#### DRAFT

Guidebook for Indiana Historic Sites and Structures Inventory – Archaeological Sites As partially revised by the Division of Historic Preservation and Archaeology in consultation with the Guidebook Committee of the Indiana Archaeology Council in 2008 <sup>1</sup>

#### INTRODUCTION\*

The location, identification, evaluation, protection, and preservation of important archaeological sites are an integral part of the state preservation process. There is a longstanding federal, state, and public concern with the protection of these non-renewable resources (16 U.S.C. 470 et seq.; 36 CFR Part 800; 48 FR 44716), and Indiana state law (IC 14-21-1; 312 IAC 21; 312 IAC 22; IC 14-29-1; 312 IAC 6-1; IC 14-34; 312 IAC 25) strongly reflects these concerns as well. Indeed, IC 14-21-1-31 (b) (3) explicitly mentions "the value of history and archaeology as a guide to human activity."

Rules defining archaeological standards, plans, and permits (312 IAC 21; 312 IAC 22; 312 IAC 6-1) have been established under IC 14-21-1 and IC 14-29-1-8 to permit the Indiana Department of Natural Resources and the Division of Historic Preservation and Archaeology (DHPA) to operate a technically accurate and professionally consistent archaeological review and compliance program. Authorized by 312 IAC 21, the Guidebook includes guidelines for Phase I, II, and III archaeological projects to ensure that the products of compliance-related archaeological investigations will lead to the location, identification, evaluation, and protection of important archaeological sites. For the purposes of IC 14-21-1 and 312 IAC 21, "important archaeological sites" will include the definitions of "Historic site," "Historic property," and "Site" as defined respectively in IC 14-8-2-124, IC 14-8-2-125, and IC 14-8-2-258, and in 36 CFR Part 60 (as authorized by 16 U.S.C. 470 et seq.). In practice, in field archaeology, sites are recognized by the presence of one or more artifacts and/or features.

These guidelines have been promulgated to update and clarify standards for archaeological investigations in Indiana. They were also developed to assist the archaeologist in identifying the nature and extent of archaeological sites in Indiana, and to define the expectations for the location, identification, and evaluation of archaeological sites. Included are guidelines for records checks/literature searches; field methodologies for Phase Ia, Phase Ib, and Phase Ic reconnaissance projects; analyses; and reports and format.

<sup>&</sup>lt;sup>1</sup> This is the current draft of the Guidebook, as revised by the Division of Historic Preservation and Archaeology in consultation with the Guidebook Committee of the Indiana Archaeology Council following a meeting on September 25, 2008. The 2008 revision dealt only with pp. 1-8 of the guidebook. There are several passages in pp. 1-8 that still need refinement, as indicated in the asterisked notes on pp. 8-9. The remainder of the draft guidebook still needs to be reviewed in consultation with the Council and revisions made. We hope to undertake the further consultation in the near future.

# **Qualifications**

Records checks/literature searches, fieldwork and analyses are conducted by professionals meeting standards established by the US Secretary of the Interior's Professional Qualifications (36 CFR 61) (<a href="http://www.cr.nps.gov/local-law/arch\_stnds\_9.htm">http://www.cr.nps.gov/local-law/arch\_stnds\_9.htm</a>) and the standards set forth in IC 14-21-1 and 312 IAC 21 and 22 (<a href="http://www.in.gov/dnr/historic/archeo\_mandates.htm">http://www.in.gov/dnr/historic/archeo\_mandates.htm</a>). All individuals and firms intending to conduct archaeological investigations in the state of Indiana must submit the credentials for Principal Investigators and Field and Laboratory Supervisors for approval by the DHPA before undertaking any field or laboratory project in the state. Individuals working under the direct supervision of a qualified professional, such as crew chiefs, field personnel, field or laboratory technicians, students, avocational archaeologists, and other support staff, may assist in archaeological investigations and reports of those investigations. In such cases, the Principal Investigator is responsible for the final work product and must endorse each document with a signature.

In order to be recognized as a qualified professional archaeologist in the state of Indiana, the following information must be submitted on State Form 52799 (R/5-11)\*\* (APPLICATION FOR FEDERAL PROFESSIONAL QUALIFICATIONS DOCUMENTATION FOR ARCHAEOLOGY) (http://www.in.gov/dnr/historic/4282.htm)\*\*\*, broken down in terms of weeks (a week is defined as 40 hours) or days (8 hours) of experience *where applicable*:

- Education (If degree is in a field other than anthropology or archaeology, a transcript or description of archaeological courses and experience at the level of the degree[s]) must be submitted)
- Field experience
- Laboratory experience
- Supervisory experience
- Prehistoric survey and excavation
- Historic survey and excavation
- Nautical/underwater archaeology fieldwork
- Experience in Midwestern archaeology, prehistory, historical archaeology, and nautical/underwater archaeology
- Standard background information
- Specialized analysis expertise
- Example of an archaeological report from the Midwest
- Listing of all projects participated in, and the individuals' role in the project (e.g., principal investigator, field supervisor, field technician, crew chief, crew member, laboratory supervisor, laboratory crew, etc.), and duration of projects in weeks or days
- Listing of reports, publications, professional papers, articles, presentations, etc.
- Other relevant professional experience

It is the intent of the DHPA to respond within 60 days after the credentials are submitted or the applicant will be considered a qualified professional. Any staff changes within a firm must be communicated to DHPA in advance of assigning supervisory responsibilities to any personnel; and a response received from the DHPA prior to assumption of duties. The DHPA may make

periodic contact with qualified professionals to determine if they are still active in the field.

Qualified professionals are expected to adhere to the highest ethical and professional standards, such as those adhered to by members of the SAA, SHA, AIA, AAA, RPA and others, for conducting archaeological investigations and projects in Indiana. Consultants will be removed from the State Qualified Professionals Roster at their request or if the division director files a complaint with the Natural Resources Commission under IC 4-21.5-3-8 to terminate, suspend, or condition the qualification of a person included in the roster, where the person fails to substantially comply with the Guidebook for Indiana Historic Sites and Structures Inventory and Archaeological Sites, as prepared by the Division of Historic Preservation and Archaeology, and the Commission determines or sanctions thus. A final order for a sanction under this subsection may be dissolved or modified by agreement of the parties or for just cause as determined by the commission. (Natural Resources Commission; 312 IAC 21-3-4<sup>2</sup>; filed Jun 8, 2001, 12:30 p.m.: 24 IR 3019).

#### **Records Check/Literature Search**

Archaeological records checks and literature searches are carried out by professional archaeologists prior to the initiation of fieldwork to identify and assess information that is relevant to determining the known and expected archaeological resources for a particular project location. Records checks/literature searches take an in-depth look at the extant archaeological literature and site records for a given project area (usually project specific) and matches that information with other types of information relating to the natural setting, land-use and the type of project or problem that is likely to affect archaeological resources. Project investigators must review the existing published and unpublished archaeological studies and reports, archaeological site files, documents relevant to establishing the environmental setting, and where possible, interview professional and avocational archaeologists and artifact collectors to successfully evaluate the nature and extent of the archaeological data base and to formulate recommendations for field investigations in the project area. Records checks/literature searches should include pertinent information on the following aspects of the project area:

- Known archaeological sites
- Previous investigations
- Burial areas including the DHPA Cemetery Registry
- Current land use
- Previous disturbances
- Geomorphology
- Soils
- Geology
- Fauna
- Flora
- Climate
- Hydrology

<sup>&</sup>lt;sup>2</sup> See Appendix \* for a copy of 312 IAC 21-3-4.

- Cultural and specific project area history which can be gathered from:
  - o Current references/reports and projects in the region
  - Site records
  - o DHPA database and archives
  - o Historical archives/records which may be found at/in:
    - County seats
    - ➤ Historical societies
    - Libraries
    - ➤ Universities and colleges
    - > County histories and atlases
    - > Site and structure inventories
    - > Avocational/informant interviews
    - ➤ Other collections, public and private

As the goal of records checks/literature searches is to determine whether a project area contains or is likely to contain archaeological resources, the report will reflect the sources used and the results of the investigation. As stated in the INDOT Cultural Resources Manual (<a href="http://www.state.in.us/indot/files/INDOTCulturalResourcesManual08.pdf">http://www.state.in.us/indot/files/INDOTCulturalResourcesManual08.pdf</a>, p.89)\*\*\*\*, "A Culture History need not be a general overview of the prehistoric/historic sequence of the Midwest. Rather, it should define the archaeological context of the project area within a specific and relevant regional perspective. The length and detail of the Literature Review/Records Check will vary according to the project requirements and the amount of previous archaeological research that has been conducted in the immediate vicinity."

Based on the findings of the records check/literature search, recommendations for field investigations or no further archaeological assessment will be included in the project report. The length and detail of the Culture History will vary according to the project requirements and the amount of previous archaeological research that has been conducted in the immediate vicinity and the region. The scope of the Literature Review/Records Check will be appropriate for the project. The nature of the project area, the area of potential effects, previous work done in the area, and even sites immediately adjacent to the project area should be used determine the scope of the records check. The format for records check/literature search reports is presented in the Report Format section of this document.

# **Field Survey**

Archaeological field surveys are systematic, detailed field inspections which seek to locate, identify, and evaluate cultural resources within a project area. Sites may be identified through a combination of documentary research, informant interviews, surface reconnaissance and subsurface investigations. Field surveys are conducted by a professional archaeologist who meets federal and/or state standards. Field surveys are generally grouped into three different levels of effort (Phase Ia, Ib, Ic; see below) in order to identify and provide preliminary evaluation of archaeological resources. There are three basic types of archaeological survey: surface survey and visual inspection of the soil when ground surface visibility and survey conditions are adequate, or when surface visibility or survey conditions are not adequate, the use of shovel probes, cores, and/or augering techniques to discover site evidence at or near the surface of the

site (Phase Ia); intensive survey with the use of controlled surface collections, piece plotting, or subsurface sampling (Phase Ib); and subsurface reconnaissance to locate buried archaeological sites in alluvial, colluvial, or aeolian landforms (Phase Ic). All phases of field survey may include the use of remote sensing and other techniques including, but not limited to, methods such as: global positioning system (GPS); total stations; ground penetrating radar (GPR); magnetometry; gradiometry; electrical resistivity; metal detector equipment; and other scientific techniques\*\*\*\*\*

# Phase Ia (Field Reconnaissance)

Phase Ia field reconnaissance projects, including underwater/nautical archaeology projects, will be systematic and guided by a project plan which outlines the logical integration of goals and objectives with field and laboratory methods (312 IAC 21-3-3). The plan may consist of the basic identification of sites within a project area as specified in these guidelines, and evaluation of their significance in terms of the historic contexts of the current local and/or regional literature. Phase Ia field reconnaissance projects will adhere to the stipulations of these guidelines. Alternative approaches such as sampling on large projects, etc., must be submitted for approval by DHPA prior to implementation.

In addition, under IC 14-21-1-24(b)(5), plans proposed for Phase Ia investigations do not require approval by the DHPA. If the archaeological work is for a Section 106 project pursuant to 36 CFR Part 800, approval by the DHPA under state law for a project plan or permit is not needed for Phase Ia field reconnaissance projects. In all cases, a plan approved by the DHPA is required for any archaeological work conducted on State property or any investigation beyond a Phase Ia (312 IAC 21-3-3).

Field crews should carry the proper authorization for the work being conducted. On federally funded projects, the federal agency, state agency, or local municipality may have previously obtained landowner permission. However, it is the responsibility of the supervising archaeologist to contact the appropriate agency, authority, or consulting firm to confirm permission has been granted.

Description(s) of the project area(s) must be recorded in field notes and through photographs. Areas investigated by different field methods (surface reconnaissance, shovel testing, augering, etc.) must be recorded. Relevant information includes variables related to surface visibility, surface conditions, erosion, geomorphology, soils, standing water or saturated soils, prior disturbance, etc.

<u>Surface Survey</u>: A visual surface survey is to be conducted when overall ground surface visibility is greater than or equal to 30% and survey conditions are adequate for detecting archaeological sites. Surface visibility should reflect the average visibility throughout the project area being evaluated. Total or partial snow cover, frozen soils, and freshly tilled fields that have not been rain-washed are not acceptable survey conditions. Additionally, if there is a portion of a field or area that does not have 30% surface visibility, even though the average visibility of the area is greater than or equal to 30%, these areas must be shovel tested.\*\*\*\*\*

A visual surface survey must conform to the following conditions:

- Standard systematic interval spacing for a thorough visual inspection is 10 meters. When combining surface survey with shovel probing, intervals should not exceed 15 meters and need to be consistent. When artifacts are found, to define site boundaries, and in areas of previously known or reported sites, spacing is to be reduced to a maximum of 5 meters.\*\*\*\*\*
- Limited probing or auguring will be used to confirm alluvial soils, depth of plowzone, and potential deposits. The location of such probes within an archaeological site must be indicated on a map.

In areas that have been previously cultivated, plowing and discing is permitted to improve ground surface visibility. Plowing will not exceed the existing depth of the plow zone determined through shovel probing or augering. Following the plowing and/or discing of the project area, the surface must be rain-washed prior to surface collection.

The areas surrounding extant historic structures, ruins, or locations of demolished historic structures must be investigated to determine if such sites are eligible for inclusion in the National Register of Historic Places. A site map of visible surface features and structures should be recorded.

**Shovel Probing:** Where ground surface visibility is less than 30% and with a surface slope of less than 20% or 11°\*\*\*\*\*\*\*, a **shovel probing** methodology is required.

- Systematic shovel probes will be excavated in transects not to exceed 15 meter intervals. Shovel probes will be a minimum of 30 cm in diameter and extend into undisturbed soils, or to a maximum depth of 50 cm. The soil excavated from shovel probes will be screened through ¼" wire mesh. All shovel probes must be backfilled. The principal investigator for a shovel probe should evaluate the conditions of the site and the probability of finding archaeological deposits in deciding an appropriate interval for the probe. If there seems strong probability of discovering sites at less than 15 meter intervals, a lesser distance between probes should be used.\*\*\*\*\*\*\*
- Once artifacts are recovered or if on a known or reported site, spacing is to be reduced to 5 meters near the periphery of the site and continued until two sequential negative probes are excavated to determine the site boundaries.
- Field maps showing transect locations and shovel probe locations (both positive and negative) must be kept for all recorded archaeological sites. Collection of GPS locations of positive shovel tests is encouraged. Artifacts are to be collected and bagged by shovel probe and placed in appropriately identified bags.
- Soil profile information and depth of deposits from shovel tests must be noted and representative profiles described in the report.
- Shovel testing in rockshelters must be minimized to avoid damaging and potentially compromising fragile deposits. If cultural materials are absent on the surface or

immediately adjacent to the shelter, then shovel probing to define the presence or absence of archaeological deposits may proceed. However, once the presence of archaeological deposits has been identified, the shovel probing (or any other ground disturbing activity) must stop.

• Rakebacks of surface vegetation are not sufficient for adequate Phase I survey.

Areas with slopes greater than 20% or 11°\*\*\*\*\*\* will be subject to walkover at 30 meter intervals including areas conducive for the presence of rockshelters, rock ledges, historic sites, dumping deposits, chert or other resources, or caves that may contain archaeological resources.

<u>Artifact Collections</u>: On prehistoric sites, all diagnostic artifacts and all artifacts found within individual transects (1 meter to either side of transect centerline) will be collected, with the exception of fire-cracked rock (FCR). Concentrations and relative densities of all artifacts, including FCR, must be recorded. Counts, densities, and/or weights of FCR, must be recorded.

On historic sites, if the Field Supervisor (or Principal Investigator) meets the state qualification standards in Midwestern historic archaeology and is thoroughly familiar with the ages and functions of historic artifacts, then thorough collections of artifacts of recent origin (less than 50 years old) need not be made. If there is any doubt as to the age, function, or information potential of artifacts, collections should be made for identification purposes. A decision not to collect all of the artifacts found within individual transects (1 meter to either side of transect centerline) must be justified and approved by DHPA prior to the initiation of fieldwork or at a point during the fieldwork when a situation arises that forces such a revision. The exception to this is in the category of large amounts of architectural/construction items. Artifacts such as bricks, concrete blocks, and other construction debris do not need to be collected (although they must be noted and described, and densities estimated, counted, and/or weighed), unless there is something diagnostic (e.g., manufacturer's mark, name or place stamped on an artifact, artifact has relevant functional information, etc.) about them or if the research design delineates such methodology for a specific study (e.g., early 19th century brick manufacturing).

Areas of artifact concentrations and surface features should be mapped spatially and recorded by provenience, with the artifacts collected and bagged separately from the rest of site materials. Collected materials are to be bagged by site and placed in appropriately identified bags. Observations related to artifact concentrations, FCR concentrations, and environmental variables will be recorded and included in the field notes and the report

**Recording:** All known and reported sites within a project area are to be revisited, information on them updated, and their data included in the analysis and interpretation.

Appropriate field documentation (field notes) for sites identified during a Phase Ia investigation will include location and type of deposits, features and subsurface deposits (if detectable from subsurface probing), how sites were discovered, how sites were explored and data recovered, surface visibility and how determined, factors affecting visibility, site dimensions and how determined, site maps, artifacts and materials collected and method of recovery, illustrations or photographs of diagnostic artifacts, areas of artifact concentrations, site maps, structures, site integrity, location and physical environment.

If a previously recorded site is resurveyed and not found, a new site form must be completed indicating that no evidence of the site was found.

All sites encountered, including cemeteries, must be given a state site number from the DHPA office. A cemetery registry survey form must also be completed.

The location of all sites will be recorded by GPS or other measuring device. The state standard for UTMs is NAD 83. If a site location is recorded using NAD 27, it must be indicated on the form.

A report must be written and supplied to the appropriate agency. The minimum requirements for a report are detailed in 312 IAC 21-3-8 for projects conducted under 14-21-1.

Should human remains buried before January 1, 1940 or burial objects, including grave markers be encountered at any point during the investigations, any further impact to the area must stop and the IDNR must be contacted within 2 business days (IC 14-21-1-27, 29). The local county Coroner and law enforcement officers must also be contacted.

<sup>\*</sup> The DHPA is still exploring modifications to the Introduction. Definitions of terms used also need to be included at the end of the document.

<sup>\*\*</sup> This was changed to the correct current state form alphanumeric designation.

<sup>\*\*\*</sup> This was changed to the correct current website.

<sup>\*\*\*\*</sup> This was changed to reflect current INDOT Cultural Resources Manual and accurate page number and quote.

<sup>\*\*\*\*\*</sup> Further current scientific techniques may be added as the guidebook is revised.

<sup>\*\*\*\*\*</sup> Language regarding/clarifying no-till conditions needs to be added.

<sup>\*\*\*\*\*\*\*</sup>How to achieve consistency of intervals may need to be elaborated.

<sup>\*\*\*\*\*\*</sup> Changed to correct degrees

<sup>\*\*\*\*\*\*\*</sup> This adds language from the March 10, 2009 email from James A. Glass to Qualified Professional Archaeologists on "Revised Policy for Shovel Test Probes in Indiana."

<sup>\*\*\*\*\*\*</sup> Changed to correct degrees.

#### **Phase Ib (Intensive Survey)**

This survey level of effort is designed to build upon the reconnaissance and may involve the use of controlled surface collections, piece plotting, or subsurface sampling. This is done to assist in the assessment of the site and to guide areas for Phase II testing. Phase Ib is most often conducted in conjunction with Phase Ia; however, it can be used for a specific site when the level of data is not sufficient to determine its characteristics, nature, or potential eligibility. If the site appears to be potentially eligible (in consultation with the DHPA) for the National Register of Historic Places, a permanent site datum will need to be established. For historic sites, deed searches and historical research may be required.

Phase Ib surveys may, in coordination with the DHPA, be combined with Phase II.

As with Ia, the standards set by 312 IAC 21 will apply for all projects.

# Phase Ic (Subsurface Reconnaissance)

Subsurface reconnaissance is required in areas where archaeological remains are likely to be buried in alluvial, colluvial, or aeolian landforms. This level of reconnaissance may require the use of small excavations, including trenches, to discover, define and assess the nature of buried deposits. Such excavation projects must conform to current U.S. Department of Labor's Occupational Safety and Health Administration (OSHA) standards and guidelines. The subsurface reconnaissance attempts to find sites in both their vertical and horizontal exposures. Prior to the initiation of a subsurface reconnaissance, a plan must be submitted to the DHPA for approval (IC 14-21-1-29). Further, in extremely complex depositional situations, such as the large floodplains of the Ohio, Wabash or White Rivers, or alluvial/colluvial fans, the work must be supervised by a qualified professional with demonstrated ability in identifying and interpreting buried soil horizons and landforms. These individuals need to submit credentials and examples of their work to the DHPA for review. The need for this technical consultation will need to be addressed in the subsurface reconnaissance proposal.

If mechanical equipment is used to excavate trenches, it must be equipped with a smooth-edged bucket. Trench excavation must take place slowly, in levels in a controlled manner, and each cut inspected precisely and carefully before the next. These trenches need to be initially excavated to the base of the plowzone, then hand scraped there to detect any features at the base of the plowzone, before proceeding with deeper excavation. All trench walls and floors need to be hand scraped to clearly determine the presence of archaeological deposits. This may require initial excavation of shallower trenches before stepping back to comply with OSHA guidelines and then re-inspecting the trench surfaces as safety factors dictate.

An adequate, justified sample (rule of thumb, no less than 1% to 3%) of the land surfaces with the potential for buried archaeological deposits needs to be included in the subsurface reconnaissance. The reconnaissance needs to sample all landforms within the project area and be adequate to assess the nature and potential for any buried *in situ* cultural deposits to be affected by the proposed project. Fieldwork should be completed as soon as possible, all as one project, with little time gaps between excavations.

In deep, complex situations or cases of extenuating circumstances (e.g., high water table) alternative methodologies can be developed in consultation with the DHPA. Further, it is recommended on projects of large areal scope or complex topography, geomorphology, or stratigraphy, that a preliminary evaluation by a qualified, experienced professional be conducted to detect areas likely to contain buried cultural deposits. If definable landforms with potential to contain buried deposits can be identified, trenches spaced at a 40 meter interval could be placed upon them with fewer trenches sampling areas of lower likelihood for buried deposits. Intervals for trench/core/unit placement and the amount of screened samples should be described in the subsurface reconnaissance plan. If an alternative sampling strategy is not agreed upon, trenching intervals should be no greater than 60 meters apart and 10 meters apart for auger tests. Intervals should be reduced to better refine the boundaries of a site in areas adjacent to positive tests. Adequate, standard volume sample columns should be taken and screened (recommend graduated screens) where presence or absence of cultural deposits cannot be determined based on macroscopic or field evidence (i.e., buried A horizons, areas of charcoal flecking, scatters of unmodified faunal material, etc.). At least one representative segment of each subsurface trench wall needs to be drawn with a point designated on the profile map that relates to a permanent site datum, with both horizontal and vertical locations either provided on the map or in tabular form. Further, if archaeological deposits are encountered, trench walls must be completely mapped, including the entire extent of the area excavated. Deposits that are identified only in profile need to be expanded over and sampled by excavation. This will aid in their evaluation, evaluation of the site, justification and planning for further investigations, and prevention of damage to them by backhoe excavation. Features must not be left exposed for any more than a short period of time, so as to minimize damage to the deposit by the elements. All artifacts encountered during the subsurface investigation need to be collected and bagged by provenience (trench, depth, features, etc.). Intermediate trenches/augering may be required for accurate definition of site boundaries.

The DHPA recommends that, in most cases, backhoe trenches be limited in length to provide for flexibility in situations where deeper levels need to be excavated after initially encountering cultural resources at shallower depths. Further, higher numbers of short trenches spaced at a fairly close interval will be more likely to encounter buried archaeological resources than fewer, longer trenches placed at greater intervals. In addition, documentation of the entire length of the trench walls (if cultural deposits are encountered) is easier in shorter segments. This suggestion is not meant to preclude the use of longer trenches, given contingencies in the field and landform evaluation.

All features exposed in the plan view of the trench/unit must be excavated. This may involve expanding the original trench/unit to recover the feature if assessment of the anomaly was not possible during the initial excavation. Features found in trench/unit profiles must be assessed for type, nature, and content if documentation was not possible in the base of the trench. All features must be mapped and photographed with the artifacts bagged and recorded by feature. Selected samples of screened columns should be employed in cases where midden deposits are encountered or to assist in the determination of cultural affiliation. Carbon samples for radiocarbon dating, if encountered, must be properly recovered and an appropriate sample analyzed, as well as appropriate samples for other dating methods (e.g., OCR, bulk soil, etc.).

Specifically, conducting an adequate subsurface investigation needs to include the following components:

- Backdirt needs to be inspected for artifacts, ecofacts, and evidence of features as it is excavated.
- A smooth-edged bucket must be used to excavate trenches.
- Backhoe trenches need to be excavated in a controlled manner (ca. 10-15 cm layers), according to soil types and condition, to allow for inspection of horizontal surfaces.
- Loose backdirt needs to be kept away from the edges of trenches.
- The backhoe trenches and activities need to be continuously monitored by an archaeologist during operation.
- Trenches must be hand scraped to identify cultural deposits and related stratigraphy.
- Documentation of trench walls must be completed immediately after excavation.
- Materials recovered from subsurface investigations need to be bagged by trench/level or other relevant provenience.
- Any material identified in the trench walls must be labeled and keyed to material inventoried either in the report or described with the profile map.
- Detailed soil descriptions, including the nature of any cultural inclusions, texture, Munsell color, evidence of pedogenesis, bioturbation, and other disturbance must be presented for each identifiable strata and keyed to a trench profile map.
- Trench datums must be shown on maps.
- If buried deposits are encountered, a permanent site datum must be established.
- It is the responsibility of the principal investigator to ensure that all excavated areas are properly backfilled upon completion.
- Relevant standards, including personnel qualifications, established in 310 IAC 19 apply to subsurface reconnaissance projects.
- Ten liter flotation samples must be collected from each discreet feature identified.
- Carbon and other samples must be retained and processed as appropriate.

In cases where there is a possibility for buried deposits underlying potentially significant deposits, the Phase Ic subsurface reconnaissance of the lower levels must be coordinated with the Phase II investigations of the upper cultural deposits.

All deep investigations must be conducted in a manner consistent with the OSHA's Standards for Excavating Trenches.

# **Identification, Interpretation, and Analyses**

Artifacts recovered during Phase I investigations must be treated according to current standards of archaeological documentation. A summary of metric attributes must be provided, as appropriate. Basic identification, tabulation, and interpretation of artifacts are the primary concerns of analyses at this stage.

In general, artifacts should be classified into defined categories to be used in an artifact analysis. Raw materials, technical/functional type, and alterations must be included. In addition, summary tables tabulating artifacts by count (including percentages), and/or weight need to be included in the report. Whenever possible, cultural/chronological types, metric data, and named material types for lithic artifacts should be used. When in doubt, under-specify, for an unambiguous general label is preferable to an unsupported or questionable specific label. Photographs and/or illustrations must be provided for all diagnostic, unique or unusual, and artifacts which may be identifiable, but which the researcher cannot identify.

For historic artifacts, analysis will specify and tabulate: ceramics by type, ware, decoration, and manufacturer, if possible; metal by type and manufacturing technique; and glass by color and type. Whenever possible, date ranges will be determined and stated in the report. Representative samples of diagnostic, representative, unique and unusual, and artifacts which may be identifiable, but which the researcher cannot identify, must be photographed and/or illustrated.

Floral and faunal material will be identified and tabulated by taxon, provenience, weight and size of sample(s) analyzed (relative densities), if possible.

Human remains are to be reviewed by a qualified osteologist, physical anthropologist, or forensic anthropologist, summarized by individuals for location, deposition, position, orientation depth, stature, sex, age at death, pathologies, etc. as appropriate, and treated according to IC 14-21-1 and its rules.

The analyses are to be conducted by qualified individuals knowledgeable in that particular subfield and established in their curriculum vitae. The individual conducting each particular analysis must be identified in the report.

As non-curation greatly limits the information potential and future evaluation of artifacts and sites, all artifacts to be returned to a landowner must be thoroughly documented and subjected to detailed recording and analysis, including, but not limited to:

- Analysis of all artifacts to identify artifact types.
- Analysis of each individual artifact type to determine if it is chronologically and/or culturally diagnostic.
- Standard measurements of attributes of all diagnostic artifacts.
- Identification of raw materials, including a description of all chert types recovered, relevant references, and source areas.
- Species-level identification, when possible, of all faunal remains from an archaeological site.
- Scaled photographs of all artifacts recovered from each site recorded from the study. In cases where very large amounts of artifacts are recovered, representative samples or group photographs may be taken, if justifiable and in consultation with the DHPA.
- Individual photographs and/or illustrations and measurements of all lithic tools

- (i.e., standard measurements of projectile points, use wear, any organic materials present).
- Analysis, photographs and/or illustrations, measurements, and morphology for pottery with clear descriptions on how taken.
- Individual photographs and/or illustrations and measurements of unique, unusual, or unidentified, but which may be identifiable, historic period artifacts.
- Individual photographs and/or illustrations and measurements of representative specimens of other diagnostic historic artifacts.
- Tables need to be provided detailing artifacts by provenience, giving the sample number, method of recovery, material categories and descriptions, raw materials, counts, plate or illustration number, and any other pertinent information. *Those items returned to the landowner(s) must be identified in the report.*

The contractor must coordinate with the contractee to make certain that all landowners have been advised of their rights to the artifacts found. Formal agreements signed by the landowner(s) surrendering their interest are encouraged.

# Reports and Format

Reports must be submitted within six months after the completion of fieldwork unless other arrangements are made with DHPA. The Principal Investigator or Field Supervisor(s) who conducted the fieldwork and project must be the one(s) who write the report, and arrangements must be made so that they contribute to the report before leaving the particular archaeological firm. Projects may be approved prior to the receipt of needed report corrections based upon the severity and need for that information to make an accurate determination of a site's nature and register eligibility. DHPA retains the right to require additional necessary information to make such an assessment prior to approval. It is the position of the DHPA that all reports be complete, stand on their own, thoroughly characterize all aspects of the total project, and be understandable for future generations whether related reports and project information are available or not.

For Phase I investigations, the following report format should be used. Any variation from this format must be approved by DHPA in advance of submission.

# A. Title Page

- 1. Title of the report, including project name, township, and county.
- 2. Author(s), principal investigator, company/organization/institution, address, and telephone numbers.
- 3. Client for whom report is prepared, address, and telephone number.
- 4. Lead public agency (e.g., Indiana Department of Transportation), if applicable.
- 5. Date of report.
- 6. Indication if report is draft or final. If a report is submitted without the word draft on it, and it is accepted, nothing need be done. If the report is a draft of a large or complex project, or needs modification, the final report, when acceptable, must be clearly and obviously labeled as such.
- 7. Permit number if conducted under IC 14-21-1.

#### B. Abstract

- 1. Summary of location, nature of the project, project goals, scope of work, personnel conducting the project, methods, findings, and recommendations.
- 2. Statement of size of project, the size of area surveyed (in acres and hectares), new and previously recorded sites investigated, and which site(s) were recommended for further work.
- 3. Permit number if conducted under IC 14-21-1.
- C. Table of Contents--topical headings with corresponding page numbers. Authors of sections must be indicated if different from principal authors.
- D. Lists of figures, plates, and tables with corresponding page numbers. Small projects in limited areas finding few or no sites or artifacts do not need this front matter.

#### E. Introduction

1. Discuss thoroughly the purpose, goals, and circumstances of the contracted services, including description of the project, location and size of project, areas surveyed, scope of work, dates and types of field work and analyses, project administration and personnel for each portion of the project, which days were spent on the project and tasks performed those days or hours, organization, constraints, areas surveyed, sites found, summary of nature and characteristics of sites, constraints, recommendations. All submitted reports must clearly state who conducted the survey and laboratory work, their capacity, exactly when the survey was conducted, and what task(s) were completed. For larger, extended surveys, this information can be included in tabular form in an appendix cross-tabbed by person, days worked, and tasks conducted.

#### F. Research Design

All archaeological investigations must be guided by a research design, and all qualified professional archaeologists conducting archaeological investigations in the state are expected to keep current on archaeological research and information generated in Indiana, and current methods, techniques, and theories in the discipline. An adequate research design identifies legitimate research problems, specifies the objectives for the current study, presents a discussion of any background literature relevant to the problem and its development, addresses the formulation of hypotheses, and outlines the level of field and laboratory analysis that will be necessary to address the research problem. The research design needs to ensure that the analytical framework is appropriate to the level of the investigation and that problems addressed are relevant to the temporal period, size of the project, and geographical location. For smaller projects, it is understood that development of testable models is limited; however, attempts must be made

to integrate the growing number of surveys into a wider regional research context.

# G. Background Research

#### 1 Prehistoric

- a. Documentary research on environment must include local physiography, topography, geomorphology, soils, hydrology, flora, fauna, climate and geology.
- b. Provide a review of relevant culture histories, previous research including chronology, settlement and subsistence patterns, site types, and any other available data which may be important for determining what types of cultural resources are likely to be present, how these may be recognized, and which methods will be effective in their location, identification and evaluation.
- c. Identify known and reported archaeological resources utilizing the site files of DHPA and other institutions, colleges and universities, and informant, artifact collector, avocational archaeologist, and landowner interviews.
- d. Record interviews with informants providing names and date of interview, general inventories of reliable collections as well as illustrations of any representative material remains, if possible.
- e. Discuss the regional and areal information and data relevant to the archaeological investigations. Include cartographic setting and background.

#### 2. Historic

In addition to 1. above, provide:

- a. Information regarding the transformation of the landscape since European settlement and settlement history.
- b. Research including general or specific secondary histories, previous survey reports, historic property registers, historic maps, atlases, photographs, etc. Appropriate primary documents should be consulted as necessary to identify potentially significant historical events, activities, occupations, sites, etc. in the project area, as well as to plan for field survey investigations.

#### 3. Urban--same as 1. and 2. above.

# H. Field Methods and Techniques

- 1. Describe and justify data collecting techniques, sampling, horizontal and vertical controls, size of intervals, grid, and units, and artifact retrieval procedures. Datum used and permanent datum must be indicated on a site or project map. If probability zones are established, they should be illustrated on a project map (U.S.G.S.). Grid, probe, unit, trench, feature, provenience, etc. designations must be described. Screen size and method of screening must be described. Unless operating under approved plans or approved agreements for certain fieldwork projects, describe and/or include a copy of the DHPA approved plan/proposal submitted and a copy of the letter stating DHPA approval for the research and any DHPA conditions, and if the methodology deviates from these guidelines or for subsurface reconnaissance investigations.
- 2. Describe environmental (weather and surface) conditions during the survey and their effects on survey results. Again, snow covered and frozen conditions and no till conditions are not considered acceptable survey conditions.

# I. Results of Investigations

1. Written site descriptions of all sites investigated to be included in the report and on site forms will include data on cultural affiliation (culture and period) of all components; site type; presence and type of deposits; features, relationships or associations of artifacts and features, subsurface deposits, and stratigraphic situation of the site (if detectable from subsurface probing); how site was discovered, how site was explored, survey strategy, recovered; surface visibility and how determined; factors affecting visibility; site size and dimensions and how determined; location and setting; soils and topography; site maps and sketch maps depicting site boundaries, nearby landmarks, locations of positive and negative shovel probes, if any, and locations of surface and/or buried features; lists and descriptions of artifacts (including types and frequencies), physical and standard technical/functional categories, associations, materials collected, and method of recovery; illustrations, references, and dates of diagnostic artifacts using standard, original references for artifact identification; areas of artifact concentrations, use and activity areas (including locations and nearby landmarks); relative densities and locations of FCR and historic construction debris not collected; structures; site integrity, land use, and disturbances; and physical environment. Site and project area stratigraphy must be described and illustrated. See Appendix A (to be supplied, attached later) for detailed instructions on how to complete the hard copy site form and the electronic format site form.

#### 2. Prehistoric

- a. State percent of ground visibility and how determined.
- b. Survey method employed for each area, including transect interval and collection strategy.
- c. Density and extent (horizontal and vertical) and integrity of recovered materials
- d. Provide representative soil profiles and/or descriptions from shovel tests.
- e. A map depicting the location of transects and positive/negative shovel probes, and the location and size of any investigation units.
- f. Present all of this information in sufficient detail so that a determination of eligibility or potential eligibility can be made by the SHPO's office.

#### 3. Historic/Urban

- a. Use all precepts stated in the above for Prehistoric.
- b. Shovel probes in and around historic surface features, maps and photographs of all features, descriptions and references and dates for all diagnostic artifacts.

#### J. Analyses

- 1. Specify counts of materials recovered, provenience, and associations. Provide tabulations of all artifacts, with descriptions of the criteria used to define the artifact categories or types. Include: type of material and alterations, such as edge damage, heat alteration, weathering, etc.
- 2. Identify cultural affiliations with classification type names and the references used for the identification.
- 3. Specify and tabulate by type historic ceramics (paste, decoration, ware, manufacturer, and date); metal (manufacturing technique and date); glass (color and type), and all other artifacts (type and description) with references used.
- 4. Identify and tabulate floral and faunal material by taxon, provenience, weight, sample size (relative density), if possible.
- 5. Detail and inventory human remains and skeletal material by individuals for location, deposition, depth, position, orientation, stature, pathologies, sex, age at

death, etc., as appropriate.

6. Descriptions and interpretations of artifacts by provenience.

#### K. Curation

- 1. All artifacts not returned to the landowner, copies of field and laboratory records and documentation, maps, photographs, samples recovered or taken, notes, site forms, site and project report(s), other relevant records, documentation, etc. must be curated at a qualified curational facility. Documentation of the signed curation agreement with the facility and its address or location must be provided with the report. Arrangements will be made for the DHPA to be notified by both parties, with documentation, when disposition of these materials has been made to the facility. Arrangements for curation must be made prior to the beginning of fieldwork. Artifacts and other materials must be shelf-ready for curation, according to the standards of the approved curational facility.
- 2. All material specified above for curation must be submitted to the permanent facility within six months after the approval of the final report. Arrangements must be made that the DHPA is advised by the curation facility that such a transaction has taken place.

# L. Eligibility Assessments

1. Recommendations and justifications must be presented for each site to be evaluated for its potential significance and eligibility for nomination to federal and state registers. The investigator must detail the justification for each site's assessment and recommendations for further investigations. For larger projects with numerous sites, the recommendations must be summarized in a table.

# M. Interpretations of the Findings into a Regional Context.

1. The investigator must use the data gathered to form new or reaffirm previously determined concepts on the use of landscape, cultural chronologies, etc. Site density calculations, when provided, must include, as practicably as possible, all known, documented, and reported sites in the project area. Provide a synthesis of the information and data gained by the project.

# N. Bibliography/References Cited

1. Must be complete, consistent and follow *American Antiquity* style guidelines.

# O. Appendices

1. If required by the project, detailed descriptions and photographs of all structures to be assessed by DHPA.

2. Other relevant material summary tables, specialized analyses, etc.

# P. Graphics and Illustrations

- 1. A U.S.G.S. 7.5' quadrangle map locating the project area(s) and site(s) in a recognizable way.
- 2. A map locating the project area(s) in the region and state.
- 3. Photos of features.
- 4. Composite map of field investigations of site(s) (e.g., locations of shovel probes, grids, units, trenches, artifact concentration, activity areas, features, nearby landmarks, etc.).
- 5. Representative profiles of the stratigraphy of the project area and site(s). Profiles of all trenches with cultural deposits present. The walls of trenches placed within site areas must have the entire wall segments drawn in profile showing soil strata, cultural deposits, and the extent of the area excavated by the backhoe.
- 6. Plan views and profiles of all features discovered and investigated.
- 7. Contour map of site(s) on Phase Ib and Ic investigations.
- 8. Representative, all diagnostic, and unidentified artifacts which may be identifiable must be photographed and/or illustrated with a scale. A digital CD of photographs of all images may be supplied.
- 9. If part of the project requirements, exterior and interior photographs of structures that need to be assessed by DHPA.
- 10. Scale, north arrow or stated direction of photograph, and pertinent legends will accompany all graphics and illustrations.
- 11. Maps of the project area and those areas subjected to archaeological survey will be indicated on a standard U.S.G.S. 7.5' minute topographical maps with the quadrangle(s) identified, and include:

Previously disturbed areas. Areas of differential or varied surface visibility.

All previously known sites.

All newly recorded sites.

12. Important or relevant correspondence pertinent to the project should be

included in an appendix.

# Q. Site Forms

1. Original copies of site forms or copies of electronic submissions must accompany the report. The site forms do not have to be included in the report itself

#### R. Addenda

Addenda to previously-submitted and approved site/survey reports are discouraged. They may be acceptable in situations such as where a parcel of property was not accessible during the original survey or there are **minor** changes in the boundaries of the project area. However, to be considered, they must meet the following stipulations:

- 1. The original site/survey report must not be over two years old. Records checks must be updated with current information.
- 2. The addendum must be written by at least one of the original report authors.
- 3. The area incorporated in the addendum may not exceed forty (40) acres.

Approval for the use of an addendum must be obtained from DHPA prior to the start of a project.

S. The Principal Investigator is responsible for assuring that all of the contents of the report and accompanying site forms are a true representation to the best of his or her knowledge and ability.

# **Phase II (Testing)**

#### Goals

Archaeological sites are subject to site testing after they have been located by a reconnaissance level (Phase I) survey and thought to be of individual importance or potential significance. Sites are tested to find out what cultural material exists below the ground surface or beneath disturbed levels, the nature of the archaeological deposits and their context, the extent of disturbance, and gather adequate information to develop a mitigation plan, if necessary. The importance of an archaeological site can rarely be accurately established without some subsurface investigations. The exception to this would be a large site with many above-ground features such as mounds or historic sites with structures and noticeable features.

In order to determine the importance of an archaeological site, sufficient subsurface investigations must be completed to establish the potential for undisturbed site data that could be

used to formulate and answer research questions. An important site is defined as one that meets the criteria of eligibility for the Indiana Register of Historic Sites and Structures and the National Register of Historic Places (36 CFR Part 60). The term significant is applied to federally regulated projects and is here used interchangeably with important.

# **Research Design**

All site testing project plans will attempt to address the state's developing historic contexts, and sites designated for testing are then slated for consideration of their eligibility for the Indiana Register of Historic Sites and Structures and the National Register of Historic Places. A detailed summary of the particular site being tested, what was found/located during Phase I and the rationale for recommending Phase II investigations. These plans must be submitted to the Division of Historic Preservation and Archaeology (DHPA) for comment prior to their implementation.

Site testing operations should be of sufficient scope to efficiently and effectively evaluate the archaeological site's importance, but not to the point where the excavations unnecessarily affect the important features, data, and values of the property. The DHPA recognizes the diversity of circumstances that arise when evaluating archaeological resources; however, the Phase II testing must be of a sufficient scope to enable the effective development of a Phase III data recovery plan, should mitigation of the project effects be required.

Research designs must have a sound, well-supported theoretical basis and may vary from the standard guidelines in order to address the needs of a particular investigation. It is highly recommended that research designs deviating from the guidelines be submitted to DHPA for comment and review in advance of fieldwork. Research designs must include the criteria presented in 312 IAC 21 and 22. In addition, the following must be included:

- 1. A summary of previous archaeological research at the site and at other associated or nearby sites.
- 2. A detailed description of proposed research and analytical methodologies including:
  - a) Site definition
  - b) Surface collection
  - c) Hand excavation and coring/augering methodology
  - d) Mechanical soil removal procedure
  - e) Feature excavation methodology
  - f) Analytical procedures

- 3. Release of interest in artifacts by landowner, unless landowner wishes to retain artifacts
- 4. Agreement with curatorial facility.
- 5. A proposed time-line for project.
- 6. Plan for what will happen if human remains are encountered.
- 7. Copy of signed landowner permission.
- 8. Evaluation of results against what was proposed (see previous page).

# **Archival and Background Research**

The purpose of Phase II archival and background research is to supplement the existing information on a previously identified archaeological site. This additional information is meant to add to the body of knowledge regarding the site, and ultimately should assist in determining whether or not the site meets the criteria for the Indiana Register of Historic Sites and Structures or the National Register of Historic Places. Investigators should carry out documentary research, informant interviews, and collection studies, as appropriate, to achieve these objectives.

In addition to the information and sources to be examined which were listed in the Phase I guidelines, the following should be researched:

- Early photographs and lithographs
- Court records (deeds, mortgages, etc.)
- Real property records
- Transportation records
- Wills and probate inventories
- Census data
- Plat and other types of maps

Although investigations at a site with strictly a prehistoric component(s) would obviously not involve a number of these resources, prehistoric site background research should involve the review of current archaeological sources regarding the appropriate prehistoric components. The various components of Phase II archival and background research should lead to refinement of the historic contexts particular to that archaeological resource.

# Field Methodology

Adherence to the requirements of the Phase I guidelines as applicable when reconnaissance and intensive level surveys are required as part of the site testing project. Specifically, this would include the relocation of the site and its boundaries, surface collections,

testing, analyses and report preparation.

All tested sites that have revealed contextual deposits must be marked with at least two permanent datums which should be easily marked for relocation and are clearly identified on the site map. All excavations will be tied to these datums.

The Principal Investigator will develop and maintain a system for identification and recording of artifacts and their provenience (in both horizontal and vertical context) which optimizes the research potential for each tested site.

The Principal Investigator will insure that the amount of work contemplated is related to the question(s) addressed in the project plan. Power machinery may be used to expose cultural deposits as long as the Principal Investigator has determined through sufficient and prior hand excavations that no buried features or intact cultural deposits will be adversely affected by its use. All landforms within the site area with the potential for cultural deposits must be sampled.

If not already accurately determined, site boundaries and artifact concentration areas--or changes or refinements in boundaries-- must be confirmed during investigations. If visibility is less than 30% on the site being investigated, the area may be investigated by disking or plowing and conducting investigations under well rain washed (artificially or naturally) conditions. The area may also be investigated by other means including subsurface reconnaissance methods such as shovel probing. Artifacts that are clearly relocated due to erosion or mechanical cultivation and that are on otherwise uninhabitable surfaces are not considered to be within the boundaries of the site.

All prehistoric artifacts will be collected. All historic artifacts must be collected with the exception of large amounts of construction debris which may be representatively sampled after consultation with our office. If extremely large amounts of other artifact types exist, they must be representatively sampled after consultation with our office.

A demonstrated effort must be made to record cultural materials in place when they occur in undisturbed context. This would specifically apply to context within features or middens (either with or without organic material included). This effort may require the involvement of specialists, such as a bioanthropologist or osteologist in regard to poorly preserved skeletal remains.

# **Shovel Tests**

In the absence of a controlled surface collection, screened shovel tests may be used to discover the depth of disturbance and overburden and whether undisturbed cultural deposits exist. When shovel testing is done within the defined boundaries of a site, they will be done on 5 meter intervals. Shovel testing patterns and results must be accounted for in the project records.

#### **Auger Tests**

A soil core auger, bucket auger or post hole digger can probe deeper than a shovel and should be employed if deeply buried deposits are suspected or present. Spacing should be the same as for shovel testing and accounted for in the same manner in the project records.

#### **Test Units**

Test units should constitute the basis of early investigation at a site and used to guide the use of mechanical stripping if such a methodology is employed. All areas of the site and associated landforms should be sampled through hand excavated units prior to the implementation of mechanical soil stripping, although a biasing of the sample towards areas of artifact concentrations may be warranted. Test units should minimally provide information on stratigraphy, depths of deposits, range of material culture, and feature potential. Units should extend at least 10 centimeters into what is considered to be culturally sterile soils and should be augmented by soil cores at the lowest excavated level. Other non-destructive techniques such as soil resistivity and magnetometer survey should be considered as an adjunct to test pits.

All excavation units must be clearly troweled to allow accurate identification and mapping of strata and features both in plan and profile views. Soils in excavation units must be kept moist in order to accurately see and record feature and strata changes during excavation. This requirement may be altered when a site context or environmental conditions predicate an alternative approach. Justification for alternative field strategies or methods must be presented in the research design's proposed methodology.

An adequate sample (as defined in the approved research design) of the surface and plowzone deposits must be collected to determine the range and nature of the archaeological materials, as well as collection of artifacts for curation and future studies. The amount of the plowzone that will require screening is contingent on the methodology employed during current and previous investigations.

#### Other

The controlled employment of power machinery can be an efficient, quick way to determine the depth of deposits, to get a profile of a trench in a site where shovel tests and test units seem inclusive, and to search for suspected buried deposits too deep for shovel or auger techniques. Testing with power machinery can be done when features are suspected and other methods of testing have not revealed undisturbed cultural deposits. The appropriate machinery should, however, be used in each topographical setting. For example, a belly or pan scraper may not be appropriate for soil removal on narrow ridge spurs. When using a backhoe, a smoothedge or toothless (mud) bucket with a smooth edge must be used. Mechanical soil removal must always be carefully and continuously monitored by at least one archaeologist who is qualified as a field supervisor under 310 IAC 19 and has the authority to stop the machinery should deposits be revealed and/or to control the depth of soil removal with each pass of the machine. The amount of information likely to be revealed by the use of power machinery must be weighed against its impact (e.g., compaction, tire cuts) on the cultural deposits.

Adequate crew must be present to monitor backhoe/machine cuts, concurrent with backdirt inspection, shovel/trowel scraping, feature definition and mapping. Trench walls/floors must be scraped by hand while the cuts are still fresh. Unfinished trenches must be covered with plastic or tarps and inspected immediately, or as soon as weather conditions permit. Long term exposure of trenches is not acceptable, and the backfilling of all excavated areas is the responsibility of the principal investigator.

Remote sensing techniques are non-destructive means of data discovery that can supplement site testing methodologies. Soil disturbances indicative of cultural deposits, delineating areas more effectively for follow-up applications of standard methods of testing and excavation can be made. However, remote sensing alone is not sufficient documentation for a Phase II investigation and the placement of excavation units cannot be based solely on their interpretation.

Screens no larger than 1/4 inch mesh should be used to recover specimens from excavated soils; however, project objectives may require the use of finer screening. In some cases, where project contingencies and research design justifies, a larger screen size (e.g. inch mesh) could be used to supplement the finer screened sample.

All exposed cultural features within the boundaries of the excavation unit must be excavated, unless an unusually large or extensive range of features are encountered during the field investigation. An approved sampling strategy must be developed in consultation with the DHPA. If features extend into the wall of the originally placed test units, the unit must be extended to excavate the entire feature encountered. Subsequent features identified in the unit/trench extension must be documented but need not be excavated unless appropriate.

All artifacts and special samples (*e.g.* soil, pollen, plant, coprolitic, phytolithic and those necessary for archaeomagnetic, radiocarbon, dendrochronometric and thermoluminescent dating) must be carefully packaged and preserved in the field to insure that provenience and physical data is not lost. The preservation of this data must be insured through all phases of analyses and curation.

#### **Human remains**

The discovery of human remains during testing projects necessitates that IC 14-21-1 be followed. If human remains dating before 1940, are discovered, the DHPA must be contacted within two (2) business days. Work in the immediate area of the human remains should stop, so as to avoid any further damage to the remains and any scientific evidence nearby. DHPA will then contact local law enforcement officials and the county coroner. If the coroner decides that the remains are not in their jurisdiction, then the DHPA will work with the archaeologists and the legal landowners to determine the appropriate course of action.

Given the limited nature of site testing and its obligation to recover data at a level sufficient to determine the nature and extent of the cultural resources in order to permit the formal documentation of the site and its nature, it is essential that the recovery of human remains also be limited. If in situ preservation cannot be insured, then their recovery is deemed essential. Recovery will be contingent upon approval from DHPA.

# **Analyses**

All information, artifacts, and samples recovered during test excavations must be subjected to analyses so that the research design, questions, and historic context may be addressed, the site interpreted, and the site evaluated for inclusion in the National Register of Historic Places and the Indiana Register of Historic Sites and Structures. In addition to research questions, the site should be interpreted within relevant regional and local contexts.

The criteria under Identification, Interpretation, and Analyses within the *Guidelines for Indiana Historic Sites and Survey Inventory--Archaeological Sites--Phase I (Reconnaissance)* must be followed, in addition to the following. All artifacts, ecofacts, and features must be properly identified, classified, and catalogued according to specific, defined, state-of-the-art current documentation criteria. Artifacts must be analyzed according to criteria including form, function, type, distribution, spatial patterning, use wear, alteration, raw materials, and other relevant variables. All artifacts must be analyzed. In cases where there are extraordinarily large numbers of artifacts, an explicit and justified sampling strategy may be employed, in consultation with the DHPA.

All samples taken must be processed and analyzed. In the case of flotation samples, the artifacts and ecofacts recovered must be identified, classified, catalogued, analyzed, and interpreted.

If contextual deposits are encountered, appropriate radiocarbon (or other chronometric) analysis must be conducted and the results presented in the report. While collecting radiocarbon and other special samples, consideration must be given to proper collecting techniques, including sample size, laboratory preparation, and curation of the samples. Specialized studies (e.g. faunal, floral) must be conducted by an individual with specialized training in that field (310 IAC 19-3-5 and 6) and processed immediately upon return from the field. The analyses of historic artifacts must be done by a person or persons having specialized training in that particular area of material culture, chronological period. The results of all specialized studies must be included in the report. Uncollected cultural or environmental data, or specimens must be fully and accurately recorded with a justification as to why these materials were not collected.

All features must be mapped and their distributions, type, functions, morphology, and other variables described. Plan views and profiles must be provided, and lists of artifacts and other data recovered from each feature must be described by unit and listed in tables. Artifacts recovered from each unit and features must also be described and tabulated. For every unit and trench excavated, descriptions of all artifacts and features by stratigraphy and levels must be provided. Interpretation of each unit and trench must be included. Profiles for each unit or trench must be provided and interpreted. The overall stratigraphy for the site must also be described, discussed, and interpreted.

A new state archaeological site form must be completed for each site investigated or reinvestigated, and submitted with the site report for this level of investigation.

# **Reports and Format**

All of the criteria under Reports and Format in the *Indiana Archaeological Guidelines--Phase I* must be followed. In addition, the following must be included in the report, so that the interpretation and evaluation of the site may be addressed according to the research design and questions, historic context(s), and local and regional contexts.

Describe, define, and justify the methodology used for intensive survey, if part of the Phase II investigations, and for establishing units and/or trenches. A composite map depicting all cores, probes, trenches, units, features, and artifact concentrations must be included. A map showing locations of all exposed surface features and artifact concentrations must also be included. Site datums and standard north arrow, scale, and legend(s) must be presented, as well as site boundaries as defined during Phase II investigations if different form the Phase I study. The size of excavation units and method(s) of excavation (stratigraphy, levels, treatment of features, etc.) must be included. Sampling strategies, if used, must be clearly defined, described, and justified.

The results of the analyses must be included in the report. Descriptions and interpretations of all units and trenches excavated, as well as all features, artifacts, and proveniences must be included. Tables indicating artifacts from each unit, feature, or area must be included, by strata and level, if appropriate. It is useful to provide separate tabulations of prehistoric and historic artifacts by provenience.

A concise summary and conclusions section must present clear recommendations as to whether each site investigated is considered eligible for the Indiana Register of Historic Sites and Structures and the National Register of Historic Places. In addition, a brief synthesis of the information gathered from each site needs to be presented with potential research problems or questions that could be addressed in

future investigations, if appropriate. An evaluation of how well the investigation met the goals of the original research design also needs to be addressed.

Our office strongly recommends that copies of publications such as reports, journal articles, manuscripts, theses and dissertations resulting from excavations within the state of Indiana be provided to the DHPA.

# APPENDIX A

# Indiana State Historic Architectural and Archaeological Research Database SHAARD





# Qualified Professional Archaeologist User's Guide

December 2012

#### I. INTRODUCTION

The Indiana State Historic Architectural and Archaeological Research Database (SHAARD) of the Division of Historic Preservation and Archaeology (DHPA) allows users to search information on known historic and prehistoric resources throughout Indiana. The data contained in SHAARD was collected from previously conducted cultural resource inventories, National and State Registers listings, research projects, and cultural resource management project reports.

Access to all of the historic above-ground resource data is available on the web at <a href="https://www.SHAARD.dnr.in.gov">www.SHAARD.dnr.in.gov</a> and is open to the public. SHAARD includes data from the IHSSI (County Survey Program), the Indiana Cemetery and Burial Ground Registry, historic bridges, properties listed in the National Register of Historic Places, properties listed in the Indiana Register of Historic Sites and Structures, and historic theaters in Indiana.

Access to archaeological site locations and information is restricted and password protected and will be granted to qualified individuals who meet the Secretary of the Interior's Professional Qualification Standards with a specialty in prehistoric, historic and/or underwater archaeology or geomorphology. Access will be granted to individuals, not companies. To be listed on the Qualified Professional list, contact the DHPA at 317/234-1268 or email jrdinius@dnr.in.gov.

There is also a GIS mapping component to SHAARD. To learn about the map, go to page 88 of this manual.

The quality of the data varies with the completeness and precision of the original records and may be out-of-date. In addition, there are over 300,000 paper records from past surveys located in the office. Information is being entered daily.

Absence of data does not necessarily indicate the absence of resources. THE ACT OF CHECKING SHAARD DOES NOT RELIEVE THE USER OF COMPLYING WITH APPLICABLE LOCAL, STATE OR FEDERAL LAWS AND REGULATIONS.

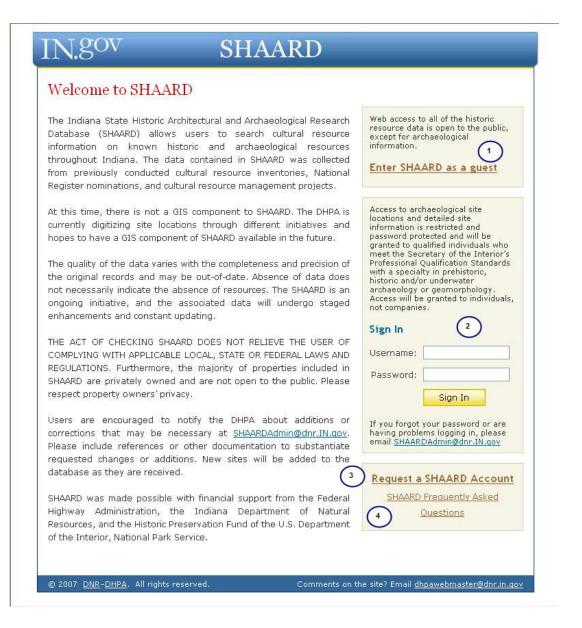
Users are encouraged to notify the DHPA about additions or corrections that may be necessary at <a href="mailto:SHAARDAdmin@dnr.IN.gov">SHAARDAdmin@dnr.IN.gov</a>. New sites will be added to the database as they are received. Users are also encouraged to notify the DHPA at <a href="mailto:SHAARDAdmin@dnr.IN.gov">SHAARDAdmin@dnr.IN.gov</a> of difficulties in accessing data or other issues encountered in using the database.

#### II. HOW TO ACCESS SHAARD

To Enter SHAARD, Go to www.SHAARD.dnr.in.gov

- 1. To enter SHAARD, click on "Enter SHAARD as a guest." By entering as a guest, you will have access to the digitally available historic resource data. No archaeological information is available through this entry.
- 2. The General Public will not be given username/ password access to SHAARD.

Archaeologists who have been had their credentials reviewed and have been listed on the Qualified Professionals list will be granted a SHAARD Account. If you



do not have a password and would like to have your credentials reviewed and have been listed on the Qualified Professionals list, contact the DHPA at 317/234-1268.

- 3. The General Public will not be given a SHAARD account. Archaeologists who have been had their credentials reviewed and have been listed on the Qualified Professionals list will be granted a SHAARD Account.
- 4. Click on SHAARD Frequently Asked Questions to see frequently asked questions about SHAARD.

# III. HOW TO REQUEST A SHAARD ACCOUNT

Request a SHAARD Acc	ount
	chaeologist, please use this form to request access to the SHAARD rname and password by email once your request has been approved days.
indicates a required field,	
1 First Name:	
Middle Initial:	
Last Name:	
Company/Organization:	
Address Line 1:	
Address Line 2:	
■ City:	
State:	<u>~</u>
■ ZIP/Postal Code:	Example: 12345 or 12345-6789
■ Phone:	Example: (123) 456-7890
■ Email:	
② □ By	y checking this box, I represent that I have read and accept re <u>Terms &amp; Conditions</u>
(3)	ubmit Request Cancel

If you are a qualified professional archaeologist, please use this form to request access to SHAARD.

- 1. Fill in your pertinent contact information.
- 2. Read and accept the Terms & Conditions of SHAARD usage by checking the box. Without reading and accepting the Terms & Conditions, you will not be able to advance further into SHAARD.
- 3. Once done, click on the Submit Request button. Your request will be sent to the SHAARD Administrator for processing. Anticipate response in 1-2 business days.

#### IV. TERMS & CONDITIONS FOR SHAARD USAGE

You must read and accept the Terms & Conditions for SHAARD usage to be able to advance further into the application.

# INgov

# SHAARD

# Accept Terms and Conditions

- 1) I understand and agree that the confidential information contained in SHAARD may not be released to unauthorized individuals or organizations. Confidential information includes, but is not limited to, locational information for all archaeological sites and locational information for owner-restricted National Register property listings.
- 2) I understand and agree that the data available through SHAARD is not complete, may be inaccurate, and may be modified as new information is prepared for inclusion in the database.
- 3) I understand and agree that SHAARD contains information from archaeological and historic properties that are under the jurisdiction, ownership, and/or under the control of other entities, such as state and federal agencies, private individuals, and tribal governments. Said properties may be afforded additional levels of legal protection related to the restrictions on cultural resource information. I agree to use SHAARD information only in compliance with applicable municipal, county, state, tribal or federal laws and regulations.
- 4) I understand and agree that the absence of information contained in SHAARD concerning cultural resources in a particular location does not necessarily indicate that no such resources exist in said location. I also understand and agree that the absence of information concerning cultural resources in a particular location may be due simply to a lack of survey investigations of said location.
- 5) I understand and agree that the inclusion of a resource in SHAARD does not imply that it has special standing with the programs of the Division of Historic Preservation and Archaeology, unless it has been officially recognized by the National Park Service through listing in the National Register of Historic Places. I also understand and agree that properties included in SHAARD are not necessarily assured grants and/or any other public assistance and/or legal protections.
- 6) I understand and agree that access to SHAARD does not constitute permission to enter onto or conduct archaeological investigations on any land for which cultural resource records are maintained in the inventory. I further understand and agree that it is my responsibility to obtain written permission from appropriate municipal, county, state, federal or tribal officials, or private property owners, before instituting any archaeological or cultural resource investigations on, or related to, their lands. Copies of the products of such research should be sent to appropriate officials or landowners, and all permit terms and conditions must be honored.

]	Ι	accept	the	above	terms	and	conditions

Continue

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Comments on the site? Email <u>dhpawebmaster@dnr.in.gov</u>

# V. UPDATING ACCOUNT INFORMATION

- 1. Once you receive email notification that your account has been approved, you will need to verify that your contact information is correct. If you need to change account information other than your password, email <a href="mailto:SHAARDAdmin@dnr.IN.gov">SHAARDAdmin@dnr.IN.gov</a>.
- 2. Your current password is the default password included in your confirmation email. This password will expire 90 days from the day it was assigned. It is recommended that you change your password.
- 3. New passwords need to be 8 to 15 characters long and include at least 1



capital letter and 2 numbers. All passwords expire in 90 days from date they were assigned. You will need to create a new password every 90 days.

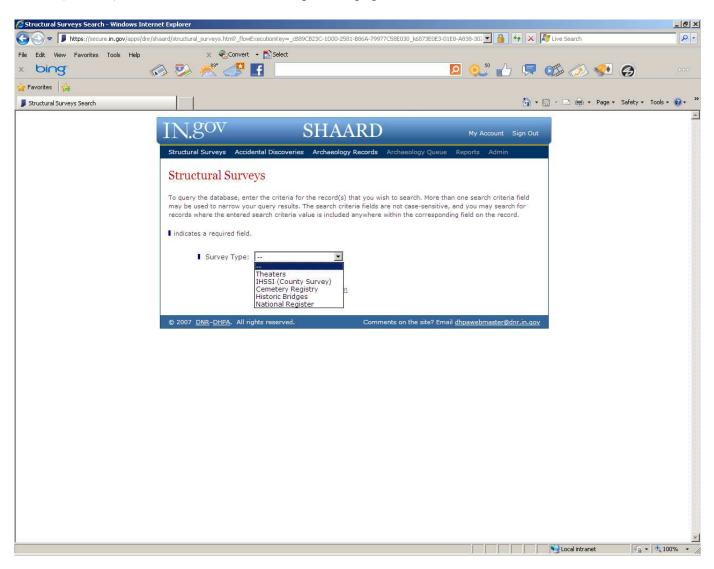
- 4. Re-enter your new password for accuracy.
- 5. You can either update your account to accept the new password or reset the form. If you reset the form, only the password fields will clear. Canceling from this page will not save your new password.

#### VI. HOW TO SEARCH SHAARD

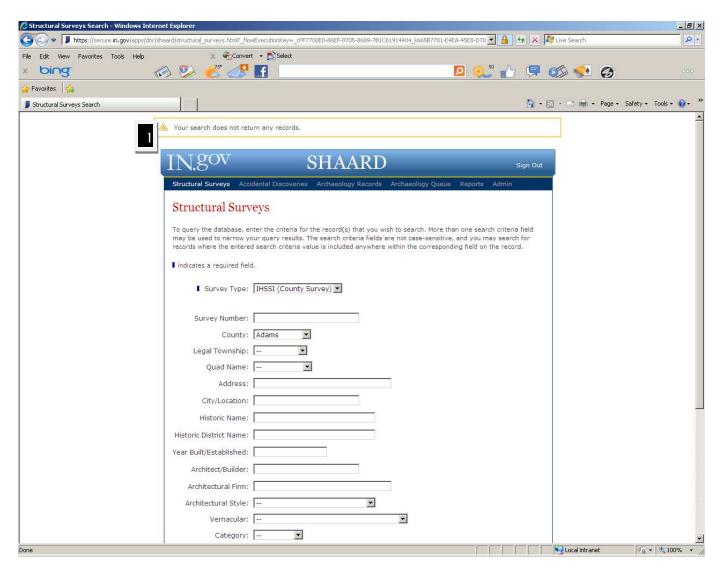
Once the Terms & Conditions of SHAARD are accepted, users will be directed to the Structural Survey Search page.

There are five Structural Survey datasets from which users can search. They include Theaters, IHSSI (County Survey), Cemetery Registry, Historic Bridges, and National Register. Not every paper document in the DHPA has been entered into the SHAARD database. So if no records are found, check back in the future or contact the DHPA Records Check Coordinator <a href="mailto:DHPARecordscheck@dnr.in.gov">DHPARecordscheck@dnr.in.gov</a> to review the paper documents if needed.

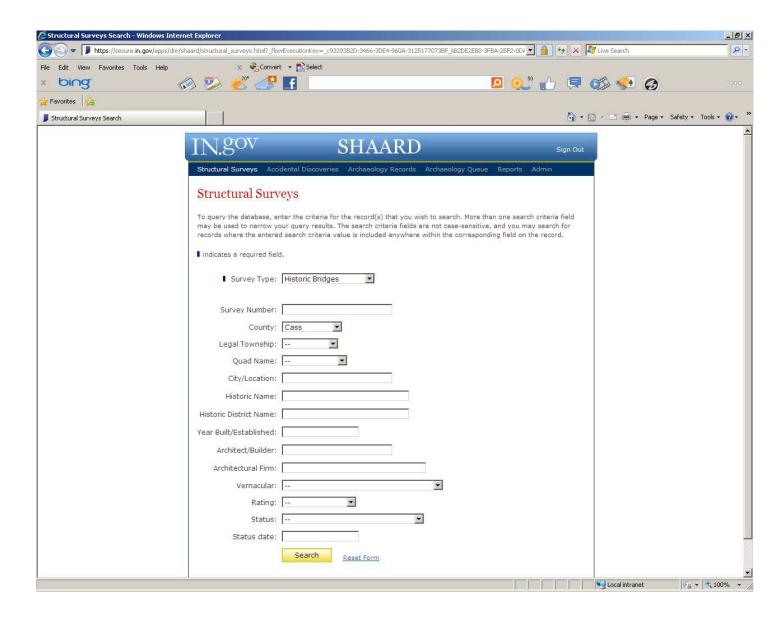
You can also access archaeology records from this page. Simply hit the type of record you would like to search (or enter) in the dark blue tab at the top of the page.



# VII. SEARCHING SHAARD – STRUCTURAL SURVEY SEARCH RESULTS

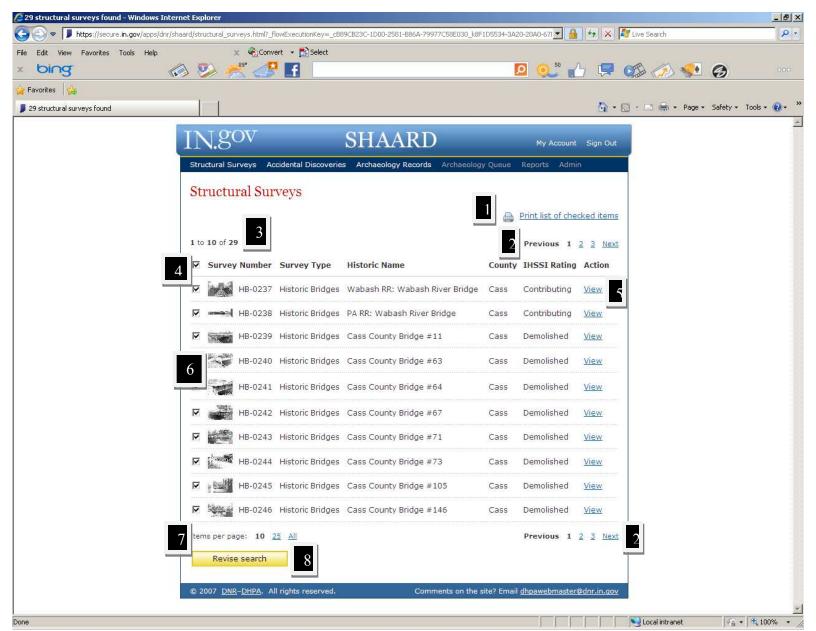


When you do a search and nothing is found in the database, you will receive this message at the
top of the page. Absence of data does not necessarily indicate the absence of resources. THE ACT
OF CHECKING SHAARD DOES NOT RELIEVE THE USER OF COMPLYING WITH
APPLICABLE LOCAL, STATE OR FEDERAL LAWS AND REGULATIONS.



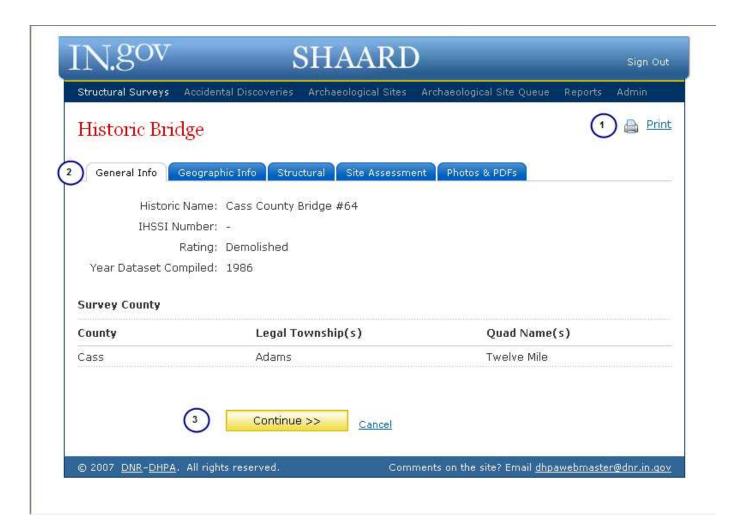
Using Historic Bridges as an example, the following chapter will illustrate the results of a search.

You can search by multiple fields, but to receive the most complete list of entries from a search, a simple "County" search will produce the most results. However, SHAARD will only display 500 records at a time. If your search results in more than 500 results, you will need to modify your search to create a smaller list.



- 1. By clicking "Print list of checked items," the list as it appears, will print.
- 2. The user can select the next page of listings by clicking on the page number or selecting Next.
- 3. This search resulted in 29 total sites -10 of which are displayed on this page.
- 4. By clicking on this box, all of the records will be unselected and the user can individually select which sites they would like to print in list form.
- 5. Click View to view the data contained within the record.
- 6. Clicking on any photograph will enlarge it without opening the record.
- 7. The user can determine how many records should be visible on the search results page.
- 8. By clicking Revise Search, the user will return to the Structural Survey Search page.

These features are the same for datasets (cemeteries, theaters, bridges, IHSSI or National Register).

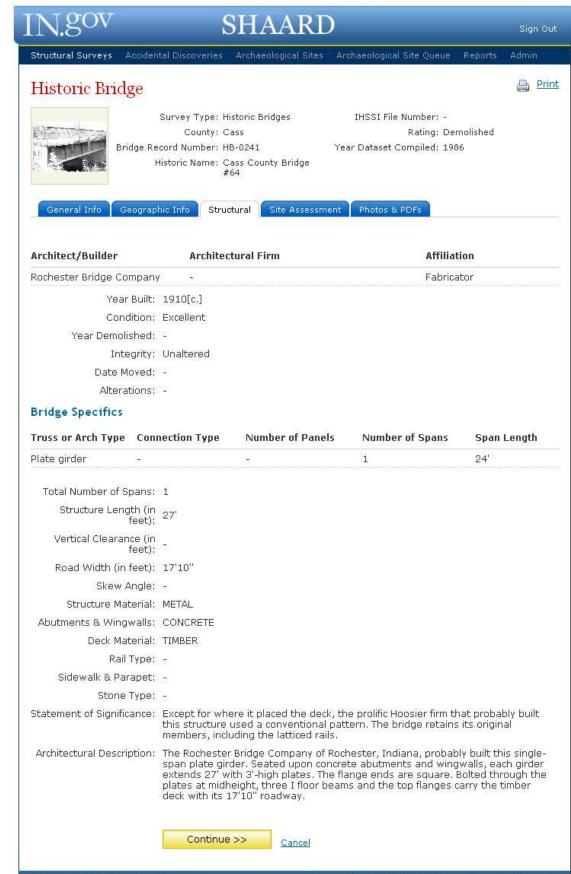


# The following pages are what the user will see when choosing to View Cass County Bridge #64.

- 1. Clicking "Print" from within the record will print all of the data associated with that record.
- 2. The user can page through the record by clicking on the appropriate tab. Clicking on the tabs allows the user to move pages.
- 3. The user can also sequentially page through the record by clicking Continue. Clicking cancel will return you to the search results page.

These features are the same for datasets (cemeteries, theaters, bridges, IHSSI or National Register).





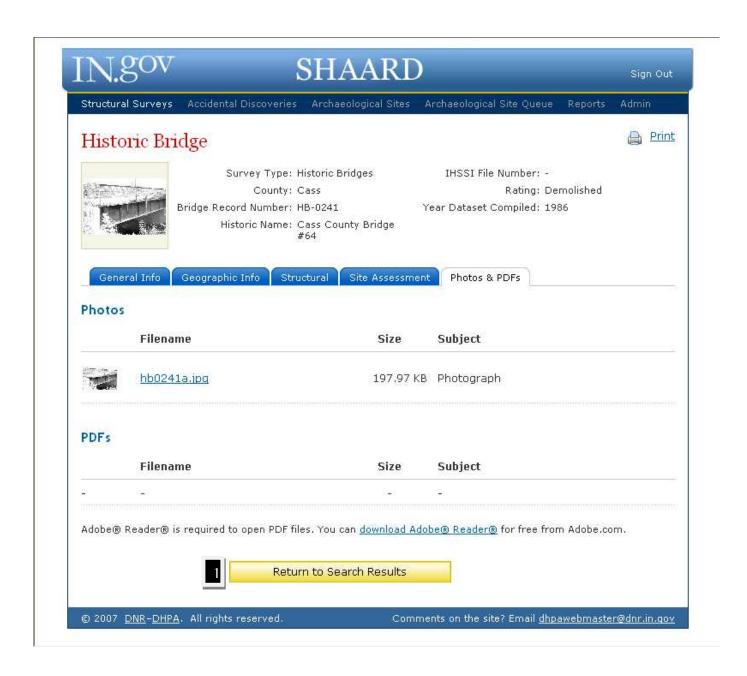
Structural Surveys Accidental Discoveries Archaeological Sites Archaeological Site Queue Print Historic Bridge Survey Type: Historic Bridges IHSSI File Number: -County: Cass Rating: Demolished Bridge Record Number: HB-0241 Year Dataset Compiled: 1986 Historic Name: Cass County Bridge Geographic Info Structural Photos & PDFs General Info Site Assessment County Bridge Number: 64 INDOT Number: -IHBC Rating: -HABS/HAER Inventory 3 Rating: Historic District Name: -Access: Yes, unlimited Ownership: -Endangered: No Threat: Not listed on 1990 county road map Areas of Significance: -Function Historic: Highway Bridge Current: Demolished Status Status date Demolished National Register Listing Date: NPS File Number: -National Register File Number: State Register Listing

Bibliography: Butler, Fairman & Seufert, Inc. Bridge Inspection/Reinspection Report: Cass

Cancel

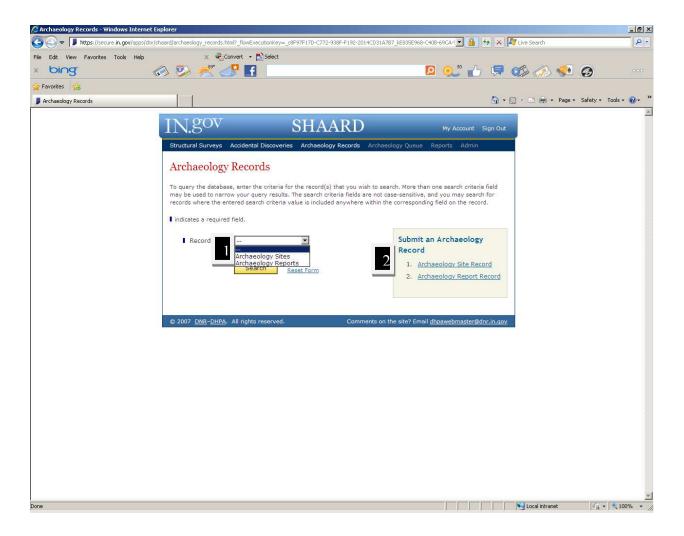
County (Indianapolis, 1973, 1979).

Continue >>



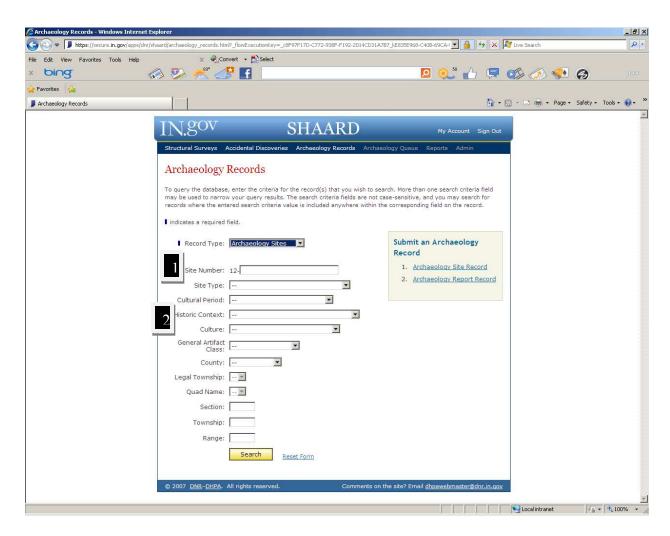
1. Clicking on this button will return the user to the "Search Results Page."

# VII. ARCHAEOLOGICAL SITES SEARCH



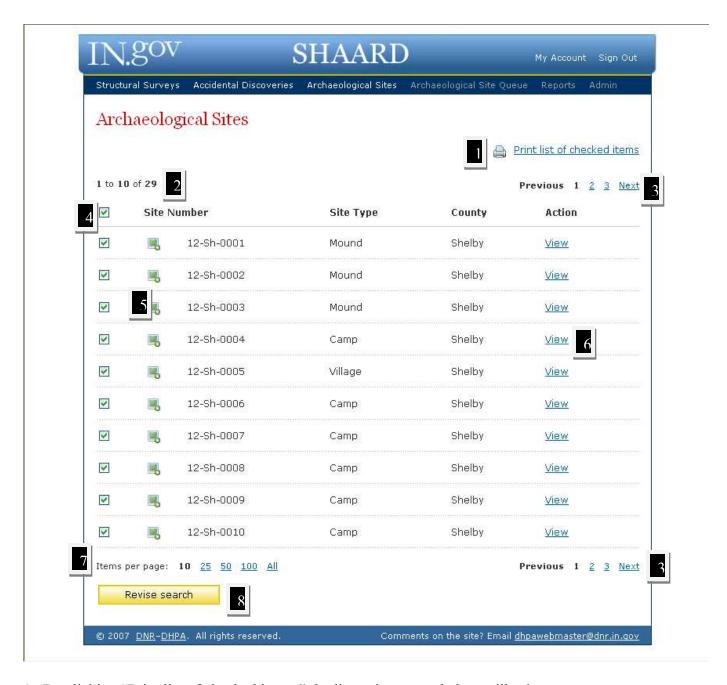
- 1. From this page the user can search for Archaeology Sites or Archaeological Records.
- 2. From this page the user can submit an Archaeological Site or Archaeological Report.

  Learn how to enter site cards and reports by going to page 29 of this guide.

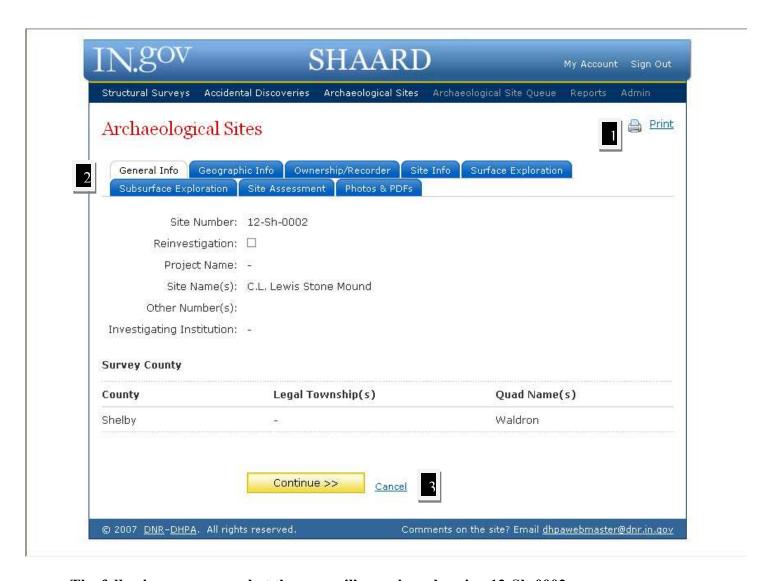


To query the database, enter the criteria for the record(s) that you wish to search.

- 1. If searching on a Site Number, the number must include the appropriate county abbreviation and **four** digits separated by a hyphen (-). A report might give a site number with only three (3) digits, but for use in SHAARD, a "0" will have been added to the front of the number. For example, 12-Cl-104 will be entered as 12-Cl-0104 in SHAARD.
- 2. More than one search criteria field may be used to narrow your query results. The search criteria fields are not case-sensitive.

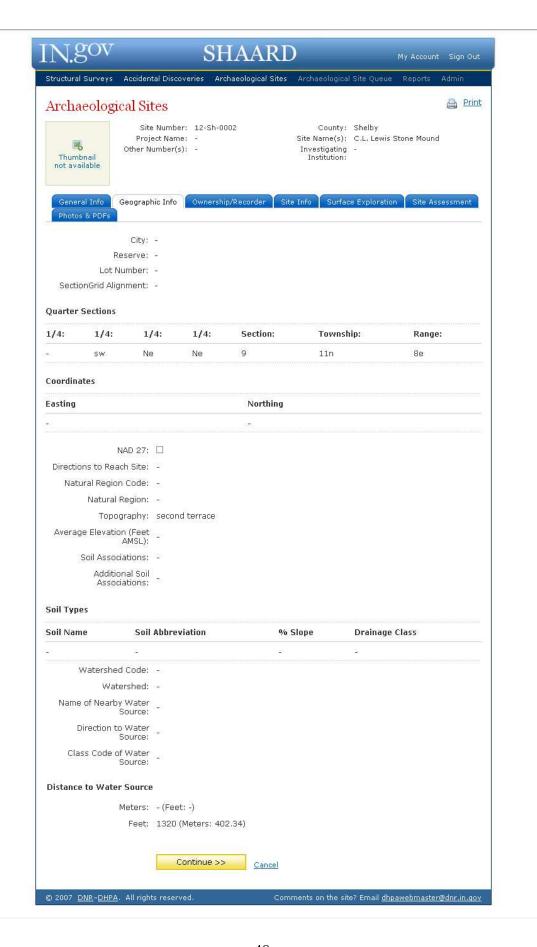


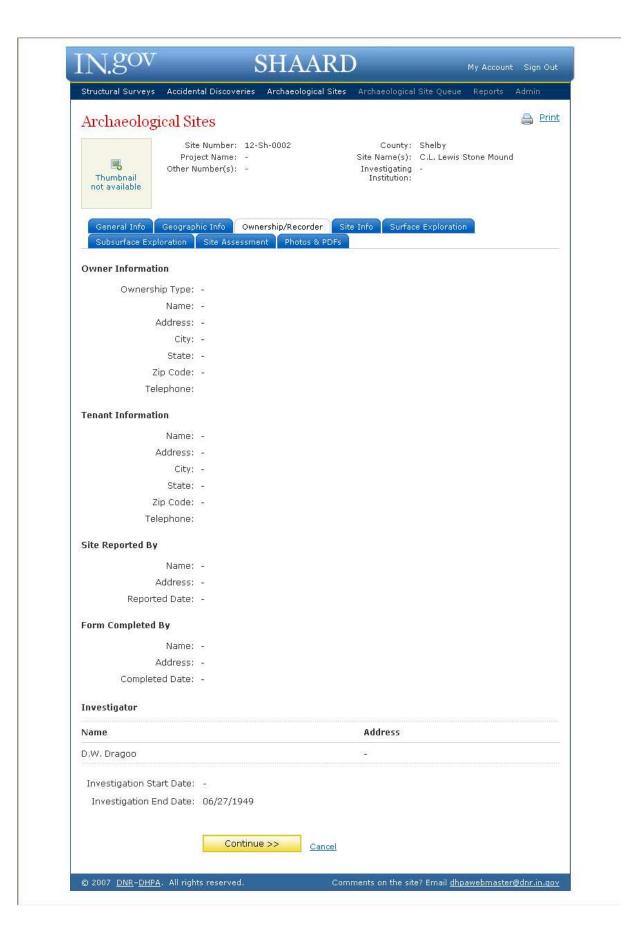
- 1. By clicking "Print list of checked items," the list as it appears below will print.
- 2. This search resulted in 29 total sites -10 of which are displayed on this page.
- 3. The user can select the next page of listings on the page number or selecting Next.
- 4. By clicking on this box, all of the records will be unselected and the user can individually select which sites they would like to print in list form.
- 5. Clicking on any photograph will enlarge it without opening the record.
- 6. Click View to view the data contained within the record.
- 7. The user can determine how many records should be visible on the search results page.
- 8. By clicking Revise Search, the user will return to the Archaeology Sites Search page.



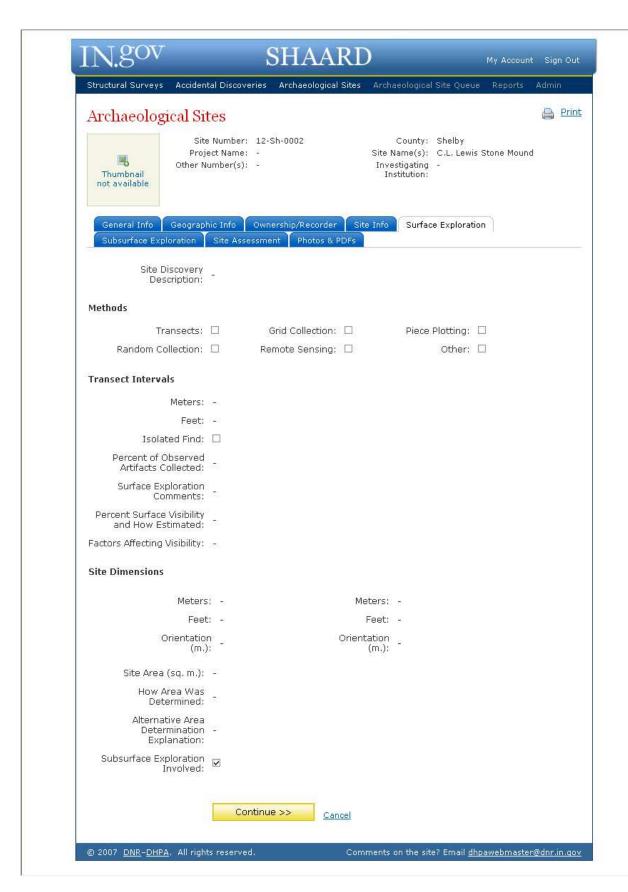
# The following pages are what the user will see when choosing 12-Sh-0002.

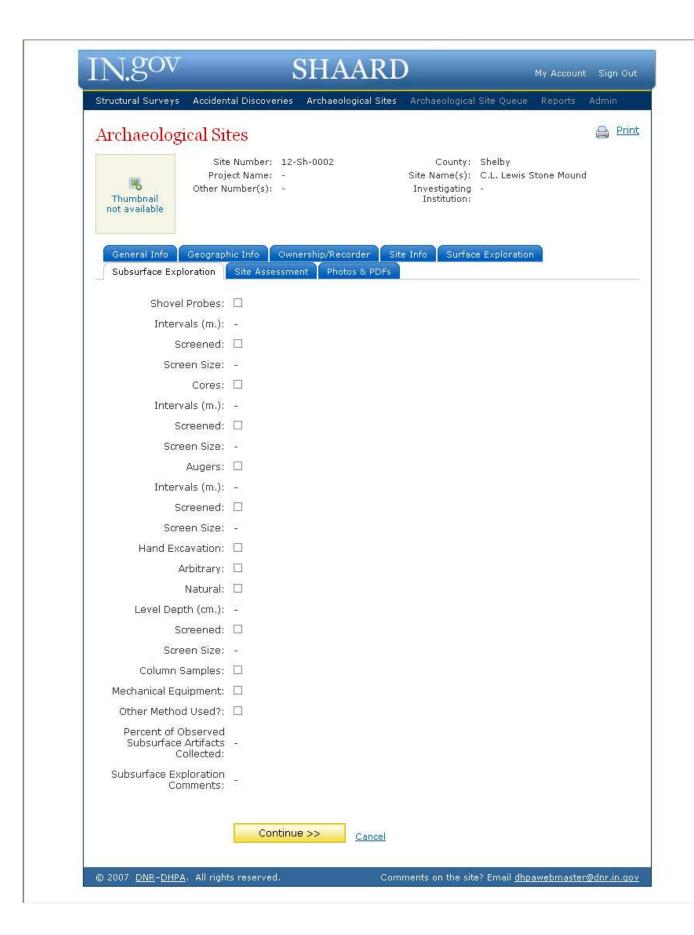
- 1. Clicking "Print" from within the record will print all of the data associated with that record.
- 2. The user can page through the record by clicking on the appropriate tab. Clicking on the tabs allows the user to move pages.
- 3. The user can also sequentially page through the record by clicking Continue. Clicking cancel will return you to the search results page.

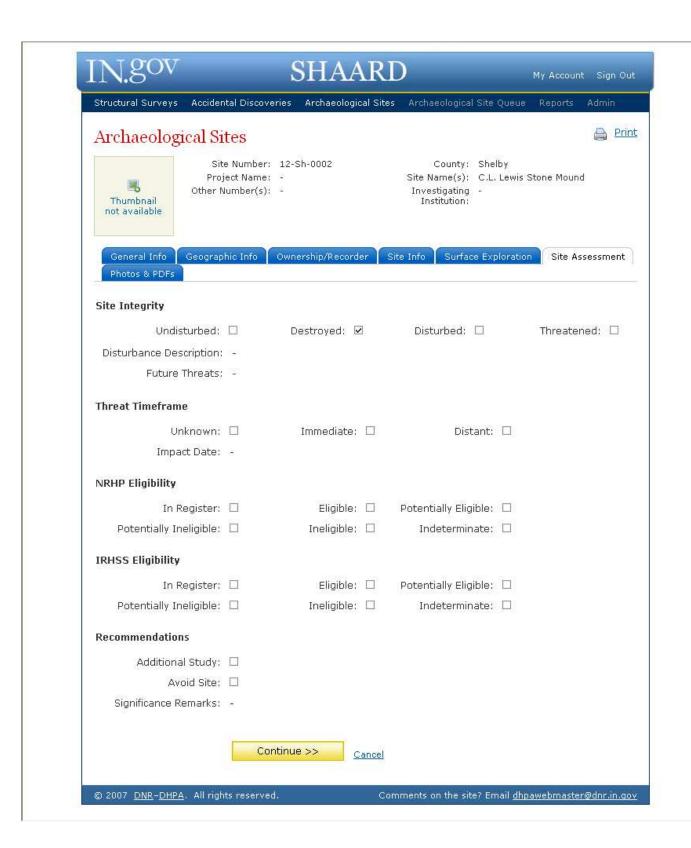














1. Clicking on this button will return the user to the "Search Results Page."

#### IX. HOW TO ENTER ARCHAEOLOGY SITE INFORMATION INTO SHAARD

#### A. GENERAL INFORMATION

#### 1. Site Number:

Enter the state site number assigned to you by the Division of Historic Preservation and Archaeology. Use the appropriate county abbreviation, followed by a dash, followed by the assigned number. Refer to Appendix A for a list of county abbreviations. To satisfy the computer, all site numbers must have four digits; so, use the place saver "0" when necessary. For example, the first site number assigned in Marion County should be entered as "Ma-0001." If the site has been designated by more than one site number, record the numbers in the following manner: "Ma-0006 / Ma-0076." Note the use of a space, slash, space between the two numbers.

# 2. Reinvestigation:

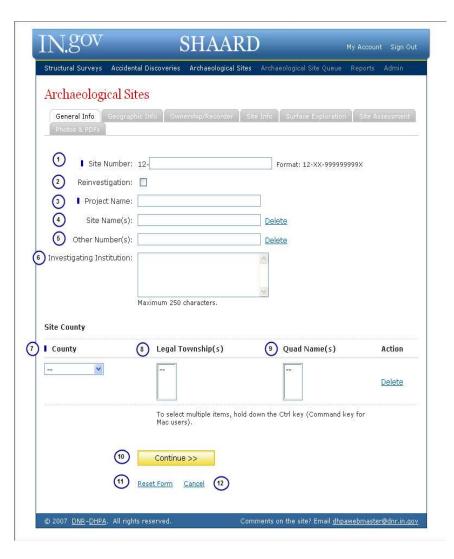
If the site was investigated prior to the present investigation, select the box.

## 3. Project Name:

List the official name and number of the project which involved the investigation of the site in question. If not surveyed as part of a state or federal historic preservation compliance project, indicate the activity which led to the location of the site. For example, "thesis project survey," "historic preservation grant-in-aid survey," "institutional research," etc. If the site has been surveyed as part of a compliance project, the project number, where known, should also be listed in this box.

#### 4. Site Name(s):

If applicable, indicate the name by which the site has been called in formal reports or correspondence.



# 5. Other Number(s):

If applicable, list other numbers not used in Field 1 by which the site may be known. If more than one number is added, please separate them with a semicolon (;).

# 6. <u>Investigating Institution</u>:

Indicate the name of the institution conducting the present exploration of the site.

## 7. County:

Select the appropriate county in which the site is located from the drop down list. If the site is located in more than one county, include the names of all counties involved, listing first the name of the county within which the site is primarily located. After selecting the appropriate legal township(s) or quad name(s), select "Add" under action and repeat the process for each county.

# 8. <u>Legal Township(s)</u>:

Indicate the legal township(s) within which the site is located from the drop down list. Where there are multiple townships, please select all appropriate ones represented at the site by holding the Ctrl key. The list of legal townships is based upon the County selected. If a legal township does not appear on the list, please contact <a href="mailto:SHAARDAdmin@dnr.IN.gov">SHAARDAdmin@dnr.IN.gov</a>.

# 9. Quad Name(s):

Enter the name(s) of the USGS 7.5' Quadrangle(s) on which the site is located from the drop down list. Where there are multiple quadrangles, please select all appropriate ones represented at the site by holding the Ctrl key. The list of quadrangles is based upon the County selected. If a quadrangle does not appear on the list, please contact <a href="mailto:SHAARDAdmin@dnr.IN.gov">SHAARDAdmin@dnr.IN.gov</a>.

#### 10. Continue:

Click continue to save the information on this page and continue to the next tab.

#### 11. Reset Form:

Clicking reset form will clear all of the data entered.

#### 12. Cancel:

Cancel will exit you out of the record without saving information entered.

#### **B. GEOGRAPHIC INFORMATION**

# 1. <u>City</u>:

Indicate the name of the city or town nearest the site. If desired, follow this with directional information, separating it from the city or town name with a comma. For example, "Indianapolis, southwest of."

#### 2. Reserve:

Indicate the name of the Indian Reserve or Military Reserve within which the site is located, if applicable.

# 3. Lot Number:

Indicate the civil lot number upon which the site is located, if applicable. For example, "Lot 41A."

# 4. Section Grid Alignment:

For purposes of determining defined 1/4 section locations, indicate landmarks by which the section grid template was aligned. Grids are traditionally aligned along the south and west section boundaries when possible.

#### 5. Quarter Sections:

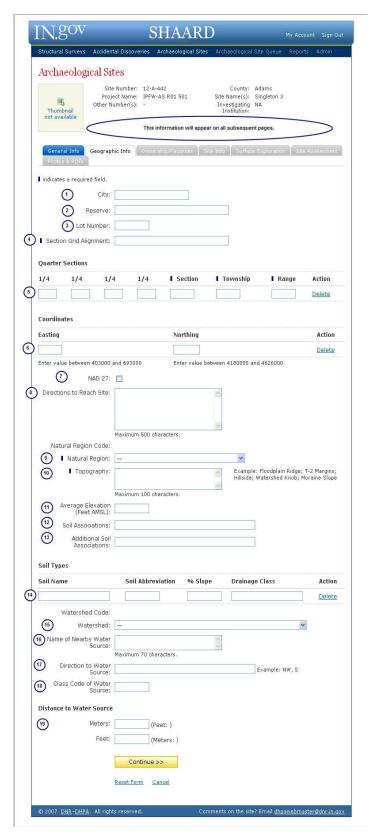
Indicate the location of the site as accurately as possible using the 1/4, 1/4, 1/4, 1/4 system. If there are less than four quarters, put a "-" in the one(s) that should be blank. A maximum of five lines of quarter sections can be entered.

#### Section:

Record the appropriate Section from the USGS Quadrangle map for each quarter section location. *This is a required field*.

# Township:

Record the appropriate Township from the USGS Quadrangle map for each quarter section location. *This is a required field.* 



# Range:

Record the appropriate Range from the USGS Quadrangle map for each quarter section location. *This is a required field*.

# 6. Coordinates:

Place the easting and northing values for the site. Be sure to include the center coordinate. A maximum of five pairs of coordinates can be entered. It is preferred that all coordinates be taken in NAD 83.

## Easting:

Values must fall between 403000 and 693000.

## Northing:

Values must fall between 4180000 and 4626000.

## 7. NAD 27:

If the coordinates were collected using NAD 27, please check the box.

# 8. <u>Directions To Reach Site</u>:

Give clear and concise directions to the site from the nearest city. For example, proceed westward from Portland, Indiana on State Road (SR) 26 for approximately 13 miles; turn left (south) on Jay County Road 45 East, proceed for approximately 6 miles. The site is located approximately 20 feet west of County Road 45 East, approximately 400 feet due east of the confluence of Sipe Ditch and an unnamed intermittent drain, on a terrace ridge.

# 9. Natural Region:

This field is also referred to as Physiographic Zone. Refer to Appendix B for a map of Indiana's Natural Regions. Select from the drop down list all Sections or Regions which contain the site. The appropriate Natural Region code will automatically populate.

#### 10. Topography:

Indicate the topographic situation of the site using Appendix C as a guide.

#### 11. Average Elevation (Feet AMSL):

Indicate the average elevation of the site in feet above mean sea level.

## 12. Soil Associations:

Indicate the major soil association for the area of the site. Obtain the information from the color-coded, General Soil Map in the appropriate USDA county soil survey. A correct entry would appear as "Wawasee-Crosier-Barry." Note the use of dashes in the name.

# 13. Additional Soil Associations:

Indicate additional soil associations, if appropriate, for the area of the site.

# 14. Soil Types

Obtain the information from the USDA county soil survey. Include any additional, highlighted information listed with the soil name in the USDA county soil survey. A total of four (4) soil types can be recorded. A correct entry would appear as "Wawasee fine sandy loam; WkC2; 6 to 12; eroded, well drained."

#### Soil Name:

Enter the name for the specific soil type(s) upon which the site is located.

#### Soil Abbreviation:

Enter the abbreviation for the specific soil type(s) upon which the site is located.

#### % Slope:

Enter the percent slope for the specific soil type(s) upon which the site is located.

# Drainage Class:

Enter the drainage class for the specific soil type(s) upon which the site is located.

## 15. Watershed:

Use the Drainage Basins map in Appendix D to identify the appropriate major watershed within which the site is located. Select this watershed from the drop down list. The appropriate Watershed code will automatically populate.

# 16. Name of Nearby Water Source:

Indicate the name and type of the nearest water source available to the site at the time of its occupation (as nearly as can be determined).

#### 17. Direction To Water Source:

Indicate the direction from the site to the point of the Nearby Water Source used to determine the Distance To Water Source.

# 18. Class Code of Water Source:

If known, enter the Water Class Code of the Nearby Water Source.

#### 19. Distance To Water Source:

Give the distance in meters or feet "as the crow flies" from the site to the Nearby Water source listed in Field 16. Do not enter the value in both meters and feet; the application will convert the unit of measurement automatically.

# C. OWNERSHIP/RECORDER

# Ownership Information

1. Ownership Type: Select the appropriate response.

## 2. Name:

Indicate the name of the person, agency, company, etc. who owns the property upon which the site is located.

# 3. Address:

Indicate the legal address of the person, agency, company, etc. listed in Field 2.

# 4. City:

Indicate the city of the person, agency, company, etc. listed in Field 2.

# 5. State:

Indicate the state of the person, agency, company, etc. listed in Field 2.

# 6. Zip Code:

Indicate the zip code of the person, agency, company, etc. listed in Field 2.

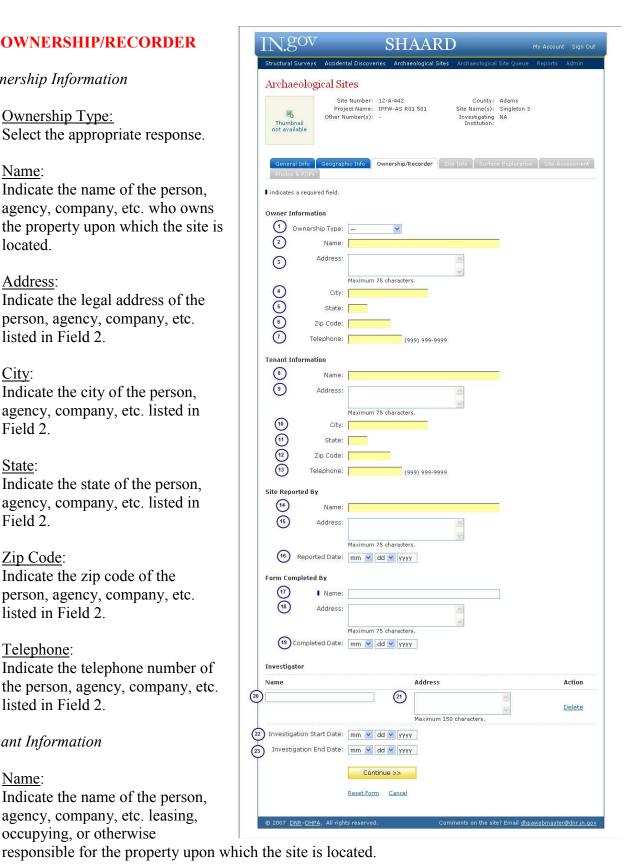
# 7. Telephone:

Indicate the telephone number of the person, agency, company, etc. listed in Field 2.

# Tenant Information

#### 8. Name:

Indicate the name of the person, agency, company, etc. leasing, occupying, or otherwise



## 9. Address:

Indicate the legal address of the person, agency, company, etc. listed in Field 8.

#### 10. City:

Indicate the city of the person, agency, company, etc. listed in Field 8.

#### 11. State:

Indicate the state of the person, agency, company, etc. listed in Field 8.

#### 12. Zip Code:

Indicate the zip code of the person, agency, company, etc. listed in Field 8.

# 13. Telephone:

Indicate the telephone number of the person, agency, company, etc. listed in Field 8.

Site Reported By

# 14. Name:

Indicate the name of the person who originally reported the site location. If reported in a publication, please enter the information in the <u>References and Notes</u> field on the Site Information tab.

# 15. Address:

Indicate the address of the institution with which the person identified in Field 14 is affiliated. If reported in a publication, please leave blank.

#### 16. Reported Date:

Indicate the date upon which the person identified in Field 14 reported the site. You must enter in a month, a day and a year. If you do not have a month or a date, use January 01 as a default value. The year is to be recorded using four digits (e.g., "1882" or "1971").

#### Form Completed By

#### 17. Name:

Indicate the name of the person entering the information into the computer database. *This is a required field.* 

#### 18. Address:

Indicate the address of the institution with which the person identified in Field 17 is affiliated. *This is a required field*.

# 19. Reported Date:

Indicate the date upon which the person identified in Field 17 entered information into the database. You must enter in a month, a day and a year. If you do not have a month or a date,

use January 01 as a default value. The year is to be recorded using four digits (e.g., "1882" or "1971"). *This is a required field*.

Investigator:

#### 20. Name:

Indicate the name of the person who examined the site.

## 21. Address:

Indicate the address of the institution with which the person identified in Field 20 is affiliated.

# 22. Investigation Start Date:

Indicate the date upon which the person identified in Field 20 conducted the present investigation. If the investigation was completed in one day, record the date in the "End" fields. If the investigation continued more than one day, record the beginning date in these fields. You must enter in a month, a day, and a year. If you do not have a month or a date, use January 01 as a default value. The year is to be recorded using four digits (e.g., "1882" or "1971").

# 23. <u>Investigation End Date:</u>

Indicate the date upon which the person identified in Field 20 concluded the present investigation. If the investigation was completed in one day, record the date in the "End" fields. If the investigation continued more than one day, record the ending date in these fields. You must enter in a month, a day, and a year. If you do not have a month or a date, use January 01 as a default value. The year is to be recorded using four digits (e.g., "1882" or "1971").

#### D. SITE INFORMATION

# 1. Project Type:

Select the appropriate type of project.

# 2. Deposits Present:

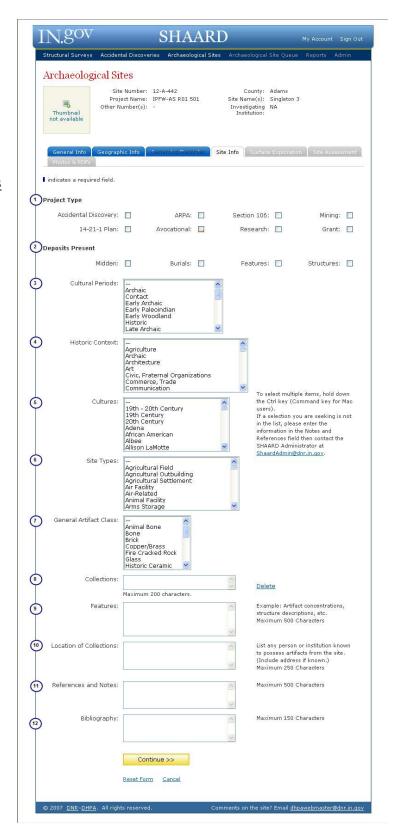
Select one of the four choices (Midden, Burials, Features, Structures), if applicable, and explain your selection in the <u>References and Notes</u> field (Field 11).

# 3. Cultural Periods:

Select the appropriate Cultural Period(s) from the drop down list. *Note*: By selecting only the boxes labeled "Archaic" or "Woodland" the recorder indicates an "unknown" or "undefined" Archaic or Woodland cultural period. For a multicomponent site, please select all Cultural Periods represented at the site by holding the Ctrl key. If the Cultural Period you are looking for does not appear on the list, please enter the information in the References and Notes field.

# 4. Historic Context:

Choose the Historic Context(s) from the drop down list. According to National Register Bulletin 15, How to Apply the National Register Criteria for Evaluation, "Historic Contexts are those patterns, themes, or trends in history by which a specific occurrence, property, or site is understood and its meaning (and ultimately its significance) within prehistory or history is made clear." Where there are multiple contexts, please select all appropriate ones represented at the site by holding the Ctrl key. If the Historic Contexts you are looking for does not appear on the list, please enter the information in the References and Notes field (Field 11).



# 5. <u>Cultures</u>:

Choose the Culture(s) from the drop down list. Where there are multiple cultures, please select all appropriate ones represented at the site by holding the Ctrl key. If the Culture(s) you are looking for does not appear on the list, please enter the information in the <u>References and Notes</u> field (Field 11).

# 6. Site Types:

Choose the Site Type(s) from the drop down list. Where there are multiple site types, please select all appropriate ones represented at the site by holding the Ctrl key. If the Site Type(s) you are looking for does not appear on the list, please enter the information in the <u>References and Notes</u> field (Field 11).

# 7. General Artifact Classes:

Choose all appropriate classes from the drop down list. Where there are multiple artifact classes, please select all appropriate ones represented at the site by holding the Ctrl key. If the general artifact class you are looking for does not appear on the list, please enter the information in the References and Notes field (Field 11).

# 8. Collections:

As completely as possible provide a list of artifacts found on the site. Include counts of artifacts, artifact identifications, raw materials, and weights, where applicable. Each box will hold up to 200 characters. You can add up to fourteen (14) collection boxes. If you have a large collection of artifacts, we recommend that you attach the list as a pdf file.

# 9. Features:

Describe any features, artifact concentrations, structures, etc. found within the site. Include a discussion of the integrity of the mentioned items. Also, enter any additional information that is not applicable to other fields on the site form.

# 10. Location Of Collections:

List any person or institution known to possess artifacts from the site, and include an address if known.

#### 11. References and Notes:

List all known sources which contain information on the site. Include any report resulting in whole or in part from the present investigation of the site.

#### 12. Bibliography:

List all known sources which contain information on the site. Include any report resulting in whole, or in part, from the present investigation of the site.

## E. SURFACE EXPLORATION

 Site Discovery Description: Describe how the site was discovered.

#### 2. Methods:

Select the appropriate box(es) characterizing how the site surface was explored. If "Other" is selected, please explain the method in the box.

# 3. Transect Intervals

The interval at which transects can be entered is either meters or feet. The application will calculate the value for whichever interval is not populated.

## 4. Isolated Find:

If the site consists of one artifact, please check the box.

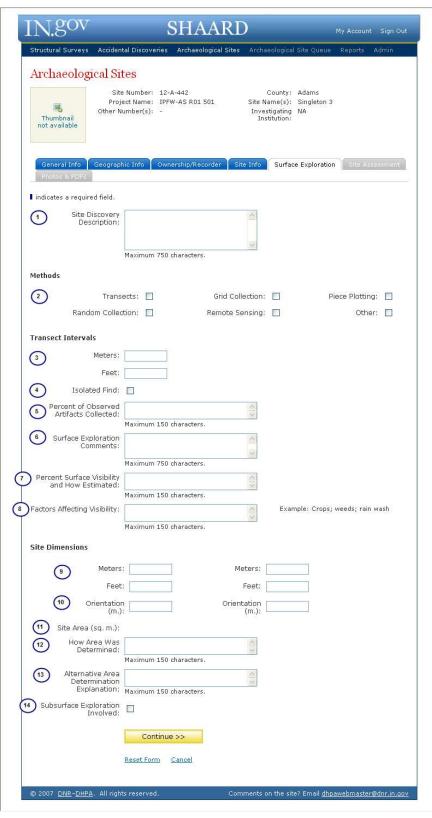
# 5. <u>Percent Of Observed Artifacts</u> Collected:

Estimate the percent of observed surface artifacts collected during the survey.

6. Surface Exploration Comments: Include additional information deemed pertinent to how the site surface was investigated as well as any field methods not addressed in Field 2.

# 7. <u>Percent Surface Visibility And</u> How Estimated:

Indicate the degree to which the soil surface of the site was exposed (expressed in the form of a percentage) and the manner by which this figure was determined.



For visibilities expressed as a range, please use "to" instead of "-." For example, "40 to 50."

# 8. Factors Affecting Visibility:

Describe any positive or negative factors affecting the soil surface visibility of the site.

# 9. Site Dimensions:

If the dimensions can be determined on a north-south by east-west (or similar orientation), indicate the measurement in either feet or meters. Do not enter the value in both meters and feet; the application will convert the unit of measurement automatically.

# 10. Orientation:

Enter the orientation of the site dimensions on a north-south by east-west, or similar orientation.

# 11. Site Area (sq. m.):

Do not enter any values. The figure will be calculated automatically.

# 12. How Area Was Determined:

Explain how the values in Field 9 were obtained.

# 13. Alternative Area Determination Explanation:

If the site area cannot be expressed in the format of Field 9, or if the site area is more appropriately expressed in another format, list and explain the site area in this Field.

# 14. Subsurface Exploration Involved:

Check this box if there was subsurface exploration.

# F. SUBSURFACE EXPLORATION (This tab appears if Field 14 is selected on the Surface Exploration tab.)

## 1. Shovel Probes:

Please check the box if probes were used.

*Intervals (m):* 

Indicate in meters the interval at which the probes were utilized. *Screened:* 

Check the box if the shovel probes were screened.

Screen Size:

If the shovel probes were screened, indicate the mesh size of the screen used.

# 2. Cores:

Check the box if cores were used.

*Intervals (m):* 

Indicate in meters the interval at which the cores were utilized. *Screened:* 

Check the box if the cores were screened.

Screen Size:

If the cores were screened, indicate the mesh size of the screen used.

## 3. Augers:

Check the box if augers were used.

Intervals:

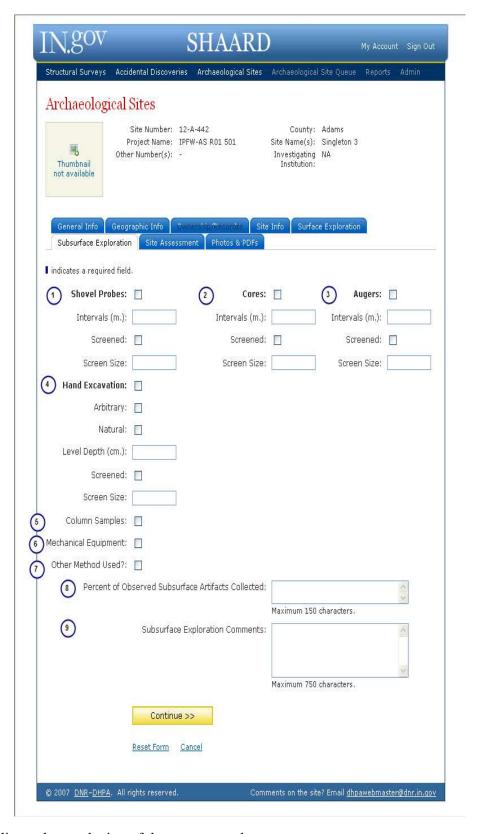
Indicate in meters the interval at which the augers were utilized.

Screened:

Check the box if the augers were screened.

Screen Size:

If the augers were screened, indicate the mesh size of the screen used.



# 4. Hand Excavation:

Check the box if hand excavated units were used

Level Type:

Select the appropriate response between Arbitrary or Natural.

Level Depth (cm.):

If "Arbitrary" was selected, indicate in centimeters the utilized depth.

Screened:

Check the box if the excavated soil was screened.

Screen Size:

If the excavated soil was screened, indicate the mesh size of the screen used.

# 5. Column Samples:

Check the box if column samples were used.

# 6. Mechanical Equipment:

Check the box if mechanical equipment was used.

# 7. Other Method Used:

Check the box if the subsurface was explored by a method other than those listed in Field 1 through Field 6.

# 8. Percent Of Observed Subsurface Artifacts Collected:

Estimate the percent of observed artifacts collected during the subsurface exploration of the site.

# 9. Subsurface Exploration Comments:

Describe any field methods not covered by Field 1 through Field 7. This may include explanations of other means of processing the shovel probes, cores, augers, hand excavation, column samples, or mechanical equipment (e.g., hand sifting, trowel sifting, water screening, flotation, 100% recovery of matrix, curation of soil samples, etc.). Include the size of shovel probe (i.e., 30 cm diameter, 50 x 50 cm square), size of core (3/4 inch, diameter, 2.0 inch diameter, etc.), size of auger, and/or size of hand excavated units. Also include additional information deemed pertinent to how the site subsurface was investigated.

#### G. SITE ASSESSMENT

- 1. <u>Site Integrity</u>: Select the appropriate box.
- 2. <u>Disturbance Description</u>: If the site is disturbed, note the cause, nature, extent, and duration of the disturbance.
- 3. Future Threats:

Note any known or projected threats to the integrity of the site and the known or projected "life expectancy" of the site. Examples include planned construction, demographic trends, exploitable mineral deposits, erosion, agriculture, etc.

- 4. Threat Time Frame: Select the appropriate box.
- 5. <u>Impact Date:</u>

If known, enter the date of expected, future impacts in the order of month, day, and year. You must enter in a month, a day and a year. If you do not have a month or a date, use January 01 as a default value. The year is to be recorded using four digits (e.g., "1882" or "1971").



# 6. NRHP Eligibility:

Select the appropriate box based on the National Register criteria for significance found in Appendix E, an excerpt from the National Register Bulletin 15, *How to Apply the National Register Criteria for Evaluation*.

# 7. <u>IHHSS Eligibility</u>:

Select the appropriate box based on the State Register criteria for significance as explained in Appendix F.

If surveyed under the County Survey program, please give the 12 digit IHSSI number.

If listed in the National Register of Historic Places, please give its NR-xxxx number.

If the site is a burial or cemetery, as checked on the Site Info tab, the box for the Cemetery Registry number will appear here. If you know its CR-xx-xx number, please list here. If you do not know the number, please contact the Cemetery and Burial Ground Registry Coordinator at the DHPA (<a href="mailto:jrdinius@dnr.in.gov">jrdinius@dnr.in.gov</a>) for this number.

# 8. Recommendations:

Select the appropriate box(es).

# 9. <u>Significance Remarks</u>:

Offer any additional information or opinions useful for evaluating the site's significance.

# H. PHOTOGRAPHS & PDF FILES

# 1. Photographs

Click on the "Browse" button and navigate to the location of the photograph you would like to upload. Once you have selected the photograph, click on "Upload File."

# 2. Subject

Once the file has been successfully uploaded, choose the appropriate subject of the file from the drop-down list.

# 3. PDFs

Click on the "Browse" button and navigate to the location of the pdf file you would like to upload. Once you have selected the file, click on "Upload File."

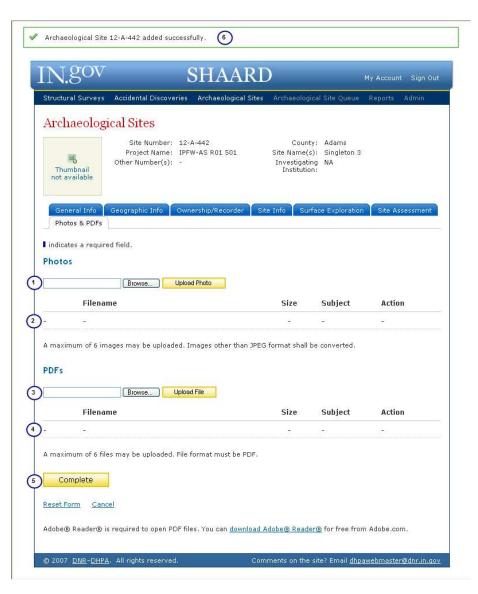
# 4. Subject

Once the file has been successfully uploaded, choose the appropriate subject of the file from the drop-down list.

# 5. Complete

You may save your site form and return to it to complete any portion. The archaeology site form will stay in your queue for 30 days. After 30 days it will automatically be deleted and you will need to start over to submit the form.

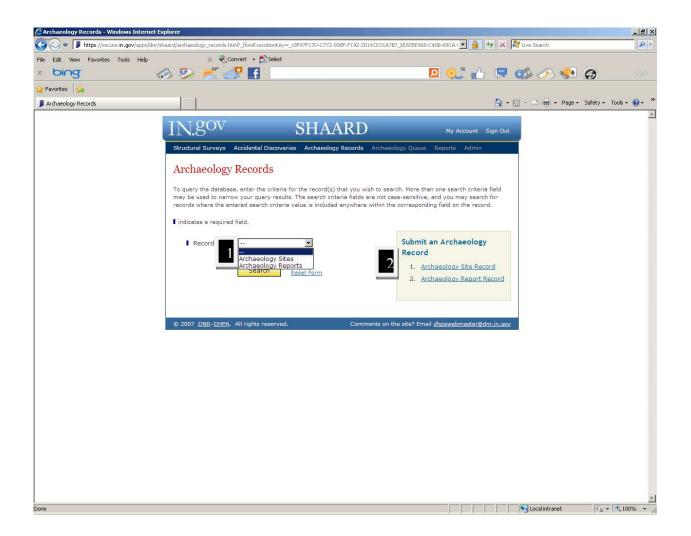
Once done, click on the complete button and the record will be put into the Archaeological Site Queue for approval by the DHPA staff.



#### X. HOW TO ENTER ARCHAEOLOGY REPORTS INTO SHAARD

Prior to entering the report into SHAARD, make sure that it is not already in the database. The Staff at the DHPA are working to enter all reports into SHAARD, so your report may have been entered into SHAARD.

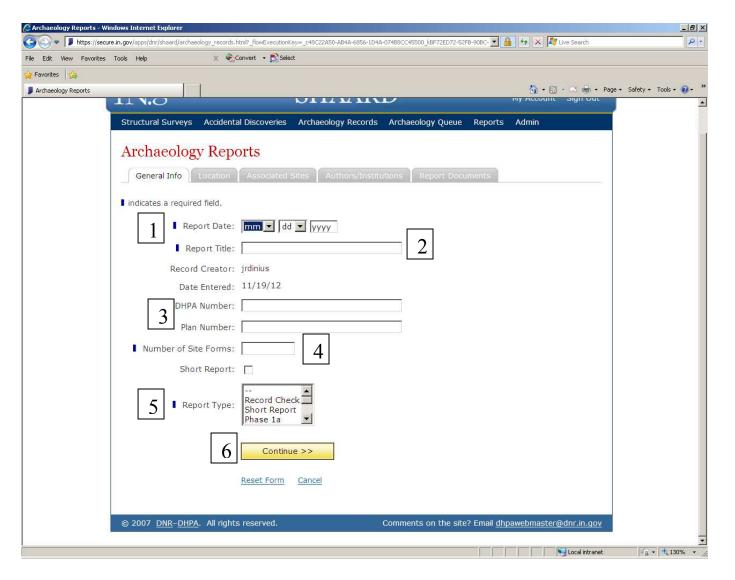
Also, some sites listed in the report may not yet have a site form entered into the SHAARD database. In order to attach your site form to your report, please enter the site form into SHAARD.



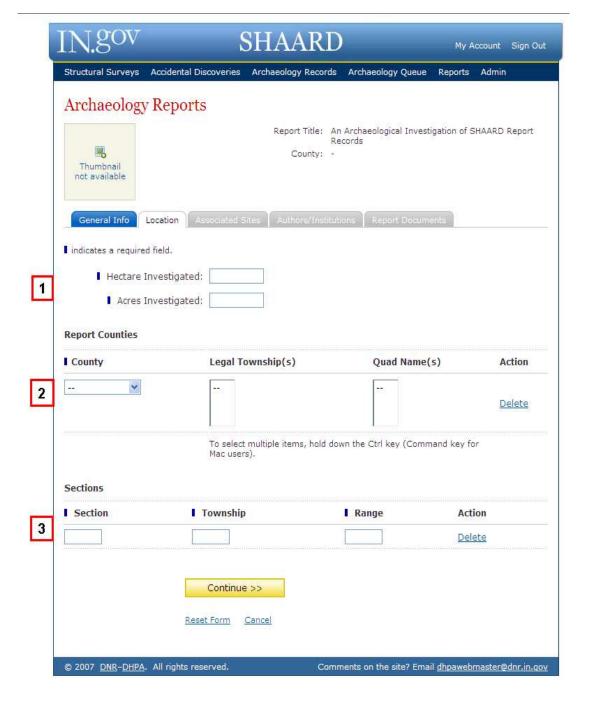
- 1. From this page the user can search for Archaeology Sites or Archaeological Records.
- 2. From this page the user can submit an Archaeological Site or Archaeological Report.



1. Click on "Add New Archaeology Report records" at the top of the screen.



- 1. Enter the date in which the report was written. This field must be completed in order to continue.
- **2.** Type the complete title. The field is limited to 250 characters. This field must be completed in order to continue.
- 3. If you know the DHPA number or the plan number, enter that here.
- **4.** For "Number of site forms," you will need to count how many sites are documented within the report. This number must be accurate, because it ties to the SHAARD Archaeology Site report forms. **Do not include sites listed in the background of the report, only those that have been resurveyed or are a new investigation.** This number may be zero. This field must be completed in order to continue.
- **5.** Under "Report type," "Res. Doc." means "Research Document." This field must be completed in order to continue.
- **6.** Click here to continue to enter information about the report.

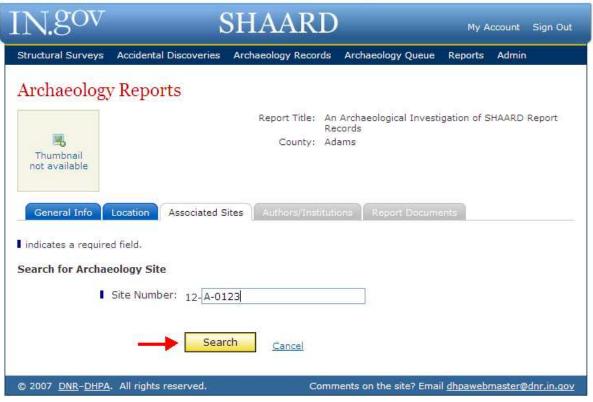


- 1. You must provide the total hectares and acres surveyed in the report. You may covert acres to hectares (and vice versa) using the following website: http://www.sciencemadesimple.net/area2.php
- 2. Provide all Counties, Civil Townships, and Topographic Quadrangles associated with the report.
- **3.** Provide all Section/Township/Range information. Currently there is a 10 entry limit. If you survey covers more than 10 sections, contact the SHAARD Administrator SHAARDAdmin@dnr.IN.gov for clarification on handling this.

If you are in an area where there is no section, but rather it falls into descriptions like long lots or Clarks Reserve, us a "1" in the Section field, and then a "-" for both Township and Range.



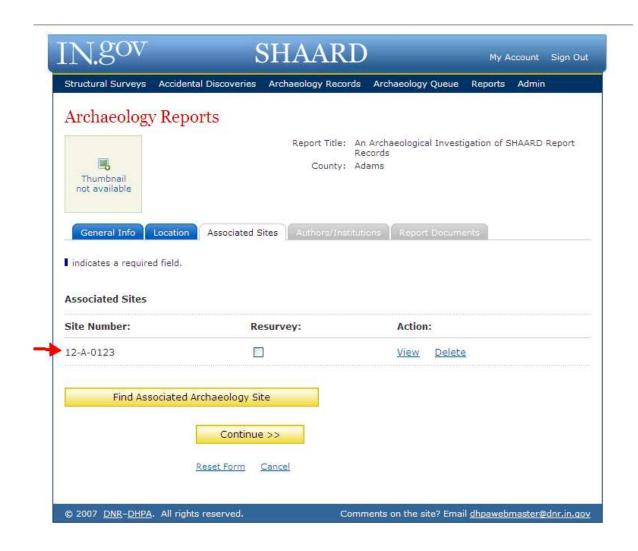
This tab is only for sites that were surveyed (or resurveyed) in the report's project area – not listed in the record's check. Click on the button and it will prompt you to enter a site number. You can do so as many times as you have sites related to the report.



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Your results will then be shown to you, if a SHAARD Archaeology Site form has been created for the site. Check the box by the site(s) that you wish to add, and then click the "Add site(s)" button.





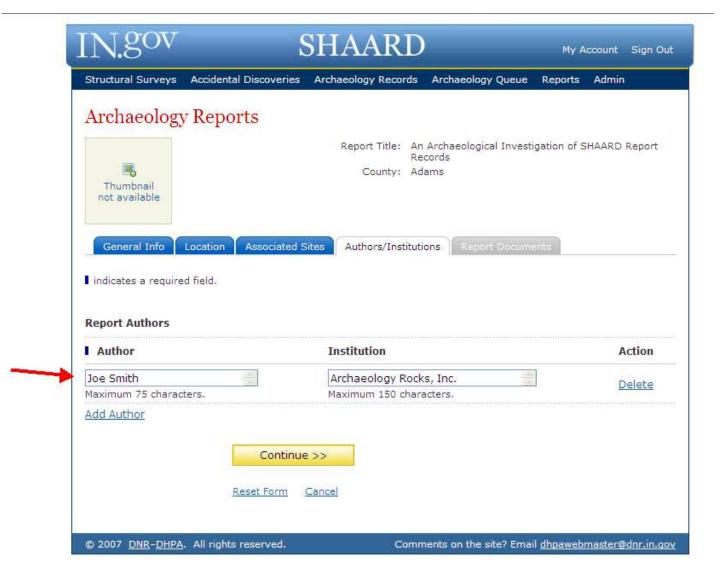
You should now see the site(s) you added listed under "Associated Sites." Check the resurvey box if the site form is for a resurvey.

Repeat the above process for all sites listed in the report. If you did not put a large enough number in the "General Info tab" under "Number of Site Forms," you can go back to the General Info Tab and increase the number.

Some sites listed in the report may not yet have a site form entered into the SHAARD database. In order to attach your site form to your report, please enter the site form in SHAARD. You can save the report, then after you have entered the site form, attach the archaeological site survey form.

You can add a report without adding the associated sites or without a site form being in SHAARD, but we do not recommend this, as the report and the site will not be linked when the site form is entered without someone manually doing so.

Those sites in the Archaeology Queue can have reports linked to them. Once the site form has been moved from the Queue to the regular database, the site form and the report will be automatically linked.



Enter ALL authors and institutions. Principle Investigator should be listed first. Please list names in their entirety: First Name, Initial, and Last Name. Currently, a maximum of four authors may be listed.



- 1. Attach your scanned version of the report. There is a size limit of 75MB per attachment. If your report is longer than this, you may need to split the report and attach multiple PDFs.
- 2. Before adding additional attachments, you need to select what type of document your PDF is.

Use the same process for any other attachments you may have.

We request that you attach, as a separate PDF, a copy of your topographic site map. This will make it easier for those doing records check to verify the location of the site without having to open the entire report.



If you would like to delay submitting the record, and save it for later, then press the "Save without Submitting" button rather than the "Submit Record" button. You will then see the record as part of your "Building Archaeology Report Record List." Items in this list are automatically deleted after 30 days.

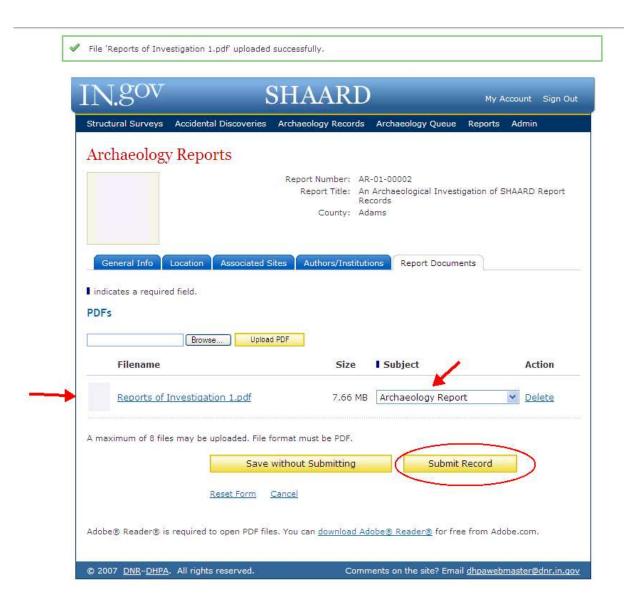
In order to submit a record from the "Building Queue," you must first select the "View" mode, then the

Archaeology Report AR-02-00002 updated successfully. You have 30 days to complete this record and submit it before the system automatically removes the record.

Documents" tab, submit from

"Report and select there.

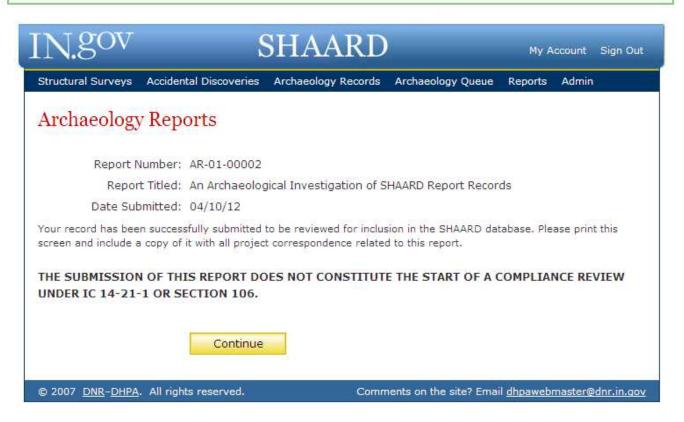




When finished, click the "Submit record" button.



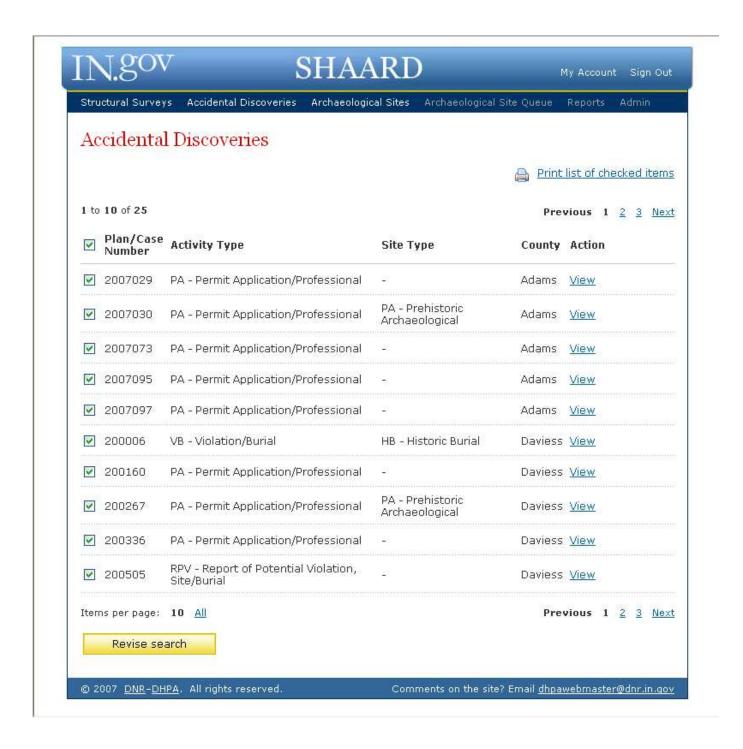
Archaeology Report AR-01-00002 submitted successfully.



Upon submitting your report, please read this information, then click "Continue."

## XI. ACCIDENTAL DISCOVERIES SEARCH





By choosing to View Plan/Case Number 200006, you will see the following information.



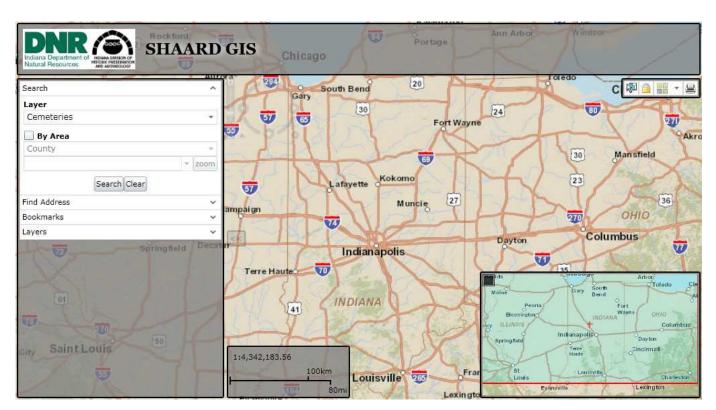


## SHAARD GIS

You can use SHAARD GIS to search for the locations of cemeteries, historic structures (County Survey), historic bridges, sites listed in the National Register of Historic Places, and archaeology. Many GIS programs will show you similar information, like the location of a cemetery near a community, but the unique piece to SHAARD GIS is that it is connected to the Division of Historic Preservation and Archaeology's online database – State Historic Architecture and Archaeology Resource Database (SHAARD). This means from the map you can learn more information about the cemetery or historic structure, plus access photos or PDFs related to the site. The following guide will help you best utilize the program in order to find the information in which you are searching.

To start SHAARD GIS, go to <a href="https://gis.in.gov/apps/dnr/SHAARDGIS/">https://gis.in.gov/apps/dnr/SHAARDGIS/</a>. This brings you to the home page of SHAARD GIS. SHAARD GIS uses a software program called *Silverlight*. The first time you open SHAARD GIS you may need to download *Silverlight*. It should do this on its own, but if your computer has administrative firewalls, you may need to approve the installation. Simply follow the instructions on the computer screen. Without Silverlight, SHAARD GIS will not work.

Qualified Professional Archaeologists can view all historic resources (National Register, Cemeteries, Bridges, and County Survey) as well as archaeological features. To view the archaeological sites, click on the locked lock on the upper right hand corner of the map. The system will then prompt you to enter your SHAARD database username and password. This is the identical username and password which you use to enter SHAARD. If you do not have a password, go to page 31 of this guide to learn about password access into SHAARD.



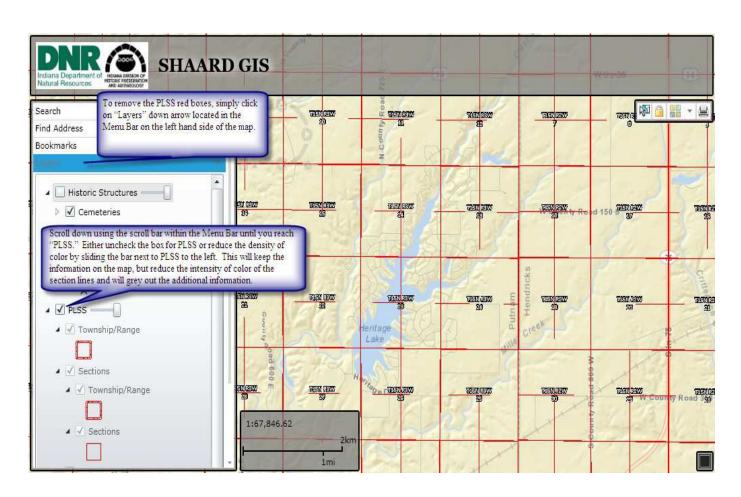
## GETTING THE MAP THE WAY YOU WANT IT

## How do I get the red boxes with the section, township and range to go away?

Currently, the default of the map is to have showing the Public Land Survey System (PLSS), where you find a section, township, and range. This information will not be seen at the State Overview level, but as you scroll in closer to an area, the red boxes, which outline the sections, can be seen. As you get to a closer view, in the center of the section, you will be able to view the township and range.

To remove this information, simply click on the "Layers" down arrow located in the Menu Bar on the left hand side of the map. Scroll down using the scroll bar within the Menu Bar until you reach "PLSS."

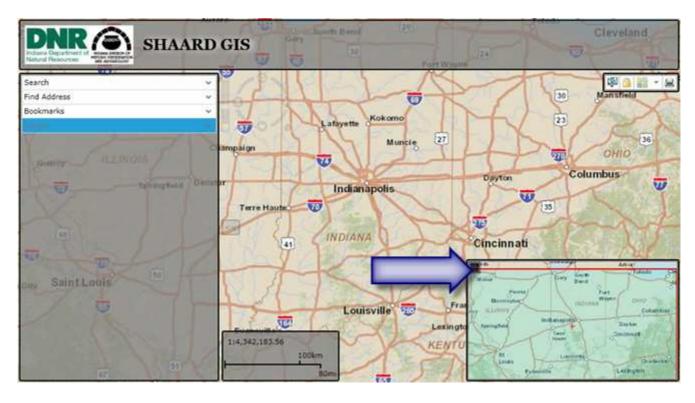
Either uncheck the box for PLSS or reduce the density of color by sliding the bar next to PLSS to the left. This will keep the information on the map, but reduce the intensity of color of the section lines and will grey out the additional information.



## How do I get the map in the lower right hand corner to go away?

The map on the lower right hand corner places Indiana in a greater Midwest context, plus shows you where in the state you are viewing. So for example, if you scroll into the Fort Wayne area, the small box in the right hand corner, there will be a red box covering the Fort Wayne area.

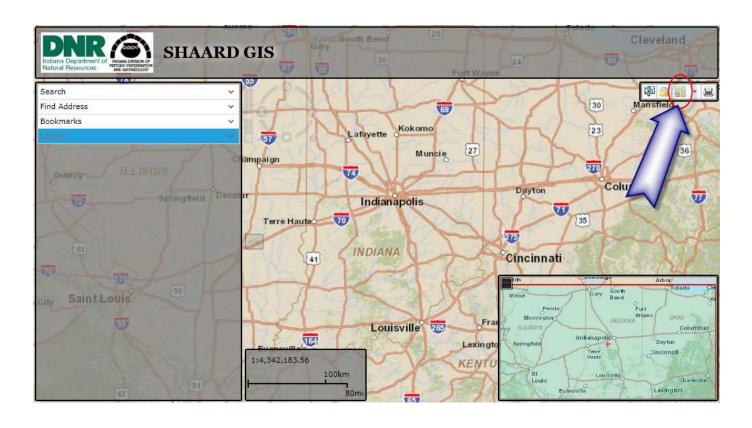
This map is defaulted to be full when you open SHAARD GIS. To reduce its size and make it not viewable, click on the gray box in the small map's upper left hand corner. This will reduce its size to a small gray box in the lower right hand corner of your map. To enlarge it back to full size, simply click on the gray box located in the lower right hand corner of the map.



## I do not like the map that is being used on the background of SHAARD GIS, how do I change this?

The default for SHAAARD GIS is to use the "Streets" map. You can change the background view to one of ten (10): Streets, Imagery, Topo, Physical, Shaded Relief, Terrain, National Geographic, Oceans, Canvas, or DeLorme.

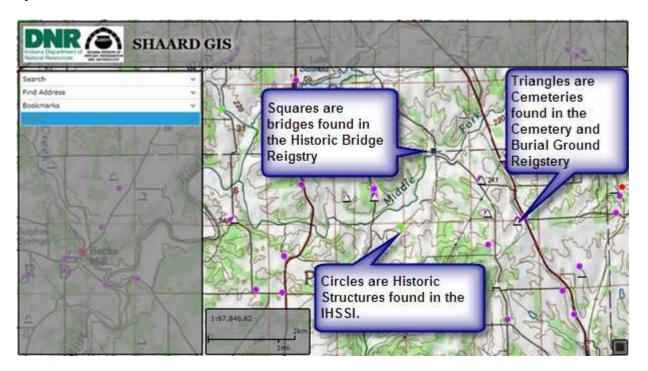
To change the back ground map, click on the Menu tab in the upper right hand corner of your map, clicking on the "4 Squares" tab offers a drop down menu. Scroll through the choices using the slide tab on the right side of the drop down menu. When you click on the background you wish to use, the map will automatically update with the new background.



## What are all the dots I see on the map?

As you scroll in closer to the map, colored dots, squares, triangles, stars, and pentagons will begin to appear. These items will not appear at State overview level.

Circles represent sites identified in the IHSSI (County Survey) program. Triangles represent cemeteries identified in the Cemetery and Burial Ground Registry Program, squares are historic bridges identified in the historic bridge database, stars represent those sites listed in the National Register of Historic Places, and pentagons represent archaeological sites; if the archaeological site is a larger area, it will be identified by hash marks.



For County Survey Sites (circles) and Historic Bridges (squares), the symbol will have a color associated with it. This represents the rating given to the property through the DHPA's IHSSI County Survey Program. The Colors represent:

Red – Outstanding

Green – Notable

Purple – Contributing

Blue – Non-Contributing

Black – Demolished

Yellow – Unknown

One site might have three symbols over it. For example a cemetery would have a triangle since it is listed in the Cemetery and Burial Ground Registry. Then it might have next to the triangle a circle, for when it was identified in the IHSSI County Survey Program. And finally, if that cemetery were also listed in the National Register of Historic Places, a star would also be over the site. Each symbol will pull information from a different part of the SHAARD database and in most cases, reviewing all three symbols (and the data which it pulls) is necessary to fully understand the history, integrity, and importance of the site.

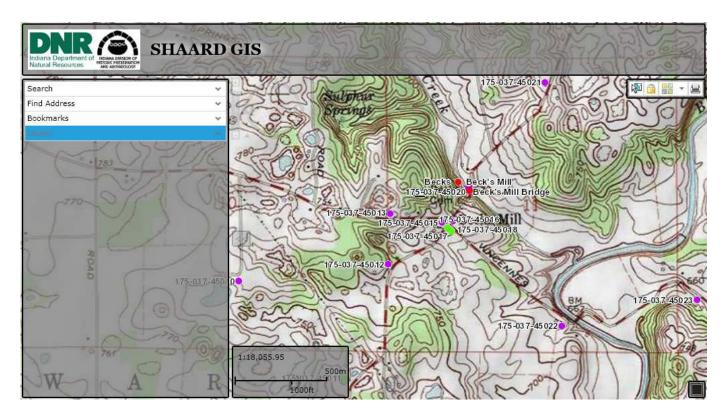
Along with having a colored symbol, each site will have a label. Cemeteries, historic bridges, and National Register Sites will have the name of the site. It will only include one name (which it pulls from the SHAARD Database) and will not show all names by which the property is known. For example, a cemetery might be known locally as the Smith Cemetery, Johnson Road Cemetery, and Catholic Cemetery, but on the SHAARD GIS map it is labeled as "Smith." This does not make the legal name of the cemetery "Smith Cemetery," only that it was the first name listed in the database. For more information on naming of properties, contact the DHPA 317/234-1268.

Those sites listed in the IHSSI County Survey (marked by circles) will have instead of a name, a number label. The number represents its IHSSI County Survey Number. The first block of three digits identifies the county. The National Park Service assigns this number to identify the county for National Register nominations; the survey program retains this number to represent the county in the survey.

The second block of three digits identifies the USGS topographic quadrangle map on which the resource is located.

The last block of five digits forms a discrete site number for the resources. A site might also have a name (like Beck's Mill), but through the IHSSI County Survey representation, will have only a number to identify it (175-037-45020).

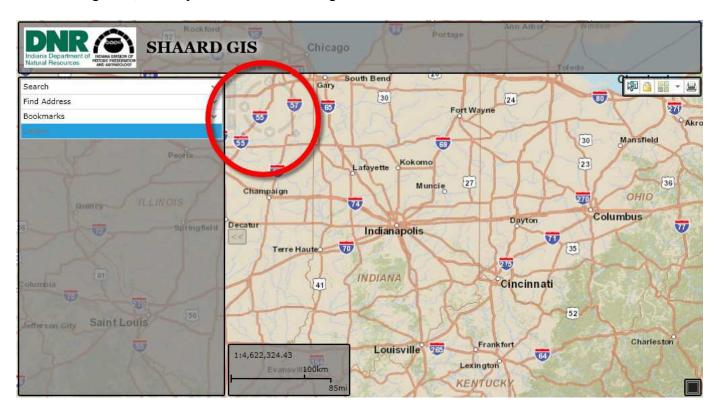
Archaeology sites will have the site's SHAARD number. For example, the first site in Clark County will be Cl-0001.

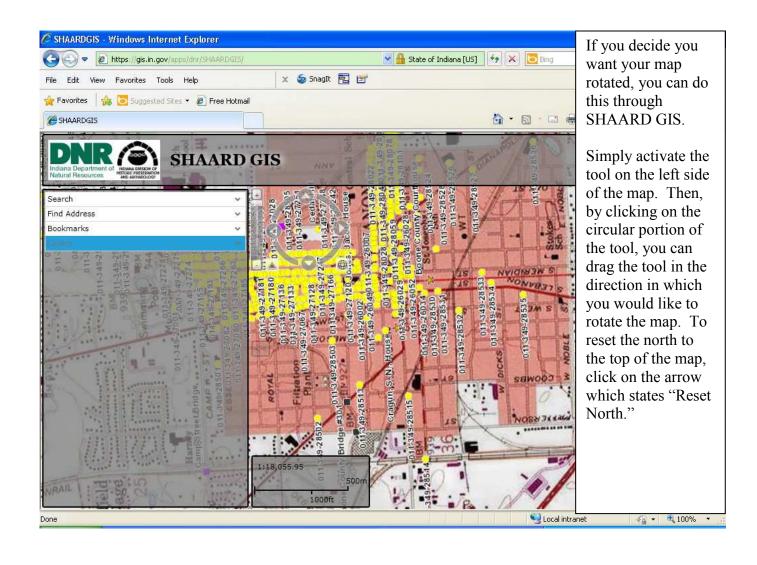


To scroll in for a closer to the map, you can do this one of three ways:

- 1. You can put your cursor over the area in which you would like to see closer, then double click with the left button on your mouse. Each time you double click, the location will get closer.
- 2. Or, you can use the roller on your mouse to scroll the map to a closer or more distant view.
- 3. Or, you can use the tool to the right of the Main Menu Bar. When the cursor is not over the tool, it fades away, but when your cursor moves over the tool, it becomes active and turns a light gray. To get the map closer, you can slide the bar towards the "+" sign, or click on the "+" sign on the tool.

The round portion of the tool will re-center the map in the direction in which you click. For example, if you click on the upper, center (or North) tab, the map will re-center moving north. If you click on the right or east triangle tab, the map will re-center moving east.

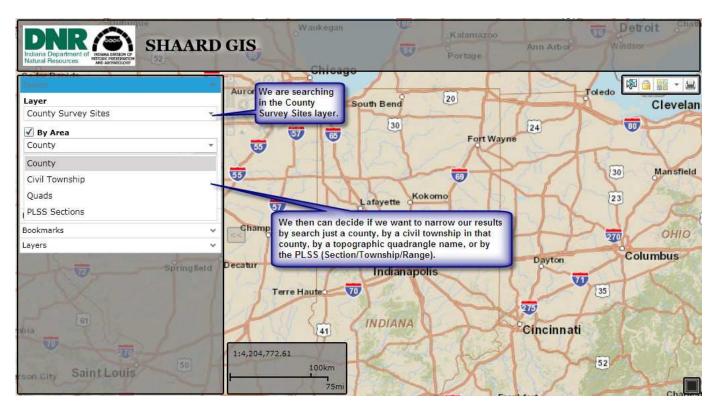


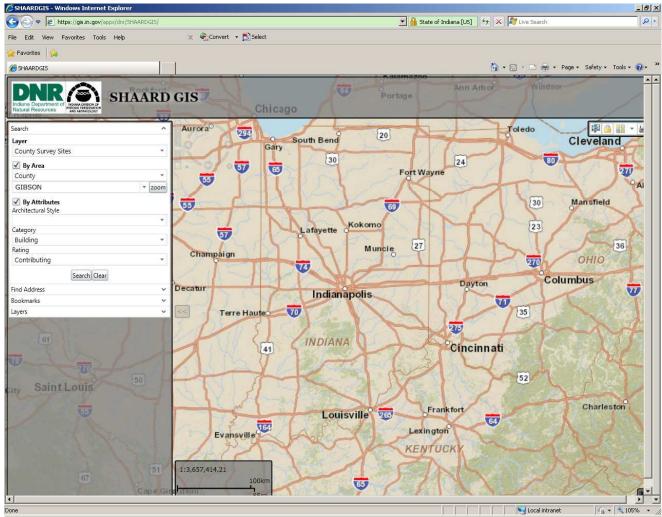


## SEARCHING SHAARD GIS

Now that you have your map adjusted the way you want, you can search various categories. First, click on the Search Arrow, located in the Main Menu on the left hand side of the map. Next, choose which category you would like to search: Cemeteries, County Survey Sites, Historic Bridges, National Register Sites, or Archaeology. Even though you are searching one category, on the map, all categories will be visible on the map. Currently, you will not be able to access the SHAARD database for all categories at the same time.

Click on the category you which to search. For this example, we will search County Survey Sites.





Next you have the opportunity to search "By Area," which will help you narrow down your search parameters. You can narrow down this search by County, Civil Township, Quads (topographic quadrangle name), or PLSS (Section, Township, Range).

Next you can narrow the search by clicking on attributes, so that the database searches for specific pieces. Improvements to SHAARD GIS may include more search parameters.

For County Survey Sites, the "By Attributes" you can search are; "Architectural Style," "Category," and "Rating."

For Cemeteries, the "By Attributes" you can search are: "Historic Name."

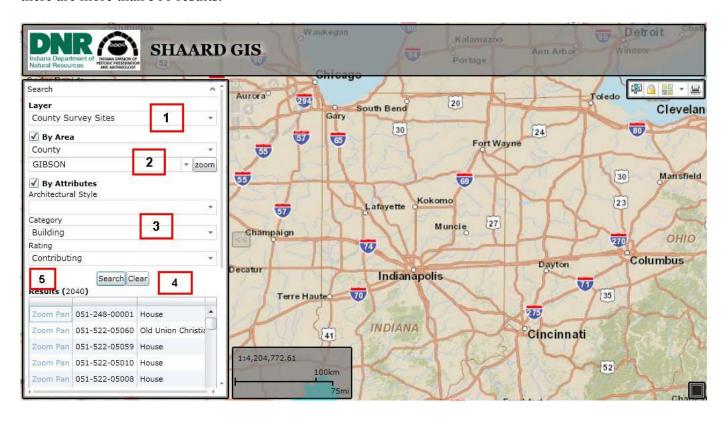
For Historic Bridges, the "By Attributes" categories include "Vernacular Style of Bridge" or "Architect."

For National Register, the "By Attributes' categories include "Architectural Style," "Category," and "Historic Name."

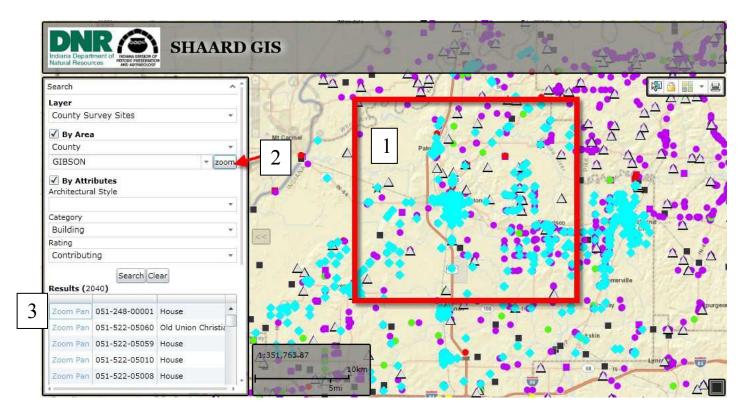
For Archaeology, the "By Attributes" categories include "historic context," "cultural period," and "site types."

Once you have chosen your layer, area, and attributes, then click on the search button. If nothing is found through these search parameters, nothing will show up under the Search button.

If there are resources fitting these search parameters, they will list beneath the Search button. In SHAARD, the database will only show you 500 results. However, in SHAARD GIS, it will display when there are more than 500 results.



- 1. We searched on the County Survey Sites Layer.
- 2. We limited our search to Gibson County.
- 3. We limited it to only buildings that were rated "contributing."
- 4. We hit the search button.
- 5. It resulted in 2040 structures.

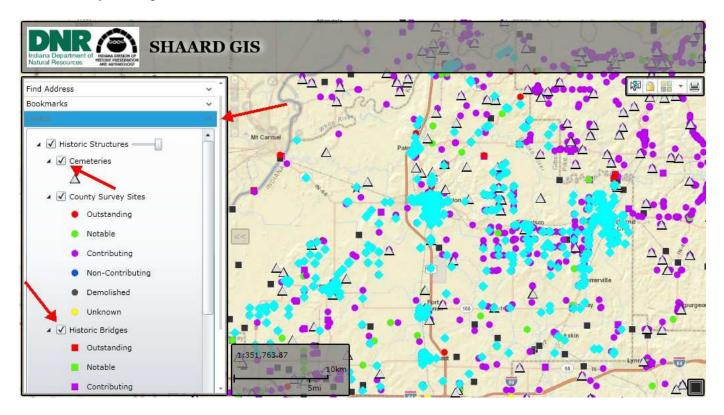


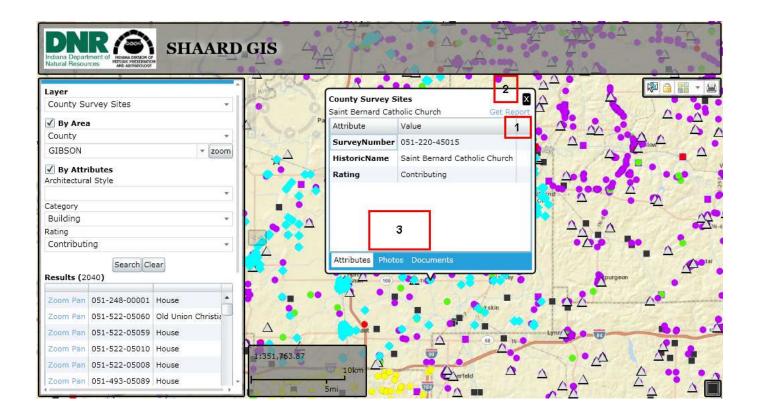
1. You'll notice for your geographic area on the map, all the layers are visible. So while you searched for County Survey, you can still see the symbols for bridges, National Register or cemeteries. These other buttons will still have their color according to their rating. But, the items pulled up in your search will be a light blue dot over the symbol for the resource type.

You will not be able to access the sites, or their corresponding SHAARD database information.

- 2. If you want to zoom to an overview of the entire area and not one specific site, click on the "zoom" button to the right.
- 3. If you want to see a specific site in your list, click on the zoom button to the left of the Name or Number. Clicking on the word Pan shows the resource at a further zoomed out layer than the zoom button will.

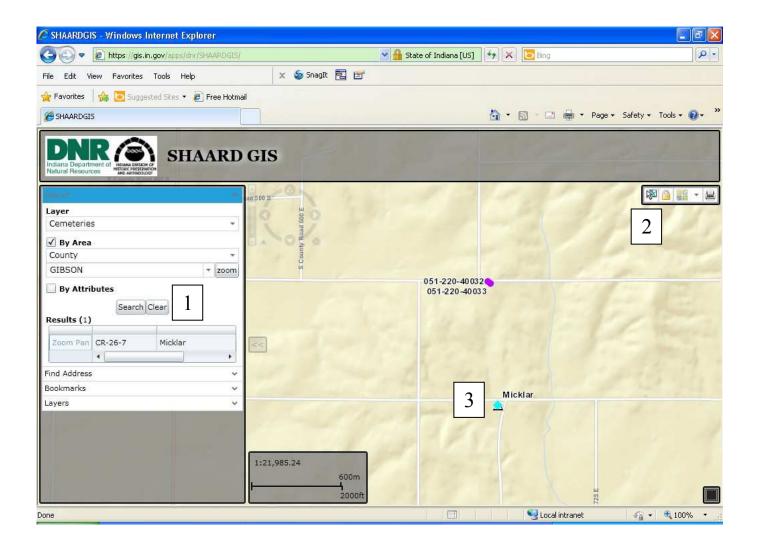
If you do not want to see the other layers (types of resources), you can remove them from your map by clicking on the Main Menu under "Layers." Then you can uncheck the box for the resource which you do not wish on your map.





You can see more information on any resource that is highlighted clicking on the light blue dot. The information seen there is being pulled from the SHAARD database.

- 1. Clicking this button gets you the entire SHAARD Report.
- 2. This "X" button closes this box.
- 3. The information shown will include attributes (basic information), photos (if any exist in the database), and PDFs (if any exist in the database). These are visible quickly, at-a-glance by clicking on the appropriate tab.



Let's say now that you are in the area through the County Survey Site Layer and now you want to see the information on a cemetery not identified with a county survey number or symbol.

- 1. Simply, click clear on the left hand menu, change your layer you are looking at to the "Cemetery" layer.
- 2. Then click on the box with the arrow on the upper right hand corner.
- 3. Capture the cemetery in question. It will turn light blue. You can click on it and the SHAARD information will display.

## Other ways you can search:

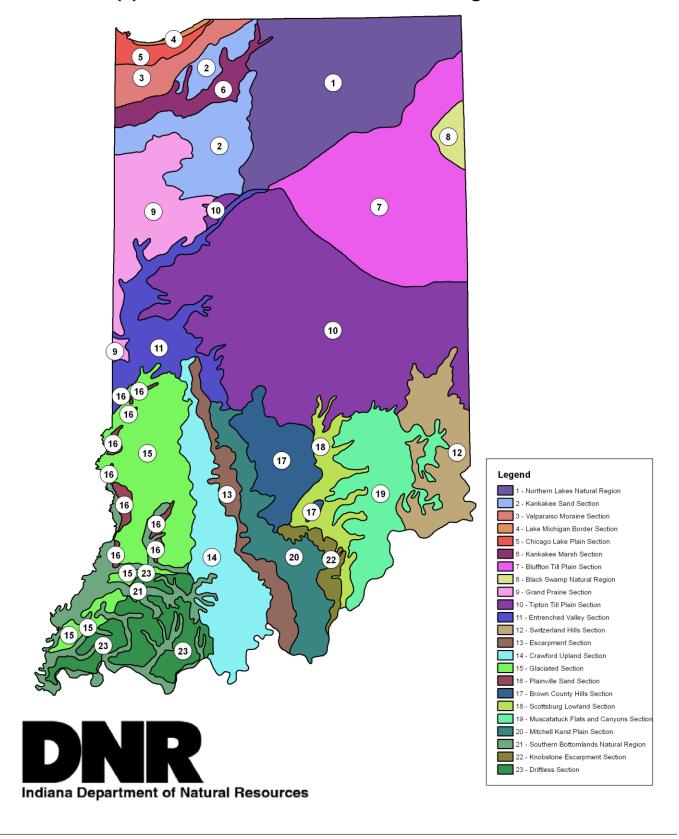
Currently there is a search mechanism for address. This information is not pulled from SHAARD, but from the main GIS database. You can put in the address (number, street, city, and state - with commas between the street, city and state). Then hit search. The GIS database will give you close variations of the address from which you must choose. The possible sites are marked on the map with pins. You will also see the symbols for sites found in the SHAARD database.

PLSS is the Public Land Survey System (also known as Section/Township/Range). You can put this information in as a query to search a location and what is known in that location. The database searches by this variation: Township, Range, and then Section – it must be in that order. You can either manually put in the information or scroll down the drop down menu to find your location.

## State of Indiana County Abbreviations

ADAMS	A	LAWRENCE	Lr
ALLEN	Al	MADISON	M
BARTHOLOMEW	В	MARION	Ma
BENTON	Bn	MARSHALL	Mr
BLACKFORD	Bl	MARTIN	Mn
BOONE	Во	MIAMI	Mi
BROWN	Br	MONROE	Mo
CARROLL	C	MONTGOMERY	My
CASS	Ca	MORGAN	Mg
CLARK	Cl	NEWTON	N
CLAY	Су	NOBLE	No
CLINTON	Cn	OHIO	O
CRAWFORD	Cr	ORANGE	Or
DAVIESS	Da	OWEN	Ow
DEARBORN	D	PARKE	P
DECATUR	De	PERRY	Pe
DEKALB	Dk	PIKE	Pi
DELAWARE	Dl	PORTER	Pr
DUNOIS	Du	POSEY	Po
ELKHART	E	PULASKI	Pl
FAYETTE	F	PUTNAM	Pm
FLOYD	Fl	RANDOLPH	R
FOUNTAIN	Fo	RIPLEY	Ri
FRANKLIN	Fr	RUSH	Ru
FULTON	Fu	ST. JOSEPH	Sj
GRANT	G	SCOTT	S
GIBSON	Gi	SHELBY	Sh
GREENE	Gr	SPENCER	Sp
HAMILTON	H	STARKE	Sp St
HANCOCK	На	STEUBEN	Sn
HARRISON	Hr	STEUBEN SULLIVAN	Su
HENDRICKS	Не	SWITZERLAND	
			Sw
HENRY	Hn	TIPPECANOE	T.
HOWARD	Но	TIPTON	Ti
HUNTINGTON	Hu	UNION	U
JACKSON	J	VANDERBURGH	Vg
JASPER	Js	VERMILLION	Ve
JAY	Ja	VIGO	Vi
JEFFERSON	Je	WABASH	Wb
JENNINGS	Jn	WARREN	Wa
JOHNSON	Jo	WARRICK	W
KNOX	K	WASHINGTON	Ws
KOSCIUSKO	Ko	WAYNE	Wy
LAGRANGE	L	WELLS	We
LAKE	La	WHITE	Wh
LAPORTE	Le	WHITLEY	Wi

## Appendix B - Indiana Natural Regions



#### APPENDIX C

## Topographic Features

(adapted from the Oracle System Survey Manual by W. Frederick Limp, Indiana University, Glenn A. Black Laboratory of Archaeology, Research Reports, No. 3, 1978)

The various topographic features and descriptions are as follows:

## Floodplain Features

## Floodplain Flats

Includes the area between the river bank and terrace margins, this area is essentially flat and is subject to repeated flooding.

## Floodplain Ridge

A rise within the limits of the floodplain which is not clearly a terrace remnant or a natural levee. These ridges may be terrace remnants etc., but in those cases where confusion exists, the rises are classified as floodplain ridges.

#### Natural Levee

An extended linear rise on the floodplain which parallels the present or earlier river course(s).

## Riverbank/Buried

The immediate vicinity of the modern riverbank and also sites located in the riverbank profile below the modem surface.

## Terrace remnant on floodplain

A prominence on the floodplain which is similar to the floodplain ridge but can instead be clearly associated with a terrace feature.

## Terrace Features

## T-1 Margin

Includes the sloping area up from the floodplain to the top of the lower terrace proper.

## T-1 Flats

The portion of the lowest terrace with slight or no regular elevation change, extending from the T-1 margin to the bottom of the T-2 margin.

## T-2 Margins

The slope from T-1 flats to the top of T-2 proper.

#### T-2 Flats

Comparable to T-1.

## T-3 Margins

Comparable to T-1.

## T-3 Flats

Comparable to T-1.

Note: The flats of the uppermost terrace, either T-1, T-2, T-3, etc., extend either to the talus, hillside or bluff base behind but do not include these features. If it is not possible to determine whether a feature is part of T-1, or T-2 etc., then it can be categorized as a terrace margin or a terrace flat.

## Ohio Lacustrine Plain

Flat surfaces comparable in elevation to the river terraces which they abut. The lacustrine plains extend up valleys from the terraces and are characterized by very little relief and soil types derived from lake sediments.

## Dune on Terrace

An often pronounced hill-like feature usually on the eastern side of major glacial sluiceways, e.g. Wabash and White Rivers. On topographic maps the dune often cannot be differentiated from terrace remnants, etc. From "on site" observation, the dune nature of sand deposition is frequently clear.

## Slope Features

#### Talus

A depositional surface at the base of a hillside or bluff. In general, the talus is less precipitous than the bluff or hillside above.

## Hillside

An erosional surface of obvious and extended regular elevation change. The degree of slope may vary considerably from gentle to pronounced.

## Bluff Base

In a comparable location as a talus feature but with little depositional materials. The bluff base is at the angular "connection" of a steep bluff and the terrace or floodplain, etc., below.

## Low Terminal Ridge Spur

A slight "step" in a hillside which results from the projection of a "ridge spur" into the valley. A "ridge spur" is a finger-like feature with slopes on three sides. The low terminal ridge spur is a flattened area beneath the ridge top and above the terrace and/or floodplain below.

#### Bench

A slope feature common to stream and large river valleys away from the major rivers. A bench is a flattened area on the side of a slope that may occur anywhere on the sides of low terminal ridge spurs. These features occur in valleys where no true terraces are present and appear as terrace-like formations.

## Bluff Top Features

## Top of Bluff "Linear"

The area at the top of a pronounced elevation change, such as a bluff along various rivers. Depending on the area, however, the actual slope of the bluff may range from precipitous to moderate. The feature should extend for some distance in a more or less "linear" fashion; contrast with bluff top, head of gully.

## Bluff Top, Head of Gully

The area at the top of a bluff which has been dissected by a small erosional valley, i.e. a gully. The area extends on all three sides of the gully.

## Bluff Top, Ridge Spur

A bluff top located on a ridge spur. A ridge spur is a "finger-like" projection of the ridge out into the valley.

## **Upland and Watershed Features**

## Upland Flats

Areas of moderate to slight elevation change back from bluffs and other areas of pronounced elevation change. In the dissected portions of the state, the "Upland flats" may not be "flat" but rolling or even slightly dissected; hence, some sloping areas near the sides of the ridge crests may also be included. In the glaciated areas, the Upland Flats include areas of no relief; compare to moraine features.

#### Watershed Knob

An upland, as compared to floodplain or terrace, feature. The knob is an encompassed feature such that runoff would be in all directions from its highest point.

## Watershed Ridge Crest

A "linear" upland feature of some length which serves as a local watershed divide.

## Watershed Saddle

A "flattened" area of somewhat lower elevation, between two or more watershed knobs.

## Glacial Features

#### Esker and Kame

Areas of pronounced, increased elevation within a glaciated area. The esker is lengthy, often sinuous. The kame is an inverted bowl. The kame differs from a watershed knob, and the esker from a watershed ridge, only in their origins as glacial deposits.

## Moraine Slope

An area of often only slight but continuous elevation change. Frequently a moraine can only be determined by examination of a very wide area, as the local changes are often minute.

#### Moraine Crest

The highest area of a moraine feature. Differs from a watershed ridge crest only in its glacial origin.

## Intermorainal Swale

An area of comparably low elevation between two moraines. Prior to modern ditching, these areas were often swamp/lake-like.

## Topographic features cross cutting the previous classes:

## Terrace Remnant on Floodplain

A prominence on the floodplain which can be clearly associated with the terraces by its elevation and/or soil type.

## Upland Remnant "on" Terrace

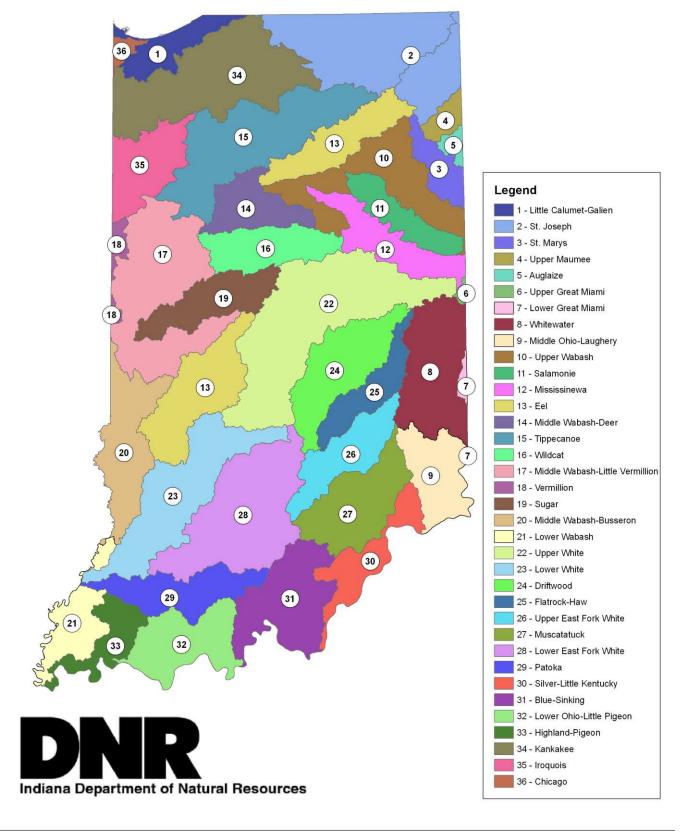
A portion of the uplands which has become isolated by erosion and is now "surrounded" by a terrace. Variants are listed below:

Upland Remnant "on" T-1

Upland Remnant "on" T-2

Upland Remnant "on" T-3





## (Excerpt from the National Register Bulletin 15, How to Apply the National Register Criteria for Evaluation)

## **Criteria for Evaluation**

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 significant persons in or 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 history or prehistory.

## **Criteria Considerations**

Ordinarily cemeteries, birthplaces, 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 National Register. 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 primarily significant 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 associated with his or her productive life; or
- **d.** A cemetery that derives its primary importance 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
- ${f g.}$  A property achieving significance within the past 50 years if it is of exceptional importance.

#### APPENDIX F

## Guidelines for State Register Criteria

(adapted from a manuscript on file at the Division of Historic Preservation and Archaeology)

The following are guidelines for State Register Criteria.

## Criteria for the State Register

- A. A site, district, object, or building will be eligible for inclusion in the State Register of Historic Sites and Structures if it is significant in the development of Indiana and local history, architecture, archaeology, and culture; possesses integrity of location, design, setting, materials, and workmanship; and satisfies one or more of the following:
- 1. Is associated with events that have made a significant contribution to national, state, or local history.
- 2. Is associated with individuals significant in the past of the nation, state, or local community.
  - 3. Embodies distinctive characteristics of a type, period, or method of construction; represents the work of a master; or possesses high artistic value.
  - 4. Has yielded, or may likely yield information important to the archaeological knowledge of the prehistoric or historic development of the state or nation.
  - B. Ordinarily, structures moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, archaeological sites whose contextual integrity has been significantly altered, and properties which have achieved significance within the past 50 years shall not, as a rule, be eligible for the State Register. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall in one or more of the following categories:
    - 1. A building or structure removed from its original location but is a surviving structure associated with an historical person or event.
    - 2. A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner.
    - 3. A property primarily commemorative in intent, if design, age, tradition or symbolic value has invested it with its own historical significance.
    - 4. A property achieving significance within the past 50 years, if it is of exceptional importance in the historical, architectural, archaeological, or cultural development of the state or nation.
    - 5. Archaeological sites whose contextual integrity has not been significantly altered by natural forces or human activities and which may yield pertinent and/or quality cultural, biological, faunal and floral data regarding cultural patterns, processes, or activities significant in our past.

# **Appendix G:** Phases of Archaeological Investigation (from the Indiana Cultural Resources Manual by the Indiana Department of Transportation, Cultural Resources Section)

## Figure 6.1 Phases of Archaeological Investigation

#### Records Check/Literature Review

An essential step completed before fieldwork occurs. The purpose of the records search is to locate, identify, and evaluate known and expected cultural resources that might be affected by an undertaking, as well as make recommendations regarding further archaeological work. Contact the DHPA/SHPO for requirements and schedules.

#### Phase la Reconnaissance

The Phase Ia is a systematic, detailed field inspection that seeks to locate, identify, and evaluate cultural resources within a project area. Different topographic conditions call for different field methodologies.

#### Phase lb

The Phase Ib is designed to build upon the previous Phase I when additional information is required to better evaluate a site, and to guide areas for Phase II investigations. Phase Ib may involve controlled surface collection, piece plotting, or subsurface sampling.

#### Phase Ic

The Phase Ic is required in areas where archaeological remains are likely to be buried in alluvial, colluvial, or aeolian soils. The Phase Ic may require the use of coring, trenches, or test units to locate and assess the nature of buried deposits. A Phase Ic plan must be submitted to the DHPA/SHPO.

## Phase I Recommendation

If archaeological sites are located, the Phase I should result in recommendation of the sites' significance and potential eligibility for listing on state and national historic registers. If the site is assessed as potentially eligible, or more information is required to make an assessment, then a Phase II investigation will be required, or the site must be completely avoided.

#### Phase II Investigation

The purpose of a Phase II is to gather adequate data to further evaluate the significance and eligibility of a site. The Phase II may involve a combination of test units, mechanically excavated trenches, and specialized analyses. Generally, the DHPA/SHPO requires a minimum of 10% of the site's area be tested. The Phase II investigation must proceed according to a DHPA/SHPO approved plan, and be guided by specific research questions.

## Phase II Recommendation

The Phase II investigation should result in evaluations of a site's integrity, potential for additional archaeological deposits, significance, and eligibility for listing on state and national historic registers. If the site is assessed as eligible, then it must be avoided or Phase III mitigation must be conducted.

## Phase III Mitigation (Data Recovery)

The Phase III data recovery a full-scate archaeological investigation designed to realize a site's research potential through excavation. In a Section 106 project, the proposed undertaking will have an "adverse effect" on the archaeological site, and that effect is mitigated through the Phase III investigation. The Phase III investigation must proceed according to a plan approved by the DHPA/SHPO, and be guided by specific research questions. Generally, the DHPA/SHPO requires a minimum of 25% of the site's area (above and beyond the area tested during the Phase II) be tested during a Phase III.

#### Plans & Permits

An archaeological plan should be submitted to the DHPA for review and approval before fieldwork begins. The DHPA approval letter serves as a permit. If the archaeological work is a Section 106 project, a letter from the DHPA requiring the work acts as a permit (unless conducted on State property or any investigation beyond a Phase Ia).