

**September 25, 2006**

**To:** Ron Hanke, Acting Director, Facilities and Planning

**From:** John Skvoretz, Dean, College of Arts and Sciences; Elizabeth Bird, Chair, Anthropology; Erin H. Kimmerle, Anthropology; Kathy Borman, Anthropology.

**Subject: Proposal for Forensic Science Outdoor Land Use**

**1. Contact person:**

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The purpose of this proposal is to seek permission for use of an outdoor space for multi-disciplinary forensic science research, education, and professional development. The space being requested for use is located in the USF Ecological Research Area, north of Fletcher Avenue. Entry into the area is located at the main South Gate and is accessible fro

## **Research:**

The proposed plan will build upon the University of South Florida's excellence in the social, biological, geological, and earth sciences by constructing teams of students and their mentors committed to the interdisciplinary enterprise of applying science to legal issues such as missing persons. The plan builds on USF's unique strengths in applied research and problem-solving strategies. This project will result in cutting-edge method development, evaluations of technology, and the quantification of local variants in estimating the post-mortem interval. For example, this facility would enable such research as: decomposition rates of tissues and fibers; comparative techniques for locating, mapping, and exhuming remains from various contexts including surface and sub-surface clandestine burials; the accuracy of geophysical technologies used to locate clandestine graves, analysis of soil chemistry to estimate decomposition rates; and the use of local entomology and botany species in estimating the post-mortem interval.

## **Education:**

An outdoor research area will allow for advanced training in scientific research methods and actual crime scene investigations and forensic archaeology for a variety of student and professional audiences.

Training in crime scene investigation focuses such topics as: how to recognize, document and collect evidence with practical hands-on learning through experimentation and physical evidence processing, procedures for the collection and analysis for physical evidence, concentrating on evidentiary significance of items commonly accounted as crime scenes, but are relatively not visible. Emphasis is placed on the importance of scientific methods and techniques used in the examination of physical evidence at crime scenes. Practical applications reinforce classroom discussions and lectures.

Workshops are designed for graduate fellows, law enforcement investigators, scene personnel, criminalistics, and forensic science students and secondary teachers so that they can learn more about the forensic aspects of medicolegal death investigations, forensic science, and forensic archaeology. The goal is to train the attendees to develop skills in forensic archaeology by expanding the attendees' base knowledge in death scene protocol, legal considerations, and field methods. The workshops will also focus on new developments in forensic 0.0001 T the atto.00n355 -1.dico

provide leadership in community outreach, curricular development, and professional work.

2. This work will result in the creation of a set of partnerships between USF, the Tampa Police Department, Hillsborough County Medical Examiner's Office, and Hillsborough County Schools designed to enhance the quality of educational learning opportunities. Over the past year, USF faculty and students from Anthropology and Geology have assisted the Cold Case Unit of the Tampa Police Department and Hillsborough County Medical Examiner's Office in local cases of missing and unidentified persons. This project formalizes these relationships and helps to build partnerships between USF and the local medico-legal community.
3. This project provides a valuable service to the community for professional development, where currently this training is not available locally.
4. The results will be widely disseminated not only to the academic community but also directly to educators, policy makers, and local professionals.

**3. Campus: (check one)**

- Tampa
- Sarasota
- St. Petersburg
- Lakeland

**4. Physical Boundaries** (Refer to map, attachment)

**5. Acreage:** 24 one meter squares (sub-surface) and 12 meter squares on the surface, spread along the northern and eastern roads.

**6. Scope of Project and Funding Source:**

*A) Scope of Project*

This project will bring forensic experts, USF scientists, and community educators together for multi-disciplinary research and education in the forensic sciences. The use of the land will include the creation of surface and subsurface mock crime scenes. Scenes are staged using plastic skeletons and pigs as model corpses. Deceased pigs, donated from the USF College of Medicine, are buried in 1 x 1 x 1 meter pits or placed on the ground surface to naturally decompose. The use of pig corpses for forensic research and education is well established throughout the United States and Florida. The pig corpses are obtained through Dr. Don Hilbelink, Department of Pathology and Anatomy, USF College of Medicine. The pigs are deceased prior to us taking custody of them. The use of their remains has been received IRB approval through the College of Medicine.

During the course of one year, up to five workshops will take place over the course of one week periods between the months of October-March. For each workshop, up to five mock graves will be excavated and five surface scenes will be investigated. A workshop of this size would have 20 participants, plus instructors. Following exhumation of the mock graves, the

remains will be re-interred to “set the stage” for the next workshop. We propose, to bury a total of 24 corpses over the first year and set out twelve sets of remains on the ground surface,





North East Campus

Proposed area along North and East roads

Gate Entrance