

Using GPS and GIS to Map Historical Landmarks



Ryan Kelly

Associate Professor of Geography

Bluegrass Community & Technical College

Lexington, Kentucky



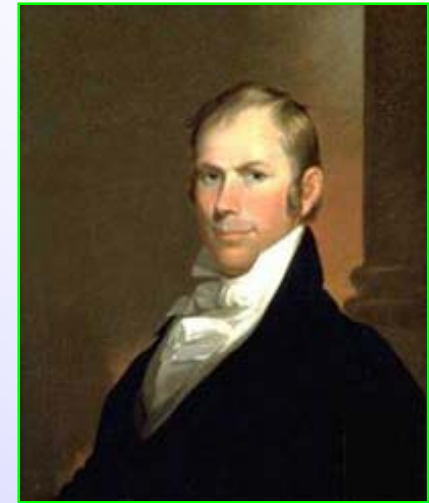
Bluegrass

Community & Technical College

HIGHER EDUCATION BEGINS HERE

Ashland – The Henry Clay Estate

The Ashland-Henry Clay Estate is situated upon 20 acres in the heart of an established residential sector less than a mile from the downtown of Lexington.



Project Objectives

Several historical markers and interpretive signs have been erected on the grounds of Ashland within the past decade. No published map of the estate reflected these additions.

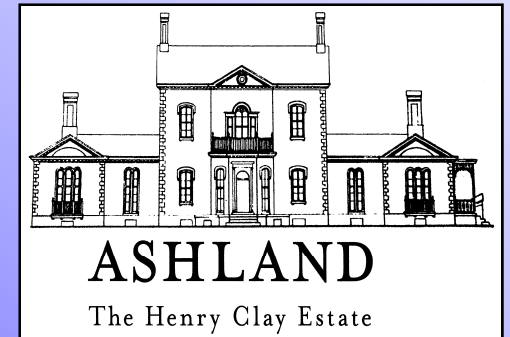


Project Objectives

The curator of Ashland requested that a survey be completed of Ashland which would accurately catalog new and existing features as well as list precise GPS coordinates for utility lines and outlets found on the grounds. The curator also wished to have included in the survey the precise coordinates of areas where Running Buffalo Clover, an endangered plant species, is making a reemergence on the grounds of Ashland.

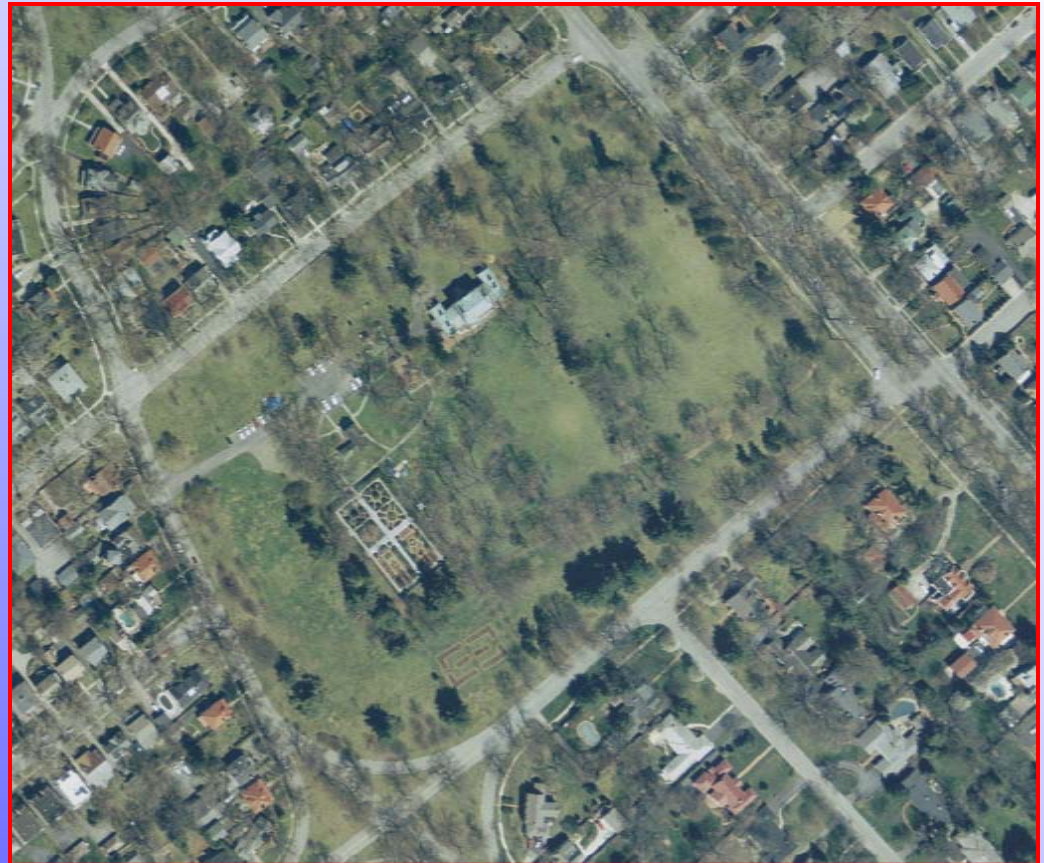


Photo by U.S. Fish & Wildlife Service, Sarena Selbo



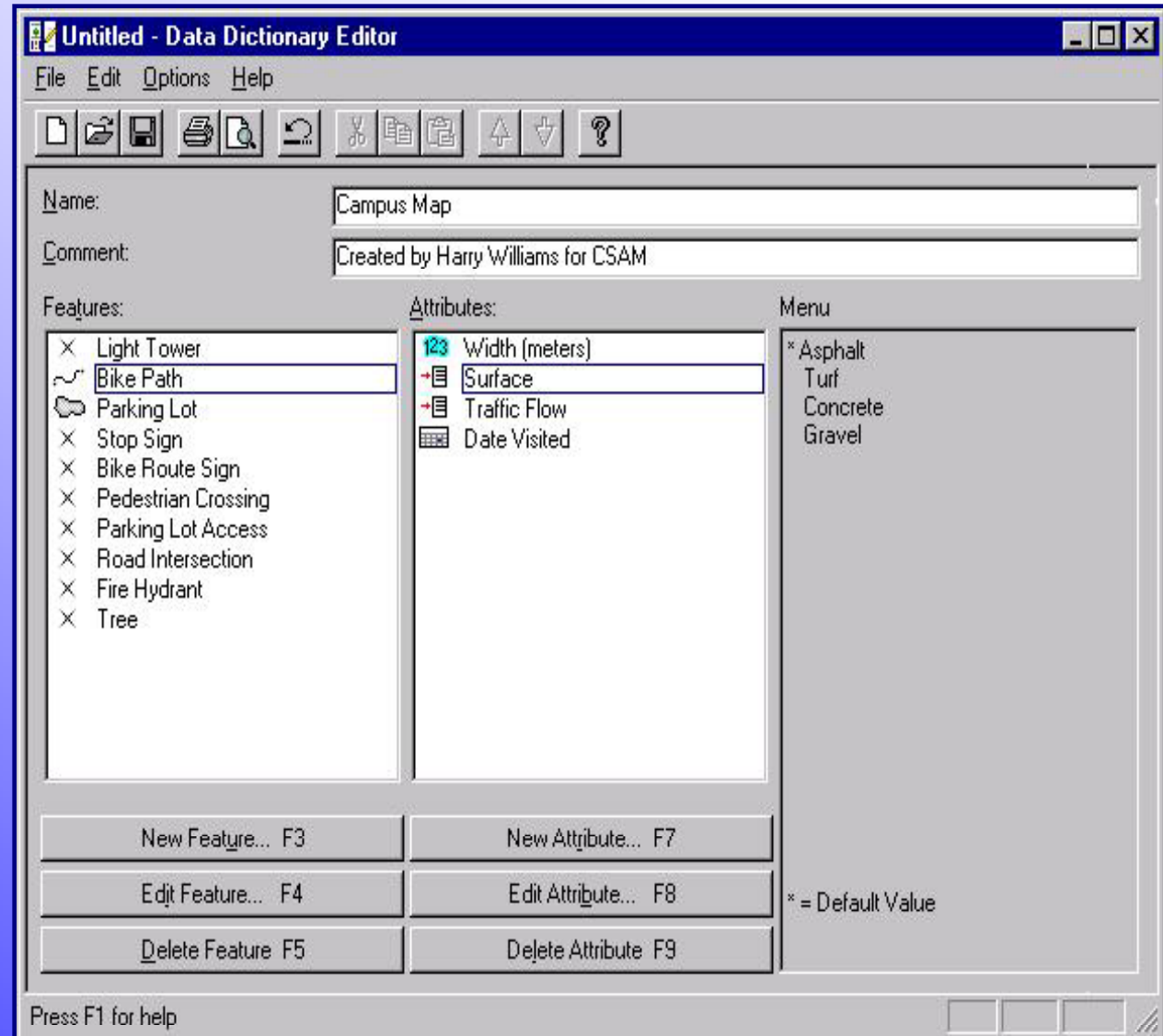
The Coverage Area

The following aerial image shows the coverage area that students were required to map with a GPS



Data Dictionary

A data dictionary is a tool used to develop feature classes and establish domain values before collecting data in the field



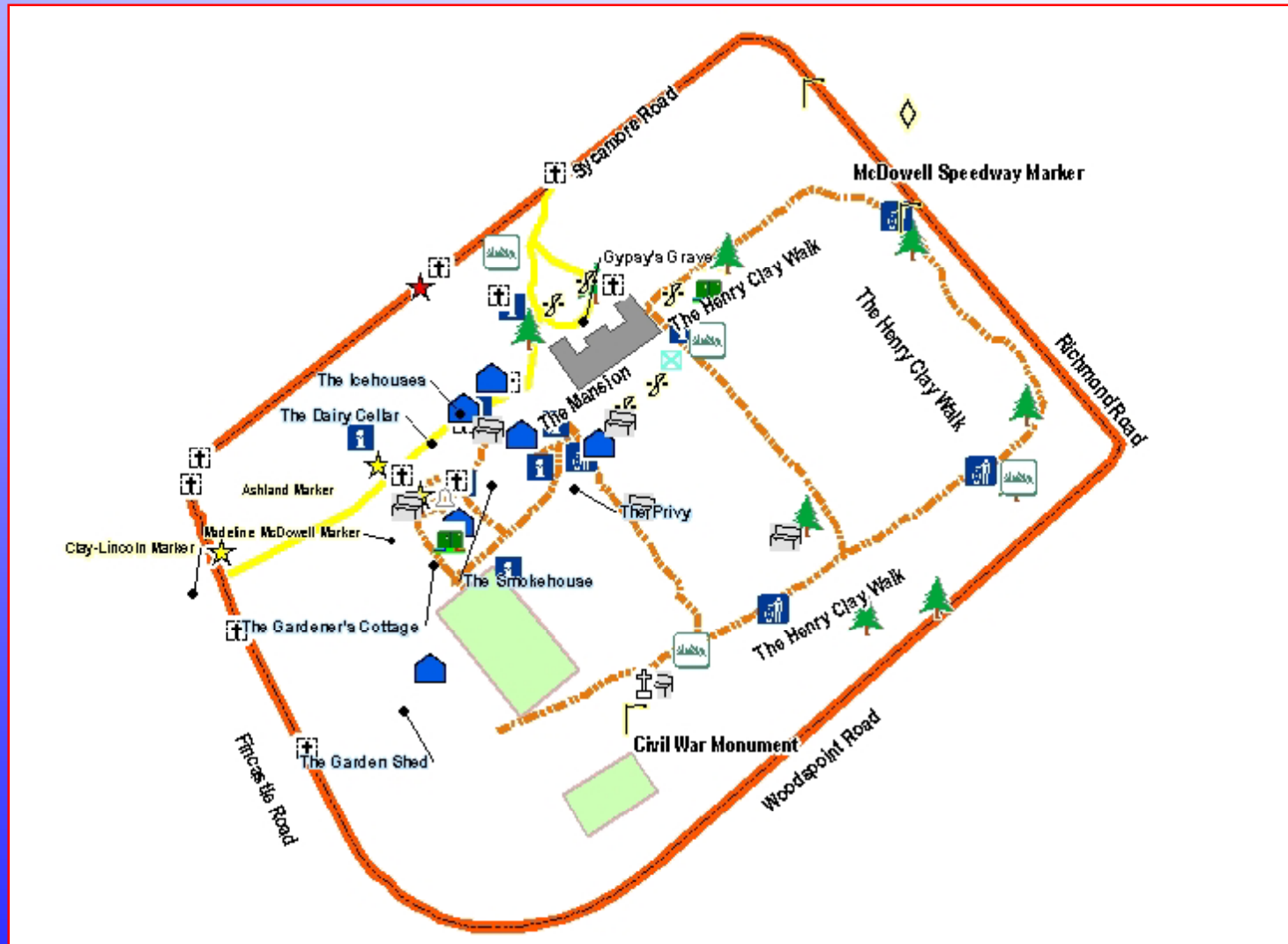
Data Collection – November 2007

GPS Technology

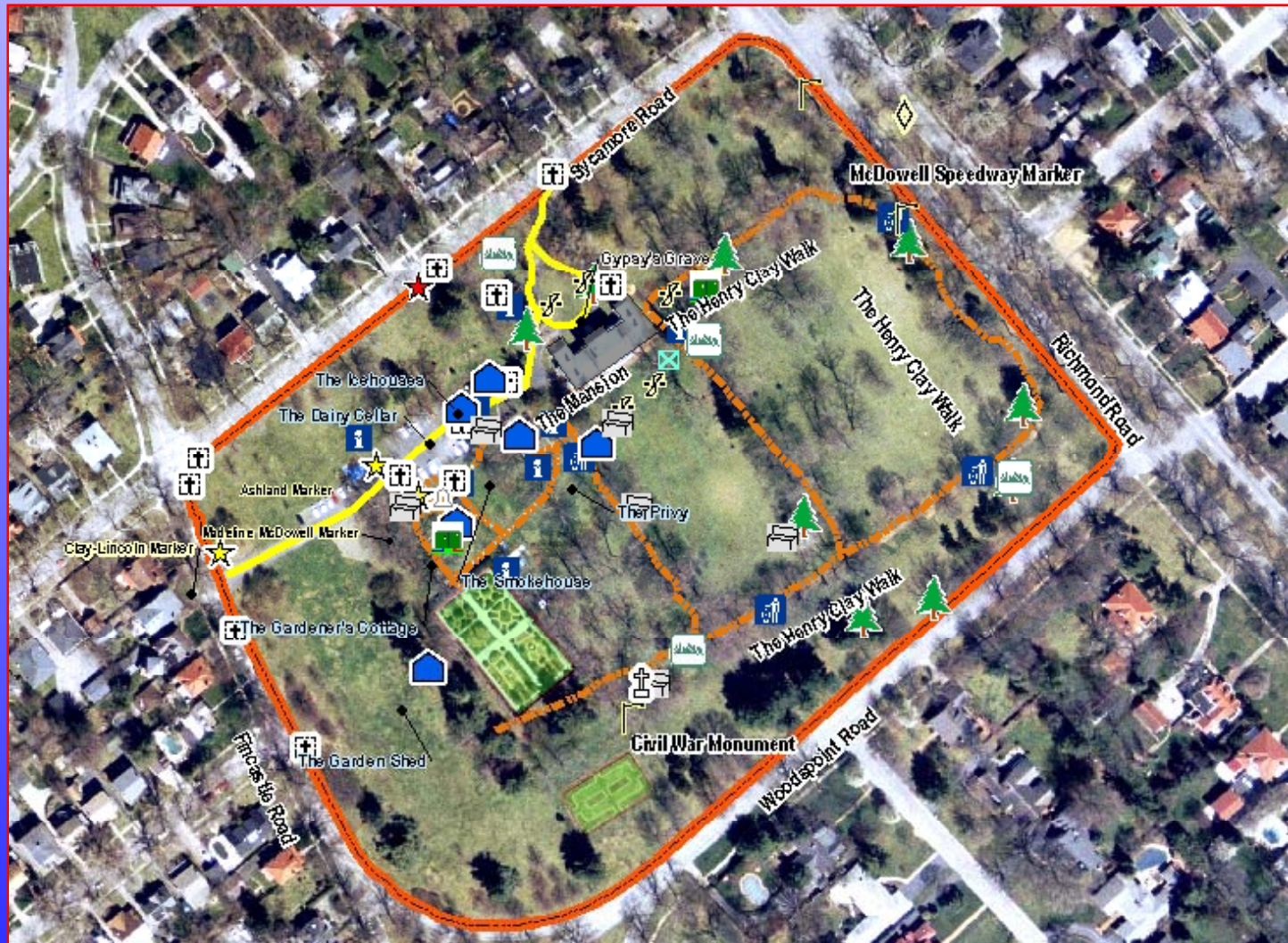
Students in the GIS Technology Program at Bluegrass Community and Technical College used Trimble GeoXM[®] GPS receivers to collect feature data of the survey area. Students recorded over 13,750 positions on 141 features over a two week period.



GPS Data Exported to GIS



GPS Data Exported to GIS




The Final Map Document



Ashland, The Henry Clay Estate

120 Sycamore Road
Lexington, Kentucky

MAP LEGEND

-  Gardens
-  Driveways
-  Trails
-  AC Unit
-  Bell
-  Buildings
-  Running Buffalo Clover Zones
-  Interpretive Signs
-  KY Historical Markers
-  Outdoor Flood Lights
-  Trash Cans
-  Water Pump



Map annotations courtesy of the Kentucky Historical Society.
Photos of historical buildings by Ryan Park.



Map Created by Ryan Park