



Lake County Streamlines Zoning and Permits With New GIS Map Application

A Case Study

Highlights

- Organizes over 50 years of data into one place
- Visualization of text data
- Fast searches for Development information
- One-Stop Development research

Future Plans

- Publish ZapMap on the internet for public use
- Link images of the documents to the map

Return on Investment (ROI)

- Shorter customer wait times
- Faster turn around for permitting
- Desktop decision making

Contact Us

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Lake County has leveraged its investment in a Geographic Information System by creating—in house—the ZapMap GIS Application. ZapMap stands for Zoning and Permitting Map and is a one-stop digital research tool used by the Lake County Department of Growth Management to assist in the application process for new development and permitting.

Background:

Lake County is located at the center of peninsular Florida northwest of Orlando. Its 1,156 square miles are home to approximately 290,500 residents. For most of its history it was a sleepy, rural county of clean lakes and acres and acres of orange groves. Agriculture was the main-stay of the economy. Even into the 1980's it was still considered a rural getaway from fast-growing Orlando and Orange County just next door. And county administration was still in the pre-computer age when maps were paper, and zoning clearances were filled out by hand.

The Issue:

Then came the citrus freezes of the 1980's and the development boom of the 1990's and the early 2000's. Development soared as the workforce in Orlando realized they could have the best of both worlds - working in the city and living in a quiet, rural county just down the highway - and former grove owners turned their unprofitable agricultural acres into highly profitable housing developments. But it came so quickly that county administration was nearly overwhelmed with development requests, zoning clearances, building permits and every other request to build, develop and sell the former citrus groves and turn them into homes. Processing times of days became weeks, and then months as the volume of requests climbed annually. Decisions to permit or not to permit on any given property were based on paper maps that were aging and literally falling apart. Attrition of jobs had meant the maps were not being properly maintained, and files that had to be researched had first to be retrieved from any of several off-site storage facilities.

The Solution:

The Director of Growth Management decided that since this was primarily a spatial data problem then it should require a GIS solution. An interactive mapping application was proposed that would bring all the necessary data for Planning and Development decision-making together into one digital map. It would contain a base map of parcels, streets, lakes, etc. plus zoning, wetlands, flood zones, and aerial photography. And most importantly it would contain a new layer that identifies properties that have had some type of development approval. This layer of "Buildable Lots" was the main layer that needed to be created in order for this application to function.

Lake County Development Regulations have a number of ways to meet development requirements including Lot Splits, Lot of Record, Average Setback Determinations, Deeds prior to 1981, Permits, Ordinances, Site Plans, Unity of Titles, and Variances. Plus they are

required to track things like Accessory Dwelling Units and Lot Line Deviations. It was this type of documentation that needed to become digital and visible on a map, so it was decided to identify each of the properties defined by these documents and map them into a feature class that could then be displayed on the interactive base map.

The Process:

The first step was to gather all the documents together. Files had to be tracked down at off-site storage locations and the storage boxes delivered to the GIS office to be mapped. And there were hundreds of boxes that had to be processed. We didn't want to lose any of this historic original data. But locating these documents was only half the battle. Many of them were decades old. Most were hand written or carbon copied and the ink was fading. They were stapled, folded or otherwise attached to other documents that had to be organized and sorted. And many of the documents had changed styles over the years and the identifying information or legal description was not always located in the same place on the page. The mapping team had to carefully examine each document that was to be mapped in order to input all the data accurately.

Once the data was collected, sorted and organized the GIS team began the mapping process. They spent the next 18 months poring over each document of the 12 different types, reading and mapping the legal description for the property that was being permitted, split, combined, or otherwise approved for development. They employed several different methods in locating the properties including searching the parcel layer for the tax account number or PIN number, reading and plotting the legal description, doing an address search, etc.

Each record was attributed with data taken from the paper document – file number, approval date, etc., and documents that had been recorded by the County Clerk's Office were searched for on the clerk's webpage and the URL of their scanned image was pasted into a hyperlink field in the feature class.

This, then, was the birth of ZapMap. The necessary base map, development, and document layers were added to an ArcGIS map document and symbolized and labeled to the liking of the Zoning Staff. They now had the ability to search for a property and see all the previous activity associated with that property – had it been split from a larger parent parcel? Was it recognized as a legal Lot of Record? Had it undergone a Unity of Title to increase the total acreage thus meeting the size requirements? What is the Zoning? Are there any wetlands or flood plains on the property? All these questions and more could now be answered right from the desktop.