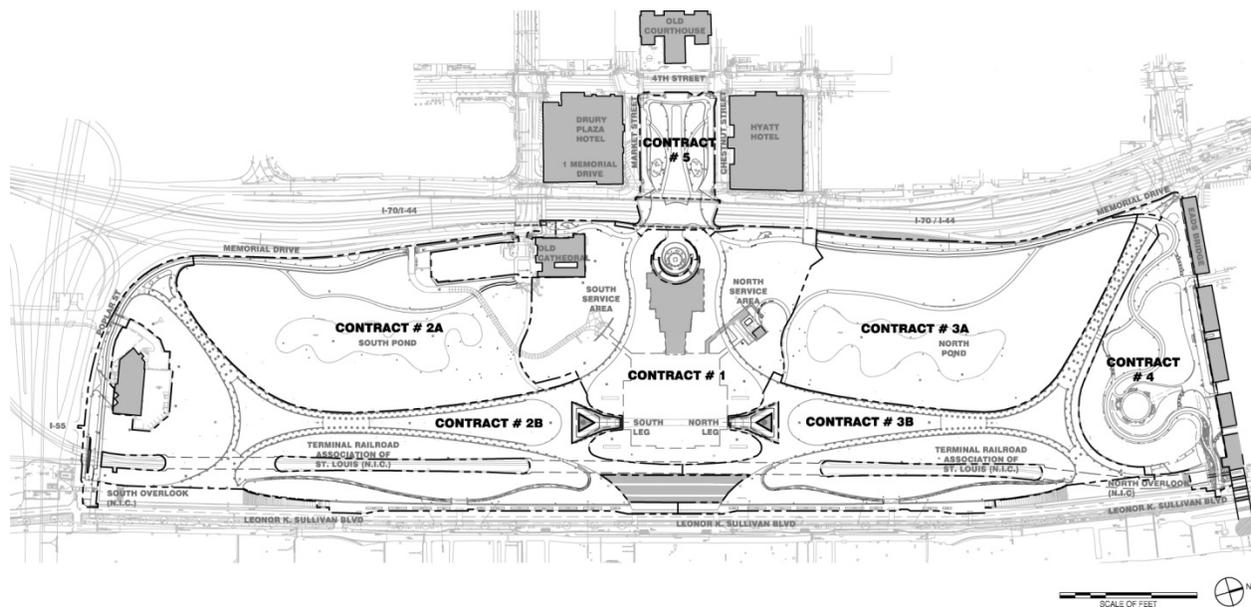


Archeological Monitoring and Data Recovery at Jefferson National Expansion Memorial (JEFF)

Introduction and Background

As part of the CityArchRiver(CAR) 2015 project, the National Park Service proposes to undertake a major rehabilitation of the park grounds and install a new west entrance at Jefferson National Expansion Memorial (JEFF) . Because of the scale and complexity of historic landscape modification and subsequent park construction, traditional archeological survey methods for discovering and evaluating historic resources would be ineffective. Park wide, past landscape modification is so extensive that it is impossible to reasonably predict the presence of archeological resources. Therefore, the identification of potential adverse effects to archeological resources and the mitigation of those effects through data recovery excavations must be done during construction. Monitoring will be needed for the west entrance, north entrance, and the north and south reflecting ponds. These areas are designated as Contracts 1 – 4 on the CAR2015 plans.



Other smaller-scale projects, such as work around the construction of the new ranger station (Contract 2), the Old Courthouse , and work in Luther Ely Smith Square (Contract 5) should be evaluated on a case by case basis. Although archeological monitoring to identify potential adverse effects is necessary for some locations, traditional archeological testing will be implemented by the Archeological Monitor whenever possible.

Preliminary archeological research indicates that most of the park grounds were completely built out with brick buildings covering the entire area; however, the location was one of the earliest settled in the city of St. Louis with the first structures appearing on the site before 1800. The earliest occupation would have relied on local water from wells and cisterns and sewerage in the form of privy toilets which would have been dug far below the past ground surface. As late as the 1850s much of the population of St. Louis still relied on individual water and waste disposal – wells and privies – for their daily needs. In the absence of regular trash pickup, pits such as these often became solid waste receptacles after they were abandoned. Consequently, they can provide an incomparable material record of a very localized population often traceable to individuals or families. Analysis of remains from these unique locations can provide insight into issues like social, economic, or ethnic status. Only after the Civil War were sanitary sewers and a centralized water system built in the downtown area. Recent work at the Poplar Street Bridge by archeologists from the Missouri Department of Transportation (MoDOT) has demonstrated that, despite generations of disturbance, traces of these earlier features exist.

Monitoring and Mitigation

Because of the ineffectiveness of traditional, near-surface discovery techniques and the potential for intact cultural resources, a strategy of monitoring excavation during construction and mitigation on-the-fly is required to guard against potential adverse effects. Archeological monitoring will be performed by NPS personnel from the Midwest Archeological Center (MWAC) whose education and experience meets or exceeds the Secretary of Interior’s qualifications for archeologist (see reference below). Archeological monitors designated by the Osage Nation may also participate as described in Appendix A. In addition, CAR2015 will establish on-call contracts with one or more local cultural resource management firms who can supply additional qualified personnel to mitigate features identified by the NPS archeological monitors. On-call archeologists will be permitted via an Archeological Resources Protection Act (ARPA) permit issued by MWAC. CAR2015 will also provide funding for the curation of artifacts which will be processed according to standards outline in a separate curation plan and stored at MWAC.

NPS expects that excavation will encounter numerous artifacts and building fragments, both within fill material as well as *in situ*. Monitors will locate and identify features that have integrity and are potentially eligible for listing on the National Register of Historic Places (NRHP). Monitors shall produce weekly reports of archeological activities for distribution to the NPS-JEFF, the Missouri SHPO (MoSHPO), and the Osage Nation Tribal Historic Preservation Officer (ONTHPO). JEFF will distribute the report to collaborating parties as requested. In cases where potentially NRHP eligible features are identified, construction activities will halt within a safe and reasonable distance, as determined by the archeological monitor, to allow for excavation of the feature(s) by the contracted archeologists. Construction may continue in other areas not affected by archeological work. Contracted archeologists will commence as soon after the discovery of features as possible and work as expeditiously as possible to minimize potential delays to the construction schedule.

Any Native American artifacts (with the exception of NAGPRA items and sacred items - or items suspected to be such - which are addressed below) found in fill or disturbed contexts, both in place and excavated deposits will be collected according to provenience. Monitors will consult with the Osage

Nation about identification and disposition of these artifacts. Adjacent sediments will be examined for artifacts. In locations where monitors believe there is a greater than expected probability for encountering Native American related items, monitors will consult with the Osage Nation about sampling and identification strategies.

In the event of the inadvertent discovery of historic properties during construction activities that are not monitored, the protocol outlined in Appendix B will be utilized. These protocols will also be used if intact historical ground surfaces or abundant archeological features suggesting a potential unrecognized archeological surface are encountered. Appendix C describes the procedure for addressing issues associated with the inadvertent discovery of human remains and the responsibilities of the NPS under the Native American Graves Protection and Repatriation Act (NAGPRA).

Archeological Contractor Responsibilities

The Archeological Contractor shall provide all personnel, equipment, and services to perform all tasks necessary to mitigate selected archeological features within the project area, perform artifact analysis, and professionally report upon the results of the field work for projects located within Jefferson National Expansion Memorial, St. Louis Mo. Contracted archeologists will be overseen by the NPS archeological monitors. The Archeological Contractor will prepare a draft archeological report of work which they undertook and site forms for internal review by NPS, MoSHPO, and the ONTHPO; make appropriate revisions in response to review comments; and produce final documents. The Archeological Contractor will perform all fieldwork, background research, artifact analysis and packaging, evaluation of findings; and will edit the documents, prepare graphics, and provide camera-ready products for NPS. Contracted archeologists will prepare and submit artifacts and other documentation to MWAC pursuant to a separate curation plan.

The Archeological Contractor's Principal Investigator must meet professional qualifications standards outlined in the *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* (Appendix C, DO-28, 1997). All work shall be technically accurate, performed according to accepted professional guidelines, and in compliance with all appropriate federal legislation (including the Native American Graves Protection and Repatriation Act and implementing regulations); state standards/guidelines, and internal NPS policies including DO-28, *Cultural Resource Management Guidelines*, especially chapters 2 and 6 and *Guideline* appendices. Completion of the project will result in the production of a technical report for the work done by the contracted archeologists.

General Archeological Considerations

As is typical of high density urban contexts, numerous historic and industrial items may be encountered during the excavation. General principles are employed to determine whether artifacts should be collected for further analysis, or discarded in the field:

I. Certain categories of artifacts are noted in the field notes and either sampled (i.e. a small amount of material is retained while the remainder discarded) or discarded in their entirety.

These categories include:

A. Structural items (e.g., brick, foundation stones, plaster, mortar, sewer pipe).

B. Industrial byproducts and fuel (e.g., slag, coal, coke).

II. Artifacts post-dating 1940 are not collected. This date was selected because most of the residential, business, and other properties within the project area were demolished or vacated due to the construction of JEFF during the late 1930s.

III. General collections (e.g., from trenches, but not from discrete features) will be limited, and restricted to temporally or functionally diagnostic artifacts¹.

IV. Artifacts in obviously disturbed contexts are not generally collected, unless special circumstances apply.

V. Artifacts that have limited research potential (but that do not clearly fall under the previous criteria) should be collected for additional analysis, after which they will be evaluated for potential disposal.

Unless special exceptions are made, all material brought from the field into the lab will be processed (i.e. washed/cleaned, sorted, and bagged) and analyzed, though the level of processing will vary based upon the relative significance of the artifact. Artifacts predetermined for discard will undergo minimal cleaning and will not be bagged for permanent storage. All artifacts, however, will be thoroughly analyzed, regardless of their final disposition. It is especially important to properly record collections that will be discarded since those artifacts will not be available for future analysis. Artifacts will be considered for disposal based upon provenience, association, material, and function.

I. Provenience and Association

A. General Collection (i.e. trench location but no feature designation) – Only temporally or functionally diagnostic artifacts should be collected from general site areas; therefore, artifacts that do not fit these criteria should be discarded.

B. Features – Artifact-bearing features (e.g. privies, water closets, cisterns, and wells) fall into three categories, relating to research potential.

i. Features whose deposits fall entirely within the property's area/period of significance.

a. The entire assemblage from these features will be considered for permanent curation.

¹ Because of their rarity and temporal utility, all Native American related items should be collected regardless of contexts.

- b. Qualified exceptions made can be made according to II.A-D.
- ii. Features whose deposits fall entirely outside the property's area/period of significance.
 - a. The entire assemblage from these features will be considered for disposal.
 - b. Samples of temporally and functionally diagnostic and stylistically unique artifacts should be retained.
- iii. Features whose upper deposits fall outside the property's area/period of significance, but which contain sealed or intact lower deposits that are significant. The upper deposits should be discarded, while the significant lower deposits are to be maintained.

C. Previous Excavation or Looting – Because the association of the artifacts has been destroyed, the assemblages from these features should be discarded.

D. Association – Artifacts that cannot be linked to a particular individual (or family), group, theme, or event can more readily be considered for disposal. However, the artifacts must also lack merit for other research uses.

II. Material and Function

A. Material samples (e.g., brick, coal, slag, lumber) – Samples of non-diagnostic building and waste materials, other than those to be used for chemical analysis, should be discarded.

B. Highly corroded ferrous metal – Ferrous metal objects are problematic because they will continue to deteriorate over time, unless properly conserved. When analyzing ferrous metal objects, it is important to have an understanding of the site and the feature from which the artifacts were excavated. For example, a mass of iron might be insignificant on a residential site, but might be critically important on an industrial site. Assuming that conservation will be conducted on only the most critical artifacts, the following protocols will be observed:

- i. If an artifact is identifiable, it should be curated.
- ii. If an artifact is unidentifiable (e.g., an amorphous clump of iron), it should be weighed and measured, and then discarded.
- iii. If an artifact is currently unidentifiable, but there is reason to believe that under the layer of oxidation a solid artifact still exists (i.e., the artifact could be identifiable through x-ray or conservation), the artifact should be curated.
- iv. If an artifact is identifiable, but only to a very limited extent (e.g., a “fastener” that could be a wire nail, a wrought nail, or a screw), it should be discarded.

C. Minute and unidentifiable glass fragments – Small glass fragments (< 5.0g), for which the only identifiable attribute is color, should be discarded. Fragments with attributes pertaining to manufacturing method, function or surface treatment should be maintained.

D. Organics

- i. Leather – Identifiable leather objects should be retained, even if desiccated.

Conservation should be attempted. Unidentifiable pieces of leather can be discarded.

ii. Fabric – Fabric should be retained, unless in such poor condition as to make conservation impossible.

iii. Faunal (i.e. food bone, non-food bone, shell) – Faunal material that is related to human activity (e.g., shell buttons, cut bone, mussel shell) should be retained. Non-cultural items (e.g., rat mandibles) can be discarded.

iv. Floral (i.e. seeds, charcoal, non-milled wood) – Seeds and food remains should be maintained. Charcoal and miscellaneous wood fragments should be treated as material samples, and discarded.

E. Exceptions – All exceptions—both retention and disposal—to these procedures should be clearly justified. For example, a shell button might be discarded because the condition is so poor that there is essentially nothing remaining to curate; or, a mortar sample from the interior of a cistern could be retained because it visually demonstrates a sequence of building events or alterations.

APPENDIX A

TRIBAL MONITORING PLAN

- A. The NPS is committed to working with the Tribes to assist in identifying and minimizing the Undertaking's impacts on important cultural resources, graves, and isolated human remains.
- B. In general, tribal monitors are hired by the Tribe to monitor areas during the historic property identification and evaluation process and during ground disturbing activities related to construction. The NPS will reimburse the Tribe at an agreed upon daily rate. The monitors are required to have adequate training and must follow strict protocols while in the field. The tribal monitors shall be selected by the individual Tribes. It is completely necessary that there be clear and consistent lines of communication among the tribal monitors, the Tribes, and the NPS representatives and their consultants and contractors. Reports may be shared with the NPS, other tribes, and other consulting parties that will be identified through the consultation process.
- C. The objective of the tribal monitoring program is to develop a reasonable monitoring process while minimizing the potential for adverse effects from identification and project activities to historic properties and sites of religious and cultural significance. The intent of this plan is to provide guidelines to assist in the decision-making process when consulting with the Tribe and to implement an effective communication system.
- D. Tribal Monitors Position Description
 1. During ground-disturbing activities the tribal monitor will provide assistance with the identification of traditional cultural resources of significance to the Tribe.
 2. Tribal monitors may not direct construction personnel or equipment.
 3. It is the responsibility of the tribal monitor to actively observe and report any cultural artifact or human remains found either on the surface or subsurface within the project boundaries to the NPS representative.
 4. The tribal monitor is required to adhere to the PA and report to the NPS if an archaeological or cultural resource is discovered.
 5. Monitors must abide by all safety rules and wear protective equipment at all times while on site.
 6. NPS representatives will seek the advice and input of tribal monitors when unanticipated discoveries are encountered.
 7. Only if the tribal monitor feels that extremely sensitive materials, such as human remains, are in immediate danger of being damaged or destroyed, they may notify the operator and request that they cease operations in that area until their respective Tribe and the NPS representative can be notified.
- E. The determination of the credentials and qualifications required of tribal monitors shall be within the purview of the individual Tribes. The individuals selected will be officially recognized by the Tribe as having the capabilities to perform the duties as described in the job description. The NPS will coordinate the activities of the monitors according to the survey, evaluation, or construction schedule. It is anticipated that the Tribe will administer the activities of the monitors from a tribal perspective. Indian Tribes can also contract out monitoring work to other Native American Tribes who have qualified staff provided that each Tribe officially delegates such authority in writing, stating that they endorse the candidate.

- F. The NPS and the Tribe will agree, through consultation, upon the extent of and locations of tribal monitoring. Tribal monitoring will be conducted on areas identified by the Tribes as having significance to that Tribe and areas identified by Tribes during the Section 106 process.
- G. Tribal monitors will work together with the NPS representative to assist in cultural resource identification and to perform monitoring activities in areas targeted for survey, evaluation, or construction. If a cultural resource is discovered, NPS representatives will follow the terms of the PA, as well as all local, state, and federal laws governing the protection and discovery of archaeological and cultural resources. Tribal monitors will communicate their concerns to the NPS representative and will not direct construction personnel or equipment. The authority to stop work will rest on the NPS representative except as is outlined in IV.7 of the CAR2015 Programmatic Agreement.
- H. It will be the responsibility of the NPS representative to contact, in person, or via email, text, or telephone, the tribal monitor(s) and notify them of emergencies or potential emergencies affecting the entire project areas, such as inclement or violent weather.
- I. The tribal monitor will not remove cultural material unless directly instructed to do so by the NPS representative. Should they be instructed to move the cultural material, they will place the material in an appropriate container and properly label the container to preserve the provenience of the material and deliver it directly to the NPS representative. Transfer of the cultural material to the NPS representative's custody will be documented within a report provided by the monitor or their represented Tribe.
- J. Disputes arising out of this agreement will be resolved in the most efficient manner appropriate to the dispute. If an agreement cannot be reached in this manner, the parties shall engage a mutually agreed-upon mediator. The mediator's decision shall be binding upon the parties. The parties shall share the cost of mediation.

APPENDIX B

INADVERTENT DISCOVERY OF HISTORIC PROPERTIES

- A. Objectives: The following procedures shall be used in the event that previously unreported and unanticipated historic properties are found during activities conducted by or on behalf of the NPS.
- B. Based on the results of initial identification and evaluation efforts, NPS will consult with the Missouri SHPO and the Osage Nation to determine where archeological monitoring during construction will be necessary and appropriate. That discussion is contingent upon changing site conditions. Monitoring will be considered in areas where initial identification and evaluation efforts have indicated that significant historic properties may exist. If deemed necessary, archeological monitors meeting the standards outlined in stipulation II.A. of the CAR2015 Programmatic Agreement will be on call to help with the identification and evaluation of historic properties that may be inadvertently discovered during the course of excavation.
- C. In the event that historic materials are discovered during construction in the absence of an archeological monitor, the Construction Contractor must immediately stop all work activity within a ninety (90) meter radius buffer zone, notify the NPS of the discovery, and implement interim measures to protect the discovery from looting and vandalism. Construction may continue outside the buffer zone. Within forty-eight (48) hours of receipt of this notification of the discovery, the NPS shall:
 - 1) inspect the work site to determine the extent of the discovery and ensure that work activities have halted within the ninety (90) meter radius buffer zone;
 - 2) clearly mark the area of the discovery;
 - 3) implement additional measures, as appropriate, to protect the discovery from looting and vandalism;
 - 4) notify the Missouri SHPO, and the Osage Nation of the discovery; and
 - 5) recommend revisions to the construction buffer zone depending upon the nature of the resource discovered.
- D. The NPS, in consultation and concurrence with the Missouri SHPO, and Osage Nation shall have seven (7) business days following notification to determine the National Register of Historic Places eligibility of the discovery. The NPS may assume the newly discovered property to be eligible for the National Register for the purposes of Section 106 pursuant to 36 CFR §800.13(c).
- E. If the find is National Register eligible, the NPS shall consult with the Missouri SHPO and Osage Nation regarding appropriate measures for site treatment pursuant to 36 CFR §800.6(a). The Missouri SHPO, Osage Nation shall have seven (7) business days to provide their objections or concurrence on the proposed actions. Concurrence on the part of the Missouri SHPO and Osage Nation is required for all adverse effect resolution measures. These measures may include:
 - 1) formal archeological evaluation of the site;
 - 2) visits to the site by the Missouri SHPO and the Osage Nation;
 - 3) exploration of potential alternatives to avoid the site;
 - 4) preparation of a mitigation plan by the NPS in consultation and concurrence with the Osage Nation for approval by the Missouri SHPO; and
 - 5) implementation of a mitigation plan.

- F. If the find is determined to be isolated, discrete, or completely disturbed by construction activities, the NPS shall consult with the Missouri SHPO and the Osage Nation prior to resuming construction within the ninety (90) meter radius buffer zone.

The buffer zone radius may be lessened if conditions warrant. The Missouri SHPO and the Osage Nation, shall have seven (7) business days to comment on the lessening of a buffer zone, but shall be encouraged to respond more quickly in the case of isolated, discrete or completely disturbed resources. In the case of historic resources, the Osage Nation will be notified, but the construction radius may be lessened with just the approval of the Missouri SHPO. In the case of resources with associations to Native American culture, the Osage Nation must also be consulted.

APPENDIX C

UNANTICIPATED DISCOVERY OF HUMAN REMAINS AND NAGPRA ITEMS

Procedures for Inadvertent Discoveries of Human Remains, Funerary Objects, Sacred Objects, and Objects of Cultural Patrimony during Cultural Resources Investigation Efforts, Construction, and Maintenance:

- A. Any contractor or applicant or their agents, representatives, or employees who knows or has reason to know that he or she has inadvertently discovered human remains, funerary objects, sacred objects, or objects of cultural patrimony must provide immediate telephone notification of the inadvertent discovery, with written confirmation, to the superintendent.
- B. Upon encountering human remains, funerary objects, sacred objects, or items of cultural patrimony during ground disturbing activities, the NPS will ensure that the cultural resource investigator or Construction Contractor immediately stops work within a ninety (90) meter radius buffer zone around the point of discovery. The NPS will assume responsibility for implementing additional measures, as appropriate, to protect the discovery from looting and vandalism until the requirements of NAGPRA have been completed, but must not remove or otherwise disturb any human remains or other items in the immediate vicinity of the discovery.
- C. The NPS will immediately notify law enforcement by telephone of the discovery of unmarked human remains.
- D. The NPS will notify the Osage Nation by telephone and email within forty-eight (48) hours of the discovery of human remains, funerary objects, sacred objects, or items of cultural patrimony. This step is not intended to satisfy the requirements of 43 CFR 10.4(d)(iii).
- E. The NPS will take immediate steps, if necessary, to further secure and protect inadvertently discovered human remains, funerary objects, sacred objects, or items of cultural patrimony, including, as appropriate, stabilization or covering.
- F. Other than for crime scene investigation by appropriate government officials, no excavation, examination, or analysis of human remains will be conducted without first securing permission from the Osage Nation.
- G. If upon investigation, the local enforcement officer determines that the remains are not involved in a legal investigation, the protocols implementing NAGPRA apply.
- H. The NPS, in consultation with the Osage Nation, will have seven (7) working days to determine if the skeletal remains are human, the degree to which they were disturbed, and, if possible, assess their potential age, cultural affiliation, and identity, if possible, without any further disturbance. Upon making their determination or at the end of the seven (7) days, whichever comes first, the NPS will notify the Osage Nation and other interested Tribes of its findings. This notification must include pertinent information as to kinds of human remains, funerary objects, sacred objects, or items of cultural patrimony discovered inadvertently, their condition, and the circumstances of their inadvertent discovery.
- I. The Osage Nation and other interested Tribes will have seventy-two (72) hours to respond verbally followed by written response via U.S. mail or electronic mail. The response should specify the Osage Nation's intention to conduct or decline further consultation.
- J. The NPS will consult with the Osage Nation, other interested Tribes, or identified lineal descendant regarding additional measures to avoid and protect or mitigate the adverse effect of the project on the human remains and grave site. These measures may include:
 - 1) formal archeological evaluation of the site;
 - 2) visits to the site by the Osage Nation and/or interested Tribes;

- 3) exploration of potential alternatives to avoid the human remains or grave;
 - 4) implementation of a mitigation plan by the NPS in consultation and concurrence with the Osage Nation, including procedures for disinterment and re-interment; and
 - 5) implementation of the mitigation plan.
- K. The NPS or its agents, in consultation with the Osage Nation, interested Tribes, and other interested parties such as living descendants, may consult with a qualified physical anthropologist, forensic scientist, or other experts as may be needed to examine and assess the inadvertent discovery. Unless the remains were inadvertently removed, the evaluation will be conducted at the site of discovery. The consulting expert will be allowed to draw and measure the exposed remains and associated funerary objects. No photographs or digital images will be permitted. Drawings and other records will be curated at a state-approved curation facility in Missouri. Drawings cannot be published in any form or shown as part of scholarly presentations without the written permission of the Osage Nation or nearest living descendant.
- L. A report of findings describing the background history leading to and immediately following the reporting and resolution of an inadvertent discovery will be prepared within thirty (30) calendar days of the resolution of each inadvertent discovery. This report must meet the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (49 FR 44716) guidelines.