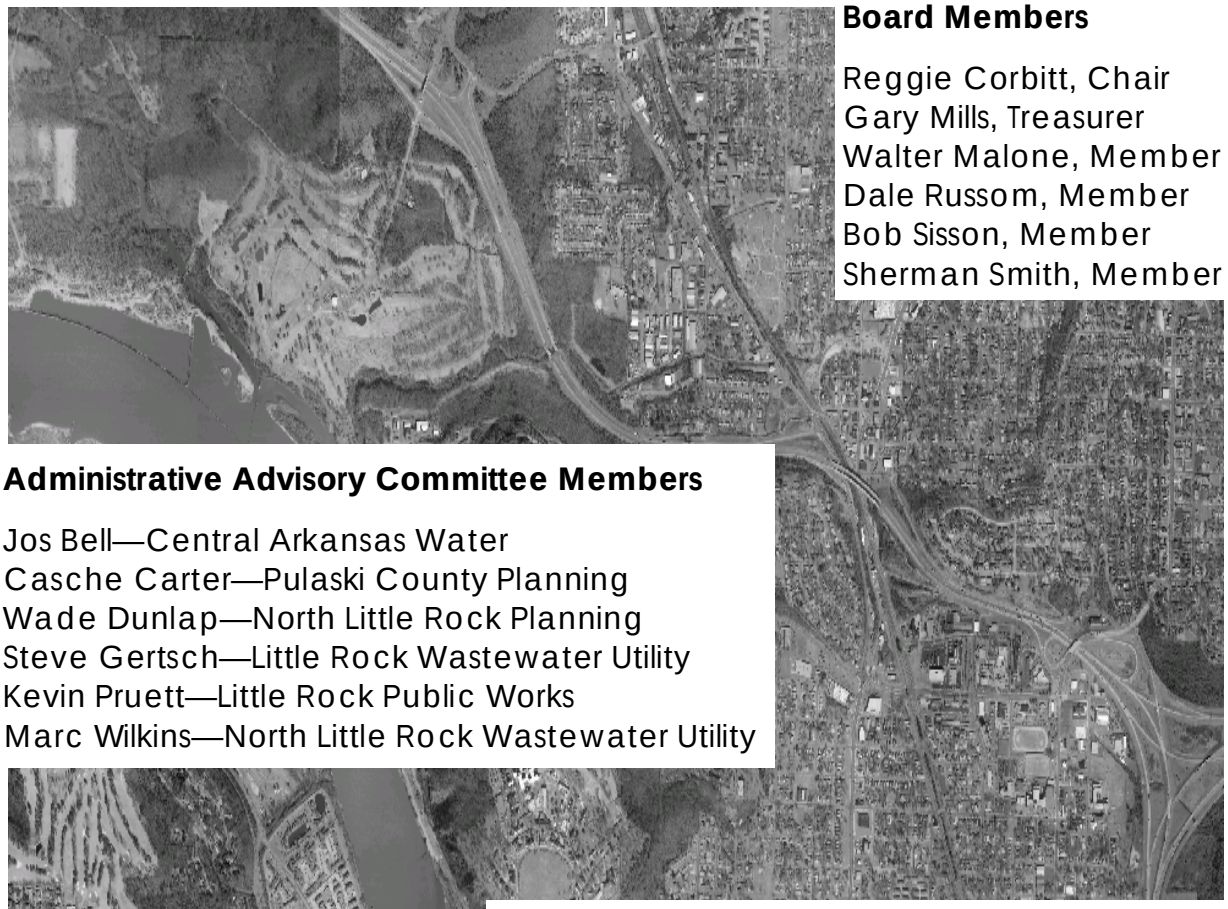
Your GIS Data Warehouse

Pulaski County Arkansas

Central Arkansas Water

Little Rock Wastewater Utility

Pulaski Area Geographic Information System



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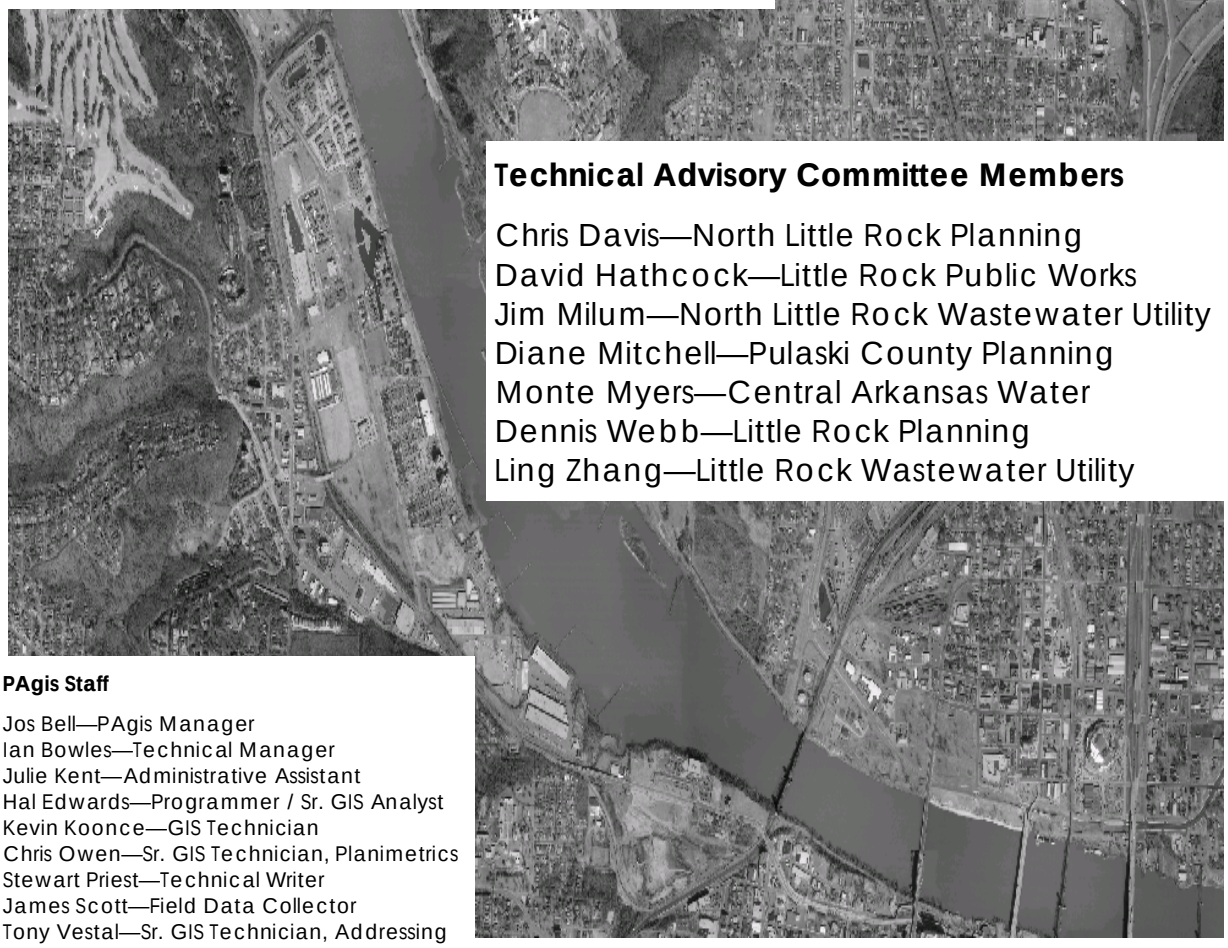

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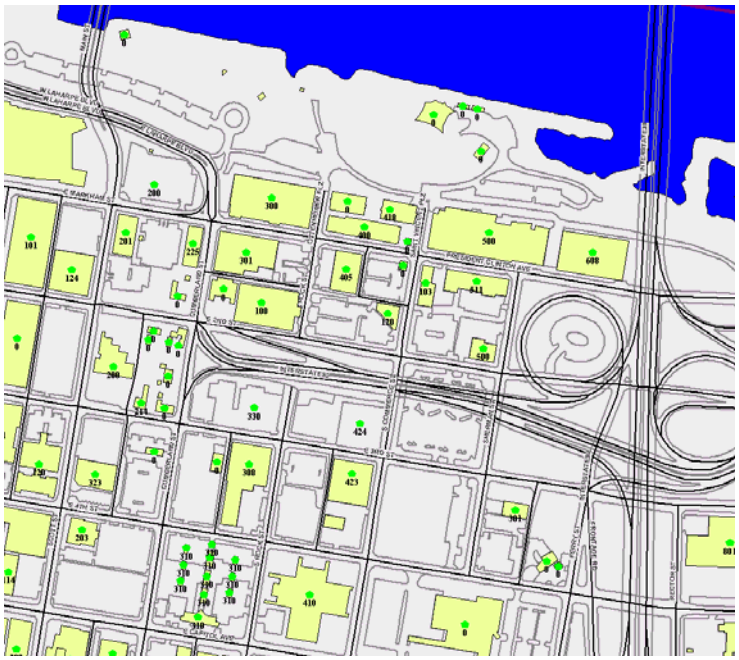
Kevin Koonce—GIS Technician
Chris Owen—Sr. GIS Technician, Planimetrics
Stewart Priest—Technical Writer
James Scott—Field Data Collector
Tony Vestal—Sr. GIS Technician, Addressing

Components of GIS



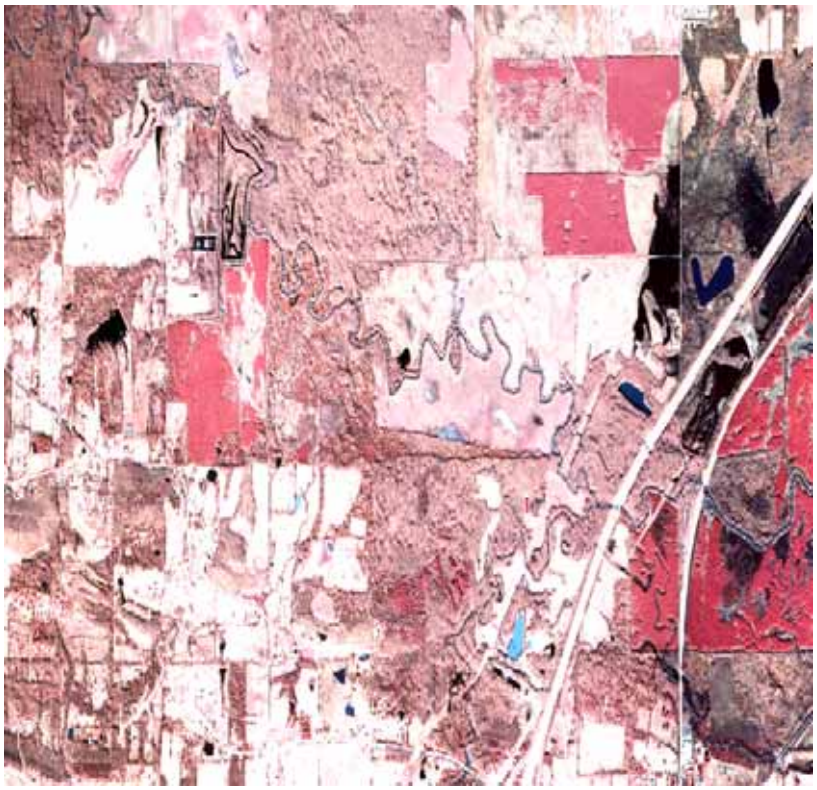
There are six major parts to a GIS

- Hardware
- Software
- **Data**
- People
- Methods
- Applications

⇒ *Hardware* is the foundation.

⇒ *Software* provides the tools

⇒ *Data* **<u>is the most important component. Without good, quality data, the processes you perform within a GIS are rendered useless.</u>**



⇒ *People*—a **quality staff**—is also **<u>critical</u>** in order to manage and perform the functions within a GIS system.

⇒ *Methods* set forth the criteria to develop applications

⇒ *Applications* use software (tools) and methods (criteria) to proactively accomplish goals.

Our History

"Snapshot" of land use developing

$2 million project called money saver

BY MARIE NELMS CRAWFORD
Democrat Staff Writer

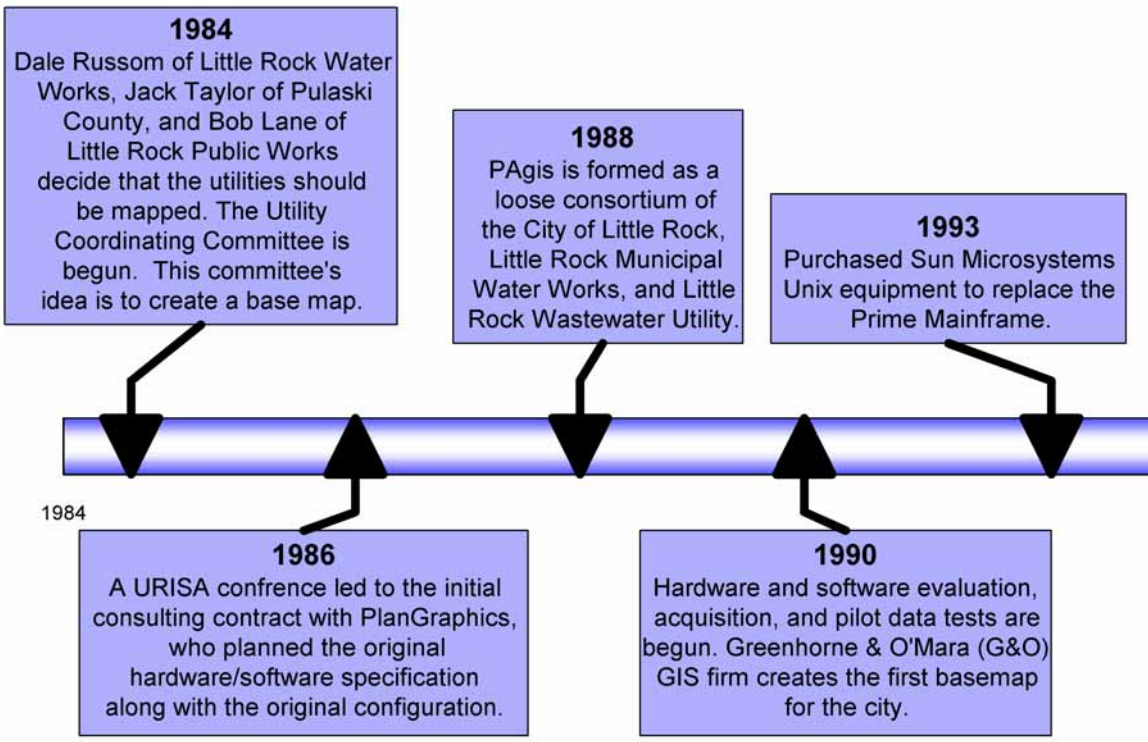
A pilot portion of the Pulaski Area Geographic Information System, a centralized source on the location of utility lines and other land data, should be in place by mid-1988, Bob Lane, director of the Little Rock Public Works Department, said last week.

Lane made the comment in an update to the city Board of Directors on the progress of the system's development. The pilot project is a joint venture between the Public Works Department and the city's Water Works and Sewer Department and is being financed with $560,000 from those agencies.

The entire information system, expected to cost $2 million and take five years to complete, will be a high-technology, money-saving system, Lane said. It will enable the city to readily identify what water and sewer utility lines, zoning designations, property ownerships, addresses, weed lots and burned and condemned structures are in a specific area of the city, he said.

"It will be a really powerful tool," Lane said. "It costs money up front, but saves money in the long run."

The first phase, toward which the $560,000 will go, will include only about six square miles of the city. But plans are to include the city's entire 100 square miles and parts of the



county and to have private utilities and other professional firms that would benefit from the system help share the total $2 million cost, Lane said.

He said the pilot project will include the profiles on two square miles in the downtown area and four square miles in the fastest developing part of the city – west Little Rock.

"There is not a favoritism issue, but a matter of where we can test certain" information to be included in the system, he said.

After the data on the target areas is gathered, the city will evaluate the information and determine how to expand the program.

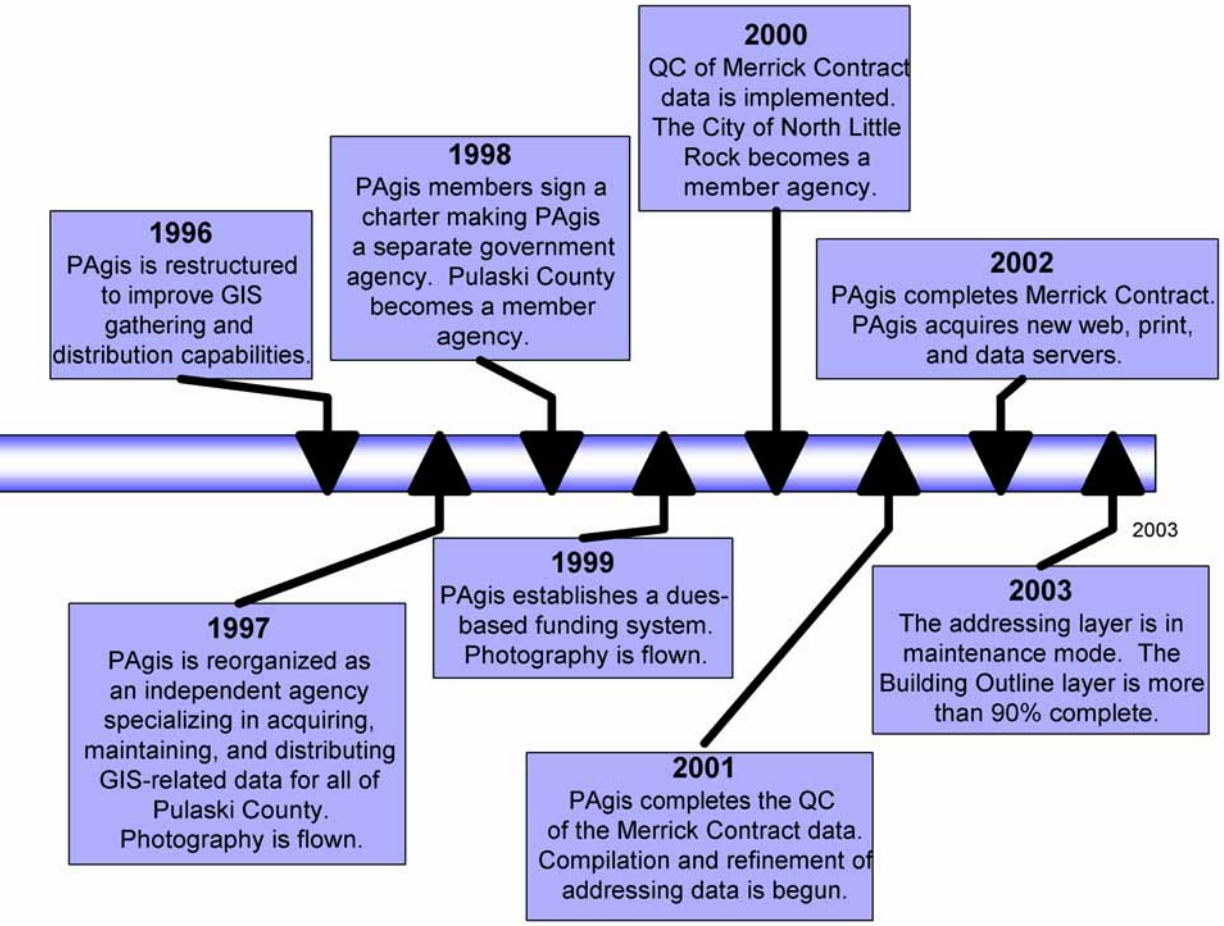
If things go as planned, the information system will identify all public and private utility lines and land data on specific areas in the city and provide graphical displays of the information.

Lane said the system will provide for a better city planning and data management. He said the city has a lot of obsolete information, and updating it under the current system would be expensive.

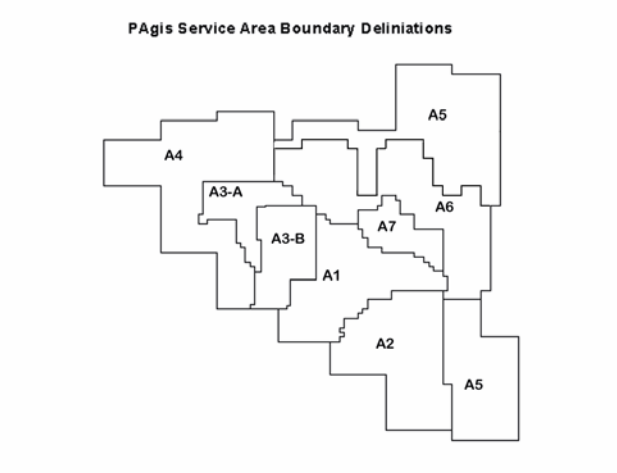
He said a main computer will be housed with the city, and terminals will be stationed at different city departments and utilities and at the offices of private utilities and businesses if they decide to participate.

Lane said that, in preparation for the pilot program, the city will solicit bids on computer equipment in October and November, solicit bids for the development of the base mapping system in December, and solicit bids for aerial photographs of land areas in January. Information should start going into the system between January and June, he said.

Reprinted from the Arkansas Democrat — Sunday, October 4, 1987



Principals of GIS

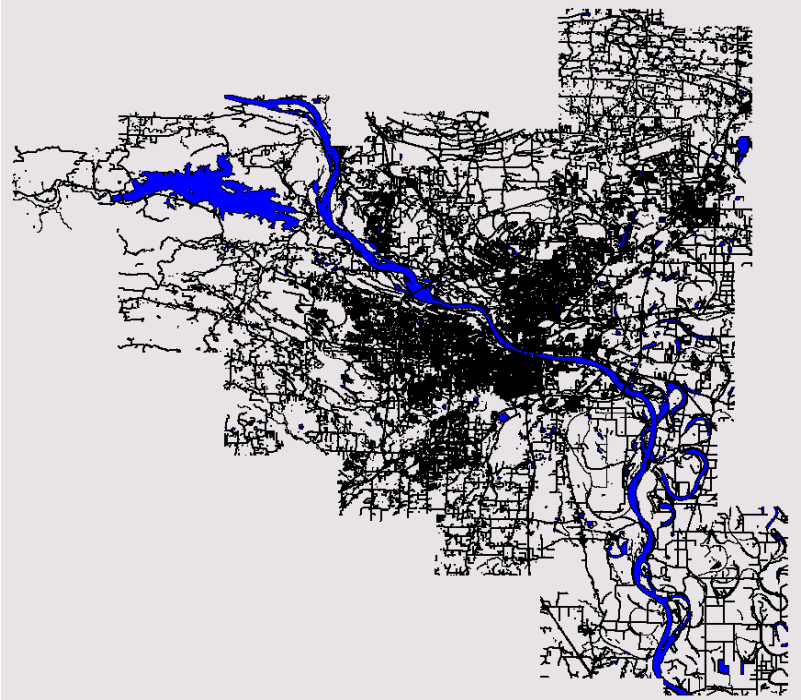


- GIS is a data-driven, data-based information system.
- GIS data and maps must be maintained
- GIS is most useful when geographic references are registered on a consistent, continuous coordinate system.
- GIS has topology.
- GIS has many uses and should be shared by many different functions.
- GIS hardware and software are constantly undergoing change which improves functionality over time.
- GIS grows incrementally in terms of technology, cost, and administrative support needed. Therefore, a long term commitment is needed to assure success.
- GIS causes changes in procedures, operations, and institutional arrangements among users.
- GIS programs require a cadre of trained, educated, motivated, and dedicated people to be successful.

What is GIS?

- Geographical Information Systems (GIS) is a computerized method of representing, predicting, mapping, and **analyzing** things that exist and events that happen on earth.
- These systems allow users to query and perform **statistical analysis** on underlying data.
- The key benefit to GIS is that it allows the user to **"visualize"** the results by looking at a graphical representation via maps or charts.
- The range of uses is widespread. From managing land use, utilities, addressing, parcels, street lines, zoning, facility location, customer location/profiling, forecasting, etc.
- GIS is a tool to help the user solve problems that have a geographic aspect. Just about anything we do fits this category.

Data Layers Warehoused at PAgis									
Cover	**Cover Name**	**A1**	**A2**	**A3A**	**A3B**	**A4**	**A5**	**A6**	**A7**
AF	Athletic Field	X		X	X				X
AP	Airport	X	X	X	X	X	X	X	X
APL	Airport Approach Lights	X	X	X	X	X	X	X	X
BL	Breakline	X	X	X	X	X	X	X	X
BO	Building Outline	X	X	X	X	X	X	X	X
BP	Building Points						X		
BR	Bridge	X		X	X			X	X
CDC	Canal/Ditch Centerline	X	X	X	X	X	X	X	X
CDE	Canal/Ditch Edge	X	X	X	X	X	X	X	X
CE	Cemetery	X		X	X				X
CL	Contour line	X	X	X	X	X		X	X
CP	Communications	X		X	X			X	X
CV	Culverts	X	X	X	X	X	X	X	X
DTMP	Digital Terrain Mass Points	X	X	X	X	X	X	X	X
DW	Dam/Weir	X	X	X	X	X	X	X	X
EM	Embankments							X	X
EU	Electric Utility	X		X	X				X
FH	Fence Line Hedge	X		X	X				
GA	Gate	X		X	X				X
GOBS	Ground Obscured	X	X	X	X	X	X	X	X
HP	Helipad	X		X	X			X	X
LP	Lake/Pond	X	X	X	X	X	X	X	X
PA	Park	X		X	X				X
PVD	Protective Vehicle Deflection Device	X		X	X				X
RE	Road Edge	X		X	X				X
RRL	Railway	X	X	X	X	X	X	X	X
RRP	Railway Signal	X	X	X	X	X	X	X	X
RS	Reservoir	X		X	X				X
SBS	Substation Boundary	X		X	X				X
SC	Street Centerline	X	X	X	X	X	X	X	X
SH	Spot Height	X	X	X	X	X	X	X	X
SM	Swamp/Marsh	X	X	X	X	X	X	X	X
SP	State Plane Grid	X	X	X	X	X	X	X	X
SS	Sports Site	X		X	X				X
STC	Stream/River Centerline	X	X	X	X	X	X	X	X
STE	Stream/River Edge	X	X	X	X	X	X	X	X
SWK	Sidewalk	X		X	X				X
TKP	Tank, Product							X	X
TKW	Tank, Water	X		X	X			X	X
TR	Trail	X		X	X				X
TS	Traffic Signal	X		X	X				X
WA	Wall	X		X	X				X



This image (left) represents the data in our warehouse. This warehouse contains over 162,000 building points, 184,000 building outlines, and 37,000 street centerline addressing arcs. We warehouse 42 layers that are updated annually, semi-annually, and (for addressing, building outline, and street coverages) monthly.

Who are we?

We are a consortium of governmental agencies formed by an inter-local agreement by six city and county organizations for the purpose of providing digital mapping and related services to these six agencies.

Who are our members?

- City of North Little Rock
- North Little Rock Wastewater Utility
- City of Little Rock
- Little Rock Wastewater Utility
- Central Arkansas Water (including all of its service areas)
- Pulaski County

What do we do?

We provide high quality geographic information services, which meet member agency and management needs, using a shared database of GIS-related data within Pulaski County. These services include GIS data maintenance, distribution, digital mapping, and related services.

What are our goals?

- Operate a shared database
- Establish defined responsibilities for quality database maintenance
- Conform to and maintain database according to established standards
- Satisfy customers

What do we value?

- High quality customer service
- Teamwork
- System excellence
- Commitment
- Innovation and improvement
- Trust and integrity
- Stewardship

What is our vision?

Our vision is to provide the highest quality geographic information products and services to meet customers' needs.

What is our mission?

Our mission is to develop, maintain, and provide access to accurate, complete, and useable planimetric, address, and someday, parcel data.

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