



BEST PRACTICE

### **Capital Asset Assessment, Maintenance and Replacement Policy (2007 and 2010)(CEDCP)**

**Background.** Capital assets include major government facilities, infrastructure, equipment and networks that enable the delivery of public sector services. The performance and continued use of these capital assets is essential to the health, safety, economic development and quality of life of those receiving services.

Budgetary pressures often impede capital program expenditures or investments for maintenance and replacement, making it increasingly difficult to sustain the asset in a condition necessary to provide expected service levels. Ultimately, deferring essential maintenance or asset replacement could reduce the organization's ability to provide services and could threaten public health, safety and overall quality of life. In addition, as the physical condition of the asset declines, deferring maintenance and/or replacement could increase long-term costs and liabilities. Government entities should therefore establish capital planning, budgeting and reporting practices to encourage adequate capital spending levels. A government's financial and capital improvement plans should address the continuing investment necessary to properly maintain its capital assets. Such practices should include proactive steps to promote adequate investment in capital maintenance and replacement and necessary levels.

**Recommendation.** The Government Finance Officers Association (GFOA) recommends that local, state and provincial governments establish a system for assessing their assets and then appropriately plan and budget for any capital maintenance and replacement needs. This includes:

1. Developing a policy to require a complete inventory and periodic measurement of the physical condition of all existing capital assets. The assessment should document the established methods of condition assessment, including any that are used to evaluate below-ground infrastructure. This physical condition inventory and measures used should be kept current, with facility condition ratings updated every one to three years.<sup>1</sup>

This inventory should contain essential information, including:

- a. Engineering description
- b. Location
- c. Physical dimensions and condition
- d. "As-built" documents
- e. Warranties
- f. Maintenance history
- g. Replacement costs
- h. Operating cost information
- i. Usage statistics
- j. Book value
- k. Original Useful Life
- l. Remaining Useful Life

2. Establishing condition/functional performance standards to be maintained for each type of capital assets. The condition measures and related standards should be understandable and reliable. Such standards may be dictated by mandated safety requirements, federal, state, or provincial funding requirements, or

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<sup>1</sup> The frequency of physical condition rating and asset inventory updates may vary depending on several factors, including the asset age and type, likelihood of degradation, and ease at which assessments can be conducted.

applicable engineering and other professional standards,<sup>2</sup> including available software models. Use these standards and a current condition assessment as a basis for multi-year capital planning and annual budget funding allocations for capital asset maintenance and replacement. Assets near high risk areas such as hospitals may require a higher standard of performance and require a higher frequency of condition assessment.

3. Evaluating existing assets to determine if they still provide the most appropriate method to deliver services. Maintenance and replacement plans for assets should then be prioritized in accordance with overall goals and objectives to maintain expected service levels. Consider developing financial policies that identify and dedicate fees or other revenue sources to help achieve this goal. Also consider a procedure of performing a condition assessment prior to replacing a major asset or acquiring a new asset.
4. Allocating sufficient funds in the multi-year capital plan and annual operations budget for condition assessment, preventative maintenance, repair and replacement of capital assets in order to continue the provision of services that contribute to public health, safety, and quality of life of the public.

Each government should establish an on-going source of funds in both the capital plan and budget for the repair and renewal needs of its assets consistent with this best practice. The Capital Improvement Program (CIP) should also include projections based on the remaining useful life and replacement costs over the next three to ten years regarding the government's intended future investment in these facilities and the estimated impact of these investments toward achieving the minimum or adequate-performance rating for each asset type or class. If the assets are part of the function of an enterprise fund, the rates, fees and charges may need to be adjusted to meet the funding requirements.

5. Monitoring and communicating progress toward stated goals and the overall condition of its capital assets with appropriate controls to ensure the validity and accuracy of the information. This process should describe how actual facility condition and performance compares to the targeted standard for each asset type. Governments should also review and report the operating impacts related to capital investments during project implementation and for a specified time period following project implementation. Governments should likewise monitor and report on the delivery of capital projects by establishing standards for planning, designing and constructing capital projects.<sup>3</sup>
6. At least every one to three years, providing a "plain language" Report on Capital Facilities to elected officials and made available to the general public that describes:
  - a. Condition ratings jurisdiction-wide compared to established policy standards
  - b. Condition ratings by geographical area, asset class, and other relevant factors
  - c. Indirect condition data (e.g., water main breaks, sewer back-up complaints)
  - d. Replacement life cycle(s) by infrastructure type
  - e. Funding sources for assets, including any restrictions that might be imposed on use and/or disposal
  - f. Year-to-year changes in net value of assets
  - g. Actual expenditures and performance data on capital maintenance compared to budgeted expenditures performance data (e.g., budgeted street miles, reconstructed compared to actual)

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<sup>2</sup> These measures include state government-established standards, bridge sufficiency ratings, Pavement Quality Index (PQI) or Pavement Condition Index (PCI), Facility Condition Index (FCI), etc. Indirect measures such as water main breaks, sewage overflows, etc., are also available for certain asset types.

<sup>3</sup> Measures to assess the delivery of capital projects may include budget soft versus hard costs, schedule and budget variations, change orders, quality of construction, and architectural/engineering estimates versus actual delivery.

- h. Long-term trends extending over the prior four to six or more years. Year-to-year expenditure figures are less valuable due to general inflation rates and the changing supply and cost of construction contractors and contract bids over time.

Other more “global” measures such as replacement cycle,<sup>4</sup> year-to-year comparisons of work completed (e.g., miles of sewers, water mains, street lights, etc., repaired/replaced), book value, etc., may also be used.<sup>5</sup>

### References.

- GFOA Best Practice, *Considerations on the Use of the (GASB 34 Reporting Model) Modified Approach to Account for Infrastructure Assets*, 2002.
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- Nicole Westerman, *Managing the Capital Planning Cycle: Best Practice Examples of Capital Program Management*, Government Finance Review, 2004.
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- GFOA Best Practice, *Capital Project Monitoring and Reporting*, 2007.
- GFOA & National Advisory Council on State and Local Budgeting Best Practices in Public Budgeting (Practice #s 2.2, 5.2, 6.2, 11.5)
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- AWWA, *Dawn of the Replacement Era: Reinvesting in Drinking Water Infrastructure*, 2001.

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<sup>4</sup> “Replacement cycle” means the number of years to replace/reconstruct an entire infrastructure network assuming an average annual level of replacement. Example: 500 miles of concrete surface streets in network/ 10 miles average annual miles of streets replaced equals a 50-year replacement cycle. This can be compared to the engineering estimate of the useful life of the average concrete surfaced street.

<sup>5</sup> Other useful measures of level of effort or condition can be found in internal government database, including department annual reports, fixed asset account records, GIS systems, etc.