

Dry Stone Wall

DESIGN GUIDELINES



**City of
Whittlesea**

*The development of these Guidelines
was supported by the Victorian
Government's Streamlining for
Growth Program.*

vpa
Victorian Planning Authority



*Fenwick Stud, Woodstock
Source: Vicki Johnson*

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We acknowledge all Traditional Owners of Country on which these Guidelines apply. We pay our respect to the Elders and community past and present. We acknowledge that Aboriginal people represent the oldest continuing culture in the world today.

Introduction

The Dry Stone Wall Design Guidelines (the Guidelines) provide directions and recommendations on planning, designing and integrating dry stone walls in our built environment and landscapes.

Many dry stone walls in Victoria continue to function as agricultural fences and experience minimal change. In areas of Victoria, some dry stone walls have undergone development and change, the Guidelines will assist with dry stone wall protection and future management.

The Guidelines are part of the Dry Stone Wall Toolkit developed by the City of Whittlesea with funding provided by the [Victorian Planning Authority \(VPA\)](#). The full toolkit can be accessed [here](#).

Purpose of the Guidelines

The Guidelines aim to provide high level guidance for quality and integrated design outcomes in conserving dry stone walls as cultural heritage features.

The Guidelines outline good design practice that responds to local context and enhances the cultural heritage values of dry stone walls for future generations.

Who should use the Guidelines?

The Guidelines are for Council officers, planners, developers, landowners and cultural heritage advisors who work in Victoria's local government areas where dry stone walls are found. Aspects of the Guidelines may be useful for dry stone wall protection in New South Wales, South Australia and Tasmania as well.

How to use the Guidelines

The Guidelines should be used in conjunction with the [Burra Charter](#): the Australia ICOMOS Charter for Places of Cultural Significance 2013, Victoria Planning Provisions, approved strategic land use plans, local Council policies, standards and guidelines.

The structure of the Guidelines



Statutory framework

Explains the statutory obligations for dry stone wall protection in Victoria and dry stone wall management processes.



Vision and Principles

Sets out the Vision and Principles for built environment and landscape design with dry stone walls.



Guidelines

Provides practical design advice when undertaking strategic land use planning, landscape, transport and infrastructure projects with dry stone walls.

Partners for the Guidelines



Significance of dry stone walls in Victoria

Dry stone walls are important and distinctive features in many diverse landscapes across Victoria.

Historically, dry stone work is a technique that has been used to construct fences, small structures, animal pens, retaining walls, dams, mines, water channels and causeways. Aboriginal dry stone structures exist in areas of the Victorian Volcanic Plain in the form of house and fencing foundations, stone arrangements, and aqua engineering such as fish traps and eel channelling. The complex site of Budj Bim in south-west Victoria is a key example and recognised as a World Heritage Site by UNESCO.

Note that the Guidelines do not specifically address Aboriginal cultural heritage. Nevertheless, Aboriginal cultural heritage values must be considered in dry stone wall management as required under the Aboriginal Heritage Act 2006 and Aboriginal Heritage Regulations 2018.

The variety of historic dry stone structures across Victoria is testament to the skills and endeavour of early immigrant communities who brought walling skills from their home countries. Dry stone wall construction also reflects the limited fencing resources available to communities in the early settlement period.

Dry stone walls signify the relationship between the Victorian Volcanic Plain geomorphology and the human-modified landscape. The type of stone utilised for dry stone walls relates to the different volcanic eruption points across the Victorian Volcanic Plain where the materials were sourced.



Figure 1 Traditional double driveway wall in Epping.
Source: Sera-Jane Peters



Figure 2 Post and rail composite stone wall in Little River.
Source: Wyndham City Council



Figure 3 Stone stockyard wall in Toolern Vale.
Source: Sera-Jane Peters

Statutory Framework

In Victoria, dry stone walls are protected by statutory frameworks at both state and local government levels. The recent implementation of protection regimes and community advocacy for dry stone walls reflect the growing interest and appreciation for dry stone walls.

The Victoria Planning Provisions provide for the protection of dry stone walls in Victoria. Dry stone walls can be protected in the Schedule to Clause 43.01 (Heritage Overlay) and/or Clause 52.33 (Post Boxes and Dry Stone Walls), triggering the requirement for a permit for impacts including their demolition or removal. Some municipalities have specific local policy for dry stone walls under Clause 15.03 (Heritage), which provides guidance when assessing permit applications relating to dry stone walls. Other councils may have permit application requirements for dry stone walls under Clause 43.01 (Heritage Overlay). As part of larger historic sites, some dry stone walls are included on the Victorian Heritage Register (VHR) and subject to the *Heritage Act 2017*, prohibiting alteration without a permit.

Council decision-makers, developers, landowners and planners must be aware of their obligations to protect and manage dry stone walls under the relevant state legislation. Each council may also have local planning policies, strategic and statutory requirements, as well as other overlays and guidelines that need to be followed and/or considered.

Any land use proposals and permit applications that will impact dry stone walls require mapping, assessments of cultural heritage significance and recommendations for dry stone wall conservation and management. Assessments of cultural heritage significance must be undertaken using the criteria and the framework of the *Burra Charter*, which is the nationally accepted code of practice for cultural heritage practitioners in Australia.



Figure 4 City of Melton's dry stone wall community workshop. Source: Sera-Jane Peters

The *Burra Charter* advocates a cautious approach to change: do as much as necessary to care for the place and to make it useable. Where it is not feasible, change the place as little as possible to retain its cultural significance. To identify and assess dry stone walls, councils may also undertake dry stone wall studies that are referenced in Local Planning Schemes.

Victorian local governments may adopt different tools to manage the conservation of dry stone walls. Whittlesea, Melton and Wyndham councils have specific processes to ensure dry stone walls are managed appropriately in areas experiencing rapid growth. For more details, see the links on the below to their Planning Schemes.

Regional and rural walls

If your project is taking place in regional and rural areas of Victoria, contact your local council to confirm how they manage dry stone wall protection.

When undertaking works around dry stone walls, always check with the local council before you make plans.

Different councils may have processes and/or requirements for dry stone wall protection. Below are links to relevant Planning Scheme clauses from three growth area councils.

City of Whittlesea

[Clause 15.03 Heritage](#)
[Clause 52.33 Post Boxes and Dry Stone Walls](#)

City of Melton

[Clause 15.03 Heritage](#)
[Clause 43.01 Heritage Overlay](#)

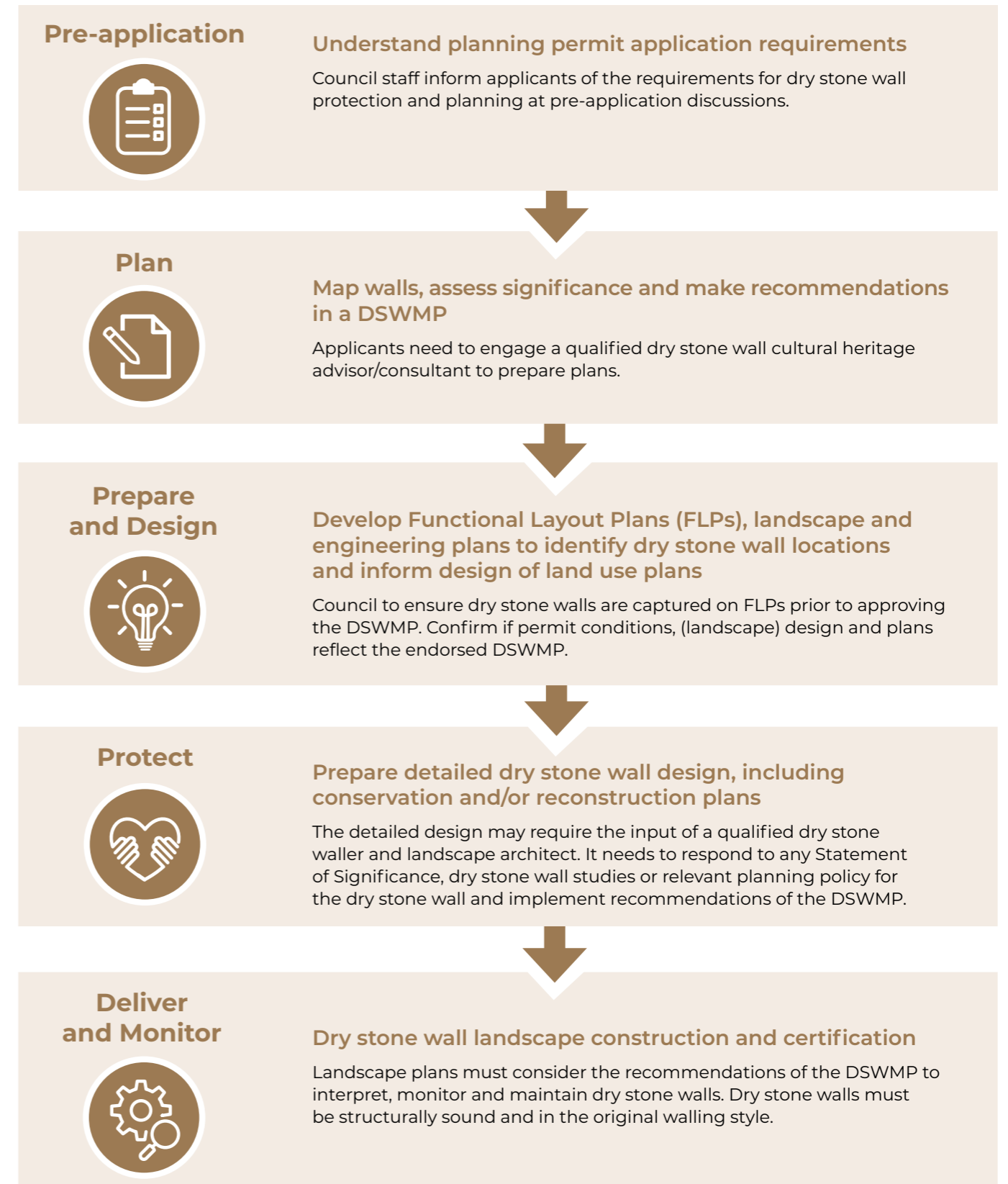
City of Wyndham

[Clause 15.03 Heritage](#)
[Clause 43.01 Heritage Overlay](#)
[Clause 52.33 Post Boxes and Dry Stone Walls](#)



Dry stone wall management process

Dry stone walls will be subject to a planning process. Some councils will also require Dry Stone Wall Management Plans (DSWMPs) prior to approving any change to, conservation of, and/or development around dry stone walls. Below is a common process for applicants, owners and developers. To see a good example of a DSWMP, click [here](#).



Vision and Principles

Provide high quality and integrated design outcomes that conserve dry stone walls as historic features.

Aesthetic, natural and cultural values of dry stone walls are protected and retained for future generations.



Plan

Act early in your project. Engage an expert and talk to your local council as soon as possible.



Integrate

Dry stone wall retention should inform the layout of your strategic land use and open space plans. Aim for high quality design outcomes that enhance cultural values and respond to the surrounding context.



Relate

Incorporate cultural heritage elements in design to ensure they are vital aspects of the built environment and landscape.



Retain

Preserve dry stone walls in situ as much as possible.



Maintain

Maintain dry stone wall integrity and cultural heritage values. Recognise their aesthetic, cultural heritage and landscape contributions.



Interpret

Reflect the values of dry stone walls in integrated design outcomes.

Guidelines

This section provides guidance on four key activities that have the greatest influence on dry stone wall conservation and the design of built environment and landscape surrounding dry stone walls:

- Strategic Land Use Plans
- Landscaping
- Transport Corridors
- Infrastructure

Recommendations in this section aim for high quality and integrated design outcomes that are attractive, functional and safe.

Some Objectives and Guidelines are repeated throughout each sub-section due to their relevance to two or more key activities. Although the sub-sections are designed to complement one another, they can also be read independently to guide specific activity.

*Newly repaired dry stone wall corner in Plumpton.
Source: Sera-Jane Peters*

Strategic Land Use Plans

OBJECTIVE 1

Protect aesthetic, natural and cultural heritage values of dry stone walls

OBJECTIVE 2

Create a safe environment around dry stone walls

OBJECTIVE 3

Balance dry stone wall protection with safety, maintenance and infrastructure delivery

Fenwick Stud, Woodstock
Source: Vicki Johnson

Strategic Land Use Plans

When planning for new built environments and landscapes, dry stone walls should be considered as both cultural heritage and landscape elements.

Where [Precinct Structure Plans \(PSPs\)](#) and/or other strategic land use plans have been developed, planners should support best practice approaches for dry stone wall conservation and management. Strategic land use plans are an opportunity to identify and make recommendations for dry stone wall retention and integration into built environments and landscapes.

While some dry stone walls will remain in situ on private land, most walls will be retained in public open spaces, such as parks and road reserves. Where dry stone walls are located within the public realm, their ownership will usually be vested in council.

Early planning for dry stone wall conservation offers the best opportunity to celebrate their distinctive values. Good planning will avoid later development conflicts and planning permit delays by negotiating solutions that work for all stakeholders.

Dry stone walls may also be mapped in PSPs, Development Plans (DPs) and other strategic land use planning documents. In 2021 the VPA released revised Precinct Structure Planning Guidelines with a strong focus on place-based outcomes for high-quality public realm delivery for new communities in Victoria. This presents opportunities for easier integration of dry stone walls into public spaces where their heritage values and aesthetic appeal can contribute to sense of place and community identity.

OBJECTIVE 1

Protect aesthetic, natural and cultural heritage values of dry stone walls

- 1.1 Protect and retain dry stone walls intact and in situ for future generations.
 - Maintain long, unbroken lengths of dry stone walls.
 - Minimise new openings, crossovers and intersections through dry stone walls.
 - The longer the dry stone walls are, the more impressive their aesthetic presence is.
- 1.2 Where appropriate, retain dry stone walls in the public realm.
 - Retaining dry stone walls in the public realm will conserve their cultural heritage values for wider appreciation by the community.
- 1.3 Locate dry stone walls away from access points in public open space.
 - This minimises potential damage caused by pedestrian movement.
- 1.4 Avoid subdividing dry stone walls into multiple ownerships.
 - When walls are included on the Heritage Overlay, it can be difficult to manage permits with multiple stakeholders.
- 1.5 Include dry stone walls in all plans to ensure an integrated planning and design approach.
 - For example: Precinct Structure Plans (PSPs), Development Plans (DPs), Functional Layout Plans (FLPs), subdivision layout, civil, landscape and engineering plans.
- 1.6 Locate facilities away from dry stone walls.
 - For example: playgrounds, toilets and barbecue spots.
 - There is a risk of dry stone walls being unwittingly dismantled.



Figure 5 Long, unbroken lengths of dry stone walls are maintained intact and in situ, away from the playground at Gammage Park, Epping.
Source: City of Whittlesea

OBJECTIVE 2

Create a safe environment around the dry stone wall

- 2.1 Maximise passive surveillance opportunities around dry stone walls.
 - Provide buildings with active frontages to overlook dry stone walls.
 - Orientate windows, balconies and habitable rooms to front dry stone walls.
 - Consider low fences to improve passive surveillance and perception of safety around dry stone walls.
 - Minimise side and rear fence interfaces with dry stone walls.
- 2.2 Consider lots with rear vehicle access to maximise passive surveillance opportunities and maintain long, unbroken lengths of dry stone wall.

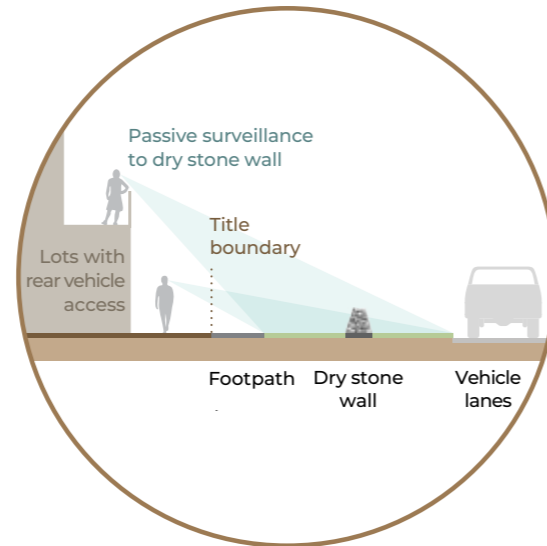


Figure 6 Lots with rear vehicle access maximise passive surveillance opportunities and minimise the number of new openings through dry stone walls.

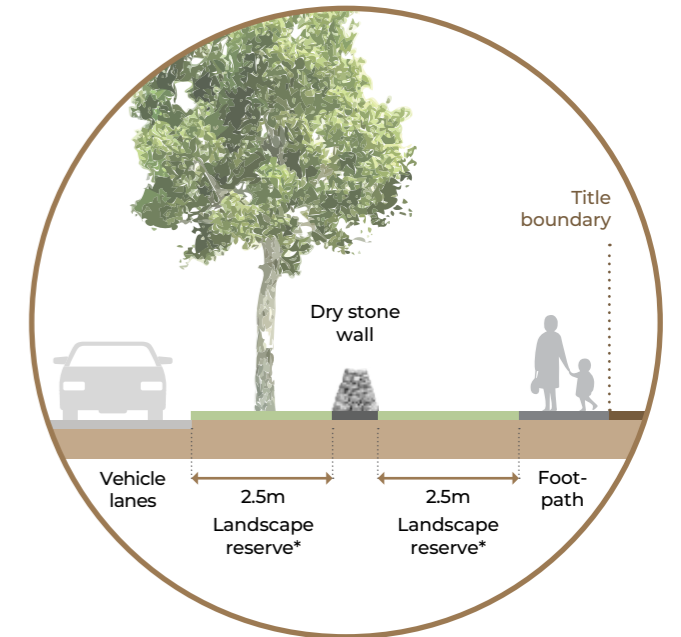


Figure 7 Lots with rear vehicle access on Elliottdale Walk, Rockbank.
Source: City of Melton

OBJECTIVE 3

Balance dry stone wall protection with safety, maintenance and infrastructure delivery

- 3.1 Provide at least a 2.5m-wide landscape reserve on both sides of dry stone walls to ensure sufficient space for conservation and maintenance.
 - The landscape reserves are additional to infrastructure reserves.
 - The landscape reserves protect pedestrians from falling stone, discourage vandalism, theft and destruction.
- 3.2 Ensure a distance of at least 2.5m between dry stone walls and underground infrastructure.
 - This minimises conflict between service delivery, future maintenance and wall conservation, as well as risk of injury during any works.
- 3.3 Where new openings through dry stone walls are required, provide a safe distance between new wall ends and footpaths.
 - Engage a professional dry stone waller to construct new wall ends and ensure the dry stone wall is structurally sound.
 - Consider the space needed for access by bikes, prams and e-mobility.
 - Pedestrian access should be planned in line with local council standards.



* Vegetation to be approved by (Heritage and Landscape) council officers

Figure 8 Landscape reserves on both sides of dry stone wall are required for conservation and maintenance purposes.

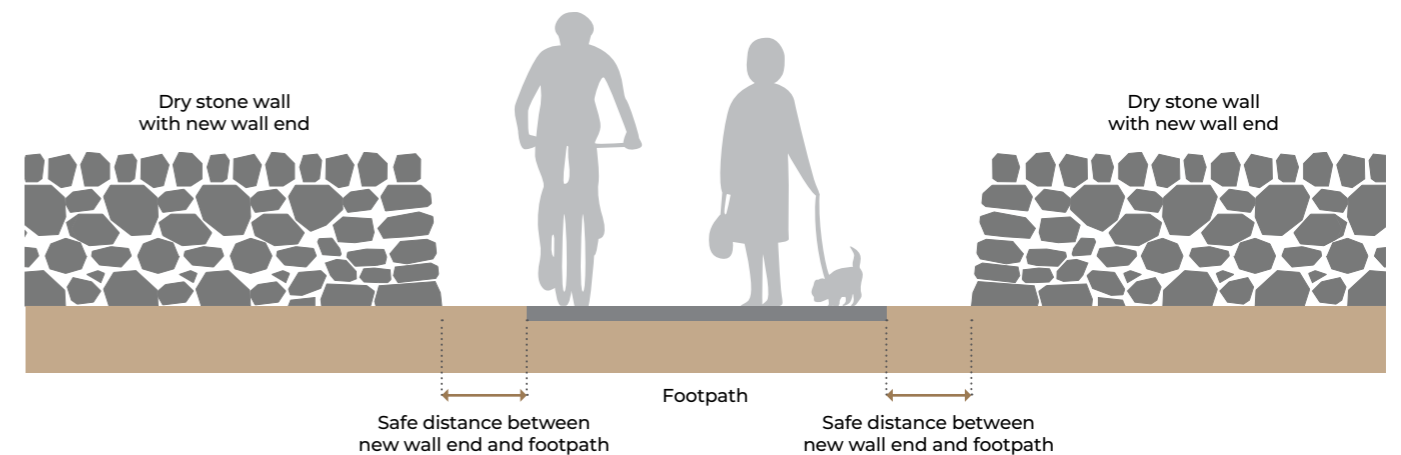


Figure 9 Ensure that new openings include a safe distance between the opening and the wall.

Landscaping

OBJECTIVE 4

Protect aesthetic, natural and cultural heritage values of dry stone walls

OBJECTIVE 5

Create a safe landscape design around dry stone walls

OBJECTIVE 6

Balance dry stone wall protection with safety, maintenance and infrastructure delivery



Rosso Drive, Tarneit.
Source: Wyndham City Council

Landscaping

Landscape design contributes to dry stone wall protection and appreciation by placing the dry stone wall in an appropriate location/setting.

Landscape design supports the enhancement of dry stone wall cultural heritage and ecological values through a contextual and interpretative design response.

Dry stone walls contribute to the value of their surrounding landscape by demonstrating the relationship between the geomorphology and history of the area.

Dry stone walls can also provide an aesthetic and historical context that offers a sense of place and community identity that links the past, present and future.

Landscape designs must be developed with planning and engineering input to ensure there will be no conflicts between dry stone walls and infrastructure delivery.

OBJECTIVE 4

Protect aesthetic, natural and cultural heritage values of dry stone walls

- 4.1 Protect and retain dry stone walls intact and in situ for future generations.
- Maintain long, unbroken lengths of dry stone walls.
 - Minimise new openings, crossovers and intersections through dry stone walls.
 - The longer the dry stone walls are, the more impressive their aesthetic presence is.
- 4.2 Use interpretive signage to explain the cultural heritage significance and natural values of dry stone walls.
- This helps the community develop an appreciation of dry stone walls and promotes their ongoing value protection and conservation.
 - Develop interpretation with a qualified heritage professional.
 - Consider Aboriginal cultural heritage values in interpretive signage.
- 4.3 Include dry stone walls in all plans to ensure an integrated planning and design approach.
- For example: Precinct Structure Plans (PSPs), Development Plans (DPs), Functional Layout Plans (FLPs), subdivision layout, civil, landscape and engineering plans.
- 4.4 Enhance and maintain cultural/historical plant species around agricultural walls.
- Plant varieties such as boxthorn, hawthorn and peppercorns are considered weeds, but may hold cultural heritage value.
 - Appropriate species selection and retention should be agreed with your local council.
- 4.5 Protect biodiversity and habitat around dry stone walls.
- Dry stone walls may provide habitats for protected flora and fauna.
 - Maintain existing landform by restricting soil movement and removal of surface stone.
- 4.6 Locate facilities away from dry stone walls.
- For example: playgrounds, toilets and barbecue spots.
 - There is a risk of dry stone walls being unwittingly dismantled.



Figure 10 Dry stone wall in natural landscape setting with creek, volcanic cone and red gums, Plumpton.

Source: City of Melton



Figure 11 An interpretive sign explaining the values of stony rises and dry stone walls at Gammage Park, Epping.

Source: Amy Ikhayanti

- 4.7 When planting adjacent to dry stone walls, consider the plant's growth characteristics, mature canopy height, vigour and invasiveness.
- Choose plant species with growth characteristics that do not adversely impact the dry stone wall structural integrity.
 - Tree roots can reduce dry stone wall longevity and tree proximity to dry stone walls can make maintenance and mowing difficult.
- 4.8 When designing new landscape around dry stone walls, draw inspiration from existing landscape and the dry stone wall shape and form.
- Design natural landscapes around dry stone walls and avoid bright-coloured plastic materials and sharp geometric design.
 - Reflect the dry stone wall landscape values in the planting schemes and hard landscaping elements.
 - Where possible, retain surface stone and existing significant vegetation in surrounding landscape.
- 4.9 Work with a professional dry stone waller to ensure dry stone walls are structurally sound and robust.
- Do not use mortar and concrete unless instructed by the responsible authority. Mortared and concrete-reinforced dry stone walls have compromised heritage value.
 - Dry stone walls constructed by professional dry stone wallers do not require mortar or concrete to be structurally sound.
 - Retain the construction style, height, width and batter/angle of the face of the dry stone wall during conservation and repairs.



Figure 12 Unrepaired dry stone wall with original vegetation and large trees close to the wall, Epping.

Source: Sera-Jane Peters



Figure 13 Dry stone walls retained in situ and located at least 7m away from a playground and a public barbecue at Gammage Park, Epping.

Source: City of Whittlesea



Figure 14 Dry stone wall around Homestead, Strathtulloh.

Source: City of Melton

OBJECTIVE 5

Create a safe landscape design around dry stone walls

- 5.1 Minimise blind spots, and dim and unlit areas around dry stone walls.
- Dry stone walls can be long and high which can contribute to lower perception of safety.
 - Adequate lighting and well-thought-out planting schemes can increase perception of safety.
 - Selection, location and future growth of plants should not negatively impact passive surveillance.

- 5.2 Minimise barriers created by dry stone walls.
- Where possible, position dry stone walls towards the centre of public open space.
 - Dry stone walls at the edge of public open space are more likely to create a barrier, obstructing access and movement.
- 5.3 Maximise passive surveillance opportunities around dry stone walls.
- Provide buildings with active frontages to overlook dry stone walls.
 - Orientate windows, balconies and habitable rooms to front dry stone walls.
 - Consider low fences to improve passive surveillance and perception of safety around dry stone walls.
 - Minimise side and rear fence interfaces with dry stone walls.

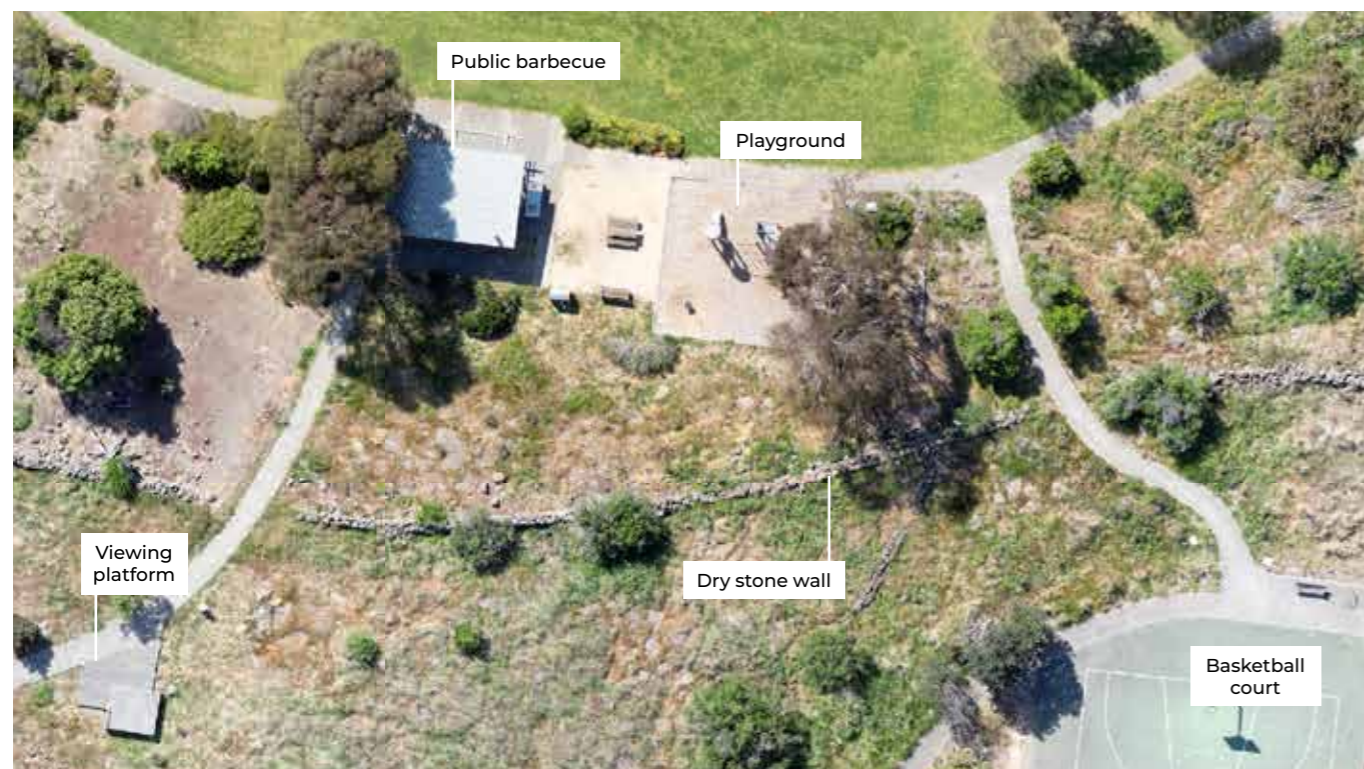


Figure 15 Dry stone walls located towards the centre of the park serve as a landscape feature and minimise obstruction to access and movement, while maintaining original vegetation on the stony rise at Gammage Park, Epping.

Source: City of Whittlesea

OBJECTIVE 6

Balance dry stone wall protection with safety, maintenance and infrastructure delivery

- 6.1 Work with a professional dry stone waller to ensure dry stone walls are structurally sound and robust.
- Do not use mortar and concrete unless instructed by the responsible authority. Mortared and concrete-reinforced dry stone walls have compromised heritage value.
 - Dry stone walls constructed by professional dry stone wallers do not require mortar or concrete to be structurally sound.
 - Retain the construction style, height, width and batter/angle of the face of the dry stone walls during conservation and repairs.

- 6.2 Provide at least a 2.5m-wide landscape reserve on both sides of dry stone walls to ensure sufficient space for conservation and maintenance.
- The landscape reserves are additional to infrastructure reserves.
 - The landscape reserves protect pedestrians from falling stone, discourage vandalism, theft and destruction.

- 6.3 Ensure a distance of at least 2.5m between dry stone walls and underground infrastructure.
- This minimises conflict between service delivery, future maintenance and wall conservation, as well as risk of injury during any works.

- 6.4 Where new openings through dry stone walls are required, provide a safe distance between new wall ends and footpaths.
- Engage a professional dry stone waller to construct new wall ends and ensure the dry stone wall is structurally sound.
 - Consider the space needed for access by bikes, prams and e-mobility.
 - Pedestrian access should be planned in line with local council standards.

- 6.5 Develop landscape designs with engineering input to avoid conflict between dry stone walls and infrastructure delivery.



Figure 16 Dry stone wall under reconstruction on Beattys Road, Plumpton.

Source: Sera-Jane Peters

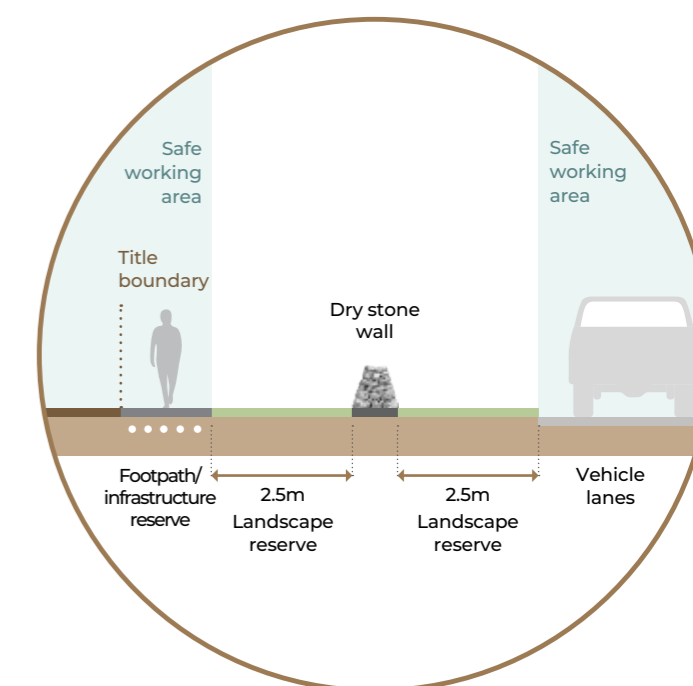


Figure 17 The highlighted safe working area provides a space in which staff/contractors can undertake service delivery, future maintenance and wall conservation while reducing risk of injury.

Transport Corridors

OBJECTIVE 7

Protect aesthetic, natural and cultural heritage values of dry stone walls

OBJECTIVE 8:

Balance dry stone wall protection with safety, maintenance and infrastructure delivery



*Professional dry stone wall teams repairing a wall in Melton.
Source: Sera-Jane Peters*

Transport Corridors

Road design plays an important role in protecting roadside dry stone walls. To conserve dry stone walls intact and in situ, road design needs to consider the location of the walls and provide a contextual design response to areas around the walls.

To support roadside dry stone wall conservation, strategic land use plans and other tools can also be used, such as, Precinct Structure Plans (PSPs), Functional Layout Plans (FLPs), detailed engineering design and road cross sections.

Where possible, dry stone walls should be retained in lower order roads, such as collector roads, local traffic streets, service roads and laneways. Higher order roads, including arterial roads, are designed to support higher volume and movement of people and goods. This requires a widened, non-standard road verge to support dry stone wall conservation.

OBJECTIVE 7

Protect aesthetic, natural and cultural heritage values of dry stone walls

- 7.1 Protect and retain dry stone walls intact and in situ for future generations.
- Maintain long, unbroken lengths of dry stone walls.
 - Minimise new openings, crossovers and intersections through dry stone walls.
 - The longer the dry stone walls are, the more impressive their aesthetic presence is.
- 7.2 Include dry stone walls in all plans to ensure an integrated planning and design approach.
- For example: Precinct Structure Plans (PSPs), Development Plans (DPs), Functional Layout Plans (FLPs), subdivision layout, civil, landscape and engineering plans.
- 7.3 Preserve roadside dry stone walls within a widened road verge and/or landscape reserve.
- A wider road verge and/or landscape reserve protects dry stone wall aesthetic. Dry stone wall aesthetic value and helps facilitate the community's appreciation.
 - Wider verges also minimise the impact of traffic and allow for maintenance.
- 7.4 Locate intersections away from dry stone walls.
- Consider the approach to the intersection, sightlines, road speed and other traffic matters.
- 7.5 Consider the design of vehicle lanes, footpaths and property boundaries.
- This protects dry stone walls, minimises impacts of traffic and allows for maintenance.
- 7.6 Avoid designing roads which require road safety barriers.
- Road safety barriers reduce the aesthetic value of dry stone walls.



Figure 18 Wider road verge with kerbless parking bays, Wyndham.

Source: Wyndham City Council



Figure 19 Dry stone wall on a wider road verge, Taylors Hill.

Source: Sera-Jane Peters



Figure 20 Reconstructed dry stone wall with 2.5m landscape reserve on both sides.

Source: Sera-Jane Peters

OBJECTIVE 8

Balance dry stone wall protection with safety, maintenance and infrastructure delivery

- 8.1 Provide at least a 2.5m-wide landscape reserve on both sides of dry stone walls to ensure sufficient space for conservation and maintenance.
- The landscape reserves are in addition to infrastructure reserves.
 - The landscape reserves protect pedestrians from falling stone, discourage vandalism, theft and destruction.
- 8.2 Where new openings through dry stone walls are required, provide a safe distance between new wall ends and footpaths.
- Engage a professional dry stone waller to construct new wall ends and ensure the dry stone wall is structurally sound.
 - Consider the space needed for access by bikes, prams and e-mobility.
 - Pedestrian access should be planned in line with local council standards.
- 8.3 Ensure a distance of at least 2.5m between dry stone walls and underground infrastructure.
- This minimises conflict between service delivery, future maintenance and wall conservation, as well as risk of injury during any works.
- 8.4 Incorporate safety considerations in road design.
- For example: sightlines, access, impact risks, speed restriction, pedestrian and driver safety.
- 8.5 When designing roadside drainage schemes, consider surface water flow restrictions caused by dry stone walls.

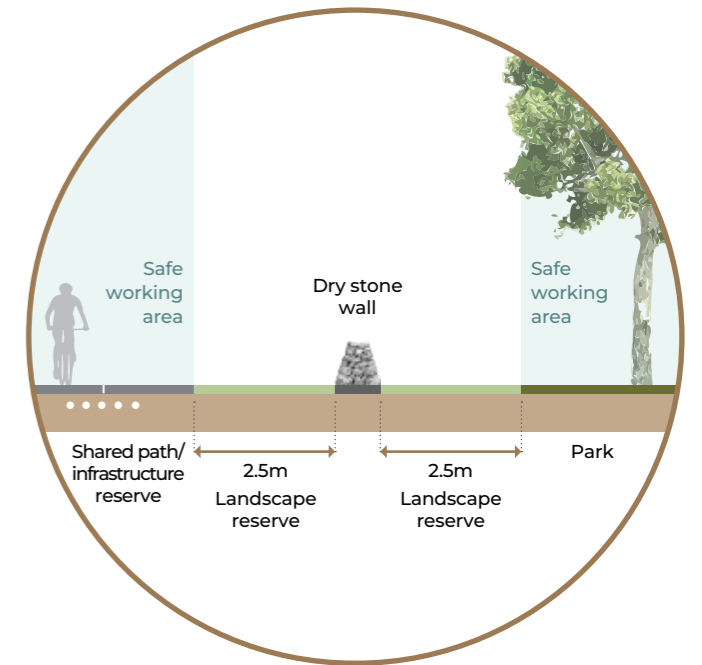


Figure 21 A distance of at least 2.5m between dry stone walls and underground infrastructure minimises safety risks during any works.

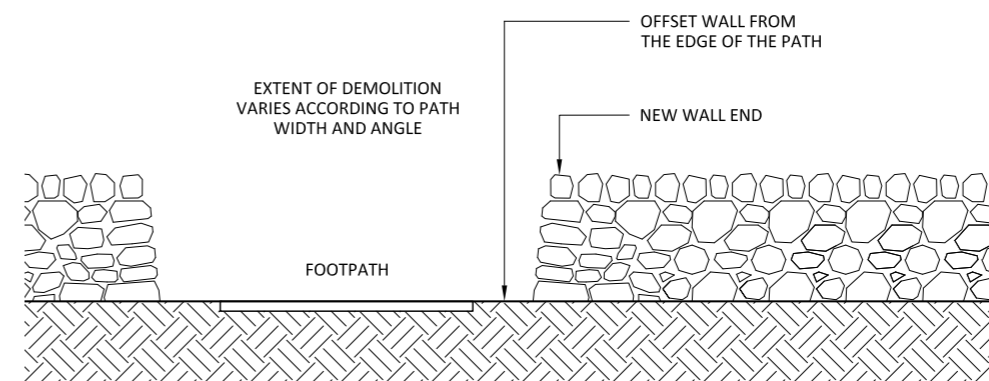


Figure 22 An example of a dry stone wall demolition and reconstruction plan, including offsets for the new footpath.

Infrastructure

OBJECTIVE 9

Protect aesthetic, natural and cultural heritage values of dry stone walls

OBJECTIVE 10

Balance dry stone wall protection with safety, maintenance and infrastructure delivery



Dry stone wall construction and infrastructure delivery in an unsafe work environment, Rockbank. Source: Sera-Jane Peters

Infrastructure

Infrastructure delivery may cause conflict with the conservation of dry stone walls and their cultural heritage values.

Early recognition of dry stone wall cultural heritage values is crucial to achieving better design and conservation outcomes and minimising conflict during infrastructure delivery.

Infrastructure planning – including underground services, street lighting, telecommunications, stormwater management strategies, pedestrian and bike paths – should consider the location of the dry stone wall and its cultural heritage values, as well as landscape and aesthetic values. This is important since stormwater management infrastructure such as retarding basins, rain gardens, sediment ponds and drainage swales can make dry stone wall conservation difficult.

To help streamline permit approval process, dry stone walls need to be incorporated into Functional Layout Plans (FLPs), subdivision layout, detailed engineering design and landscape plans.

OBJECTIVE 9

Protect aesthetic, natural and cultural heritage values of dry stone walls

- 9.1 Protect and retain dry stone walls intact and in situ for future generations.
- Maintain long, unbroken lengths of dry stone walls.
 - Minimise new openings, crossovers and intersections through dry stone walls.
 - The longer the dry stone walls are, the more impressive their aesthetic presence is.
- 9.2 Include dry stone walls in all plans to ensure an integrated planning and design approach.
- For example: Precinct Structure Plans (PSPs), Development Plans (DPs), Functional Layout Plans (FLPs), subdivision layout, civil, landscape and engineering plans.

OBJECTIVE 10

Balance dry stone walls' protection with safety, maintenance and infrastructure delivery

- 10.1 Provide at least a 2.5m-wide landscape reserve on both sides of dry stone walls to ensure sufficient space for conservation and maintenance.
- The landscape reserves are in addition to infrastructure reserves.
 - The landscape reserves protect pedestrians from falling stone, discourage vandalism, theft and destruction.
- 10.2 Ensure a distance of at least 2.5m between dry stone walls and underground infrastructure.
- This minimises conflict between service delivery, future maintenance and dry stone wall conservation, as well as risk of injury to staff/contractors during any works.
- 10.3 Where new openings through dry stone walls are required, provide a safe distance between new wall ends and footpaths.
- Engage a professional dry stone waller to construct new wall ends and ensure the dry stone wall is structurally sound.
 - Consider the space needed for access by bikes, prams and e-mobility.
 - Pedestrian access should be planned in line with local council standards.

- 10.4 Ensure that stormwater management strategies consider the potential impact of dry stone walls on overland water flow.
- Locate underground drainage along dry stone walls, not through the walls, to prevent walls collapsing.
 - Avoid inserting culverts under dry stone walls.
 - Retain any existing drainage features built into dry stone walls.
- 10.5 Where there is no alternative but to install underground infrastructure near dry stone walls, ensure a safe working distance and environments.
- Prioritise boring over trenching when working near dry stone walls.
 - Where trenching is unavoidable, ensure workers know the safety risks of working in trenches near unmortared dry stone walls.
 - Use safety fencing around dry stone walls.
 - Run site inductions on dry stone wall cultural heritage values and safety risks.



Figure 23 Infrastructure works occurring too close to dry stone walls create an unsafe working environment.

Source: Sera-Jane Peters

Evaluation

Evaluation of the design around dry stone walls should consider the vision, principles, objectives and recommendations of the Guidelines.

To determine how successful the design is, performance evaluation should assess environmental, social, cultural and economic outcomes.

Performance evaluation should strive to measure outcomes and outputs. When evaluating the success of your completed project, consider the following questions:

- Have you complied with all the recommendations of the endorsed landscape plans and DSWMP?
- Has your dry stone wall been inspected by a qualified cultural heritage advisor and landscape architect for practical completion?
- Have the cultural heritage values of the dry stone wall been conserved for the community's benefit?
- Is the dry stone wall structurally sound, safe and aesthetically pleasing?
- Does the landscape around the dry stone wall provide a quality environment for the community?
- Are the environmental and biodiversity values of the landscape around the dry stone wall enhanced?
- Are there maintenance plans in place and are they achievable?



Figure 24 Council officer and developer evaluating dry stone wall reconstruction.

Source: Sera-Jane Peters

Case Studies

The following section contains case studies of dry stone wall planning processes and design approaches from the City of Whittlesea, City of Melton and Wyndham City Council.



*A sheep paddock post and rail dry stone wall through grey box forest, Eynesbury.
Source: Sera-Jane Peters*

Gammage Park, Epping – City of Whittlesea

Is the dry stone wall protected in the Planning Scheme?

Yes, it was protected under Clauses 15.03 (Heritage) and 52.33 (Post Boxes and Dry Stone Walls).

Is the dry stone wall identified in any Precinct Structure Plan?

Not applicable.

Existing dry stone wall condition

Partly intact with a recommendation to restore.

Surrounding context

The Aurora Development Plan identified a range of dry stone walls within the development area. The DSWMP identified that dry stone walls within Gammage Park required restoration.

Key challenges

Stony rise integration with a dry stone wall within open space and ongoing maintenance.

Lessons learned

While it seems reasonable to use mortar to increase the structural integrity of the dry stone wall, it significantly compromises the wall's heritage value and it can no longer be called dry stone walls.

The Dry Stone Wall Management Plan was undertaken as part of subdivision layout requirement. This identified dry stone walls which needed to be restored, retained or removed subject to Council approval.

The dry stone walls in Gammage Park were suitable for restoration. Outcomes were negotiated by Council's Heritage and Landscape teams. Openings were agreed for new footpaths and the natural environment was maintained on both sides of the dry stone wall.

At the end of the construction period, the dry stone walls were repaired by a professional dry stone waller. The dry stone wall was then inspected by Council staff to ensure structural stability and compliance with the permit, and all the landscape works were approved to Practical Completion.

Dry stone walls in the Aurora housing estate are clearly visible on Army Survey plans of 1935 and 1938. Their original construction relates to Epping's early farming history in the period ca. 1850-1900.

Recommendations in a DSWMP (2010) for dry stone walls which had to be removed to allow construction of services within parks and conservation reserves were that they should be restored/reinstated in "either a natural dry stone construction, or reinforced with cement core and deeply raked joints to give a visual appearance of dry stone construction." Where removal was necessary, the recommendation was for "reconstruction of the walls with mortar/cement or resin-injected cores. Joints between stones will be deeply recessed to retain the visual appearance of dry stone walls."

At the time, this method for restoration and reconstruction of dry stone walls was considered acceptable. Our outdated engineering specifications and a technical drawing both supported use of mortar. Since then, Council no longer uses or allows mortar for reconstruction of dry stone walls in the public domain as officers came to understand that dry stone method of construction produces walls of high structural integrity while retaining heritage values.



Figure 25 A playground and a public barbecue located 7m away from a dry stone wall in Gammage Park, Epping.
Source: City of Whittlesea



Figure 26 Long, unbroken lengths of dry stone walls maintained intact and in situ towards the centre of Gammage Park, Epping.
Source: City of Whittlesea

Beattys Road, Plumpton – Melton City Council

Is the dry stone wall protected in the Planning Scheme?

No, it was identified and recorded in the *Melton Dry Stone Wall Study* as Wall N234, but not included in the schedule to the Heritage Overlay.

Is the dry stone wall identified in any Precinct Structure Plan?

Yes, it was identified for retention in the Plumpton PSP.

Existing dry stone wall condition

Unusually intact and well built

Surrounding context

The Plumpton PSP identified the Beattys Road Reserve next to the dry stone wall as a future public open space. The PSP also provided concept plans and road cross-sections to guide dry stone wall conservation in the new public open space.

Key challenges

Poorly planned infrastructure delivery near the dry stone wall that compromised the wall's integrity.

Lessons learned

Robust planning and guidance from Council at the permit application stage are required to deliver good outcomes.

As part of the planning permit requirement for the subdivision, a DSWMP was prepared. The DSWMP identified parts of the dry stone wall that should be retained, as well as parts with low integrity which could be removed, subject to Council's approval.

A landscape master plan identified the treatment for, and interface to, the dry stone wall, which were informed by the DSWMP and negotiated outcomes by Council's heritage and landscape teams. New wall openings were agreed on to make way for new roads, footpaths and planting scheme beside the dry stone wall.

There were safety issues during the construction and installation of infrastructure. Trenching occurred too close to the dry stone wall and no protection was provided to one side of the wall to ensure a safe working zone.

At the end of the construction period, the dry stone wall was repaired by a professional dry stone waller. The wall was then inspected by Council to ensure structural stability and compliance with the planning permit's requirements. All landscape works were also approved to Practical Completion.

BEFORE



Figure 27 Wall N234 in 2007 before development.

Source: City of Melton

AFTER



Figure 28 Wall N234 in 2023 after development showing new landscape reserve and retained tree violet.

Source: City of Melton

46 Grandvista Boulevard, Werribee – City of Wyndham

Is the dry stone wall protected in the Planning Scheme?

Yes, it was identified and mapped in the *Wyndham Dry Stone Wall Study*.

Is the dry stone wall identified in any Precinct Structure Plan?

Yes, it was identified and mapped in the *Wyndham Dry Stone Wall Study* and in the Black Forest PSP.

Existing dry stone wall condition

The dry stone wall was demolished and reconstructed during development.

Surrounding context

The area was developed for a new subdivision. A pedestrian footpath is located parallel to the immediate south with public open space to the north.

Key challenges

The location of the reconstructed dry stone wall made it vulnerable to the impacts of future pedestrian movement and the use of the public open space.

Lessons learned

When planning dry stone wall restoration and reconstruction, it is important to consider the surrounding context, including proposed uses and pedestrian movement, to prevent future damage to heritage fabric. Clear management strategies in line with the DSWMP are necessary to provide guidance for the ongoing maintenance and repair of dry stone walls.

In 2015, a planning permit was issued for the demolition and reconstruction of a dry stone wall. The demolition of the existing dry stone wall was to facilitate the construction of a new subdivision. The preparation of a DSWMP was also required as a part of the planning permit conditions.

Following Council's negotiations with the planning applicant, it was determined that a section of the demolished dry stone wall would be reconstructed within a local park. The location for the reconstructed dry stone wall was selected based on a recommendation from a dry stone waller.

The location was selected to interpret the historical orientation of the original wall, as parallel to the historic northern wall and perpendicular to the eastern wall.

During the construction, the developer raised concerns about safety and stability of the dry stone wall in a potentially high foot traffic area at the edge of public open space. The developer then sought the advice of the project's dry stone waller, who suggested the use of concealed mortar to increase the wall's stability. At the request of the planning applicant, Council endorsed an amended DSWMP, which removed the no-mortar requirement and permitted the use of concealed mortar for dry stone wall reconstruction.

The use of mortar is not a guarantee of structural integrity, noting the traditional construction methods of dry stone walling. Ongoing damage to the wall has persisted, highlighting a need for clear maintenance policies in line with the DSWMP.



Figure 29 Photograph of the dry stone wall, facing west. Note the dislodged cope stones and inappropriate use of mortar.
Source: Wyndham City Council



Figure 30 Aerial view of the subject site with the reconstructed dry stone wall.
Source: NearMap 2023



Western BACE, Cobblebank.
Source: City of Melton



**City of
Whittlesea**

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