Things to Consider When Planning an Asset Management Solution

BY **HOWARD HODDER,** MGIS, GISP, MCKIM & CREED

In its broadest sense, asset management refers to any systematic approach of caring for, upholding the value of, or disposing of assets. Assets can be tangible, like buildings, streets and water, or intangible, such as intellectual property or employees.

Any entity that owns one or more assets is responsible for ensuring that the asset is safe, properly maintained, funded and able to fulfill its purpose both now and in the future. These entities include municipalities, utility providers, facility managers (e.g., colleges and universities) and departments of transportation, to name a few. And the asset issues include aging infrastructure, funding priorities, population growth and even sea level rise. Therefore, the need to effectively manage assets is becoming increasingly important, and typically requires an infrastructure asset management solution.

What is an asset management solution?

Infrastructure asset management programs apply financial, economic, engineering and other management practices to physical assets. The objective is to help the assetowner provide the required level of service in the most cost-effective manner. Usually, the asset management process includes a life cycle approach that starts with planning, data collection and analysis. It also encompasses design, construction, operations, maintenance/repair/replacement of physical and infrastructure assets.

Comprehensive asset management solutions enable decision makers to catalog essential data that helps forecast, plan and budget for necessary infrastructure improvements. This data includes but is not limited to:

- accurate locations of all owned/maintained assets;
- inventories and conditions of assets;
- dates when infrastructure was constructed, installed, inspected, and repaired;
- maintenance and rehabilitation planning and expenditures; and
- the value of the infrastructure.

Plan First

Planning is the most important step in any asset management solution development process. Spending the time, effort and monies on this task will pay dividends down the line.

Planning is the stage where you get to ask questions. Not just questions about what solutions are available on the market and what they cost or how long it will take to install, but difficult organizational questions like:

- What data is currently available?
- What is the quality and completeness of available datasets?
- What are the short- and long-term goals?
- Who and how will staff and/or even the public need or want to interact with the selected solution?
- What can we afford now versus what can wait?

Data is King

The most important component of any asset management system is the data. Of course, there are the hardware and software components, as well as the end users' processes and expectations, but the most important, and often most costly element, is the data. Without the data, the other components are lifeless. And without quality data, analysis results and decisions made upon those results become incomplete and incorrect, and can potentially lead to other problems.

So it is no surprise that data development, data collection, input and/or migration, along with data maintenance,are the most expensive pieces of an asset management solution. And unfortunately, budget often drives the final product outcome, which can cause end users to reduce data quality to meet quantity and time frames. However, by establishing a planned, supported, dynamic solution, one can implement data enhancements over time as budgets become available.

The Process Never Ends

For an asset management solution to be successful, onemust realize that the process should never end. Why? Because data is constantly changing, asset information is being updated/added/edited, and technology is continuously advancing. And these changes and advances are essential to accurate forecasting.

Getting Started is the Hardest Part

Asset management is more than just a piece of software and/or hardware that can be purchased off the shelf. It is a complex combination of spatial inventories and work management processes, tracking and analysis, with a long line of cause-and-effect outcomes. The use of a successful asset management solution over time (i.e., additional data input, updates, historical recording, etc.) will reduce, but not eliminate, the requirements of reactive maintenance of infrastructure. CA