# GIS & FMIS TECHNOLOGY





### SPATIAL SYSTEMS ASSOCIATES, INC. GIS & FMIS IMPLEMENTATION & SUPPORT SERVICES

### TABLE OF CONTENTS

- 3 Product Highlights
- 4 Parish Analysis and Planning
- 5 School Analysis and Planning
- 6 Real Property Asset Inventory and Management
- 7 Analyses
- 8 Web Services

## **CONTACT US »**



SPATIAL SYSTEMS ASSOCIATES, INC.

GIS & FMIS IMPLEMENTATION & SUPPORT SERVICES GEOGRAPHIC INFORMATION SYSTEMS | FACILITIES MANAGEMENT INFORMATION SYSTEMS

6345 Woodside Court, Suite 201 Columbia, Maryland 21046

**TEL:** 410.423.1870 **FAX:** 410.423.1871 **WEB:** http://churches.spatialsys.com

### CONTACT:

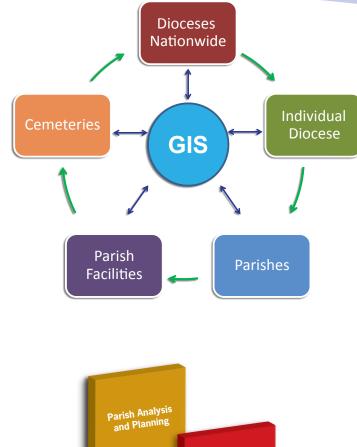
Larry E. Newman, President: churches@spatialsys.com 410.423.1870, ext. 110



PRODUCT Highlights PARISH ANALYSIS & Planning SCHOOL Analysis & Planning REAL PROPERTY Asset Inventory & Management

ANALYSES





# Parish Analysis Marish Analysis Base Property Asset Inventory Base Inventory Analyses Web Services

### **Diocesan Analysis and Planning**

- » Diocese-wide projections
- » Comparative analyses
- » Consolidation analyses

### **Parish Analysis and Planning**

- » Parish boundary and facility mapping
- » Parishioner mapping
- » Thematic displays of demographic data and trends

### **School Analysis and Planning**

- » School location mapping parochial, public, private
- » Student location mapping
- » Drive time characteristics
- » Population/demographic/income trends

### **Real Property Asset Inventory and Management**

- » Research and mapping of diocesan real property buildings
- » Valuation and report generation
- » Infrastructure data management
  - Floor plans Utilities Operating cost

### Analyses

- » As needed analysis and report generating, using GIS technologies—i.e.
  - Parish/school viability Marketing for students

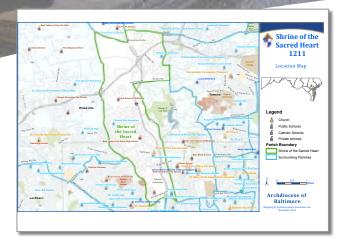
### Web Services

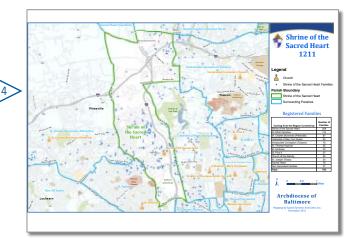
PRODUCT Highlights PARISH ANALYSIS & Planning SCHOOL Analysis & Planning REAL PROPERTY Asset Inventory & Management

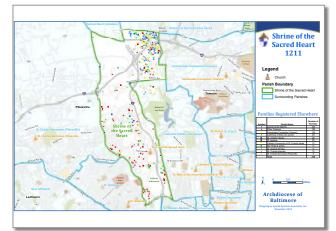
ANALYSES

### SPATIAL SYSTEMS ASSOCIATES, INC. GIS & FMIS IMPLEMENTATION & SUPPORT SERVICES

Parish Analysis and Planning







### **Parish Analysis and Planning**

Parishes are constantly changing. In some regions, significant development is taking place that results in increases in population over years and decades. As these population and demographic changes take place, there is an ongoing need for individual parishes, and the dioceses in which they reside to react in ways that continue to provide expected ministries to the changing population.

Since the amount of land available is a constant, and since all land is already "covered" by both a diocese and a parish, any increases in population that over time overwhelm existing church facilities in a locality will necessarily result in either more masses (with a decreasing priest population), a need for larger churches, a need for new parishes, or some combination of these. Specific, rapid changes in a particular parish, such as that as may occur as a result of Base Realignment and Closing (BRAC) initiatives on the part of the federal government (increases or decreases in population) or development of new assisted care or retirement communities in a community (large influx of an elderly population) may rapidly affect the need for parish services.

Similarly, decreases in the population of Catholics in localities resulting from loss of industry or simply changing demographics may result in the need for consideration of consolidation or clustering of parish services.

The use of computerized analytical tools to evaluate trends in changing demographics, populations, and household income characteristics, combined with the ability to present the results of these trends cartographically both to diocesan and parish planning groups, facilitates the planning process.

The Parish Analysis and Planning service results in production of a set of maps for each parish that depict:

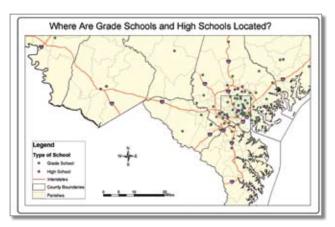
- » The location of official parish boundaries.
- » The location of church, school, and parish related facilities.
- » The location from which registered parishioners travel to church.
- » A depiction of, within the boundaries of the parish, the locations of families who are registered to a parish other than the "home" parish, and an analysis of the number of families registered to each "competing" parish in comparison to the number of families registered to the "home" parish.
- » Thematic displays of population trends, demographics, and household income characteristics in the region from which the parish draws its parishioners.

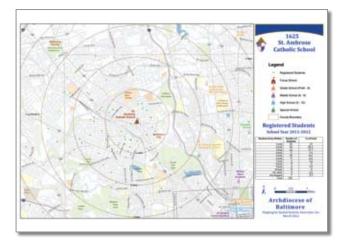
PRODUCT Highlights PARISH ANALYSIS & Planning SCHOOL Analysis & Planning REAL PROPERTY ASSET Inventory & Management

ANALYSES



School Analysis and Planning







### **School Analysis and Planning**

Parochial schools have been a mainstay of the church's outreach to our youth for many years. Providing a quality basic education anchored in faith-based values has long been a priority for our church, and the Catholic Church has become known for being able to prepare youth for either college or for a productive life in our society.

Parochial primary schools are most often parish based. A local parish will take on the responsibility, with varying degrees of assistance from the regional diocese, of constructing and operating the school facility–most often on real estate that is adjacent to the parish church, rectory, and other facilities (such as community center, parish life center, etc). Primary parochial schools typically draw their students from within the parish community and from adjacent parishes that may not have school facilities.

Secondary parochial schools are most often owned and operated independently either by the regional diocese or by some other religious order. Secondary parochial schools draw their students from more of a regional geography. It is common for students from local primary parochial schools to attend the regional secondary school, as parents of these students recognize the important values that their children are exposed to.

Schools that have been established in urban centers and have operated for decades are now facing increasing pressures as population demographics and quality of life characteristics within the urban environment have changed. Suburban sprawl in major urban regions and the attendant population demographic shifts has resulted in lower attendance at these established schools, while requiring new facilities to be constructed and operated outside of the city.

SSA's School Analysis and Planning services utilize computerized analysis of changing population, demographic, and income characteristics to assist parishes and dioceses in evaluating alternative opportunities for continuing to provide education to our Catholic population and beyond. Results are provided in graphic form depicting the locations of educational facilities, school age population characteristics and trends, drive time analyses, demographics, income, and other factors that affect decisions regarding viability of school facilities.

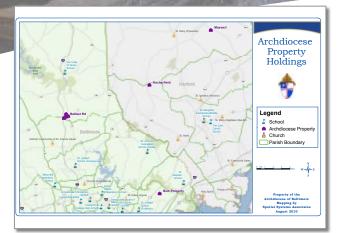
### PRODUCT HIGHLIGHTS

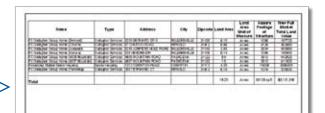
PARISH ANALYSIS & Planning SCHOOL Analysis & Planning REAL PROPERTY ASSET INVENTORY & MANAGEMENT

ANALYSES

### SPATIAL SYSTEMS ASSOCIATES, INC. GIS & FMIS IMPLEMENTATION & SUPPORT SERVICES

Real Property Asset Inventory and Management







### Real Property Asset Inventory and Management

The Catholic Church is one of the largest landowners in the world. Each parish, school, cemetery, and religious institution occupies real property that has a value—and a liability. Liabilities include:

» The potential for being sued by someone who gets hurt on the property, whether they are supposed to be there or not.

» The need to maintain the property.

- If vacant land, the need to mow grass, remove debris, or otherwise keep the property in an "acceptable" condition.
- If improvements exist, the need to maintain the improvements—structure, grounds, etc.

In the US generally, church-held properties are exempt from local property taxes. However, maintaining records of the existence of properties, the location and extent of the holdings, and the valuation of the properties for accounting purposes is still a worthwhile practice.

Many dioceses do not have a handle on even whether properties are properly "titled" in the local jurisdiction's land records. Since real estate is privately "held", and since many church properties are obtained through bequest, the proper titling of the property is an important but often overlooked process until it becomes necessary to dispose of the property. Then, and only then, is the fact that a property is titled to a parish or, worse, to a pastor, discovered.

GIS technology provides a convenient mechanism for investigating how properties are titled, the geographic extent of the property boundary, and development of a consolidated property inventory and facility management system. Research of real property records has historically been a tedious process that involves lawyers and real estate professionals. Use of GIS technology allows this research to be performed much more efficiently, and provides a convenient mechanism for the establishment of a standard reporting and management system.

For facilities on these properties, our faith teaches us that we have a responsibility to work toward achieving sustainability—not using more resources than are needed. Sadly, with an aging Church infrastructure,

energy and water are frequently wasted while the indoor environment of the facility may not be healthful. Facilities monitoring technology can assist in achieving sustainability goals while driving down operational costs.

SSA will provide an atlas depicting the location and extent of properties within the diocese, an assessment of the market value of the properties in a consolidated format, and a mechanism for managing property and facility records and operational costs in a digital and spatially-enabled environment. The information can be web-enabled if desired.

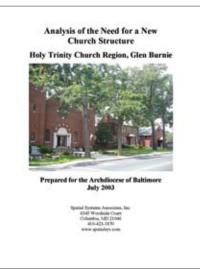
PRODUCT Highlights

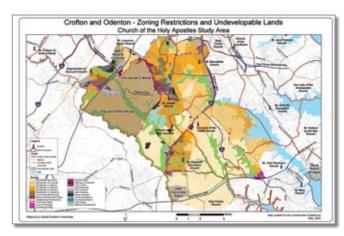
6

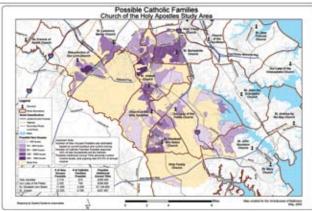
PARISH ANALYSIS & Planning SCHOOL Analysis & Planning REAL PROPERTY ASSET INVENTORY & MANAGEMENT

ANALYSES









### Analyses

There is an ongoing need for analyses to be performed in small geographic regions to assist a parish or diocese in making decisions. For example:

Analyses

- » Should an existing parish be allowed to build a new church building?
  - Do local population and demographic trends support the long term viability of the proposed structure?
  - Can the parish's population and income characteristics support the repayment of the monies needed for design and construction?
  - Will proposed development in the region overwhelm the proposed church size in the foreseeable future?
- » Should a parish be allowed/encouraged to build and manage a new parochial primary school; or should proposed renovations to an existing school be approved?
  - Will populations of school aged children in the region support the existence of the proposed school?
  - Will family income characteristics of the region support the proposed tuition rates?
  - Are trends in demographics in the region supportive of the viability of the proposed school?
- » Is there a need for a new secondary parochial school in a region?
  - Where are the existing parochial schools and what is their anticipated excess capacity?
  - Where are other public or private schools, existing or planned, in the region?
  - What is the anticipated population of secondary school students in the region?

Analyses such as these can be accomplished much more easily utilizing computer-based information systems, and the results of the analyses can be more easily understood with map-based graphics. SSA provides these types of analyses and report development on an asneeded and as-requested basis for our customers.

### PRODUCT Highlights

PARISH ANALYSIS & Planning SCHOOL Analysis & Planning REAL PROPERTY ASSET Inventory & Management

ANALYSES

# SPATIAL SYSTEMS ASSOCIATES, INC.



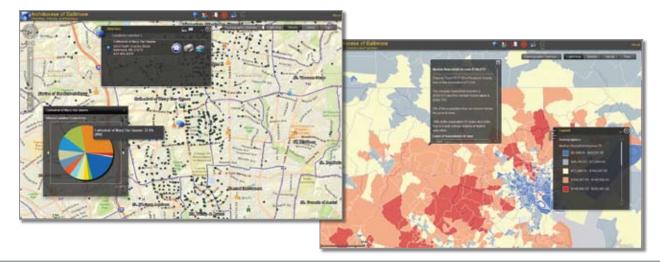
# Web Services

Using the internet to provide information to our congregations has become mainstream over the last few years. Every diocese, and the majority of parishes, currently maintain websites that provide information regarding Mass times, staff contact information, ministry schedules, parish news, calendars of events, etc. Most parishioners rely on the internet to view the most up-to-date information regarding their parish.

As computer technology has become more accessible and user friendly, it is easier for parishes and parishioners to take advantage of free services available via the web. The ability to store information and data in the "cloud" has also created greater flexibility for mapping technology. The ArcGIS Enterprise Server software, by Esri, enables dioceses and schools to create web-based GIS mapping applications.

SSA has the ability to create a web-based mapping interface to provide comprehensive information to a diocese including parish specific details and comparisons. The basic interface has the ability to switch from different basemaps such as aerial photography, topography, street map, etc. to provide the user with different contexts while viewing their data. The interface can also leverage 2010 Census data to provide visualization of demographic information. The legend can be dynamic and can change according to the information displayed on the map. The basic functionality of the interface includes the ability to turn various layers on/off on the map, display a variety of basemaps, find addresses and place names, draw simple graphics on the map display, and perform simple printing. The ability to create bookmarks allows the client to set up predetermined places to quickly locate at a later time.

Tools can be customized to allow for on-demand analysis. Some of these possible analyses include, selecting an area to determine the total number of families within the selected location, the number of families within a parish, and where other families are coming from within a particular parish. Each of these tools returns a table that can be copied to Microsoft<sup>\*</sup> Excel or Word for further analysis and comparison. These tools can assist in the decision-making process for proposed changes at the diocesan or parish level.



To discuss how **Spatial Systems Associates, Inc.** can be of assistance to your Diocese or Parish, please contact us! You will find contact information on page 2.

PRODUCT HIGHLIGHTS PARISH ANALYSIS & Planning SCHOOL Analysis & Planning REAL PROPERTY Asset Inventory & Management

ANALYSES