No. 0092-45-96

from research to reality

BRIEF

RESEARCH DEVELOPMENT & TECHNOLOGY TRANSFER

Preserving Archaeological Sites in Wisconsin

Since 1957 WisDOT has been required to consider historic properties when planning transportation projects. However, the department did not have an effective means to organize the information it generates, mostly as paper records. At the same time, the State Historical Society of Wisconsin is responsible for recording and monitoring all the state's archeological sites, but it keeps different information on those sites than WisDOT needs.

What's the Problem?

As a result, it is very difficult for WisDOT staff in the Bureau of Environment or in the district offices to access archeological information for meeting statutory obligations. Effective, modern tools were needed to comply both with long-standing obligations and with the department's goal of reducing the number of archeological sites inadvertently damaged within rights of way because of lack of access to needed information.

Research Objectives

The Pilot Archeological Database (PAD) project was designed to research and develop a comprehensive and user-friendly computer database of information on archeological sites in WisDOT District 3, one of eight transportation districts in the state. The project team faced the challenges of reconciling and correcting both agencies' records and of collecting and reformatting data housed in three separate Society offices.

The project work plan included the following steps:

1. Compile data on archeological sites in or near highway rights of way.
2. Design a user-friendly database of archeological information that meets the needs of planning, design, construction, maintenance and real estate staff.
3. Codify information on previous archeological surveys in and adjacent to highway rights of way.
4. Develop a protocol for database use, security, maintenance and updating.
5. Develop procedures and protocols for District 3 staff on appropriate actions to take when archeological sites are present.
6. Align with WisDOT information technology data standards and plans.
7. Evaluate database effectiveness.

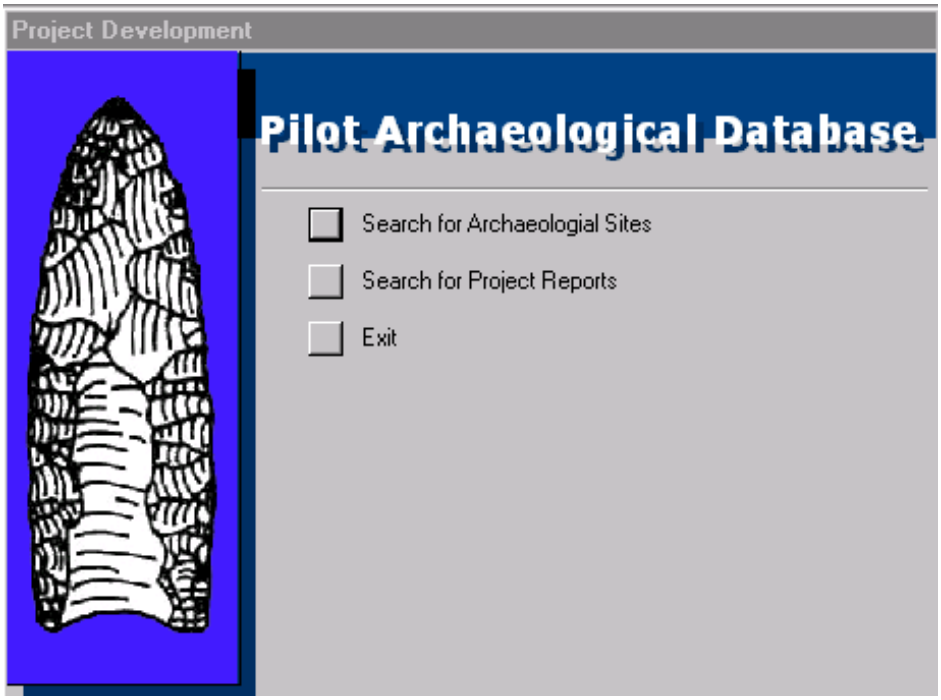
Project phases

The project had three action phases. In initial development, the team identified and interviewed potential users and determined that they had needs for differing levels of data detail. Phase two involved compiling and entering data from a variety of paper and electronic sources. Microsoft Access was the chosen database platform. In the final phase the database was tested and modified, and the team developed protocols for data entry and sharing. Annual updates were accepted as sufficient.

Investigator
Jennifer Kolb
State Historical Society of Wisconsin

The Wisconsin Department of Transportation

WisDOT staff can query the database for a list of all documented archaeological sites adjacent to a particular highway. A report may then be viewed that summarizes any archaeological investigations that have been conducted at a selected site.



"Having the information all in one place—and easily accessible—has saved staff a huge amount of time."

- Shirley Stathas
WisDOT Bureau of Environment

Research Results

As of August 2000 there were 2064 archeological sites in the PAD, 1482 of them within a quarter mile of the centerlines of the Interstate, state and county trunk highway systems in WisDOT District 3. The project compiled and organized location information on these sites and generated paper maps to be used until the Geographical Information System (GIS) layer for the archeological sites could be completed.

Implementation

The data system is now in use in District 3. It provides efficient, user-friendly access to the level of data needed by individual users, helps them understand how data applies to their task or project and includes appropriate instruction on how to proceed when an archaeological site is identified. In the summer of 2001, the team began two more projects for Districts 1 and 5, as recommended in the PAD final report. These regions have a high density of archeological sites and are experiencing major urban expansions and rural development. The databases should be ready to use by November 2002.

Benefits

Direct access to the data by district staff has reduced overall costs associated with historic preservation by effectively providing information on the relationship of recorded archeological sites to proposed transportation projects, real estate transactions, and requests for utility permits without having to go through central office and the Wisconsin Historical Society. In addition, archeological and historical sites have achieved enhanced protections. District staff can now check for archaeological sites before issuing permits to utility companies and before entering into real estate transactions. Previously staff had to submit the information to central office, which then forwarded the information to the Wisconsin Historical Society where the records were checked.

For more information

Contact Shirley Stathas at shirley.stathas@dot.state.wi.us

Visit the Historic and Cultural Resources Web pages of the Federal Highway Administration at www.fhwa.dot.gov/environment/cul_res.htm

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Development of a Pilot Archaeological Database (PAD) for use in the WisDOT Transportation District 3 Project Development & Maintenance

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