FOCUS ON
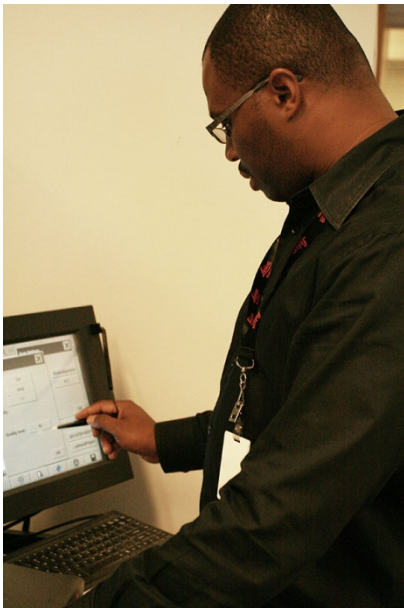**GIS: When You Need a Map**

- October 4, 2013

Sharon Stevenson directs a unit of the County's Information Technology department called Geographic Information Systems, or GIS for short. "We use geographic data from digital aerial photography and combine it with other information such as ownership, assessed value, zoning, streets, schools, and election districts to produce maps and data sets for County agencies and the general public," Stevenson explains.

They work closely with the other IT sections – Infrastructure Support and Enterprise Applications – to provide both technical expertise and user support. GIS uses a full suite of Environmental Research Systems Institute (ESRI) software called ArcGIS and is fully integrated with Accela software used by the County's permitting, inspections, and code enforcement staff. The database includes more than 245,000 tax parcels located along 2,300 miles of road countywide.

GIS Administrator Eric Britt updates maps frequently for departmental use as well as public use.

Frequent updates help create accurate, customized maps that show exact locations of property by street address or lot number, along with infrastructure such as roads, schools, parks, and utilities as well as hydrologic features like lakes, streams, and rivers. High-tech software helps calculate impervious surfaces, like buildings, as the basis for annual stormwater fees.

"A few years ago," Stevenson notes, "we added oblique photography, called Pictometry, that lets firefighters or a police SWAT team see all sides of a building and surrounding terrain so they can plan their response while traveling to the scene."

Maps are invaluable to many public and private agencies as well. Since 2006, the public has had online access to the system at no charge. From the County website, www.gwinnettcounty.com, anyone can print a customized, high-quality map using the data they specify on a scale of their choice, or they can email their customized map in PDF format. The GIS staff can also provide large printouts up to 48 x 36 inches for a small fee, which can be paid online by credit card.

The GIS team works closely with departments to integrate new data into other County applications.

County departments access and use GIS information regularly for planning and zoning, property records, parks, transportation planning, traffic and accident analysis, elections administration, public safety (police, fire, and sheriff), water resources (water, sewer, and stormwater), and environmental and natural resource management. GIS data is also integrated into other County computer applications such as the Enterprise Resource Planning and the Customer Relationship Management systems.

"With expanded hardware and better interface software, we are pleased to make this information available to the public. In the future, we plan to continue adding functionality and capabilities based on citizen feedback and business interests," Stevenson said. Links to standard maps such as police, fire, and commission districts, voting precincts and districts, planning and development, and county parks are available online.

Gwinnett will join international users to celebrate GIS Day at GJAC from 10:00am to 2:00pm on November 20, with a preview of real-world applications at the commission meeting the evening before. More information on buying data on computer disc or a paper map is available by emailing GISOffice@gwinnettcounty.com or calling 770.822.8036.

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