

GASB 34: Look before you leap

Editor's note: The goal of this article is to present objective information. CTRE is heavily involved in developing and supporting the implementation of pavement and bridge management systems, both important elements of the modified approach to managing assets.

Government Accounting Standards Board statement 34 (GASB 34) provides the broadest changes in government accounting practices since in the inception of Generally Accepted Accounting Practice (GAAP) for governmental agencies dating back to the 1930s.¹ The principal change that GASB 34 requires is reporting the value of capital assets on Consolidated Annual Financial Reports (CAFR).

GASB 34 identifies two methods for reporting infrastructure assets: a standard depreciation approach and a modified approach. The modified approach requires that agencies use a system for managing assets (pavement or bridge management system) to monitor and manage the performance of the infrastructure and that those agencies maintain the infrastructure at or above a minimum condition level. The minimum condition level is self-set by the agency and should be endorsed by agency's policy board or administrative authority.

GASB 34 allowed the modified approach because it was argued that public agencies do not depreciate infrastructure assets. Instead, these assets are preserved to meet or exceed standards for condition. Hence, over several years the asset may be substantially renewed (preserved) but it is still fundamentally the same asset, performing the same function.

The purpose of this article is to discuss the depreciation and modified methods and to outline some of the technical issues associated with each approach. It is up to each individual agency to determine which approach it wishes to apply; however, the agency should understand the implications of selecting one approach or the other. The general wisdom associated with the choice of which method to apply assumes that most local governments will use the depreciation approach. This is because the depreciation approach does not require a system for managing assets, and most public agency financial officers are knowledgeable of depreciation.

Although we are trying to be unbiased in our presentation of each approach, it is our belief that in many cases the computational difficulty in applying the depreciation approach is greater than what may be anticipated and the depreciation approach does not encourage better asset management practices. On the other hand, the modified approach does engender the use of better management practices through asset management. Because the modified approach supports better management practices, the American Public Works Association (APWA) Board of Director passed a policy statement urging local and state governments to adopt the "modified approach" to meet GASB 34 requirements where feasible.²

Implementation

The purpose of either approach is to place a value on infrastructure assets and report those assets in the agency's financial report. The value of an asset is the historical cost of the asset (the cost of

¹ Statement made by Jay Fountain, Jr., CPA, Assistant Director of Research, GASB, at the "GASB Statement 34 Compliance Peer Exchange: What, Why, and How," organized by the American Association of State Highway and Transportation Officials, Nashville, Tennessee, April 27, 2001.

² GASB-34 Policy Statement Passed by Board of Directors, posted 12/8/00 at <http://www.apwa.net/HotTopics/index.asp?PrinterFriendly=Yes&topic=73>

construction). When the depreciation approach is used, the value of the capital asset must be depreciated annually and any preservation expenses must be added to the value of the assets or, in other words, capitalized, and maintenance costs are expensed³. Using the modified method, both preservation and maintenance costs are expensed and only construction costs for betterment and improvements must be capitalized. Figure 1 shows the differences between the two approaches.

	Depreciation Approach	Modified Approach
Maintenance Costs	Expense	Expense
Preservation Costs	Capitalize	Expense
Additions and Improvements Costs	Capitalize	Capitalize

Figure 1

GASB 34 is quite flexible, and agencies can decide to use one method and later switch to the other. Also an agency can decide to use the modified method on one network of assets and the depreciation method on others. For example, the Texas Department of Transportation is using the modified method on its highways and the depreciation method on its bridges.

Depreciation Method

The first step in the depreciation method is to determine the historical cost of the construction of infrastructure assets. Since all agencies will start with prospective reporting, initially they only need to report newly constructed infrastructure. In four years, Phase I agencies (agencies with revenues over \$100 million) and Phase II agencies (agencies with revenue between \$10 million and \$100 million) will be required to retroactively report the historical costs of assets back to June 15, 1980. If the historical cost information is unavailable, the agency will have to estimate the historical construction cost.

Generally, most agencies will use straight-line depreciation. At the beginning, the most critical technical issue will be to estimate the likely life of each asset. Later, as experience is generated with the asset, the life estimates will need to be evaluated and adjusted as necessary.

To keep track of depreciation, highway agencies will generally have to divide highways into segments. Each segment will represent a construction project and track the preservation performed to each segment and the annual depreciation to the segment. The depreciation and preservation will be totaled across all segments to arrive at a valuation in the Comprehensive Annual Financial Report.

³ Preservation costs are generally considered to be those outlays that extend the useful life of an asset beyond its original estimated useful life, but do not increase the capacity or efficiency of the asset. Preservation costs should be expensed under the modified approach and capitalized under the depreciation approach. Definition taken from http://www.Window.State.Tx.Us/comptrol/san/gasb/local/gasb34_localintro.html

In cases where part of a segment is rebuilt and the remainder is just preserved, to keep track of the costs and value associated with the highway it would require breaking the original segment into two or more segments and keeping track of each. Figure 2 shows an example of that.

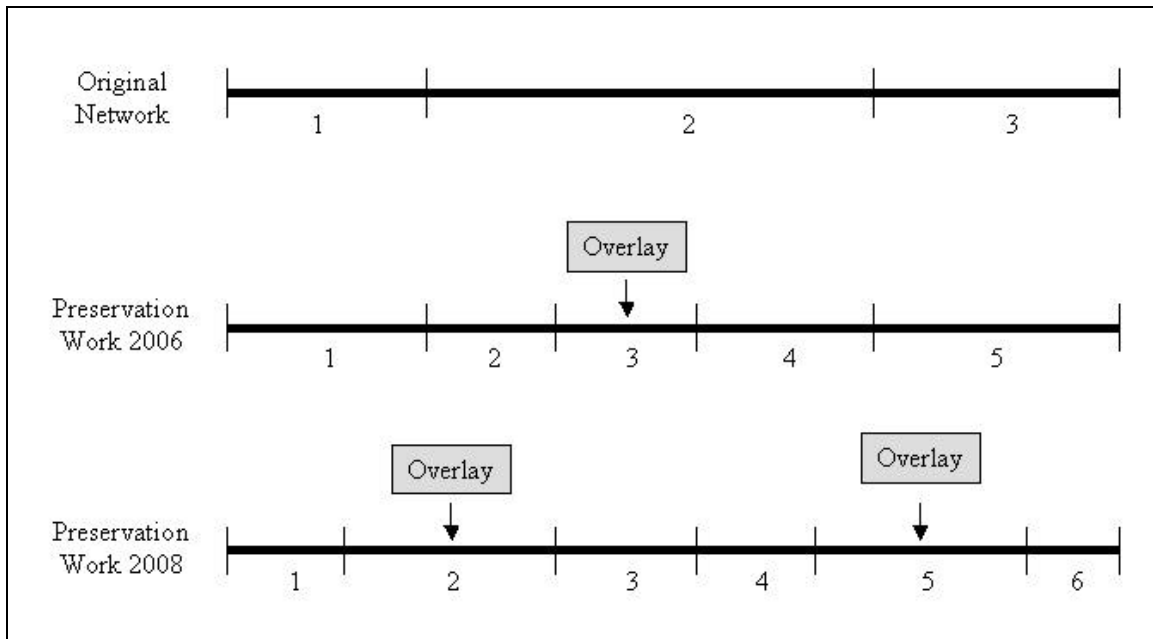


Figure 2

Modified Approach

The modified approach simply assumes that the condition of the infrastructure assets are managed through a system for managing assets and, therefore, instead of being depreciated they are preserved. Unlike the requirement under the depreciation approach, under the modified approach both maintenance and preservation are considered expenses (see Figure 1).

GASB 34 requires only that the agency identify minimum condition, measure the system condition, and allocate resources so that the condition minimums are exceeded. The assumption is that if the asset's condition is managed then the value of the asset is not depreciated.

The system condition can be measured at the network level (system averages and network aggregate levels of condition). The definition of the required system for managing assets is so flexible that even very simplistic multi-year management systems will satisfy the requirement.

To value the assets, historical costs are used, starting at the time when the asset was put into use. If historical costs are unavailable, historical costs may be estimated. For example, one Iowa County is using an appraisal firm to estimate the value of infrastructure assets and discounting them back to their historical values. However, since under the modified method there is no provision for prospective or retrospective reporting, the historical value for all assets must be calculated in the first year.

Although the historical construction cost of all infrastructure assets is likely to be a startlingly large value, the value is not very meaningful to the management of assets. Therefore, we do not recommend that agencies devote an exhaustive level of effort to derive an asset's historical value. For example, the Tennessee Department of Transportation has developed an estimate of the

historical cost of its highway assets (pavements and bridges) of a little over \$15 Billion. However, this involved adding historical values from as far back in time as 1914 through to the present together. Because none of the dollar values are discounted to take into account differences in purchasing power of dollars in different years, totaling the numbers is like adding oranges to apples.⁴

In the future as assets are abandoned or improved, the costs of the asset are either removed or increased in proportion to the respective material change in the asset. However, only when an asset is materially changed does the value of the asset need to be recalculated. The modified approach appropriately focuses on the management of assets as opposed to keeping track of the statistics of the asset's historical evaluation.

Conclusions

Government transportation agencies are provided with two approaches for reporting infrastructure assets and placing them on the financial reports. The first approach involves the use of conventional depreciation to distribute the loss in value of assets across their lives. The second is the modified approach and assumes that infrastructure assets are preserved and their function (and hence value) is preserved and managed through the use of a system for managing assets.

The GASB requirements for a system for managing assets to satisfy the modified approach are really quite modest. For example, to manage a street or highway network, any multi-year, network level pavement management system will satisfy GASB 34 requirements. However, the most significant benefit of the modified approach is that it engenders use of good asset management practices and sound business principles, by identifying condition standards, trends, and budgets, it encourages public debate over outcomes, and it provides criteria for analysis and examination of trends.

Ultimately, we believe that establishment of a record keeping system to satisfy the depreciation approach will require nearly the same record keeping effort as a simple pavement or bridge management system. In summary, the principle benefit of using the standard depreciation approach is that depreciation is a fairly standard and is a familiar approach to dealing with distribution of the loss of value of assets over time. Agency financial managers should be familiar with depreciation and will not be required to develop an asset management system (although significant record keeping will be required). The benefit of selecting the modified approach is that it represents a more sound approach to the management of long-lived infrastructure assets.

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⁴ From an engineering perspective, the adding of dollars from different years seems bizarre and one that provides misleading results. However, this is what is called for in the guidelines.