SPATIAL**PORTFOLIO**

SpatialPortfolio is one of three applications in the **SpatialFacilities** Suite. Like the other applications, SpatialOperations and SpatialSecurity, SpatialPortfolio relies on Esri technology to provide the spatial component of both data storage and visualization. SpatialPortfolio focuses on the inventory of facility assets, their location, condition, value, current use, and the capital requirements to preserve the facility into the foreseeable future.

SpatialPortfolio invites the manager to gather all available information about the campus or base, building, subsystems within the building and documentation about those facilities that is necessary to operate and maintain those facilities. Starting with the campus, or the areas outside the envelope of buildings on the campus, SpatialPortfolio allows the manager to inventory the boundaries of the campus; the location of utilities throughout the campus; the extent of plantings maintained on the campus (grass, trees, flowerbeds, etc.); the extent of paving, parking lots, and sidewalks; etc. In addition to the inventory of these campus assets, SpatialPortfolio allows the manager to store information regarding the condition and value of this common infrastructure, and the capital reserve requirements necessary to maintain the campus infrastructure.
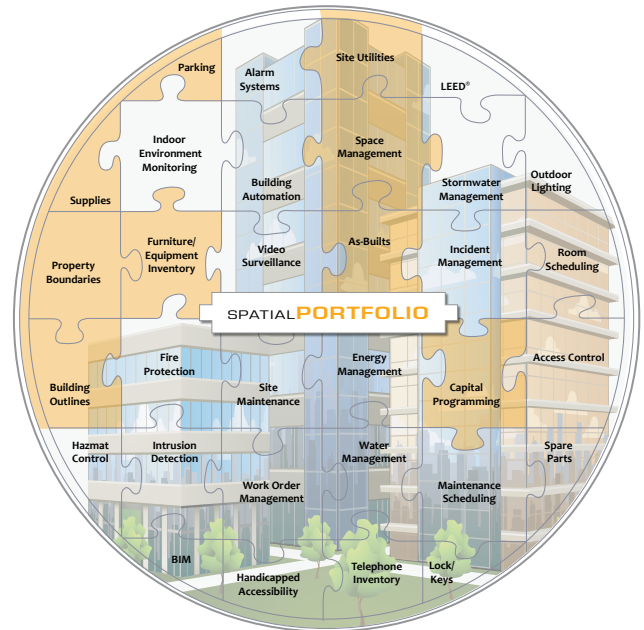

Within the envelope of each building, SpatialPortfolio allows management to "map" the elements of the building including roof characteristics; exterior envelope (walls, windows, doors); interior suites (walls, doors, etc.); HVAC components; plumbing systems; electrical systems; fire and alarm systems; computer network cabling; furniture and equipment; and all other components that have value.
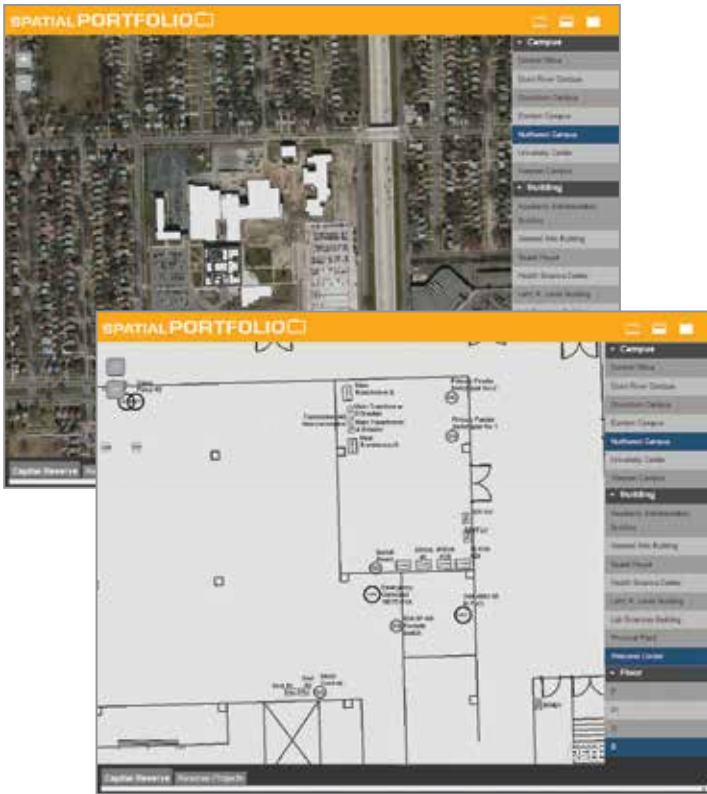
The campus and building components can be mapped at whatever level of detail is desired, and individual components or "features" can be linked to scanned documents related to the operations and maintenance of those features. Whether these documents are CADD drawings, scanned as-built documents, equipment manuals, pictures, operations documentation, maintenance contracts, or lease documentation; all information regarding the spaces and components of the facility are stored in one, web-based system.

Each feature can be assigned both a condition and a value. SpatialPortfolio can then produce summaries of the various "types" of features for a facility along with the current value, providing a basis for the valuation of assets at the county, municipal, campus, or building level for input to GAAP financial accounting systems. If an owner is interested in summarizing valuation of capital assets for, for example, bond purposes, SpatialPortfolio can be used to build and maintain the necessary valuation data.

The in-service date for each major component is maintained by SpatialPortfolio, along with the purchase price, and current condition from the latest evaluation. Expected service life is stored, and expectations for replacement schedule is maintained. Ongoing maintenance requirements are scheduled by the SpatialOperations module, however expected capital investment (as defined by the user) can be maintained to the smallest component level.

Capital Reserve requirements can be summarized by campus, building or project within a building and combined with anticipated new construction on the campus to present an overall capital requirement for the campus for between one and 20 years. SpatialPortfolio allows the manager to define anticipated capital reserve investment yields, labor inflation rates, and material

inflation rates by year, and to determine—based on the anticipated project level capital projects each year—how much money needs to be set aside annually to be able to meet capital needs.

The manager is allowed to modify capital reserve annual investments, projected interest rates, inflation rates, and capital project start years; and to the see the impact of these changes on availability of funds for up to 20 years. The results are presented in graphical form, making the visualization of the impact of assumptions immediately apparent. Each of the capital projects, whether replacement of critical operational components (i.e. roof replacement, HVAC component replacement, interior finish replacement, etc.) or new facilities on the base or campus, can be modified to see the impact on capital requirements.

SpatialPortfolio relies upon Esri's web-based ArcGIS Online and/or Portal technology. Data can be stored on the client's server, on an Internet service provider's system such as Amazon, or on Esri's hosted environment. SpatialPortfolio is built using Esri's JavaScript API. It utilizes Esri's Webmaps concept of determining what data is displayed at a given scale, and includes automated symbology to enhance the user experience.
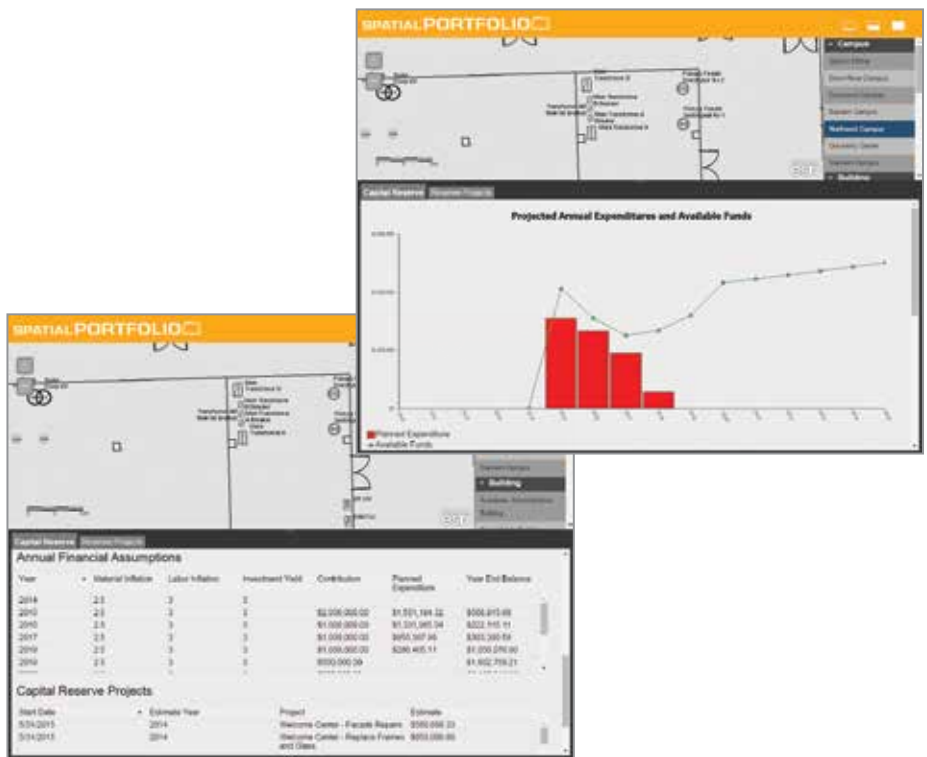
SpatialPortfolio thus provides an inventory, valuation, and capital requirement management system for a campus/base or individual building; allowing management to anticipate capital requirements well into the future, and a valuation mechanism for justification of capital expenditures or bond backup conforming to GAAP principles. When combined with SpatialOperations and SpatialSecurity, SpatialPortfolio provides a complete system for use by management, operations and security personnel to manage and operate a facility.

Please contact us for a demonstration of SpatialPortfolio and an evaluation of how it may be implemented individually or collectively to assist in managing your facilities.

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