### PSAB GAAP for Manitoba Municipalities

Reference Manual Tangible Capital Assets

June 1, 2007

This Manual has been developed in partnership between the Association of Manitoba Municipalities and Manitoba Intergovernmental Affairs

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### PREFACE

This manual has been prepared as a useful and practical reference to help CAOs in Manitoba implement the Public Sector Accounting Board recommendations on tangible capital assets (PS3150).

This manual has been prepared by the Tangible Capital Assets Working Group and approved by the PSAB Implementation Steering Committee. This manual is not meant to be the final authoritative source for tangible capital assets.

The manual is divided into 3 main sections:

### Part 1 - PSAB Rules on Tangible Capital Assets (PS3150)

Section 1 provides an overview of the accounting standards or "rules" of PSAB section 3150 – Tangible Capital Assets.

### Part 2 - Practical Considerations for Identifying Your TCA

Before municipalities begin to identifying their TCA, they will have to make important decisions (i.e. accounting policies) on how to practically apply the rules on tangible capital assets. Section 2 provides suggestions on how to develop your TCA listing and recommendations on asset classes, useful lives and capitalization thresholds.

### Part 3 - Determining the Value of Your TCA

Tangible capital assets should be recorded at historical cost. However, many assets were purchased or constructed a long time ago. Section 3 provides recommendations on how to value assets when information on historical cost is not available.

### Other Sources of Information

For those CAOs who would like to obtain additional information on how to implement PS3150 there are some very good web-sites. These additional sources provide valuable recommendations on preparing an implementation plan, determining resource needs, and asset management issues:

- The PSAB Guide to Accounting for and Reporting Tangible Capital Assets http://www.psab-ccsp.ca/index.cfm?ci\_id=18656&la\_id=1
- The Ontario Municipal Benchmarking Initiative (OMBI) The OMBI Municipal Guide to Accounting for Capital Assets, Version 2 (February 15, 2007) http://www.caobenchmarking.ca/accounting.asp
- The Municipal Finance Officers' Association (MFOA) and the Association of Municipal Managers, Clerks and Treasurers of Ontario (AMCTO) http://www.amcto.com/db/assetmgmt.asp

### **Critical Dates**

### August 31, 2007:

Municipalities should complete their tangible capital assets work plan.

### December 31, 2007:

Municipalities should have identified and completed their list of all the tangible capital assets that they own.

### March 31, 2008:

Municipalities should have completed the valuation (i.e. cost) of all their tangible capital assets at December 31, 2007.

Training sessions on tangible capital assets will be made available to all municipalities through the summer and fall of 2007.

Check the AMM web-site at http://www.amm.mb.ca/PSAB.html for dates, locations and registration.

If you are uncertain about any issue, users of this manual are encouraged to contact:

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### Part 1 - PSAB Rules on Tangible Capital Assets (PS3150)

Tangible capital assets (TCA) are a significant economic resource of municipalities and a key component in the delivery of many municipal government programs. The Public Sector Accounting Board (PSAB) has issued new standards that will come into effect for fiscal years starting January 1, 2009.

### PSAB Requirements:

PSAB requires that local governments record their TCA on the statement of financial position (i.e. balance sheet) and amortize them over their useful life. The recording and amortization of TCA represented the last major difference in PSAB GAAP between local and senior governments. Starting January 1, 2009 there will be in effect "One GAAP for all Governments".

### Current Accounting:

Municipalities currently account for their TCA by:

- (i) Expensing the TCA in the general or utility operating fund as contributions to the capital fund.
- (ii) Recording the TCA as fixed assets in the general or utility capital fund while not recording any amortization

Current financial statements do not provide any information about the nature and age of a municipality's TCA. This information is important in determining the maintenance and replacement requirements of a municipality.

### 1.1 What Are TCA?

### Definition of TCA:

The Canadian Institute of Chartered Accountants (CICA) Public Sector Accounting Handbook (PS 3150.05) defines TCA as non-financial assets having physical substance that:

- (i) Are used in the production or supply of goods and services
- (ii) Have useful economic lives extending beyond one year
- (iii) Are to be used on a continuing basis; and
- (iv) Are not for sale in the ordinary course of operations.

### TCA Includes:

TCA include such diverse items as equipment, computers, computer software, vehicles, buildings, land, roads, bridges, water and sewer systems, dams, and canals.

There are two broad classes of TCA. One class is general capital assets and the second is infrastructure. See **Appendix 2** for the type of assets that make up each class. Some asset classes like land and buildings are normally general TCA. However if they form part of a complex infrastructure system, they are considered infrastructure assets.

### TCA Does Not Include:

TCA does not include intangible assets, natural resources, and Crown lands that have not been purchased by the municipality.

TCA also does not include land held for resale.

Works of art and historical treasures that are worth preserving perpetually would also not be recognized as TCA.

### Works of Art and Historical Treasures Include:

Works of art and historical treasures would include:

- Library collections
- Museum collections
- Paintings and sculptures
- Statues, monuments and plaques
- Antiques
- Arts and craft
- Historic buildings which are not being used to provide municipal services

Many buildings owned by municipalities have been designated as heritage sites. These buildings are often still being used as municipal office space or for the provisions of other goods and services.

Heritage buildings that are still being used by the municipality to provide goods and services to the public are TCA. This includes heritage buildings that are being used as museums to display museum collections.

### **1.2 Betterment or Repairs & Maintenance (R&M)?**

One of the most difficult decisions in accounting for TCA is determining whether an expenditure is a betterment or R&M. Applying the definition of a betterment is very difficult for complex and long lived assets such as buildings, roads, and water systems.

### Definition of a Betterment:

Betterments increase the service potential (i.e. capacity), reduce the operating cost, or extend the useful life of a TCA. The costs of betterments are considered to be capital asset additions to the related asset. Betterments are recorded as separate asset additions and amortized over their useful life.

### **Definition of Repairs and Maintenance:**

Maintenance and repairs maintain the service potential of a TCA over its given useful life. Maintenance and repairs are an expense of the period and are not capitalized.

### How to Decide:

Most building components/systems have an accepted useful life cycle. The replacement of a component which does not extend the useful life of the building would normally be considered R&M. If the replacement of a component/system occurs towards the end of the useful life cycle of the building and extends the useful life of the building, then the cost may be classified as a betterment. For example, a roof replacement in year 20 of a building with a useful life of 40 years would clearly be R&M. However if the roof was replaced near the end of the useful life of the building, and extended the life of the building for another 20 years, then the cost of the roof replacement would be a betterment.

### Examples:

- Replaced a building's old windows with energy efficient windows (betterment lower operating costs)
- Replaced the old air conditioning unit with a similar one (**R&M**)
- Paved a gravel road (**betterment** service capacity)
- Put new gravel on a gravel road (R&M)
- Extended the water main system to a new subdivision (betterment service capacity)
- Replaced a broken water main (**R&M**)
- Replaced a broken water main but with a new material which is more durable (**betterment** extend useful life)

### **1.3 TCA Should Be Recorded at Cost**

### **Definition of Cost:**

The cost of a TCA includes the purchase price of the asset and other acquisition costs such as:

- installation costs
- design and engineering fees
- legal fees
- survey costs
- site preparation costs
- freight charges
- transportation insurance costs
- duties

The cost of a constructed asset would normally include direct construction or development costs (such as materials and labour) and overhead costs directly attributable to the construction or development activity.

### TCA Partially Funded by Senior Governments:

Capital grants received from senior governments cannot be netted against the cost of the asset. The cost of the asset must be shown at the gross amount.

Municipalities are normally billed for their share (60%) of water and sewer construction costs by the Manitoba Water Services Board. The balance of the construction costs is paid by the Province. Municipalities must record the cost of construction at the gross amount (i.e. 100%). The portion paid by the Province must be recorded as a government capital transfer. The proper accounting treatment for government transfers will be discussed in later training seminars. Infrastructure built through the Manitoba-Canada Infrastructure Program must also be recorded at the gross cost

### Donated TCA:

Donated or contributed TCA should be recorded at its fair value at the date of contribution. Fair value may be estimated using market or appraisal values. The donation of TCA occurs on a regular basis. Property development companies often build the streets and parks for new subdivisions and then donate the assets to the local government.

### **Dealing With Interest Charges:**

The cost of a TCA can include interest costs directly attributable to the acquisition, construction or development activity. Only interest owed to external parties, such as banks or debenture holders, can be capitalized. Internal finance charges cannot be capitalized as part of the costs of an asset.

Capitalization of interest costs must end when there is no construction or when the TCA is put into use. A TCA would be considered to be put into use when the asset is being used by the government to provide goods and services to the public, or the public has access to the asset such as a new bridge or road.

### Multi Asset Purchases:

Often several TCA are acquired together as a single purchase price. The most common example is the purchase of a building and land for a single amount. The total purchase price should be allocated to each asset based on the relative fair value of each asset at the date of acquisition.

### **1.4 Accounting For TCA:**

### 1.4.1 Amortization

All TCA, <u>except land</u>, have limited useful lives. TCA are used to provide services to the public. The cost of these assets has to be allocated in a rational method over the useful life of the asset. Where a government expects a residual (i.e. scrap) value to be significant, it should be factored into the calculation of amortization.

The cost, less any material or significant residual value, of a tangible capital asset with a limited life should be amortized over its useful life in a rational and systematic manner appropriate to its nature and use by the government. Amortization costs should be accounted for as an expense in the statement of operations.

The difference between the initial cost of a TCA and its accumulated amortization to date is its unamortized balance or net book value (NBV).

### Straight Line Method:

The straight line method is the most common and easiest method of amortization. This method assumes that the use of the asset is constant over its useful life. Straight line amortization is calculated by dividing an asset's original cost, less its residual value if any, by its estimated useful life in years.

### Example:

A municipality purchases a brand new truck for \$40,000. The truck is estimated to have a useful life of 10 years. After 10 years, the truck is estimated to have a residual value of \$2,000. The annual amortization charge is:

(\$40,000 - \$2,000)/10 yrs = \$3,800 annual amortization charge.

The entry into the general ledger would be:

Dr. Amortization expense \$3,800 Cr. Accumulated Amortization – Vehicles \$3,800

There are TCA where the straight line method is not the most appropriate amortization method. There are other amortization methods that are acceptable under PSAB. These methods are discussed further on **Appendix 6**.

### Regular Review of Remaining Useful Life:

The amortization method and estimate of the useful life of the remaining unamortized portion of a tangible capital asset should be reviewed on a regular basis and revised when the appropriateness of a change can be clearly demonstrated. The useful lives of assets are normally adjusted downward, but they can be increased. Conditions that indicate that a decrease in the useful life of an asset is warranted include:

- physical damage
- technological developments
- change in the extent that an asset is to be used

A change in the useful life of an asset is a change in an estimate and not a change in an accounting policy. The financial statements of previous years do not have to be restated for a change in an estimate.

### 1.4.2 Write-downs

When conditions indicate that a TCA:

- No longer contributes to a government's ability to provide goods and services, or
- the future value of the TCA is less than its NBV

The cost of the TCA should be written down to its appropriate value.

The write-down of a TCA should be accounted for as an expense in the statement of operations.

A write-down should never be reversed.

### Example:

A municipality developed overnight camp sites in its local park along the river. The cost of the development was \$60,000 and the camp sites were put into use on May 1, 1998. The useful life of the camp sites was determined to be 30 years with no residual value. In the spring of 2007, severe flooding occurred and damaged the campsites beyond further use. The municipality could not obtain flood insurance.

The NBV of the camp sites at May 1, 2007 would be \$42,000 (60,000 - (60,000/30 x 9 yrs)).

The entry to record the write-down would be:

Dr. Accm Amortization – Land improvements	18,000	
Dr. Loss on write down	42,000	
Cr. Land Improvements		60,

000

31,000

### 1.4.3 Disposals

On the disposal of a TCA, the difference between the net proceeds and the NBV should be accounted for as a revenue or expense in the statement of operations.

### Example 1:

A municipality purchased a vehicle on June 30, 2004 for \$31,000. The municipality determined that the vehicle had a useful life of 10 years with a residual value of \$1,000.

On June 30, 2007 the municipality decided to sell the vehicle to another municipality for \$20,000.

The NBV of the vehicle at June 30, 2007 was 22,000 (31,000 - ((31,000 - 1,000)/10 x 3 yrs).

The loss on the sale of the vehicle would be \$2,000. The entry to record the disposal would be:

Dr. Cash (proceeds on sale of vehicle) 20	),000
Dr. Accumulated Amortization – Vehicle 9	9,000
Dr. Loss on sale of vehicle 2	2,000
Cr. Vehicle	

### Example 2:

A municipality built its municipal office building for \$120,000. The building was put into use on January 1, 1980. The building has a useful life of 40 years with no residual value. The building was insured at replacement value.

On December 31, 2007 the municipal office building burnt down. Replacement cost for a similar building at December 31, 2007 was \$200,000.

The NBV of the building at December 31, 2007 was 36,000 ( $120,000 - (120,000/40 \times 28 \text{ yrs})$ ). The gain after the insurance proceeds was 164,000. The entry to record the gain would be:

Dr. Cash (insurance proceeds) Dr. Accumulated Amortization – Building	200,000 84,000	
Cr. Building		120,000
Cr. Gain on insurance proceeds		164,000

### **1.4.4 Treatment of Leased Tangible Capital Assets**

Municipalities often lease assets to provide services to the public. The terms of a lease determines if the lease should be treated as an operating lease or a capital lease.

### Capital Lease vs. Operating Lease:

PSAB uses a "benefits and risks" approach to assessing if a leased asset should be treated as a capital lease. If the "benefits and risks" of the asset are essentially transferred to the municipality (the lessee) then the lease is a capital lease and the leased asset is a TCA.

If the "benefits and risks" of the asset remain with the lessor, then the lease is simply an operating lease. The municipality is simply renting the asset and would not include the asset as part of their TCA.

### Indication of the Transfer of Benefits and Risks:

From the point of view of the municipality, the benefits and risks of ownership would be transferred to the government when, at the inception of the lease, one or more of the following conditions would be present:

- a) There is reasonable assurance that the municipality will obtain ownership of the leased asset by the end of the lease term. For example, at the end of the lease the municipality can obtain ownership of the asset for \$1. This is known as a bargain purchase option.
- b) The lease term is of such duration that the municipality will receive all of the economic benefits of the asset over its useful life. The lease term would normally need to be 75% or more of the useful life of the asset.

c) The lessor would be assured of recovering substantially all their investment in the leased asset. This condition would exist if the present value of the minimum lease payments would be equal to about 90% or more of the fair market value of the investment.

The above conditions are only guidelines. A lease agreement may not meet any of the above conditions but would still be a TCA under a capital lease if the benefits of risk and ownership were transferred to the municipality.

### Some Capital Leases are Treated as Operating Leases Anyway:

The effect of a leased TCA on the statement of operations should also be considered when determining whether or not the asset is the property of the municipality. There would substantially be no effect on the operations, if a 4 year lease for a computer with a useful life of 4 years, was treated as a lease TCA or as an operating lease. Even if the lease agreement qualifies as a capital lease, most organizations would simply record the transaction as an operating lease because it does not materially affect the financial statements.

In contrast, consider a lease agreement of 5 years for a road grader which would be amortized over 15 years as a leased TCA. The choice of accounting treatment would materially affect the operations of the municipality. In such a situation, the lease terms should be closely examined to determine whether to capitalize and amortize the asset, or expense the lease payments.

### 1.4.5 **Presentation & Disclosure**

Financial statement presentation and disclosure requirements for TCA are briefly discussed here for information purposes only. Financial statement and disclosure requirements for TCA will be revisited when training on the PSAB financial statements begins in January 2009.

### **Disclosure of TCA Balances:**

The financial statements should disclose, for each major category of TCA and in total:

- (a) Costs at the beginning and end of the period;
- (b) Additions in the period;
- (c) Disposals in the period;
- (d) The amount of any write-downs in the period;
- (e) The amount of amortization of costs of TCA for the period;
- (f) Accumulated amortization at the beginning and end of the period; and
- (g) Net carrying amount at the beginning and end of the period.

The information above is normally disclosed in a TCA note to the financial statements or as a supporting schedule.

Example:								
		2	009			2	800	
	Cost			umulated ortization	Cost			umulated ortization
Land	\$ xx		\$	-	\$ XX		\$	-
Buildings Furniture & Fixtures	 XXX XXX			XXX XXX	XXX XXX			XXX XXX
Machinery & Equipment	ххх			XXX	ххх			ххх
Computer Equipment	XXX			XXX	XXX			XXX
	XXX			XXX	XXX			Ххх
Net Book Value		\$	XXX			\$	XXX	

### Significant Accounting Policies Note:

Financial statements should also disclose the following information about TCA:

- (a) The amortization method used, including the amortization period or rate for each major category of TCA;
- (b) The net book value of TCA not being amortized because they are under construction or development or have been temporarily removed from service;
- (c) The nature and amount of contributed TCA received in the period and recognized in the financial statements;
- (d) The nature and use of TCA recognized at nominal value;
- (e) The nature of works of art and historical treasures held by the government; and
- (f) The amount of interest capitalized in the period.

This information is normally disclosed as part of the significant accounting policies note to the financial statements.

### Example:

### Tangible capital assets

Tangible capital assets are recorded at cost. Amortization is recorded over the estimated useful lives of the assets on a straight-line basis at the following rates:

Buildings	x%
Furniture and fixtures	x%
Machinery and equipment	x%
Computer equipment	x%

### Part 2 - Practical Considerations for Identifying Your TCA

There are 6 critical questions that you should keep in mind when preparing your TCA listing:

- 1. What TCA do we own?
- 2. Where is it located?
- 3. What is its useful life?
- 4. What is its condition?
- 5. When did we get it?
- 6. What did it cost?

This section deals with the first 5 questions. The 6<sup>th</sup> question is dealt with in Section 3: "Determining the Value of Your TCA". This section will provide guidance on what you need to consider when preparing your TCA listing at December 31, 2007. This section also suggests sources of information to complete your TCA listing.

Every municipality needs to make a listing of the TCA that it owns as of December 31, 2007. **Your listing of TCA at December 31, 2007 must be completed by December 31, 2007.** The determination of the cost of your TCA or "valuation" does not need to be completed until March 31, 2008.

### 2.1 What is a TCA Listing

The first step is to recognize and locate the TCA that your municipality owns. The process is similar to "taking inventory".

A TCA listing should include:

- A description of the asset/class
- Year of acquisition or reconstruction
- Expected useful life at the time of acquisition
- Significant improvements made to the TCA since acquisition and the useful life of the improvement
- Estimated residual value, if any, on disposal

**Appendix I** includes a sample template that municipalities can use to prepare their initial listing of TCA.

It may not always be possible to remember the year of acquisition or whether betterments have been made since acquisition. However the acquisition date and the identification of betterments can be done through a search of the general ledger detail. It is also important to remember that if an asset is well beyond its useful life it is not necessary to determine its acquisition date. See the 3<sup>rd</sup> guiding principle to the valuation of TCA in section 3.1.

### 2.2 Asset Classes

**Appendix 2** lists the various asset classes that a municipality may have and need to record. The asset classes are based on those used by the Province.

### 2.3 Assessment of Useful Life

Municipalities should use a useful life not greater than the recommended maximum life in **Appendix 2**. The length of the useful life for an asset will depend on the asset quality and its intended use.

### Example:

A municipality purchased a used fire truck at a very good price. The used fire truck is 13 years old. The useful life of a new fire truck is 15 years. The pumps and valves on the used truck were replaced and the suspension was given a major overhaul.

While the useful life of the truck has been extended, the CAO feels that the truck will have to be replaced in 10 years. The purchase of a new truck will be financially attractive in comparison to the repairs and maintenance required to keep operating a 23 year old truck.

The CAO correctly determines that the refurbished fire truck should be amortized over 10 years.

In some situations, the useful life may be expected to be longer than the recommended life. In such instances, the municipality will need to provide adequate documentation supporting the decision to extend the life beyond the recommended maximum.

### When Should Amortization Start:

For the TCA that comprise your opening balances at December 31, 2007 amortization should begin:

- On the date the asset is purchased or put into use, or
- If a specific date cannot be ascertained for a TCA, then 6 months of amortization should be recorded in the year of acquisition. In other words, the date of acquisition is July 1<sup>st</sup>.

On a go-forward basis (i.e. starting January 1, 2008) amortization should begin on the first day of the month following the date the asset was purchased or put into use. For example, if an asset was put into use on June 11, 2008 then the asset should be amortized starting July 1, 2008.

### When Should Amortization End:

The amortization of a TCA should end when:

- 1. The TCA is fully amortized, or
- 2. When it is disposed

When TCA are disposed, no amortization should be taken in the month of disposition. For example, if a TCA is disposed on April 5, 2009, amortization should only be recorded to March 31, 2009.

### 2.4 Capitalization Thresholds & Materiality

### Definition of a Capitalization Threshold:

A capitalization threshold is the minimum dollar amount that a government will use in determining whether an expenditure should be capitalized as a TCA addition or expensed in the current year.

### Definition of Materiality:

Materiality is a concept frequently used by auditors. A misstatement is considered "material" if a user of the financial statements would likely make a different decision based on the incorrect information than if it were based on the correct information. If a misstatement has significant consequences then the materiality level should be set low. However it may be impractical and prohibitively expensive to set too low a materiality level.

### What is an Appropriate Capitalization Threshold?

An appropriate capitalization threshold is a balance between the accurate presentation of the financial statements and the cost of acquiring and maintaining the TCA accounting records. If a municipality sets their capitalization thresholds too high the financial statements will be materially misstated. If the threshold is set too low, the effort to record and maintain the TCA accounting records could be too costly. For example it would be impractical for a municipality to record and depreciate every stapler that it owns, though by definition a stapler is a TCA.

The capitalization thresholds that you will use to record your initial TCA should also be used for future asset additions.

### **Recommended Thresholds For Municipalities in Manitoba:**

Materiality and thresholds for municipalities is normally based as a percentage of total revenues. This is a problem in Manitoba as no municipality currently prepares summary financial statements therefore there is no summary of total revenues. Municipal revenues for some municipalities can also vary greatly from year to year given extraordinary circumstances such as floods.

Municipal revenues vary in proportion to the size of the municipality. Most municipalities (175) have populations of less than 5,000. There are only 22 municipalities with populations greater than 5,000. The recommended capitalization thresholds have been provided in **Appendix 2**. For each class of assets there is a threshold for municipalities for populations of less than 5,000 and a higher threshold for those above 5,000. We recommend that the municipalities use the thresholds provided in **Appendix 2**.

### Capitalization Thresholds Will Reduce the Amount of Work Required:

When preparing the TCA listing consider the likely value of the asset in comparison to the capitalization threshold. If the asset is clearly under the threshold do not include it on your list. At least indicate that it is likely below the threshold. Some municipalities may decide to use the listing for other purposes such as insurance. Removing immaterial TCA from your listing will save you time and effort when you obtain the values.

### 2.5 Infrastructure – Single Asset vs. the Component Approach

Infrastructure networks are made up of many components. A water supply system is made up of a network of underground water lines. But it is also made up of tanks, pumps, generators, filtration systems, water treatment systems and meters.

The decision to account for each component as a separate asset should be determined by the usefulness of the resulting information to the municipality, versus the benefit of collecting and maintaining the information.

It is easier to do the accounting of TCA under the single asset method. The component approach provides better information for the management of TCA.

### Effects of Single Asset vs. the Component Approach:

How a municipality accounts for its infrastructure assets will affect the following:

- 1. What it considers to be a capital replacement versus maintenance and repairs, and
- 2. The municipality's future amortization expense.

### Example:

A municipality can either account for its paved roads as one asset or it can account for the road grade (40 years useful life) and the road surface (20 years useful life) as separate components.

After 20 years, the municipality repaves the road surface. Under the single asset method, the repaving of the street would be maintenance and repairs.

Under the component method, the repaving would be a capital addition. If the old surface was resurfaced after only 15 years it would still had a NBV. The resurfacing would have to be treated as an addition and disposal. The cost and NBV of the old surface would have to be reversed and a loss would have to be recorded.

The amortization expense of the road over its useful life will also be different. Under the single asset method, the total cost of the road will be amortized over 40 years. Under the component method, the cost of the surface will be amortized over 20 years in comparison to the 40 years under the single asset method.

For water systems, the effect on amortization expense could even be more significant. The useful life of water mains could be anywhere from 50 to 75 years, while equipment like pumps and filtration units may have to be replaced every 5 to 10 years.

### What Approach Should Municipalities Use?

The single asset and component approach are both acceptable under PSAB. The PSAB prefers the component approach but municipalities may choose what is most appropriate for them.

### 2.6 Segmentation of Network Systems

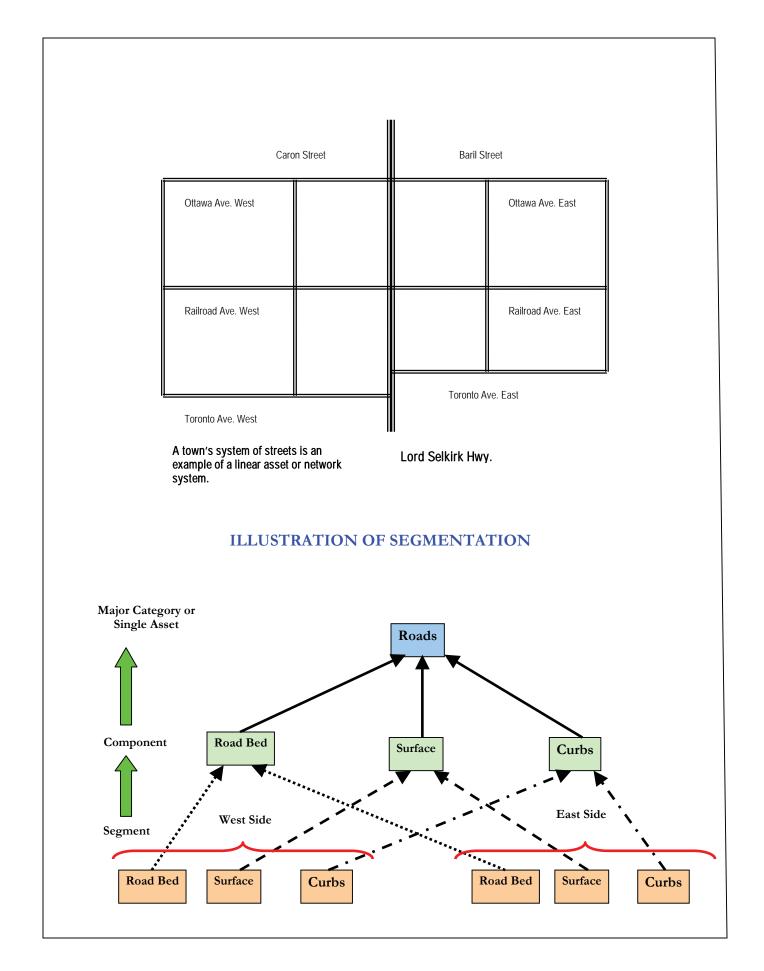
Infrastructure assets, such as roads and water & sewer systems, have linear assets that are arranged into a continuous and connected network. A municipality should consider breaking down their network systems into segments. Municipalities will have to decide on how to identify a segment. The level of segmentation will depend on the information required by the municipality. For an R.M. the segmentation of road network into paved and unpaved may be all the segmented information it requires. A city would probably require a higher level of segmented information for its street reconstruction program.

Network systems are normally segmented in terms of location, age and type of material. Examples of segmentation include:

- By towns within a rural municipality
- By date of original construction (original part of town vs. the new subdivision)
- By materials used for water and sewer lines (metal vs. polyethylene)
- Paved streets separate from gravel roads

When recording network systems for the first time, the approach commonly used by governments is to record an initial pool. The pool will gradually shrink due to amortization and replacement. Because the initial pool is one asset, the average age of the network is chosen as the age for the network. On a go-forward basis, a detailed asset listing should be kept as the original pool is replaced and expanded.

The PSAB recommends that a reasonable amount of segmentation be utilized when accounting for infrastructure networks.



### 2.7 Sources of Information For TCA Listing

Every municipality should obtain a complete listing of their TCA as at December 31, 2007. Beyond visual inspection, there are sources of information that could help in ensuring that your listing is complete.

- Land & buildings
- Buildings & equipment
- Vehicles
- insurance policies MPI billings
- Network systems
- detailed engineering maps

tax assessment rolls

### Analysis of the Capital Funds:

Every municipality should perform an analysis of their capital funds to identify possible TCA. This is a relatively simple way of identifying possible assets while at the same time obtaining information about the cost. However, simply reviewing the general ledger detail of the capital funds will not ensure that your TCA listing is complete or that all entries identified are valid TCA.

- Significant, tangible, identifiable capital assets are generally being recorded by a) municipalities, however, "hard to see" assets are consistently not recorded in the capital funds. "Hard to see" assets include infrastructure such as roads, bridges, and underground assets such as sewer and water systems.
- b) Not all entries recorded in the capital funds gualify as TCA. Items paid for through debentures are always recorded in the capital funds, however, these expenditures are not always for TCA or betterments. They are often for major repairs and maintenance projects. Although an entry is above the threshold limit and is recorded in the capital funds, the nature of the expenditure must be evaluated to determine if it qualifies for capitalization.

### Don't Go Too Far Back When Analyzing the Capital Funds:

Keep in mind the useful lives of the various asset classes when searching through the accounting records for TCA. Many TCA could still be in use but fully depreciated at December 31, 2007. You do not have to record fully amortized assets into the accounting records except for network systems such as roads, water systems, and sewers.

The useful life of an asset will tell you how far back you need to go to identify possible TCA at December 31, 2007. Examples include:

- Vehicles (useful life of 5 years) January 1, 2003
- Machinery & equipment (10 years) January 1, 1998
- Road construction & maintenance equipment (15 years) January 1, 1993
- Computer hardware & software (4 years) January 1, 2004
- Road signage (10 years) - January 1, 1998

### 2.7 Develop a Work Plan

CAOs should begin to develop a work plan for TCA shortly after they have completed reviewing the reference manual. Municipalities should complete their work plan by August 31, 2007.

A TCA work plan is a strategic plan that documents how the TCA are going to be identified and valued. The work plan should consider the:

- TCA classes a municipality likely owns
- Threshold amounts (dollar amounts to be capitalized) for each class
- Likely locations for each class of TCA
- Individual/department responsible for identifying the TCA (completeness)
- Method for identifying assets in class
- Possible identifiable segments for network systems
- Probability that historical cost information will be available
- Possible alternative valuation methods
- Individual/department responsible for the valuation of the asset

A TCA Work Plan template is included on **Appendix 5**.

### Part 3 - Determining the Value of Your TCA

The valuation of a municipality's TCA will be significantly more challenging and time consuming than the listing of their TCA at December 31, 2007. All municipalities must complete the valuation of their TCA at December 31, 2007 by March 31, 2008. This section will provide guidance on how initial asset values can be determined even if a municipality has incomplete records on the historical cost of its assets.

### 3.1 The Guiding Principles to the Valuation of TCA

### 1<sup>st</sup> Principle:

The historical valuation of TCA is a balance between making reasonable estimates and assumptions on the original costs to meet audit requirements. Everyone, including the auditors, must understand that the initial valuation process is not an exercise in precision.

### 2<sup>nd</sup> Principle:

It is much more important to be accurate on a go-forward basis than it is to obtain exact costs for older assets.

### 3<sup>rd</sup> Principle:

It is not necessary to obtain cost information on TCA that have been in use beyond their estimated useful life. These assets will be fully amortized at December 31, 2007. Consider computers with a useful life of 4 years. It would not be necessary to obtain cost information on computers in use prior to January 1, 2004. Any computer in use prior to that date would have a NBV of nil at December 31, 2007.

### 4<sup>th</sup> Principle:

The cost precision required for long lived assets (buildings, infrastructure) decreases proportionately with the length of time the asset has been in use. Municipalities should be able to obtain detailed and precise cost information for buildings and infrastructure constructed in the recent past. However if an asset has been in use for a lengthy period then the availability of information may be reduced. This is not as critical as the effect of older assets on the statement of operations will be of a short duration. Reasonable assumptions and estimates are sufficient for older long lived assets.

### 3.2 Valuation Methods

The cost of acquiring an asset is the price paid plus the additional costs to put the asset into service. Thus the cost of a new road would include the ROW (i.e. right of way or land), costs of survey and design, as well as the cost of construction. Interest charges during the construction period may also be capitalized.

**Historical cost is the most appropriate method to value TCA because it is the most objective.** Historical cost evaluation requires municipalities to examine their past financial records, to the extent they exist, in an attempt to match the financial records with their TCA listing.

Because historical cost information may be incomplete there are three alternative methods that can be used to estimate the historical cost of a TCA:

- Discounted reproduction cost
- Discounted replacement cost
- Discounted appraisal value

### 3.2.1 Discounted Reproduction Cost

Reproduction cost is the cost of replacing an asset with a substantially similar one and discounting the value to the date of original construction.

### 3.2.2 Discounted Replacement Cost

In some cases, reproduction cost is either not available or is not a reasonable basis for comparison. There may have been so many changes in technology that it does not make sense to replace an asset in a similar physical form.

Replacement cost is the cost of replacing an asset with one that has substantially the same functionality but has a different physical form or uses the most common current technology. The value of the replacement asset is discounted to the date of original construction.

### 3.2.3 Discounted Appraisal Value

When estimated reproduction or replacement costs are not available municipalities may ask for a professional appraisal of the asset's value. The appraised value should be discounted to the date of original construction. Municipalities may already have appraised values for insurance purposes.

### 3.3 Construction Price Indices

Regression tables to discount the reproduction, replacement and appraised values are found on **Appendix 3** and **Appendix 4**.

### Southam Construction Price Index (SCPI)

The SCPI can be used to discount the cost of construction of buildings for any one year to arrive at a reasonable estimate of the construction costs for any given year before that. The Province of Manitoba used the SCPI to discount the cost of their buildings for the March 31, 2000 financial statements. The SCPI is found on **Appendix 3**.

### Example:

A municipality built its administration building in 1980. The historical cost records are no longer available. The municipality does know that the neighboring municipality built a similar building (i.e. same square footage) in 2005 for \$250,000. Using the SCPI, what is the estimated discounted reproduction cost?

 SCPI for 2005:
 396.4

 SCPI for 1980:
 203.0

 Estimated reproduction costs for 1980:
 (203.0/396.4 x \$250,000) = \$128,027

### Federal Aid Highway Construction Index (FAHCI):

The FAHCI is put out by the Federal Highway Administration in the U.S. Department of Transportation. The FAHCI should be used to discount all heavy construction (roads, streets, bridges and underground utilities). There are separate indices for the road grade and road surface. There is a third index called "structures" which should be used for bridges. The composite index should be used to discount the cost of water and sewer construction. The FAHCI is found on **Appendix 4** 

### Example;

A municipality built an unpaved service road in 1980. The historical cost records are no longer available. The municipality did build a similar service road in 1990 for \$183,000. Using the FAHCI, what is the estimated discounted reproduction cost?

 FAHCI (grade) for 1990:
 98.1

 FAHCI (grade) for 1980:
 75.5

 Estimated reproduction costs for 1980:
 (75.5/98.1 x \$183,000) = \$140,840

### What If Our Infrastructure Was Constructed Before 1970?

Use the SCPI for assets that were constructed before 1970.

### Keep All Documentation of Costs:

It is imperative that municipalities keep copies of all their supporting documentation and calculations for the costing of their TCA at December 31, 2007. The auditors will need this information to verify the opening TCA balances for fiscal 2008.

### 3.4 Valuation of Leased Tangible Capital Assets

The value of the leased TCA and the amount of the lease liability, recorded at the beginning of the lease term, is the present value of the minimum lease payments (PVMLP) excluding executory costs. Executory costs are operating costs related to the operation of the leased asset such as insurance, maintenance, and property taxes. The amount relating to executory costs should be estimated if not known by the municipality.

At the inception of the lease, the estimate of the discount rate used should be reviewed with:

- (i) The present value of the minimum lease payments;
- (ii) The assumed fair value of the property; and
- (iii) The assumed residual value, to ensure that all figures are reasonable and internally consistent.

### The Cost of the Leased TCA Should Not Exceed FMV

The maximum value recorded for the asset may not exceed the fair market value (FMV) of the leased property. The value recorded for the asset is also the value of the lease obligation less any down payments or trade-ins.

### Implicit Interest Rate:

The rate used to discount the lease payments to the fair market value of the asset is the **interest rate implicit in the lease**. The fair market value of the asset and the interest rate implicit in the lease are often disclosed together in the lease contract. Financial calculators are available to discount the minimum lease payments when the implicit interest rate is not disclosed in the lease agreement.

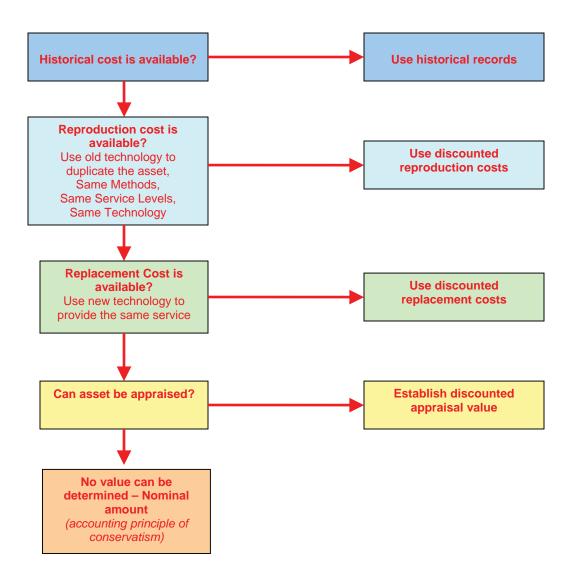
### Example:

A grader with a FMV of \$300,000 is being leased for 4 years at \$70,000 per year. The municipality will own the grader at the end of the lease. The municipality traded in their old grader for \$80,000. What is the value of the lease obligation at the start of the lease? What is the value of the leased TCA?

FMV of the grader: Less trade-in	\$300,000 <u>( 80,000</u> )
Lease Obligation	<u>\$220,000</u>
Payments over the lease term Lease Obligation	\$280,000 <u>(220,000)</u>
Interest Over the Term of the Lease	<u>\$ 60,000</u>
Value of the Leased TCA	<u>\$300,000</u>

### 3.5 Valuation Method Decision Tree

OMBI has created a valuation decision tree to guide municipalities in the process of completing the initial valuation of their capital assets.



### 3.6 Nominal Values for Fully Amortized Network Assets

Infrastructure for many municipalities was originally built in the 1950's or earlier. In many cases there has been very little in the way of major capital reconstruction or expansion projects since then. The infrastructure for these municipalities are still being used but are fully amortized at December 31, 2007. These assets have no NBV remaining to be amortized. Their inclusion or omission from a municipality's list of infrastructure assets would have no effect on the balance sheet at December 31, 2007 or future income statements.

Network assets such as **roads**, **streets**, **water systems and sewers** represent significant capital investments and are used to provide essential services for the public. They therefore should be included as part of a municipality's list of assets at December 31, 2007 even though their inclusion has no effect on the surplus or future operating results. Their inclusion as part of a municipality's listing of assets may be required in the future for capital planning and investment purposes.

Municipalities should assign nominal values for fully amortized network assets that:

- 1. are still being used by the public and maintained by the municipality; and
- 2. historical cost, reproduction cost, or replacement cost information is not available.

The nominal values that should be used for fully amortized network assets are:

Roads and Streets	-	\$18,000/km
Waters Systems	-	\$15,000/km
Gravity Sewers	-	\$14,000/km
Low Pressure Sewers	-	\$ 9,000/km

The nominal values should only be used if a municipality does not have historical cost information available or cost information on comparable assets to calculate an appropriate reproduction or replacement cost.

### 3.7 Role of the Auditor

Because every auditor must maintain professional independence there are certain limitations on how the auditor can be involved.

- Your auditor **can** assist in the developing your work plans to implement the requirements.
- Your auditor **cannot** be directly involved in the valuation process or in data gathering.

Discuss the requirements and impact of PS3150 with your auditor as soon as possible. Determine the best approach to obtain the required information. Ongoing communication with your auditor will help avoid problems down the road. The amount of the audit fee will be affected by the quality and amount of work completed by the municipality.

### 3.8 TCA Continuity Schedule

A TCA Continuity Schedule has been designed and is available on the AMM PSAB website. The required information is then rolled up into a Summary Schedule. The information on the Summary Schedule can be used to prepare the required note disclosure for the financial statements.

The only information that has to be imputed into the schedule is the description of the asset, the cost, the date put into use, and the date of disposal if applicable. The worksheet will calculate:

- The accumulated amortization to December 31, 2007
- The NBV at December 31, 2007
- The amortization for 2008 and 2009
- The accumulated amortization at December 31, 2008 and 2009
- The NBV at December 31, 2008 and 2009

The TCA Continuity Schedule will also track your TCA additions and disposals for the years ended December 31, 2008 and 2009.

There is a separate worksheet for each class. The worksheet is designed for assets amortized on a straight line basis. The amortization formulas will have to be overwritten if a different amortization method is used.

You are not required to use the continuity schedule on the web-site. You are welcomed to design your own schedule or use someone else's spreadsheet. The Continuity Schedule is available as a tool for all municipalities that want to use it.

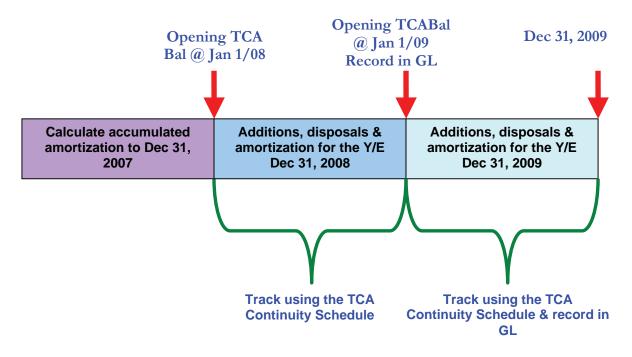
If you have any difficulties with the schedule, or links and calculations within the schedule, please email the PSAB Project Manager at Michel.St.Amant@gov.mb.ca.

### 3.9 Amortization and Entry for Opening Balances

After you have listed and valued all your TCA, you must:

- 1. For each TCA, calculate the accumulated amortization to December 31, 2007
- 2. Track TCA additions and disposals for the year ended December 31, 2008
- 3. For each TCA, calculate the amortization expense for the year ended December 31, 2008
- 4. Enter the opening TCA balances into your accounting records as of January 1, 2009
- 5. For each TCA, calculate the amortization expense for the year ended December 31, 2009 into your GL accounts.

### Timeline for Tracking and Recording TCA:



### Calculate the Accumulated Amortization to Dec 31/07:

For each TCA you must calculate the accumulated amortization to December 31, 2007.

### Example:

A municipality's office building was put into use on January 1, 1980. The municipality calculated the discounted reproduction cost to be \$250,000. It was determined that the building had a useful life of 40 years and is going to be amortized on a straight line basis.

The annual amortization charge would be \$6,250 (\$250,000/40 years) and the accumulated amortization at December 31, 2007 would be \$168,750 (\$6,250 x 27 yrs).

A TCA Continuity Schedule has been designed and made available for your use. You are only required to input the asset description, date of acquisition or put into use, and the cost of the asset.

The Continuity Schedule will calculate the accumulated amortization for each TCA to December 31, 2007. The Continuity Schedule will also provide the NBV of each asset and asset class at December 31, 2007.

### Track Additions & Disposals for the Y/E Dec 31/08:

You will need to track your TCA additions and disposals during 2008 just as if PSAB was already implemented. **Do not record your 2008 TCA additions and disposals into you GL.** You should continue to use the current accounting practices during 2008.

The TCA Continuity Schedule can be used to track your 2008 additions and disposals. For additions, simply input the description of the asset and the date acquired or put into use during the year. The Continuity Schedule will include the asset as an addition of 2008.

For disposals, simply input the disposal date and the Continuity Schedule will show the asset as being a disposal of 2008. The Continuity Schedule will also reverse the accumulated amortization to date for the asset.

The TCA Continuity Schedule will provide a total of the additions and disposals for each class.

### Calculate the Amortization Expense for the Y/E Dec 31/08:

For each TCA, you must calculate the amortization expense for the year ended December 31, 2008. **Do not record the 2008 amortization expense into your 2008 GL**.

The TCA Continuity Schedule can be used to calculate the 2008 amortization expense for all your TCA at December 31, 2007 and all your additions and disposals during 2008. The Continuity schedule will total the 2008 amortization expense for each class.

The TCA Continuity Schedule will provide the cost, accumulated amortization and NBV at December 31, 2008 for each individual asset and asset class.

The December 31, 2008 cost and accumulated balances by class are very important. These are the numbers that you will enter into your GL records at January 1, 2009

### Example (cont'd):

The amortization expense for the building in 2008 was \$6,250 (\$250,000/40).

The accumulated amortization for the building at December 31, 2008 would be 175,000 (168,750 at Dec 31/07 + 6,250 for 2008).

The NBV of the building at December 31, 2008 would be \$75,000 (\$250,000 - \$175,000).

### Enter TCA Balances at Jan 1/09 into GL:

Before you can enter the TCA balances at January 1, 2009 into your GL, you must first:

- 1. Reverse or in effect eliminate your current "Fixed Asset" balances in your GL
- 2. Create a "cost" account for each TCA asset class that your municipality owns
- 3. Except for land, create an "accumulated amortization" account for each "cost" account or asset class
- 4. Create an "amortization expense" account for each capital fund (general and utility) that your municipality uses

GL accounts for <u>water and sewer infrastructure</u> should be included in the <u>utility capital</u> <u>funds</u>. Some rural municipalities have a utility capital fund for every community in the municipality. Your water and sewer infrastructure should be segmented and posted to the appropriate utility funds.

All other TCA classes should be included in the general capital fund.

Example (cont'd):	
The municipality's GL showed a "Fixed Asset" balance of	f \$157,000 at January 1, 2009.
The CAO first reversed the "Fixed Asset" balances in the	GL:
Dr. Capital Fund – Surplus Cr. Capital Fund – Fixed Assets – Bldgs	\$157,000 \$157,000
The CAO then created a cost account "Buildings" and an Amort – Buildings". He then created an amortization acc 3 accounts were all created in the General Capital Fund	ount called "Amortization Expense". These
The entry to record the opening TCA at January 1, 2009	would be:
Dr. GCF – Buildings Cr. GCF – Accm Amort – Buildings Cr. GCF – Surplus (i.e. the NBV)	\$250,000 \$175,000 \$ 75,000

In the above example, the municipality owned only 1 building. You would not enter your opening TCA balances at January 1, 2009 on an asset by asset basis. In situations where you have more than 1 TCA in the class, you would simply enter the class total.

### Record Your Amortization Expense for the Y/E Dec 31/09 into your GL:

For each TCA, you will need to calculate the amortization expense for the year ended December 31, 2009 into your GL.

### Example (cont'd):

The amortization expense for the year ended December 31, 2009 would be \$6,250 (\$250,000/40).

The entry for recording the 2009 amortization expense would be:

Dr. GCF – Amortization Expense	\$6,250
Cr. GCF – Accm Amort – Buildings	\$6,250

The accumulated amortization at December 31, 2009 would be \$181,250 (\$175,000 + \$6,250) and the NBV would be \$68,750 (\$250,000 - \$181,250).

The TCA Continuity Schedule can calculate the amortization expense for each TCA and TCA class. The Continuity Schedule will also track your TCA additions and disposals during 2009. Finally the TCA Continuity Schedule will provide the cost, accumulated amortization and NBV for each TCA and TCA class.

Appendix 1

## **TCA Listing Sheet**

### Location: \_\_

Sheet #:

Residual Value (\$)							
Betterments Since Acquisition (Y/N)							
Useful Life (yrs)							
Year Acquired							
Class							
Asset							

	General Tangible Capital Assets	S			
Asset		Residual	Capital Thres	Capitalization Threshold*	Amortization
Class	Description/Notes	Value	Pop < 5,000	Pop > 5,000	Rate# (Straight-Line)
Land	<ul> <li>Real property in the form of a plot, lot or area</li> <li>Includes the purchase price and all closing costs to acquire the land</li> <li>Costs associated with the permanent improvements of the land, such as re-grading or filling, are added to the cost of the land</li> <li>Excludes land held for resale</li> </ul>	cost	0	0 \$	n/a
Land Improvements	<ul> <li>Includes all costs <u>excluding</u> land and buildings incurred in the development of land to facilitate various recreation and economic pursuits</li> <li>Examples include but are not limited to landfill site development, driveways, parking lots, bike paths, sidewalks, outside swimming or wading pools, fences, ball diamonds soccer fields, tennis courts, camp sites</li> <li>Playground structures - 10 yrs</li> <li>Soccer field &amp; ball diamonds - 20 yrs</li> <li>Fencing - 20 yrs</li> <li>Fountains - 20 yrs</li> <li>Outdoor lighting - 20 yrs</li> <li>Tennis courts - 20 yrs</li> </ul>	попе	\$5,000	\$12,500	10 to 30 years (10.0% to 3.33%)

These are the recommended capitalization thresholds that should be used by municipalities. The two threshold levels are based by population. \*

These are recommended amortization rates that should be used by municipalities. In situations where an asset's estimated useful life does not conform to the recommended rate, municipalities may want to adopt a more suitable amortization rate and method. #

### Appendix 2

Asset Classes, Capitalization Thresholds and Amortization Rates

**Tangible Capital Assets** 

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# Asset Classes, Capitalization Thresholds and Amortization Rates **Tangible Capital Assets**

Asset Class					
Class		Residual	Capitalization Threshold*	ization hold*	Amortization
	Description/Notes	Value	Pop < 5,000	Pop > 5,000	Rate# (Straight–Line)
	(ii) Asphalt – 20 yrs (iii) Concrete – 30 yrs				
Buildings – Brick, Mortar & Steel	All buildings, which function independent of an infrastructure network and are made of a solid construction Includes office buildings, sport & recreation facilities, maintenance garages, storage facilities, libraries	none	\$10,000	\$25,000	40 years (2.5%)
Buildings – Wood Frame	All buildings, which function independent of an infrastructure network, whose structural frame is made out of wood Includes office buildings, sport & recreation facilities, maintenance garages, storage sheds, trailer buildings	none	\$10,000	\$25,000	25 years (4.0%)
Vehicles	Automobiles, vans, light trucks (1 ton & under), trailers, motorcycles and snowmobiles	< 10% of acquisition cost	\$1,000	\$2,500	5 years (20%)
Machinery & • Equipment	All types of machinery or equipment, other than machinery and equipment used in road construction and maintenance Includes trucks over 1 ton	< 10% of acquisition cost	\$1,000	\$2,500	10 years (10%)
Road Construction &	All types of machinery and equipment used in the construction and maintenance of roads	< 10% of acquisition cost	\$1,000	\$2,500	15 years (6.67%)

These are the recommended capitalization thresholds that should be used by municipalities. The two threshold levels are based by population. \*

These are recommended amortization rates that should be used by municipalities. In situations where an asset's estimated useful life does not conform to the recommended rate, municipalities may want to adopt a more suitable amortization rate and method. #

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# Asset Classes, Capitalization Thresholds and Amortization Rates **Tangible Capital Assets**

		General Tangible Capital Assets	ts			
Asset			Residual	Capitalization Threshold*	ization hold*	Amortization
Class		Description/Notes	Value	Pop < 5,000	Pop > 5,000	Rate# (Straight–Line)
Maintenance Equipment	•	Fire trucks				
Computer Hardware & Software	• • •	Purchase installation of personal PC computers, peripherals and LAN servers Off-the-shelf and related upgrades or licenses for individual personal computers, as well as LAN or communication software Does not include the purchase, design and development of major applications. All major applications should be evaluated individually.	none	\$1,000	\$2,500	4 years (25%)
Leasehold Improvements	•	Costs to renovate, modify or improve accommodations leased by the municipality	none	\$10,000	\$25,000	Over the lease term
Assets Under Construction (AUC)	•••	Also known as work in progress Costs incurred to construct an asset, normally a building or leasehold improvements The costs are transferred to the asset class when the asset is put into use, which is normally upon completion of the asset.	n/a	n/a	n/a	n/a

- These are the recommended capitalization thresholds that should be used by municipalities. The two threshold levels are based by population. \*
- These are recommended amortization rates that should be used by municipalities. In situations where an asset's estimated useful life does not conform to the recommended rate, municipalities may want to adopt a more suitable amortization rate and method. #

Appendix 2

# Asset Classes, Capitalization Thresholds and Amortization Rates **Tangible Capital Assets**

Asset			Capitalization Threshold*	ization hold*	Amortization
Class	Description/Notes	Value	Pop < 5,000	Pop > 5,000	Rate# (Straight–Line)
Land	<ul> <li>Includes land purchased or acquired for value for use under roads and road allowance (i.e. Right Of Way)</li> <li>Excludes land held for resale</li> </ul>	cost	\$0	\$0	n/a
Road Surface	<ul> <li>Asphalt (20 yrs) and concrete (30 yrs) road surfaces</li> <li>Does not include the initial application of gravel on gravel roads</li> <li>Consider segmentation of the network</li> </ul>	none	\$10,000	\$25,000	20 to 30 years (5.0% to 3.33%)
Road Grade	<ul> <li>Includes formation works, drainage works and culverts under 2 metres in diameter</li> <li>Includes the initial application of gravel on gravel roads</li> <li>Future applications of gravel is an operating expense</li> <li>Consider segmentation of the network</li> </ul>	none	\$10,000	\$25,000	40 years (2.5%)
Bridges	<ul> <li>Structures of 2 or more meters, which span and give passage over a waterway, deep valley, depression or some other obstacle such as another transportation route</li> <li>Includes culverts that are 2 or more metres in diameter</li> <li>Timber/wood - 30 yrs</li> <li>Precast concrete - 40 yrs</li> <li>Concrete Pre Stressed - 45 yrs</li> </ul>	none	\$10,000	\$25,000	25 to 50 years (4.0% to 2.0%)

These are the recommended capitalization thresholds that should be used by municipalities. The two threshold levels are based by population. \*

These are recommended amortization rates that should be used by municipalities. In situations where an asset's estimated useful life does not conform to the recommended rate, municipalities may want to adopt a more suitable amortization rate and method. #

Asset		Residual	Capital Thres	Capitalization Threshold*	Amortization
Class	Description/Notes	Value	Pop < 5,000	Pop > 5,000	Rate# (Straight–Line)
	<ul> <li>Steel w/o trusts - 45 yrs</li> <li>Steel with trusts - 50 yrs</li> <li>Culverts: <ul> <li>Plastic - 25 yrs</li> <li>Plastic - 25 yrs</li> <li>Steel/ Corrugated Steel - 30 yrs</li> <li>Precast Concrete - 40 yrs</li> <li>Concrete Pre Stress - 45 yrs</li> <li>Cast Iron - 50 yrs</li> </ul> </li> </ul>				
Lighting / Traffic Lights	<ul> <li>Includes traffic lights and street lights for illumination</li> <li>Traffic Lights: <ul> <li>Traffic Lights:</li> <li>Hung wire - 15 yrs</li> <li>Mast arms - 20 yrs</li> <li>Mast arms - 20 yrs</li> <li>Street Lighting:</li> <li>Wood - 15 yrs</li> <li>Wood - 15 yrs</li> <li>Concrete - 30 yrs</li> <li>Road signage - 10 yrs</li> </ul> </li> </ul>	none	\$1,000	\$2,500	10 to 30 years (10.0% to 3.33%)
Assets Under Construction (AUC)	<ul> <li>Also known as work in progress</li> <li>Costs incurred to construct transportation infrastructure assets</li> <li>The costs are transferred to the asset class when the asset is put into use, which is normally upon completion of the asset.</li> </ul>	n/a	n/a	n/a	n/a

These are the recommended capitalization thresholds that should be used by municipalities. The two threshold levels are based by population. \*

These are recommended amortization rates that should be used by municipalities. In situations where an asset's estimated useful life does not conform to the recommended rate, municipalities may want to adopt a more suitable amortization rate and method. #

Asset Classes, Capitalization Thresholds and Amortization Rates

**Tangible Capital Assets** 

Appendix 2

# Asset Classes, Capitalization Thresholds and Amortization Rates **Tangible Capital Assets**

		Infrastructure – Water & Waste Systems	stems			
Asset			Residual	Capital Thres	Capitalization Threshold*	Amortization
Class		Description/Notes	Value	Pop < 5,000	Pop > 5,000	Rate# (Straight-Line)
Land	<ul> <li>Includes</li> <li>waste wa</li> </ul>	Includes land purchased or acquired for value used for water and waste water sites	cost	\$0	\$0	n/a
Land Improvements	<ul> <li>Land im are assc</li> <li>Includes</li> </ul>	Land improvements as defined in the General Capital asset class that are associated with water and waste water sites includes lagoons and reservoirs	none	\$5,000	\$12,500	30 to 50 years (3.33% to 2.0%)
Buildings – Brick, Mortar & Steel	<ul> <li>Building, associat</li> </ul>	Buildings as defined in the General Capital asset class that are associated with water and waste water sites	none	\$10,000	\$25,000	40 years (2.5%)
Buildings – Wood Frame	<ul> <li>Building, association</li> </ul>	Buildings as defined in the General Capital asset class that are associated with water and waste water sites	none	\$10,000	\$25,000	25 years (4.0%)
Water and Waste Water Networks	<ul> <li>Undergre water co water co water co Useful lif durability</li> <li>Sanitary (i) 30 (i) 40 (ii) 40 (iv) 40</li> </ul>	Underground networks such as water distribution pipe systems, waste water collection systems and storm drainage collection systems Useful life of the underground system could vary depending on the durability of the material used (i.e. concrete, metal, polyethylene) Sanitary Sewer Lines & Storm Sewers: (i) 30 yrs – Metal Corrugated (ii) 40 yrs – Concrete, not reinforced (CON) (iii) 40 yrs – Transite (TR)	none	\$10,000	\$25,000	30 to 100 years (3.33% to 1.0%)

These are the recommended capitalization thresholds that should be used by municipalities. The two threshold levels are based by population. \*

These are recommended amortization rates that should be used by municipalities. In situations where an asset's estimated useful life does not conform to the recommended rate, municipalities may want to adopt a more suitable amortization rate and method. #

	Infrastructure – Water & Waste Systems	stems			
Asset		Residual	Capitalization Threshold*	ization hold*	Amortization
Class	Description/Notes	Value	Pop < 5,000	Pop > 5,000	Rate# (Straight–Line)
	<ul> <li>(v) 40 yrs - Vetrified Clay Pipe (VCP)</li> <li>(vi) 50 yrs - Ductile Iron (DI)</li> <li>(vii) 60 yrs - Plastic</li> <li>(viii) 100 yrs - Ditch/Trench</li> <li>Water Mains:</li> <li>(i) 25 yrs - Plastic</li> <li>(i) 40 yrs - Lead Joint, Sand Cast Water Main</li> <li>(ii) 75 yrs - Ductile Iron (DI)</li> </ul>				
	<ul> <li>Useful life of the underground system could vary depending on the diameter of the pipe (main line versus an arterial line)</li> <li>Consider segmentation of the network</li> </ul>				
Machinery & Equipment	<ul> <li>All types of machinery or equipment that are associated with water and waste water sites</li> <li>Includes but is not limited to tanks, pumps, generators, filtration treatment systems, residue management systems, sewage treatment systems, water meters, fire hydrants, control valves, valve chambers, etc.</li> </ul>	none	\$1,000	\$2,500	10 to 50 years (10% to 2%)
Dams and Water Structures	<ul> <li>Dams and other structures that are used to control or divert surface water</li> <li>Includes dams, canals, dikes, ditches (not already capitalized as part of road grade), diversions, cut-offs and erosion protection structures</li> </ul>	none	\$10,000	\$25,000	40 to 60 years (2.5% to 1.67%)

These are the recommended capitalization thresholds that should be used by municipalities. The two threshold levels are based by population. \*

These are recommended amortization rates that should be used by municipalities. In situations where an asset's estimated useful life does not conform to the recommended rate, municipalities may want to adopt a more suitable amortization rate and method. #

Asset Classes, Capitalization Thresholds and Amortization Rates

**Tangible Capital Assets** 

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# Asset Classes, Capitalization Thresholds and Amortization Rates **Tangible Capital Assets**

	Infrastructure – Water & Waste Systems	stems			
Asset		Residual	Capitalization Threshold*	ization hold*	Amortization
Class	Description/Notes	Value	Pop < 5,000	Pop > 5,000	Rate# (Straight–Line)
Assets Under Construction (AUC)	<ul> <li>Also known as work in progress</li> <li>Costs incurred to construct water and waste water infrastructure assets</li> <li>The costs are transferred to the asset class when the asset is put into</li> </ul>	n/a	n/a	n/a	n/a
	use, which is normally upon completion of the asset.				

These are the recommended capitalization thresholds that should be used by municipalities. The two threshold levels are based by population. \*

These are recommended amortization rates that should be used by municipalities. In situations where an asset's estimated useful life does not conform to the recommended rate, municipalities may want to adopt a more suitable amortization rate and method. #

### Tangible Capital Assets Southam Construction Price Index

### N.B. The Southam Construction Price Index is to be used only for discounting the cost of buildings.

YEAR	INDEX	YEAR	INDEX	YEAR	
1930	19.0	1966	69.0	2002	364.6
1931	17.7	1967	73.8	2003	370.8
1932	16.3	1968	78.8	2004	387.4
1933	15.8	1969	84.2	2005	396.4
1934	16.1	1970	91.8		
1935	16.1	1971	100.0		
1936	16.7	1972	106.5		
1937	18.0	1973	121.3		
1938	17.6	1974	142.2		
1939	17.6	1975	157.0		
1940	18.7	1976	168.7		
1941	20.6	1977	176.7		
1942	22.1	1978	183.8		
1943	23.3	1979	194.9		
1944	24.2	1980	203.0		
1945	24.3	1981	221.6		
1946	25.2	1982	242.9		
1947	27.8	1983	255.6		
1948	31.2	1984	260.3		
1949	33.1	1985	262.3		
1950	35.4	1986	265.5		
1951	39.6	1987	270.8		
1952	41.8	1988	276.7		
1953	42.8	1989	285.6		
1954	43.4	1990	290.9		
1955	44.6	1991	296.8		
1956	46.3	1992	303.6		
1957	48.3	1993	313.9		
1958	49.6	1994	314.0		
1959	51.8	1995	316.2		
1960	53.5	1996	323.2		
1961	54.9	1997	327.6		
1962	57.0	1998	343.9		
1963	60.6	1999	348.0		
1964	63.4	2000	356.0		
1965	65.8	2001	363.5		

### Tangible Capital Assets The Federal Aid Highway Construction Index

N.B. The FAHCI should only be used for discounting roads and bridges. The Composite Index should be used to discount the construction costs for water and sewer networks.

Year	Excavation (grade)	Resurfacing	Structures (bridges/dams)	Composite
1970	27.2	34.0	38.2	34.8
1971	27.6	36.8	40.0	36.8
1972	29.7	39.5	40.7	38.6
1973	33.0	42.9	45.4	42.5
1974	41.2	60.0	61.7	57.9
1975	42.5	61.0	60.6	58.1
1976	42.5	60.3	57.2	56.3
1977	47.8	64.3	59.7	59.8
1978	63.5	73.3	70.7	70.7
1979	66.8	89.0	88.6	85.5
1980	75.5	102.2	100.0	97.2
1981	72.6	101.4	94.9	94.2
1982	65.6	95.3	90.0	88.5
1983	71.8	94.4	86.7	87.6
1984	78.4	102.7	88.2	92.6
1985	92.4	109.6	98.1	102.0
1986	94.0	107.0	98.0	101.1
1987	100.0	100.0	100.0	100.0
1988	112.2	99.8	111.0	106.6
1989	99.0	99.4	118.4	107.7
1990	98.1	102.3	117.8	108.5
1991	95.5	106.5	112.5	107.5
1992	90.8	106.9	108.4	105.1
1993	103.2	113.5	105.3	108.3
1994	113.2	122.3	109.0	115.1
1995	112.8	127.9	119.5	121.9
1996	120.6	118.7	121.6	120.2
1997	117.6	133.0	132.7	130.6
1998	124.3	120.8	133.4	126.9
1999	120.9	140.3	138.3	136.5
2000	124.1	152.2	146.9	145.6
2001	125.9	158.1	138.8	144.8
2002	121.2	150.7	154.5	147.9
2003	142.3	142.1	159.5	149.8
2004	135.7	160.8	154.7	154.4
2005	164.6	198.6	176.0	183.6

Purpose:
The purpose of the TCA Work Plan is to obtain an initial assessment of what kind of TCA a municipality might own. Further the work plan should document the principal locations where the majority of a municipality's TCA are located. Based on the location and the nature of the TCA, the responsibility for identifying and determining the valuation should be assigned.
Finally the work plan documents the most probable valuation methods for each class of assets. For some asset classes, visual inspection may be sufficient to identify the assets. Some asset classes may require two or more identification methods. The same thing is likely for the valuation of the assets within the same class.
<b>Historical cost information such as invoices and sales contracts should be used whenever it is readily available.</b> Replacement costs or insured values may be the most efficient method to value assets that were purchased or constructed many years ago. Most infrastructure assets will likely be valued using discounted reproduction costs.
Deadlines:
There are 3 critical milestone dates for TCA:
<ol> <li>Completion of the TCA work plan – August 31, 2007</li> <li>Identification process of TCA at December 31, 2007 – December 31, 2007</li> <li>Valuation of TCA at December 31, 2007 – March 31, 2008</li> </ol>
It is important that these milestone dates are met as municipalities will have to deal with other PSAB issues such as environmental liabilities and the GRE for the balance of 2008.
Major Classes:
The work plan detail has been subdivided into 8 major asset classes. The major classes are based according to similarities in the nature of the asset, and likely identification and valuation methods. The likely location of the assets is another common link between asset classes. Computer hardware, software, office equipment and furniture would likely all be found at the main administration building. Land improvements would commonly be found in parks and recreation areas. Machinery & equipment and road construction and maintenance equipment cound at the main administration
Land, land improvements, and buildings can often be located at the same site, but differences in their useful life and likely valuation methods, makes it necessary to treat them as 3 separate major classes.

# Municipality of TCA Work Plan – Land, Land Improvements & Buildings

# Summary of Work Plan by Major Classes:

### **General TCA**

		Identification	tion	Valuation	ion
Major Class	Primary	Primary	Estimated	Primary	Estimated
	Location (s)	Person/Dept Responsible	Completion Date	Person/Dept Responsible	Completion Date
Land					
Land Improvements					
Buildings					
Vehicles					
Machinery, Equipment, Road Construction & Maintenance Equipment					
Computer Hardware & Software, Office Equipment & Furniture					

### Infrastructure

			Identification	tion	Valuation	on
Major Class	Primary Segmentation	Single Asset or Components	Primary Person/Dept Responsible	Estimated Completion Date	Primary Person/Dept Responsible	Estimated Completion Date
Transportation						
Water & Waste Water						

# Municipality of TCA Work Plan – Land, Land Improvements & Buildings

### Land

n/a Threshold:

- Land held for resale should not be included in TCA. It should be classified as inventory.
   Do not forget to include land and buildings that the municipality owns outside its boundaries.

		Completeness		Valuation
Locations/Communities	Responsible Individual/Dept.	Identification Methods <ul> <li>Review of detailed GL</li> <li>Tax rolls</li> </ul>	Responsible Individual/Dept.	<ul> <li>Valuation Methods</li> <li>Historical Cost Records</li> <li>Discounted Appraisal Values</li> <li>Discounted Assessment Values (land only)</li> </ul>
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6.				

## Municipality of TCA Work Plan – Land, Land Improvements & Buildings

### Land Improvements

Threshold:

		Completeness		Valuation
Locations/Communities	Responsible Individual/Dept.	<ul> <li>Identification Methods</li> <li>Visual Inspection</li> <li>Review of detailed GL</li> </ul>	Responsible Individual/Dept.	Valuation Methods           • Historical Cost Records           • Discounted Reproduction Cost           • Discounted Replacement Costs
2.				
3.				
4.				
5.				
6.				

Appendix 5

# Municipality of TCA Work Plan – Land, Land Improvements & Buildings

### Buildings

Threshold (Brick, Steel & Mortar): Threshold (Wood Frame):

		Completeness		Valuation
Locations/Communities	Responsible Individual/Dept.	Identification Methods <ul> <li>Visual Inspection</li> <li>Insurance Records</li> <li>Tax rolls</li> <li>Review of detailed GL</li> </ul>	Responsible Individual/Dept.	<ul> <li>Valuation Methods</li> <li>Historical Cost Records</li> <li>Discounted Reproduction Cost</li> <li>Discounted Insured Values (replacement)</li> <li>Discounted Assessment Value (Bldg only)</li> </ul>
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### Municipality of TCA Work Plan Vehicles, Machinery & Equipment

### Vehicles

Threshold:

		Completeness		Valuation
Locations/Communities	Responsible Individual/Dept.	Identification Methods <ul> <li>Visual Inspection</li> <li>MPIC Records</li> <li>Fleet Records</li> <li>Review of detailed GL</li> </ul>	Responsible Individual/Dept.	Valuation Methods <ul> <li>Historical Cost Records</li> <li>Discounted Reproduction Cost</li> <li>Discounted Replacement Cost</li> </ul>
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ю.́				
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# Municipality of TCA Work Plan Vehicles, Machinery & Equipment

# Machinery & Equipment and Road Construction & Maintenance Equipment

		Completeness		Valuation
Locations/Communities	Responsible Individual/Dept.	Identification Methods <ul> <li>Visual Inspection</li> <li>Insurance Records</li> <li>Review of detailed GL</li> </ul>	Responsible Individual/Dept.	Valuation Methods• Historical Cost Records• Discounted Reproduction Cost• Discounted Insured Values (replacement)
2.				
С				
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6.				

### Municipality of TCA Work Plan Office Equipment, Furniture & Leaseholds

# Office Equipment, Furniture & Leaseholds

Threshold (Computer Hardware & Software): Threshold (Office Equipment & Furniture): Threshold (Leaseholds)

-			n	1	1		1
	Valuation	Valuation Methods           • Historical Cost Records           • Reproduction Cost           • Insured Values (replacement)					
		Responsible Individual/Dept.					
	Completeness	<ul> <li>Identification Methods</li> <li>Visual Inspection</li> <li>Insurance Records</li> <li>Review of detailed GL</li> </ul>					
		Responsible Individual/Dept.					
		Locations/Communities	2	Э	4.	5.	.9

Appendix 5

### Municipality of TCA Work Plan Transportation Infrastructure

- Transportation infrastructure includes roads, streets, bridges, right of way (land), lighting and traffic equipment including signs. <del>.</del>-
- A decision must be made whether to treat roads and streets as a single asset or as components (surface & grade). The component approach is preferred. ц Сі

Valuation	Valuation Methods <ul> <li>Historical Cost Records</li> <li>Discounted Reproduction Cost</li> <li>Discounted Replacement Costs</li> </ul>						
	Responsible Individual/Dept.						
Completeness	Identification Methods <ul> <li>Visual Inspection</li> <li>Detailed Maps</li> </ul>						
	Responsible Individual/Dept.						
	Possible Segments <ul> <li>By community</li> <li>By community</li> <li>Roads vs. local streets</li> <li>Paved vs. gravel</li> <li>Measured unit (i.e. km)</li> </ul>	1.	2	ю.	4.	5.	6.

Water & waste water infrastructure includes water and sewer networks as well as structures that are used to control and divert surface water. This includes dams, canals, dikes, ditches (not already capitalized as part of road grade), diversions, cut-offs and erosion protection structures A decision must be made whether to treat water and sewer networks as a single asset or as components. Components include linear systems, buildings and machinery & equipment such as tanks, pumps, generators, filtration systems, etc. The component approach is preferred.	Possible Segments for Completeness Valuation	Water & Sewer NetworksResponsibleIdentification MethodsResponsibleValuation Methods• By communityResponsibleIdentification Methods• Visual Inspection• Nisual/Dept.• Nistorical Cost Records• New developmentsIndividual/Dept.• Visual Inspection• Visual Inspection• Discounted Reproduction Cost• Main line vs. arterial systemMain line vs. arterial system• Discounted Replacement Costs						
<ol> <li>Water 8 surface and ero</li> <li>A decis linear si approad</li> </ol>	Possible Se	Water & Sewe By community New developn By material Main line vs. a	<del>.</del>	2.	ю.	4.	5.	6.

Appendix 6

Municipality of TCA Work Plan Water & Waste Water Infrastructure

### Alternative Amortization Methods

Straight line amortization may not always be the most appropriate amortization method for some TCA. The amortization method used should be based on the nature and use of the asset. On rare occasions the unit of output and declining balance methods may be more appropriate.

### Unit of Output Method:

Some assets deteriorate based on their usage. The unit of output method is determined by dividing the actual production for the year by the total expected production of the asset over its life, times the cost of the asset. The unit-of-output method provides per unit cost. The unit-of-output method is often used for equipment that requires a complete overhaul after a prescribed amount of hours in use.

### Example:

A municipality purchases a grader for 200,000. The grader has a useful life of 15 years but the engine must be completely overhauled after every 10,000 hours of use. A replacement engine costs 50,000. The municipality has decided to amortize the cost of the engine as a separate component using the unit of output method. Because of several severe blizzards, the grader was used extensively (1,500 hours) in its first year. The amortization charge for the first year is: (1,500 hrs/10,000 hrs) x 50,000 = 7,500 in amortization.

The entry into the general ledger would be:

Dr. Amortization expense \$7,500 Cr. Accumulated Amortization – Machinery

) \$7,500

### Declining Balance Method:

Some assets are more efficient in the early years of their useful life. The declining balance method applies a constant percentage to the unamortized value of the asset each year. The declining balance is commonly used for vehicles and computer equipment. The declining balance method results in higher amortization in the early years of an asset's life.

### **Alternative Amortization Methods**

### Example:

A municipality added 3 new work stations to its local access network. Each work station cost \$2,500 or \$7,500 in total. Because of the rapid obsolescence of computer technology, the CAO felt that computer work stations should be amortized on a declining balance at 33.3%. What would be the amortization charge in years 1, 2 and 3?

Year 1: \$7,500 x 33.3% = \$2,498

Year 2: (\$7,500 - \$2,498) x 33.3% = \$1,666

Year 3: (\$7,500 - (\$2,498 + \$1,666)) x 33.3% = \$1,111

After 3 years the accumulated amortization for the work stations would be \$5,275 or 70% amortized. The amortization charges are highest in the first years and decline each year to reflect the increasing obsolescence of the asset.

### **Glossary of Terms**

### Accumulated Amortization:

Accumulated amortization is the total of amortization charges to date on a tangible capital asset or group of tangible capital assets.

### Amortization:

Amortization is a systematic and logical process of recognizing the expense associated with using a tangible capital asset during a fiscal period. Amortization is often thought as "depreciation".

### Asset Class:

An asset class is a grouping of tangible capital assets that are similar in nature and useful life. "Buildings" is an example of an asset class. Asset classes form the basis for the general ledger accounts and the summary presentation of tangible capital assets by major groupings in the financial statements.

### Betterment:

A betterment is a cost incurred that either increases the capacity, extends the useful life, or reduces the operating costs of a tangible capital asset.

### Capital Lease:

A capital lease is a lease with terms and conditions that substantially transfers all the "benefits and risks" of ownership to the lessee (i.e. the municipality), without necessarily transferring legal ownership.

### Capitalization:

Capitalization is the process of recording an eligible expenditure as a tangible capital asset, or including it as part of the cost of a tangible capital asset.

### Capitalization Threshold:

The capitalization threshold is minimum dollar amount that government will use in determining whether an expenditure should be capitalized as a tangible capital asset addition or expensed in the current year.

### Capitalized Interest:

Capitalized interest is the interest and carrying charges owed on the debt to external parties that is included as part of the cost. Only interest that is directly attributable to the development and construction of a tangible capital asset can be capitalized. The capitalization of interest ends when the asset is put into use.

### Component:

A component is a tangible capital asset that forms part of a larger and wider tangible capital asset. Components are normally associated with infrastructure assets. The paved road surface is one component of the entire road and street infrastructure, which also includes the right of way (i.e. land), grade, street signs, etc. A water pump is one component of the water supply system. The component approach to tangible capital assets is the opposite of the single asset approach.

### Cost:

Cost is the **gross** amount of consideration directly attributable to acquire, construct, develop or better a tangible capital asset.

### **Glossary of Terms**

### Fair Value:

Fair value is the amount of consideration that would be agreed upon in an arms length transaction between knowledgeable, willing parties who are under no compulsion to act.

### Financial Assets:

Financial assets are assets that could be used to discharge existing liabilities or finance future operations and are not for consumption in the normal course of operations. Financial assets include cash, accounts receivable, temporary investments, and portfolio investments. Tangible capital assets are non-financial assets.

### Intangible Assets:

Intangible assets are assets that have no physical form or substance. Goodwill, patents and copyrights are examples of intangible assets. PSAB does not recognize intangible assets. Intangible assets should not be included with tangible capital assets. Software licenses **are** tangible capital assets.

### Infrastructure:

Infrastructure assets are tangible capital assets that are normally comprised of a number of components to form complex network systems. Infrastructure assets are different from general capital assets in terms of access and consumption. The public has unlimited access to infrastructure assets and the benefits of the asset are consumed directly by the public. The public access to general capital assets is normally restricted by the government. General capital assets are used by the government to provide services to the public. Infrastructure assets include roads, streets, bridges, water systems, sewers and surface water control devices such as dams, canals, levies and erosion control devices.

### Materiality:

Materiality is the point where a misstatement or aggregate of misstatements in financial statements would influence the decision of a person who is relying on the financial statements. Material misstatements in financial statements can arise from departures from GAAP, errors, fraud, inappropriate accounting estimates, and omissions of necessary information.

### Net Book Value:

The net book value of a tangible capital asset is the cost, less the accumulated amortization and the amount of any write-downs.

### **Operating Lease:**

An operating lease is a lease in which the lessor does not transfer substantially all the benefits and risks incident to ownership of property.

### **Network System:**

Network system is a term used to refer to infrastructure that have "linear" assets arranged in a continuous or connected network. Network systems normally mean roads, water systems and sewers.

### **Residual Value:**

Residual value is the estimated net realizable value of a tangible capital asset at the end of its useful life. The colloquial term for residual value is "scrap" value.

### **Glossary of Terms**

### Segmentation:

Segmentation is the process of breaking down network systems into homogenous groups that are similar in terms of age, material or geography. Segmentation reduces the number of possible identifiable individual assets into a manageable number for valuation. For example, the road system within a large town could literally be a patchwork of segments of various lengths and age. The streets in the town could be segmented into various pools and amortized using an average age. Newly constructed streets and resurfacing would be recorded on an asset by asset basis.

### Tangible Capital Assets:

Tangible capital assets are non-financial assets having physical substance that:

- i) are used to provide goods and services;
- ii) have an economic life beyond one year;
- iii) are used on a continuous basis; and
- iv) are not for sale in the ordinary course of operations.

### Useful Life:

Useful life is the estimate of the period over which a tangible capital asset is expected to be used by the government. The life of a tangible capital asset may extend beyond the useful life of tangible capital asset to a government. Other than land, the life of a tangible capital asset is finite and is normally the shorter of physical, technological, commercial and legal life. Useful life does not necessarily need to need measured in units of time. Useful life capital asset by the number of units of production that can be obtained from a tangible capital asset by the government.

### Write-down:

A write-down is a reduction in the cost of an asset to reflect a decline in the asset's value. A tangible capital asset should be written down whenever the benefits associated with the asset are less than its net book value. A write-down can never be reversed.