

# BRIGHT LINES

## Integrated Planning and Managing Infrastructure



Two opposing forces—aging infrastructure and shrinking budgets—have created the need to plan and manage infrastructure in a smarter, more efficient manner. Add to the aging infrastructure the regulatory mandates coming from EPA (CSOs, SSOs, MS4), and municipalities face a tsunami of financial obligations to manage and maintain the vital water, wastewater, and stormwater infrastructure that supports both quality of life and economic development.

The increased vulnerability arising from the impacts of climate change on our nation's infrastructure is also complicating matters. With fewer dollars to meet these enormous challenges, cities and towns across America need to plan smarter and manage more efficiently and effectively.

Traditionally, municipalities have treated water, sewer, stormwater, and roads as separate entities often managed by separate departments and funded by separate budgets. Funding is often based on historical precedence and priorities set by perceptions or politics. Conventional methods simply won't work with current demands.



Asset management tools help assess the condition of existing assets and assign a risk factor to each asset based on its probability of failure and its consequence of failure. Then, using planning inputs, a company can assess the future infrastructure needs as well as current needs in terms of continued diagnostics (field condition assessments), maintenance (to optimize useful life) and capital improvements.

The combined data and analysis creates a rolling capital improvement plan that is based on assets at highest risk or greatest opportunity. This new approach sheds light on ‘out of sight and out of mind’ infrastructure challenges that many municipalities face when it comes to funding requests. It is more difficult to ignore the reality of vital infrastructure that is deemed to be at high risk when hard data is presented.

With shrinking budgets, integrated planning also takes the politics out of the equation and helps ensure that whatever capital is spent on infrastructure is invested where it most matters to the community. Integrating and considering buried infrastructure along with city roads also creates greater efficiency by improving water, sewer, and storm drains concurrently with the road reconstruction.

Municipalities that undertake an integrated planning and management approach to their infrastructure are in a much stronger position when it comes to negotiating with federal and state regulators in addressing regulatory permits and mandates. Another significant advantage to communities is in addressing potential developments and their impact on existing infrastructure. While most communities are in a reactive mode (i.e., “fix it when it breaks”) when it comes to managing water and sewer systems, integrated planning allows communities to become proactive (i.e., “fix it before it breaks”), thus avoiding unplanned crisis moments that must be corrected at a much greater cost.

