: Provide a brief description of each non-contributing resource within the boundary of the property proposed for nomination, and a statement as to why it is not considered significant.

Archaeological resources: Contact the DHR staff for supplemental instructions regarding prehistoric or historic archaeological sites.

8. Statement of Significance

Applicable NRHP Criteria and Criteria Considerations: Check the boxes you considered appropriate.

Areas of Significance: Check the boxes which you think are applicable. Remember, each area claimed must be justified in the narrative statement of significance.

Period of Significance: Enter the period of time in which the property achieved the significance for which it meets the NRHP criteria. In each blank enter the years for the continuous period of time during which the property had significance, for example, 1875-1888.

Significant Dates: Enter the year of construction as closely as possible. If there are other significant dates, enter them in order of importance.

Significant Person: Enter the names of persons with whom the property is importantly associated. List the most important first.

Cultural Affiliation: For archaeological sites only.

Architect/Builder: Enter the names of persons or firms responsible for design and construction. If they cannot be identified, enter "unknown." Enter "N/A" for a district or site.

Narrative Statement of Significance: Use separate sheets (no more than 3-5 pages for individual nominations, 3-10 pages for districts). Be sure to justify each of the areas and periods of significance checked above. The purpose of the Statement of Significance is to place the property within its historical context, and to document its significance in the areas of significance checked above. Therefore, the sources of information must be identified by standard footnote practice. Begin the statement with a brief summary paragraph which states why the property is significant under the Criteria and areas of significance checked. Supporting paragraphs should then provide detailed information as to:

Historic context: Describe and discuss the general historical, economic, social, political or other circumstances prevailing in the community at the time the property was originally developed or became historically significant. What specific events or developments led to the construction or historic use of the property?

Historic significance: Discuss in detail:

- the significant role that the resource played in the historic development of the community or region in each of the areas of significance checked above.
- its association with specific historic events and development during the period of significance indicated, and
- the relationship of the resource to the activities of significant persons named above. Provide a brief biographical sketch of the persons named.

Remember that it is the resource that you are proposing for nomination, on the basis of its direct association with significant events or developments, and not the events themselves or the persons involved.

Architectural significance: Discuss the manner in which the building or structure reflects:

- significant characteristics of structural, architectural, or engineering design and construction, and how they relate to contemporary trends and developments in architectural style and engineering technology,
- the application of contemporary materials, methods of construction, and workmanship, and
- if applicable, the involvement of or association with prominent architects, engineers, planners, or developers in relation to their other achievements.
- Include a statement comparing this property with similar properties in the area, and indicate why this property is worthy of special consideration.

Archaeological significance: Contact the DHR staff for supplemental instructions regarding prehistoric or historic archaeological resources.

9. Major Bibliographical References

On a separate sheet, list the major primary and secondary sources used in your research, using the standard bibliographical style such as *The Chicago Manual of Style* or *A Manual For Writers* by Kate Turabian. For unpublished manuscripts, be sure to indicate where they are available. For interviews, include the date of the interview, name, title, and location of the person interviewed. Cite any previous studies of the property.

10. Geographical Data

Acreage of Property: Give the nearest acre, such as less than 1 acre, or 47 acres.

Verbal Boundary description: If the proposal includes all of the area defined by the Legal Description, enter “See Legal Description” Item 4.” If the proposal includes only a part of the parcel defined by the Legal Description, enter “See Attached Site Plan,” and make sure that the boundaries are clearly drawn on the site plan as required under Additional items below.

Boundary Justification: Briefly explain the rationale behind your selection of the boundary.

11. Form Prepared By

Please provide complete information. Be sure to include the telephone number at which you can be reached during normal working hours.

5.7.4 Additional Documentation

Continuation Sheets: Identify each sheet by subject and page number.

Maps: Provide both a clean, unmarked USGS map for the area in which the property is located, and a sketch map clearly showing the location of the property in the community or in relation to readily identifiable rural landmarks.

Photographs: Photographs must be unmounted, black and white processed, glossy prints on black and white photograph paper, 4 x 6 inches or larger. Two copies of each print are

required. Digital/scanned photographs are not acceptable, nor are photographs developed using color processing. Photographs should include:

- An overall view of the property, showing all or as many resources on the property as possible,
- Each elevation (front, sides, rear) of each contributing resource,
- Major interior spaces of each contributing building or structure,
- Close-up shots of significant or unusual decorative or structural details on the exterior or interior of the property,
- One exterior view of each non-contributing resource within the boundaries. The photograph should show as much of the resource as possible (usually the front and one side).

Photo identification: Do not write on or attach permanent labels to the front or back of photographs. Removable labels such as Post-It-Notes may be attached to the back. The following information is required for each photo:

- Name of property and street address
- City and County where located
- Name of photographer
- Date of photograph
- Location of original negative (or print from which historic photo has been copied)
- Description of view (direction in which camera is facing)
- Number of photograph in the sequence (i.e., 1 of 10)

5.8 PREPARING MULTIPLE PROPERTY SUBMISSIONS

5.8.1 Introduction

Neighborhoods, cities, counties, regions, a state, region of the country, or the whole country sometimes have historic properties that are related by their common histories, functions, or designs. These properties may not, however, be spatially associated in such a way as to meet the common definition of a historic district. The NRHP Multiple Property Submission (MPS) was devised as a means to efficiently nominate such properties. Guidelines for completing the Multiple Property Documentation Form are contained in the NPS's [Bulletin 16B](#). The following guidance, consistent with the information contained in this bulletin, was prepared by Barbara Mattick of the DHR Survey and Registration Survey.

The guidelines for completing a MPS are purposefully very flexible, and are meant to be applied to a wide variety of circumstances and types of resources. Nominations submitted as part of a MPS may be for **districts and/or individual properties**. Examples of typical MPS examples in Florida include:

- *Historic Architectural Resources of DeFuniak Springs, Florida, 1884-1942*
- *Historic Buildings of Middleburg, Florida*
- *Archaeological Resources in the Upper St. Johns River Valley, Florida*
- *Carpenter Gothic Churches in Florida, 1880-1900*

- *The Works of Architect Addison Mizner in Palm Beach County, Florida, 1924-1930*

5.8.2 Completing the Multiple Property Documentation Form

The overarching component of a MPS is the “**cover**” or “**cover nomination**,” created by completing National Park Service Form 10-900-b, “NRHP Multiple Property Documentation Form.” The cover serves as a basis for evaluating the NRHP eligibility of related properties. The form is broken down into nine sections, identified by the letters A through I.

Section A identifies the **name of the MPS**, which identifies the thematic group and their geographical location. The name also may indicate a time period.

Section B lists the **historic contexts** that are described in detail in Section E.

Section C identifies the **person(s) who prepared the form**.

Section D should be **left blank**.

Section E, the Statement of **Historic Contexts**, is a discussion of the major historical or cultural periods in which the properties in question were significant. These can include one period (context) or several. If there is more than one, they do not have to be continuations of one another. For example, in the MPS, *Historic Buildings of Middleburg, Florida*, the contexts are: (1) Initial Development to the Civil War, 1835-1860 and (2) Steamboat Era of Development, 1865-1915. There is a gap between the two contexts because there are no buildings in Middleburg which date from 1861-1864.

Section F is a discussion of the various **types of properties** that have been identified as relating to the times, places, and events discussed in the contexts. These are discussed as **Associated Property Types**. This section is very loosely defined to allow greater flexibility. Property types may be very general, such as “Residential Buildings in DeFuniak Springs, 1884-1919,” or more specific, such as “Wood Frame Buildings in Middleburg, Florida, 1835-1915.”

The first part of Section F should be a discussion of how each type is defined, including architectural styles of buildings. Each type should be discussed separately as F.1, F.2, F.3, etc. For example, the MPS for *Archaeological Resources in the Upper St. Johns River Valley, Florida* has three associated property types: F.1 Accretionary Middens or Midden Mounds, F.2 Burial Mounds, and F.3 Cemeteries.

The description of the type is followed by a statement of why the property type is significant, and a discussion of the qualities or levels of preservation that must be present to make individual examples of that type eligible for nomination. These requirements usually include the properties’ locations within the prescribed geographical area; their time of significance, falling within one or more of the defined contexts; and their level of integrity (how much

they reflect the condition they were in during the period of significance). This usually refers to the degree of alteration, or, for archaeological sites, level of vandalism.

Section G describes the **geographical area** to be included. The area may be as limited as a single block, or as broad as the whole United States. The most common areas, however, are city limits, county boundaries, regions within a state, or a state.

Section H is a Summary of the **Identification and Evaluation Methods**. This section discusses what steps and processes were followed to arrive at the information provided in Sections E and F, and what kinds of research were done, when, and why, and by whom.

Section I is a listing of the **Major Bibliographic References**. This should not include every work used or examined, but only the ones that provided important information. Full bibliographic citations must be provided, including the author, title, place of publication, publisher, and date of publication. Standard bibliographic formats, such as *A Manual For Writers* by Kate Turabian, *The Chicago Manual of Style*, or *American Antiquity* should be used.

Once the cover is completed, nominations can be submitted for individual properties or districts. Properties nominated “under a cover” must meet the requirements as defined by the cover, i.e., they must:

- Be within the defined geographic area;
- Have been significant during one or more of the historic contexts;
- Be one of the property types; and
- Meet the requirements for eligibility as defined in Section F.

The actual nomination of the individual properties is greatly abbreviated because, instead of including a full discussion of the historic contexts and property types, references are made to the cover, usually in the summary statements. Examples of summary statements for a historic house and an archaeological site are as follow:

Built in 1887, the Perry L. Biddle House is associated with the Chautauqua-Era Development, 1884-1919, as outlined in the historic contexts of the Historic Architectural Resources of DeFuniak Springs Multiple Property cover. The building is also associated with the F.1 property type of the DeFuniak Springs Multiple Property cover, Residential Buildings of the Chautauqua-Era, 1884-1919.

Persimmon Mound is significant under the Woodland, Archaic, and Mississippian contexts, and under Associated Property Type F.1, Accretionary Middens or Midden Mounds, as defined in the cover for the multiple property submission, Archaeological Resources in the Upper St. Johns River Valley, Florida.

The MPS format is open-ended, meaning that once it has been accepted and on record with the NPS’s NRHP office, it can be modified through the addition of other properties that meet the criteria established in the cover. The same abbreviated type of documentation can be

used as long as the nomination references the background information as other contexts or types of properties are identified.

Although the amount of text required for individual or district nominations submitted under this format is shorter, the level of integrity or significance required for these properties is not diminished. Each property must meet the same levels of documentation and integrity it would have to meet if it were being nominated independently. The MPS format is simply an easier way to complete the paperwork, and a way to eliminate unnecessary repetition of information.

5.9 REQUESTS FOR DETERMINATION OF ELIGIBILITY

A formal request for a determination of eligibility (DOE) is made whenever any historic property located during the cultural resource assessment survey is found to be potentially eligible for NRHP listing. This request requires the NRHP Registration form of the National Park Service (Form 10-900, Oct. 1990). This form may be obtained from the SHPO's staff. [NRHP Bulletin 16A](#) provides general guidelines for completion of this form and [NRHP Bulletin 16B](#) provides additional information regarding multiple property determinations. Typically, however, a DOE request contains only the minimum information necessary for the SHPO to reach a consensus concerning NRHP eligibility, and the required photos only include 3½" x 5", as opposed to a standard NRHP nomination.

The DOE request form can be used to present a case for or against a historic resource's eligibility. The DOE request is particularly useful when a resource's eligibility is unclear, for it gives the forum for presenting both sides of the argument. Furthermore, the DOE request is used to spell out the reasons why a resource is not considered to be NRHP eligible. If questions arise about the eligibility of a given property, an agency (e.g., U.S. Air Force, FDOT) may seek a formal determination of eligibility from the NPS. Section 106 review gives equal consideration to properties that have already been listed in the NRHP, as well as those that have not been so included, but that meet NRHP criteria.

6.0 EFFECTS DETERMINATIONS AND CASE REPORTS

6.1 OVERVIEW

Under the revised Section 106 regulations, the old determination of effects step is combined with the identification of historic properties. Therefore, the identification of historic properties (Step 2 in the Section 106 process) is closed by making and documenting a formal finding of either:

No Historic Properties Affected
or
Historic Properties Affected

No Historic Properties Affected means that either:

- there are no historic properties within the project area of potential effect (APE), or
- there are historic properties present, but the undertaking will not have any effect upon them.

The finding of No Historic Properties Affected under the revised Section 106 regulations **substitutes for** both the original findings of “**No Significant Resources Present**” and “**No Effect**” used under the old Section 106 regulations.

Historic properties affected means that NRHP-listed or eligible properties have been identified within the project APE, and the federal agency, in consultation with the SHPO and any other consulting parties, determines whether or not the proposed undertaking may adversely affect the historic resources.

As a general rule, effects are not discussed in the CRAS, but in a **Section 106 Consultation Case Report**. This report is used to provide the concerned parties (agency, SHPO, ACHP, and others) with all pertinent information to assess effects. Although the language relating to the determination of effects is substantially changed in the revised Section 106 regulations, the process remains essentially unchanged.

6.2 SECTION 106 CONSULTATION CASE REPORT

6.2.1 Introduction

The Case Report serves as the preliminary documentation for determining potential effects and mitigation measures, and is used if the proposed undertaking is determined to have an adverse effect on the NRHP-listed or eligible properties. In addition, information in the Case Report may also be incorporated into future agreement documents, such as a MOA or a PA. Furthermore, for federally-involved projects, the Case Report serves as the ACHP project impacts review assessment, when necessary.

After the identification and evaluation process (documented in the CRAS Report), and in preparation for the formal determination of effects, all project alternatives are reviewed in relation to their potential impact to properties listed in or eligible for listing in the NRHP within the APE. Participants in this review process include the federal agency and SHPO. In addition, the agency must consider views provided by any of the other consulting parties (e.g., appropriate local governments) and the public. The means of presenting the relevant information on potential impacts to significant historic properties is through preparation of a Case Report. This is often performed by a consultant working on behalf of the federal agency.

6.2.2 Components of the Case Report

Typically, the Case Report provides the following information:

- A general description of the project, including its necessity and benefits. The description of the project also discusses the various project alternatives that have been proposed.
- A context description for evaluating NRHP-listed or eligible archaeological sites and historic resources. This context is generally presented as a description of the physical, environmental, and cultural settings.
- Identification of the NRHP-listed or eligible properties that may be affected by the project, i.e., those included in the established APE. This can be a summary of the physical description (present and historic) as well as areas of significance, as presented in the NRHP Nomination form or DOE Request form (which should be included in the Appendix of the Case Report).
- A description of proposed project alternatives and an analysis of each. Include all alternatives that would avoid or minimize any potential adverse effect to the NRHP-listed or eligible properties. Show evidence of "a good faith effort" by the agency to evaluate alternatives by giving a full description of each, not simply stating that an alternative was considered and determined not to be feasible. Always include an evaluation of the No-Build alternative, if relevant, as a point of reference for evaluating the other proposed alternatives.
- A description of the preferred alternative and reason(s) it was selected. Present this in a narrative and visual format. Show the physical relationship of the preferred alternative to all NRHP-listed and eligible properties. This is often presented through the use of aerial photographs or site plans depicting: 1) NRHP property boundaries, 2) location of NRHP contributing structures or objects and other significant features such as landscaping, roads, or paths, and 3) geographical limits of the proposed project.

- A discussion of potential effects to each property based on the preferred alternative. Apply this discussion to the design options for the preferred alternative.
- A description of the preservation measures proposed to avoid adverse effects, or the reasons why avoidance of adverse effects are not possible. Also include a discussion of proposed mitigation measures for any adverse effects. These issues also can be summarized in the conclusions of the Case Report.

Graphics within the report format, such as photographs, photo-simulations, and maps, are important tools to supplement the narrative material.

6.3 DETERMINING EFFECTS

Determining effect means applying the **Criteria of Adverse Effect** to identified historic properties which are NRHP-listed or considered eligible, in consultation with the SHPO and other consulting parties. The assessment of effects is the responsibility of the federal agency initiating the proposed undertaking. Using the information provided in the Case Report, the agency and SHPO and other consulting parties should be able to determine whether historic properties will be affected and, if so, whether or not these effects represent adverse effects on one or more NRHP-listed or eligible properties. Reaching this determination is a two-stage process. The first step is to determine whether or not there will be an effect at all, and then the second is to determine if that effect will be adverse or not adverse.

6.3.1 Applying the Criteria of Adverse Effect

The revised regulations retain the basic concept that an adverse effect occurs when the integrity of a property is diminished. The ACHP also refined the criteria and clarified that direct and indirect effects, as well as reasonably foreseeable effects (cumulative, later in time, or at a distance) must be included and that all qualifying characteristics of the property must be considered. An adverse effect is found when the undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for listing in the NRHP. It is considered an adverse effect when the effect on a historic property may diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

As enumerated in [36 CFR Part 800.5\(a\)](#), adverse effects on historic properties include, but are not limited to the following:

- (1) *Physical destruction of or damage to all or part of the property;*
- (2) *Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access, that is not consistent with the Secretary's Standards for the Treatment of Historic Properties (36 CFR Part 68) and applicable guidelines;*

- (3) *Removal of the property from its historic location;*
- (4) *Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;*
- (5) *Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features;*
- (6) *Neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization; and*
- (7) *Transfer, lease, or sale of the property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.*

The revised regulations have eliminated the former “exceptions” to the Criteria of Adverse Effect determination. These include alterations to a historic property not in accordance with the Secretary’s *Standards for the Treatment of Historic Properties* ([36 CFR Part 68](#)), and the transfer, sale, or lease of a historic property out of federal ownership or control without proper legal restrictions or covenants assuring its protection. The exception for data recovery regarding archaeological sites (i.e., excavation for the scientific knowledge the site contains), also has been eliminated. Such action is now considered an adverse effect.

6.3.2 No Historic Properties Affected

When the federal agency finds that **no historic properties are present or affected**, it provides documentation to the SHPO and any other consulting parties and, barring any objection in 30 days, proceeds with its undertaking. If there are no objections, the Section 106 process is completed in accordance with 36 CFR Part 800.5(b). Typically, the SHPO will respond by letter in a timely fashion. A determination of no historic properties affected does not require the preparation of an agreement document.

The documentation of a finding of no historic properties affected includes the following information, as specified in [36 CFR 800.11\(d\)](#):

- (1) A description of the undertaking, specifying the Federal involvement, and its area of potential effects, including photographs, maps, and drawings, as necessary;
- (2) A description of the steps taken to identify historic properties, including, as appropriate, efforts to seek information pursuant to Sec. 800.4(b); and
- (3) The basis for determining that no historic properties are present or affected.

6.3.3 Historic Properties Affected

When the agency determines that the undertaking will have an effect on NRHP-listed or eligible properties (**i.e., Historic Properties Affected**), the agency, in consultation with the SHPO, must then determine whether or not the historic properties are **adversely affected**. This is accomplished by applying the Criteria of Adverse Effect, as provided above.

6.3.4 No Historic Properties Adversely Affected

A determination of **No Historic Properties Adversely Affected** (i.e., **no adverse effect**) may be made when the effects of the undertaking are not judged to be harmful to those characteristics that qualify the historic properties for inclusion in the NRHP. Sometimes a potentially adverse effect can be minimized or mitigated by conditions outlined in an Agreement-based Determination of No Adverse Effect (NAE).

When the federal agency makes the determination of no adverse effect, they must notify, provide documentation to, and obtain concurrence from the SHPO and the other consulting parties, as appropriate. This concurrence is usually given in the form of a letter. As specified in [36 CFR 800.11\(e\)](#), the following information must be provided in the NAE documentation:

- (1) A description of the undertaking, specifying federal involvement and APE, including photographs, maps, and drawings, as necessary;
- (2) *A description of the steps taken to identify historic properties;*
- (3) *A description of historic properties that may be affected by the undertaking, including information on the characteristics that qualify them for the NRHP;*
- (4) *A description of the undertaking's effect on historic properties;*
- (5) *An explanation of why the Criteria of Adverse Effect were found inapplicable or applicable, including any conditions or future actions to avoid, minimize, or mitigate adverse effects; and*
- (6) *Copies of summaries of any views provided by consulting parties and the public.*

For a conditional NAE, the specific measures that will be taken to minimize or mitigate impacts to historic properties also must be outlined.

If the SHPO agrees with the finding, the agency may proceed with the undertaking in accordance with [36 CFR Part 800.5\(d\)\(1\)](#). If the SHPO does not respond within 30 days from receipt of the finding, the agency may proceed. If all parties agree with the NAE finding, the Section 106 process ends and the undertaking may proceed.

Under the revised regulations, the ACHP does not review a NAE finding. The ACHP will be involved only if the federal agency requests its involvement to resolve a dispute or if their involvement is requested by one of the other consulting parties or if the ACHP seeks involvement due to the importance of a particular resource or project. Indian tribes may request ACHP involvement, but must do so within the 30 day review period and clearly

specify the reason for the disagreement (36 CFR Part 800.5). If involved, the ACHP will review the findings and notify the federal agency of its determination within 15 days. No response within this time period equals concurrence.

6.3.5 Historic Properties are Adversely Affected

A federal agency undertaking may be determined to adversely affect a NRHP-listed or eligible resource by diminishing the integrity of such characteristics that qualify the property for inclusion in the NRHP. Numerous situations may cause different types of **adverse effects**. The undertaking may directly and physically impact the resource by taking all or part of its property. The project may also impact the resource, both directly and indirectly, by affecting visual and/or aesthetic qualities (including views to or from the property), noise levels, landscaping, usage of the property, air quality, vibration levels, and access, among others.

For example, a new telecommunications tower (i.e., cell tower) is constructed proximate to a historic hotel which is NRHP-eligible. Even though the tower does not physically intrude into the hotel's property, there may be a visual effect in that the view from and toward the hotel has been changed. Or, construction of a new road now provides better access to a previously unknown archeological site, thereby increasing the potential for vandalism. Ditching may alter local drainage patterns, which may in turn affect the preservation potential of buried faunal and floral material at an archaeological site.

Visual effects are one of the more critical impacts and also are generally the easiest to demonstrate. Where feasible, use graphic models to predict visual effects. One of the most effective graphic tools is to compare a photograph of the present condition to a graphic (such as an artist's rendering or a computer-aided photo-simulation) of the proposed condition without any mitigation, and a similar graphic of the proposed condition with mitigation. If a project area contains many NRHP-listed or eligible resources, several views will be needed. For large projects, particularly if they impact a NRHP-listed or eligible historic district, computer-generated images used for print, slide or video presentations, may be the most effective way to demonstrate visual impacts.

If a project is found to have an adverse effect on one or more NRHP-listed or eligible properties, the federal agency, in consultation with the SHPO, other consulting parties, and (when necessary) the ACHP, must seek ways to avoid or lessen the effects on these resources. They will develop these strategies as part of the final step (Step 4) in the Section 106 process, [Resolving Adverse Effects](#).

6.4 RESOLVING ADVERSE EFFECTS

When it has been determined that the proposed undertaking will adversely affect a NRHP-listed or eligible property, the agency consults with the SHPO and other appropriate parties, who may include Native American tribes, local governments, permit or license applicants, and members of the public. Consultation brings together the principal parties to consider ways to avoid, reduce, or mitigate the adverse effects of the undertaking on historic properties. This may include consideration of alternate sites, alternate undertakings, and alternate designs, as well as the “No Build” alternate. The latter can be used to evaluate the importance of the undertaking against the severity of its effects. A successful consultation accommodates the needs of the agency’s undertaking and the integrity of the historic property in a way that the consulting parties agree best serves the public interest, and ideally promotes the protection and enhancement of the historic resource.

If the consulting parties find that the consideration of alternatives does not result in a viable solution that would best serve the public interest, they can proceed to a discussion and evaluation of mitigation measures. **Mitigation** refers to actions that reduce or compensate for the damage an undertaking may have on a NRHP-listed or eligible property.

Under the revised regulations, ACHP involvement is not needed in many adverse effect cases. When involved, the ACHP is notified of the adverse effect finding by the federal agency, who provides the following documentation, as specified in [36 CFR Part 800.11\(e\)](#):

- (1) *A description of the undertaking, specifying the federal involvement, and its area of potential effects, including photographs, maps, and drawings, as necessary;*
- (2) *A description of the steps taken to identify historic properties;*
- (3) *A description of the affected historic properties, including information on the characteristics that qualify them for the National Register;*
- (4) *A description of the undertaking's effects on historic properties;*
- (5) *An explanation of why the criteria of adverse effect were found applicable or inapplicable, including any conditions or future actions to avoid, minimize, or mitigate adverse effects; and*
- (6) *Copies or summaries of any views provided by consulting parties and the public.*

In accordance with [36 CFR Part 800.6\(a\)\(1\)\(i\)](#), the federal agency must invite the ACHP to participate in the consultation when:

- the federal agency requests their participation;
- the undertaking has an adverse effect upon a NHL; or
- a Programmatic Agreement (under [36 CFR Part 800.14\(b\)](#)) will be prepared.

Additionally, any one of the consulting parties, including the SHPO or a Native American tribe, may independently request ACHP participation in the consultation process. The ACHP is likely to enter the process when any one of the following criteria is met:

- there are substantial impacts to important historic properties;
- when a case presents important questions of policy or interpretation;
- when there is a potential for procedural problems; or
- there are issues of concern for Native American tribes.

The ACHP will decide on its participation within 15 days of receipt of a request, basing its decision on the criteria set forth in [36 CFR Part 800 Appendix A](#), as identified below. Whenever the ACHP decides to join the consultation, it must document that the criteria for ACHP involvement are met, and must notify the federal agency of its decision to participate. This is intended to keep the policy level of the federal agency informed of those cases that the ACHP has determined present issues significant enough to warrant its involvement.

36 CFR Part 800 Appendix A

National Register of Historic Places Criteria for Evaluation (Criteria A through D):

A.) Property is associated with events that have made a significant contribution to the broad patterns of our history.

B.) Property is associated with the lives of persons significant in our past.

C.) Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.

D.) Property has yielded, or is likely to yield, information important in prehistory or history.

If the ACHP decides not to participate, the federal agency continues with consultation and the preparation of a MOA. The MOA is written in consultation with the SHPO, Indian tribes, and other consulting parties. A copy of the executed MOA is submitted to the ACHP and the Section 106 process is complete.

If the federal agency, SHPO, and consulting parties cannot reach an agreement (**failure to resolve adverse effects**), the agency will request the ACHP to join the process and provide the following documentation ([36 CFR 800.11\(g\)](#)):

- (1) *A description and evaluation of any alternatives or mitigation measures that the Agency Official proposes to resolve the undertaking's adverse effects;*
- (2) *A description of any reasonable alternatives or mitigation measures that were considered but not chosen, and the reasons for their rejection;*
- (3) *Copies or summaries of any views submitted to the Agency Official concerning the adverse effects of the undertaking on historic properties and alternatives to reduce or avoid those effects; and*
- (4) *Any substantive revisions or additions to the documentation provided the Council pursuant to Sec. 800.6(a)(1).*

Upon receipt of the request and documentation, the ACHP must respond within 45 days unless otherwise agreed.

When consultation has been terminated without agreement and no MOA is produced, the federal agency may request the ACHP to provide written comments. In making such a request, the agency provides the ACHP with specific documentation, as specified in [36 CFR Part 800.8\(d\)](#). In these cases, the ACHP may require an on-site inspection and a public meeting in order to adequately review the project effects. Written ACHP comments are issued directly to the head of the federal agency.

Once the ACHP has executed or accepted the MOA, the federal agency proceeds with the undertaking, in accordance with the terms of the MOA. In the absence of an MOA, the agency must take into account the ACHP's written comments and then make a final decision about how (or whether) to proceed with its undertaking. The agency notifies the ACHP of its decision before work on the undertaking begins, if possible. In both cases, the Section 106 process has been concluded and the statutory responsibilities of the federal agency are satisfied.

7.0 PREPARING AGREEMENT DOCUMENTS

7.1 INTRODUCTION

The decisions to resolve adverse effects which were arrived at during the consultation process are formalized in an agreement document. This is a legal document that obligates the signing parties to carry out its terms. An agreement document outlines the federal agency's fulfillment of responsibilities under Section 106, and shows that the agency has taken into account the effects on NRHP-listed or eligible properties.

There are three kinds of agreement documents that are mentioned as part of 36 CFR Part 800: **Agreement-based Determinations of No Adverse Effect (NAE)**, **Memoranda of Agreement (MOA)**, and **Programmatic Agreements (PA)**. While there are different kinds of agreement documents, they share similar needs and are clear and consistent in wording. In many cases, people will use the document and carry out its terms years after it was written. For this reason, the wording should be clear and stipulations of an agreement should be detailed and understandable to a reader who is unfamiliar with the project. Where possible, use standardized provisions.

Preparation of agreement documents shall follow the guidelines issued by the ACHP entitled *Preparing Agreement Documents: How to Write Determinations of No Adverse Effect, Memoranda Of Agreement, and Programmatic Agreements under 36 CFR Part 800* (1989). **Exhibit 1**, included at the end of this chapter, provides a checklist for the preparation of a thorough, organized, and well-written agreement document. This checklist was prepared by the ACHP.

7.2 AGREEMENT-BASED DETERMINATIONS OF NO ADVERSE EFFECT

A federal agency may find that the undertaking will result in no adverse effect because the agency and SHPO agree to conditions that will keep adverse effects from occurring. In this case, the agency provides documentation of this finding to the SHPO and all consulting parties. In accordance with [36 CFR Part 800.5\(c\)](#), the SHPO and others have 30 days to comment. Native American tribes with cultural or religious concerns about the project's effects on historic properties should be asked to concur in the agency's finding. In most cases, if there are no objections, the agency can proceed subject to whatever conditions have been agreed to. Under the revised Section 106 regulations, it is no longer required that the agency finding be submitted to the ACHP. However, if there is a disagreement between the agency and SHPO, or other consulting party, within the 30-day comment period, then the agency may ask the ACHP to review the matter. Also, the ACHP may request to see the agency's finding and supporting documentation during the 30-day comment period. The documentation requirements for a finding of no adverse effect, as specified in [36 CFR Part 800.11\(e\)](#), are provided in Section 3.0 of Module Two.

An example format for an NAE determination, modified from the ACHP's *Preparing Agreement Documents* (page 19-20), is included as **Exhibit 2**. Boldface is used to indicate

language that is almost always appropriate, while items that always or often vary from case to case are shown in *italic* and bracketed when they appear within a sentence.

7.3 MEMORANDA OF AGREEMENT

The most common agreement document is a **Memorandum of Agreement (MOA)**. This document outlines the measures that the consulting parties have agreed upon to avoid, reduce, or mitigate the adverse effects that an undertaking may have on NRHP-listed or eligible properties. There are two kinds of MOAs: "three-party" and "two-party." A three-party MOA is when the ACHP is involved in the consultation process, and a two-party MOA is when the ACHP has not been involved in consultation but receives the MOA after the agency has prepared it.

The first section of the MOA introduces the undertaking, the affected NRHP-eligible properties, and the consulting parties. This section is usually composed of a series of "whereas" statements about the project, ending with a "now, therefore" clause. The stipulations/conditions follow, often using the language the "AGENCY will ensure that" the various agreed-upon steps are carried out. Administrative stipulations, including provisions for dispute resolution between parties, a sunset clause, and provisions for amendments, among others, are also contained within the MOA. The document ends with a statement concerning the execution of the MOA and the implementation of its terms, followed by signatures of all the consulting parties. For a two-party MOA, the ACHP is given an "Accepted" block, not a signature block. For a three-party MOA, the ACHP is provided a signature block.

In accordance with [36 CFR Part 800.6\(c\)](#), the signatories have sole authority to execute, amend, or terminate the agreement. They also may agree to invite others to concur. If the invited parties refuse to concur, this does not invalidate the MOA. Where the signatories agree it is appropriate, the MOA shall include:

- *A provision for monitoring and reporting on its implementation (800.6(c)(4))*
- *Provisions for termination and for reconsideration of terms if the undertaking has not been implemented within a specified time (800.6(c)(5))*
- *Provisions to deal with the subsequent discovery or identification of additional historic properties affected by the undertaking (800.6(c)(6))*

In Chapter 14 of *Federal Planning and Historic Places: the Section 106 Process* (King 2000) the author presents a number of "helpful hints" for writing a MOA. These include such suggestions as:

- *Remember the "cold reader"*
- *Identify the undertaking clearly*
- *Structure the document logically*
- *Include all agreed upon provisions*

- *Include all pertinent statutory and regulatory authorities*
- *Review your document for internal consistency*
- *Include all relevant background documents*
- *Document consultation*
- *Keep information and direction separate*
- *Cover the whole undertaking*
- *Identify properties clearly and completely*
- *Make each stipulation represent a single, complete thought*
- *Assign duties only to signatory and concurring parties*
- *Provide complete citations*
- *Use clear titles*
- *Be explicit about references to the regulations*
- *Identify shorthand references (e.g., acronyms)*
- *Define terms*
- *Use statutory and regulatory definitions where applicable*
- *Be consistent in the use of terminology*
- *Organize the document for easy reference*
- *Allow for dispute resolution*
- *Always provide for means of monitoring performance*
- *Always provide for “sunsetting”*

King advises to beware of old MOAs to use as the basis for your own document. As he writes:

Every agreement, every project, every property is unique, and what worked in one case is not necessarily appropriate to another. Besides, practitioners are constantly coming up with new and improved ways of writing agreements – better stipulations, clearer language, things that just work better. An old model is likely to be inappropriate to your needs, and technically flawed (2000:118).

Over the years, a number of **standard stipulations** have been developed for inclusion in MOAs. These are typically arranged, in alphabetical order, in the list which follows. Hyperlinks for each are available on the National Preservation Institute’s (NPI) website www.npi.org. Users can follow the hyperlinks to specific types of stipulations, and cut and paste them into their agreements, adapting them as needed. **Model formats** for a [three-party MOA](#) (where the ACHP has participated in the consultation) and a [two-party MOA](#) (where the ACHP has not participated) are also available on this website. The text of these models, reproduced from the NPI’s webpage www.npi.org/format_memoranda.html, is provided in **Exhibits 3 and 4**. Explanatory notes are indicated by italics.

Standard Stipulations Available from the National Preservation Institute

Administrative stipulations, general

*Amendments**Archaeological collections: disposition**Bonds, surety**Building rehabilitation plan**Categorical exemptions**Confidentiality**Construction plans**Cost containment**Data recovery, archaeological**Documentation, architectural**Impact avoidance**Impact compensation**Impact minimization**Impact rectification**Impact reduction or elimination over time**Information management**Interim protection**Landscaping plan**Limiting construction impacts**Maintenance**Management of human remains, Native American cultural items**Marketing**Monitoring compliance**Monitoring impacts**Moving**Native American spiritual places, programmatic treatment**Objections, resolving**Preservation plans**Programmatic stipulations**Property type treatment**Public participation**Qualifications, personnel**Rehabilitation plan**Reporting**Salvage, architectural**Sunsetting**Termination**Title Restrictions*

7.4 PROGRAMMATIC AGREEMENTS

A **PA** is a tool by which a federal agency program or complex undertaking will comply with the Section 106 review process by an alternative method. This method is tailored to the needs of the agency. It should be emphasized that PAs are agency-wide agreements which are generally used for repetitive or widespread actions. In accordance with [36 CFR Part 800.14\(b\)\(1\)](#), a PA may be used:

- *When effects on historic properties are similar and repetitive or are multi-state or regional in scope;*
- *When effects on historic properties cannot be fully determined prior to approval of an undertaking;*
- *When nonfederal parties are delegated major decision making responsibilities;*
- *When routine management activities are undertaken at federal installations, facilities, or other land-management units; or*
- *Where other circumstances warrant a departure from the normal Section 106 process.*

An example format for a PA, taken from the ACHP's *Preparing Agreements Documents*, is provided in **Exhibit 5**. Boldface is used to indicate language that is almost always appropriate, while items that always or often vary from case to case are shown in italic and bracketed when they appear within a sentence.

EXHIBIT 1
CHECK LIST FOR A GOOD AGREEMENT DOCUMENT
UNDER 36 CFR PART 800
(Prepared by the ACHP on Historic Preservation)

June 22, 1993

**CHECK LIST FOR A GOOD AGREEMENT DOCUMENT
UNDER 36 CFR PART 800**

A. General

1. Have you addressed the entire undertaking?
2. Have you made the document personality-free?
3. Have you thought about what might go awry in implementing the agreement, and provided for it?
4. Have you considered making the contract scope (or other performance measure) of work to be done under the agreement an explicit part of the document (e.g., an appendix)?
5. Have you addressed all pertinent statutory authorities?
6. Have you had a “cold reader” review the document and provide a critique?
7. Have you had the document reviewed by a lawyer?
8. Have you checked your citations of statutes, regulations, and other documents for accuracy?
9. If your document is a PA or a “three party” MOA, have you developed it in consultation with the Council.
10. If your document is a PA or a “two-party” MOA, are you including with it in your submission to the Council:
 - a. the documentation need to make it understandable to the Council, including everything called for by 36 CFR § 800.8(b) and (c); and
 - b. a copy of the notification you sent the Council pursuant to 36 CFR § 800.8(a);
11. If your document is an agreement-based determination of no adverse effect, are you including with it in your submission to the Council:
 - a. the documentation needed to make it understandable to the Council, including everything called for by 36 CFR § 800.8(a);
 - b. the agreement you have reached with the SHPO upon which the determination is based; and

CHECK LIST FOR A GOOD AGREEMENT DOCUMENT

UNDER 36 CFR PART 800

(continued)

c. if you are invoking one of the exceptions to the Criteria of Adverse Effect, any plans, specifications, research designs, deed restrictions, or other documents showing that the requirements of the exception are or will be met?

B. Title

1. Have you used the right title for the kind of document you have prepared?
2. Have you identified the undertaking or program in the title?
3. Have you identified the signatory parties correctly in the title?
4. If you are amending an existing document, have you made this fact clear in the title?

C. “Whereas” and “Now, Therefore” clauses (or their equivalents in a determination of No Adverse Effect)

1. Have you clearly identified the undertaking, preferably citing a specific, dated document that describes it?
2. Have you clearly and consistently identified the responsible agency?
3. Have you considered identifying the APE?
4. If your document is an MOA or NAE, have you specifically and consistently identified the historic properties involved?
5. If your document is a PA, have you included a clause or clauses establishing why you need an alternative to the standards Section 106 process?
6. If you are using the document to address laws other than Section 106, have you appropriately indicated this and identified the laws?
7. If you are amending an existing document, have you made this clear in a “Whereas” clause or its equivalent?
8. If your document is an MOA or PA, have you used the right “Now, Therefore” clause for the kind of document it is (2-party MOA, 3-party MOA, PA)?
9. If implementation of the agreement is contingent upon agency approval of the undertaking, have you indicated this in the “Now, Therefore” clause or its equivalent?

CHECK LIST FOR A GOOD AGREEMENT DOCUMENT**UNDER 36 CFR PART 800**

(continued)

D. Stipulations/conditions

1. Have you specified that the responsible agency will ensure that the stipulations or conditions are implemented?
2. Have you phrased all the stipulations or conditions in active voice?
3. Have you included everything agreed upon by the consulting parties?
4. Have you structured the stipulations or conditions in a logical order?
5. Have you represented only one agreed-upon measure in each stipulation or condition?
6. If you have used standard stipulations from PAD, or copied stipulations from another agreement document, have you adjusted the language appropriately to make it fit your situation?
7. Have you used terms, including acronyms, consistently?
8. Have you minimized the use of unusual terms?
9. Have you defined any unusual terms you have used?
10. Where terms with statutory or regulatory definitions are available, have you used them, rather than alternative terms that lack such definitions?
11. Have you included full citations, with dates, whenever you have cited a statute, regulation, guideline, standard, plan, specification, or other document for the first time, and given the document a short title for subsequent reference?
12. Have you been consistent in your subsequent references to each such document?
13. Have you given each stipulation its own alphanumerical indicator?
14. Have you considered giving each stipulation a name?
15. If you have stipulated that some portion of 36 CFR Part 800 or another regulation, statute, or other document will be followed, have you done so explicitly by reference, rather than by paraphrasing?

**CHECK LIST FOR A GOOD AGREEMENT DOCUMENT
UNDER 36 CFR PART 800**

(continued)

16. Have you screened the stipulations or conditions for:

- a. passive voice?
- b. internal or inter-stipulation contradictions?
- c. “soft” or unclear terms like “avoid,” “may,” and “should?”
- d. subjectives?
- e. undue subtlety?
- f. unspecified assumptions?
- g. paraphrasing of regulations, laws, or standards?

17. Have you considered, and either included or explicitly rejected as unnecessary, all relevant administrative stipulations, such as:

- a. provisions for dispute resolution among parties?
- b. provisions for resolving objections from others?
- c. specific, effective provisions for monitoring performance?
- d. a sunset clause?
- e. annual or other periodic reporting, with specific dates and expectations?
- f. annual reviews?
- g. performance bonds?
- h. provisions for review in the event something changes?
- i. mechanisms for making minor adjustments?
- j. mechanisms to ensure that responsible personnel are kept aware of their responsibilities under the agreement?

**CHECK LIST FOR A GOOD AGREEMENT DOCUMENT
UNDER 36 CFR PART 800
(continued)**

E. Concluding clause (or equivalent)

1. Have you used the correct ultimate clause for the kind of agreement document you have prepared?
2. If implementation is contingent upon agency approval of the undertaking, have you indicated this in the concluding clause?

F. Signature blocks

1. Have you provided correct signature blocks for all signatories?
2. If there are concurring parties, have you provided concurrence blocks for them?
3. If your document is a “two-party” MOA, have you given the Council an “Accepted” block, not a signature block?
4. If your document is a “three-party” MOA, have you given the Council a signature block, not an “Accepted” block?

G. Appendices

1. Have you included all necessary appendices?
2. Have you given each appendix a clear title and date?
3. In the body of the document, have you cited each appendix correctly, at each place you need to cite it?

EXHIBIT 2
EXAMPLE NO ADVERSE EFFECT DETERMINATION

[Name]

**Florida State Historic Preservation Officer
Division of Historical Resources
500 S. Bronough Street
Tallahassee, Florida 32399-0250**

Dear [Name]:

The [Agency] is [planning/considering/other appropriate term] *the* [name of undertaking]. We have applied the Criteria of Adverse Effect found in 36 CFR 800.5 of the regulations which implement Section 106 of the National Historic Preservation Act, as amended, to this undertaking and determined, in consultation with your office, that it will have no adverse effect on historic properties. The following summary documentation is attached for your review:

- **A description of the [name of undertaking], specifying federal involvement;**
- **A [map, photographs, drawings or other documentation] showing the area of potential effect;**
- **A description of the steps taken to identify historic properties;**
- **A description of the historic [property/properties] that may be affected by the undertaking, including information on the characteristics that qualify them for the NRHP;**
- **A description of the undertaking's effect on historic properties;**
- **An explanation of why the Criteria of Adverse Effect were found inapplicable or applicable;**
- **[Copies/A summary] of the views of [specify consulting parties and/or interested persons who have submitted comments, if any].**

[Use one or more of the following paragraphs only if relevant.]

In making our determination, we have agreed with your office to carry out the following actions to ensure that adverse effect will be avoided:

[List actions agreed to.]

Please review the material enclosed and contact [name and address of contact person] if you have any questions. If we do not hear from you within 30 days after your receipt of this letter, we will assume that you do not object to our determination, and will proceed with [the undertaking/our planning process/our review of the application/etc.], subject to [the agreement noted above].

Sincerely,

[Agency Representative, Agency Name and Address]

**EXHIBIT 3
EXAMPLE THREE-PARTY MOA**

MEMORANDUM OF AGREEMENT
AMONG THE U.S. BUREAU OF BURRO MANAGEMENT,
THE WASHAFORNIA STATE HISTORIC PRESERVATION OFFICER
AND THE
ADVISORY COUNCIL ON HISTORIC PRESERVATION
REGARDING THE SOUTH FIELDSTONE FODDER IMPROVEMENT PROJECT

WHEREAS the U.S. Bureau of Burro Management (Bureau) proposes to undertake the South Fieldstone Fodder Improvement Project (the Project), described as the preferred alternative on pages 12-17 of the draft Environmental Assessment titled "Draft Environmental Assessment: South Fieldstone Fodder Improvement Project" and dated December 4, 2003 (Draft EA); and

Identifies undertaking subject to review.

WHEREAS the Bureau has established the Project's area of potential effects (APE), as defined at 36 CFR 15 800.16(d), to be the watershed of South Fieldstone Creek as shown in Figure 2B of the Draft EA; and

Identifies APE.

WHEREAS the Bureau has determined that the Project may have adverse effects on archeological site WFSF342 as described in the Washafornia State Historic Properties Inventory, on Big Rock Ridge, a place of cultural importance to the Motomak Tribe, and possibly to unidentified subsurface archeological resources; and

Identifies properties known to be subject to adverse effect, with allowance for undiscovered properties.

WHEREAS the Bureau has consulted with the Washafornia State Historic Preservation Officer (SHPO), the Motomak Tribe, Burros, Incorporated, the Eastern Washafornia Archaeological Society, and the Advisory Council on Historic Preservation (Council) in accordance with Section 106 of the National Historic Preservation Act, 16 U.S.C. § (NHPA), and its implementing regulations (36 CFR Part 800.6(b)(2)) to resolve the adverse effects of the Project on historic properties; and

Identifies all consulting parties.

WHEREAS pursuant to 36 CFR 800.6(c)(2) the Bureau has invited the Motomak Tribe and Burros, Incorporated to sign this Memorandum of Agreement (MOA); and

Identifies invited signatory.

WHEREAS pursuant to 36 CFR 800.6(c)(3) the Bureau has invited the Eastern Washafornia Archaeological Society to concur in this MOA; and

Identifies invited concurring party.

WHEREAS the Bureau intends to use the provisions of this MOA to address applicable requirements of Sections 110(a)(1) and 110(b) of NHPA; and

Use only where MOA actually will be used to address such requirements. Adapt as needed regarding other NHPA requirements or the requirements of other cultural resource laws, but document how each other law is satisfied separately from the MOA, to avoid implying that the ACHP or SHPO are involving themselves in matters beyond their authorities under Section 106.

WHEREAS the Bureau has coordinated preparation of this MOA with development of its Plan of Action under the Native American Graves Protection and Repatriation Act (NAGPRA) in accordance with 43 CFR 10;

Use only where NAGPRA applies, and where coordination has occurred (as it should). Make sure the Plan of Action (POA) is a separate document developed by the agency and tribe(s), but that it is consistent with the terms of the MOA and vice-versa.

NOW, THEREFORE, the Bureau, the SHPO, and the Council agree that upon the Bureau's decision to proceed with the Project, the Bureau shall ensure that the following stipulations are implemented in order to take into account the effects of the Project on historic properties, and that these stipulations shall govern the Project and all of its parts until this MOA expires or is terminated.

Note that this clause is conditioned upon the agency's decision to proceed with whatever it is considering vis-a-vis the undertaking (constructing it, implementing it, permitting it, assisting it, etc.). This is to make it clear that the consulting parties are not pre-empting the agency's final decision on the project under other pertinent authorities, including the National Environmental Policy Act (NEPA). Note that it also includes the language of NHPA Section 110(l), specifying the "governing" (contractual) authority of the MOA.

Stipulations

The Bureau shall ensure that the following stipulations are implemented:

(Insert stipulations. Always include a "sunset" stipulation)

Execution of this MOA by the Bureau, the SHPO, and the Council, and implementation of its terms, evidence that the Bureau has afforded the Council an opportunity to comment on the Project and its effects on historic properties, and that the Bureau has taken into account the effects of the Project on historic properties.

This ultimate clause is the assertion of the signatories that the agency has -- assuming it carries out the terms of the MOA -- complied with the two requirements of Section 106: to take into account the effects of the undertaking on historic properties, and to afford the Council a reasonable opportunity to comment.

BUREAU OF BURRO MANAGEMENT

By: _____ Date: _____

WASHAFORNIA STATE HISTORIC PRESERVATION OFFICER

By: _____ Date: _____

MOTOMAK TRIBE

By: _____ Date: _____

ADVISORY COUNCIL ON HISTORIC PRESERVATION

By: _____ Date: _____

CONCUR:

EASTERN WASHAFORNIA ARCHAEOLOGICAL
SOCIETY

By: _____ Date: _____

**EXHIBIT 4
EXAMPLE TWO-PARTY MOA**

MEMORANDUM OF AGREEMENT
BETWEEN THE U.S. GOVERNMENT SERVICES BUREAU
AND THE MOTOMAK TRIBAL HISTORIC PRESERVATION OFFICER
REGARDING
THE BIG BROWN BANK REHABILITATION AND REUSE PROJECT

WHEREAS the U.S. Government Services Bureau (GSB) proposes to rehabilitate the Big Brown Bank Building at 75-25 East Peltier Street, Town of Motomak, in accordance with the documents entitled "Conceptual Plans for Big Brown Bank Rehabilitation" dated October 7, 2003 (the Undertaking); and

Identifies undertaking subject to review. For purposes of the example, assume that the Town of Motomak is within the boundaries of the Motomak Reservation, and the Motomak THPO has assumed the SHPO's responsibilities under 36 CFR 800.

WHEREAS GSB has established the Undertaking's area of potential effects (APE), as defined at 36 CFR 15 800.16(d), to be the Big Brown Bank Building itself, together with the streetscapes on Peltier, Banks, and Means Streets and the buildings facing the Big Brown Bank Building across all three of the above-named streets; and

Identifies APE.

WHEREAS GSB has determined that the Undertaking may have adverse effects on the Big Brown Bank Building and on the Deloria District as described in the report entitled "Historic Properties Survey, Big Brown Bank Rehabilitation Project", prepared by Architrave Associates and dated December 4, 2003, which GSB and the Motomak Tribal Historic Preservation Officer (THPO) have agreed meets the criteria for inclusion in the National Register of Historic Places, and possibly on archeological resources lying beneath the Big Brown Bank Building and the surrounding streets; and

Identifies properties known to be subject to adverse effect, with allowance for undiscovered properties.

WHEREAS GSB has consulted with the Motomak THPO, the Town of Motomak, and the Washafornia Chapter of the American Institute of Architects (AIA) in accordance with Section 106 of the National Historic Preservation Act, 16 U.S.C. § 470 (NHPA), and its implementing regulations (36 CFR Part 800.6(b)(1)) to resolve the adverse effects of the Project on historic properties; and

Identifies all consulting parties.

WHEREAS pursuant to 36 CFR 800.6(c)(2) GSB has invited the Town of Motomak to sign this Memorandum of Agreement (MOA); and

Identifies invited signatory.

WHEREAS pursuant to 36 CFR 800.6(c)(3) GSB has invited the AIA to concur in this MOA; and

Identifies invited concurring party.

WHEREAS GSB intends to use the provisions of this MOA to address applicable requirements of Sections 110(b) and 111 of NHPA; and

Use only where MOA actually will be used to address such requirements. Adapt as needed regarding other NHPA requirements or the requirements of other cultural resource laws, but document how each other law is satisfied separately from the MOA, to avoid implying that the ACHP or THPO are involving themselves in matters beyond their authorities under Section 106.

WHEREAS GSB has coordinated preparation of this MOA with development of its Plan of Action under the Native American Graves Protection and Repatriation Act (NAGPRA) in accordance with 43 CFR 10;

Use only where NAGPRA applies, and where coordination has occurred (as it should). Make sure the Plan of Action (POA) is a separate document developed by the agency and tribe(s), but that it is consistent with the terms of the MOA and vice-versa.

NOW, THEREFORE, GSB and the THPO agree that upon GSB's decision to proceed with the Undertaking, GSB shall ensure that the following stipulations are implemented in order to take into account the effects of the Project on historic properties, and that these stipulations shall govern the Project and all of its parts until this MOA expires or is terminated.

Note that this clause is conditioned upon the agency's decision to proceed with whatever it is considering vis-a-vis the undertaking (constructing it, implementing it, permitting it, assisting it, etc.). This is to make it clear that the consulting parties are not pre-empting the agency's final decision on the project under other pertinent authorities, including the National Environmental Policy Act (NEPA). Note that it also includes the language of NHPA Section 110(l), specifying the "governing" (contractual) authority of the MOA.

Stipulations

GSB shall ensure that the following stipulations are implemented:

(Insert stipulations. Always include a "sunset" stipulation)

Execution of this MOA by GSB and the THPO, and its submission to the Advisory Council on Historic Preservation (Council) in accordance with 36 CFR 800.6(b)(1)(iv), shall, pursuant to 36 CFR 800.6(c), be considered to be an agreement with the Council for the purposes of Section 110(l) of NHPA. Execution and submission of this MOA, and implementation of its terms evidence that GSB has afforded the Council an opportunity to

comment on the Project and its effects on historic properties, and that GSB has taken into account the effects of the Project on historic properties.

Note that this ultimate clause is a little different from the one used where the Council participates in consultation, reflecting the language of the regulations with regard to this kind of MOA.

GOVERNMENT SERVICES BUREAU

By: _____ Date: _____

MOTOMAK TRIBAL HISTORIC PRESERVATION OFFICER

By: _____ Date: _____

TOWN OF MOTOMAK

By: _____ Date: _____

CONCUR:

WASHAFORNIA CHAPTER, AMERICAN INSTITUTE OF ARCHITECTS

By: _____ Date: _____

EXHIBIT 5
EXAMPLE PROGRAMMATIC AGREEMENT

**PROGRAMMATIC AGREEMENT
AMONG
THE [NAME OF AGENCY],
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION,
[AND] THE [designate SHPO, SHPOs, THPOs; National Conference of SHPOs;
National Conference of THPOs; other parties] REGARDING IMPLEMENTATION
OF THE [identify program, etc.]**

WHEREAS, the [name of agency] proposes to administer the [name of program or project] authorized by [cite statutory authority]; and

WHEREAS, the [name of agency] has determined that the [program/project] may have an effect upon properties included in or eligible for inclusion in the National Register of Historic Places and has consulted with the Advisory Council on Historic Preservation (Council) and the [Florida State Historic Preservation Officer (SHPO)/National Conference of State Historic Preservation Officers (NCSHPO)/others] pursuant to Section 800.14 of the regulations (36 CFR Part 800) implementing Section 106 of the National Historic Preservation Act; (16 U.S.C. 470f), [and Section 110(f) of the same Act (16 U.S.C. 470h-2(f)]; and

WHEREAS, [names of other consulting party/parties, if any] participated in the consultation and [has/have] been invited to [execute/concur in] this Programmatic Agreement; and

WHEREAS, the definitions given in Appendix ___ are applicable throughout this Programmatic Agreement;

NOW, THEREFORE, [name of agency], the Council, and the [SHPO/NCSHPO/other] agree that the [program/project] shall be administered in accordance with the following stipulations to satisfy [name of agency]'s Section 106 responsibility for all individual [undertakings of the program/aspects of the program].

Stipulations

[Name of agency] will ensure that the following measures are carried out:

[Insert stipulations here.]

() The Council and the [SHPO/NCSHPO/other] may monitor activities carried out pursuant to this Programmatic Agreement, and the Council will review such activities if so requested .The [name of agency] will cooperate with the Council and the [SHPO/NCSHPO/other] in carrying out their monitoring and review responsibilities.

() *Any party to this Programmatic Agreement may request that it be amended, whereupon the parties will consult in accordance with 36 CFR 800.13 to consider such amendment.*

() *Any party to this Programmatic Agreement may terminate it by providing thirty (30) days notice to the other parties, provided that the parties will consult during the period prior to termination to seek agreement on amendments or other actions that would avoid termination. In the event of termination, the [name of agency] will comply with 36 CFR 800.4 through 800.6 with regard to individual undertakings covered by this Programmatic Agreement.*

() *In the event the [name of agency] does not carry out the terms of this Programmatic Agreement, the [name of agency] will comply with 36 CFR 800.4 through 800.6 with regard to individual undertakings covered by this Programmatic Agreement.*

Execution and implementation of this Programmatic Agreement evidences that [name of agency] has satisfied its Section 106 responsibilities for all individual undertakings of the program.

ADVISORY COUNCIL ON HISTORIC PRESERVATION

By: _____ **Date:** _____
(Name and title of signer)

[NAME OF AGENCY]

By: _____ **Date:** _____
(Name and title of signer)

FLORIDA STATE HISTORIC PRESERVATION OFFICER

By: _____ **Date:** _____
(Name and title of signer)

[OTHER SIGNATORIES, IF ANY]

8.0 MITIGATION MEASURES FOR HISTORIC RESOURCES

8.1 INTRODUCTION

While preservation of significant historic resources is always the preferred alternative, it is not always possible to accomplish that goal. When a project or undertaking will have an adverse effect on a site or property, consultation occurs to avoid, minimize, or mitigate that adverse effect. In most cases, the terms of mitigation are contained in the project MOA. The MOA may be a two-party agreement or a three-party agreement. For federally involved two-party agreements, the undertaking agency and the SHPO are signatory agencies, while the ACHP is a concurring party. In federally involved three-party agreements, the ACHP also is a signing party and takes a more active role. As discussed in Section 7.0, other agencies formally participating in the undertaking may be invited to sign the MOA as concurring parties.

Historic structures documentation must be submitted to the DHR/SHPO for review and acceptance prior to initiating the adverse impacts which led to the preparation of the documentation. Furthermore, for federally-involved projects, acceptance of the documentation as complete and sufficient by the NPS's HABS/HAER office also is required.

Adverse effects to NRHP-listed or eligible historic resources may result from maintenance and repair activities, alterations, new construction, and demolition. If maintenance is reduced or withdrawn from a NRHP-listed or eligible property, including resources which contribute to a historic district, such **neglect** may cause deterioration, which is considered an adverse effect, as per [36 CFR Part 800.5\(2\)\(vi\)](#). **Alterations** may include replacement of building materials with non-compatible materials, additions, significant changes to floor plans, as well as partial demolition. **New construction** within or proximate to the boundaries of a NRHP-listed or eligible property or historic district may create a visually intrusive element, thus resulting in an adverse effect. Physical destruction of, or damage to, all or part of a historic property (i.e., **demolition**) is always considered an adverse effect. Other types of activities which may be considered adverse effects to significant historic properties include relocation, abandonment in-place, and changes in function, purpose or use.

For historic resources, **typical mitigation measures** include:

- **Documentation** (i.e., drawings, photographs and histories) in accordance with HABS/HAER standards.
- **Repair, rehabilitation or restoration** of the affected historic property in a manner sensitive to the qualities which make it historically significant, and sympathetic to the historic fabric of the property, in accordance with the Secretary of the Interior's standards.
- **Preservation and maintenance** activities, including repair and stabilization, in accordance with the Secretary of the Interior's standards.

- **Salvage** of architectural or scientific/engineering elements from NRHP-listed or eligible properties.

8.2 DOCUMENTATION

For most projects and undertakings which involve modifications to or demolition of NRHP-listed or eligible properties, the adverse effects are mitigated by means of **documentation to HABS/HAER standards**, in accordance with the [Secretary of the Interior's Standards for Architectural and Engineering Documentation](#), as published in the *Federal Register*, 48 FR 190:44730-44734, September 29, 1983.

The agreement document, usually the MOA, specifies which **level of documentation** is required for a particular project requiring mitigation. If this is not included in the MOA, the agency consults with DHR/SHPO to determine the proper level of documentation. In either case, once the level of documentation has been selected, the agency prepares a detailed proposal outlining the methods to be used for a particular mitigation measure. The proposal includes the type of mitigation, level of documentation, schedule of tasks, and end product. The description of the end product specifies the following information:

- Type of report (including number of total copies)
- Number, format (size, etc.) and type of drawings (i.e., site plan, floor plan(s), elevation(s), section(s), detail(s))
- Number, type and location (views) of photographs
- Number, type and location of paint samples (if required) and how they will be analyzed
- Outline for written history and description. The proposal is reviewed and understood by all consulting parties involved in Step 3 of the Section 106 process.

Documentation often consists of measured drawings, photographs, and written data that provide "important information on a property's significance for use by scholars, researchers, preservationists, architects, engineers and others interested in preserving and understanding historic properties. Documentation permits accurate repair or reconstruction of parts of a property, records existing conditions for easements, or may preserve information about a property that is to be demolished" (48 FR 44730).

Four standards and four levels of documentation are included in the Secretary's standards. These were devised to aid in the documentation of specific significant resources. The kind and amount of documentation should be appropriate to the nature and significance of the building, site, structure or object being documented. Each standard and level is discussed below. Generally, Level I documentation is required for NHLs and properties maintained by the NPS.

The **four standards** of documentation are as follows:

I. Content: documentation shall adequately explicate and illustrate what is significant or valuable about the historic building, site, structure, or object being documented.

II. Quality: documentation shall be prepared accurately from reliable sources with limitations clearly stated to permit independent verification of the information.

III. Materials: documentation shall be prepared on materials that are readily reproducible, durable, and in standard sizes.

IV. Presentation: documentation shall be clearly and concisely produced.

Guidelines for each of the four standards as required for each of the four levels of documentation are detailed in the [Federal Register \(48 FR 44730\)](#). The following requirements for Standard II (Quality), Standard III (Materials), and Standard IV (Presentation) are the same for all four levels of documentation.

Quality

Measured Drawings shall be produced from recorded, accurate measurements. Portions of buildings that were not accessible for measurement should not be drawn on the measured drawings, but clearly labeled as not accessible, or drawn from available construction drawings or other sources and so identified. No part of the measured drawings shall be produced from hypothesis or non-measurement related activities. Documentation Level I measured drawings shall be accompanied by a set of filled notebooks in which the measurements were first recorded. Other drawings, prepared for Documentation Levels II and III, shall include a statement describing where the original drawings are located.

Large format photographs shall clearly depict the appearance of the property and areas of significance of the recorded building, site, structure or object. Each view shall be perspective corrected and fully captioned, including location of the camera and date the photograph was taken.

Written history and description for Documentation Levels I and II shall be based on primary sources to the greatest extent possible. For Levels III and IV, secondary sources may provide adequate information, if not, primary research will be necessary. A frank assessment of the reliability and limitations of sources shall be included. Within the written history, statements shall be footnoted as to their sources, where appropriate. The written data shall include a methodology section, specifying the name of the researcher, date of the research, sources searched, and limitations of the project.

Materials

Measured drawings shall be readily reproducible ink on translucent material which is archivally stable, such as mylar. There are two standard sizes for measured drawings: 19 x 24 inches and 24 x 36 inches. Level III sketch plans may be on archival bond paper.

Large format photographs shall be readily reproducible prints accompanied by negatives. Photography must be archivally processed and stored. Negatives shall be on safety film only. Neither rosin coated paper nor color film are acceptable. Three sizes may be used: 4 x 5 inches, 5 x 7 inches, or 8 x 10 inches.

Written history and description shall be readily reproducible for photocopying. Archival bond paper measuring 8 ½ x 11 inches shall be used.

Field records may be photocopied and may be of any size up to 9 ½ x 12 inches.

Presentation

Measured drawings shall be lettered mechanically or hand printed in an equivalent style. Level III sketch plans shall be neat and orderly.

Photographs for Level I documentation shall include a duplicate set which includes a scale. Level II and III photographs shall include at least one photograph with a scale, preferably the front facade.

Written history and description shall be typed.

The four levels of documentation are:

Level I:

Use: Primarily used for NHL resources and occasionally for NRHP-listed or eligible resources depending on the reason for mitigation.

Content: **Drawings:** a full set of measured drawings depicting existing or historic conditions. These shall be lettered mechanically or in a hand printed equivalent style. Adequate dimensions shall be included on all sheets.

Photographs: photographs with large-format negatives of exterior and interior views, including duplicate photographs that show a scale; photocopies with large format negatives of select existing drawings or historic views, when available.

Written data: history and description typewritten on bond, following accepted rules of grammar.

Level II:

Use: Primarily for most NRHP-listed or eligible resources, but depends on the reason for mitigation.

Content: **Drawings:** selected existing drawings, when available, should be photographed with large-format negatives or photographically reproduced on mylar. If existing drawings are housed in an accessible collection and cared for archivally, their reproduction for HABS/HAER may not be necessary. On the other hand, if existing drawings are not available, Level I drawings may be required. Adequate dimensions shall be included on all sheets.

Photographs: photographs with large-format negatives of exterior and interior views, or historic views, when available. These shall include, at minimum, at least one photograph with a scale, usually of the principal facade.

Written data: history and description typewritten on bond, following accepted rules of grammar.

Level III:

Use: Primarily for contributing resources within an NRHP-listed or eligible historic district.

Content: **Drawings:** neat and orderly sketch plan, used to help explain the structure. Include adequate dimensions on all sheets.

Photographs: photographs with large-format negatives of exterior and interior views. These shall include, at minimum, at least one photograph with a scale, usually of the principal facade.

Written data: architectural data form (Exhibit 6) which should supplement the photographs by explaining what is not readily visible.

Level IV:

Use: Rarely considered adequate documentation for the HABS/HAER collections but is undertaken to identify historic resources in a given area prior to additional, more comprehensive, documentation.

Content: HABS/HAER inventory card

8.3 REHABILITATION AND RESTORATION

Rehabilitation is defined in the *Federal Register* as "the act or process of returning a property to a state of utility through repair or alteration that makes possible an efficient contemporary use while preserving those portions or features of the property which are significant to its historical, architectural, and cultural values." **Restoration** is more restrictive and exacting. As defined in the *Federal Register*, restoration is "the act or process of accurately recovering the form and details of a property and its setting as it appeared at a particular period of time by means of the removal of later work or by the replacement of missing earlier work."

As required, both rehabilitation and restoration follow the [Secretary of the Interior's Standards and Guidelines for Historic Preservation Projects \(48 FR 44737\)](#), which include eight general standards plus additional specific standards for individual treatments (i.e., acquisition, protection, stabilization, preservation, rehabilitation, restoration, and reconstruction). In accordance with the Secretary of the Interior's Standards, the following general standards apply to all treatments undertaken on historic properties listed in the NRHP:

1. *Every reasonable effort shall be made to provide a compatible use for a property that requires minimal alteration of the building, structure, or site and its environment, or to use a property for its originally intended purpose.*
2. *The distinguishing original qualities or character of a building, structure, or site and its environment shall not be destroyed. The removal or alteration of any historic material or distinctive architectural features should be avoided when possible.*
3. *All buildings, structures, and sites shall be recognized as products of their own time. Alterations which have no historical basis and which seek to create an earlier appearance shall be discouraged.*
4. *Changes that have taken place in the course of time are evidence of the history and development of a building, structure, or site and its environment. These changes may have acquired significance in their own right, and this significance shall be recognized and respected.*
5. *Distinctive architectural features or examples of skilled craftsmanship that characterize a building, structure, or site shall be treated with sensitivity.*
6. *Deteriorated architectural features shall be repaired rather than replaced wherever possible. In the event replacement is necessary, the new material should match the material being replaced in composition, design, color, texture, and other visual qualities. Repair or replacement of missing architectural features should be based on accurate duplications of features, substantiated by historic, physical, or pictorial evidence rather than on conjectural designs or the availability of different architectural elements from other buildings or structures.*

7. *The surface cleaning of structures shall be undertaken with the gentlest means possible. Sandblasting and other cleaning methods that will damage the historic building materials shall not be undertaken.*
8. *Every reasonable effort shall be made to protect and preserve archaeological resources affected by, or adjacent to, any acquisition, stabilization, preservation, rehabilitation, restoration, or reconstruction project.*

The repair and rehabilitation methods are more common than restoration, depending on the extent of modifications required to make the resource usable, as they retain the historic physical integrity of the building. This mitigation measure may also include documentation of the existing historic property as well as documentation of the repair, rehabilitation, or restoration methods used.

In accordance with the Secretary of the Interior's Standards for rehabilitation and restoration, the following specific standards for each treatment are to be used in conjunction with the eight general standards. **In each case, these specific standards begin with the number 9.** For example, the Standards for Rehabilitation include the eight general standards plus the two specific standards listed below.

Standards for Rehabilitation

9. *Contemporary design for alterations and additions to existing properties shall not be discouraged when such alterations and additions do not destroy significant historic, architectural, or cultural material and such design is compatible with the size, scale, color, material, and character of the property, neighborhood, or environment.*
10. *Wherever possible, new additions or alterations to structures shall be done in such a manner that if such additions or alterations were to be removed in the future, the essential form and integrity of the structure would be unimpaired.*

Standards for Restoration

9. *Every reasonable effort shall be made to use a property for its originally intended purpose or to provide a compatible use that will require minimum alteration to the property and its environment.*
10. *Reinforcement required for structural stability or the installation of protective or code required mechanical systems shall be concealed wherever possible so as not to intrude or detract from the property's aesthetic and historical qualities, except where concealment would result in the alteration or destruction of historically significant materials or spaces.*
11. *Restoration work such as the demolition of non-contributing additions that will result in ground or structural disturbance shall be preceded by sufficient archaeological investigation to determine whether significant subsurface or*

structural features or artifacts will be affected. Recovery, curation and documentation of archaeological features and specimens shall be undertaken in accordance with appropriate professional methods and techniques.

8.4 PRESERVATION AND MAINTENANCE

Preservation is defined in the *Federal Register* as "the act or process of applying measures to sustain the existing form, integrity and material of a building or structure, and the existing form and vegetative cover of a site. It may include initial stabilization work, where necessary, as well as ongoing maintenance of the historic building materials." **Stabilization** is defined as "the act or process of applying measures designed to reestablish a weather resistant enclosure and the structural stability of an unsafe or deteriorated property while maintaining the essential form as it exists at present." **Maintenance** includes the protective care of a resource from the attacks of climate, chemical and biological agents, normal use, and intentional abuse. Maintenance activities include cleaning, repairing, and replacing.

Preservation and maintenance methods generally involve less construction than the repair, rehabilitation and restoration measures described above. The preservation and maintenance process would also require following the eight general standards plus specific standards for stabilization and maintenance, as contained in the [Secretary of the Interior's Standards and Guidelines for Historic Preservation Projects \(48 FR 44737\)](#)

In accordance with the Secretary of the Interior's Standards for rehabilitation and restoration, the following specific standards are to be used in conjunction with the eight general standards. In each case, these specific standards begin with the number 9. For example, the Standards for Stabilization include the eight general standards plus the three specific standards listed below.

Standards for Stabilization

9. *Stabilization shall reestablish the structural stability of a property through the reinforcement of load bearing members or by arresting deterioration leading to structural failure. Stabilization shall also reestablish weather resistant conditions for a property.*
10. *Stabilization shall be accomplished in such a manner that it detracts as little as possible from the property's appearance and significance. When reinforcement is required to reestablish structural stability, such work shall be concealed wherever possible so as not to intrude upon or detract from the aesthetic and historical or archaeological quality of the property, except where concealment would result in the alteration or destruction of historically or archaeologically significant material or spaces. Accurate documentation of stabilization procedures shall be kept and made available for future needs.*

11. *Stabilization work that will result in ground disturbance shall be preceded by sufficient archaeological investigation to determine whether significant subsurface features or artifacts will be affected. Recovery, curation and documentation of archaeological features and specimens shall be undertaken in accordance with appropriate professional methods and techniques.*

Standards for Preservation

9. *Preservation shall maintain the existing form, integrity, and materials of a building, structure, or site. Archaeological sites shall be preserved undisturbed whenever feasible and practical. Substantial reconstruction or restoration of lost features generally is not included in a preservation undertaking.*
10. *Preservation shall include techniques of arresting or retarding the deterioration of a property through a program of ongoing maintenance.*
11. *Use of destructive techniques, such as archaeological excavation, shall be limited to providing sufficient information for research, interpretation, and management needs.*

Examples of mitigation measures involving preservation and maintenance operations include the following:

- Retain a NRHP-listed or eligible bridge that may only require stabilization and/or maintenance to remain useful, rather than replace it with a new bridge. The maintenance procedures, if continued on an annual basis, should help to keep the structure in good, usable condition and retain its historic, architectural, or cultural value.
- Preserve and maintain NRHP-listed or eligible landscape and streetscape features, including canopy trees, other plants bordering the roadway, street paving and curbing, sidewalks, lights, benches, fences, walls, etc.

These mitigation measures would result in a preserved, maintained, or stabilized NRHP-listed or eligible historic property following the specifications outlined in the agreement document and the applicable [Secretary of the Interior's Standards and Guidelines for Historic Preservation Projects](#). The end product may also include an assortment of report documents as needed to comply with the agreement document. These may include an architectural and/or historic documentation report; a feasibility study or proposal for the preservation, maintenance or stabilization process; a continuing maintenance manual; and/or a summary report documenting the specified process.

8.5 SALVAGE

Salvage is defined as something saved from neglect or destruction. The purpose of architectural salvage is the reuse of parts or entire buildings. The ACHP's handbook,

[Preparing Agreement Documents](#), discusses several valuable requirements when salvaging architectural elements from a NRHP-listed or eligible property. For example, sometimes the consulting parties agree that a historic building or structure has to be demolished, but that the building or structure contains significant architectural features that might be reused or should be saved for curation. An agreement document may as a result provide that, prior to demolition of the property and after the property has been properly recorded, the SHPO or the SHPO's designee, such as a local museum, should be allowed to select architectural elements for curation or use in other projects. These items should then be carefully removed and delivered to the SHPO or the SHPO's designee. In other cases, the document may provide for the agency itself to use salvaged material in the new construction.

Documentation is an appropriate mitigation measure to be conducted concurrently with this salvage mitigation measure. The documentation should be performed in accordance with HABS/HAER standards. A detailed methodology proposal should be submitted to the DHR/SHPO for their review and approval prior to commencing any salvage on a building or structure. This could be tied into the documentation package by showing in a separate set of drawings and/or photographs which elements are to be salvaged. Descriptive markers, signs, or other graphics showing architectural, historical and/or archaeological significance may also be appropriate mitigation measure for structures that will be demolished. Similarly, informative brochures or video presentations made available to the public may be part of the mitigation package.

The end product may also include an assortment of report documents to comply with the agreement document. These may include an architectural and/or historic documentation report; a feasibility study or proposal for the preservation of the historic property vs. the salvage of selected materials and elements; a record of materials and elements which are to be salvaged; and/or a summary report documenting the salvage process, including the methods used and the location of the salvaged materials and elements. In some cases, the end product may also include a descriptive marker placed at the demolished structure's original site.

8.6 OFF-SITE MITIGATION

In the case of some projects or undertakings, it may not be feasible or appropriate to mitigate adverse project effects through any of the aforementioned measures. For example, suppose that the construction of a new telecommunications tower is determined to have an adverse visual effect to a NRHP-listed or eligible property or historic district. Given this, and similar circumstances, one of the following mitigation options may be appropriate in preserving the information about the affected resources:

- Develop a historic context for a particular category of historic resources (e.g., schools constructed by the Works Progress Administration [WPA]; post-World War II subdivisions; drive-in movie theatres; etc.)
- Prepare NRHP nominations for the affected properties

- Prepare a written history of the community affected by the project or undertaking, in a format suitable for the public. This may include a brochure, booklet or site on the World Wide Web.
- Financially support a local museum or historical society or association engaged in local preservation activities
- Underwrite the preparation of a museum exhibit or traveling display.
- Sponsor a preservation awareness day for the community, and encourage increased private and public participation in local historic preservation efforts
- Provide financial support for speakers and classroom programs dealing with historic preservation issues

**EXHIBIT 6:
ARCHITECTURAL HISTORY AND HISTORICAL NARRATIVE**

ARCHITECTURAL HISTORY AND HISTORICAL NARRATIVE

Site Name _____ Survey Date _____

Site Address _____

Location _____
Subdivision name block no. lot no.

County _____

District name if applicable _____

Site Owner:

Name _____*Address* _____

Type of Ownership _____ Recording Date _____

Recorder:

Name and Title _____*Address* _____

Architect [if known] _____

Builder [if known] _____

Style and/or Period _____

Plan Type _____

Orientation _____

Foundation _____

Structural System(s) _____

Exterior Fabric(s) _____

Roof Type _____

Secondary Roof Structure(s) _____

Porches _____