

Glen Eira Council

Infrastructure Assets Valuation Methodology

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PART A – Methodology Manual

Year Revised	Version
2009-2010	V1 0 1 to V1 0 10
2013-2014	V1 0 11
2017-2018	V1 0 12

1. BACKGROUND

The principal purpose of this manual is to document Glen Eira Council's corporate method of valuation and depreciation of infrastructure assets. The methodology is based on AAS116 (Australian Accounting Standard) and NAMS Financial Guidelines for Local Government.

The infrastructure assets that are covered by this manual are:

- Roads – pavement and surface
- Kerb
- Footpaths.
- Stormwater drainage
- Right of Ways
- Street Furniture
- LATMs

The valuation basis will conform to the accounting standard AAS116 "Property Plant and Equipment" and will be recorded utilising fair-value principles being at the depreciated replacement cost (i.e. written-down value). This manual documents methods for determining gross replacement values, written down values and remaining useful lives to enable appropriate disclosures in Glen Eira Council's Financial Accounts.

2. INTRODUCTION AND PRINCIPLES

The methodology adopted for this project has been based on the Australian Accounting Standards Board (AASB) requirements and the Fair-Value approach as follows:

1. Useful Lives and Remaining Lives for kerb and footpath are determined through the development and application of Glen Eira Council's remaining life models. Until the new condition survey data for other assets is available in late 2009, the Useful Lives are based on and past experience and industry standards.
2. Useful lives will also be confirmed with an independent review with industry recommendations/neighbouring councils and the International Infrastructure Management Manual. This methodology for remaining life takes into account physical use, wear and tear, historical maintenance practices, construction standards, material type of each asset component and its age based on the AASB.
3. In accordance with the fair-value approach, earthworks and other ground formations have been included in the original cost of the asset. Generally the construction of infrastructure assets includes initial earthworks, initial excavations, design costs and other expenditure that may last for an indefinite period, may never need replacing or may last for periods in excess of the life of the core component of the overall asset. These costs will be accounted for at the initial stage of the construction process and will not be recognised during subsequent revaluations.
4. Unit prices and rates will be regularly analysed, as per AASB 116 guidelines to ensure that there is no duplication of assets reflected in this revaluation. Greenfield rates will be applied.
5. Additional excavation works, boxing out, formworks or site works which are required as part of the asset construction process, as distinct from initial earthworks etc (that last for an indefinite period and never require replacing) and project management or supervision fees, will be allowed for under the fair-value approach.
6. Assets will be componentised to respective components as per AAS 116.
7. Asset Impairment testing will be in accordance with AAS 136.

3. DEFINITION OF DEPRECIATION

Depreciation is the measure of 'using up' or consumption of the asset in providing that asset to the community and is measured on an annual basis. Therefore, simply put, it is part of the cost of providing the future economic benefits which is expensed along with other charges like maintenance through a charging system to the Annual Financial Statement.

Glen Eira Council aims to conform to AASB116, paragraph 60 which states the following; *'The depreciation method used shall reflect the pattern in which the asset's future economic benefits are expected to be consumed by the entity'*.

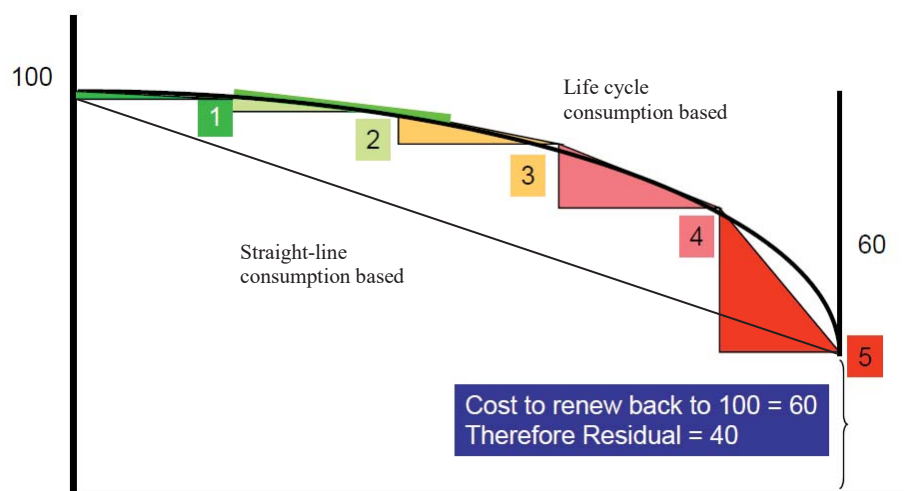
Depreciation values will be determined using the change in written down value over a predictable time period, based on the asset's consumption profile. This consumption profile is derived from Council's prediction/remaining life models where applicable.

Glen Eira Council has access to models, data and information that can apply two methods of depreciation:

1. A life-cycle consumption based method, where reported depreciation is based on the rate of depreciation at the point at which the asset is in its life cycle. This means, the rate of depreciation varies from life cycle phase 1 to phase 5 as shown in the figure below.
2. A straight-line consumption based approach, where the depreciation is determined as a constant figure over the useful life of the asset, irrespective of where the asset is in its life cycle.

Both methods will include a consideration of residual value.

Council will apply the straight-line method in 2008_09 reporting period.

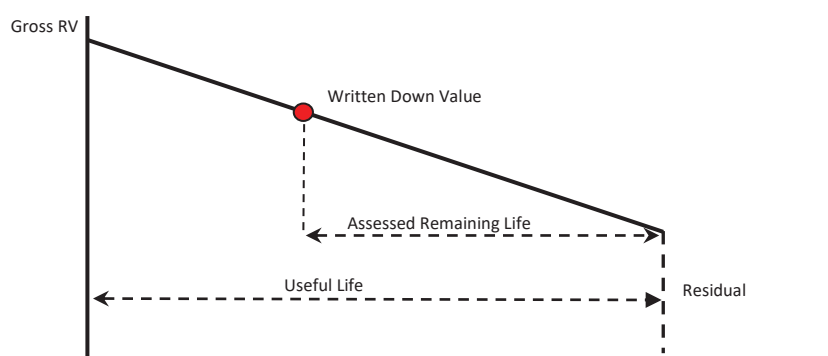


It should be noted that AASB116, paragraph 61 also states that *'The depreciation method applied to an asset shall be reviewed at least at the end of each annual reporting period and, if there has been a significant change in the expected pattern of consumption of the future economic benefits embodied in the asset, the method shall be changed to reflect the changed pattern. Such a change shall be accounted for as a change in an accounting estimate in accordance with AASB 108'*.

It is also acknowledged that:

- The amount to be depreciated is limited to the Depreciable Amount;
- The Depreciable amount is the Value less the Residual Value;

- Depreciation is to be expensed over the “Useful Life” of the asset; and
- The “Useful Life” or “economic life” of the asset is the time to intervention.
- The “Intervention Point” represents a particular point in time where the asset is considered to not be providing an acceptable level of service and therefore will need to be renewed;



4. WHAT IS IT (DEPRECIATION) NOT?

Council has noted that depreciation is not a measure of the expenditure required to maintain or renew assets. It is also not cash; it does not generate cash.

5. USEFUL LIFE AND REMAINING LIFE

The Useful Life of the asset is an estimate or expected duration between placing the asset into service and removing it from service on the basis of obsolescence or when it ceases to provide the ‘minimum benefits’ that it was intended to provide. In short it is the period between which the future economic benefits embodied in that asset are expected to be consumed by the users.

At Glen Eira Council, the factors which may vary the estimated useful life i.e. affect the ‘using up’ of an asset are:

1. Maintenance practices – the quantity and quality of both routine and periodic maintenance can affect the useful life.
2. Original quality of construction.
3. Type of asset – e.g. vehicle types and usage patterns can affect the life of a road
4. Environment – e.g. reactive soils may lead to early deterioration of roads or pipes, tree roots damage to footpaths.
5. Technical obsolescence.

AASB requires that the initial estimate of useful life should be based on evidence that is specifically drawn from the assessment of:

1. Physical use.
2. Wear and tear.
3. Technical and physical obsolescence.
4. Legal and other restrictions on the use of the asset.

The determination of Useful Life will in part be a matter of developing a simulation analysis based on replication of real asset performance. Glen-Eira uses established remaining life models to determine useful lives. Key definitions are:

1. Expected Useful Life – based on an expected duration between placing the asset into service and removing it from service.
2. Expected Remaining Useful Life – based on available evidence and based on an assessment of the asset using condition, capacity, functionality and obsolescence as factors. A profile of

consumption versus time is used to develop a remaining life profile based on the consumption index. An explanation is provided in the following sections.

6. REMAINING LIFE METHOD (MORE RELEVANT) VS AGE BASED METHOD

AASB 116 mandates that asset depreciation shall reflect the consumption pattern of the asset. Purely age based analysis for remaining life is generally considered inadequate because:

- Old (aged) assets in good condition could by default assumption of age, get assigned a lower remaining life / value.
- New assets in poor condition could by default assumption of age, get assigned a higher remaining life / value.
- Potential risk of asset impairment.

The proposed Glen Eira Council methodology ensures that appropriate remaining life applied is a function of both – age and physical condition, capacity, functionality along with obsolescence factors. It must be noted that physical condition will take into account the following:

- Quality of construction.
- Quality of maintenance and frequency of capital treatments.
- Types of construction materials.

Each of the above factors affects the assets useful life, remaining life and therefore the asset value.

Age based methods may also breach AAS136 i.e. impairment.

7. UNIT RATES (GREENFIELD)

Glen Eira Council participated in the IPWEA Green Field Unit Rates survey 2009 by providing unit rates for all asset categories that are determined using first principle (verified with local projects/data, knowledge and available data sources). The Council's Adopted rates are based on the IPWEA 2009 survey, Rawlinsons 2009 or applying the rates derived from first principles. See Appendix 2 for more details.

8. COMPONENTISATION

In accordance with AAS116 guidelines the following components have been applied:

Asset Class	Components
Roads	Surface and Pavement
Footpaths	Footpath structure
Kerb	Kerb structure
Stormwater Drainage	Pipes and Pits
LATMs	Structure
Street Furniture	Structure
Right Of Ways	ROW structure