# Using a GIS Platform to Develop a Boundary Survey Plat Compliance Training/Checking Tool

**Roger C. Purcell, Ph.D., P.E., R.L.S.,**
**Assistant Professor, Georgia Southern University**

**Abstract:**

Land Surveyors are besieged by an ever increasing number of Laws, Board Rules, Regulations and Ordinances as they prepare Survey Plats particularly for Boundary Surveys. Training new surveyors about these regulations and the associated compliance points is very intensive and leaves much to be desired when only using a checklist based on a limited interpretation of these regulations. Thus, the idea of using ESRI's GIS Platform in an effort to illustrate the application of these regulations/compliance points on a training plat in terms of applicability, graphical impact and geospatial location (while providing a link to the appropriate document) was developed. The application is intended to make use of the ESRI Arc GIS robust topology and symbology tools. Thus, in this study we will attempt to complete the following:

1. Provide background for what surveyors look at in terms of Laws, Board Rules, Regulations and Ordinances for a typical boundary survey in a particular location.
2. Develop a framework for assembling a survey plat application in ESRI GIS that will serve as a Boundary Survey Plat Compliance Checking Tool.
3. Illustrate how the proposed methodology can be extended to establish compliance Metadata for boundary survey applications.

As a result of this study, it is proposed that a usable framework will be provided for the application of boundary surveying law/rule compliance. Also, a mechanism for training young surveyors in the application of appropriate Laws, Rules and Regulations and their corresponding compliance will be provided. Finally, an extension of the methodology will be proposed to support the development of more extensive survey plat metadata which will in turn support the understanding of the plat by subsequent surveyors of the specific property.