

LexArchaeologySM

Section 106 of the National Historic Preservation Act (NHPA) of 1966 requires Federal agencies to take into account the effects of their undertakings on archeological and historic properties. Many large construction projects have Federal involvement and once a project is determined to be a Federal undertaking, the geographic extent of the area which may be impacted by the project must be identified and investigated. Despite best efforts to identify and protect archaeological resources during the planning process – the existence and/or significance of archaeological resources can be missed and discovered unexpectedly during construction. If they are, there is an obligation to investigate and mitigate, costing both time and money.

Please join us as we listen to Dr. Howard Higgins share his expertise on, Section 106, the requirements of the Section 106 process, loss exposures faced by project owners, and prudent risk management techniques for project owners during the planning process and at the time of an unexpected discovery. Dr. Higgins is Vice President and Principal Environmental Scientist for TRC Environmental Corporation's Cultural and Natural Resources Practice. He has over 37 years of experience and progressive responsibility in Anthropology, Archeology and Environmental Services.

Dr. Higgins, can you provide us with a brief overview of the Section 106 process, for instance, what types of projects are affected, and what's involved in the investigative planning process?

Section 106 of the National Historic Preservation Act of 1966 as amended and the federal regulations that implement Section 106, collectively referred to hereafter as 106, requires federal agencies and their authorized designees, usually referred to as the lead agency, to consider the effects of their undertakings of archeological and historic properties listed on or eligible to the National Register of Historic Places, henceforth, NRHP. The State Historic Preservation officer assists these agencies to meet their responsibilities under the act. Section 106 is a consultative process that applies to federal undertakings.

So the types of projects affected include those that involve one or more of the following: Federal land, federal funding, a federal license or permit or some other federal assistance. Many large construction projects have federal involvement often through some form of federal license or permit. For example, for energy projects the Army Core of Engineers for Section 401 and 404 permits and so forth. Such projects meet the definition of a federal undertaking. Once a project is determined to be a federal undertaking the geographic extent of the area which may be affected by the project must be identified and investigated.

There are a variety of different investigations that can be required during the planning process. These build off of each other so as the level of study increases, so does the cost and time involved. At a minimum as the lowest level of study 106 requires a phase one cultural resource survey prior to the start of construction activities. The objective of the

phase one cultural resource survey is to identify and record all cultural resources such as Native American habitation sites, historic farmsteads, earthworks, cemeteries and so forth within the area of potential affect. These investigations generally include a literature and records search and then field work which usually consists of a visual on the ground examination of the project area. Most often this examination is a 100% pedestrian survey by trained archeologists at set spacing, known as the transect interval. Less often it can be cursory in nature, as in a red flag or a reconnaissance level survey, or it can be more rigorous and include a pedestrian survey with systematically excavated shovel tests and/or exploratory trenches. Occasionally, it might include non-intrusive geophysical techniques such as ground penetrating radar or earth resistivity surveys. If the phase one survey results in determination of archeological resources, a phase two investigation may be required.

Phase two investigations involve subsurface archeological testing of sites identified during the phase one to determine their horizontal and vertical boundaries, their cultural and scientific importance, and their eligibility for listing on an NRHP. Finally, if eligibility to the NRHP is determined during the phase two, a phase three study, data recovery, may be required. This, the most costly of the types of studies is the excavation of a site to extract the scientific data it contains. A fourth requirement needs to be mentioned. This is archeological monitoring. Where such monitoring during construction is required, it is usually limited to specific site locations.

What are the risks involved and expenses associated with an unexpected discovery, can you provide any examples?

Despite the efforts to identify and protect archeological resources during the planning process, the existence and/or significance of archeological resources can be missed during the planning process and discovered unexpectedly during construction. If they are, there is an obligation to investigate and mitigate. Both will cost money. The frequency of loss, that is the risk of unexpected discovery, is hard to pinpoint, but generally varies with a number of factors. First, the state within which the project is located affects the risk. State implementation of the 106 process, historical records and the requirements concerning the rigor of the cultural resource studies vary. And this, in turn, affects the probability that something will be missed in the planning process. Oklahoma, as an example, has a papered record system. Michigan doesn't seem to have a clearly defined cultural resource standard and New York's cultural resource study standard is prescriptive despite evidence that suggests a different approach would yield better results.

Equally important is the agency assigned the responsibility of being the lead agency. Some lead agencies are more thorough than others. For example, BLM (Bureau of Land Management) often requires a standardized approach for an entire project while FERC (Federal Energy Regulatory Commission) does not. The project type and size also affect the risk. The area of potential affect is the critical driver here. All things being equal, the bigger the horizontal and vertical footprints of the project, the bigger the risk. The project location and geography make a difference. Historic civilizations used waterways as highways; alongside of which you may find settlements. Projects within flood plains may be more likely to encounter significant resources than projects not so situated. In addition, urban locations tend to be greater risks than suburban due to historic activities of which poor or no records have been kept. Other location factors may affect this frequency dimension of loss exposure as well. Finally, the geomorphological setting of the project, which is sometimes related to location, affects the risk. Projects that pass

through depositional areas where archeological resources may be buried such as sand dunes, flood plains and so forth present a greater risk since pedestrian surveys may not yield much evidence of resources buried below the surface because historic resources may be buried, a cultural resource survey can't locate all such resources within flood plains in and along rivers and subsequently, a project may hit those not previously found, resulting in discoveries.

The severity of loss or the expense associated with the discovery also can vary greatly. As with archeological resources encountered during the planning process, resources discovered during construction must be investigated and those that are deemed significant must either be protected or treated. Decisions will be made as to how best to accomplish this. Insuring protection may call for minor project design changes or diversions so as to leave the resources in situ. However, sometimes expensive and time consuming data recovery is required. The severity of loss will vary with the following factors. The agency response times can affect the severity of loss. Most states have guidelines or requirements for response times, but they do vary from state to state. Again, most states and agencies are quick to respond, but there can be delays and any and all delays cost money. The number and level of involvement of Native American tribes can also affect the severity. The 106 process is consultative and involves a number of stakeholders, each of whom usually has his or her own agenda. Some states have significant tribal involvement while others do not. For example, California and Alaska have a high degree of such involvement. Not too surprising, this is a bigger issue in the west than in the east.

The type of find matters. If the find is an isolated artifact it probably will result in little or no financial cost. However, if it is a cultural site and is determined to be significant then the time and cost can be considerable. A good example is a ship found last summer at the World Trade Center site during sub surface excavations. This discovery led to considerable delays and unanticipated costs. Probably the type of find most difficult to deal with is human remains. During the phoenix lateral pipeline project in Arizona, discovery of human remains led to a two week shut down and idling of a trenching machine. An armed guard was even posted to protect the remains while the decisions as to removal and treatment options were discussed. Sometimes such finds can be even more costly. In 1991 during the preliminary construction phase of a federal office building at 290 Broadway in lower Manhattan workers discovered the remains of more than 400 Africans stacked in wooden boxes just 16 to 28 feet below street level. Construction of what was to become the U.S. General Services Commission Building was halted immediately and a subsequent archeological investigation unearthed the remnants of a five to six acre African burial ground used throughout the 17th and 18th century. Finally, whether or not a discovery is in the project critical path, matters greatly for the severity of loss. However, there is no way to know in advance where such a discovery will occur.

What are some of the risk management approaches available to mitigate the exposures of Section 106 requirements?

Above and beyond 106 requirements there are risk management strategies that can be applied. The first of these is what I call a risk avoidance strategy. Such a strategy calls for project design to avoid areas more likely to present archeological problems such as avoiding construction on the first bench above a water course or in a flood plain. This option is not always feasible, however.

A second option is to execute one or more risk control strategies. A reburial agreement and/or a repatriation agreement can be negotiated with the relevant tribes and agencies in advance of construction. Similarly, an MOU and/or unanticipated discovery plan can be agreed to and signed in advance of construction. This would need to be prepared in such a way as to minimize delays. Thus, all stakeholders would have to be on the same page and agree to a plan to minimize disturbance of archeological resources. Usually, this is cast in the form of a programmatic agreement or similar legal agreement outlining the project approach. It might spell out options in the event of a discovery such as redesign or slight relocations of the project such as narrowing the right-of-way for a short distance, changing elevations and so forth.

Finally, a third risk management approach is to have a qualified and experienced archeologist on site during construction. This allows for the rapid identification of discoveries and reduced potential for delay due to non-significant recourses. Such a team member with local relationships also has credibility during the consultative process and can represent the project owners interest professionally.

Finally, risk transfer strategies can be used. The first of these is professional liability coverage carried by the archeological and engineering firms involved in the project. The second is the insertion into the relevant contracts of certain terms force majeure, change site conditions and so forth. However, the types of risk I am discussing generally remain with the owner of the project. At least at TRC we don't accept this exposure contractually.

However, there is also now a new type of coverage for unanticipated discovery of archeological resources. Lexington recently announced **LexArchaeologySM**, project preservation first party coverage for expenses and completion delay resulting from the unexpected discovery of archeological resources during construction activities. As I understand it, and in summary, this new coverage provided as an endorsement to builders risk project policies reimburses an insured for archeological expenses incurred for protective measures such as technical consulting, project monitoring and archeological resource cleaning, cataloging, preserving and storing. In addition, if the discovery causes a delay to the project, project preservation may cover the additional cost, charges and expenses the insured incurs while the archeological resources are investigated and decisions relative to final disposition are made and executed. And, also covers the loss of rental income or gross earnings the insured incurs as a result of the delay. Obviously, this could be an asset to project proponents and I suggest they read their endorsements closely and possibly secure such coverage.

Dr. Higgins, thank you for sharing your expertise on this very timely and complex topic.

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