
INSTITUTE OF PUBLIC WORKS ENGINEERING AUSTRALASIA

SUBMISSION TO AASB

Definition and Use of Residual Value

1. Background

The Australian Accounting Standards Board is conducting a targeted outreach on the definition of Residual Value. The targeted outreach details are shown in Appendix A.

Residual value is defined in Australian Accounting Standard AAS116, Property, Plant and Equipment as:

“the estimated amount that an entity would currently obtain from disposal of the asset, after deducting the estimated costs of disposal, if the asset were already of the age and in the condition expected at the end of its useful life” (AASB 116.6).

The AASB received a submission requesting that it clarify the definition of residual value in AASB 116 *Property, Plant and Equipment*. The submission:

- a) argues that this interpretation of AASB 116 is unduly limiting and does not reflect the intention of AASB 116. The submission asserts that the definition of residual value in paragraph 6 of AASB 116 may unduly limit its recognition to circumstances in which an entity would receive proceeds from the sale of the asset;
- b) provides an example of an entity recycling crushed gravel for reuse in the reconstruction of a road to bring it back to a state that is identical to its original wearing surface. It is argued that the residual value of the original road surface, which is at the end of its useful life, is the ‘cost savings realised (or expected to be realised) from the reuse of salvaged materials’; and
- c) recommends the Board consider including an ‘Aus’ paragraph in AASB 116 to permit not-for-profit entities to recognise the cost savings in replacing an asset as part of the residual value.

The Board is specifically interested to hear:

- whether constituents feel the requirements of AASB 116, in relation to residual value, are clear?
- how constituents are determining the residual value of recyclable assets?
- whether constituents consider the issue is limited to the not-for-profit sector?
- examples of recyclable assets.

2. Role of IPWEA

The Institute of Public Works Engineering Australasia (IPWEA) is the leading organisation for Public Works Engineering professionals in Australia and New Zealand. IPWEA has over 3,600 members and is recognised as a leading organisation for infrastructure asset and financial management throughout the world.

IPWEA has developed resources to assist and guide organisations that provide services from infrastructure to improve the sustainability of their infrastructure operations by:

- developing and improving asset management policies, strategies and plans to show how services from infrastructure are to be provided
- integrating and aligning the asset management plans with a long-term financial plan, and
- reporting on organisational performance through Annual Reports incorporating Financial Statements.

IPWEA's has developed and provides many resources to assist organisations including:

- NAMS.PLUS Asset Management (www.ipwea.org.namsplus)
- Australian Infrastructure Financial Management Guidelines (www.ipwea.org/AIFMG)
- Practice Notes for:
 - Condition assessment and asset performance guidelines – preamble document
 - PS 1 Footpaths and Cycleways
 - PS 2 Kerb and Channel (Gutter)
 - PS 3 Buildings
 - PS 4 Asset Management for Small, Rural or Remote Communities
 - PS 5 Stormwater Drainage
 - PS 6 Long-Term Financial Planning
 - PS 7 Water Supply and Sewerage
 - PS 8 Levels of Service & Community Engagement
 - PS 9 Road Condition (in final editing)
 - PS 10.1 Parks Management
 - PS 11 Street Lighting
 - PS 12 Useful Life (in development)
 - PS 13 Disaster Recovery Data Management (in development)
 - PS 14 Prioritising Capital Works (in development)

IPWEA provides services on infrastructure management and financial reporting to many organisations and governments in Australia and throughout the world. IPWEA CEO, Chris Champion is an advisor to the US Federal Highways Administration on asset and financial planning for infrastructure.

3. Use of Residual Value for Infrastructure Valuations

Residual value recognition is currently commonly used to reduce the depreciable amount of an infrastructure asset to the estimated cost of the next replacement/renewal (regardless of whether the asset would be disposed of or retained (and renewed)). In some cases, this is without any justification or auditable evidence. This is a technical interpretation of the definition in AASB 116 Property, Plant and Equipment of residual value being the *estimated amount that an entity would currently obtain from disposal of the asset* as an internal saving in future cost.

There are varying opinions as to whether this technical interpretation complies with AASB 116.

A literal interpretation indicates that a cash receipt on sale/disposal of the asset is required to recognise a residual value.

In practice there are very few occasions when an infrastructure asset can be sold at the end of its useful life.

This position appears to be recognised by AASB 11 Clause.53 *“in practice, the residual value of an asset is often insignificant and therefore immaterial in the calculation of the depreciable amount.”*

3.1 Defining Residual Value

In 2009, IPWEA's *Australian Infrastructure Financial Management Guidelines* attempted to define and quantify the technical interpretation of residual value as:

*"A Residual Value could be recognised when the estimated cost to replace/renew an asset is less than the cost to replace/renew the asset."*¹

This could be justified by documentation in replacement/renewal strategies and expenditure projections in the asset management plans and funding in the long-term financial plan.

Under this definition, recognition of a 20% residual value for an asset implies that the next replacement/renewal of the asset can be done for 80% of the gross replacement cost of the existing asset.

4. Examples of Recognition of Residual Value

There are several instances where residual value is currently widely (but not uniformly) recognised in infrastructure valuations including:

- Road spray (flush) seal surfacing
- Recycling of sealed road pavements
- Lining of stormwater and sewerage pipelines
- Building roof components

Examples of common residual value accounting treatments for such assets and instances are described below.

4.1 Residual value in sealed road spray (flush) seal surfacing

Sealed roads generally comprise several components within a section:

- Earthworks
- Pavement
- Surfacing
- Other including kerb & channel, footpaths, culverts, guard rails, etc.

The sealed road surfacing may be either a spray (flush) seal or asphalt. The spray seal is generally applied as an initial primer seal (recognised as part of the pavement), followed by a 2 coat (layer of sprayed hot bitumen with 14mm aggregate and second layer of sprayed hot bitumen with 7mm aggregate) to form the road surfacing.

This road surfacing typically has an expected life of 15 – 20 years due to oxidation of the bitumen and subsequent loss of aggregate and should be replaced at that time. The replacement seal is generally a single coat seal (layer of sprayed hot bitumen with 10mm aggregate) placed over the end-of-life 2 coat seal.

Calculation of Residual Value

- Cost² of initial 2 coat seal \$6.00 / m²
- Cost of single coat reseal \$4.00 / m²
- Residual Value = \$2.00 / m² (33%)

The sealed road surfacing asset should be valued at the cost of the initial 2 coat seal for this recognition to be valid.

¹ IPWEA, 2009, Sec 12.11, p 12.49-52.

² Gross Replacement Cost – the cost of replacing the existing asset with a new asset of equivalent service capacity.

4.2 Residual value in road pavement recycling

Road pavements are constructed using several materials such as:

- Natural gravels
- Manufactured stone material mix
- Full depth asphalt

Pavements constructed with natural gravels are most common in Australia. The natural gravel pavement material particles break down over time leading to pavement distortion, increasing roughness and poor rideability of the road for road users. These pavements have a typical life of about 60 years. The service capacity of these pavements can be restored by either replacement/reconstruction or remixing and strengthening of the material by addition of a stabilisation additive, such as lime, cement or bitumen, remixing of the existing pavement material, compaction, trimming and resurfacing.

Calculation of Residual Value for recycling of natural gravel road pavements

- Cost of initial pavement \$40.00 / m²
- Cost of recycling/stabilisation \$20.00 / m²
- Residual Value = \$20.00 / m² (50%)

In some cases, only the upper part (say 50%) of the pavement depth is recycled to achieve the desired service capacity.

4.3 Residual Value in lining of stormwater and sewerage pipelines

Stormwater and sewerage pipe have a relatively long life. Pipes can reach end of life for a variety of reasons including:

- Physical condition – pipe structure can collapse, joints can be displaced
- Capacity – pipe capacity does not meet current demand

Research by Logan City Council in the 1990's indicated that a typical stormwater pipe had sufficient physical strength to be lined with a structural liner after 125 years life or would need complete replacement after 140 years under the operating conditions of the study.

Lining with a structural liner to restore the structural capacity of the pipe at 125 years can extend the service life of the pipe by about 50 years. There are economic benefits in using liners to extend the service capacity by lining at 125 year in lieu of complete replacement at age 140 years.

Calculation of Residual Value for lining of stormwater and sewerage pipelines

- Cost of 450 mm dia reinforced concrete pipeline \$700 / m
- Cost of lining 450 mm dia pipe \$300 / m (est)
- Residual value \$400 / m (57%)

4.4 Residual Value in building roof resheeting

The roofs of buildings are generally recognised as a separate component of a significant building as the roof is considered to have a different life to the building. Componentisation is usually based on roof and building construction costs from commercial construction handbooks. 15% for the roof is a typical roof component cost of a building.

Calculation of Roof Component Value

- Cost of Building \$400,000
- Cost of roof component (15%) \$60,000

After some time, the roof sheeting requires replacement. The roof sheeting is replaced with the roof structure remaining in service.

Calculation of Residual Value for resheeting of building roof

- Cost of building roof component \$60,000
- Cost of replacing roof sheeting \$24,000
- Residual value \$36,000 (60%)

5. Review of use of Residual Value

5.1 Audit Reporting

In his report to Parliament on Local Government Authorities for 2011-12, the Tasmanian Auditor-General commented on use of residual values by councils in Tasmania noting:

“a number of councils, as part of revaluations, introduce the concept of residual values for long-lived infrastructure assets, particularly roads. This has resulted in a reduction in annual depreciation charges and improvements in road consumption ratios.

*We have accepted the implementation of a residual value because its introduction was based on expert advice from councils’ engineers and **where impacts on some asset components were not material.***

*However, during 2011-12 we noted a number of instances **where the proposed residual value was significant and materially affected the asset valuation and depreciation expense.** In a number of cases, following discussion with councils, the proposed residual values were not implemented.*

At 30 June 2012, at least 11 of the 29 Tasmanian councils used some form of residual value for road infrastructure assets.”³ (emphasis added)

In summarising the discussion, it was concluded:

“From discussions with council management and engineers, it became apparent that there are differing views regarding the definition, use and validity of residual values in the valuation of infrastructure assets, such as roads, for financial reporting purposes.

*We consider the use of residual values, as it relates to infrastructure assets, ignores the impact of technical or commercial obsolescence over the asset’s life. **The residual balance should be depreciated on some basis, even if over an extended useful life,** to ensure the calculation of depreciation complies with the requirements of Australian Accounting Standard AASB 116 Property, Plant and Equipment.*

Some councils disagree with our view because they consider certain components of road infrastructure assets do not depreciate and the requirements of AASB 116 result in depreciation expenses being over-stated.

We have considered the situation and intend to appoint an independent expert to review depreciation methods, including use of residual values, by Tasmanian councils. It is our intention to undertake the review in early 2013 and discuss our findings with councils before the end of the 2013 financial year.”⁴(emphasis added)

³ TAO, 2012, p 26.

⁴ TAO, 2012, p 29.

5.2 Depreciation practices including residual value review.

The Tasmanian Audit Office investigated:

“The two main concerns that arose regarding the use of residual values, in the context of infrastructure assets, particularly roads, were:

- 1. It ignores the fact that at some point in time, the asset may no longer be required and its function may be decommissioned due to obsolescence.*
- 2. Compliance with Australian Accounting Standards in particular AASB 116 Property, Plant and Equipment (AASB 116).⁵*

The A-G’s report concluded:

“We concluded that asset management practices of councils complied with Australian Accounting Standards but that some alterations to existing practices in councils are required. Broadly, the changes to current practice involve:

- a reduced reliance on residual values to affect the depreciable amount of infrastructure assets*
- a greater reliance on cost based fair value assessments to establish current replacement costs*
- a greater use of componentisation to reflect assets with different estimated useful lives.⁶*

Note: The principal author of this submission, John Howard, was one of the authors of the Expert’s Report cited in the Auditor-General’s Report *Infrastructure Financial Accounting in Local Government*.

6. Applying the Tasmanian Auditor General’s Recommendations

IPWEA has recognised the Tasmanian Auditor-General’s Reports in its review of the *Australian Infrastructure Financial Management Guidelines* and has recommended use of appropriate componentisation and valuations based on a modern equivalent asset for infrastructure assets in the updated 2nd Edition of the Guidelines.

Examples of this approach are shown below.

6.1 Sealed road spray (flush) seal surfacing

The asset management activities planned for the sealed spray seal surfacing are:

- initial 2 coat seal at construction of road
- single coat reseal at 15 years
- single coat reseal at 30 years
- single coat reseal at 45 years
- reconstruction/replacement of road pavement at 60 years with 2 coat sealed surface

Road asset components identified under the asset management planning activities are

- road pavement – 60 year expected useful life
- sealed surface long life component – same useful life as road pavement
- sealed surface short life component – 15 year expected useful life

The components are recognised at cost being:

- road pavement – cost of acquisition/construction – depreciated over expected 60 year life
- sealed surface long life component – cost of 2 coat seal less estimated cost of single coat reseal - depreciated over expected 60 year life (could be added to pavement component)

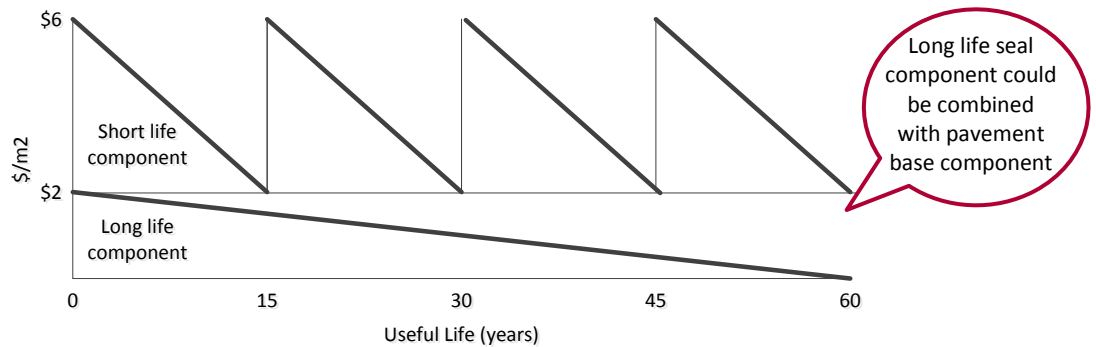
⁵ TAO, 2013, p 8.

⁶ TAO, 2013, p 7.

- sealed surface short life component – estimated cost of single coat reseal – depreciated over expected 15 year life

Figure 1 shows the recognition and depreciation of the long and short life components of the two coat sealed surfacing using the example data from Section 4.1. There is no residual value as the resurfaced sealed surfacings have no salvageable value.

Figure 1: Depreciation of Short and Long Life Components of Two Coat Seal



The components are revalued using the modern equivalent asset as:

- road pavement – gross replacement cost of new asset providing the same service capacity as the existing asset
- sealed surface long life component – estimated cost of 2 coat seal less estimated cost of single coat reseal
- sealed surface short life component – estimated cost of single coat reseal

6.2 Road pavement recycling

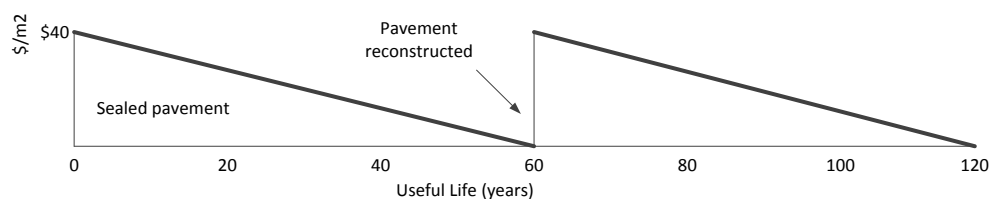
An entity has identified two management options for the replacement/renewal of its sealed road pavements being reconstruction when service levels become unacceptable or recycling of all or part of the pavement material with addition of stabilisation additive, to renew the service capacity of the pavement.

An entity has identified two management options for the replacement/renewal of its sealed road pavements being:

- Option A reconstruction when service levels become unacceptable or
- Option B recycling of all or part of the pavement material with addition of stabilisation additive, to renew the service capacity of the pavement.

Figure 2 shows the depreciation treatment for replacement/reconstruction of the full pavement depth. There is no residual value as the pavement material has no salvageable value.

Figure 2: Depreciation of Sealed Pavement to be reconstructed – Option A



Option B adopts recycling of all or part of the pavement materials depending on the pavement depth. Roads are constructed to varying depths (e.g. 250 mm for light trafficked roads – 500 mm for heavy trafficked roads) to accommodate expected traffic loadings. Examples are shown below

for recycling of the full depth of a light trafficked road and recycling of the base (upper layer) of a 450 mm heavy trafficked pavement.

Case 1 Full depth of pavement is recycled (250 mm pavement depth)

The asset management activities planned for this sealed road pavement are

- initial construction of 250 mm natural gravel sealed road pavement
- recycling and stabilising of full depth pavement at 60 years

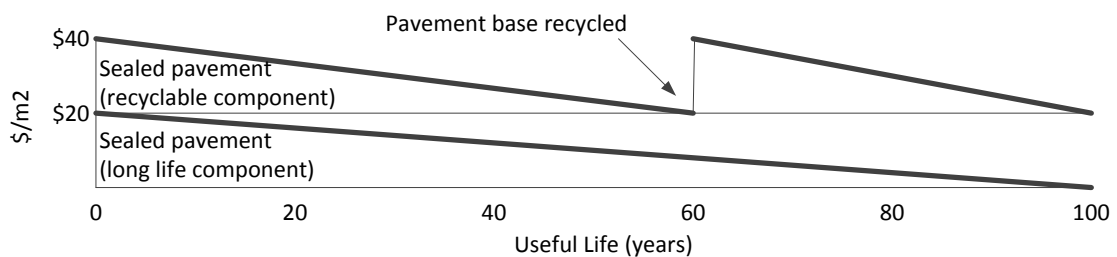
The pavement recycling and stabilising is expected to provide an expected life of 40 years for the recycled pavement. Performance of the pavement will be monitored and a decision made on appropriate replacement/renewal treatment for the pavement (such as reconstruction or further recycling) in due course.

Road asset components identified under the asset management planning activities are

- road pavement long life component – cost of acquisition/construction less estimated cost of planned recycling and stabilisation – depreciated over expected 100 (60 + 40) year life
- road pavement recyclable component – estimated cost of planned recycling and stabilisation – depreciated over expected 60 year life until recycling is required

The applicable depreciation treatment for full pavement recycling is shown in Figure 3.

Figure 3: Depreciation of Sealed Pavement to be Recycled – Option B



The components are revalued using the modern equivalent asset as:

- road pavement long life component – estimated cost of pavement replacement less estimated cost of planned recycling and stabilisation
- road pavement recyclable component – estimated cost of planned recycling and stabilisation

Case 2 Part depth of pavement is recycled (250 mm of 450 mm pavement depth)

The asset management activities planned for this sealed road pavement are

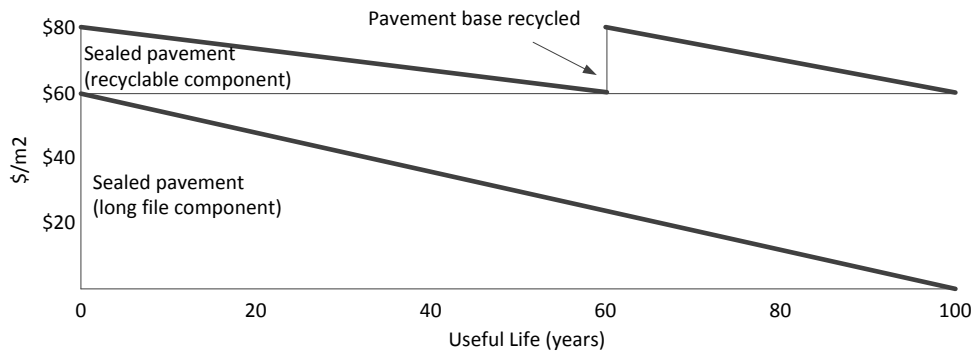
- initial construction of 450 mm natural gravel sealed road pavement
- recycling and stabilising of upper 250 mm of pavement at 60 years

Road asset components identified under the asset management planning activities are

- road pavement subbase (long life component) – cost of acquisition/construction less estimated cost of planned recycling and stabilisation of pavement base – depreciated over expected 100 (60 + 40) year life
- road pavement base (recyclable component) – estimated cost of planned recycling and stabilisation – depreciated over expected 60 year life until recycling is required

The applicable depreciation treatment for part pavement recycling is shown in Figure 4. There is no residual value as the pavement material has no salvageable value.

Figure 4: Depreciation of Sealed Pavement with Base to be Recycled



The components are revalued using the modern equivalent asset as:

- road pavement long life component – estimated cost of pavement replacement less estimated cost of planned recycling and stabilisation
- road pavement recyclable component – estimated cost of planned recycling and stabilisation

6.3 Lining of stormwater and drainage pipelines

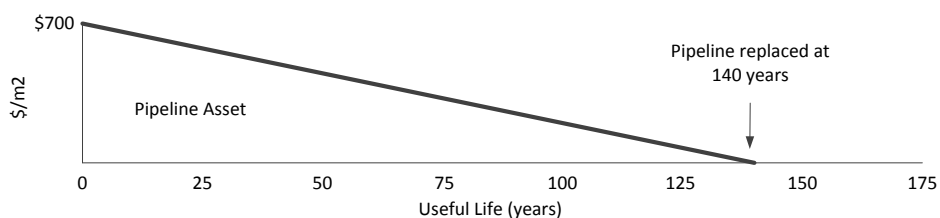
The entity has identified two management options for the stormwater/sewerage pipeline being:

Option A replacement due to structural failure at about 140 years or

Option B insertion of a structural liner at the appropriate time prior to failure at 125 years, to extend the service life of the pipeline.

Figure 5 shows the depreciation treatment for replacement of the pipeline management option. There is no residual value as the pipeline material has no salvageable value.

Figure 5: Depreciation of Pipeline to be replaced at 140 Years - Option A



An example is shown below for lining of the pipeline.

The asset management activities planned for this stormwater/sewerage pipeline are

- initial construction of pipeline
- installation of a structural liner at 125 years

The pipeline lining is expected to provide an expected life of 50 years for the lined the pipeline. Performance of the pipeline will be monitored and a decision made on appropriate replacement/renewal treatment for the pipeline such as replacement or further lining.

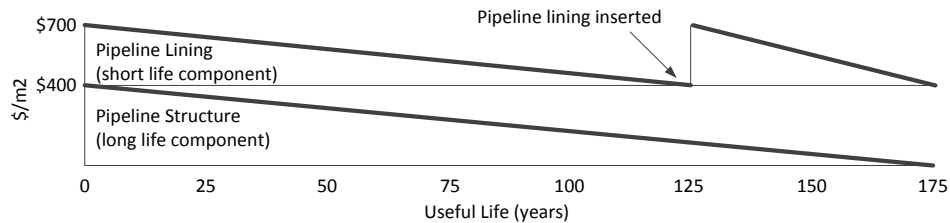
Pipeline asset components identified under the asset management planning activities are

- pipeline structure long life component– cost of acquisition/construction less estimated cost of future lining– depreciated over expected 175 (125 + 50) year life
- pipeline lining short life component– estimated cost of future lining – depreciated over expected 125 year useful life

The pipeline lining component is the part of the pipeline that is subject to corrosion and other forms of degradation from contact with the environment and materials conveyed in the pipeline.

Figure 6 shows the depreciation treatment for the pipeline lining management option. There is no residual value as the pipeline material has no salvageable value.

Figure 6: Depreciation of Pipeline to be lined at 125 Years - Option B



The components are revalued using the modern equivalent asset as:

- pipeline structure long life component – estimated cost of replacement less estimated cost of lining
- pipeline lining short life component - estimated cost of lining

The renewal strategies for pipeline should be regularly reviewed as technology developments in pipeline replacement such as pipe bursting may require a change to the depreciation treatment.

6.4 Resheeting building roof

The asset management activities planned for the building roof are

- initial construction of roof with building
- replacement of roof sheeting at 50 years
- demolition of building at 100 years

Building roof components identified under the asset management planning activities are

- roof structure – cost of acquisition/construction \$36,000 (9% of \$400,000) – incorporated into building structure and depreciated over expected 100 year useful life
- roof sheeting – cost of acquisition/construction \$24,000 (6% of \$400,000) – depreciated over expected 50 year useful life

Figure 6: of Building Roof Resheeted with retention of Roof Structure



Appropriate componentisation of building roofs into the roof structure and roof sheeting is illustrated in Figure 7.

The components are revalued using the modern equivalent asset as:

- roof structure long life component – estimated cost of replacement
- roof sheeting short life component – estimated cost of resheeting

For buildings recognition, the componentisation is generally based on the *construction cost* of the building apportioned to components as shown below.

Calculation of Roof Component Value

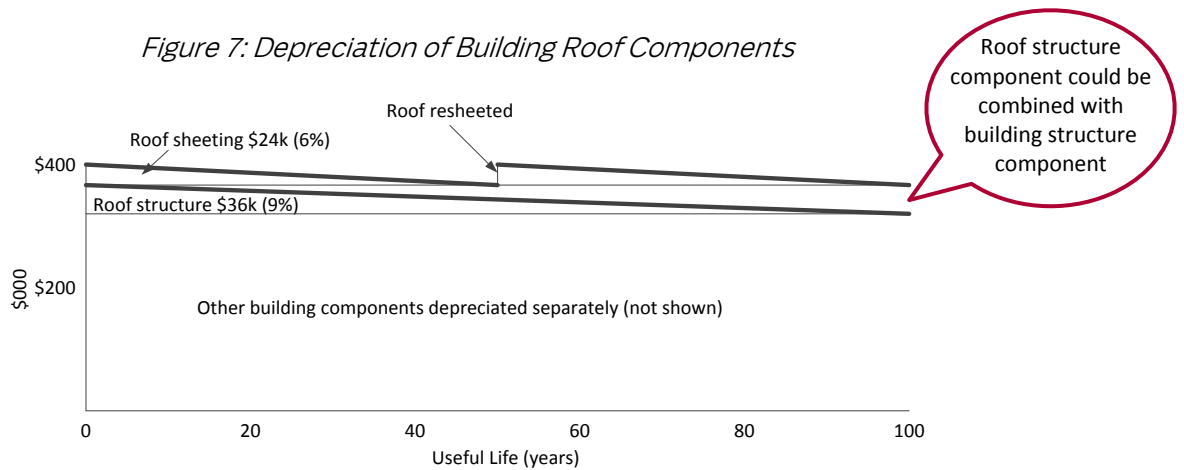
- Cost of Building \$400,000
- Cost of roof component (15%) \$60,000

The building componentisation approach outlined above is based on the *renewal cost* for the building apportioned to components as outlined below.

Calculation of Roof Component Value

- Cost of Building \$400,000
- Cost to replace roof sheeting \$24,000 (6%)
- Cost of roof structure \$36,000 (9%) – incorporated into building structure

Figure 7 shows the depreciation treatment for the building roof components. There is no residual value as the roofing material has no salvageable value and disposal will involve recovery and disposal costs.



7. Summary

IPWEA’s response to the questions posed in the AASB targeted outreach on the definition of residual value is shown below.

7.1 Requirements of AASB 116

We consider that the definition of residual value in AASB 116 Property, Plant and Equipment is appropriate for infrastructure assets. The definition allows a residual value to be recognised when the entity is able to obtain income from the sale or disposal of the infrastructure asset.

The definition can be easily justified and substantiated by financial income records.

7.2 Determination of Residual Value

Residual value is currently often being interpreted by practitioners to allow a future cost saving from replacement/renewal of an asset to be recognised as a residual value. Section 4 details examples of how residual value is determined using this interpretation.

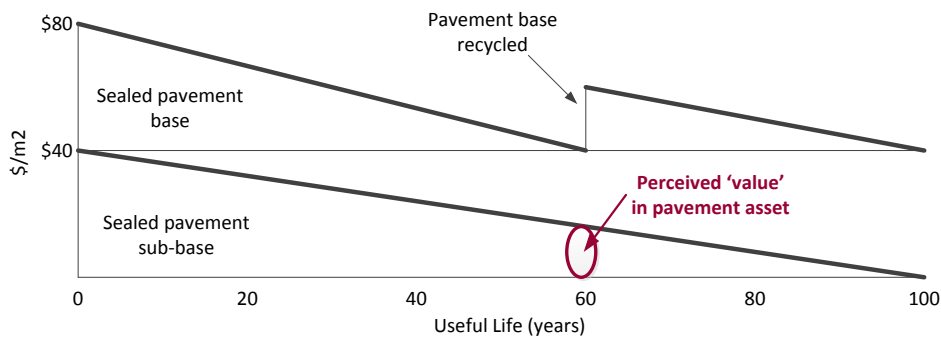
There are varying opinions as to whether this interpretation is in accordance with AASB 116.

Issues arising with this interpretation include:

- justification and substantiation of the residual value when it is used to recognise a future 'cost saving'
- compliance with AASB 116
- an assumption that the part of the asset recognised as residual value has an indefinite life and will not be replaced/renewed

It could be argued that the part of the asset remaining when part is replaced/renewed has some value as illustrated in Figure 8.

Figure 8: Perceived remaining Value in Renewal of Part of Asset



Any perceived value in a part of an asset remaining when other parts are replaced/renewed can be recognised by appropriate componentisation and valuation as modern equivalent assets as illustrated in this submission.

7.3 Limitation to the not-for-profit sector

Residual value for infrastructure is not limited to the non-for-profit sector.

7.4 Examples of Recyclable Assets

Section 4 of this submission documented four examples showing the technical interpretation of residual value for infrastructure. Of the four examples, only one, recycling of sealed road pavement assets could be considered as a recyclable asset.

The other 3 examples are not examples of recyclable assets but examples of inadequate componentisation to recognise the different expected useful lives of parts of the assets as shown below:

- Sealed road two coat spray seals – appropriate treatment is to recognise short-life (single coat reseal) and short-life (2 coat less reseal) components
- Lining of stormwater and sewerage pipelines – appropriate treatment is to recognise short-life (pipeline lining) and long-life (pipeline structure) components
- Building roofs - appropriate treatment is to recognise short-life (roof sheeting) and long-life (roof structure) components

The fact that there is a value to the organisation from the recycling of sealed road pavement assets is also better accounted for by greater componentisation rather than recognising a residual value.

Infrastructure assets do not typically last forever. IPWEA cannot identify examples where recognising residual value for assets that would not generate revenue when disposed of at the end of their useful life is warranted.

The fact that value to the organisation may exist when assets are renewed can best be accommodated by adequate componentisation treatment.

8. Recommendation

AASB retain the definition of residual value in AASB 116 Property, Plant and Equipment and encourage greater use of appropriate componentisation and revaluation as modern equivalent assets. The componentisation should be based on renewal strategies and estimated costs rather than construction costs. This will allow:

- Compliance with AASB 116
- Increased justification and substantiation based on renewal/replacement strategies and expenditure projections in asset management plans and funding in long-term financial plans
- Improved financial reporting from more accurate asset register data
- Reduced risk of obsolescence effects where assets recognised as unlimited life assets are subject to replacement/disposal.

References

AASB, Australian Accounting Standard 116, *Property, Plant and Equipment*, Australian Accounting Standards Board, Melbourne.

IPWEA, 2015, *Australian Infrastructure Financial Management Guidelines, 2nd Edition* (in preparation), Institute of Public Works Engineering Australasia Sydney.

TAO, 2012, *Report of the Auditor-General No 4 of 2012-13, Auditor-General's Report on the Financial Statements of State entities, Volume 4 Part 1, Local Government Authorities, 2011-12*, Tasmanian Audit Office, Hobart.

TAO, 2013, *Report of the Auditor-General No. 5 of 2013-14, Infrastructure Financial Accounting in Local Government*, Tasmanian Audit Office, Hobart.

Prepared by

John Howard
IPWEA NAMS.AU Project Manager

John Comrie FCPA
Co-author AIFMG

16 January 2015.

NAMS Australia is an initiative of the IPWEA National Asset Management Strategy [NAMS] Committee. NAMS.AU seeks to provide national leadership and advocacy in the sustainable management of public works infrastructure, community assets and services.

IPWEA
Level 12, 447 Kent St, Sydney NSW 2000
T 02 8267 3001
E admin@ipwea.org
W www.ipwea.org

APPENDIX A

AASB Targeted outreach on definition of Residual Value

The issue

The AASB received a submission requesting the AASB clarify the definition of residual value in AASB 116 *Property, Plant and Equipment*. The submission:

- d) argues that this interpretation of AASB 116 is unduly limiting and does not reflect the intention of AASB 116. The submission asserts that the definition of residual value in paragraph 6 of AASB 116 may unduly limit its recognition to circumstances in which an entity would receive proceeds from the sale of the asset;
- e) provides an example of an entity recycling crushed gravel for reuse in the reconstruction of a road to bring it back to a state that is identical to its original wearing surface. It is argued that the residual value of the original road surface, which is at the end of its useful life, is the 'cost savings realised (or expected to be realised) from the reuse of salvaged materials'; and
- f) recommends the Board consider including an 'Aus' paragraph in AASB 116 to permit not-for-profit entities to recognise the cost savings in replacing an asset as part of the residual value.

Minutes from the Board's discussion at the September 2014 AASB meeting

The Board noted the submitter's concerns in relation to the definition and application of the term 'residual value', which might be read as limiting the recognition of residual values to those cases when an entity will receive consideration from the sale of an item of property, plant and equipment (PPE) at the end of its useful life.

The Board noted the various principles in AASB 116 for accounting for items of PPE, specifically the application of those principles for an asset that is subject to being recycled into a new asset of the entity. The Board considered the issue detailed in the submission is not limited to the NFP sector and could apply to a range of recyclable assets.

The Board directed staff to conduct targeted outreach on the issue, in both the for-profit and NFP sectors, to assess the prevalent accounting treatment for recyclable assets and whether diversity in practice exists.

Process

As directed by the Board, AASB staff are currently performing targeted outreach on the issue and are specifically interested to hear:

- whether constituents feel the requirements of AASB 116, in relation to residual value, are clear?
- how constituents are determining the residual value of recyclable assets?
- whether constituents consider the issue is limited to the not-for-profit sector?
- examples of recyclable assets.

INSTITUTE OF PUBLIC WORKS ENGINEERING AUSTRALASIA

SUBMISSION TO AASB

Definition and Use of Residual Value

Further comments on particular examples prepared at the request of AASB subsequent to IPWEA submission of 16 Jan

IPWEA acknowledges that there can be instances where it is cost effective and appropriate for entities to re-use components of existing assets to reduce asset renewal/replacement costs. Where this is so, it is appropriate to recognise that such components had value at the point in time that renewal was undertaken.

It considers however that the recording of a residual value is not the appropriate way to do so. It seems incongruous to us to recognise a residual value for an asset (or asset component) that has a finite life (even if of somewhat uncertain duration) and will not be disposed of to another party for a positive net amount at the end of its life. It is also unnecessary.

If an entity recognises (where material) that assets are often made up of components with differing useful lives and depreciates these components accordingly its financial statements will reliably reflect the cost of asset consumption for any period and the remaining value of its assets at the end of any period. This is highlighted in the examples below.

Resheeting of Unsealed Road

Unsealed roads are constructed with natural gravel materials to provide a smooth wearing surface capable of carrying vehicular traffic under all weather conditions. The initial construction is generally about 150 mm depth. The natural gravel materials are eroded over time by traffic usage and weather condition (wind) resulting on exposure of the natural formation and reduction in service levels (eg potholes)

The wearing surface is resheeted (renewed) by placing additional gravel material on the road to replace the eroded materials. In many cases renewal of the wearing surface requires a lesser depth of material (say 100 mm) due to some material remaining on the road at the time of renewal.



Unsealed Road prior to Resheeting



Resheeted Unsealed Road

Asset Management activities planned for the unsealed road are:

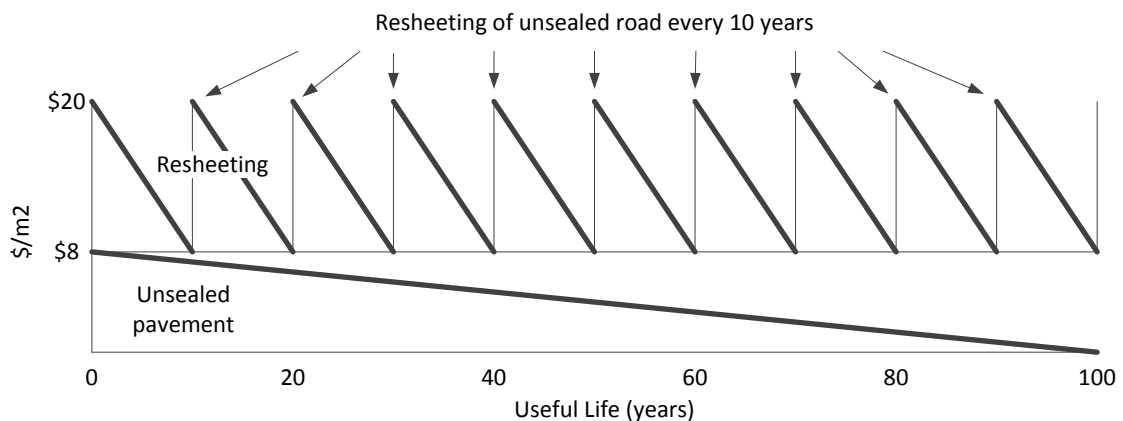
- Initial formation and construction of sheeted pavement and wearing surface (150 mm of natural gravel)
- Resheeting at regular intervals (say 10 years) to restore the service levels (say 100 mm of natural gravel)

Unsealed road components identified under the asset management planning activities are

- Unsealed pavement long life component – cost of construction less estimated cost of resheeting ($\$20/\text{m}^2 - \$12/\text{m}^2 = \$8/\text{m}^2$)¹ – depreciated over expected 100 year life (allows for obsolescence, eg change in service needs and preferences, but useful life kept under constant review)
- Resheeting short life component – estimated cost of resheeting ($\$12/\text{m}^2$) – depreciated over expected 10 year life.

The applicable treatment for unsealed roads and resheeting of unsealed roads is shown in Figure 1.

Figure 1: Depreciation of Unsealed Roads with Resheeting of Wearing Surface



The components are valued using the modern equivalent assets as:

- Unsealed pavement long life component – estimated cost of pavement replacement less estimated cost of planned resheeting
- Resheeting short life component - estimated cost of planned resheeting

Other examples

A. Mixing of road seal and pavement to form renewed pavement and sealed.

Asset Management activities planned for the sealed road are:

- Initial formation and construction of sealed pavement and wearing surface
- Mixing of sealed surface and pavement base, compaction and sealing at regular intervals (say 50 years) to restore the service levels

Road components identified under the asset management planning activities are

- Sealed pavement long life component – cost of construction less estimated cost of mixing and compaction – depreciated over expected 100 year life (allows for obsolescence)
- Mixed pavement base short life component – estimated cost of mixing and compaction – depreciated over expected 50 year life
- Sealed surface – see 2 coat seal example – depreciated over expected life.

¹ Cost estimates are examples for this submission.

B. Replacement of Timber Bridge with concrete span

Asset management activities planned for the timber bridge are

- Initial construction of timber bridge
- Removal of timber deck and replacement with concrete deck after say 40 years
- Replacement of bridge with concrete bridge when timber components reach end of life after say 60 years

Bridge components identified under the asset management planning activities are

- Timber bridge structure long life component – cost of construction less estimated cost of replacing deck – depreciated over expected 60 year life
- Bridge deck short life component – estimated cost of deck replacement - depreciated over 40 year expected life (timber deck) or 20 year remaining expected life for bridge structure (concrete deck)

C. Reuse of soft fall surface materials

We would class this as an operating cost as it is probably below the capital recognition threshold

D. Gas Pipe Lining

Asset management activities planned for the gas pipe are

- Initial construction of 150 mm cast iron gas pipe
- Installation of 100 mm flexible pipe inside cast iron pipe and transfer of service connections to new pipe at 60 years when internal lining of cast iron pipe becomes corroded

Pipe components identified under the asset management planning activities are

- 150 mm cast iron gas pipe structure long life component – cost of construction less estimated cost of insertion of 100 mm pipe and transfer of connections – depreciated over expected 100 year life (allows for obsolescence)
- 150 mm cast iron gas pipe lining short life component – insertion of 100 mm pipe and transfer of connections at 60 years - depreciated over 60 year useful life (until lining is inserted) or 40 year useful life (after lining is inserted)

Prepared by

John Howard
IPWEA NAMS.AU Project Manager

John Comrie FCPA
Co-author AIFMG

22 January 2015.

NAMS Australia is an initiative of the IPWEA National Asset Management Strategy [NAMS] Committee. NAMS.AU seeks to provide national leadership and advocacy in the sustainable management of public works infrastructure, community assets and services.

IPWEA
Level 12, 447 Kent St, Sydney NSW 2000
T 02 8267 3001
E admin@ipwea.org
W www.ipwea.org