

The Dixon Gallery and Gardens Geomatics Project

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Abstract: The Dixon Gallery and Gardens and the Department of Civil and Environmental Engineering at Christian Brothers University have entered an agreement to join forces in developing a GIS database which will allow visitors to the Dixon to identify specific species of trees and plants via their cell phone or other digital device. The Dixon Gallery and Gardens is a local non-profit art gallery and garden. The first phase of the project involves the development of a one-foot contour topographic map and locating existing site structures on the seventeen acre site. The topographic survey will locate all trees, plants, buildings and roadway within the site. The project began in the spring of 2010 with the completion of a closed traverse along the perimeter of the site. A local engineering firm Allen & Hoshall have graciously offered their services to help with the data collection.

This paper will discuss the current status of the topographic survey as well as a discussion of the proposed GIS database and the development of the cell phone application to be used by the Dixon visitors. The paper will stress the work performed by the CBU students and will discuss how the project enhanced their learning. The roles and responsibilities of each of the authors of this paper will be discussed.

Keywords: Geomatics, Topographic surveys, GIS, Undergraduate projects.

References:

[1] Karen Calhoon Hanna, *GIS for landscape architects*, ESRI Press, 1999.

Authors:

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R. Eugene McGinnis, P.E. – Gene McGinnis is an Assistant Professor in Civil Engineering at Christian Brothers University. He teaches courses in CAD, surveying, transportation and construction. Mr. McGinnis served as the project coordinator for phase I of this project. Mr. McGinnis received his B.S. and M.S. degrees in Civil Engineering from the University of Memphis.

R. Dale Skaggs, ASLA – Dale Skaggs is the Director of Horticulture at the Dixon Gallery and Gardens. He received a B.S. in horticulture from Oregon State University and a BLA and MLA in landscape architecture from the University of Oregon. He has an interest in how plant collections management can be integrated with visitor experience in public gardens.

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