MFOA/AMCTO FALL SEMINAR SERIES

TANGIBLE CAPITAL ASSETS ACCOUNTING

TOPIC:
VALUATION OF LAND AND BUILDINGS

Presented By:
Joe Lombardo, ASA
Regional Vice President
Suncorp Valuations Ltd.

Overview of Presentation

- Classification of Land and Buildings
- General Valuation Approaches
- Valuation of Land and Road Allowances
- Valuation of Buildings
- Valuation of Other Land Improvements
- Guidelines for Replacements/Upgrades
- Amortization of Building and Site Improvements
- Example of Useful Life Schedule

Classification of Land and Buildings

Primary Class	Sub-Class
Land	➢Improved Land ➢Park Land ➢Vacant ➢Land Fill Sites ➢Road Allowances
Buildings	➢Light Duty ➢Medium Duty or ➢Heavy Duty - Reinforced Concrete Frame - Steel Frame - Masonry Bearing - Wood Frame
Land Improvements	➢Parking Lots ➢Improved Sites ➢Park Lands ➢Airports ➢Waste/Water Treatment Facilities

General Valuation Approaches

Land*	▪ **Documented Historical Cost** ▪ **Title Search** ▪ **Deflated Market Value** ▪ **Appraisal**
* Right of Ways and **Easements are Intangible Assets and Should Not Be Capitalized.**	
Buildings	▪ **Documented Historical Cost** ▪ **Discounted CRN** ▪ **Discounted RCN** ▪ **Appraisal**
Land Improvements	▪ **Documented Historical Cost** ▪ **Discounted CRN** ▪ **Discounted RCN** ▪ **Appraisal**

IMPROVED PROPERTIES MUST BE VALUED BY INDIVIDUAL PROPERTY CLASS

VALUATION OF LAND AND ROAD ALLOWANCES

Valuation Steps for Land and R.A.s

Develop Inventory of each Land and Road Allowances Property by Geographic Area. Ensure the Land Size (Acres, Sq. ft.) is noted, along with Zoning.

Step 1 — **Develop current Market Value Benchmark Rates for each principal Type of Land (i.e. Residential, Commercial, Industrial, Parkland, etc.)**

Step 2 — **Apply Benchmark Market Value Rates to the Land Areas of Each Property**

Step 3 — **Apply Deflation Factors to current Market Value of each property to discount back to In-Service Date**

Land Valuation Example

Assume that the Municipality has three Land Properties. Although two are improved, Land is considered as if vacant and available, since the Buildings and Site Improvements are valued separately. The Municipality also has various Road Allowances. The approximate purchase dates are available but there is no record of cost.

Description	Zoning	Land Area	In-Service Date
City Hall Land	Commercial	2 Acres	1982
Ice Arena Land	Residential	1.5 Acres	1990
Municipal Park Land	Park Land	10 Acres	1970
Road Allowances North Sector of City	Various	1 Acre	1970
Road Allowances South Sector of City	Various	1 Acre	1980

Land Valuation Example

Step 1

Establish current Benchmark Market Value of each Type of Zoned Land

Zoning	Market Value Per Acre
Commercial	$40,000
Residential	$30,000
Park Lands	$10,000
North Sector (various)	$25,000
South Sector (various)	$20,000

Land Valuation Example

Step 2

Calculate current MV of each Land Property by multiplying the Unit MV by Total Land Area.

Description	Zoning	Land Area	Unit MV (Per Acre)	Current MV
City Hall Land	Commercial	2.0 Acres	$40,000	$80,000
Ice Arena Land	Residential	1.5 Acres	$30,000	$45,000
Municipal Park Land	Park Land	10 Acres	$10,000	$100,000
Road Allowances North Sector of City	Various	1 Acre	$25,000	$25,000
Road Allowances South Sector of City	Various	1 Acre	$20,000	$20,000

Land Valuation Example

Step 3 **Discount current MV for Deflation to In-Service Date**

Description	In-Service Date	Land Area	Current MV	Deflation Factor*	Estimated Original Cost
City Hall Land	1982	2.0 Acres	$80,000	.335	$26,800
Ice Arena Land	1990	1.5 Acres	$45,000	.682	$30,690
Municipal Park Land	1970	10 Acres	$100,000	.212	$21,200
Road Allowances North Sector of City	1970	1 Acre	$25,000	.212	$5,300
Road Allowances South Sector of City	1980	1 Acre	$20,000	.313	$6,260

* Deflation Factors should reflect statistics of local Real Estate Board

VALUATION OF BUILDINGS

Single Entry Valuation Approach

Advantages:

- Easier to perform Inventory and Valuation of transition period Assets
- Easier to maintain property record system
- Ideal for minor buildings or buildings not yet improved

Disadvantages:

- More difficult to remove component deletions from record
- Information not as useful for Asset Management Plan

Component Valuation Approach

Advantages:

- Provides more detail for property planning/management
- Easier to capitalize component improvements or replacements
- Facilitates component deletions from record
- Can assign more accurate Useful Life by component

Disadvantages:

- More costly to implement
- More costly to maintain
- Not practical for larger Municipalities with numerous buildings

Guidelines for Valuation of Buildings

- Valuation approach(es) remain constant for all types of facilities
- Value separately from underlying Land, Improvements and Integrated Process Systems
- Accurate architectural specifications critical to enable valuation
- Construction Date(s), Useful Life of Building/Components required for Costing and Amortization
- Donated Assets Capitalized at Fair Value

Building Valuation Example #1

Assume we have to value a City Hall for which there is no documented Historical Cost. We intend on utilizing the Component Method to capitalize this Asset. We therefore have performed a detailed verification of the Building's specifications and components:

Building Occupancy:	Office Building
Date of Construction:	1950, Major Upgrades: 1990 and 2001
Gross Floor Area:	50,000 Sq. Ft.
Number of Stories:	Four plus a Basement
Foundations:	Reinforced Concrete
Framing:	Reinforced Concrete
Exterior Walls:	Granite Panels on Reinforced Concrete
Roof:	Steel Structure with Membrane Cover

Building Valuation Example #1

Interior Finishes:	Painted Drywall Walls, Suspended Acoustic Ceilings, 50% Carpet/ 50% Hardwood Floors
Plumbing:	Standard for Occupancy
Power & Lighting:	Standard for Occupancy
HVAC:	Hot Water Boiler with Air Exchange Heat System: 100% Air Conditioned
Fire Protection System:	No Sprinklers, Alarm Panels & Pull Stations
Elevators:	(3) – 3,000 lbs. Capacity Elevators

Building Valuation Example #1

Develop Cost Via the Deflated CRN Approach:

Step 1 **Establish current CRN of the Building by Component**

Building Component	Current CRN
Excavation and Foundation:	$290,000
Building Frame and Structure:	$5,625,000
Roof Structure and Cover:	$270,000
Interior Finishes:	$850,000
Plumbing:	$270,000
Electrical and Lighting:	$800,000
HVAC:	$1,050,000
Fire Protection:	$20,000
Elevators:	$450,000
Total:	$9,625,000 or $192.50/Sq. Ft

Building Valuation Example #1

Step 2 **Establish Construction Date of each Component**

Building Component	Construction Date
Excavation and Foundation:	1950
Building Frame and Structure:	1950
Roof Structure and Cover:	2001
Interior Finishes:	1990
Plumbing:	2001
Electrical and Lighting:	1990
HVAC:	1990
Fire Protection:	1990
Elevators:	1990

Building Valuation Example # 1

Step 3 **Discount CRN of each Component for Deflation back to In-Service Date**

Building Component	Construction Date	Current CRN	Deflation Factor	Estimated Original Cost
Excavation and Foundation:	1950	$290,000	.084	$2,436
Building Frame and Structure:	1950	$5,625,000	.084	$472,500
Roof Structure and Cover:	2001	$270,000	.729	$196,830
Interior Finishes:	1990	$850,000	.557	$473,450
Plumbing:	2001	$270,000	.729	$196,830
Electrical and Lighting:	1990	$800,000	.557	$445,600
HVAC:	1990	$1,050,000	.557	$584,850
Fire Protection:	1990	$20,000	.557	$11,140
Elevators:	1990	$450,000	.557	$250,650

Building Valuation Example # 2

Donated Assets must be Capitalized as Fair Value as at the Contribution Date

Assume that the Building in the previous example was donated to the Municipality in 2000.

Valuation Steps:

Step 1 — **Develop CRN as at 2000 by Discounting back current CRN**

Step 2 — **Deduct Physical and Functional Depreciation applicable as at 2000 to develop Fair Value**

2007 CRN	Deflation Factor	CRN as at 2000	Physical Depreciation Deduction (50%)	Functional Depreciation Deduction (10%)	Fair Value
$9,625,000	.717	$6,901,000	$3,451,000	$345,000	$3,105,000

VALUATION OF OTHER LAND IMPROVEMENTS

Valuation Steps For Other Land Improvements

Step 1 **Inventory Land Improvements by Location and Type:**

Type of Land Improvements:

Municipal Properties

- Parking Lots
- Walkways
- Fountains/Statues
- Retaining Walls
- Yard Lighting
- Fencing
- Automatic SprinklerSystems
- Landscaping

Parks and Recreation Properties

- Parking Lots
- Pathway/Trails
- Athletic Fields/Tracks
- Tennis Courts
- Outdoor Swimming Pools
- Outdoor Rinks
- Fountains/Statues
- Playground Equipment
- Lighting
- Fencing
- Landscaping*

Airports

- Runways
- Taxiways
- Apronways
- Lighting
- Fuel Tanks

Marine Properties

- Docks
- Wharves
- Sea Walls

Valuation Steps For Other Land Improvements

Step 2

Develop CRN of each Improvement by applying current Benchmark Unit Costs.

<u>Costing Sources for Land Improvements:</u>

- Marshall & Swift/Boeckh Valuation Service
- R.S. Means
- Yardstick for Costing
- Advice of Contractors
- Advice of Professional Valuators

Step 3

Discount CRN of each Component for Deflation back to In-Service Date.

Guidelines For Replacement/Betterments

TCA Class	Recommendation for Replacements
Land and R.A.s	➢ Not Applicable
Buildings	➢If One Entry Approach is selected, capitalize entries that improve utility, efficiency or extend Useful Life of Building. ➢If Component Approach is selected, capitalize entries that improve utility, efficiency or extend Useful Life of Component.
Land Improvements	➢Capitalize entries above Capitalization Threshold

- Capitalize Betterments that result in reduced costs, improved efficiency or extend Useful Life of the Building or Land Improvements

Amortization Guidelines

- Land is not amortized, except for Land Fill Sites
- Straight Line Approach is most appropriate
- Develop Useful Life Schedule for each Type of Asset or Building Component based on:
  - Published Data
  - Historical Experiences
- For Grouped Assets use averaging to assign Useful Life
- Consider Extended Useful Life for Transition Period Assets

Example of Useful Life Schedule

Asset Description	Useful Life
Athletic Field	20
Ball Diamond	20
Basketball or Tennis Court	25
Running Tracks Paved	20
Paving – Asphalt	20
Paving – Concrete	30
Bleachers	30
Fencing and Gates	20
Outdoor Lighting	20
Sprinkler System	25
Landscaping	15
Recreational Improvements	20
Pathway/Alleyway-Asphalt	20
Pathway/Alleyway-Concrete	30
Pathway/Alleyway-Brick/Stone	40
Runways/Taxiways/Apron ways	20
Docks	40

Asset Description	Useful Life
Buildings	60
Reinforced Concrete Frame	60
Steel Frame	50
Masonry Load Bearing Frame	45
Wood Frame	40
Salt/Sand Domes	25
Park Pavilions	20
Components	
Excavation	60
Foundation	60
Frame	50
Exterior Walls	50
Floor Structure	50
Interior Finishes	15
HVAC	20
Plumbing	20
Roof Cover	15
Electrical Lighting	25
Fire Protection System	25
Elevators	25

Valuation:
Buildings and Land

Presented by:

Calvin Hawke CA
TCA Consulting Limited

Valuation:
Buildings and Land

1. Defining the Asset
2. Separate out Land attached to Buildings
3. Threshold
4. Sustainable Assets

Valuation:
Buildings and Land

5. Historical Cost – Where Available

6. Deflated Appraisal Value – Insurance Values

7. Single or Components of Buildings

8. Use of Different Components & Thresholds for Pre-2009 and 2009

Valuation:
Buildings and Land

9. Include all Costs

10. Betterments or Repairs

11. Straight Line Amortization – is it Good Enough

12. Confirm approach with your Auditor