CITY OF BLOOMINGTON, MN: ENTERPRISE GIS TRANSFORMATION

Bloomington, with a population of 86,000 and home to the Mall of America, teamed with Pro-West to continue its 20-year track record of GIS innovation via transition to an Esri enterprise GIS and implementation of creative mobile and web applications to serve the enterprise and the public.

MAINTAINING A TRAILBLAZING APPROACH

As a pioneer of the concept we now know as enterprise GIS, the City of Bloomington, MN had been using this model for 20 years, putting GIS in the hands of staff throughout the organization in order to give individual departments ownership of their data and share the benefits of the technology.

Bloomington's progressive approach depends on its perpetual pursuit of excellence. Seeing the value being delivered to local government by web GIS, easy-to-create apps, and collaboration, the City recognized the need to get up to speed, and fast.

Over the years the Esri's ArcGIS product suite had become the clear industry standard, enhancing collaboration and data sharing, and its focus on easy app configuration, mobile capabilities, and the democratization of GIS throughout the organization aligned with Bloomington's vision.

Working with Esri to create a staff development plan that embedded GIS experts in several divisions of the organization, Bloomington had laid the foundations and was ready to make the transition from its previous GIS technology, GE's Smallworld, to Esri's ArcGIS.

MAKING THE MOVE

In 2014, Bloomington selected Pro-West as its partner for the next stage in its enterprise GIS journey.

Bloomington recognized in Pro-West the full spectrum of GIS capabilities it needed in order to move forward – up-to-the minute knowledge of trends and technologies, technical expertise with the full Esri product stack, training, architecture design, and the ability to detect and implement the right solutions for the City's needs.

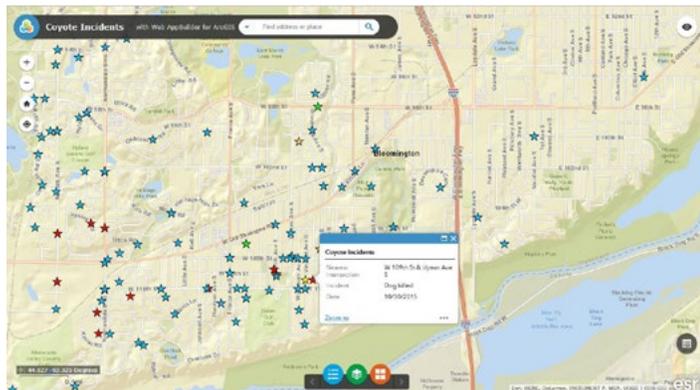Working with Pro-West, the City began the transition.

Investing in an Enterprise License Agreement (now an Enterprise Agreement) with Esri was an easy decision. Packaged specifically for government agencies like Bloomington, the EA offered the most economical way to implement all the technologies the City wanted to use, and leave room for growth.

Once the architecture design was complete, ArcGIS Server, Desktop, Portal, and ArcGIS Online were introduced, and the development of standards, solutions, security, and data began in earnest.
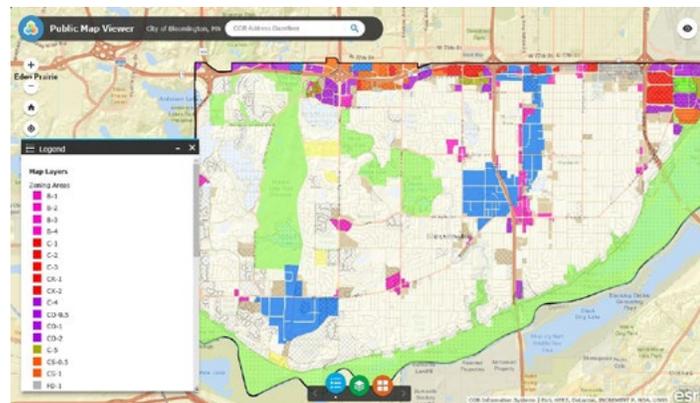
A significant portion of the City's vision for using its new Esri tools consisted of creating apps that were easy to build and use and would communicate information instantly to internal or public users.

Using ArcGIS Online and Portal for ArcGIS, the City has implemented over 20 solutions in the past year. Public maps and apps can be viewed here, with specific internal and public-facing applications including the following, to name a few:

- Planning interactive map
- Zoning and land use maps
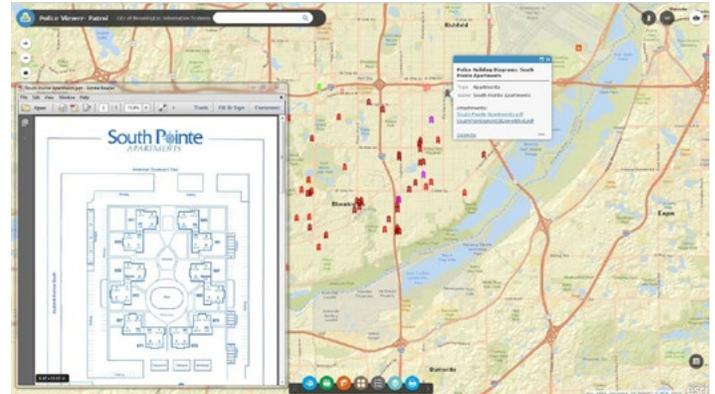- Coyote incidents interactive map
- Public Works maintenance

The following were developed for internal usage via Portal and Link Web AppBuilder:

- Police Viewer
- Police Viewer: Patrol (linked to building plans in squad cars)
- Utilities Viewer - for use in the office and the field
- Engineering WebGIS
- Planning WebGIS
- Surface Water WebGIS
- Survey-Topo WebGIS

Coyote Incidents interactive public map

Police Viewer: Patrol interactive map

Interactive map showing zoning areas

Planning WebGIS

"It was clear to me from the start that Pro-West understood our vision – that's a big part of the reason we hired them – and they proved this by identifying and delivering the solutions that would allow us to achieve that vision.

"Those solutions have exceeded our expectations and taken us further than we thought we could go. The team is a true partner to the City, easy to work with, and always competent."

- Bob O'Neill, GIS Analyst, City of Bloomington

PROWEST
& ASSOCIATES
GIS CONSULTING | DATA SERVICES | APPLICATIONS

"Much has been achieved in a relatively short period of time. Almost all divisions within the City are now using GIS, we have over 20 web GIS solutions, and GIS experts embedded throughout the organization. Going into this project, the concept of enterprise GIS was not new to us. What was new was the speed at which we could use and benefit from it. Rapid and straightforward app configuration has made us much more efficient internally and allows us to better service the citizens of the area by providing instant, interactive information on their phones. Using COTS tools lets us do much more, much more easily than relying on heavily customized software – of course maintenance is still required, but the new tools are much more user-friendly."

SUCCESS FOR THE CITY

The City has flourished with its new location technology platform. Centralized data, appropriate security measures, out-of-the-box app development, quality training, offline capabilities, 150 (and growing) ArcGIS Portal named users, and the right partner have enabled Bloomington to embrace fully the benefits of a modern enterprise GIS.

ESRI TECHNOLOGIES DEPLOYED

- ArcGIS Desktop, including ArcMap and Pro
- ArcGIS Server
- Portal for ArcGIS
- ArcGIS Online

KEY FEATURES

- Task-driven solutions
- Interactive maps and apps
- Centralized data
- On-premise deployment
- Move to HTTPS for optimum security
- Offline editing
- Training on web and desktop technologies
- Department-specific solutions

KEY BENEFITS

- Enhanced security
- Improved efficiency
- Increased control
- Distributed data stewardship
- Superior customer service
- Mobile-first apps
- User-friendly solution development
- No GIS experience required to access, use, and understand maps and apps
- Extensive out-of-the-box capabilities
- Ongoing GIS information and recommendations
- Ready to incorporate emerging GIS technologies

WHAT'S NEXT FOR GIS AT BLOOMINGTON?

Having sustained 20 years of progressive GIS implementation, Bloomington has set the bar high. Its commitment to remaining on the cutting edge is evidenced by its plans for GIS growth, which are ambitious, focused and, of course, enterprise-wide.

Plans include rolling out ArcGIS 10.5 and ArcGIS Pro in 2017, adding further field capabilities, adding geoprocessing services for web GIS, and researching 3D modeling to visualize planning and development as the area around the Mall of America undergoes heavy development.

Bob O'Neill, GIS Analyst, commented: "For a long time the City has successfully moved with the times as enterprise GIS has evolved. We know that to maintain this momentum we need to always be looking to the future and mapping out the next steps for our organization. We are excited about how far we can take web GIS to bring value to the City, and having Pro-West's support to ensure we choose the right solutions and implement them efficiently."

PROJECT COMPONENTS

Pro-West supported the City with the following services as it moved to an Esri enterprise GIS:

- Transition from Smallworld to Esri GIS platform
- System architecture design
- Data conversion standards
- Geodatabase design and configuration
- ArcGIS software configuration
- Server configuration and set-up
- ArcGIS Online and Desktop training
- Data and network security
- ArcGIS Portal configuration
- System integration
- Ongoing GIS recommendations