PUBLIC STEWARDSHIP
Building a Long-Term Funding Policy for Infrastructure Maintenance

BY MARILYN MILLER AND MARGARET BROWNE
Throughout the United States, critical public infrastructure is in desperate need of repair and replacement after years of neglect and deferred maintenance. Much of the current built environment, above and below ground, was designed and completed more than 50 years ago, during the post-war boom. But the public does not tend to understand the extent of the deterioration, and there is no obvious champion for the repair and replacement of infrastructure until a major disaster strikes.

Citizens tend to take notice of the infrastructure issues they deal with daily — potholes in their streets, or the condition of their playgrounds. They are much less likely to be aware that the jurisdiction’s 50-year-old fire station needs to be rehabilitated, or that maintenance facilities are unsafe, wastewater treatment facilities are inadequate, bridges are deteriorating, or animal shelters are out of date. There are always constituencies for new parks, new or bigger recreation centers, more landscaped medians, or expanded museums. When the prospect of another bond election appears on the horizon, interested parties line up with proposals for new and expanded facilities.

But where is the constituency that advocates for government to maintain what it already has? In the City and County of Denver, Colorado, middle managers became critical advocates for infrastructure maintenance and repair. They saw the condition of the trash transfer station and its impact on efficiency. Building engineers understood that buildings were deteriorating and sometimes unsafe. They understood that failing to adequately maintain streets would result in higher replacement costs in the future.

Recognizing that the existing capital planning and budgeting process was not adequately maintaining the city’s infrastructure, the director of capital budgeting and the finance director proposed that the mayor address the situation. Denver established two task forces to develop policies that would ensure proper capital maintenance in the future. The first group assessed the condition of the current infrastructure, developed maintenance standards, and established criteria for setting priorities. The second group developed a capital funding policy to provide a long-term framework based on the results of the first group. Armed with compelling information and sensible proposals, the mayor worked to get buy-in from the City Council and the public. As a result of this “Stewardship for a City Beautiful” initiative, Denver succeeded in getting voter approval to increase property taxes for capital maintenance and a major capital maintenance bond issue.

**TELLING THE STORY**

Denver’s capital maintenance program had fallen behind for a number of reasons. One of the most important was that infrastructure had grown as the city had expanded, and the funding committed to capital maintenance did not keep pace with the increased assets. The city also had many assets from a post-war boom in the 1950s that had reached or exceeded their useful life of approximately 50 years. The City and County of Denver had annual dedicated capital funds, primarily from a portion of the occupational privilege tax (head tax), but the relatively flat growth rate of that tax — 1 percent per year — has resulted in a 25 percent decrease in buying power since 1988. At the same time, the city was growing in population, so existing assets were being used more; in addition, asset inventory had increased and infrastructure had expanded. The city also faced rapidly increasing construction costs and slow revenue growth. The result was that capital maintenance projects were triaged, and only the most critical needs were funded. But this problem was not easy to communicate to the city’s stockholders — the public — because the case for infrastructure deterioration was anecdotal, disjointed, and not adequately quantified.

Managers were requesting more funding to address deteriorating infrastructure, but those requests were ignored because they were not accompanied by adequate explanations. The street maintenance division of the public works department used sophisticated modeling techniques to show timing and determine the most cost efficient maintenance scenarios and costs, but even with compelling documenta-
tion, their claims were not readily accepted. Some viewed the recommended standards as too high; others thought the standards were too costly; and some felt that expanding capacity was a higher priority than improving maintenance standards. Other city agencies, however, had not even completed comprehensive inventories and standardized condition assessments. Policies around standards were not universally transparent or accepted — some departments had policies and others did not, and the comprehensiveness and sophistication of the existing standards varied substantially. What was needed was a complete picture that would allow sound decisions to be made about all of the city’s assets.

The city’s Budget and Management Office coordinated a standardized evaluation of the city’s capital improvement assets. The capital projects director got the ball rolling, creating working relationships with city staff in other departments who shared a vision of the kinds of improvements needed. Departments proposed standards for maintenance, completed easily understood but well-defined condition assessments, and prepared cost estimates for bringing substandard infrastructure up to par and maintaining that infrastructure over time. The task was to quantify not only the city’s annual capital maintenance gap but also the one-time cost for bringing all its infrastructure up to standard.

**ESTABLISHING THE STANDARDS**

Before the city could set a financial strategy, each department and agency had to establish acceptable levels of service that would be understood across the organization. The relationship between maintenance standards and affordability is to some extent circular, however, since a standard that the municipality cannot afford is unrealistic. This creates a tension between desired standards and affordability — or, in the case of the taxpayer, willingness to pay.

Denver’s mayor, a former entrepreneur and small businessman, believed that the public would not accept any methodology for establishing standards that it had not had a role in setting. Therefore, in 2004, a citizen task force of experts and activists was set up to thoroughly examine staff’s findings and make meaningful adjustments to the city’s assessments. City staff made presentations on their evaluations of four major asset groups: public art, recreational facilities and parks, transportation and right-of-way, and buildings, including cultural facilities. Staff provided the following information about each asset:

- Detailed inventory
- Definition of lifecycle, based on industry standards
- Information about current condition, determined by the percentage of the asset inventory in good, fair or poor condition (defining the criteria for each condition category)
- Proposed standard, defining the desirable standard for the city, based on industry standards, best practice, and staff expertise
- Rationale for the proposed standard

In 2005, the task force issued a report that set forth moderate and fiscally prudent standards. But even at a modest level, the baseline established by the task force in 2005 indicated that the City and County of Denver was deferring $27.5
million of maintenance per year. The task force found that while some asset categories were in reasonably good condition, other assets such as irrigation systems, traffic controls, city buildings, street signs, and alleys needed significant dollars to bring them up to standard. The price tag for bringing infrastructure up to a level where it could be maintained in a pay-as-you-go manner was almost $400 million.

**NEW STRATEGY NEEDED**

If the city was going to move to a capital management philosophy that would sustain the existing infrastructure at levels that would be both cost effective and acceptable to the public, it needed to implement a more directed financial strategy. In the past, Denver had sought a bond election every eight to 10 years to catch up on infrastructure maintenance — that is, to fill the gap. As a result, maintenance was often deferred, potentially compromising assets. The question was how the city could develop a better asset management system and strategic financial plan to addresses the cost of maintenance on a pay-as-you-go basis.

The answer was not readily apparent. The city’s director of economic development, finance director, capital budget director, and treasurer considered reallocating existing revenues, achieving cost efficiencies, using one-time revenues (e.g., expiration of tax-increment finance districts), and divesting assets where appropriate. But even after applying those measures, a gap remained. They recognized that improving the city’s infrastructure would require a tax increase or a bond issue, or both. At the same time, there were competing priorities such as new capital projects and programs that also required voter approval.

The director of capital budgeting also met with each of the City Council members to review the findings and recommendations of the report, which helped the council to understand the magnitude of the problem. The director of economic development was the finance office’s chief advocate in convincing the mayor’s office to start dealing with the city’s capital maintenance gap, and in late 2006, the mayor agreed to establish a second infrastructure priorities task force. This task force, made up of community business and civic leaders, created a capital funding policy for civic infrastructure that provided a long-term framework for maintaining and improving the city’s civic assets on a sustainable basis while providing capacity and means for new infrastructure to meet the future needs of the community. The policy recognizes that limited financial resources create a tension between maintaining the city’s existing assets and building new assets. The policy was based on the following principles:

- **Stewardship Principles**
  - Denver must maintain the civic assets it already has in place.
  - Denver will add new assets or upgrade existing assets to accommodate growth, future public needs, and contribute to the City Beautiful legacy.
  - Denver will routinely review its asset portfolio to evaluate whether assets should be retired.
  - Denver will implement a formal, integrated planning, financing, and approval process for projects in the long-term capital plan.

- **Financial Principles**
  - Denver will fund maintenance and, where appropriate, scheduled replacement of the city’s capital assets through annual revenues.
  - Denver will fund new assets, capacity expansion, and major replacements through scheduled, periodic debt.
  - Before adding any new capital asset, the city should carefully consider its financial ability to operate and maintain that asset.
  - Denver will fund infrastructure that is needed for new private development through development-generated revenues whenever possible.

The capital financial plan recommended a set of proposals to provide adequate annual capital funding. The first recommendation was to change the dedicated annual capital funding source from the occupational privilege tax to property taxes to better keep pace with inflation. The task force also recommended that the city dedicate specific new revenue sources it expected to receive in the future to capital funding. In addition, the plan recommended that the city consider redi-
recting existing revenue sources — primarily from the general fund — to provide additional funding for improving the condition of existing infrastructure, providing capital maintenance for new assets, and covering the increased cost of capital project management. The plan also recommended a modest property tax increase of 2.5 mils (a mil equals one thousandth of a dollar), which would not change Denver’s standing as having the lowest property tax in the metropolitan region. Establishing a permanent, dedicated mil levy for capital maintenance would put the city on a pay-as-you-go basis for capital maintenance, and the task force was convinced that addressing infrastructure deterioration on a pay-as-you-go basis made good business sense.

**A POSITIVE ELECTION**

The message presented to Denver voters was simple: You can pay now, or you can pay more later. The mayor understood the kind of buy-in that would be needed and worked hard to bring the message to the public. And he succeeded: Denver voters approved a dedicated mil levy for capital maintenance in 2007. There were several key factors that ensured this success.

- City staff in many departments were committed to raising the issue, defining the problem, and finding solutions.
- Both city staff and community representatives who had expertise in engineering and maintenance vetted the foundation of clearly defined standards, needs, and costs.
- Community representatives with legal, financial, higher education, and other business expertise reviewed, modified, and endorsed a solid fiscal policy.
- The city’s mayor was committed to sound financial management and public stewardship, and was willing to use his popularity to address the issue.

The most heartening responses the city received from the public were from those who appreciated that the issue was seeing the light of day. Citizens want a beautiful and functioning city, town, or state. They want to know if there are problems, and they will step up if credible solutions are proposed. A municipal bond manager once related that the public financially supports governments when they believe there is a credible need and that the proposed solution efficiently addresses that need. Denver’s example proves that to be the case.

**CONCLUSION**

Adequately addressing maintenance of critical capital infrastructure is a significant problem for most jurisdictions. The public finance profession has a key role in planning, funding, and implementing capital maintenance and improvement plans, and they must be effective in addressing these issues, since there is no political constituency to advocate for capital maintenance. Elected officials are under constant pressure to add programs and build new facilities, but someone must act as the steward of public assets to preserve critical infrastructure and plan for the future.

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